DRAFT EIR

FOR THE

BEST DEVELOPMENT GROCERY OUTLET
(SCH: 2022050308)

SEPTEMBER 2022

Prepared for:

City of Fort Bragg
Community Development Department
416 N. Franklin Street
Fort Bragg, CA 95437

Prepared by:

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De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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INTRODUCTION

The City of Fort Bragg (City) has determined that the proposed Best Development Grocery Outlet (the Project) is a "project" within the definition of CEQA. CEQA requires the preparation of an environmental impact report (EIR) prior to approving any proposed project that may have a significant impact on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (Pub. Resources Code Section 21065; CEQA Guidelines Section 15378[a]).

The City of Fort Bragg Planning Commission (Commission) and City Council (Council) both previously approved the Project in the late spring and summer of 2021, with the Commission taking its action on June 9, 2021, and the City Council denying appeals of the Planning Commission action on July 26, 2021. In approving the Project, these two City bodies had relied on a Mitigated Negative Declaration (MND) prepared by City staff with input from an environmental consultant. On August 24, 2021, Petitioners FB Local Business Matters and Leslie Kashiwada filed in Mendocino County Superior Court a lawsuit alleging that the City's approvals violated the California Environmental Quality Act (CEQA). More specifically, the lawsuit alleged that the City should have prepared an EIR, rather than an MND, prior to approving the Project. Petitioners also alleged that the Project was not consistent with certain City policies.

On February 2, 2022, legal counsel for the Project applicant, the Best Development Group (Best), wrote a letter to the City Council mentioning the litigation and requesting that the City Council rescind the earlier approvals for the Project and commence preparation of an EIR. Project counsel stated that "[a]lthough Best believes that, given the small size of the Project and its minimal environmental effects, a spirited legal defense of the MND could be mounted, any such effort could consume as much as three years or more, given how slowly the California court system moves. Best has therefore concluded that the better and more prudent course of action will be to have the City prepare an EIR and put the Planning Commission and, if need be, the City Council back into a position to consider the Project anew based on such an EIR." During its meeting on February 28, 2022, the City Council rescinded its prior actions approving the Project and directed City staff to proceed with preparation of an EIR. On May 19, 2022, the City issued a Notice of Preparation (NOP) for the Project.

The EIR contains a description of the Project, a description of the environmental setting, identification of Project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of Project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This EIR also identifies issues determined to have no impact or a less than significant impact, relying as permitted by CEQA Guidelines section 15128 on the Initial Study checklist attached as Appendix A to this Draft EIR, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR.

PROJECT DESCRIPTION

The Project site is located at 825, 845, and 851 S. Franklin Street in the City of Fort Bragg, Mendocino County, California. The northern portion of the Project site contains an existing structure and pavement and the southern portion of the site is vacant with a dirt driveway. A 16,436 square-foot (sf) vacant former office building and associated 47-space parking lot are located in the northern half of the site. The building, locally referred to as the "Old Social Services Building", has not been leased since 2010 but has been used as storage since then. Wooden fencing is currently located along the western property line and adjacent south of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs.

The proposed Project includes demolition of the existing 16,436-sf vacant former office building and parking area and subsequent development and operation of a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site. Grocery Outlet is a value grocer, meaning that it sells brand name products at bargain prices due to their opportunity buying style. Associated improvements include a parking lot, loading dock and trash enclosure, circulation and access improvements, and utility infrastructure.

The Project would also include a merger of three existing parcels (lots) to create one 71,002 sf (1.63 acres) parcel to accommodate the footprint of the proposed retail store within the resulting parcel.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

This Draft EIR addresses environmental impacts associated with the proposed Project that are known to the City of Fort Bragg because they were raised during the initial public review period for the MND for the Project and subsequent public hearings, in the lawsuit over the Project, or in comments responding to the NOP, or because they otherwise emerged during preparation of the Draft EIR. The text of this Draft EIR discusses potentially significant impacts associated with aesthetics, air quality, biological resources, greenhouse gas emissions, land use, noise, transportation and circulation, and utilities. The remaining issues required to be addressed under CEQA are dealt with primarily in the Initial Study Checklist attached as Appendix A to this Draft EIR.

The City of Fort Bragg received written comment letters on the NOP for the proposed Project. A copy the letters are provided in Appendix A of this Draft EIR. The commenting agency/citizen is provided below. Based on input received on the Project as described above, the following subjects could be described as areas of controversy relating to the Project:

- whether the Project site contains wetlands;
- whether the Project site provides valuable habitat for wildlife such as blue herons;
- whether the building demolition required for the Project will deal adequately with any bats that may be inhabiting the existing on-site structure;

- whether the Project would have significant construction-related and operational air quality effects;
- whether the Project would have a cumulatively considerable contribution to a cumulatively significant increased risk of cancer due to air pollutant emissions;
- whether the Project would cause significant construction-related and operational noise impacts on adjacent residential properties;
- whether greenhouse gas emissions from the Project will cause significant environmental impacts;
- whether the Project will result in adverse aesthetic effects compared with baseline conditions;
- whether the Project's design and water quality mitigation will sufficiently address water quality impacts;
- whether the City has a sufficient reliable water supply for the Project;
- whether the Project will have significant transportation-related impacts;
- whether pedestrians traveling to and from the Project site could be subject to risk of accidents from increased traffic;
- whether the Project is consistent with all applicable City General Plan policies and Local Coastal Program policies; and
- whether the existing structure on the Project site can be feasibly repurposed and reused.

ALTERNATIVES TO THE PROPOSED PROJECT

The CEQA Guidelines require an EIR to describe a reasonable range of alternatives to the Project or to the location of the Project which would reduce or avoid significant impacts, and which could feasibly accomplish most of the basic objectives of the proposed Project. Three alternatives to the proposed Project were developed based on input from City staff, the public during the NOP review period, and the technical experts addressing the environmental effects of the proposed Project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Project.

- **No Project (No Build) Alternative**: Under this alternative, development of the Project site would not occur, and the Project site would remain in its current existing condition.
- **Building Reuse Alternative:** Under this alternative, the proposed Project would be developed with the same amenities as described in the Project Description, but the existing vacant former office building would be renovated and reused for the grocery store use.
- **Decreased Density Alternative:** Under this alternative, the proposed Project would be developed with the same amenities as described in the Project Description, but the density of the grocery store use would be decreased.

Alternatives are described in detail in Chapter 5.0. Table ES-1 provides a comparison of the alternatives using a qualitative matrix that compares each alternative relative to the other Project alternatives.

TABLE ES-1: COMPARISON OF ALTERNATIVE PROJECT IMPACTS TO THE PROPOSED PROJECT

ENVIRONMENTAL TOPIC	*PROPOSED PROJECT*[1]	*NO PROJECT (NO BUILD) ALTERNATIVE*	*BUILDING REUSE ALTERNATIVE*	*DECREASED DENSITY ALTERNATIVE*
SECTION 3.1, AESTHETICS				
AES Impact 3.1-1	LS	Less	Equal	Less
AES Impact 3.1-2	LS	Less	Equal	Less
AES Impact 3.1-3	LS	Less	Equal	Less
AES Impact 3.1-4	LS	Less	Equal	Less
SECTION 3.2, AIR QUALITY				
AQ Impact 3.2-1	LS	Less	Less	Less
AQ Impact 3.2-2	LS	Less	Less	Less
AQ Impact 3.2-3	LS	Less	Equal	Equal
AQ Impact 3.2-4	LS	Less	Less	Less
AQ Impact 3.2-5	LS	Less	Equal	Equal
SECTION 3.3, BIOLOGICAL RESOURCES				
BIO Impact 3.3-1	LS	Less	Equal	Equal
BIO Impact 3.3-2	LS/MM	Less	Equal	Less
BIO Impact 3.3-3	LS/MM	Less	Equal	Equal
BIO Impact 3.3-4	LS	Less	Equal	Equal
BIO Impact 3.3-5	LS	Less	Equal	Equal
BIO Impact 3.3-6	LS	Less	Equal	Equal
BIO Impact 3.3-7	LS	Less	Equal	Equal
SECTION 3.4, GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY				
GHG Impact 3.4-1	LS	Less	Less	Less
GHG Impact 3.4-2	LS	Less	Less	Less
SECTION 3.5, LAND USE				
LU Impact 3.5-1	LS	Less	Equal	Equal
LU Impact 3.5-2	LS	Less	Equal	Equal
SECTION 3.6, NOISE				
NOI Impact 3.6-1	LS/MM	Less	Equal	Less
NOI Impact 3.6-2	LS/MM	Less	Less	Less
SECTION 3.7, TRANSPORTATION AND CIRCULATION				
TC Impact 3.7-1	LS	More	Equal	Less
TC Impact 3.7-2	LS	More	Equal	Less
TC Impact 3.7-3	LS	Less	Equal	Less

ENVIRONMENTAL TOPIC	*PROPOSED PROJECT*[1]	*NO PROJECT (NO BUILD) ALTERNATIVE*	*BUILDING REUSE ALTERNATIVE*	*DECREASED DENSITY ALTERNATIVE*
TC Impact 3.7-4	LS	Less	Equal	Less
SECTION 3.8, UTILITIES AND SERVICE SYSTEMS				
UT Impact 3.8-1	LS	Less	Equal	Less
UT Impact 3.8-2	LS	Less	Equal	Less
UT Impact 3.8-3	LS	Less	Equal	Less
UT Impact 3.8-4	LS	Less	Equal	Less
UT Impact 3.8-5	LS	Less	Equal	Less
UT Impact 3.8-6	LS W/ MM	Less	Equal	Less
UT Impact 3.8-7	LS	Less	Less	Less

As shown in the table, the No Project (No Build) Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project Alternative is the environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Building Reuse Alternative and Decreased Density Alternative both rank higher than the proposed Project. Comparatively, the Decreased Density Alternative would result in less impact than the Building Reuse Alternative because it provides the greatest reduction of potential impacts in comparison to the proposed Project. However, neither the Decreased Density Alternative nor the Building Reuse Alternative fully meet all of the Project objectives. This is a fact that City decisionmakers, at the time of action on the proposed Project after certification of the Final EIR, can account for in assessing the feasibility of these Alternatives. (See *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506–09 [upholding CEQA findings rejecting alternatives in reliance on applicant's project objectives]; *Citizens for Open Government v. City of Lodi* (2012) 205 Cal.App.4th 296, 314–15 [court upholds an agency action rejecting an alternative because it would not "entirely fulfill" a particular project objective and "would be 'substantially less effective' in meeting" the lead agency's "goals"]; and *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166 ["feasibility is strongly linked to achievement of each of the primary program objectives"; "a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal"].)

SUMMARY OF IMPACTS AND MITIGATION MEASURES

In accordance with the CEQA Guidelines, this EIR focuses on the significant effects on the environment. The CEQA Guidelines defines a significant effect as a substantial adverse change in the physical conditions which exist in the area affected by the proposed Project. A less than significant effect is one in which there is no long or short-term significant adverse change in environmental conditions. Some impacts are reduced to a less than significant level with the implementation of mitigation measures and/or compliance with regulations.

The environmental impacts of the proposed Project, the impact level of significance prior to mitigation, the proposed mitigation measures and/or adopted policies and standard measures that are already in place to mitigate an impact, and the impact level of significance after mitigation are summarized in Table ES-2.

TABLE ES-2: PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
AESTHETICS			
Impact 3.1-1: Project implementation would not result in substantial adverse effects on a scenic vista	LS		--
Impact 3.1-2: Project implementation would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	LS		--
Impact 3.1-3: Project implementation would not conflict with an applicable zoning or other regulation governing scenic quality within an urbanized area	LS		--
Impact 3.1-4: Project implementation would not result in substantial light or glare which would adversely affect day or nighttime views in the area	LS		--
AIR QUALITY			
Impact 3.2-1: Project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan.	LS		--
Impact 3.2-2: Proposed Project construction activities have the potential to result in a	LS		--

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PS – potentially significant *B – beneficial impact* *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan.			
Impact 3.2-3: The proposed Project would not expose sensitive receptors to substantial pollutant concentrations from carbon monoxide hotspot impacts.	LS		--
Impact 3.2-4: The proposed Project would not expose sensitive receptors to substantial pollutant concentrations from toxic air contaminants.	LS		--
Impact 3.2-5: The proposed Project would not cause exposure to other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LS		--
BIOLOGICAL RESOURCES			
Impact 3.3-1: The proposed Project would not have a direct or indirect effect on special-status invertebrate, reptile, amphibian, fish, and plant species, including through the substantial reduction of habitat or range restriction for fish or wildlife, resulting in a fish or wildlife population to drop below self-sustaining levels, or threatening to eliminate a plant or animal community.	LS		--

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 3.3-2: The proposed Project has the potential to have direct or indirect effects on special-status bird species, including through the substantial reduction of habitat or range restriction for bird species, resulting in a bird species population to drop below self-sustaining levels, or threatening to eliminate a bird community.	PS	***Mitigation Measure 3.3-1****: The Project proponent shall implement the following measure to avoid or minimize impacts on protected bird species that may occur on the site:* • *Preconstruction surveys for active nests of special-status birds shall be conducted by a qualified biologist in all areas of suitable habitat within 500 feet of Project disturbance. Surveys shall be conducted within 14 days before commencement of any construction activities that occur during the nesting season (February 15 to August 31) in a given area.* • *If any active nests, or behaviors indicating that active nests are present, are observed, appropriately protective buffers around the nest sites shall be determined by a qualified biologist to avoid nest failure resulting from Project activities. The size of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. The buffers may be adjusted if a qualified biologist determines it would not be likely to adversely affect the nest. If buffers are adjusted, monitoring will be conducted to confirm that Project activity is not resulting in detectable adverse effects on nesting birds or their young. No Project activity shall commence within the buffer areas until a qualified biologist has determined that the young have fledged or the nest site is otherwise no longer in use.*	LS
Impact 3.3-3: The proposed Project has the potential to result in direct or indirect effects on special-status mammal species, including through the substantial reduction of habitat or range restriction for mammal species, resulting in a mammal species population to drop below self-sustaining levels, or threatening to eliminate a mammal community.	PS	***Mitigation Measure 3.3-2:*** *The Project proponent shall implement the following measure to avoid or minimize impacts on special-status bat species that may occur on the site:* • *A bat survey shall be conducted by a qualified biologist prior to demolition of the existing on-site building. The surveys shall be conducted from dusk until dark. If the weather during the bat survey makes visual observations difficult or impossible, another survey shall occur when the weather is appropriate for visual observations. If no bats or maternity roosts are found in the existing building, no further mitigation is required.* • *If bats or bat roosts are discovered, prior to demolition of the existing building, the bat(s) or bat roost(s) shall be removed through live exclusion or similar means that do not harm bats. The removal strategy shall be determined and*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		overseen by the qualified biologist. No bat or roost removal shall occur during the maternity season (typically late May through mid-August) to protect flightless baby bats. No Project activity shall commence within the building area until the end of the pupping season (August 1) or until a qualified biologist conforms the maternity roost is no longer active.	
Impact 3.3-4: The proposed Project would not adversely affect federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means .	LS		--
Impact 3.3-5: The proposed Project would not result in substantial adverse effects on riparian habitat or a sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	LS		--
Impact 3.3-6: The proposed Project would not result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites.	LS		--
Impact 3.3-7: The proposed Project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community	LS		--

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Conservation Plan, or other approved local, regional, or state habitat conservation plan.			
GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY			
Impact 3.4-1: Project implementation would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	LS		--
Impact 3.4-2: Project implementation would not result in the inefficient, wasteful, or unnecessary use of energy resources.	LS		--
LAND USE			
Impact 3.5-1: The proposed Project would not conflict with an applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect	LS		--
Impact 3.5-2: Impacts related to the physical deterioration and urban decay of existing retail commercial development in the City of Fort Bragg and surrounding area	LS		--
NOISE			
Impact 3.6-1: The proposed Project would not generate a substantial temporary or permanent	PS	***Mitigation Measure 3.6-1:*** *To reduce potential construction noise impacts during Project construction, the following multi-part mitigation measure shall be implemented for the*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.		*Project:* • *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.* • *Quiet construction equipment, particularly air compressors, shall be selected whenever possible.* • *All stationary noise-generating construction equipment such as generators or air compressors shall be located as far as is practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.* • *Unnecessary idling of internal combustion engines shall be prohibited.* • *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.* • *Exterior construction activities shall be limited to 7:00 a.m. to 8:00 p.m., and interior construction activities shall be limited to 7:00 a.m. to 10:00 p.m. All construction activities shall be limited to Monday to Friday, holidays excluded.* • *Staging areas on the Project site shall be located in areas that maximize, to the extent feasible, the distance between staging activity and sensitive receptors.* • *An 8-foot tall temporary construction sound wall shall be constructed along the east and south sides of the project site, as shown on Figures 3.6-8 and 3.6-9. The sound barrier fencing should consist of ½" plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier should be free from gaps, openings, or penetrations to ensure maximum performance.*	
Impact 3.6-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels.	PS	***Mitigation Measure 3.6-2:*** *To reduce potential vibration impacts during Project construction, the following mitigation measure shall be implemented for the Project:* *Any compaction required less than 26 feet from the adjacent residential structures to the south shall be accomplished by using static drum rollers which use weight instead of*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		vibrations to achieve soil compaction. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring should be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. Any such documented damage would be required to be repaired by the applicant.	
TRANSPORTATION AND CIRCULATION			
Impact 3.7-1: Project implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LS		--
Impact 3.7-2: Project implementation would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LS		--
Impact 3.7-3: Project implementation would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LS		--
Impact 3.7-4: Project implementation would not result in inadequate emergency access	LS		--
UTILITIES AND SERVICE SYSTEMS			
Impact 3.8-1: The proposed Project does not have the potential to exceed wastewater treatment requirements of the applicable	LS		--

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Regional Water Quality Control Board.			
Impact 3.8-2: The proposed Project will require or result in the construction of new wastewater treatment or collection facilities, but the construction of them will not cause significant environmental effects.	LS		--
Impact 3.8-3: The proposed Project does not have the potential to result in a determination by the wastewater treatment and/or collection provider which serves or may serve the Project that is does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.	LS		--
Impact 3.8-4: The proposed Project will require or result in the construction of new water treatment or collection facilities, but the construction of them will not cause significant environmental effects.	LS		--
Impact 3.8-5: The proposed Project has the potential to have insufficient water supplies available to serve the Project from existing entitlements and resources.	LS		--
Impact 3.8-6: The proposed Project will require or result in the construction of new storm water drainage facilities, but the construction of them will not cause significant environmental effects.	LS		--

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Impact 3.8-7: The proposed Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, and would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	LS		--
CUMULATIVE IMPACTS			
Impact 4.1: Cumulative Impact on Aesthetics and Visual Resources	LS and LCC		--
Impact 4.2: Cumulative Impact on Agriculture and Forest Resources	LS and LCC		--
Impact 4.3: Cumulative Impact on the Region's Air Quality	LS and LCC		--
Impact 4.4: Cumulative Loss of Biological Resources Including Habitats and Special Status Species	LS and LCC		--
Impact 4.5: Cumulative Impact on Cultural and Tribal Cultural Resources	LS and LCC		--
Impact 4.6: Cumulative Impact on Geology and Soils	LS and LCC		--

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Impact 4.7: Cumulative Impact on Climate Change from Increased Project-Related Greenhouse Gas Emissions	LS and LCC		--
Impact 4.8: Cumulative Impact Related to Hazards and Hazardous Materials	LS and LCC		--
Impact 4.9: Cumulative Impact on Hydrology and Water Quality	LS and LCC		--
Impact 4.10: Cumulative Impact on Communities and Local Land Uses	LS and LCC		--
Impact 4.11: Cumulative Impact on Mineral Resources	LS and LCC		--
Impact 4.12: Cumulative Exposure of Existing Noise-Sensitive Land Uses to Increased Noise Resulting from Cumulative Development	LS and LCC		--
Impact 4.13: Cumulative Impact on Population and Housing	LS and LCC		--
Impact 4.14: Cumulative Impact on Public Services and Recreation	LS and LCC		--
Impact 4.15: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)	LS and LCC		--

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Impact 4.16: Under Cumulative conditions, the proposed Project would not adversely affect pedestrian and bicycle facilities	LS and LCC		--
Impact 4.17: Cumulative Impact on Wastewater Utilities	LS and LCC		--
Impact 4.18: Cumulative Impact on Water Utilities	LS and LCC		--
Impact 4.19: Cumulative Impact on Stormwater Facilities	LS and LCC		--
Impact 4.20: Cumulative Impact on Solid Waste Facilities	LS and LCC		--
Impact 4.21: Cumulative Impact on Wildfire	LS and LCC		--

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DRAFT EIR

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1.1 PURPOSE AND INTENDED USES OF THE EIR

The City of Fort Bragg (City), as the lead agency, determined that the proposed Best Development Grocery Outlet Project (the Project) is a "project" within the definition of CEQA. CEQA requires the preparation of an environmental impact report (EIR) prior to approving any proposed project that may have a significant impact on the environment which cannot be mitigated below a level of significance. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (Public Resources Code Section 21065; CEQA Guidelines Section 15378[a]).

The City of Fort Bragg Planning Commission (Commission) and City Council (Council) both previously approved the Project in the late spring and summer of 2021, with the Commission taking its action on June 9, 2021, and the City Council denying appeals of the Planning Commission action on July 26, 2021. In approving the Project, these two City bodies had relied on a Mitigated Negative Declaration (MND) prepared by City staff with input from an environmental consultant. On August 24, 2021, Petitioners FB Local Business Matters and Leslie Kashiwada filed in Mendocino County Superior Court a lawsuit alleging that the City's approvals violated the California Environmental Quality Act (CEQA). More specifically, the lawsuit alleged that the City should have prepared an EIR, rather than an MND, prior to approving the Project. Petitioners also alleged that the Project was not consistent with certain City policies.

On February 2, 2022, legal counsel for the Project applicant, the Best Development Group (Best), wrote a letter to the City Council mentioning the litigation and requesting that the City Council rescind the earlier approvals for the Project and commence preparation of an EIR. Project counsel stated that "[a]lthough Best believes that, given the small size of the Project and its minimal environmental effects, a spirited legal defense of the MND could be mounted, any such effort could consume as much as three years or more, given how slowly the California court system moves. Best has therefore concluded that the better and more prudent course of action will be to have the City prepare an EIR and put the Planning Commission and, if need be, the City Council back into a position to consider the Project anew based on such an EIR." During its meeting on February 28, 2022, the City Council, through its adoption of Resolution 4517-2022, rescinded its prior actions approving the Project, and thereby essentially directed City staff to proceed with preparation of an EIR. On May 19, 2022, the City issued a Notice of Preparation (NOP) for the Project.

An EIR must disclose the expected environmental impacts, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed project that could reduce or avoid its adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize significant environmental impacts of proposed development. CEQA also requires agency decision-makers, when considering the approval of projects with significant unavoidable environmental effects, to balance a variety of public objectives, including economic, environmental, and social factors.

The City of Fort Bragg, as the lead agency, has prepared this Draft EIR to provide the public and responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from implementation of the proposed Project. The environmental review process enables interested parties to evaluate the proposed Project in terms of its environmental consequences, to examine and recommend methods to eliminate or reduce potential adverse impacts, and to consider a reasonable range of alternatives to the proposed Project. This EIR will be used by the decisionmakers of the City of Fort Bragg to determine whether to approve, modify, or deny the proposed Project and associated approvals in light of the Project's environmental effects. The EIR will be used as the primary environmental document to evaluate full development, all associated infrastructure improvements, and permitting actions associated with the proposed Project. All of the actions and components of the proposed Project are described in detail in Chapter 2.0, Project Description.

1.2 TYPE OF EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Project-level EIR, described in State CEQA Guidelines § 15161 as: "The most common type of EIR (which) examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation." The project-level analysis considers the broad environmental effects of the proposed Project.

1.3 RESPONSIBLE AND TRUSTEE AGENCIES

CEQA generally requires that Notices of Preparation (NOPs) and EIRs be circulated to "responsible agencies" and "trustee agencies." The term "Responsible Agency" includes all public agencies other than the Lead Agency that have discretionary approval power over the proposed Project or an aspect of the proposed Project (CEQA Guidelines Section 15381). For the purpose of CEQA, a "Trustee" agency has jurisdiction by law over natural resources that are held in trust for the people of the State of California (CEQA Guidelines Section 15386).

Because of the comparatively small size and location of the proposed Project, there are no responsible agencies that must grant approvals. Rather, all required approvals will come from the City of Fort Bragg. The only Trustee Agency for the proposed Project is the California Department of Fish and Wildlife (CDFW). CDFW is a trustee agency "with regard to the fish and wildlife of the state, to designated rare or endangered native plants, and to game refuges, ecological reserves, and other areas administered by the department" (CEQA Guidelines Section 15386[a]).

1.4 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

NOTICE OF PREPARATION AND INITIAL STUDY

The City of Fort Bragg circulated an Initial Study (IS) and Notice of Preparation (NOP) of an EIR for the proposed Project on May 19, 2022 to the State Clearinghouse, CDFW, Other Public Agencies, Organizations and Interested Persons. A public scoping meeting was held on June 7, 2022. Concerns raised in response to the NOP were considered during preparation of the Draft EIR. The IS, NOP, and comments received on the NOP by interested parties, including those received at the public Scoping Meeting, are presented in Appendix A.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the proposed Project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft EIR identifies issues determined to have no impact or a less than significant impact, relying as permitted by CEQA Guidelines section 15128 on the Initial Study checklist attached as Appendix A to this Draft EIR, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Draft EIR, the City of Fort Bragg will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the public review period for state agencies. Additionally, the Town of Fort Bragg will file the Notice of Availability with the County Clerk and have it published in a newspaper of regional circulation to begin the local public review period.

PUBLIC NOTICE/PUBLIC REVIEW

The City of Fort Bragg will provide a public notice of availability for the Draft EIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR will be accepted in written form. All comments or questions regarding the Draft EIR should be addressed to:

Attn: Heather Gurewitz, Associate Planner
City of Fort Bragg
Community Development Department
416 N. Franklin Street
Fort Bragg, CA 95437
(707) 961-2827
hgurewitz@fortbragg.com

Additionally, in accordance with Fort Bragg's Coastal Land Use and Development Code section 17.72.100, there will be an additional public hearing to accept comments on this Draft EIR during the 45-day review period.

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will include written responses to all significant environmental issues in the written comments received during the public review period and to oral comments received at any public hearing during such review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The Planning Commission of the City of Fort Bragg will hold a public hearing in which they will review and make a recommendation to City Council on certification of the EIR and the proposed Project. The City Council will then hold a public hearing to consider the Final EIR along with the proposed Project. If, after holding a public meeting and hearing public testimony, that body is inclined to approve the proposed Project, the Council will first have to "certify" the EIR. Certification consists of three separate findings and determinations: (1) the Final EIR has been completed in compliance with CEQA; (2) the Final EIR was presented to the decision-making body of the lead agency, and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and (3) the Final EIR reflects the lead agency's independent judgment and analysis (CEQA Guidelines Section 15090).

For purposes of assessing whether the Final EIR has been completed in compliance with CEQA, the Planning Commission should consider whether:

1) The EIR shows a good faith effort at full disclosure of environmental information; and

2) The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project in contemplation of environmental considerations.

Following review and consideration of the Final EIR, the City Council may take action to approve, modify, or reject the proposed Project. If the City Council approves or modifies the proposed Project, or chooses to approve one of the project alternatives set forth in this EIR, the City Council will have to adopt "CEQA Findings" pursuant to CEQA Guidelines section 15091. These findings are necessary to effectuate the substantive mandate of CEQA, as set forth Public Resources Code section 21002. That statute provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects."

The mandate announced in section 21002 is implemented, in part, through the requirement that agency decisionmakers must adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a project, the approving body must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR. The second permissible finding is that such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding, and that such changes have been adopted by such other agency or can and should be adopted by such other agency. The third potential conclusion is that specific economic, legal, social, technological, or other considerations,

including provision of employment opportunities, make infeasible the mitigation measures or project alternatives identified in the Final EIR. (See CEQA Guidelines Section 15091[a]; see also Public Resources Code Section 21081[a].)

Approval by the City Council would also require findings to be made under CEQA Guidelines Section 15093 which requires a balancing of benefits against unavoidable environmental impacts. These findings are separate and apart from the findings required under Section 15091.

At the time of Project approval, the approving body must also adopt a Mitigation Monitoring Program, as described below, prepared in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097. The Program must include any mitigation measures that have been incorporated into or imposed upon the proposed Project to reduce or avoid significant effects on the environment. This Mitigation Monitoring Program will be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR.

If the City Council approves the proposed Project, that decision can be appealed to the California Coastal Commission. Similarly, if the City Council denies the proposed Project, that decision can be appealed to the California Coastal Commission. Under either such scenario, the California Coastal Commission would become the final decisionmaker on the Project.

1.5 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, growth-inducing impacts, and cumulative impacts. Section 15128 provides that "[a]n EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study." This EIR satisfies section 15128 in part through reliance on a detailed Initial Study, which is included as Appendix A to this Draft EIR.

EIRs for certain kinds of projects, as set forth in CEQA Guidelines section 15127, must discuss significant irreversible environmental changes. These projects include those involving (i) the adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency, (ii) the adoption by a Local Agency Formation Commission of a resolution making determinations, or (iii) the parallel preparation of an environmental impact statement under the federal National Environmental Policy Act. Here, the proposed Project does not fall into one of those categories, meaning that this EIR is not required to address significant irreversible environmental changes. Even so, the City has opted, on a voluntary basis, to address that topic, as it may be of interest to members of the public.

Discussion of the environmental issues addressed in the Draft EIR was established through the following: review of environmental and planning documentation developed for the proposed Project prior to the original approval of the Project based on a Mitigated Negative Declaration in

July 2021; the 2021 lawsuit discussed previously; responses to the Notice of Preparation (NOP); and environmental and planning documentation prepared for recent projects located within the City of Fort Bragg, applicable local and regional planning documents.

This Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

The Executive Summary summarizes the characteristics of the proposed project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the proposed Project's environmental impacts and possible mitigation measures. The Executive Summary also identifies the alternatives that reduce or avoid at least one significant environmental effect of the proposed Project.

CHAPTER 1.0 – INTRODUCTION

Chapter 1.0 briefly describes the purpose of the environmental evaluation; identifies the lead and trustee agencies; summarizes the process associated with preparation and certification of an EIR, and the procedural steps associated with project approval; and identifies the scope and organization of the Draft EIR.

CHAPTER 2.0 – PROJECT DESCRIPTION

Chapter 2.0 provides a detailed description of the proposed Project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, related improvements, and a list of related agency action requirements.

CHAPTER 3.0 – ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Chapter 3.0 contains an analysis of environmental topic areas as identified below. Each subchapter addresses a topical area and is organized as follows:

Environmental Setting. A description of the existing environment as it pertains to the topical area.

Regulatory Setting. A description of the regulatory environment that may be applicable to the proposed Project.

Impacts and Mitigation Measures. Identification of the thresholds of significance by which impacts are determined, a description of project-related impacts associated with the environmental topic, identification of appropriate mitigation measures, and a conclusion as to the significance of each impact.

The following environmental topics are addressed in this section:

- Aesthetics and Visual Resources
- Air Quality
- Biological Resources

- Greenhouse Gases, Climate Change, and Energy
- Land Use
- Noise
- Transportation and Circulation
- Utilities and Service Systems

Impacts found to be less-than-significant in the Initial Study prepared for the Project are summarized in Section 4.4 of Chapter 4.0, Other CEQA-Required Topics.

CHAPTER 4.0 – OTHER CEQA-REQUIRED TOPICS

Chapter 4.0 evaluates and describes the following CEQA required topics: impacts considered less-than-significant, significant and irreversible impacts, growth-inducing effects, cumulative, and significant and unavoidable environmental effects.

CHAPTER 5.0 – ALTERNATIVES TO THE PROJECT

State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the proposed Project, which could feasibly attain most of the basic objectives of the proposed Project and avoid and/or lessen any significant environmental effects of the proposed Project. Chapter 5.0 provides a comparative analysis between the environmental impacts of the proposed Project and the selected alternatives.

CHAPTER 6 – REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the EIR, by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as technical material prepared to support the analysis.

1.6 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City of Fort Bragg received six written comment letters on the NOP for the proposed Project. A copy of the letters is provided in Appendix A of this Draft EIR. The commenting agency/citizen is provided below.

- California Department of Toxic Substances Control (June 17, 2022);
- Jacob Patterson (June 14, 2022);
- Janet Kabel (May 19, 2022);
- Leslie Kashiwada (June 20, 2022);
- Renz Martin (June 18, 2022);
- Sherwood Valley Band of Pomo Indians (June 1, 2022).

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2.1 PROJECT LOCATION

The Project site is located at 825, 845, and 851 S. Franklin Street in the City of Fort Bragg, Mendocino County, California. The 1.63-acre site is located on the north side of N. Harbor Drive, the west side of S. Franklin Street, and the south side of South Street. The Project site is located approximately 230 to 450 feet east of S. Main Street/Highway 1 (a four-lane conventional highway managed by the California Department of Transportation [Caltrans]) and is located in the City's Coastal Zone and is appealable to the California Coastal Commission because it is within 300 feet of what is considered a coastal bluff. Properties within the Coastal Zone are regulated by the Coastal Land Use and Development Code (CLUDC), also known as Fort Bragg Municipal Code (FBMC) Title 17. The Project site consists of three parcels identified by Assessor's Parcel Numbers (APNs) 018-120-47, 018-120-48 and 018-120-49.

Figures 2.0-1 and 2.0-2 show the Project's regional location and vicinity.

2.2 PROJECT SETTING

EXISTING SITE CONDITIONS

The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. A 16,436 square-foot (sf) vacant former office building and associated 47-space parking lot are located in the northern half of the site. The building, locally referred to as the "Old Social Services Building", has not been leased since 2010 but has been used as storage since then. Wooden fencing is currently located along the western property line and adjacent to the south side of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs.

The Project site does not contain any creeks/streams, riparian areas, or wetlands on-site (Wildland Resources Manager, 2021). The Project site is located in Zone "X", area of minimal flood hazard, as shown on Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer FIRMette map number 06045C1016G, effective July 18, 2017.

Figure 2.0-3 shows the aerial view of the Project site.

SITE TOPOGRAPHY

The Project site is relatively flat with site elevations ranging from approximately 117 feet to 122 feet above mean sea level (msl).

EXISTING SURROUNDING USES

The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and a Chevron station. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North

Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

GENERAL PLAN LAND USE AND ZONING

The Project site has a City of Fort Bragg General Plan land use designation of Highway Visitor Commercial (CH) and a City zoning designation of Highway Visitor Commercial (CH). No changes to the Project site's current land use or zoning designations are proposed under the Project.

The City General Plan land use designations and zoning designations for the Project site and surrounding area are shown on Figure 2.0-4.

2.3 PROJECT GOALS AND OBJECTIVES

Consistent with California Environmental Quality Act (CEQA) Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the proposed Project shall be discussed. The underlying purpose of the proposed Project is to construct and operate a Grocery Outlet retail store at a location within the City of Fort Bragg on which the existing General Plan and zoning designations allow for such a use.

Consistent with this underlying purpose, the proposed Project seeks to attain the following project objectives:

- Develop a grocery store that provides its customers with comparatively affordable groceries at a convenient location for their shopping needs.
- Develop a grocery store that would generate additional revenues to the City in the form of increased sales and property tax revenues.
- Develop a grocery store that would create new jobs in the City.
- Develop an aesthetically attractive grocery store and landscaping on an infill site.
- Design a site plan that minimizes circulation conflicts between automobiles and pedestrians.

2.4 PROJECT CHARACTERISTICS AND DESCRIPTION

PROJECT CHARACTERISTICS

The proposed Project includes demolition of the existing 16,436-sf vacant former office building and parking area and subsequent development and operation of a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site. Grocery Outlet is a value grocer, meaning that it sells brand name products at bargain prices due to their opportunity buying style. Associated improvements include a parking lot, loading dock and trash enclosure, circulation and access improvements, and utility infrastructure. The proposed site plan is shown in Figure 2.0-5.

The proposed Project would also include a merger of three existing parcels (lots) to create one 71,002 sf (1.63 acres) parcel (see Table 2.0-1) to accommodate the footprint of the proposed retail store within the resulting parcel.

TABLE 2.0-1: PROPOSED PARCEL MERGER

EXISTING PARCELS	*PROPOSED PARCEL*
APN 018-120-47, ±17,119 SF (±0.393 acres)	APN to be determined ±71,002 SF (±1.6299816 acres)
APN 018-120-48, ±14,723 SF (±0.338 acres)	
APN 018-120-49, ±38,986 SF (±0.895 acres)	

SOURCE: BEST DEVELOPMENT GROUP, 2021.

Retail Operations

The proposed Project would be operated by 15 to 25 full-time staff and two managers. The Project would be open from 8:00 AM to 10:00 PM, seven days per week with two different shifts covering operating hours.

Building Architecture and Signage

The proposed Project would include 51,650 sf (1.18 acres) of hardscape areas that would be covered with the proposed store, parking lot, accessways or sidewalks, and driveways. As shown in Figure 2.0-5, the retail building would be located in the northern portion of the site with parking in the south portion.

The retail grocery store would be a maximum of 28 feet tall at the top of the proposed canopy and a maximum of 23 feet tall at the top of the proposed parapet. The proposed building includes differentiated treatments along the base, mid-section, and top along the three facades facing public streets. Windows would remain clear glass for lighting a view out, and the roofline on the corner cut-off entrance is also unique to the other rooflines for additional visual interest. The building will be composed of elements and details representative of Fort Bragg's architectural heritage, as the Applicant's chosen design elements were influenced by Fort Bragg's downtown architecture. The window and door treatments give homage to the smaller shops along the main downtown street's detailing as well as the Hardie Board (wood composite) wood paneling, masonry, and providing a variety of the materials on the elevations to add visual interest. Rooflines of the building would align with buildings on adjacent properties to avoid clashes in building height. Architectural perspectives of the proposed building are shown in Figure 2.0-6.

The proposed Project would include the installation of a six-foot-tall illuminated monument sign on the southeast corner of the site. The monument sign would have 15 sf of branding on each side, in addition to the unbranded base. Additionally, an 83.3-sf illuminated channel sign would be located on the sign parapet along the front elevation of the building.

All exterior lighting would be limited to a maximum height of 18 feet and utilize energy-efficient fixtures and lamps. No permanently installed lighting would blink, flash, or be of unusually high intensity or brightness. Exterior lighting would be shielded or recessed and directed downward and away from adjoining properties and public right-of-way to reduce light bleed so that no on-site light fixture directly illuminates an area off-site, in compliance with regulations set by the International Dark-Sky Association.

Landscaping

Currently, four ornamental trees are located in the northwestern portion of the Project site, and additional ornamental trees are located along the South Street frontage. It is possible that the existing

trees could be preserved as part of the proposed landscaping plan; however, it is likely that tree removal in some capacity would be required. Proposed landscaping includes trees and vegetation along the property boundaries within the proposed parking lot. Trees would be planted primarily along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the parking lot landscaping islands. Approximately 19,265 sf (0.44 acres) of the site would be landscaped and permeable to stormwater as the proposed Project would be designed to capture stormwater and pre-treat it on-site to remove dirt, oil, and heavy metals using bioretention basins located along the northwest and southwest boundaries. The proposed landscaping plan would comply with the Model Water Efficient Landscape Ordinance (MWELO). The MWELO is also referenced by Title 24, Part 11, of the CalGreen Building Code. The purpose of MWELO is not only to increase water efficiency but to improve environmental conditions in the built environment. Landscaping should be valued beyond the aesthetic because landscapes replace habitat lost to development and provide many other related benefits such as improvements to public health and quality of life, climate change mitigation, energy and materials conservation, and increased property values.

CIRCULATION, TRANSPORTATION, AND PARKING

Currently, the site is accessed on the north end via a paved entrance to South Street. There is an existing dirt driveway that runs across the southern parcel from S. Franklin Street to N. Harbor Drive. The proposed Project includes the construction of a new, 30-foot-wide entrance on N. Harbor Drive and a 35-foot entrance on S. Franklin Street. The existing driveway on the north end of the site would be removed as part of the Project. Additionally, the proposed Project will include an internal system of walkways and crosswalks to provide pedestrian connectivity between the parking lot, building, and sidewalk. The pedestrian improvements would be Americans with Disabilities Act (ADA)-compliant. A sidewalk would be constructed along the South Street, S. Franklin Street, and N. Harbor Drive frontages, as required by City standards and to provide pedestrian access around the Site. Where required, existing sidewalks would be upgraded to meet City standards.

As part of the proposed Project, a parking area with 53 parking spaces would be constructed on the south side of the Grocery Outlet building including two RV spaces on the western side of the lot and one motorcycle parking space. Four electric vehicle parking stalls will be provided with the required wiring for charging facilities to be installed in the future. Additionally, six clean air vehicle priority parking spots will be provided. Further, an internal system of walkways and crosswalks would be provided, as well as two bicycle parking racks.

UTILITIES AND SERVICES

The Project site is currently served by electrical, propane, city water and wastewater, solid waste, and telecommunication services. The proposed Project would connect to existing City infrastructure to provide water, sewer, and storm drainage utilities. The Project would be served by the following existing service providers:

1. City of Fort Bragg for water;
2. City of Fort Bragg for wastewater collection and treatment;
3. City of Fort Bragg for stormwater collection;

4. Pacific Gas and Electric Company (PG&E) for electricity;
5. C&S Waste Solutions for Waste and Recycling Collection.

Water

A six-inch fire service line water connection currently exists on South Street. As part of the proposed Project, this line would be the main water service to the building, and a new six-inch fire connection would be constructed to the east of the existing connection. A total of three fire hydrants with valve lines are proposed for fire suppression on the site.

The proposed preliminary sewer and water plan is shown in Figure 2.0-7.

Wastewater

A four-inch sewer lateral currently extends from the existing manhole on South Street. As part of the proposed Project, this lateral would be removed and replaced with a new six-inch sewer lateral per City standards. Wastewater generated on-site would be collected, treated, and disposed of by the City of Fort Bragg Municipal Improvement District No. 1. The District is larger than the City and includes much of the proposed Sphere of Influence. Currently, the District facility serves residences and businesses within the City.

The proposed preliminary sewer and water plan is shown in Figure 2.0-7.

Stormwater Drainage

Currently, stormwater typically infiltrates in the undeveloped portion of the Project site or flows to the northwest and southwest towards the neighboring property in the developed portion of the site. As part of the proposed Project, on-site drainage will be managed utilizing post-construction Low Impact Development (LID) site design measures and Best Management Practices (BMPs). For example, bioretention facilities would be sized to capture and treat runoff from the proposed impervious surfaces produced by the 24-hour, 85th percentile rain event. Additionally, landscaped areas would be provided throughout the site to encourage natural stormwater infiltration. Perimeter improvements, such as sidewalk curbs, gutters, pervious pavement, and landscaping would be required to convey flows from the Project site to the existing Caltrans stormwater drainage system located west of the Site on State Highway 1, which does not currently exist in the vicinity of the site.

The proposed preliminary grading and drainage plan is shown in Figure 2.0-8. The proposed storm water management plan is shown in Figure 2.0-9.

Other Utilities and Services

As noted previously, electricity would be provided by PG&E. Gas service, if needed, would be provided via a propane tank located on the northern portion of the site.

C&S Waste Solutions would provide solid waste collection services, which would be collected from a trash bin enclosure to be installed in the western portion of the site.

Xfinity (Comcast) provides cable TV and internet services, with various telecommunication companies providing land-line telephone service to the surrounding area. All utility lines within the Project site would be underground.

2.5 USES OF THE EIR AND REQUIRED AGENCY APPROVALS

This EIR may be used for the following direct and indirect approvals and permits associated with adoption and implementation of the proposed Project.

CITY OF FORT BRAGG

The City of Fort Bragg will be the Lead Agency for the proposed Project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. Pursuant to Section 17.72.060 of the Fort Bragg Coastal Land Use and Development Code, the City Council is the review authority for all EIRs. Additionally, pursuant to section 17.70.030 of the Coastal Development Code, where there are multiple actions for the same project, the applications are to be processed concurrently and are to be reviewed and acted upon by the highest review authority for any of the applications. Because the City Council is the highest decision maker for the lot merger, it will make the final decision on all the applications. If the City Council certifies the EIR in accordance with CEQA requirements, the City may use the EIR to support the following actions:

- Adoption of a Mitigation Monitoring and Reporting Program (MMRP);
- Approval of a Zoning Clearance (ZC);
- Approval of a Coastal Development Permit (CDP);
- Approval of Design Review;
- Approval of a Parcel Merger;
- Approval of a Sign Permit;
- Approval of an Encroachment Permit;
- Approval of a Grading Permit;
- Approval of a Building Permit.

OTHER GOVERNMENTAL AGENCY APPROVALS

The proposed Project is subject to a number of existing requirements of regulatory agencies other than the City of Fort Bragg, but will not require any specific discretionary approvals from such agencies, unless appealed. The proposed Project is subject to the policies of the Local Coastal Program governing portions of the City and requires a coastal development permit from the City. However, the approval by the City of such a permit for the proposed Project can be appealed to the California Coastal Commission due to the character and location of the Project site. Public Resources Code section 30606, which is part of the California Coastal Act, provides that, where an approved local coastal program is in place, the Coastal Commission has appellate authority over local governments' approvals of coastal development permits for coastal development projects that include:

(1) Developments approved by the local government between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or of the mean high tideline of the sea where there is no beach, whichever is the greater distance.

(2) Developments approved by the local government not included within paragraph (1) that are located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, or stream, or within 300 feet of the top of the seaward face of any coastal bluff.

Although the proposed Project is subject to water quality regulations and general permits put in place by state and federal agencies, no state or federal approvals are required in order for site construction to proceed. Construction activities for the proposed Project will be subject to the requirements of General Construction Activity Stormwater Permit (Construction General Permit Order 2009-0009-DWQ, also known as the CGP), issued by the State Water Resources Control Board. This General Permit requires operators of construction sites to implement stormwater controls and develop a Stormwater Pollution Prevention Plan (SWPPP) identifying specific best management practices (BMPs) to be implemented to minimize the amount of sediment and other pollutants associated with construction sites from being discharged in stormwater runoff. SWPPPs must be submitted to the applicable Regional Water Quality Control Board (here, the North Coastal Regional Water Quality Control Board), but advance approval of the SWPPP by that state agency is not required.

Discharges of stormwater and non-stormwater from the Municipal Separate Storm Sewer System (MS4) within the jurisdictional boundary of the City of Fort Bragg are subject to Water Quality Order No. 2013-0001-DWQ, NPDES General Permit No. CAS00004, Waste Discharge Requirements for Storm Water Discharges from MS4s (Phase II MS4 Permit). The Phase II MS4 Permit authorizes the City to discharge stormwater runoff and certain non-stormwater discharges from its MS4 to waters of the United States and provides a framework and requirements for the implementation of the City MS4 Program. The proposed Project can operate within the parameters of these existing authorizations without the need for any specific discretionary approvals from the North Coastal Regional Water Quality Control Board, the United States Environmental Protection Agency, or any other federal or state agency.

Finally, construction activities of the proposed Project will be subject to the Mendocino County Air Quality Management District (MCAQMD), but no individual permit is required for project construction or operation to proceed.

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Legend

- Project Location
- Incorporated Area
- County Boundary

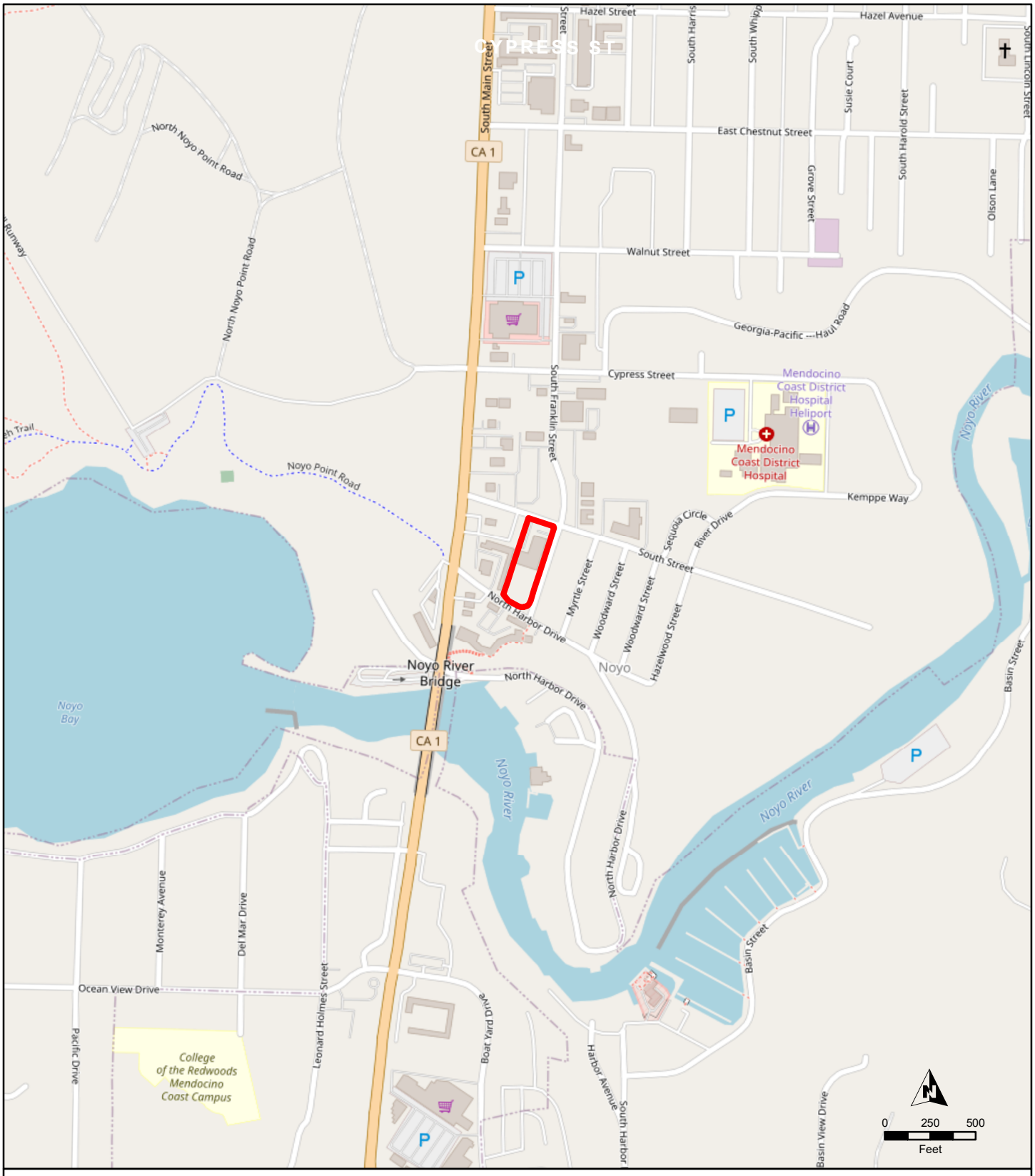
Sources: California State Geoportal.
Map date: November 29, 2021.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-1. Regional Location Map

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FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-2. Vicinity Map

Legend

Project Boundary

Sources: Mendocino County; ArcGIS Online OpenStreetMap Map Service.
Map date: November 29, 2021.

De Novo Planning Group
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FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Legend

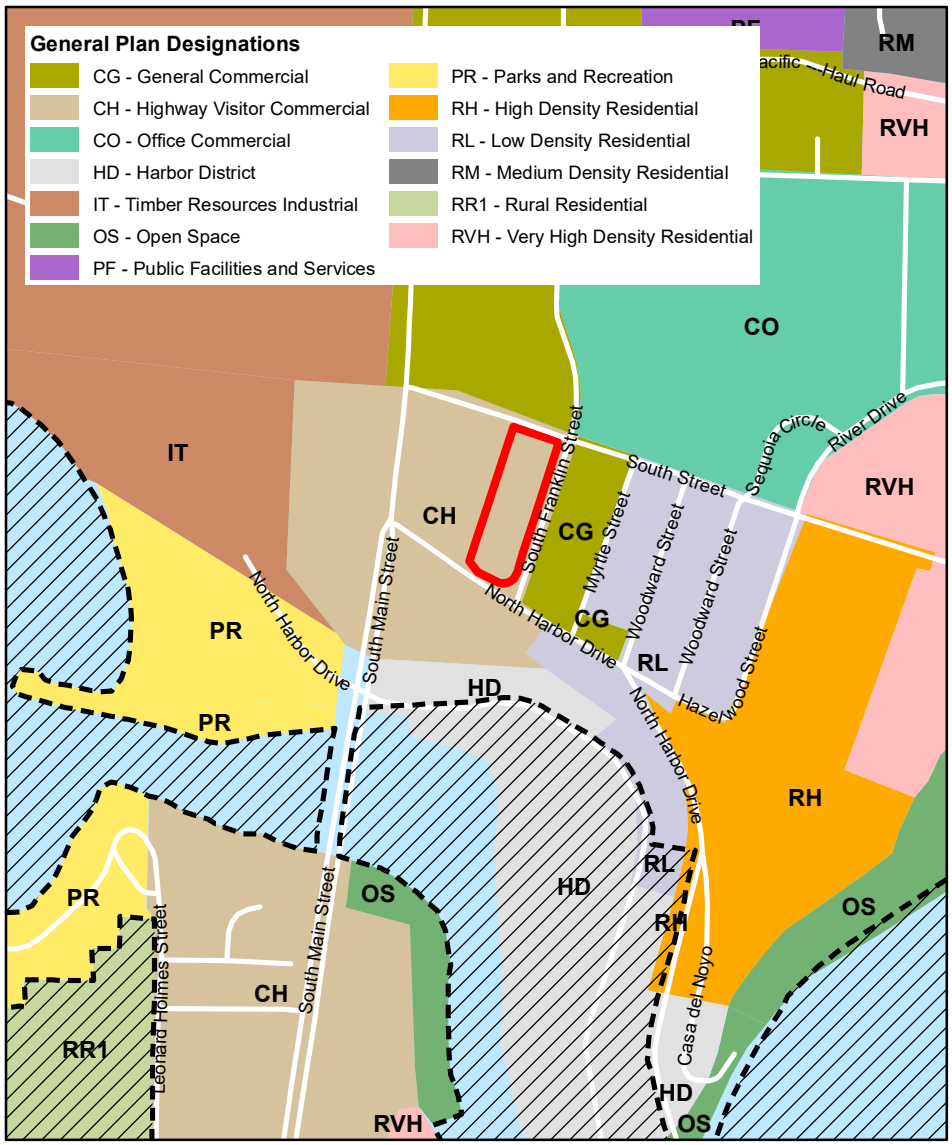
Project Boundary

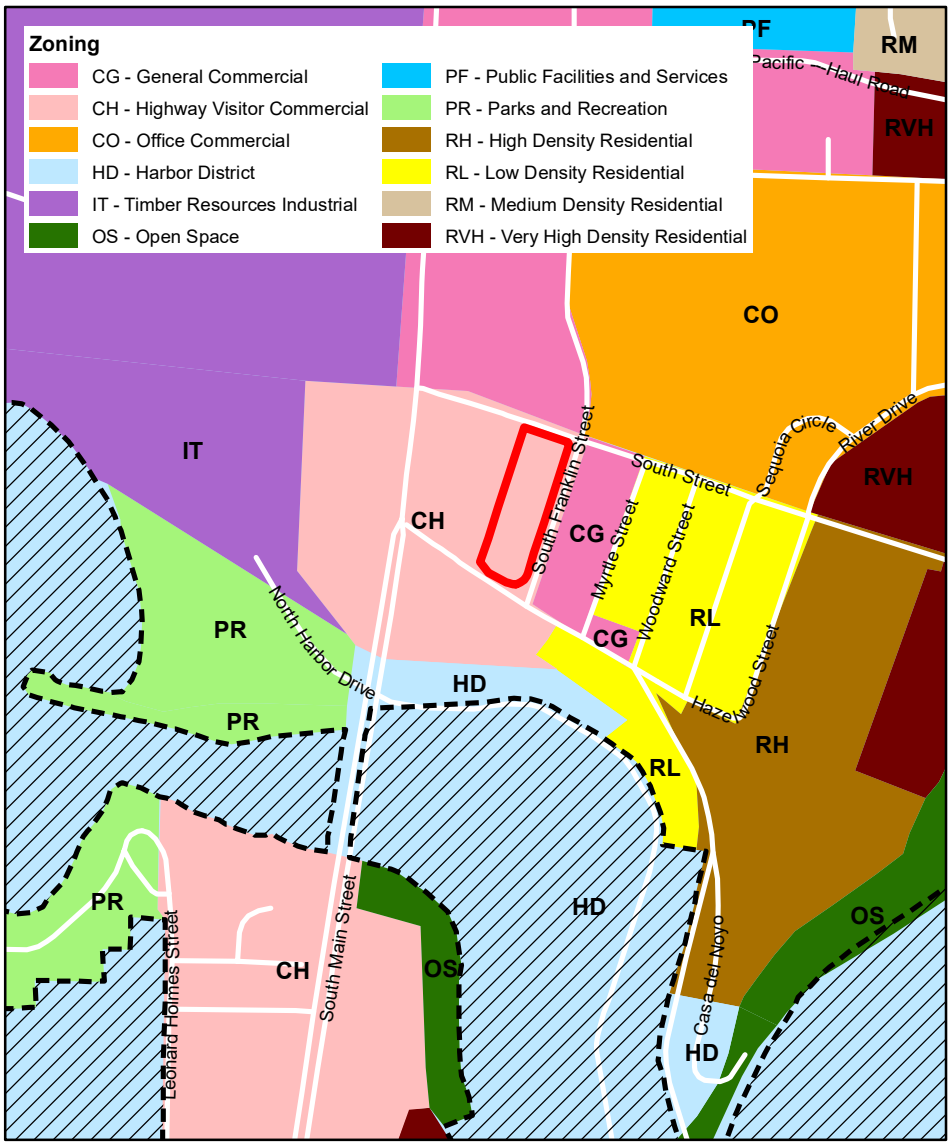
Figure 2.0-3. Aerial View of Project Site

Sources: Mendocino County; ArcGIS Online World Imagery Map Service, 3/13/2020.
Map date: November 29, 2021.

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Legend

- Project Boundary
- Fort Bragg City Boundary
- Unincorporated Mendocino County

0 250 500
Feet

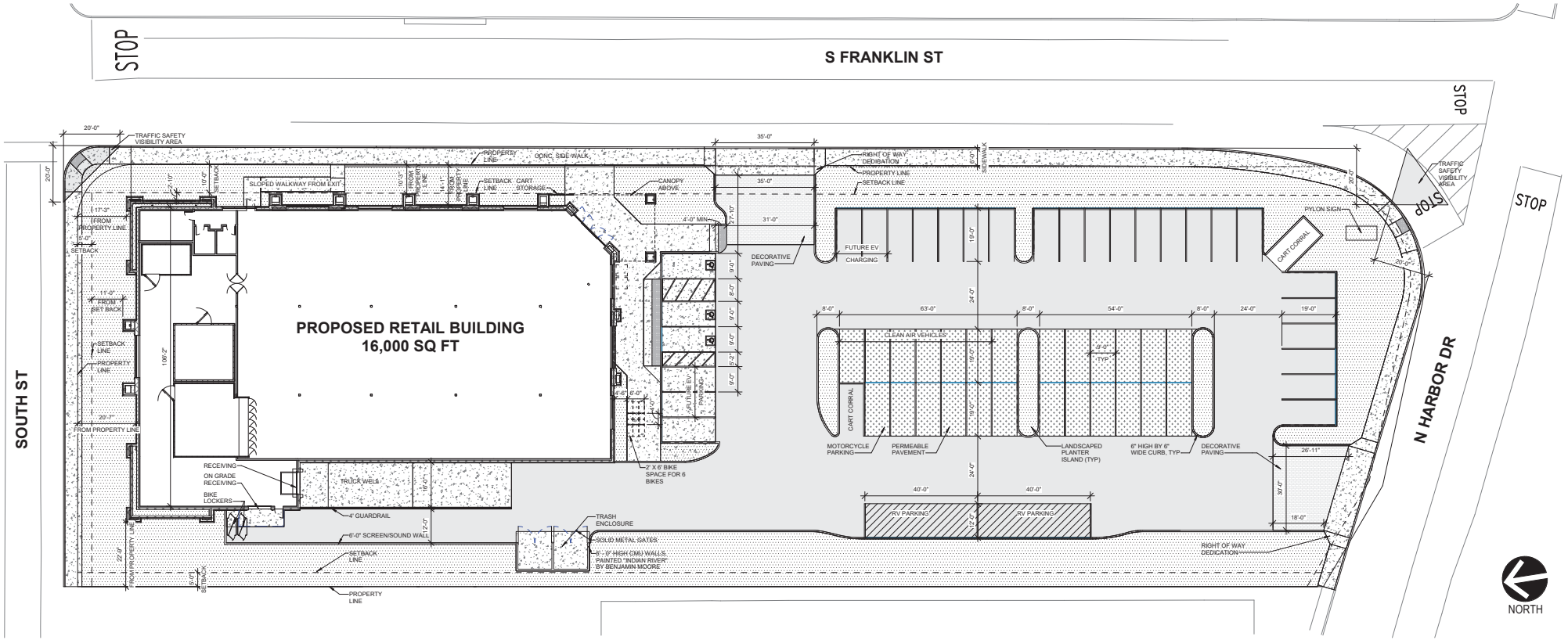
Sources: City of Fort Bragg Map LU-1 Land Use Designations, July 2008; City of Fort Bragg 7A Att4 New 2016 Zoning Map.
Map date: December 2, 2021.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-4. Existing General Plan and Zoning

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PROPERTY LINE

SET BACK

DECORATIVE PAVING

AC PAVEMENT

LANDSCAPE AREA

TRUNCATED DOMES

Source: BRR Architecture; 7/1/2021. Map date: June 30, 2022.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-5. Site Plan

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Entrance Perspective



Parking Lot Perspective



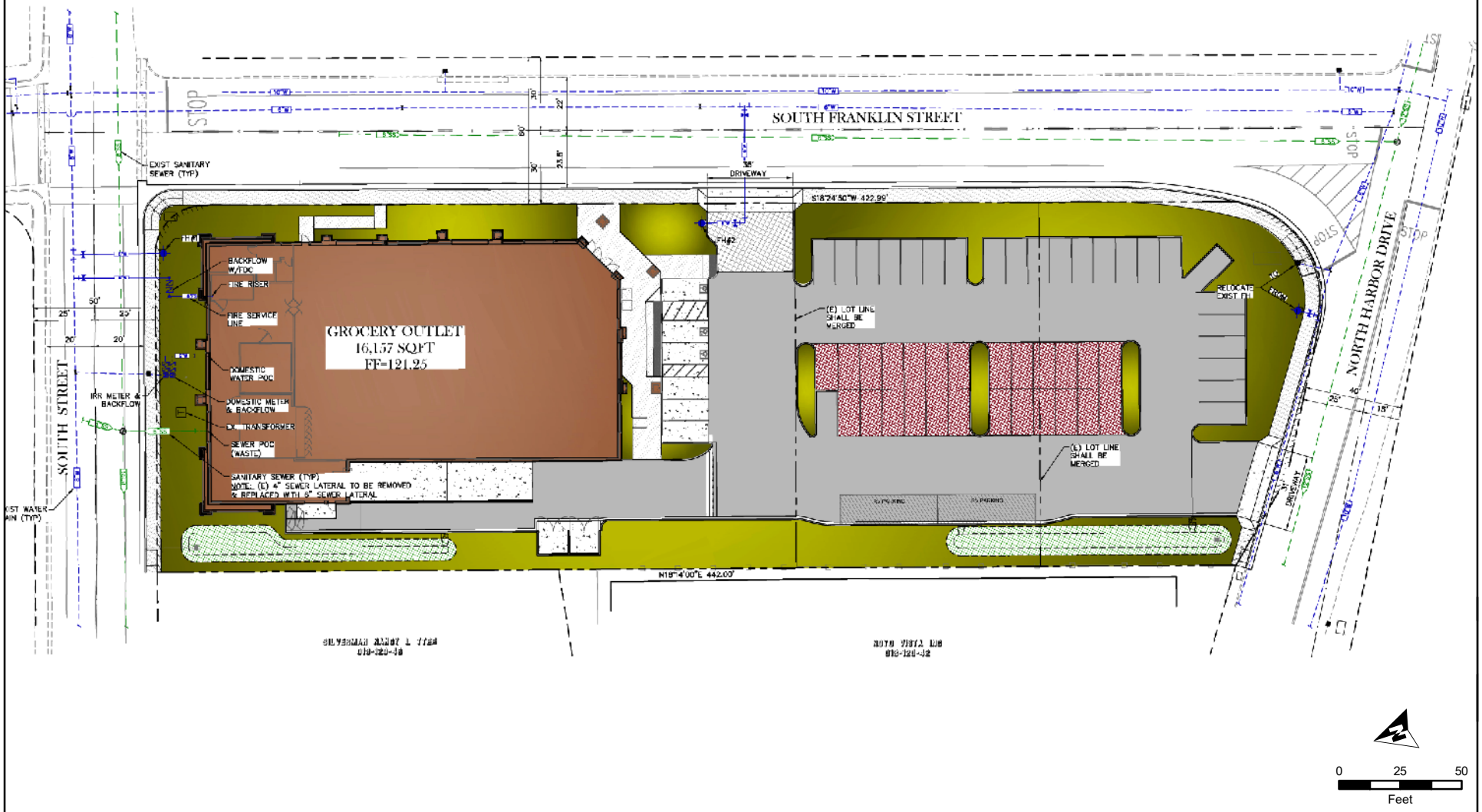
South St Corner Perspective

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-6. Perspectives

Sources: BRR Architects, 7/1/2021.
Map date: June 30, 2022.

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ASPHALT PAVEMENT
BUILDING AREA
LANDSCAPE AREA
P.C.C. CONCRETE
BIO RETENTION BASIN
CONCRETE SIDEWALK
PERMEABLE PAVEMENT
DECORATIVE PAVEMENT

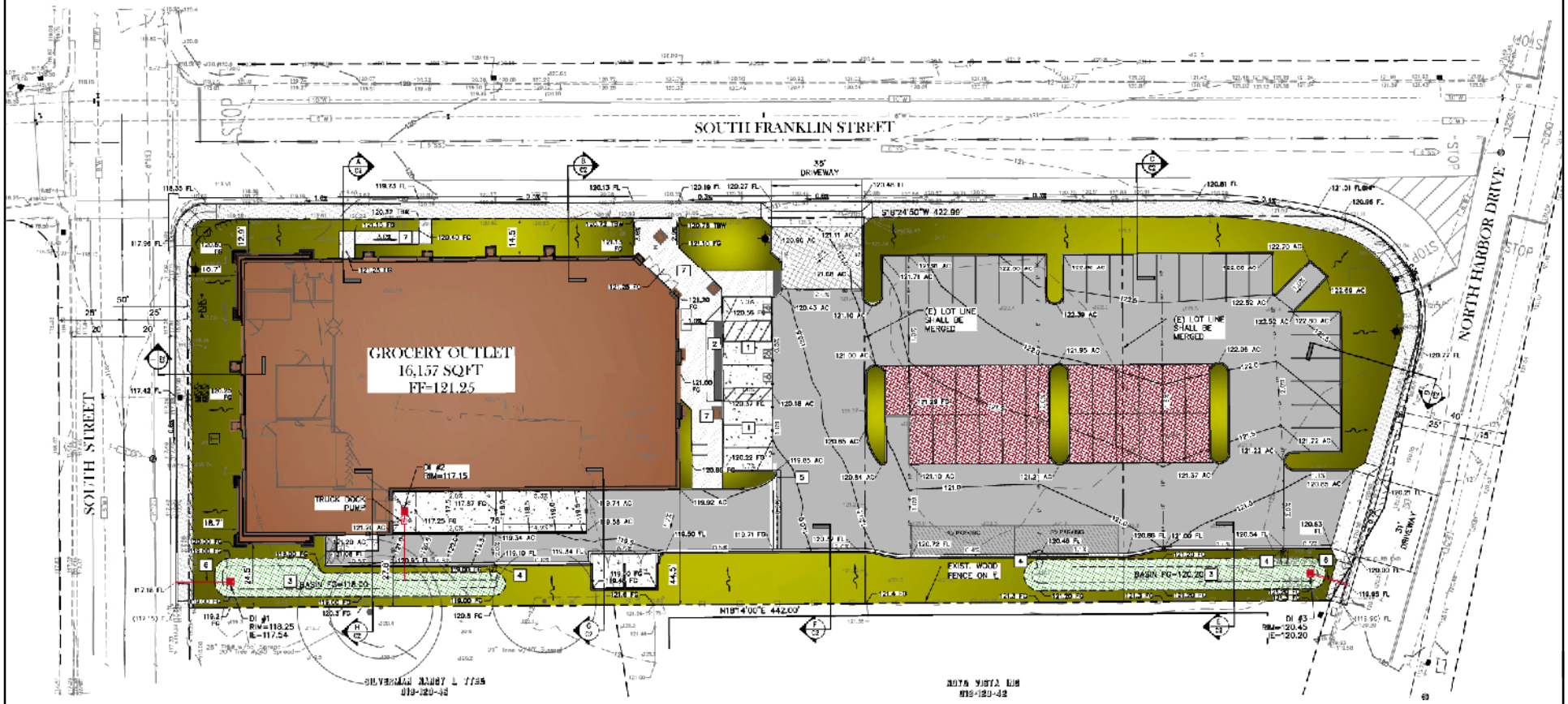
8"W WATER MAIN
6"FS FIRE SERVICE
FIRE DEPARTMENT CONNECTION (FDC)
METER & BACKFLOW
6"SS SANITARY SEWER

Sources: TSD Engineering, Inc., 6/30/2021. Map date: July 1, 2022.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-7. Preliminary Sewer and Water Plan

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0 25 50
Feet

168.0 AC — ELEVATION
SIDEWALK DRAIN
DRAINAGE INLET
ASPHALT PAVEMENT
BUILDING AREA
LANDSCAPE AREA

P.C.C. CONCRETE
BIO RETENTION BASIN
CONCRETE SIDEWALK
PERMEABLE PAVEMENT
DECORATIVE PAVEMENT
DRAINAGE DIRECTION

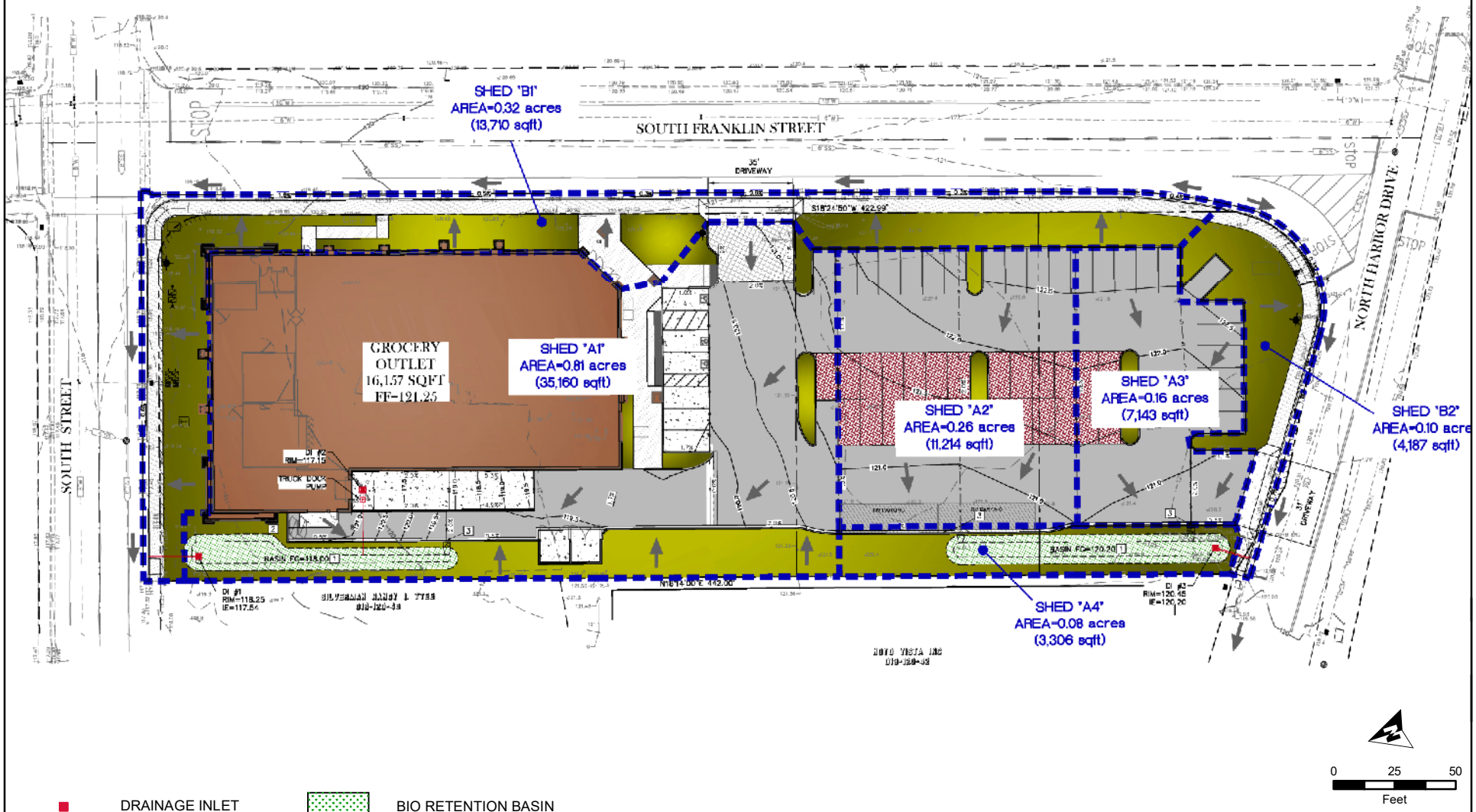
1 ACCESSIBLE PARKING/LOADING ZONE
2 ACCESSIBLE CURB RAMP
3 BIO-RETENTION BASIN
4 1-FOOT CURB OPENING INTO BASIN
5 CONCRETE VALLEY GUTTER
6 (2) 3" PVC SIDEWALK DRAIN PIPE
7 SIDEWALK

Sources: TSD Engineering, Inc., 6/30/2021. Map date: July 1, 2022.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-8. Preliminary Grading and Drainage Plan

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- DRAINAGE INLET
- ASPHALT PAVEMENT
- BUILDING AREA
- LANDSCAPE AREA
- P.C.C. CONCRETE
- BIO RETENTION BASIN
- CONCRETE SIDEWALK
- PERMEABLE PAVEMENT
- DECORATIVE PAVEMENT
- OVERLAND RELEASE

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 2.0-9. Preliminary Storm Water Management Plan

Sources: TSD Engineering, Inc., 6/30/2021. Map date: July 1, 2022.

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This section provides an overview of the visual character, scenic resources, views, and sources of light and glare that are encountered on the Project site and the vicinity. This section concludes with an evaluation of the impacts and recommendations for mitigating impacts. Information in this section is derived primarily from the *Fort Bragg Coastal General Plan* (City of Fort Bragg, July 2008), the *City of Fort Bragg Commercial District Design Guidelines* (City of Fort Bragg, June 2004), the Fort Bragg Municipal Code (City of Fort Bragg, 2021), and the Visual Analysis completed for the proposed Project (Carl M. Maxey, Architect, 2022).

One comment was received during the public review period for the Notice of Preparation regarding this topic from Leslie Kashiwada (June 20, 2022). The portion of this comment related to this topic is addressed within this section. Full comments received are included in Appendix A.

3.1.1 ENVIRONMENTAL SETTING

REGIONAL SCENIC RESOURCES

Visual resources are generally classified into two categories: scenic views and scenic resources. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually mid-ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor. Scenic resources are specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements.

Aesthetically significant features occur in a diverse array of environments within the region, ranging in character from urban centers to rural agricultural lands to natural water bodies. Features of the built environment that may also have visual significance include individual or groups of structures that are distinctive due to their aesthetic, historical, social, or cultural significance or characteristics. Examples of the visually significant built environment may include bridges or overpasses, architecturally appealing buildings or groups of buildings, landscaped freeways, and a location where a historic event occurred.

The City of Fort Bragg contains many significant visual resources, including views of the Noyo Harbor, Noyo River, Pudding Creek, Hare Creek, and the ocean. Except for the development in the Noyo Harbor, there is little development below the bank tops along these streams. These views of streams and open space are enjoyed by residents and travelers alike as it is difficult to take even a short trip in Fort Bragg without crossing or approaching one of these streams.

The views of the ocean from public vantage points (mainly public streets) are primarily distant background blue water views. There are only a few locations where one can see the beach, strand, or white water views. Locations where such views are possible include Highway 1 and local roads near the Pudding Creek beach area, at the bluffs near the mouth of Pudding Creek, the bluffs on Noyo Point, the Noyo River Bridge, and the bluffs on Todd Point. More distant views of the ocean are possible from a number of streets and highways. Between the Noyo River and Pudding Creek, views of the coast from Highway 1 are blocked by roadside development and landscaping. However, views of the ocean are possible from a number of east-west streets to the east of Main Street and

from residences at higher elevations to the east of Main Street. The distant ocean views define much of the character of the City by visually identifying it as a coastal town.

Additionally, Map CD-1 of the City's Community Design Element of the Coastal General Plan shows scenic views in the coastal zone, including potential scenic views toward the ocean or the Noyo River, and scenic views on the former Mill Site. As shown, the nearest potential scenic views toward the ocean or the Noyo River located within the vicinity of the Project site are generally located north and east of Noyo River and south and west of North Harbor Drive. This potential scenic view area is located approximately 0.08 miles or further south of the Project site. Additionally, scenic views on the former Mill Site shown in Map CD-1 are located west of Main Street/Highway 1, east of the City boundary, and north of the Noyo River. This scenic view area is located approximately 0.07 miles or further west of the Project site.

PROJECT SITE

The Project site is located within the City of Fort Bragg city limits on urban and built-up land, surrounded by parcels utilized for commercial businesses, residences, and two vacant lots. The Project site contains existing development primarily within the northern half of the Project site. The northern lot is 95 percent covered by a paved parking area with shrubbery planted around the edges. The existing 16,436 square foot (sf) vacant former office building is located on the middle lot. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. Currently, the Project site is accessed on the north end via a paved entrance from South Street. There is an existing dirt driveway that runs across the southern parcel from S. Franklin Street to N. Harbor Drive. Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description, illustrate the regional location and Project vicinity.

The Project site is bordered to the north by South Street, to the east by S. Franklin Street, to the south by N. Harbor Drive, and to the west by a Super 8, Mountain Mike's Pizza, and Chevron. The existing site conditions and surrounding area are shown in Figures 3.1-1 through 3.1-4.

EXISTING SURROUNDING USES

The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and a Chevron station. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

SCENIC HIGHWAYS

Scenic Highways

Neither of the two highways near the Project site, State Highway 1 and State Highway 20, are state scenic highways. Per Caltrans Scenic Highway System Lists, State Highway 1 and State Highway 20

are eligible state scenic highways, although they have not been designated as scenic (Caltrans, 2019).

3.1.2 REGULATORY SETTING

STATE

Nighttime Sky – Title 24 Outdoor Lighting Standards

The California legislature passed a bill in 2001 requiring the California Energy Commission (CEC) to adopt energy efficiency standards for outdoor lighting for both the public and private sectors. In addition to improved energy efficiency standards, Title 24 standards regulate lighting characteristics such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on population figures of the 2010 Census. Areas can be designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban). Lighting requirements for dark and rural areas are stricter in order to protect the areas from new sources of light pollution and light trespass.

LOCAL

Fort Bragg Coastal General Plan

The Fort Bragg Coastal General Plan includes a number of policies relevant to aesthetics and visual resources. The following policies apply to the proposed Project.

CONSERVATION, OPEN SPACE, ENERGY, AND PARKS ELEMENT

> ***Policy OS-15.1*** Open Space: Plan for and condition new development to implement the City's priorities for open space. Refer to the Community Design Element for specific policies and programs dealing with scenic view corridors.

COMMUNITY DESIGN ELEMENT

> ***Policy CD-1.1*** Visual Resources: Permitted development shall be designed and sited to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance scenic views in visually degraded areas.
>
> ***Policy CD-1.4*** New development shall be sited and designed to minimize adverse impacts on scenic areas visible from scenic roads or public viewing areas to the maximum feasible extent.
>
> ***Policy CD-1.5*** All new development shall be sited and designed to minimize alteration of natural landforms by:
>
> 1. Conforming to the natural topography.

2. Preventing substantial grading or reconfiguration of the project site.
3. Minimizing flat building pads on slopes. Building pads on sloping sites shall utilize split level or stepped-pad designs.
4. Requiring that man-made contours mimic the natural contours.
5. Ensuring that graded slopes blend with the existing terrain of the site and surrounding area.
6. Minimizing grading permitted outside of the building footprint.
7. Clustering structures to minimize site disturbance and to minimize development area.
8. Minimizing height and length of cut and fill slopes.
9. Minimizing the height and length of retaining walls.
10. Cut and fill operations may be balanced on-site, where the grading does not substantially alter the existing topography and blends with the surrounding area. Export of cut material may be required to preserve the natural topography.

Policy CD-1.6: Fences, walls, and landscaping shall minimize blockage of scenic areas from roads, parks, beaches, and other public viewing areas.

Policy CD-1.9: Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low intensity fixtures, and shielded so that no light shines beyond the boundary of the property.

Policy CD-1.11: New development shall minimize removal of natural vegetation. Existing native trees and plants shall be preserved on the site to the maximum extent feasible.

Policy CD-2.1 Design Review: All development that has the potential to affect visual resources shall be subject to Design Review, unless otherwise exempt from Design Review pursuant to Coastal Land Use & Development Code Section 18.71.050. Design Review approval requirements shall not replace, supersede or otherwise modify the independent requirement for a coastal development permit approved pursuant to the applicable policies and standards of the certified LCP. Ensure that development is constructed in a manner consistent with the Citywide Design Guidelines.

Policy CD-2.2 Large Commercial Development: Ensure that large commercial development, such as shopping centers, big box retail, and mixed use development, fits harmoniously with the scale and design of existing buildings and streetscape of the City.

Policy CD-2.7 Landscaping: Encourage attractive native and drought-tolerant landscaping in residential and commercial developments.

Policy CD-6.1 Security: Establish standards to ensure that on-site lighting is adequate to provide security while not producing excessive glare.

Policy CD-6.2 Lighting Design Guidelines: Apply lighting design guidelines contained in the Citywide Design Guidelines.

City of Fort Bragg Citywide Design Guidelines

The Citywide Design Guidelines complement the standards contained in the City of Fort Bragg Inland Land Use and Development Code, and the Coastal Land Use and Development Code by providing good examples of appropriate design solutions, and by providing design interpretations of the various regulations. The guidelines are also an integral part of the Mill Site Specific Plan, and will help guide the design and redevelopment of the western third of the city. The guidelines are less quantitative and rigid than the mandatory development standards of the Development Code, and may be interpreted with some flexibility in the application to specific projects.

The City of Fort Bragg's current Design Guidelines were initially adopted by the City Council in 2004 and were recently updated in April 2022. In 2019, the Planning Commission considered revisions to the Citywide Design Guidelines at three public meetings related to reuse of the former Mill Site. However, this document was never formally adopted by City Council. As a result of these meetings, an ad hoc committee was appointed - composed of two Councilmembers (Albin-Smith and Morsell-Haye) and two Planning Commissioners (Andreis and Rogers), to refine and update the City's Design Guidelines. This ad hoc committee met multiple times from February 2021 to February 2022. The intent was not to start "from scratch," but rather to reorganize and finalize the work done in 2019. The 2022 Citywide Design Guidelines contain standards for massing, architectural form, materials and colors, lighting, site planning, landscaping, fencing and screening, and other topics 2022.

City of Fort Bragg Coastal Land Use and Development Code

Chapter 17.30, Standards for all Development and Land Uses, of the City's Coastal Land Use and Development Code expands upon the zoning district development standards of Article 2 by addressing additional details of site planning, project design, and the operation of land uses. The intent of these standards is to ensure that proposed development is compatible with existing and future development on neighboring properties, and produces an environment of stable and desirable character, consistent with the General Plan, Local Coastal Program, and any applicable specific plan.

Chapter 17.38, Signs, of the City's Coastal Land Use and Development Code aims to:

A. Avoid traffic safety hazards to motorists, bicyclists, and pedestrians, caused by visual distractions and obstructions;
B. Promote the aesthetic and environmental values of the community by providing for signs that do not impair the attractiveness of the City as a place to live, work, and shop;
C. Provide for signs as an effective channel of communication, while ensuring that signs are aesthetically proportioned in relation to adjacent structures and the structures to which they are attached;
D. Safeguard and protect the public health, safety, and general welfare; and
E. Advance community design standards and safety standards as set forth in the Community Design and Safety Elements of the General Plan.

Animated signs, including electronic message display signs, and variable intensity, blinking, or flashing signs, or signs that emit a varying intensity of light or color, except time and temperature displays (which are not considered signs), are prohibited. Additionally, Section 17.38.060(H) of the Code governs sign lighting in order to minimize light and glare on surrounding rights-of-way and properties.

3.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). In an urbanized area, conflict with applicable zoning and other regulations governing scenic quality;
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Project implementation would not result in substantial adverse effects on a scenic vista (Less than Significant)

The Project would not have a substantial adverse effect on a scenic vista. Per Map CD-1 of the City's Community Design Element of the Coastal General Plan, the proposed Project is not located in an area designated as having "potential scenic views toward the ocean or the Noyo River".

The Project site is not located "along the ocean" or within a "scenic coastal area" within the meaning of Coastal General Plan Policy CD 1.1, which provides that "[p]ermitted development shall be designed and sited to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance scenic views in visually degraded areas." Rather, the Project site is located on the landward side of State Highway 1, and there is intervening visually obtrusive commercial development between the site and State Highway 1.

The proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site, where views looking to the west toward the Pacific Ocean are blocked by the existing Super 8 hotel, west of the Project site, which is the direction in which the Pacific Ocean and landscapes immediately adjacent to the coast are located. There are limited views of the Pacific Ocean through the Project site from S. Franklin Street along the north boundary as these views

extend through numerous parcels, including an existing Chevron gas station and the undeveloped Mill Project site to the west of State Highway 1. These views are interrupted by two large trees, which substantially obscure pedestrians' and drivers' views of the ocean. The 'keyhole' view is also dependent on the future development patterns of these sites. The vacant Mill Project site could be developed under existing zoning, and a new structure could completely block the existing interrupted view of the Chevron Station and ocean.

The market's public entrance would face South Franklin Street mid-block. The proposed building parapet height would be approximately 24 feet above sidewalk level on the south side and just over 25 feet at the north side due to the lower sidewalk elevation on the north side. The proposed building setback from South Street is 18 feet and 7 inches from the property line. The proposed building setback from South Franklin Street is 10 feet. The West side of the building adjacent to the motel would be setback 24 feet and 1 inch, which is in excess of the required 20 feet setback. A mature cypress tree along the West site boundary would be protected during construction and retained.

There are currently vacant parcels across the street to the north and the east. There is also a vacant parcel between the Chevron/Taco Bell and the site. The surrounding neighborhood land uses include Highway Visitor Commercial to the west and south, General Commercial to the north and east, and Office Commercial to the Northeast. One block further to the east is Low Density Residential, and High Density Residential uses are located four blocks to the east.

VISUAL SIMULATIONS

Visual simulations are a standardized representation of proposed projects shown in context of the surroundings. The purpose of the visual simulations for the proposed Project is to provide the community and decision makers an impartial visual representation of the proposed grocery store in neighborhood context alongside a photo of existing conditions. Visual simulations of the proposed grocery store are shown in Figures 3.1-1 through 3.1-4.

The visual simulations were created by photo collage method that combines a rendered scale model view of the proposed housing facility with a photograph of the site and context. A normal (50 millimeter planar) lens was used to photograph the site from several vantage points and the same angle of view and eye height was used in the model to create the renderings. Several ground and aerial references were placed in the scene for position and height accuracy verification.

VISUAL ANALYSIS OF SIMULATIONS

Several established design criteria exist for evaluating buildings in neighborhoods. The most fundamental visual considerations are what the Project would present to the community from a visual and social perspective (or, how the proposed design address community interests and mitigates neighborhood concerns).

Specific design elements and the general design approach for the proposed Project appear to fit the surrounding neighborhood environment. The building envelope would be set back from the sidewalks with a softscape interface. The building would be setback further than required by zoning

constraints. It is desirable for buildings to face the street, and for building architecture and streetscape improvements to establish clear visual definition of the public right of way. Pedestrian scale appropriate for the area would be established with the combination of building articulation, varied roof heights, application of contrasting wood siding, wood shingles, colored concrete unit masonry, and stone exterior finish materials, fenestration (doors and windows) pattern, and scale and the use of a wood trellis at the market entry.

Consistent with the General Plan, the immediate neighborhood is zoned for commercial uses and may be developed at a similar height over time. The proposed building is slightly shorter in height than the existing building. As noted above, the proposed building parapet height would be approximately 24 feet above sidewalk level on the south side and just over 25 feet at the north side due to the lower sidewalk elevation on the north side. The buildings in the Project area are one to two stories in height. Similar size buildings could be developed across South Street and South Franklin Street on the currently vacant lots in the future that would balance the building massing along the streets. This would have the effect of giving stronger visual definition to the street and the intersection. Additionally, planting street trees at regular intervals on both sides of the streets is a cost-effective visual intervention. Street trees that are spaced regularly on both sides of the street increasingly contribute to the sense of visual enclosure and affect the aspect ratio and visual definition as they mature.

The proposed Grocery Outlet building would provide architectural interest at street level and would not present blank facades to any public way. The market has architectural design elements that wrap around the building on four sides. There would be strong visual connection between private and public space because of the placement of large windows, whether true or faux, landscaping design, trellis at the entry and building entrance facing the street with good pedestrian access from the sidewalk. Generally, windows, false windows, and balconies on facades facing the public way help create the perception that someone could appear to look out on the street and support a perceived sense of “eyes on the street” increasing a feeling of security in the neighborhood.

The proposed project and neighborhood context were studied with the goal of representing typical daytime visual experiences of neighbors, community members and visitors to the area. Nine camera locations were photographed, considered, and narrowed down to four views from which to create the visual simulations. Visual simulations of the proposed grocery store are shown in Figures 3.1-1 through 3.1-4.

View A: View A was photographed from in front of the Harbor Lite Lodge looking North. The building would be set back from North Harbor Drive, further than the existing structure. The parking lot would be visually prominent. A continuous hedge is shown on the site plan, which would function as a parking lot screen. Pylon signage, typical for Grocery Outlet, is absent in the design to respect local preferences. The building entry would be easy to identify because of the hip roof, the trellis, and the angled nature to the street. Building articulation on the south and east façades helps to establish human scale appropriate for Fort Bragg.

View B: View B was photographed from in front of the County Social Services site as shown on the key map on the exhibit. Façade articulation establishes a human scale and visual interest at

pedestrian level. Specific design elements employed to accomplish this include wall articulation, varied roof heights, lower gable roofs and pilasters, varied finish materials, and large divided lite windows. The increased setbacks that would be softscaped from the back of sidewalk to the building help reduce perceived building scale and help the neighborhood transition to single family homes.

View C: View C was photographed from in front of the motel sign on South Street. This view was chosen to show the relationship with the residential neighborhood a block away. The design elements used on the South Franklin Street frontage including softscaping would be continued along South Street and wrap around the west side of the building to the screened loading area. Setbacks along this street that serves as an entry to the residential area would be greater than on South Franklin Street.

View D: View D was photographed from across the street from the existing driveway on South Franklin Street. This view was chosen to show the visibility of the horizon over the ocean when viewed across the existing onsite parking area and the Chevron site looking West. The simulation was done at a 5.5 feet eye height. The horizon over the ocean is just visible between the existing building and the cypress tree just above the distant fence line.

CONCLUSIONS

Clear design effort was made to minimize the visual impact of the proposed grocery store building in the current setting through the use of exterior materials variation, large windows on three sides, significant use of architectural detail and building envelope articulation, and the absence of large scale signage. Site organization would place the most active sides of the market furthest from the residential areas.

The proposed Project would be subject to the policies and goals of the Fort Bragg General Plan, Citywide Design Guidelines, as well as the City's Standards for all Development and Land Uses outlined in Chapter 17.30 of the Municipal Code. The Citywide Design Guidelines complement the standards contained in the City of Fort Bragg Inland Land Use and Development Code, and the Coastal Land Use and Development Code by providing good examples of appropriate design solutions, and by providing design interpretations of the various regulations. Chapter 17.30, Standards for all Development and Land Uses, of the City's Coastal Land Use and Development Code expands upon the zoning district development standards of Article 2 by addressing additional details of site planning, project design, and the operation of land uses. The intent of these standards is to ensure that proposed development is compatible with existing and future development on neighboring properties, and produces an environment of stable and desirable character, consistent with the General Plan, Local Coastal Program, and any applicable specific plan.

While the proposed Project would permanently convert the developed site from a vacant building to a new grocery store building, the Project site is designated for and consistent with the use established by the General Plan for the site. Overall, this is considered a ***less than significant*** impact.

Impact 3.1-2: Project implementation would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (Less than Significant)

The proposed Project would be located on city streets and not along any highway. Neither of the two highways near the Project site, State Highway 1 and State Highway 20, are state scenic highways. Per Caltrans Scenic Highway System Lists, State Highway 1 and State Highway 20 are eligible state scenic highways, although they have not been designated as scenic (Caltrans, 2019). Additionally, the proposed Project would be separated from State Highway 1 by an existing hotel and gas station. Although the proposed Project would likely be visible from State Highway 1, it would only be visible behind the existing commercial development. This view is east of State Highway 1 and away from the Pacific Ocean. In addition, the existing vacant former office building slated to be demolished is not listed on any local, state, or federal historic list or registry, as it was constructed sometime between 1996 and 1998 as indicated in the Cultural Survey, prepared by Genesis Society, dated August 15, 2019.

As previously mentioned, the southern portion of the Project site is approximately one-third bare soil but is otherwise vegetated with annual grasses and forbs, with scattered shrubs. The northern portion is almost completely paved or developed with an existing structure; however, the northern property boundary has ornamental landscaping. The existing vegetation would be removed for the development of the new building, parking lot, and the Project site's landscaping. The existing vegetation was likely planted as ornamental landscaping around the existing parking lot, and is not part of a natural scenic landscape. The replacement of the existing vegetation with landscaping selected for the local climate, including the planting of 37 new trees, would not be anticipated to damage any existing scenic resources on Project site, such as existing trees or rock outcroppings. A ***less than significant*** impact would occur.

Impact 3.1-3: Project implementation would not conflict with an applicable zoning or other regulation governing scenic quality within an urbanized area. (Less than Significant)

The CEQA definition for an "Urbanized area" means a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. In addition, to be considered an Urbanized area according to CEQA, projects must also be within the boundary of a map prepared by the U.S. Bureau of the Census which designates the area as urbanized area. The Census Bureau identifies two types of urban areas: (1) Urbanized Areas (UAs) of 50,000 or more people; and (2) Urban Clusters (UCs) of at least 2,500 and less than 50,000 people. According to the U.S. Bureau of the Census, the City of Fort Bragg, which includes the Project site, is mapped and designated as an Urbanized Cluster. Therefore, the Project site is located in an urbanized area.

The proposed Project would replace an existing structure with one of approximately the same size. While development of the proposed Project would change and alter the existing visual character of the Project site, these changes would not degrade the visual quality of the site or the surrounding

areas. The proposed building incorporates a mix of materials, architectural features, varied roof lines, building recesses and articulation which provide visual interest and maintain the City's urban character.

Various temporary visual impacts could occur as a result of construction activities as the Project develops, including grading, equipment and material storage, and staging. Though temporary, some of these impacts could last for several weeks or months during any single construction phase. The loss of existing landscaping and trees would also be a temporary impact until new landscaping matures. Because impacts would be temporary and viewer sensitivity in the majority of cases would be slight to moderate, significant impacts would not occur.

As previously mentioned, the proposed Project is not located in an area designated as having "potential scenic views toward the ocean or the Noyo River". The proposed retail store would occupy a location similar to that of the existing structure on the northern portion of the Project site, where views looking to the west toward the Pacific Ocean are blocked by the existing hotel, west of the Project site. Views to the Project site are currently dominated by the existing former office building and associated parking lot, which has been vacant since 2010. The southern portion of the Project site is partially bare, with vegetation consisting of grasses and forbs, with scattered shrubs. Existing views to the Project site are not characterized as scenic; therefore, the proposed Project is not anticipated to substantially degrade the existing visual character or quality of the public views of the Project site and its surroundings, as the height of the proposed retail store would be consistent with the Project site's existing development and would comply with all required development standards, including maximum building height. Although the Project site is located on urban and built-up land per the California Department of Conservation, the Project is not located in an "urbanized area," as defined by either Public Resources Code section 21071 or CEQA Guidelines section 15387.

The proposed Project would be consistent with the Fort Bragg Coastal General Plan, and would adhere to the requirements of the City's site plan and architectural approval process. Therefore, this is considered a ***less than significant*** impact.

Impact 3.1-4: Project implementation would not result in substantial light or glare which would adversely affect day or nighttime views in the area. (Less than Significant)

The Project site is currently mostly developed and contains one vacant building with associated parking. Existing lighting at the Project site includes exterior building lighting, interior building lighting, and street lighting. There is a potential for the proposed Project to create new sources of light and glare, although the amount of light and glare would likely be similar to the existing conditions in the immediate vicinity of the Project site. Examples of lighting would include construction lighting, exterior building lighting, interior building lighting, and automobile lighting. Examples of glare would include reflective building materials and automobiles.

The proposed Project has the potential to increase light and glare and impact nighttime views as compared to existing conditions, as the Project site's current development consists of a former office

building that has been vacant since 2010. A six-foot illuminated monument sign on the southeast corner of the Project site is proposed, in addition to an 83.3 sf illuminated channel sign located on the sign parapet along the front elevation of the retail store. All exterior lighting would be limited to a maximum height of 18 feet and utilize energy-efficient fixtures and lamps. No permanently installed lighting would blink, flash, or be of unusually high intensity or brightness. Exterior lighting would be shielded or recessed and directed downward and away from adjoining properties and public right-of-way to reduce light bleed so that no on-site light fixture directly illuminates an area off-site, in compliance with regulations set by the International Dark-Sky Association.

To minimize potential impacts associated with light and glare on surrounding development, the proposed Project includes exterior lighting that would utilize energy-efficient fixtures and lamps, shielded or recessed, and directed downward in compliance with regulations set by the International Dark-Sky Association. Outdoor lighting would be installed in conformance with all City codes and ordinances, applicable safety and illumination requirements, and California Title 24 requirements. As noted previously in the Regulatory Setting, the classification for Title 24 lighting regulations is based on population figures of the 2010 Census. Areas can be designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban). The Project site is located in zone LZ3. Additionally, the Project would be subject to the 2022 Citywide Design Guidelines, which contain standards for lighting. Further, according to the Site Lighting Layout and associated illuminance analysis, proposed lighting would not penetrate into residential communities or adjacent properties. Through the design review and approval process, lighting proposed for the Project site would be reviewed to ensure spillover lighting onto adjacent properties would be minimized.

Vehicle parking would occur along the perimeter of the Project site and could create new sources of glare. However, parked vehicles within the Project site would be screened from view by the proposed landscaping, proposed building, and existing adjacent building to the west of the site. The proposed driveway exit is located opposite vacant land that is designated for future commercial development. Thus, significant impacts from the potential glare from parked vehicles within the site are not anticipated.

The following materials are proposed on the exterior walls of the proposed grocery store building: smooth face concrete masonry units, Hardie Board composite wood paneling and half round “fish scale” paneling, wood roof shingles, and cultured stone (country ledgestone). These finishing types typically do not induce significant glare impacts. Windows would remain clear glass for lighting a view out. The window and door treatments give homage to the smaller shops along the main downtown street’s detailing as well as the Hardie Board (wood composite) wood paneling, masonry, and providing a variety of the materials on the elevations to add visual interest. Windows traditionally have the highest potential of resulting in glare impacts.

The proposed Project would be required to comply with the Citywide Design Guidelines and Section 17.38.060(H) of the Code governs sign lighting in order to minimize light and glare on surrounding rights-of-way and properties.

Overall, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 3.1-1.
Visual Simulation View A

EXISTING



PROPOSED



CAMERA LOCATION



Field of View: 46 degrees (Zeiss 50/f1.4 Planar lens)
View Origin and Direction shown above
Shadows: 2:15 PM 23 June 2022

Source: Carl M. Maxey, AICP, Architect, July 15, 2022. Map date: July 22, 2022.

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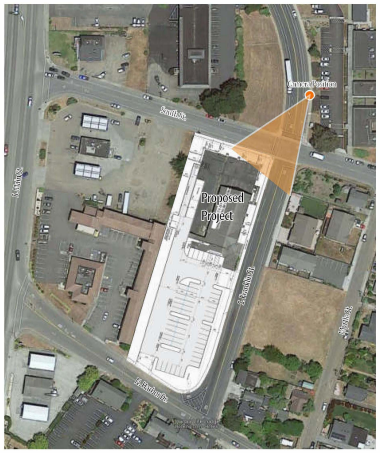
FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 3.1-2.
Visual Simulation View B





CAMERA LOCATION



Field of View: 46 degrees (Zeiss 50/f1.4 Planar lens)
View Origin and Direction shown above
Shadows: 2:00 PM 23 June 2022

Source: Carl M. Maxey, AICP, Architect, July 15, 2022. Map date: July 22, 2022.

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FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 3.1-3.
Visual Simulation View C





CAMERA LOCATION



Field of View: 46 degrees (Zeiss 50/f1.4 Planar lens)
View Origin and Direction shown above
Shadows: 2:30 PM 23 June 2022

Source: Carl M. Maxey, AICP, Architect, July 15, 2022. Map date: July 22, 2022.

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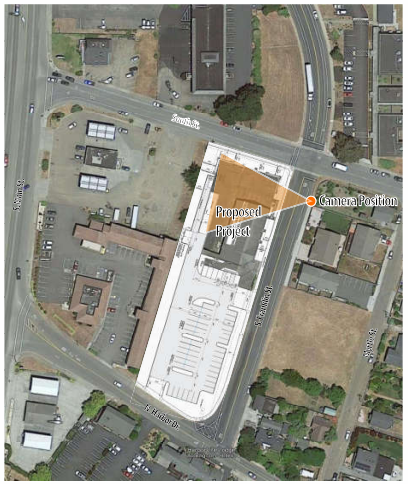
FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 3.1-4.
Visual Simulation View D





CAMERA LOCATION



Field of View: 46 degrees (Zeiss 50/f1.4 Planar lens)
View Origin and Direction shown above
Shadows: 2:30 PM 23 June 2022
5.5 Ft. Eye Height above Sidewalk

Source: Carl M. Maxey, AICP, Architect, July 15, 2022. Map date: July 22, 2022.

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This section describes the regional air quality, current attainment status of the air basin, local sensitive receptors, emission sources, and impacts that are likely to result from Project implementation. The analysis contained in this section is intended to be at a project-level, and covers impacts associated with the conversion of the entire site to urban uses. Following this discussion is an assessment of consistency of the proposed Project with applicable policies and local plans. The Greenhouse Gases and Climate Change analysis is located in a separate section of this document. This section is based in part on the following technical studies: *Air Quality and Land Use Handbook: A Community Health Perspective* (California Air Resources Board [CARB], 2007), *Mendocino County Air Quality Management District – Adopted Air Quality CEQA Thresholds of Significance- June 2, 2010* and CalEEMod *(v.2020.4.0)*.

One comment was received during the public review period for the Notice of Preparation regarding this topic from Leslie Kashiwada (June 20, 2022). The portion of this comment related to this topic is addressed within this section. Full comments received are included in Appendix A.

3.2.1 ENVIRONMENTAL SETTING

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the Mendocino County Air Quality Management District (MCAQMD), which encompasses the Project Site, pursuant to the regulatory authority of the MCAQMD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project Area.

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. Mendocino County lies in the North Coast Air Basin (NCAB), which includes Del Norte, Humboldt, Trinity, Mendocino, and northern Sonoma counties. Mendocino County lies entirely within the Coast Range Geomorphic Province of California with a western limit marked by the Pacific Ocean. The province is characterized by a series of northwest-trending mountain ranges and intervening canyons or valleys. The eastern portion of Mendocino County is characterized by warm, dry summers and cool, wet winters. While the Pacific Ocean moderates temperature, maritime influences in the eastern valleys are lower. Climate becomes more continental due to the distance from the ocean and the mountain ridges that block the inland flow of marine air.

Prevailing winds are from the northwest, with local variations due to topography. During daylight hours, up-canyon local winds predominate. In the evening hours, down-canyon winds along watercourses predominate. The entire county is affected by inversion layers, where warm air overlays cooler air. Inversion layers trap pollutants close to the ground. In the winter, these

pollutant-trapping, ground-based inversions are formed during windless, clear-sky conditions because cold air collects in low-lying areas such as valleys and canyons. Mendocino County has a high frequency of both ground-based and elevated inversions. During the winter months, strong inversions that persist for several days at a time are common.

Both the U.S. Environmental Protection Agency (USEPA) and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are O_3 (precursor emissions include nitrogen oxide [NOx] and reactive organic gases [ROG]), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The Mendocino County portion of the NCAB is designated as nonattainment for the state standards of PM_{10} and is in attainment or unclassified for state and federal standards for all other air quality emissions (CARB 2019). Further detail on these criteria pollutants is discussed below.

The MCAQMD's primary responsibility is ensuring that the federal and state ambient air quality standards are attained and maintained in the NCAB. The MCAQMD is responsible for permitting and inspection of stationary sources, enforcement of regulations (including setting fees, levying fines, and enforcement actions), and ensuring that public nuisances are minimized. MCAQMD Regulation 4, Particulate Matter Reduction Measures, would apply to construction operations for the Project. This Regulation contains general limitations associated with air emission source operations including those relating to public nuisance, visible emissions, particulate matter emissions, and fugitive dust.

CRITERIA POLLUTANTS

All criteria pollutants can have human health and environmental effects at certain concentrations. The United States Environmental Protection Agency (U.S. EPA) uses six "criteria pollutants" as indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). In addition, California establishes ambient air quality standards, called California Ambient Air Quality Standards (CAAQS). California law does not require that the CAAQS be met by a specified date as is the case with NAAQS.

The ambient air quality standards for the six criteria pollutants (as shown in Table 3.2-1) are set to public health and the environment within an adequate margin of safety (as provided under Section 109 of the Federal Clean Air Act). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards. Principal characteristics and possible health and environmental effects from exposure to the six primary criteria pollutants generated by the Project are discussed below.

Ozone (O_3) is a photochemical oxidant and the major component of smog. While O_3 in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O_3 at ground level are a major health and environmental concern. O_3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (ROG) and oxides of nitrogen (NO_x) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O_3 levels occur typically during the warmer times of the year. Both ROGs and NO_x are emitted by transportation and industrial sources. ROGs are emitted from sources as diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents. Relatedly, reactive organic compounds (ROG) are defined as the subset of ROGs that are reactive enough to contribute substantially to atmospheric photochemistry.

The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O_3 for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S. EPA, 2019a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. EPA, 2019b). The average background level of ozone in California and Nevada is approximately 48.3 parts per billion, which represents approximately 77 percent of the total ozone in the western region of the U.S. (NASA, 2015).

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. O_3 can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon in fuels. Carbon monoxide is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle

leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects to ambient CO (CARB, 2019a).

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (U.S. EPA, 2016). Such acute effects may occur under current ambient conditions for some sensitive individuals, while increases in ambient CO levels increases the risk of such incidences.

Nitrogen oxides (NO_x) is a brownish, highly reactive gas that is present in all urban atmospheres. The main effect of increased NO_2 is the increased likelihood of respiratory problems. Under ambient conditions, NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O_3) and acid rain and may affect both terrestrial and aquatic ecosystems. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO_2.

The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO_x). NO_x plays a major role, together with ROGs, in the atmospheric reactions that produce O_3. NO_x forms when fuel is burned at high temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

Sulfur dioxide (SO_2) is one of the multiple gaseous oxidized sulfur species and is formed during the combustion of fuels containing sulfur, primarily coal and oil. The largest anthropogenic source of SO_2 emissions in the U.S. is fossil fuel combustion at electric utilities and other industrial facilities. SO_2 is also emitted from certain manufacturing processes and mobile sources, including locomotives, large ships, and construction equipment.

SO_2 affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children and the elderly. SO_2 is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. This is especially noticeable in national parks. Ambient SO_2 results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills and from nonferrous smelters.

Short-term exposure to ambient SO_2 has been associated with various adverse health effects. Multiple human clinical studies, epidemiological studies, and toxicological studies support a causal relationship between short-term exposure to ambient SO_2 and respiratory morbidity. The observed health effects include decreased lung function, respiratory symptoms, and increased emergency department visits and hospitalizations for all respiratory causes. These studies further suggest that people with asthma are potentially susceptible or vulnerable to these health effects. In addition, SO_2 reacts with other air pollutants to form sulfate particles, which are constituents of fine particulate matter ($PM_{2.5}$). Inhalation exposure to $PM_{2.5}$ has been associated with various cardiovascular and respiratory health effects (U.S. EPA, 2017). Increased ambient SO_2 levels would lead to increased risk of such effects.

SO_2 emissions that lead to high concentrations of SO_2 in the air generally also lead to the formation of other sulfur oxides (SOx). SOx can react with other compounds in the atmosphere to form small particles. These particles contribute to particulate matter (PM) pollution. Small particles may penetrate deeply into the lungs and in sufficient quantity can contribute to health problems.

Particulate matter (PM) includes dust, dirt, soot, smoke and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO_2 and ROGs are also considered particulate matter. PM is generally categorized based on the diameter of the particulate matter: PM_{10} is particulate matter 10 micrometers or less in diameter (known as respirable particulate matte*r*), and $PM_{2.5}$ is particulate matter 2.5 micrometers or less in diameter (known as fine particulate matter).

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO_2) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death. Small particulate pollution causes health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed.

Respirable particulate matter (PM_{10}) consists of small particles, less than 10 microns in diameter, of dust, smoke, or droplets of liquid which penetrate the human respiratory system and cause irritation by themselves, or in combination with other gases. Particulate matter is caused primarily by dust from grading and excavation activities, from agricultural activities (as created by soil preparation activities, fertilizer and pesticide spraying, weed burning and animal husbandry), and from motor vehicles, particularly diesel-powered vehicles. PM_{10} causes a greater health risk than larger particles, since these fine particles can more easily penetrate the defenses of the human respiratory system.

$PM_{2.5}$ consists of fine particles, which are less than 2.5 microns in size. Similar to PM_{10}, these particles are primarily the result of combustion in motor vehicles, particularly diesel engines, as well as from industrial sources and residential/agricultural activities such as burning. It is also formed through the reaction of other pollutants. As with PM_{10}, these particulates can increase the chance of

respiratory disease, and cause lung damage and cancer. In 1997, the U.S. EPA created new Federal air quality standards for $PM_{2.5}$.

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children. Particulate matter also impacts soils and damages materials and is a major cause of visibility impairment.

Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lunch function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in $PM_{2.5}$ results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District, 2017). Long-term exposures, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis – and even premature death. Additionally, depending on its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. EPA, 2019c).

Lead (Pb) exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil or dust. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders. Low doses of Pb can lead to central nervous system damage. Recent studies have also shown that Pb may be a factor in high blood pressure and subsequent heart disease.

Lead is persistent in the environment and can be added to soils and sediments through deposition from sources of lead air pollution. Other sources of lead to ecosystems include direct discharge of waste streams to water bodies and mining. Elevated lead in the environment can result in decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

Lead exposure is typically associated with industrial sources; major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters. As a result of the U.S. EPA's regulatory efforts, including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014 (U.S. EPA, 2019d). Based on this reduction of lead in the air over this period, and since most new developments do not generate an increase in lead exposure, the health impacts of ambient lead levels are not typically monitored by the California Air Resources Board (CARB).

AMBIENT AIR QUALITY STANDARDS

Both the U.S. EPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and State ambient air quality standards are summarized in Table 3.2-1 for important pollutants. The federal and State ambient standards were developed independently, although both processes attempted to avoid health-related effects. As a result, the federal and State standards differ in some cases. In general, the California standards are more stringent. This is particularly true for ozone, $PM_{2.5}$, and PM_{10}. The U.S. EPA signed a final rule for the federal ozone eight-hour standard of 0.070 ppm on October 1, 2015, and was effective as of December 28, 2015 (equivalent to the California state ambient air quality eight-hour standard for ozone).

In 1997, new national standards for fine particulate matter diameter 2.5 microns or less ($PM_{2.5}$) were adopted for 24-hour and annual averaging periods. The existing PM_{10} standards were retained, but the method and form for determining compliance with the standards were revised.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

TABLE 3.2-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

POLLUTANT	*AVERAGING TIME*	*FEDERAL PRIMARY STANDARD*	*STATE STANDARD*
Ozone	1-Hour	--	0.090 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.03 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.030 ppm	--
	24-Hour	0.140 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	--	20 ug/m^3
	24-Hour	150 ug/m^3	50 ug/m^3
$PM_{2.5}$	Annual	12 ug/m^3	12 ug/m^3
	24-Hour	35 ug/m^3	--
Lead	30-Day Avg.	--	1.5 ug/m^3
	3-Month Avg.	0.15 ug/m^3	--

NOTES: PPM = PARTS PER MILLION, UG/M^3 = MICROGRAMS PER CUBIC METER

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2019B.

Existing air quality concerns within Mendocino County and the entire air basin are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air contaminants, odors, and increases in greenhouse gas emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles which account for 70 percent of the

ozone in the region. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke which is emitted from fireplaces, wood-burning stoves, and agricultural burning.

Attainment Status

In accordance with the California Clean Air Act (CCAA), the CARB is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone, carbon monoxide, and nitrogen dioxide as "does not meet the primary standards," "cannot be classified," or "better than national standards." For sulfur dioxide, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used.

Mendocino County has a State designation Attainment or Unclassified for all criteria pollutants except for PM_{10}. Mendocino County has a national designation of either Unclassified or Attainment for all criteria pollutants. Table 3.2-2 presents the state and nation attainment status for Mendocino County.

TABLE 3.2-2: STATE AND NATIONAL ATTAINMENT STATUS IN MENDOCINO COUNTY

CRITERIA POLLUTANTS	*STATE DESIGNATIONS*	*NATIONAL DESIGNATIONS*
Ozone (O_3)	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Attainment	Unclassified/Attainment
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2022.

Mendocino County Air Quality Monitoring

The MCAQMD and the CARB maintain air quality monitoring sites throughout Mendocino County that collect data for ozone and $PM_{2.5}$. In addition, air quality monitoring sites for PM_{10} are located throughout the North Coast Air Basin (though not in Mendocino County). It is important to note that while the State retains the one-hour standard, the federal ozone 1-hour standard was revoked by the U.S. EPA and is no longer applicable for federal standards. Best available data obtained from the monitoring sites between 2018 and 2020 (latest year of data available) is shown in Table 3.2-3, Table 3.2-4, and Table 3.2-5.

TABLE 3.2-3 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (MENDOCINO COUNTY) - OZONE

YEAR	DAYS > STANDARD				1-HOUR OBSERVATIONS			8-HOUR AVERAGES				YEAR COVERAGE	
	STATE		NATIONAL			STATE	NAT'L	STATE		NATIONAL			
	1-HR	8-HR	1-HR	8-HR	MAX.	D.V.[1]	D.V.[2]	MAX.	D.V.[1]	MAX.	D.V.[2]	MIN	MAX
2020	0	0	0	0	0.088	0.07	0.075	0.062	0.062	0.062	0.054	98	98
2019	0	0	0	0	0.062	0.07	0.070	0.055	0.060	0.054	0.053	95	95
2018	0	0	0	0	0.075	0.07	0.070	0.060	0.059	0.060	0.052	99	99

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. THE NATIONAL 1-HOUR OZONE STANDARD WAS REVOKED IN JUNE 2005 AND IS NO LONGER IN EFFECT. STATISTICS RELATED TO THE REVOKED STANDARD ARE SHOWN IN ITALICS. D.V. [1]= STATE DESIGNATION VALUE. D.V. [2]= NATIONAL DESIGN VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.2-4: AMBIENT AIR QUALITY MONITORING DATA SUMMARY (NORTH COAST AIR BASIN) – PM_{10}

YEAR	EST. DAYS > STD.		ANNUAL AVERAGE		HIGH 24-HR AVERAGE		YEAR COVERAGE
	NAT'L	STATE	NAT'L	STATE	NAT'L	STATE	
2020	2.1	6.4	21.3	16.3	189.8	196.2	0 - 0
2019	0.0	1.0	15.1	13.0	85.6	86.6	0 – 0
2018	2.1	13.5	18.6	19.3	259.1	278.6	0 – 0

NOTES: THE NATIONAL ANNUAL AVERAGE PM_{10} STANDARD WAS REVOKED IN DECEMBER 2006 AND IS NO LONGER IN EFFECT. AN EXCEEDANCE IS NOT NECESSARILY A VIOLATION. STATISTICS MAY INCLUDE DATA THAT ARE RELATED TO AN EXCEPTIONAL EVENT. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. NATIONAL STATISTICS ARE BASED ON STANDARD CONDITIONS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. ND=THERE WAS INSUFFICIENT (OR NO) DATA AVAILABLE TO DETERMINE THE VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.2-5 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (MENDOCINO COUNTY) - $PM_{2.5}$

YEAR	EST. DAYS > NAT'L '06 STD.	ANNUAL AVERAGE		NAT'L ANN. STD. D.V.[1]	STATE ANNUAL D.V.[2]	NAT'L '06 STD. 98TH PERCENTILE	NAT'L '06 24-HR STD. D.V.[1]	HIGH 24-HOUR AVERAGE		YEAR COVERAGE	
		NAT'L	STATE					NAT'L	STATE	MIN	MAX
2020	21.0	12.4	12.8	9.2	13	62.2	46	433.8	433.8	100	100
2019	0.0	6.0	6.0	8.9	11	15.9	36	24.7	24.7	98	99
2018	20.3	11.3	11.4	9.1	11	59.5	36	263.2	263.2	99	99

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. STATE CRITERIA FOR ENSURING THAT

DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. D.V. [1] = STATE DESIGNATION VALUE. D.V. [2]= NATIONAL DESIGN VALUE
SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

ODORS

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals, and schools. The closest sensitive receptors to the Project site include existing residences located directly east of the Project site.

3.2.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The U.S. EPA is responsible for administering the FCAA. The FCAA requires the U.S. EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health (with an adequate margin of safety, including for sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases), and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and $PM_{2.5}$ ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

NAAQS standards have been designed to accurately reflect the latest scientific knowledge and are reviewed every five years by a Clean Air Scientific Advisory Committee (CASAC), consisting of seven members appointed by the U.S. EPA administrator. Reviewing NAAQS is a lengthy undertaking and includes the following major phases: Planning, Integrated Science Assessment (ISA), Risk/Exposure Assessment (REA), Policy Assessment (PA), and Rulemaking. The process starts with a comprehensive review of the relevant scientific literature. The literature is summarized and conclusions are presented in the ISA. Based on the ISA, U.S. EPA staff perform a risk and exposure assessment, which is summarized in the REA document. The third document, the PA, integrates the findings and conclusions of the ISA and REA into a policy context, and provides lines of reasoning that could be used to support retention or revision of the existing NAAQS, as well as several alternative standards that could be supported by the review findings. Each of these three documents is released for public comment and public peer review by the CASAC. Members of CASAC are appointed for their expertise in one or more of the subject areas covered in the ISA. The CASAC's role is to peer review the NAAQS documents, ensure that they reflect the thinking of the scientific community, and advise the Administrator on the technical and scientific aspects of standard setting. Each document goes through two to three drafts before CASAC deems it to be final.

Although there is some variability among the health effects of the NAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations

and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. NAAQS standards were last revised for each of the six criteria pollutant as listed below, with detail on what aspects of NAAQS changed during the most recent update:

- Ozone: On October 1, 2015, the U.S. EPA lowered the national eight-hour standard from 0.075 ppm to 0.070 ppm, providing for a more stringent standards consistent with the current California state standard.
- CO: In 2011, the primary standards were retained from the original 1971 level, without revision. The secondary standards were revoked in 1985.
- NO_2: The national NO_2 standard was most recently revised in 2010 following an exhaustive review of new literature that pointed to evidence for adverse effects in asthmatics at lower NO_2 concentrations than the existing national standard.
- SO_2: On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99^{th} percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb.
- PM: the national annual average $PM_{2.5}$ standard was most recently revised in 2012 following an exhaustive review of new literature pointed to evidence for increased risk of premature mortality at lower $PM_{2.5}$ concentrations than the existing standard.
- Lead: The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. In 2016, the primary and secondary standards were retained.

The law recognizes the importance for each state to locally carry out the requirements of the FCAA, as special consideration of local industries, geography, housing patterns, etc. are needed to have full comprehension of the local pollution control problems. As a result, the U.S. EPA requires each state to develop a State Implementation Plan (SIP) that explains how each state will implement the FCAA within their jurisdiction. A SIP is a collection of rules and regulations that a particular state will implement to control air quality within their jurisdiction. The CARB is the state agency that is responsible for preparing the California SIP.

Transportation Control Measures

One particular aspect of the SIP development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are aimed at reducing emissions from stationary sources, some are typically also created to address mobile or transportation sources. These are known as transportation control measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

STATE

CARB Mobile-Source Regulation

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, the CARB motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, the CARB has adopted regulations which require auto manufacturers to phase in less polluting vehicles.

California Clean Air Act

The California Clean Air Act (CCAA) was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the state's air quality goals, planning and regulatory strategies, and performance. The CARB is the agency responsible for administering the CCAA. The CARB established ambient air quality standards pursuant to the California Health and Safety Code (CH&SC) [§39606(b)], which are similar to the federal standards.

California Air Quality Standards

Although NAAQS are determined by the U.S. EPA, states have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards. Federal and state ambient air quality standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates and lead. In addition, California has created standards for pollutants that are not covered by federal standards. Although there is some variability among the health effects of the CAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. The existing state and federal primary standards for major pollutants are shown in Table 3.2-1.

Air quality standard setting in California commences with a critical review of all relevant peer reviewed scientific literature. The Office of Environmental Health Hazard Assessment (OEHHA) uses the review of health literature to develop a recommendation for the standard. The recommendation can be for no change, or can recommend a new standard. The review, including the OEHHA recommendation, is summarized in a document called the draft Initial Statement of Reasons (ISOR), which is released for comment by the public, and also for public peer review by the Air Quality Advisory Committee (AQAC). AQAC members are appointed by the President of the University of California for their expertise in the range of subjects covered in the ISOR, including health, exposure, air quality monitoring, atmospheric chemistry and physics, and effects on plants, trees, materials, and ecosystems. The Committee provides written comments on the draft ISOR. The ARB staff next revises the ISOR based on comments from AQAC and the public. The revised ISOR is then released for a 45-day public comment period prior to consideration by the Board at a regularly scheduled Board hearing.

In June of 2002, the CARB adopted revisions to the PM_{10} standard and established a new $PM_{2.5}$ annual standard. The new standards became effective in June 2003. Subsequently, staff reviewed the published scientific literature on ground-level ozone and nitrogen dioxide and the CARB adopted revisions to the standards for these two pollutants. Revised standards for ozone and nitrogen dioxide went into effect on May 17, 2006 and March 20, 2008, respectively. These revisions reflect the most recent changes to the CAAQS.

Tanner Air Toxics Act (TACs)

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted U.S. EPA's list of hazardous air pollutants (HAPs) as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technologies (BACT) to minimize emissions.

AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, CARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule.

Omnibus Low-NOx Rule

The CARB approved the Omnibus Low-NOx Rule on August 28, 2020, which will require engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty truck and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements. The regulatory requirements in the Omnibus Low-NOX Rule will first become effective in 2024, at the same time as the Advanced Clean Trucks regulations that CARB approved that mandate that manufacturers convert increasing percentages of their heavy-duty trucks sold in California to zero-emission vehicles.

LOCAL

Fort Bragg Coastal General Plan

The Fort Bragg Coastal General Plan includes two policies relevant to air quality. The following policies apply to the proposed Project.

CONSERVATION, OPEN SPACE, ENERGY, AND PARKS ELEMENT

> ***Policy OS-7.1***. Participate in Regional Planning to Improve Air Quality: Continue to cooperate with the Mendocino County Air Quality Management District (MCAQMD) in meeting the Regional Clean Air Plan.
>
> ***Policy OS-7.2***. Air Quality Standards: Seek to comply with State and Federal standards for air quality.

Mendocino County Air Quality Management District

MCAQMD RULES AND REGULATIONS

- Rule 1-400(a) Public Nuisance – This is a general requirement that is applicable to odors as well as other air contaminants. Specifically, the rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or that endanger the comfort, repose, health or safety of any such persons or the public or that cause or have a natural tendency to cause injury or damage to business or property.
- Rule 1-410 Visible Emissions – This applies to any source at the facility and limits visible emissions to no more than 20-percent opacity for more than a 3-minute period in any 1 hour.
- Rule 1-420 Particulate Matter – This rule imposes particulate matter emission rate limitations and is applicable to combustion and non-combustion sources. Combustion sources do not include mobile sources. The Proposed Project will have both combustion and non-combustion sources that would be subject to these requirements.
- Rule 1-430 Fugitive Dust Emissions – This rule requires that (a) all reasonable precautions be taken to prevent particulate matter from becoming airborne and (b) specifies airborne dust control measures that would be required. The Project would be subject to these requirements.

3.2.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Appendix G to the CEQA Guidelines states that "[w]here available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations." Consistent with this approach, and with the

specific questions related to air quality set forth in Appendix G, the proposed Project will have a significant impact on the environment associated with air quality if it will:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

CRITERIA POLLUTANT EMISSIONS MODELING

The MCAQMD recommends that agencies use their adopted CEQA thresholds for projects in Mendocino County. The MCAQMD provides construction and operational-related criteria pollutant thresholds for projects in Mendocino County. The MCAQMD developed these Project-level thresholds based on the emissions that would exceed a CAAQS or contribute substantially to an existing or Projected violation of a CAAQS. Ambient levels of these criteria pollutants are likely to decrease in the future, based on current and future implementation of federal and/or state regulatory requirements, such as improvements to the statewide vehicle fleet over time (including the long-term replacement of internal combustion engine vehicles with electric vehicles in coming decades). The relevant thresholds for project-related construction and operation-related emissions, are as provided in Table 3.2-6 and Table 3.2-7, respectively, below.

TABLE 3.2-6: AIR QUALITY CONSTRUCTION-RELATED CEQA THRESHOLDS OF SIGNIFICANCE (LBS/DAY)

POLLUTANT	*CO*	*NOX*	*ROG*	*PM_{10} (EXHAUST)*	*$PM_{2.5}$ (EXHAUST)*
THRESHOLD	N/A	54	54	82	54

SOURCES: MCAQMD, 2010.

TABLE 3.2-7: AIR QUALITY OPERATION-RELATED CEQA THRESHOLDS OF SIGNIFICANCE

POLLUTANT	*CO*	*NOX*	*ROG*	*PM_{10}*	*$PM_{2.5}$*
AVERAGE DAILY EMISSIONS (LBS/DAY)					
THRESHOLD	N/A	42	180	82	54
MAXIMUM ANNUAL EMISSIONS (TONS/YEAR)					
THRESHOLD	125	10	10	10	10

SOURCES: MCAQMD, 2010.

CRITERIA POLLUTANT EMISSIONS MODELING

California Emission Estimator Model (CalEEMod)™ (v.2040.4.0), developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with California air districts, was used to estimate emissions for the proposed Project. Project construction was assumed to be completed in 2023.

The assumptions for the modeling: Supermarket (16,160 square feet); Parking Lot (1.18 acres). Vehicle trips and fleet mix estimated in the modeling are consistent with those as provided by KD Anderson in their traffic impact analysis (see Appendix F for further detail). The construction phase includes demolition, site preparation, grading, building construction, paving, and architectural coating phases. See Appendix B.1 for further detail.

The construction schedule modeled in CalEEMod for the proposed project is as follows:[1]

- Demolition: 8/1/2022 – 8/26/2022
- Site Preparation: 8/27/2022 – 8/30/2022
- Grading: 8/31/2022 – 9/5/2022
- Building Construction: 9/6/2022 – 1/23/2023
- Paving: 1/24/2023 – 2/6/2023
- Architectural Coating: 2/7/2023 – 2/20/2023

IMPACTS RELATED TO PROJECT-GENERATED POLLUTANTS OF HUMAN HEALTH CONCERN

In December 2018, the California Supreme Court issued its decision in *Sierra Club v. County of Fresno* (226 Cal.App.4th 704) (hereafter referred to as the Friant Ranch Decision). The case reviewed the long-term, regional air quality analysis contained in the EIR for the proposed Friant Ranch development. The Friant Ranch Project is a 942-acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin. The Court found that the air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The Court's decision clarifies that the agencies authoring environmental documents must make reasonable efforts to connect a Project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants that would be generated by the Project are associated with some form of health risk (e.g., asthma). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and lead (Pb) are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. As discussed above, the primary criteria pollutants of concern generated by the Project are ozone precursors (ROG and NO_x) and PM (including Diesel PM). The MCAQMD does not currently have a methodology that would correlate the expected air quality emissions of Projects to the likely health

[1] It should be noted that the actual construction schedule would be later than the construction schedule modeled in CalEEMod. Therefore, the modeling provides for a more conservative estimate of Project construction-related emissions that is anticipated to actually occur, since State-level regulations that affect construction-related (on- and off-road) vehicle emissions become more stringent over time.

consequences of the increased emissions of these pollutants. Nor is the City aware of any methodology that could make such a correlation for a proposed development as small as the proposed Project. Modeling that could reasonably link secondary pollution formation to specific health effects in a meaningful context from one project *alone* was not readily available for use by lead agencies. These modeling limitations are discussed in more detail below.

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional PM)

Adverse health effects induced by regional criteria pollutant emissions generated by the Project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (ROG and NO_x) contribute to the formation of ground-borne ozone on a regional scale, where emissions of ROG and NO_x generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollutants may be transported over long-distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Appendix B.3 contains a table that summarizes many of these tools, identifies the analyzed pollutants, describes their intended application and resolution, and analyzes whether they could be used to reasonably correlate project-level emissions to specific health consequences. As provided in Appendix B.3, while there are models capable of quantifying ozone and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment cannot be estimated with a high degree of accuracy.

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast Air Quality Management District (SCAQMD), both of which provided amici curiae briefs for the Friant Ranch legal proceedings in the California Supreme Court. In its brief, SJVAPCD (2015) acknowledges that while health risk assessments for localized air toxics, such as DPM, are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task." The air district further notes that emissions solely from the Friant Ranch Project (which equate to less than one-tenth of one percent of the total NO_x and VOC in the Valley) is not likely to yield valid information," and that any such information should not be "accurate when applied at the local level." SCAQMD presents similar information in its brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled

increase in ambient ozone levels"[2]. Notably, the Friant Ranch project involved the construction of approximately 2,500 new homes in a highly polluted air basin, whereas here the proposed Project proposes a single 16,436 square-foot structure in a comparatively clean air basin on a site located very close to the Pacific Ocean.

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. Emissions generated by the Project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations, could lead to increased incidence of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions. As such, a project's incremental contribution cannot be traced to specific health outcomes on a regional scale without speculation, and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis. This is particularly true for a project as small as the proposed Project.

Models and Tools to Correlate Project-generated Criteria Pollutant Emissions to Health Impacts

Although available tools to correlate Project-generated criteria pollutant emissions to health impacts are designed to be used at the national, state, regional, and/or city-levels rather than the project level, this impact analysis includes CalEEMod modeling to identify criteria pollutant emissions that affect health. The higher the emissions generated by a project, the higher the chance that a given individual's health would be affected by the development of a particular project.

The impact analysis does not directly evaluate airborne lead. Neither construction nor future operations would generate quantifiable lead emissions because of regulations that require unleaded fuel and that prohibit lead in new building materials.

TAC emissions associated with Project construction and operation that could affect surrounding areas are evaluated in comparison to OEHHA guidance.[3]

[2] For example, SCAQMD's analysis of its 2012 Air Quality Attainment Plan showed that modeled NO_x and ROG reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 parts per billion. Analysis of SCAQMD's Rule 1315 showed that emissions of NO_x and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absence (South Coast Air Quality Management District, 2015).

[3] OEHHA's *Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessment,* 2015.

Lastly, the MCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis must determine if the Project would result in excessive nuisance odors.

IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan. (Less than Significant)

The MCAQMD is tasked with implementing programs and regulations required by the Federal Clean Air Act and the California Clean Air Act. In that capacity, the MCAQMD has prepared plans to attain Federal and State ambient air quality standards. Projects with emissions below the thresholds of significance for criteria pollutants provided by the MCAQMD would be determined to "Not conflict or obstruct implementation of the District's air quality plan".

The proposed Project would be both a direct and indirect source of air pollution. Direct sources of pollution include area, energy, and water and waste sources, due to development of the on-site building and associated infrastructure. Indirect sources of pollution would be due to the generation of VMT from vehicles traveling to and from the Project site. According to KD Anderson & Associates (as provided by the Traffic Analysis prepared for the proposed Project), the proposed Project is anticipated to generate approximately 1,094 new daily trips on a weekday and 1,818 on a Saturday (½ inbound and ½ outbound).

The relevant MCAQMD CEQA operations-related emissions thresholds of significance are as follows: 54 pounds per day of oxides of nitrogen (NOx), 54 pounds per day of reactive organic gases (ROG), 82 pounds per day of particulate matter of 10 microns or less in size (PM_{10}), 54 pounds per year of particulate matter of 2.5 microns or less in size ($PM_{2.5}$); 10 tons per year of NOx, 10 tons per year of ROG, 10 tons per year of PM10, and 10 tons per year of PM2.5. Moreover, the MCAQMD has issued clarification (in a December 2013 Advisory) that MCAQMD's indirect and permitting rules allow 125 tons per year of CO.

If the proposed Project's emissions will exceed the applicable threshold of significance for operational-generated emissions, the proposed Project will have a significant impact on air quality and all feasible mitigation are required to be implemented to reduce emissions to the extent feasible.

CalEEMod™ (v.2020.4.0) was used to model operational emissions of the proposed Project. The MCAQMD provides a list of applicable air quality emissions thresholds. Table 3.2-8 shows proposed Project emissions as provided by CalEEMod with certain mitigation applied. As shown in Table 3.2-8 above, operational emissions would not exceed any of the applicable criteria pollutant thresholds.

TABLE 3.2-8: OPERATIONAL PROJECT GENERATED EMISSIONS

POLLUTANT	*CO*	*NOX*	*ROG*	*PM_{10}*	*$PM_{2.5}$*
AVERAGE DAILY EMISSIONS (LBS/DAY)					
THRESHOLD	N/A	42	180	82	54
EMISSIONS	24.1	4.4	4.4	2.7	1.1
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**
MAXIMUM ANNUAL EMISSIONS (TONS/YEAR)					
THRESHOLD	125	10	10	10	10
EMISSIONS	4.4	0.8	0.8	0.5	0.2
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**

SOURCES: CALEEMOD (V.2020.4.0); MCAQMD, 2010.

The results shown in Table 3.2-8 above differ from those included within the Mitigated Negative Declaration adopted by the City Council on July 26, 2021, and later vacated by the City Council. As was explained by City Associate Planner Heather Gurewitz during her presentation to the City Council on July 26, 2021, the person who prepared the CalEEMod work in support of the MND erroneously included an assumption that the Project site was served by dirt roads rather than paved roads. This error resulted in estimated particulate emissions that were wildly inaccurate and misleading. This error was corrected in the new CalEEMod work done in support of this EIR. The new results show that the emissions from the proposed Project are far below all applicable MCAQMD significance thresholds, including those for PM_{10} and $PM_{2.5}$.

It should be noted that, for reasons discussed earlier, the emissions of ozone precursors such as ROG and NO_x attributable to the proposed Project would not be substantial enough on a regional basis for the City to be able to, with currently available technical tools, predict how the emissions of such pollutants would translate into either physical environmental changes, such as measurable effects on ambient ozone concentrations within the air basin, or health effects, such as increased respiratory problems, within any discrete population within the City or the region. Such an analysis is not reasonably feasible within the meaning of CEQA because it would require a high level of speculation.

It should also be noted that the proposed Project has the potential to reduce net VMT (i.e. to lower VMT compared with the baseline condition), which would imply that the results in Table 3.2-8 likely represent a large overestimate for project net mobile emissions. The traffic study indicated that based on the location of competing stores, the Grocery Outlet Store's most likely effect on regional travel is to slightly reduce the length of trips from areas south of the river off of SR 20 or SR 1 that are today made northbound, and to offer another option for shopping trips made by residents of areas to the north. The regional effect on VMT is likely to be small, but generally will be reduced by offering a closer option for northbound traffic. It is noted that testimony offered at the Planning Commission supported the conclusion that the Grocery Outlet Store would reduce regional VMT. More specifically, many speakers described driving to the existing Grocery Outlet Store in Willits and stated that they would patronize the new store in Fort Bragg if it were built. As provided in the *CEQA VMT Analysis* prepared by Fehr & Peers, the re-routing of even less of 1% of the current trips from

Fort Bragg to the existing Willits Grocery Outlet (located approximately 35 miles from Fort Bragg) would result in a net decrease in VMT for the proposed Project both baseline (2022) and future year (2030) conditions.

CONCLUSION

As shown in Table 3.2-8, the Project's operational emissions would not exceed any of the applicable operational-related criteria pollutant thresholds. Therefore, the Project's criteria pollutant emissions would be considered to have a ***less than significant*** impact.

Impact 3.2-2: Proposed Project construction activities do not have the potential to result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment, or conflict or obstruct implementation of the District's air quality plan. (Less than Significant)

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Construction-related activities would result in Project-generated emissions from site preparation, grading, paving, building construction, and architectural coatings. CalEEMod™ (v.2020.4.0) was used to estimate construction emissions for the proposed Project. Table 3.2-9, below, provides the construction criteria pollutant emissions associated with implementation of the proposed Project.

TABLE 3.2-9: CONSTRUCTION PROJECT GENERATED EMISSIONS (TONS PER YEAR)

POLLUTANT	*CO*	*NOX*	*ROG*	*PM_{10}*	*$PM_{2.5}$*
THRESHOLD	N/A	54	54	82	54
MAXIMUM EMISSIONS	0.8	0.8	0.2	5.6	0.6
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**

SOURCES: CALEEMOD (V.2020.4.0); MCAQMD, 2010.

If the proposed Project's emissions will exceed the applicable threshold of significance for construction-generated emissions, the proposed Project will have a significant impact on air quality and all feasible mitigation are required to be implemented to reduce emissions. As shown in Table 3.2-9, the proposed Project does not exceed the applicable thresholds of significance for construction criteria pollutants. Indeed, the anticipated construction emissions from the proposed Project represent only a small fraction of the amounts that would have to be generated to exceed the significance thresholds.

CONCLUSION

The proposed Project does not exceed any of the construction-related criteria pollutant thresholds, as shown in Table 3.2-9. Therefore, the Project's construction-related criteria pollutant emissions would be considered to have a ***less than significant*** impact.

Impact 3.2-3: The proposed Project would not expose sensitive receptors to substantial pollutant concentrations from carbon monoxide hotspot impacts. (Less than Significant)

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (U.S. EPA, 2016). Such acute effects may occur under current ambient conditions for some sensitive individuals, while increases in ambient CO levels could increase the risk of such incidences.

The Project site is located in a State attainment area and a federal attainment-unclassified area for carbon monoxide. In addition, CO emissions under Project operation are far below the applicable significance threshold promulgated by the MCAQMD. Increases in proposed Project VMT would increase concentrations of carbon monoxide (CO) along streets and intersections that provide access to the Project site. Carbon monoxide is a local pollutant (i.e., high concentrations are normally only found very near sources), and can form local elevated concentrations under specific conditions. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations (i.e., hotspots), therefore, are usually only found near areas of very high traffic volume and congestion.

Several factors combine to make substantial concentrations of carbon monoxide unlikely. Firstly, CO emissions would not be substantial, as provided in Table 3.2-8 (above). Moreover, existing physical constraints such as high-density, high-profile buildings or other obstructions that could prevent dispersion of carbon monoxide are largely absent. Predominant weather conditions in the area include air movement that would help facilitate carbon monoxide dispersion. Congested traffic conditions that otherwise could result in concentration of carbon monoxide would be of short duration. Further, under existing regulatory and legislative mandates, emissions volumes from all vehicle classes will continue to decline. Given these factors, substantial concentrations of carbon monoxide are not expected at or along any affected roadways or intersections.

CONCLUSION

This Project is located in an area that is designated attainment and attainment-unclassified for carbon monoxide. Substantial concentrations of carbon monoxide are not expected at or along any streets or intersections affected by the development of the Project site. Impacts associated with carbon monoxide hotspots would be ***less than significant,*** and no additional mitigation is required.

Impact 3.2-4: The proposed Project would not expose sensitive receptors to substantial pollutant concentrations from toxic air contaminants. (Less than Significant)

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are

usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. EPA regulate 188 air toxics, also known as hazardous air pollutants. The U.S. EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007) and identified a group of 93 compounds emitted from mobile sources. In addition, the U.S. EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment. These are acrolein, benzene, 1,3-butidiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter.

The 2007 U.S. EPA rule requires controls that will dramatically decrease Mobile Source Air Toxics (MSAT) emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using EPA's MOBILE6.2 model, even if vehicle activity (VMT) increases by 145 percent, a combined reduction of 72 percent in the total annual emission rate for the priority MSAT is projected from 1999 to 2050. California maintains stricter standards for clean fuels and emissions compared to the national standards, therefore it is expected that MSAT trends in California will decrease consistent with or more than the U.S. EPA's national projections.

The California Air Resources Board (CARB) published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB, 2005) to provide information to local planners and decision-makers about land use compatibility issues associated with emissions from industrial, commercial and mobile sources of air pollution. The CARB Handbook indicates that mobile sources continue to be the largest overall contributors to the State's air pollution problems, representing the greatest air pollution health risk to most Californians. The most serious pollutants on a statewide basis include diesel exhaust particulate matter (diesel PM), benzene, and 1,3-butadiene, all of which are emitted by motor vehicles. These mobile source air toxics are largely associated with freeways and high traffic roads. Non-mobile source air toxics are largely associated with industrial and commercial uses. Table 3.2-10 provides the California Air Resources Board minimum separation recommendations on siting sensitive land uses.

TABLE 3.2-10: CARB MINIMUM SEPARATION RECOMMENDATIONS ON SITING SENSITIVE LAND USES

SOURCE CATEGORY	*ADVISORY RECOMMENDATIONS*
Freeways and High-Traffic Roads	• Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.[1]
Distribution Centers	• Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week).

SOURCE CATEGORY	*ADVISORY RECOMMENDATIONS*
	• Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	• Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. • Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	• Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the CARB on the status of pending analyses of health risks.
Refineries	• Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	• Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloro-ethylene	• Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. • Do not site new sensitive land uses in the same building with perc dry cleaning operations.
Gasoline Dispensing Facilities	• Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

SOURCES: AIR QUALITY AND LAND USE HANDBOOK: A COMMUNITY HEALTH PERSPECTIVE" (CARB 2005)

There are no traditional sensitive receptors such as residences, hospitals, or schools that are proposed as part of the proposed Project. The closest sensitive receptors are residences located adjacent to the east of the Project site.

Heavy-duty trucks are a common source of Diesel Particulate Matter (DPM), in contrast to passenger vehicles (such as light-duty cars and trucks). The inhalation of DPM generates cancer and non-cancer health risks, especially where concentrations are chronically elevated for long periods of time, and for younger sensitive receptors. However, according to the Traffic Impact Analysis for the proposed Project prepared by KD Anderson & Associates, the proposed Project would only generate approximately 8 heavy-duty truck trips per week, which would require loading/unloading at the Project site loading dock. It is anticipated that half of these truck trips would be for refrigerated goods. Separately, it is anticipated that the proposed Project would generate approximately 4 to 5 daily medium-duty truck trips (delivering items such as bread, beverages, and chips). Therefore, although residences are adjacent to the Project site to the east, the frequency of heavy- and medium-duty truck trips generated by the proposed Project is very small, and therefore would not represent a significant risk of TACs from DPM. Moreover, construction would cause only temporary and minor TACs from DPM, given the size and the proposed Project. No other TACs are anticipated to be generated by the proposed Project, either during Project operation or construction.

It should be noted that, although the proposed Project itself does not represent a significant risk of TACs, existing TACs are present under baseline conditions. For example, relatively high traffic roads such as Highway 1 are located near the Project site. As previously stated, mobile sources are the largest overall contributors to the State's air pollution problems, representing the greatest air

pollution health risk to most Californians. This is not unique to the proposed Project. Moreover, TACs from mobile sources in Fort Bragg are not particularly high, when compared to other parts of California that experience much higher traffic levels. Furthermore, crucially, CEQA only requires analysis of the impact of the proposed Project compared with baseline conditions. That is, CEQA requires analysis of the potential impact of proposed Project (i.e. the difference between the baseline conditions and the proposed Project scenario), not the potential impact of baseline conditions. Lastly, as provided in the *CEQA VMT Analysis* prepared for the proposed Project by Fehr & Peers, the proposed Project would generate a net decrease in VMT, due to the effects of the trip redistribution from the Willits Grocery Outlet to the proposed Project. Therefore, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations from TACs.

Overall, the proposed Project, in and of itself, would not result in a significant increased exposure of receptors to localized concentrations of TACs. Risk of residential cancer risk, workplace cancer risk, and chronic and acute non-cancer risks would not exceed the applicable thresholds. Implementation of the proposed Project would cause a ***less than significant*** impact relative to this topic.

Impact 3.2-5: The proposed Project would not cause exposure to other emissions (such as those leading to odors) adversely affecting a substantial number of people (Less than Significant)

The following discussion addresses odors. Other emissions (including criteria pollutants and TACs) are addressed in Impacts 3.2-1 through 3.2-4.

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the MCAQMD. The general nuisance rule (Health and Safety Code §41700) is the basis for the threshold.

Examples of facilities that are known producers of odors include: Wastewater Treatment Facilities, Chemical Manufacturing, Sanitary Landfill, Fiberglass Manufacturing, Painting/Coating Operations (e.g. auto body shops), Composting Facility, Food Processing Facility, Petroleum Refinery, Feed Lot/Dairy, Asphalt Batch Plant, and Rendering Plant.

If a project proposes to locate receptors and known odor sources in proximity to each other, further analysis may be warranted. However, if a project would not locate receptors and known odor sources in proximity to each other, then further analysis is not warranted. The proposed Project itself is a small grocery store, which is a kind of project that is not typically known to generate odors. The proposed Project does not include new industrial uses or other potential odor-generating uses that are not already present in the vicinity of the Project site. Moreover, Air district Rule 402 prohibits any mobile or stationary source generating an objectionable odor, with the exception of odors emanating from certain agricultural operations. California Health and Safety Code §41700 and Air District Rule 402 prohibit emissions of air contaminants from any source that causes nuisance or annoyance to a considerable number of people or that present a threat to public health or cause property damage. Compliance with these rules would preclude land uses proposed under the proposed Project from emitting objectionable odors.

CONCLUSION

The proposed Project does not propose sensitive receptors that would be exposed to odors in the vicinity; nor does it propose uses that would create new odors that would expose substantial numbers of people. Therefore, operation of the proposed Project would not result in significant objectionable odors. Impacts associated with exposure to odors would be ***less than significant.***

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This section describes the regulatory setting, regional biological resources, and impacts that are likely to result from Project implementation. The analysis contained in this section is intended to be at a Project-level, and covers impacts associated with the conversion of the entire site from a partially developed lot to a retail use. This section is based in part on the following: *Fort Bragg Coastal General Plan* (City of Fort Bragg, July 2008), *California Natural Diversity Database* (CDFW 2022), *USFWS Information Planning and Consultation System* (IPAC) (USFWS 2022), March 28 and April 20, 2022 Field Surveys (De Novo Planning Group, 2022), and a review of previous studies performed on the Project site (the *Grocery Outlet Fort Bragg, California Property Biological Review* (Wildland Resource Managers, August 2019), the Grocery Outlet *Fort Bragg Wetland Report* (Wildland Resource Managers, March 2022).

Two comments were received during the public review period for the Notice of Preparation regarding this topic from the following: Jacob Patterson (June 7, 2022) and Leslie Kashiwada (June 20, 2022). The portion of these comment related to this topic are addressed within this section. Full comments received are included in Appendix A.

PRE-FIELD INVESTIGATIONS AND FIELD SURVEY METHODOLOGIES

Pre-Field Investigation (De Novo Planning Group, 2022)

Prior to the field investigation, numerous maps, databases, and reports were reviewed including:

- U.S. Geological Survey (USGS) 7.5-minute Quadrangle
- USGS National Hydrography Data Set
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps
- National Resource Conservation Service (NRCS) Soil Survey
- California Wildlife Habitat Relationships (CWHR) maps
- CNDDB
- CNPS Inventory of Rare and Endangered Plants
- USFWS IPac
- USFWS Official List

Field Survey (De Novo Planning Group, 2022)

Field surveys were completed by Principal Biologist Steve McMurtry on March 29, 2022 and April 20, 2022 to assess the habitat, evaluate potential for special status species, test for aquatic resources/wetlands, and to verify/validate conditions and assessments reported in past studies and regulatory databases. These 2022 field surveys occurred within the floristic period for the region. The habitat observed during these surveys was consistent with the site conditions reported in the past studies on the Project site: *Biological Review* (Wildland Resource Managers, August 2019) and *Wetland Report* (Wildland Resource Managers, March 2021). The details of what was observed in these recent 2022 surveys by De Novo Planning serves as the basis for the analysis in this section. The past studies corroborate De Novo's findings, and is a validation that the site conditions have not significantly changed since 2019.

Field investigations were performed on foot using transects. Habitat was recorded, and the Project site was inspected for the presence, or potential for presence of wildlife. This includes a search for evidence of animal signs (i.e. scat/tracks, guano, etc.). Test pits were dug in four locations to view the soil profile and test for hydric soil characteristics. Alpha-alpha-Dipyridyl solution was used on test pit soils to confirm the presence or absence of ferrous (Fe++) iron in soils (test for reducing conditions and the possibility of aquic conditions). Visibility during the survey was considered good. Weather conditions were mostly clear skies, winds of approximately 8 miles per hour, and temperatures of 64 degrees Fahrenheit. Tools used during the field investigations included a Trimble GeoExplorer XH Handheld (sub-foot unit), 30-meter tape measure, diameter tape, Kestrel 3000 Weather Station, spade, Dutch auger, Munsell color chart, Vortex 20-60x80 spotting scope, and Swarovski 10x42 binoculars. The results of this survey are incorporated into this section.

Field Survey (Wildland Resource Managers, 2019)

As part of the *Biological Review* completed for the Project (Wildland Resource Managers, August 2019), the Project site was visited by Wildland Resource Managers staff on August 9, 2019 for the purpose of assessing the site for biological features and any unique habitat features and/or the presence of any special-status plant or animal species.

During this survey, vegetative species present were identified along with an estimate of percentage cover of the site. Presence of animal species in the form of visual observation or other evidence were noted. An evening bat survey was run from 7:00 PM until dark by observing aerial activity around the Project site. However, this survey was severely hampered by a tremendous thunderstorm with heavy rain that rolled through the area at dusk making visual observations nearly impossible.

Wetland Survey and Testing (Wildland Resource Managers, 2021)

A *Wetland Report* (Wildland Resource Managers, March 2021) was completed for the Project site because the on-site soil is mapped as hydric. As part of the *Wetland Report*, the Project site was visited on the afternoon of March 15, 2021 by Wildland Resource Managers' principal biologist for the purpose of determining if wetlands, of any type, are present at the site. On that date, the weather was clear with a strong north wind blowing. Initial inspection of the parcel noted that there was no evidence of any wetland features but rather the site's vegetation consisted of annual grasses and forbs, lacking shrubs and or trees (see photo sections in the appendix of Appendix D of this Draft EIR).

To be certain that no wetland indicators were present, a systematic survey of the parcel was made following the Army Corp of Engineers (USACE) wetland determination data collection methodology and the definition of wetland boundaries contained in Section 13577 (b) of Title 14 of the California Code of Regulations (see the appendix of Appendix D). To do this, four test locations were selected to represent the general character of the parcel. One test location was placed within each quadrant of the parcel (northeast, northwest, southwest and southeast). At each location, data was collected within a one-meter square sample plot. At each plot the dominant vegetation was identified, soil structure and type were determined, and evidence of hydrology was examined. Soil structure was determined by excavating an 18 inch or greater deep hole and noting the soil profile description and

any presence or absence of hydric soil indicators. Data was recorded on the USACE "Wetland Determination Data Form – Arid West Region." Data forms for each test location may be found in the *Wetland Report* contained in Appendix D of this Draft EIR.

3.3.1 ENVIRONMENTAL SETTING

GEOMORPHIC PROVINCES/BIOREGION

The City of Fort Bragg is located in the northwestern portion of the Coast Ranges Geomorphic Province of California. The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, subparallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valleys in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The San Andreas is more than 600 miles long, extending from Pt. Arena to the Gulf of California. West of the San Andreas is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands.

The City of Fort Bragg is located within the Klamath/North Coast Bioregion, which makes up a major portion of northwestern California continuing into southwestern Oregon to near Roseburg. In California, the bioregion lies primarily between the Northern California Coast bioregion on the west and the southern Cascade Range to the east. The southern boundary is made up of the Northern California Coast Ranges and Northern California Interior Coast Ranges. The very steep and complex terrain of the Klamath Mountains covers approximately 22,500 square kilometers (km^2) (or 8,690 square miles [mi^2]), or six percent of California. The bioregion includes the Klamath and Trinity River systems, the headwaters of the Sacramento River, the most extensive exposure of ultramafic rocks in North America, and the most diverse conifer forests in North America.

The wetlands of this bioregion provide habitat for native and migrating birds and waterfowl. Examples of other wildlife in the bioregion are osprey, western sandpiper, black-tailed deer, mountain lion, and Karok Indian snail. Rare species include: Goshawk, black bear, Chinook salmon and Pacific fisher (a weasel-like mammal).

Threatened and endangered species: Oregon silverspot butterfly, lotis blue butterfly, Trinity bristle snail, red-legged frog, Siskiyou Mountains salamander, Marbled murrelet, Aleutian Canada geese, California clapper rail, Swainson's hawk, American peregrine falcon, bank swallow, Northern spotted owl, willow flycatcher, bald eagle, Point Arena Mountain beaver and wolverine.

LOCAL SETTING

The Project site is located at 825, 845, and 851 S. Franklin Street in the City of Fort Bragg, Mendocino County, California. The 1.63-acre site is located on the north side of N. Harbor Drive, the west side

of S. Franklin Street, and the south side of South Street. The Project site is located approximately 230 to 450 feet east of S. Main Street/Highway 1 (a four-lane conventional highway managed by the California Department of Transportation [Caltrans]) and is located in the City's Coastal Zone. Properties within the Coastal Zone are regulated by the Coastal Land Use and Development Code (CLUDC), also known as Fort Bragg Municipal Code (FBMC) Chapter 17. The Project site is bordered to the north by South Street, to the east by S. Franklin Street, to the south by N. Harbor Drive, and to the west by a Super 8, Mountain Mike's Pizza, and Chevron.

The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. A 16,436 square-foot (sf) vacant former office building and associated 47-space parking lot are located in the northern half of the site. The building, locally referred to as the "Old Social Services Building", has not been leased since 2010 but has been used as storage since then. Wooden fencing is currently located along the western property line and adjacent to the south side of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs.

Drainage across the site appears to flow to the northwest and southwest. The nearest bodies of water are the Noyo River, which is located approximately 600 feet south of the site, and the Pacific Ocean, which is located approximately 1,200 feet west of the site. Regional drainage is controlled by the Noyo River.

Vegetation

The majority of the vegetation is limited to the southern-most parcel. Even here, vegetation is sparse and limited to approximately two-thirds of the property as the middle of the area is bare soil. Plant species identified in the southern parcel are listed in Table 3.3-1. All the plant species are associated with non-hydric soil conditions. The north parcel is well over 98 percent covered by a paved parking lot and portions of the vacant building. There is a row of planted shrubbery along the north side of the parking area that includes butterfly bushes, California rose, Himalayan blackberry, pampas grass, and four ornamental trees. Rhododendrons are also found on the east side of the existing building.

TABLE 3.3-1: PLANT SPECIES IDENTIFIED ON THE SOUTH PARCEL

COMMON NAME	*SCIENTIFIC NAME*	*HYDROPHYTE?*
Hairgrass	*Aira caryophyllea*	No – Fac-Upland
sweet vernal grass	*Anthoxanthum odoratum*	No -Fac-Upland
capeweed	*Arctotheca calendula*	No -Upland
slender oats	*Avena barbata*	No - Upland
Quaking grass	*Briza minor*	No - Facultative
Ripgut brome	*Bromus diandrus*	No -Upland
Brome grass	*Bromus madritensis rubens*	No – Fac-Upland
Pampas grass	*Cortaderia selloana*	No – Fac-Upland
Cypress	*Cupressaceac spp.*	No -Upland
Wild rye	*Elymus glaucus*	No -Upland
California poppy	*Eschschoizia californica*	No -Upland

COMMON NAME	*SCIENTIFIC NAME*	*HYDROPHYTE?*
Velvet grass	*Holcus lanatus*	No -Upland
hawkbit	*Leontodon saxatilis*	No – Fac-Upland
Perennial rye grass	*Lolium multiflorum*	No -Upland
Bur clover	*Medicago polymorpha*	No – Fac-Upland
Bermuda buttercup	*Oxalis pes-caprae*	No -Upland
Switch grass	*Panicum virgatum*	No -Upland
English plantain	*Plantago lanceolata*	No - Facultative
Blue grass	*Poa bulbosa*	No – Fac-Upland
wild radish	*Raphanus sativa*	No -Upland
Himalayan blackberry	*Rubus discolor*	No - Facultative
sheep sorrel	*Rumex acetosella*	No – Fac-Upland
fall-dandelion	*Scorzoneroides autumnalis*	No – Fac-Upland
Dandelion	*Taraxacum officinale*	No – Fac-Upland
burrowing clover	*trifolium subterraneum*	No -Upland
Vetch	*Vicia villosa*	No -Upland
periwinkle	*Vinca major*	No -Upland

SOURCE: DE NOVO PLANNING GROUP, 2022.

Hydrology, Soils, and Wetland Features

During the March 29 and April 20, 2022 field surveys, a visual observation for any surface evidence of aquatic resources was performed. There are no visible streams, wet swales, wetland, or other aquatic feature on the Project site.

The NRCS Web Soil Survey (2022) identifies the Project site as "Urban land." This soil map unit is made up of mostly urban developed land, but can have several minor components (3%) within the map unit including: Biaggi, Shinglemill, Gibney, Tregoning, Tropaquepts, Heeser, Cabrillo, and Harecreek. Three of these soil units (Shinglemill, Tregoning, and Tropaquepts) have a hydric soil rating within the landforms of marine terraces and depressions. The other soil units do not have a hydric rating. Given that there was a potential for soil inclusions of the minor components with a hydric rating, six soil test pits were dug and soils were tested for hydric characteristics. The soil test included the use of an Alpha-alpha-Dipyridyl solution to confirm the presence of ferrous (Fe++) iron in soils. Ferrous iron is an indicator of reducing conditions and the possibility of aquic conditions. Ferrous was not present in the soils tested in the six test pits, and there was no other soil characteristics that would suggest that there are aquic conditions present on the Project site. All six test pits had sandy loam. It is also noted that the *Fort Bragg Wetland Report* (Wildland Resource Managers, March 2022) provides the same conclusions that there are no aquatic resources present on the Project site. That study included four test pits.

Additionally, an inventory of plant species present was made to determine if there was a prevalence of hydrophytes present. All plants identified were upland, facultative upland, or facultative plants. These are not classified as hydrophytes according to the National Wetland Plant List.

The hydrology of the Project site is such that storm water that falls on the site either seeps into the soil or sheet flows to roadside culverts and subsequent storm drains. Though the mapped soil type can have minor components with a hydric soil rating, there is no evidence of hydric soils based on specific soil testing. Additionally, there are no Obligate Wetland, or Facultative Wetland plants on the Project site.

Wildlife Evidence

Sightings and other evidence of wildlife at the Project site was very limited. Gopher mounds were evident in the southern parcel, and two crows were seen perched on the abandoned building and then flew south off-site within a minute after the surveyor's arrival. No other wildlife was seen during the surveys. There were no scat, guano, nests, burrows, whitewash, or trails of any kind found on the site.

No sensitive species were detected on the site during the field visits.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

The CWHR habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

The Project site is considered to have low biological diversity due to the developed nature of the site. According to the California Wildlife Habitat Relationship System, the entire Project site has an Urban cover type (wildlife habitat classifications) out of 59 found in the State. Figure 3.3-1 illustrates the land cover type map for the Project site and below is a brief description of this CWHR habitat.

Urban habitats are not limited to any particular physical setting. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species. The entire Project site is classified as urban habitat.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the CNDDB, the CNPS Inventory of Rare and Endangered Plants, and the USFWS records of listed endangered and threatened species from the IPAC database. The background search was regional in scope and focused on the documented occurrences within the six-quadrangle radius (approximately 10-mile radius) of the Project site. Table 3.3-2 provides a list of special-status plants and Table 3.3-3 provides a list of special-status animals. Figure 3.3-2 presents the documented occurrences within the six-quadrangle radius (approximately 10-mile radius) of the

Project site. The six quadrangles include: Fort Bragg, Inglenook, Dutchmans Knoll, Noyo Hill, Mathison Peak, and Mendocino. Within these six quadrangles, the CNDDB (2022) lists 29 animal species and 55 plant species, for a total of 84 species. The USFWS IPAC shows an additional 3 plants and six animals.

TABLE 3.3-2: SPECIAL-STATUS PLANT SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	*STATUS (FED/CA/ CNPS)*	*HABITAT AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
alpine marsh violet *Viola palustris*	--/-- /2B.2	Coastal scrub, bogs and fens. Swampy, shrubby places in coastal scrub or coastal bogs. 0-150 m. March-August.	Not Present
angel's hair lichen *Ramalina thrausta*	--/-- /2B.1	North coast coniferous forest. On dead twigs and other lichens. 75-1,390 m.	Not Present
Baker's goldfields *Lasthenia californica ssp. bakeri*	--/-- /1B.2	Closed-cone coniferous forest, coastal scrub, meadows and seeps, marshes and swamps. Openings. 60-520 m. April-October.	Not Present
Blasdale's bent grass *Agrostis blasdalei*	--/-- /1B.2	Coastal dunes, coastal bluff scrub, coastal prairie. Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. 5-365 m. May-July.	Not Present
bluff wallflower *Erysimum concinnum*	--/-- /1B.2	Coastal dunes, coastal bluff scrub, coastal prairie. More or less a coastal generalist within coastal habitat types. 3-60 m. March-May.	Not Present
Bolander's beach pine *Pinus contorta ssp. bolanderi*	--/-- /1B.2	Closed-cone coniferous forest. Podzol-like soils with Mendocino cypress and bishop pine; within pygmy cypress forest. 35-185 m. July-August.	Not Present
bunchberry *Cornus canadensis*	--/-- /2B.2	North coast coniferous forest, bogs and fens, meadows and seeps. 75-1,920 m. May-July.	Not Present
Burke's goldfields *Lasthenia burkei*	E/E/1B.1	Vernal pools, meadows and seeps.. Most often in vernal pools and swales. 15-580 m. April-June.	Not Present
California sedge *Carex californica*	--/-- /2B.2	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, marshes and swamps. Meadows, drier areas of swamps, marsh margins. 35-515 m. May-August.	Not Present
coast lily *Lilium maritimum*	--/-- /1B.1	Closed-cone coniferous forest, coastal prairie, coastal scrub, broadleafed upland forest, north coast coniferous forest, marshes and swamps. Historically in sandy soil, often on raised hummocks or bogs; today mostly in roadside ditches. 4-490 m. May-August.	Not Present
coastal bluff morning-glory *Calystegia purpurata ssp. saxicola*	--/-- /1B.2	Coastal dunes, coastal scrub, coastal bluff scrub, north coast coniferous forest. 4-165m. May-September.	Not Present
coastal triquetrella *Triquetrella californica*	--/-- /1B.2	Coastal bluff scrub, coastal scrub. Grows within 30m from the coast in coastal scrub, grasslands and in open gravels on roadsides, hillsides, rocky slopes, and fields. On gravel or thin soil over outcrops. 20-1175 m.	Not Present
congested-headed hayfield tarplant *Hemizonia congesta ssp. congesta*	--/-- /1B.2	Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. 5-520 m. April-November	Not Present
Contra Costa goldfields *Lasthenia conjugens*	E/-- /1B.1	Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland.. Vernal pools, swales, low depressions, in open grassy areas. 1-450 m. March-June	Not Present
dark-eyed gilia *Gilia millefoliata*	--/-- /1B.2	Coastal dunes. 1-60 m. April-July.	Not Present
deceiving sedge *Carex saliniformis*	--/-- /1B.2	Coastal prairie, coastal scrub, meadows and seeps, marshes and swamps (coastal salt). Mesic sites. 2-230 m. June.	Not Present

SPECIES	*STATUS (FED/CA/ CNPS)*	*HABITAT AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
dwarf alkali grass *Carex saliniformis*	--/-- /2B.2	Marshes and swamps. Mineral spring meadows and coastal salt marshes. 1-10 m. June.	Not Present
great burnet *Sanguisorba officinalis*	--/-- /2B.2	Bogs and fens, meadows and seeps, broadleafed upland forest, marshes and swamps, north coast coniferous forest, riparian forest. Rocky serpentine seepage areas and along streams. 5-1400 m. July-October.	Not Present
green yellow sedge *Carex viridula ssp. viridula*	--/-- /2B.3	Bogs and fens, marshes and swamps (freshwater), north coast coniferous forest. Mesic sites. 0-1705 m. June-July.	Not Present
hair-leaved rush *Carex viridula ssp. viridula*	--/-- /2B.2	Marshes and swamps, bogs and fens. 82-121 m. June-July.	Not Present
Howell's spineflower *Chorizanthe howellii*	E/T/1B. 2	Coastal dunes, coastal prairie, coastal scrub. Sand dunes, sandy slopes, and sandy areas in coastal prairie. 4-20 m. May-July.	Not Present
Humboldt Bay owl's-clover *Castilleja ambigua var. humboldtiensis*	--/-- /1B.2	Marshes and swamps. In coastal saltmarsh with Spartina, Distichlis, Salicornia, Jaumea. 0-20 m. April-August.	Not Present
Humboldt County milk-vetch *Astragalus agnicidus*	-- /E/1B.1	Broadleafed upland forest, north coast coniferous forest. Disturbed openings in partially timbered forest lands; also along ridgelines; south aspects. 115-670 m. April-September.	Not Present
lagoon sedge *Carex lenticularis var. limnophila*	--/-- /2B.2	Bogs and fens, marshes and swamps, north coast coniferous forest. Lakeshores, beaches. Often in gravelly substrates. 0-6 m. June-August.	Not Present
leafy-stemmed mitrewort *Mitellastra caulescens*	--/--/4.2	Broadleafed upland forest, lower montane coniferous forest, meadows and seeps, north coast coniferous forest. Mesic sites. 5-1700 m. May-July	Not Present
livid sedge *Carex livida*	--/--/2A	Bogs and fens. Historically known from a sphagnum bog in California. June.	Not Present
Lyngbye's sedge *Carex lyngbyei*	--/-- /2B.2	Marshes and swamps (brackish or freshwater). 0-200 m. April-August.	Not Present
maple-leaved checkerbloom *Sidalcea malachroides*	--/--/4.2	Broadleafed upland forest, coastal prairie, coastal scrub, north coast coniferous forest, riparian forest. Woodlands and clearings near coast; often in disturbed areas. 4-765 m. April-August.	Not Present
marsh pea *Lathyrus palustris*	--/-- /2B.2	Bogs and fens, lower montane coniferous forest, marshes and swamps, north coast coniferous forest, coastal prairie, coastal scrub. Moist coastal areas. 2-140 m. March-August.	Not Present
Mendocino Coast paintbrush *Castilleja mendocinensis*	--/-- /1B.2	Coastal bluff scrub, coastal scrub, coastal prairie, closed-cone coniferous forest, coastal dunes. Often on sea bluffs or cliffs in coastal bluff scrub or prairie. 3-70 m. April-August.	Not Present
Mendocino dodder *Cuscuta pacifica var. papillata*	--/-- /1B.2	Coastal dunes. Interdune depressions. Annual parasitic vine observed on Gnaphalium, Silene and Lupinus. 3-7 m. July-October.	Not Present
Menzies' wallflower *Erysimum menziesii*	E/E/1B. 1	Coastal dunes. Localized on dunes and coastal strand. 1-25 m. March-April.	Not Present
Methuselah's beard lichen *Usnea longissima*	--/--/4.2	North coast coniferous forest, broadleafed upland forest. Grows in the "redwood zone" on tree branches of a variety of trees, including big leaf maple, oaks, ash, Douglas-fir, and bay. 45-1465 m in California.	Not Present

SPECIES	*STATUS (FED/CA/ CNPS)*	*HABITAT AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
Monterey clover *Trifolium trichocalyx*	E/E/1B. 1	Closed-cone coniferous forest. Openings, burned areas, and roadsides. Sandy soils. 105-215 m. April-June.	Not Present
North Coast phacelia *Phacelia insularis var. continentis*	--/-- /1B.2	Coastal bluff scrub, coastal dunes. Open maritime bluffs, sandy soil, sometimes rocky habitats. 0-155 m. March-May.	Not Present
northern microseris *Microseris borealis*	--/-- /2B.1	Bogs and fens, meadows and seeps, lower montane coniferous forest. 45-1070 m. June-September.	Not Present
Oregon coast paintbrush *Castilleja litoralis*	--/-- /2B.2	Coastal bluff scrub, coastal dunes, coastal scrub. Sandy sites. 5-255 m.	Not Present
Oregon goldthread *Coptis laciniata*	--/--/4.2	North coast coniferous forest, meadows and seeps. Mesic sites such as moist streambanks. 0-1000 m. March-April.	Not Present
Pacific gilia *Gilia capitata ssp. pacifica*	--/-- /1B.2	Coastal bluff scrub, chaparral, coastal prairie, valley and foothill grassland. 5-1345 m. April-August.	Not Present
perennial goldfields *Lasthenia californica ssp. macrantha*	--/-- /1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. 5-185 m. January-November.	Not Present
pink sand-verbena *Abronia umbellata var. breviflora*	--/-- /1B.1	Coastal dunes and coastal strand. Foredunes and interdunes with sparse cover. A. umbellata var. breviflora is usually the plant closest to the ocean. 0-75 m. January-December.	Not Present
Point Reyes blennosperma *Blennosperma nanum var. robustum*	-- /R/1B.2	Coastal prairie, coastal scrub. On open coastal hills in sandy soil. 5-125. February-April.	Not Present
Point Reyes horkelia *Horkelia marinensis*	--/-- /1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy flats and dunes near coast; in grassland or scrub plant communities. 2-775 m. May-September.	Not Present
purple-stemmed checkerbloom *Sidalcea malviflora ssp. purpurea*	--/-- /1B.2	Broadleafed upland forest, coastal prairie. 15-85 m. May-June.	Not Present
pygmy cypress *Hesperocyparis pygmaea*	--/-- /1B.2	Closed-cone coniferous forest. On podzol-like blacklock soil in pygmy cypress forest community. 30-430 m.	Not Present
pygmy manzanita *Arctostaphylos nummularia ssp. mendocinoensis*	--/-- /1B.2	Closed-cone coniferous forest. Acidic, sandy-clay soils in dwarf coniferous forest. 90-185 m. January.	Not Present
round-headed Chinese-houses *Collinsia corymbosa*	--/-- /1B.2	Coastal dunes. 0-30 m. April-June.	Not Present
running-pine *Lycopodium clavatum*	--/--/4.1	Lower montane coniferous forest, north coast coniferous forest, marshes and swamps. Forest understory, edges, openings, roadsides; mesic sites with partial shade and light. 45-1225 m. June-August.	Not Present
seacoast ragwort *Lycopodium clavatum*	--/-- /2B.2	Coastal scrub, north coast coniferous forest. Sometimes along roadsides. 30-915 m. April-May.	Not Present

SPECIES	*STATUS (FED/CA/ CNPS)*	*HABITAT AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
short-leaved evax *Hesperevax sparsiflora var. brevifolia*	--/-- /1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Sandy bluffs and flats. 0-640 m. March-June.	Not Present
Showy Indian clover (aka two-fork clover) Trifolium amoenum	E/-- /1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 5-310 m. April-June.	Not Present
supple daisy *Erigeron supplex*	--/-- /1B.2	Coastal bluff scrub, coastal prairie. Usually in grassy sites. 5-185 m. May-July.	Not Present
swamp harebell *Campanula californica*	--/-- /1B.2	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marsh, north coast coniferous forest. Bogs and marshes in a variety of habitats; uncommon where it occurs. 1-520 m. June-October.	Not Present
Thurber's reed grass *Calamagrostis crassiglumis*	--/-- /2B.1	Coastal scrub, marshes and swamps. Usually in marshy swales surrounded by grassland or coastal scrub. 5-50 m. May-July.	Not Present
white beaked-rush *Rhynchospora alba*	--/-- /2B.2	Bogs and fens, meadows and seeps, marshes and swamps. Freshwater marshes and sphagnum bogs. 60-1875 m. July-August.	Not Present
white-flowered rein orchid *Piperia candida*	--/-- /1B.2	North Coast coniferous forest, lower montane coniferous forest, broadleafed upland forest. Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 20-1615 m. May-September.	Not Present
Whitney's farewell-to-spring *Clarkia amoena ssp. whitneyi*	--/-- /1B.1	Coastal bluff scrub, coastal scrub. 5-125 m. June-August.	Not Present
Wolf's evening-primrose *Oenothera wolfii*	--/-- /1B.1	Coastal bluff scrub, coastal dunes, coastal prairie, lower montane coniferous forest. Sandy substrates; usually mesic sites. 0-125 m. May-October.	Not Present

SOURCE: DE NOVO PLANNING GROUP (JANUARY 2022).

NOTE: CNPS = CALIFORNIA NATIVE PLANT SOCIETY

FEDERAL STATUS EXPLANATIONS:

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

STATE STATUS EXPLANATIONS:

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL CALIFORNIA ENDANGERED SPECIES ACT.

R = RARE UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

CALIFORNIA NATIVE PLANT SOCIETY STATUS EXPLANATIONS:

1B = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE.

2 = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE.

4 = PLANTS OF LIMITED DISTRIBUTION – A WATCH LIST

.1 = SERIOUSLY ENDANGERED IN CALIFORNIA (OVER 80% OF OCCURRENCES THREATENED-HIGH DEGREE AND IMMEDIACY OF THREAT).

.2 = FAIRLY ENDANGERED IN CALIFORNIA (20-80% OCCURRENCES THREATENED).

.3 = NOT VERY ENDANGERED IN CALIFORNIA (<20% OF OCCURRENCES THREATENED).

TABLE 3.3-3: SPECIAL-STATUS WILDLIFE AND FISH SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	*STATUS (FED/CA)*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
INVERTEBRATES			
Mendocino leptonetid spider *Calileptoneta wapiti*	--/--	Known only from the type locality, Elk, and nearby sites in Mendocino County.	Not Present
Behren's silverspot butterfly *Speyeria zerene behrensii*	E/--	Restricted to the Pacific side of the Coast Ranges, from Point Arena to Cape Mendocino, Mendocino Co. Inhabits coastal terrace prairie habitat. Foodplant is Viola sp.	Not Present
globose dune beetle *Coelus globosus*	--/--	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	Not Present
lotis blue butterfly *Plebejus anna lotis*	E/--	Inhabits wet meadows or poorly-drained sphagnum-willow bogs, where soils are waterlogged and acidic; north coastal Calif. Inhabits upper edges of peat bog between peat and surrounding low willows; host plant is suspected to be Hosackia gracilis.	Not Present
obscure bumble bee *Bombus caliginosus*	--/--	Coastal areas from Santa Barbara County to north to Washington state. Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia.	Not Present
western bumble bee *Bombus occidentalis*	--/--	Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	Not Present
Ten Mile shoulderband *Noyo intersessa*	--/--	Found in coastal dunes, coastal scrub, and riparian redwood forest habitats.	Not Present
AMPHIBIANS			
California red-legged frog *Rana aurora draytoni*	T/-- (SSC)	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County. Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.	Not Present
foothill yellow-legged frog *Rana boylii*	-- /E(SSC)	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not Present
northern red-legged frog *Rana aurora*	--/-- (SSC)	Humid forests, woodlands, grasslands, and streamsides in northwestern California, usually near dense riparian cover. Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	Not Present
Pacific tailed frog *Ascaphus truei*	--/-- (SSC)	Occurs in montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats. Restricted to perennial montane streams. Tadpoles require water below 15 degrees C.	Not Present
red-bellied newt *Taricha rivularis*	--/-- (SSC)	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	Not Present
southern torrent salamander *Rhyacotriton variegatus*	--/-- (SSC)	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest. Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	Not Present

SPECIES	*STATUS (FED/CA)*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
BIRDS			
ashy storm-petrel *Hydrobates homochroa*	--/-- (SSC)	Colonial nester on off-shore islands. Usually nests on driest part of islands. Forages over open ocean. Nest sites on islands are in crevices beneath loosely piled rocks or driftwood, or in caves.	Not Present
great blue heron *Ardea herodias*	--/--	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Not Present
marbled murrelet *Brachyramphus marmoratus*	T/E	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.	Not Present
northern goshawk *Accipiter gentilis*	--/-- (SSC)	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Not Present
northern spotted owl *Strix occidentalis caurina*	T/T	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy.	Not Present
osprey *Pandion haliaetus*	--/-- (WL)	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Not Present
purple martin *Progne subis*	--/-- (SSC)	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	Not Present
tufted puffin *Fratercula cirrhata*	--/-- (SSC)	Open-ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs. Requires sod or earth into which the birds can burrow, on island cliffs or grassy island slopes.	Not Present
western snowy plover *Charadrius nivosus nivosus*	T/-- (SSC)	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not Present
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	T (BCC)/E	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers. Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak riparian habitats where scrub jays are abundant	Not Present
FISH			
coho salmon - central California coast ESU *Oncorhynchus kisutch pop. 4*	E/E	Federal listing = pops between Punta Gorda and San Lorenzo River. State listing = pops south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Not Present
Pacific lamprey *Entosphenus tridentatus*	--/-- (SSC)	Found in Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temps between 12-18 C. Ammocoetes need soft sand or mud.	Not Present
steelhead - northern California DPS *Oncorhynchus mykiss irideus pop. 16*	T/--	Coastal basins from Redwood Creek south to the Gualala River, inclusive. Does not include summer-run steelhead.	Not Present

SPECIES	*STATUS (FED/CA)*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
tidewater goby *Eucyclogobius newberryi*	E/--	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Not Present
MAMMALS			
hoary bat *Lasiurus cinereus*	--/--	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Potentially Present
North American porcupine *Erethizon dorsatum*	--/--	Forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges. Wide variety of coniferous and mixed woodland habitat.	Not Present
Sonoma tree vole *Arborimus pomo*	--/-- (SSC)	North coast fog belt from Oregon border to Sonoma County. In Douglas-fir, redwood and montane hardwood-conifer forests. Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of grand fir, hemlock or spruce.	Not Present
Townsend's big-eared bat *Corynorhinus townsendii*	--/-- (SSC)	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Potentially Present
Pacific marten (Coastal DPS) *Martes caurina*	T/--	Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest. Needs variety of different-aged stands, particularly old-growth conifers and snags which provide cavities for dens/nests.	Not Present
REPTILE			
western pond turtle *Emys marmorata*	--/-- (SSC)	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not Present
Green Sea Turtle *Chelonia mydas*	T/--	Green sea turtles originating from the East Pacific Ocean, bounded by the following lines and coordinates: 41 degrees N., 143 degrees W. in the northwest; 41 degrees N. Lat. in the north; along the western coasts of the Americas; 40 degrees S. Lat. in the south; and 40 degrees S., 96 degrees W. in the southwest	Not Present
Leatherback Sea Turtle Dermochelys coriacea	E/--	The species historical range included the oceans off of Alabama, Alaska, American Samoa, California, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Louisiana, Maine, Maryland, Massachusetts, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Northern Mariana Islands, Oregon, Puerto Rico, Rhode Island, South Carolina, Texas, Virginia, Virgin Islands, Washington.	Not Present

SOURCE: DE NOVO PLANNING GROUP (JANUARY 2022).

FEDERAL STATUS EXPLANATIONS:

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PE = PROPOSED FOR ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PT = PROPOSED FOR THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.
D = DELISTED FROM FEDERAL LISTING STATUS.
BCC = BIRD OF CONSERVATION CONCERN

STATE STATUS EXPLANATIONS:

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.
FP = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.
SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

3.3.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the state and nation including the California Department of Fish and Wildlife (CDFW), USFWS, U.S. Army Corps of Engineers (USACE), and the Regional Water Quality Control Board (RWQCB). These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the federal, state and local regulations that are applicable to the proposed project.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), administered by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), provides protection to plant and wildlife species listed as endangered or threatened. In general, USFWS has jurisdiction over terrestrial and fresh-water species, while NMFS has jurisdiction over ocean-going species.

Section 9 of FESA generally prohibits all persons from causing the "take" of any member of a listed species. (16 U.S.C. § 1538.) This prohibition applies mainly to animals; it only extends to plants in areas “under federal jurisdiction” and plants already protected under state law. (Id., subd. (a)(2)(B); see also Northern Cal. River Watch v. Wilcox (9th Cir. 2010) 620 F.3d 1075.)

“Take” is defined in statute as, "... to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." (16 U.S.C. § 1532(19).) “Harass” is defined in regulation as "...an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding, feeding, or sheltering." (See 50 CFR § 17.3.) “Harm” is defined in regulation as "...significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering.” (Id.) Despite the general prohibition against take, FESA in some circumstances permits “incidental take,” which means take that is incidental to, but not the purpose of, the carrying out of an otherwise lawful activity. (16 U.S.C. § 1539(a).) Under section 10 of FESA, persons seeking permission to engage in actions that could result in such incidental take can obtain such permission through the approval of a habitat conservation plan (HCP) by either USFWS or NMFS. (16 U.S.C., § 1539(a).)

Proposed federal actions that would result in take of a federal-listed or proposed species require consultation with USFWS or NMFS under section 7 of FESA. (Id., § 1536.) The objective of consultation is to determine whether the proposed federal action would jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat. Where such an outcome would not occur, USFWS or NMFS must still impose reasonable and prudent measures to minimize the effects of the incidental taking. Where such an outcome could occur, USFWS or NMFS must

propose reasonable and prudent alternatives that, if implemented, would avoid such an outcome. (Id.)

Compliance with ESA can be achieved under Section 7 or 10 of FESA depending on the involvement of the federal government. Section 7 requires federal agencies to make a finding on all federal actions, including the approval by an agency of a public or private action, such as the issuance of a "404 permit" for filling wetlands by the U.S. Army Corps of Engineers (USACE), on the potential of the action to jeopardize the continued existence of any listed species impacted by the action or to result in the destruction or adverse modification of such species' critical habitat. Provisions of Section 10 are implemented when there is no federal involvement in a project except compliance with FESA. A take not specifically allowed by federal permit under Section 7 or Section 10(a)(1)(B) of the FESA is subject to enforcement through civil or criminal proceedings under Section II of the FESA.

Migratory Bird Treaty Act

To kill, possess, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

Federal Bald and Golden Eagle Protection Act

The Federal Bald and Golden Eagle Protection Act provide regulations to protect bald and golden eagles as well as their nests and eggs from willful damage or injury.

Clean Water Act – Section 404

Section 404 of the CWA regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material including the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high-water mark (OHWM). The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

Clean Water Act – Section 401

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the RWQCB. To obtain the water quality certification, the CVRWQCB must indicate that the proposed fill would be consistent with the standards set forth by the state.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. The Act requires authorization from the USACE for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

STATE

Fish and Game Code §2050-2097 - California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers a number of laws and programs designed to protect fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 ("CESA'" Fish and Game Code Section 2050 et seq.), which regulates the listing and take of state endangered and threatened species, as well as candidate species. Under Section 2081 of CESA, CDFW may authorize take of an endangered and/or threatened species, or candidate species, by an incidental take permit or Memorandum of Understanding (MOU) for scientific, educational, or management purposes. In approving an incidental take permit, CDFW must ensure, among other things, that "[t]he impacts of the authorized take shall be minimized and fully mitigated." Further, "[t]he measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking on the species. Where various measures are available to meet this obligation, the measures required shall maintain the applicant's objectives to the greatest extent possible. All required measures shall be capable of successful implementation." To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants, as previously designated under the California Native Plant Protection Act (discussed below). Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

Fish and Game Code §2800-2835 – Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning Act is set forth in Fish and Game Code Sections 2800–2835. The intent of the legislation is to provide for conservation planning as an officially recognized policy that can be used as a tool to eliminate conflicts between the protection of natural resources and the need for growth and development. In addition, the legislation promotes conservation planning as a means of coordination and cooperation among private interests, agencies, and landowners, and as a mechanism for multispecies and multi-habitat management and conservation. The development of Natural Community Conservation Plans (NCCPs) is an alternative to obtaining take authorization under Section 2081 of the Fish and Game Code.

Fish and Game Code §1900-1913 – California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance

endangered plants. The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Fish and Game Code §3503, 3503.5, 3800 – Predatory Birds

Under California Fish and Game Code section 3503, "[i]t is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Under section 3503.5, "[i]t is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird, except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3503 allows some destruction of nests or eggs (it cannot be done "needlessly"), while section 3503.5 prohibits such destruction outright. Under section 3800, it is generally unlawful to take "any nongame bird," with some exceptions. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is commonly understood to be a take. This generally includes construction activities.

Fish and Game Code §1601-1603 – Streambed Alteration

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would substantially divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a "Streambed Alteration Agreement" from CDFW prior to any alteration of a lake bed, stream channel, or their banks. Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFW warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

Fish and Game Code §3511, 3513, 4700, and 5050 – Fully Protected Species

Fish and Game Code Sections 3511, 3513, 4700, and 5050 pertain to fully protected wildlife species (birds in Sections 3511 and 3513, mammals in Section 4700, and reptiles and amphibians in Section 5050) and strictly prohibit the take of these species. CDFW cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock, or if an NCCP has been adopted.

California Environmental Quality Act Guidelines § 15380 – Unlisted Species Worth of Protection

The CEQA Guidelines provide that a species that is not listed on the federal or state endangered species list may nevertheless be considered rare or endangered if the species meets certain criteria. (CEQA Guidelines § 15380.) Species that are not listed under FESA or CESA, but are otherwise eligible

for listing (i.e., candidate, or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. Additionally, the California Native Plant Society (CNPS), a nongovernmental organization, maintains a list of plant species native to California that have low populations, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) is California's primary water quality control statute. But its protections extend to wetlands, and in some instances wetlands that are not subject to federal jurisdiction under the Clean Water Act. Under the Porter-Cologne Act definition, waters of the state are "any surface water or groundwater, including saline waters, within the boundaries of the state." (Wat. Code, § 13050[e].) Although all waters of the United States that are within the borders of California are also waters of the state, the reverse is not necessarily true. Therefore, California retains authority to regulate discharges of waste into any waters of the state, discharges to receiving waters more broadly than the CWA does.

Waters of the state fall under the jurisdiction of the nine Regional Water Quality Control Boards (RWQCBs). Under Porter-Cologne, each RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution. California Water Code Section 13260 requires any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste

discharge requirements [WDRs]) with the applicable RWQCB. Construction activities that may discharge wastes into the waters of the state must meet the discharge control requirements of the Porter-Cologne Act.

On April 2, 2019, the State Water Resources Control Board (State Water Board) adopted Resolution 2019-0015, thereby adopting a document entitled, "State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State" ("Procedures") for inclusion in the Water Quality Control Plans for Inland Surface Waters, Enclosed Bays, and Estuaries of California.[1]

In taking this action, the State Water Board noted that under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (Wat. Code, Div. 7, § 13000 et seq.), discharges of dredged or fill material to waters of the state are subject to waste discharge requirements or waivers thereof. The State Water Board further explained that "although the state has historically relied primarily on requirements in the Clean Water Act to protect wetlands, U.S. Supreme Court rulings reducing the jurisdiction of the Clean Water Act over wetland areas by limiting the definition of 'waters of the United States' have necessitated the use of California's independent authorities under the Porter-Cologne Act to protect these vital resources."

The Office of Administrative Law (OAL) approved the Procedures on August 28, 2019. Pursuant to the Procedures, the effective date is nine months upon OAL approval. Accordingly, the Procedures will be effective May 28, 2020.

By adopting the Procedures, the State Water Board mandated and standardized the evaluation of impacts and protection of waters of the state from impacts due to dredge and fill activities. The Procedures include: 1) a wetland definition; 2) a jurisdictional framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for application submittal, and the review and approval of dredge or fill activities.

The Procedures define an area as a wetland if it meets three criteria: wetland hydrology, wetland soils, and (if vegetated) wetland plants. An area is a wetland if: (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Waters of the State, by definition, includes more aquatic features than Waters of the U.S., which defines the jurisdiction of the federal government. Waters of the State are not so limited. In addition, the federal definition of a wetland requires a prevalence of wetland vegetation under normal circumstances. To account for wetlands in arid portions of the state, the State Water Board's definition differs from the federal definition in that an area may be a wetland even if it does not support vegetation. If vegetation is present, however, the State Water Board's definition requires

[1] See: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/procedures_conformed.pdf

that the vegetation be wetland vegetation. The State Water Board's definition clarifies that vegetated and unvegetated wetlands will be regulated in the same manner.

The Procedures also include a jurisdictional framework that applies to aquatic features that meet the wetland definition. The jurisdictional framework will guide applicants and staff in determining whether an aquatic feature that meets the wetland definition will be regulated as a water of the state. The jurisdictional framework is intended to exclude from regulation any artificially-created, temporary features, such as tire ruts or other transient depressions caused by human activity, while still capturing small, naturally-occurring features, such as seasonal wetlands and small vernal pools that may be outside of federal jurisdiction. The Procedures do not expand the State Water Board's jurisdiction beyond areas already under State Water Board's jurisdiction.

The Procedures exclude the following agricultural features from the protections accorded to wetlands: (1) ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state; (2) ditches with intermittent flow that are not a relocated water of the state or excavated in a water of the state, or that do not drain wetlands other than any wetlands described in (4) or (5) below; (3) ditches that do not flow, either directly or through another water, into another water of the state; (4) artificially irrigated areas that would revert to dry land should application of waters to that area cease; or (5) artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, and settling basins.

The Procedures clarify what information and analysis the applicant needs to submit to have a complete application. The Procedures standardize when an alternative analysis needs to be conducted and set a minimum mitigation ratio for any permanent impacts to waters of the state resulting from dredge and fill activities.

When an alternatives analysis is required, the applicant must demonstrate that the proposed alternative is the Least Environmentally Damaging Practicable Alternative (LEDPA). The term practicable means available and capable of being done after taking into consideration cost, existing technology, and other logistics in light of the overall project purpose.

Water Quality Control Plan for the North Coast Region

The Water Quality Control Plan for the North Coast Region (North Coast Basin Plan) is designed to provide a definitive program of actions to preserve and enhance water quality and protect beneficial uses of all regional waters. The Basin Plan addresses many factors and activities, which may affect water quality. It includes actions to be taken by the SWRCB and the RWQCB.

Specifically, the Basin Plan:

- Designates beneficial uses of surface waters and groundwaters.
- Sets narrative and numeric objectives that must be attained or maintained to protect beneficial uses.
- Defines implementation programs that include specific prohibitions, action plans, and policies to achieve the water quality objectives.
- Describes the RWQCB's monitoring activities.

Additionally, the Basin Plan describes the RWQCB's provisions for public participation and provides the framework for the development of discharge regulation. SWRCB water quality control plans and policies also apply within the North Coast Region.

The Basin Plan is the basis for the RWQCB's regulatory programs. RWQCB orders cite the Basin Plan's beneficial uses, water quality objectives, and prohibitions applicable to a particular discharge. The Basin Plan is used by other agencies in their permitting and resource management activities. Other state offices, departments, and boards shall comply with the Basin Plan when carrying out activities that may affect water quality unless otherwise directed or authorized by statute. The Basin Plan also serves as an educational document for the RWQCB's technical staff and dischargers. Finally, the Basin Plan provides valuable information to members of the public about local water quality issues.

LOCAL

Fort Bragg Coastal General Plan

The Fort Bragg Coastal General Plan includes a number of policies relevant to biological resources and the conservation of sensitive environmental resources. The following policies apply to the proposed Project.

CONSERVATION, OPEN SPACE, ENERGY, AND PARKS ELEMENT

Policy OS-5.1. Native Species: Preserve native plant and animal species and their habitat.

Policy OS-5.2. To the maximum extent feasible and balanced with permitted use, require that site planning, construction, and maintenance of development preserve existing healthy trees and native vegetation on the site.

Policy OS-5.3. Require site planning and construction to maintain adequate open space to permit effective wildlife corridors for animal movement between open spaces.

Policy OS-5.4. Condition development projects, requiring discretionary approval to prohibit the planting of any species of broom, pampas grass, gorse, or other species of invasive non-native plants deemed undesirable by the City.

Policy OS-15.2. Protect and Restore Open Space: During the development review process, protect and restore open space areas such as wildlife habitats, view corridors, coastal areas, and watercourses as open and natural.

City of Fort Bragg Municipal Code

Chapter 17.34, Landscaping Standards, establishes requirements for landscaping to enhance the appearance of development projects, reduce heat and glare, control soil erosion, conserve water, screen potentially incompatible land uses, preserve the integrity of neighborhoods, improve air quality, and improve pedestrian and vehicular traffic and safety.

3.3.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with CEQA Guidelines section 15065, subdivision (a)(1), and Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on biological resources if it will:

- Substantially reduce the habitat of a fish or wildlife species;
- Cause a fish or wildlife population to drop below self-sustaining levels;
- Threaten to eliminate a plant or animal community; or
- Substantially reduce the number or restrict the range of an endangered, rare or threatened species;
- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

IMPACTS AND MITIGATION

Impact 3.3-1: The proposed Project would not have a direct or indirect effect on special-status invertebrate, reptile, amphibian, fish, and plant species, including through the substantial reduction of habitat or range restriction for fish or wildlife, resulting in a fish or wildlife population to drop below self-sustaining levels, or threatening to eliminate a plant or animal community (Less than Significant)

INVERTEBRATE

There are seven special-status invertebrates that are documented within the six-quadrangle region for the Project site according to the CNDDB, including: Mendocino leptonetid spider (*Calileptoneta wapiti*), Behren's silverspot butterfly (*Speyeria zerene behrensii*), globose dune beetle (*Coelus*

globosus), lotis blue butterfly (*Plebejus anna lotis*), obscure bumble bee (*Bombus caliginosus*), western bumble bee (*Bombus occidentalis*), and Ten Mile shoulderband (*Noyo intersessa*) (Refer to Table 3.3-3).

Field surveys and habitat evaluations for the entire Project site were performed on March 29, 2022 and April 20, 2022 (De Novo Planning Group, 2022). The purpose of the of these most recent surveys by De Novo Planning Group was to assess the habitat, evaluate potential for special status species, test for aquatic resources/wetlands, and to verify/validate conditions and assessments reported in past studies and regulatory databases. These 2022 field surveys occurred within the floristic period for the region. The details of what was observed in these 2022 surveys by De Novo Planning serve as the basis for the analysis in this section. The past studies corroborate De Novo's findings, and is a validation that the site conditions have not significantly changed since 2019.

The Project site is located within a built-up, urban environment and is comprised of an existing building, paved parking lot, and annual grasses and forbs with scattered shrubs that do not provide suitable habitat for the above-listed species. These seven special-status invertebrates have not been documented on the Project site, and appropriate habitat is not present. No special-status invertebrates were observed within the Project site during field surveys and none are expected to be affected by the proposed Project based on the lack of appropriate habitat. Because adequate habitat for invertebrate species is not found on-site, the Project would not reduce habitat for these species, or cause invertebrate populations to drop below-sustaining levels. As such, Project implementation would not substantially reduce the number or restrict the range of an endangered, rare or threatened invertebrate species.

Overall, the proposed Project would have a ***less than significant*** impact on special-status invertebrate species.

REPTILE AND AMPHIBIAN

There are five special-status amphibians and one special-status reptile that are documented within the six-quadrangle area for the Project site according to the CNDDB, including: foothill yellow-legged frog (*Rana boylii*), northern red-legged frog (*Rana aurora*), Pacific tailed frog (*Ascaphus truei*), red-bellied newt (*Taricha rivularis*), southern torrent salamander (*Rhyacotriton variegatus*), and western pond turtle (*Emys marmorata*). In addition, the USFWS IPAC indicates California red-legged frog (*Rana draytonii*) could occur in the region, along with two species of sea turtles. (Refer to Table 3.3-3).

As noted previously, the Project site is located within a built-up, urban environment and is comprised of an existing building, paved parking lot, and annual grasses and forbs with scattered shrubs that do not provide suitable habitat for the above-listed species. The Project site does not contain wetlands or other aquatic habitats. These six special-status amphibians and three special-status reptiles have not been documented on the Project site, and appropriate habitat is not present. No special-status amphibians or reptiles were observed within the Project site during field surveys and none are expected to be affected by the proposed Project based on the lack of appropriate habitat. Because adequate habitat for amphibian or reptile species is not found on-site,

the Project would not reduce habitat for these species, or cause amphibian or reptile populations to drop below-sustaining levels. As such, Project implementation would not substantially reduce the number or restrict the range of an endangered, rare or threatened amphibian or reptile species.

Overall, the proposed Project would have a ***less than significant*** impact on special-status reptile and amphibian species.

FISH

There are four special-status fish that are documented within the six-quadrangle area for the Project site according to the CNDDB, including: coho salmon - central California coast ESU (*Oncorhynchus kisutch pop. 4*), Pacific lamprey (*Entosphenus tridentatus*), steelhead - northern California DPS (*Oncorhynchus mykiss irideus pop. 16*), and tidewater goby (*Eucyclogobius newberryi*). (Refer to Table 3.3-3).

As noted previously, the Project site is located within a built-up, urban environment and is comprised of an existing building, paved parking lot, and annual grasses and forbs with scattered shrubs. The Project site does not provide suitable habitat for the above-listed species as the site does not contain wetlands or other aquatic habitats. These four special-status fish have not been documented on the Project site. No special-status fish were observed within the Project site during field surveys and none would be affected by the proposed Project based on the lack of appropriate habitat. Because adequate habitat for fish species is not found on-site, the Project would not reduce habitat for fish species, or cause fish populations to drop below-sustaining levels. As such, Project implementation would not substantially reduce the number or restrict the range of an endangered, rare or threatened fish species.

Overall, the proposed Project would have a ***less than significant*** impact on special-status fish species.

PLANT

There are 55 special-status plants that are documented within the six-quadrangle area for the Project site. In addition, the USFWS IPAC indicates there are an additional 3 species that could occur in the region. (Refer to Table 3.3-3).

The Project site is located within a built-up, urban environment and is comprised of an existing building, paved parking lot, and annual grasses and forbs with scattered shrubs. The Project site does not contain wetlands or other aquatic habitats, which is discussed in more detail under Impact 3.3-4. None of the plant species identified in the plant inventory are classified as wetland plants (hydrophytes) in the National Wetland Plant List. The north parcel is well over 98 percent covered by a paved parking lot and portions of the vacant building. There is a row of planted shrubbery along the north side of the parking area that includes butterfly bushes, California rose, Himalayan blackberry, pampas grass, and four ornamental trees.

No special-status plants were observed within the Project site during the most recent field surveys (2022), or the past field surveys (2019). No special status plants are expected to be affected by the

proposed Project based on the lack of appropriate habitat. Because adequate habitat for these plant species is not found on-site, the Project would not threaten to eliminate a plant or animal community.

Overall, the proposed Project would have a ***less than significant*** impact on special-status plant species.

Impact 3.3-2: The proposed Project has the potential to have direct or indirect effects on special-status bird species, including through the substantial reduction of habitat or range restriction for bird species, resulting in a bird species population to drop below self-sustaining levels, or threatening to eliminate a bird community(Less than Significant with Mitigation)

There are eight special-status birds that are documented in the CNDDB within the six-quadrangle area for the Project site according to the CNDDB, including: ashy storm-petrel (*Hydrobates homochroa*), great blue heron (*Ardea herodias*), marbled murrelet (*Brachyramphus marmoratus*), northern goshawk (*Accipiter gentilis*), osprey (*Pandion haliaetus*), purple martin (*Progne subis*), tufted puffin (*Fratercula cirrhata*), and western snowy plover (*Charadrius nivosus nivosus*). In addition, the USFWS IPAC indicates northern spotted owl (*Strix occidentalis caurina*) and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) could occur in the region. (Refer to Table 3.3-3).

Some of these species are migratory, but also reside year-round in California. Additionally, all raptors (owls, hawks, eagles, falcons), including species and their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the federal Migratory Bird Treaty Act (FMBTA), among other federal and State regulations. Raptors that are known to occur in the region include red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and great blue heron (*Ardea herodias*) among others.

According to the CDFW California Wildlife Habitat Relationships System, the habitat for great blue herons is shallow estuaries and fresh and saline emergent wetlands, as well as perches and roosts in secluded tall trees and offshore kelp beds. This species usually nests in colonies in tops of secluded large snags or live trees. Nearly 75 percent of their diet is fish. Although less common, the species can be found in croplands and pastures. Additionally, herons have been observed eating gophers and other rodents on lawns and other open spaces; however, this does not qualify these spaces as an aquatic resource, or specifically blue heron habitat, rather, this is a highly mobile bird that can thrive in upland and wetland in the presence of food resources.

The Project site is located in the middle of a commercial district, one block east of a State Highway. The area where trees exist on site are frequented by human populations and is not suitable nesting habitat. During the most recent surveys which occurred during the nesting season, there was no evidence of bird nesting on-site. It is noted that the past site surveys performed also did not see evidence of nesting on-site.

As noted previously, the Project site is located within a built-up, urban environment. Four ornamental trees are located in the northern portion of the site along South Street. These trees were inspected for evidence of nesting, which was not present.

As shown in Table 3.3-3, habitat for the aforementioned special-status bird species is not available on-site. These special-status birds have not been documented on the Project site. No special-status birds were observed within the Project site during field surveys and none are expected to be affected by the proposed Project based on the lack of appropriate habitat. Great blue herons have been identified on the properties to the north and northwest of the Project site, but not the Project site itself.

Although not high quality, potential nesting habitat is potentially present in the larger trees located within the Project site and in the vicinity. Although on-site vegetation is limited, there is also the potential for other birds that do not nest in this region and represent migrants or winter visitants to forage on the Project site. Additionally, common raptors may nest in or adjacent to the Project site.

New sources of noise and light during the construction and operational phases of the project could adversely affect nesters if they located adjacent to the Project site in any given year. Additionally, the proposed Project would eliminate the disturbed grass areas on the southern portion of the Project site, which serve as potential low-quality foraging habitat for birds throughout the year. Mitigation Measure 3.3-1 requires preconstruction surveys for active nests should any nests be found on-site or within 500 feet of Project disturbance. Implementation of the proposed Project, with the Mitigation Measure 3.3-1, would ensure that potential impacts to special status birds are reduced to a ***less than significant*** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.3-1*: The Project proponent shall implement the following measure to avoid or minimize impacts on protected bird species that may occur on the site:*

- *Preconstruction surveys for active nests of special-status birds shall be conducted by a qualified biologist in all areas of suitable habitat within 500 feet of Project disturbance. Surveys shall be conducted within 14 days before commencement of any construction activities that occur during the nesting season (February 15 to August 31) in a given area.*

- *If any active nests, or behaviors indicating that active nests are present, are observed, appropriately protective buffers around the nest sites shall be determined by a qualified biologist to avoid nest failure resulting from Project activities. The size of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. The buffers may be adjusted if a qualified biologist determines it would not be likely to adversely affect the nest. If buffers are adjusted, monitoring will be conducted to confirm that Project activity is not resulting in detectable adverse effects on nesting birds or their young. No Project activity shall commence within the buffer areas until a qualified biologist has determined that the young have fledged or the nest site is otherwise no longer in use.*

Impact 3.3-3: The proposed Project has the potential to result in direct or indirect effects on special-status mammal species, including through the substantial reduction of habitat or range restriction for mammal species, resulting in a mammal species population to drop below self-sustaining levels, or threatening to eliminate a mammal community (Less than Significant with Mitigation)

There are four special-status mammals that are documented within the six-quadrangle area for the Project site, including: hoary bat (*Lasiurus cinereus*), North American porcupine (*Erethizon dorsatum*), Sonoma tree vole (*Arborimus pomo*), and Townsend's big-eared bat (*Corynorhinus townsendii*). In addition, the USFWS IPAC indicates Pacific marten (Coastal Distinct Population Segment) (*Martes caurina*) could occur in the region. (Refer to Table 3.3-3).

The Project site is located within a built-up, urban environment and is comprised of an existing building, paved parking lot, and annual grasses and forbs with scattered shrubs. The Project site does not provide suitable habitat for the above-listed species, with the exception of bats. These special-status have not been documented on the Project site. No special-status species were observed within the Project site during field surveys and none would be affected by the proposed Project based on the lack of appropriate habitat.

There is a possibility that bats can be present in abandoned building as several members of the species are known to use similar structures for roosting. The surveys performed by De Novo Planning Group on March 29th and April 20th were a daytime habitat assessment to determine if the Project site, including the building to be removed and any vegetation present, has a potential to provide bat roosting habitat, and to determine if bats are present. All buildings and trees with a potential to provide significant bat roosting habitat were inspected with binoculars, a spotlight, a "peeper" mirror, and a borescope to look for indications of use such as guano, staining, bat smells or sounds, or visual confirmation of active occupancy. No evidence of bat roosting on the Project site was present.

Regardless of the absence of bats, or evidence of bats, on the Project site during the survey, there remains a possibility that bats could establish a roost in the abandoned building in the future. Mitigation Measure 3.3-2 would require a preconstruction bat survey. With mitigation, this impact would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.3-2: *The Project proponent shall implement the following measure to avoid or minimize impacts on special-status bat species that may occur on the site:*

- *A bat survey shall be conducted by a qualified biologist prior to demolition of the existing on-site building. The surveys shall be conducted from dusk until dark. If the weather during the bat survey makes visual observations difficult or impossible, another survey shall occur when the weather is appropriate for visual observations. If no bats or maternity roosts are found in the existing building, no further mitigation is required.*

- *If a special-status bat maternity roost is located, appropriate buffers around the roost sites shall be determined by a qualified biologist and implemented to avoid destruction or abandonment of the roost resulting from habitat removal or other project activities. The size of the buffer shall depend on the species, roost location, and specific construction activities to be performed in the vicinity. No project activity shall commence within the buffer areas until the end of the pupping season (August 1) or until a qualified biologist conforms the maternity roost is no longer active.*
- *If a non-maternal roost is located, eviction and exclusion techniques shall be conducted as recommended by the qualified biologist. Methods may include opening the roosting area to change the air flow and lighting, installing one-way doors, or other appropriate methods that allow the bats to exit and find a new roost. After eviction is believed to be completed, acoustic monitoring, and an evening emergence survey shall be performed by the qualified biologist to ensure eviction is complete. For tree removal, a two-step tree removal process involving removal of all branches that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.*

Impact 3.3-4: The proposed Project would not adversely affect federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Less than Significant)

The nearest bodies of water are the Noyo River, which is located approximately 450 feet south of the site, and the Pacific Ocean, which is located approximately 1,000 feet west of the site. During the March 29 and April 20, 2022 field surveys, a visual observation for any surface evidence of aquatic resources was performed. There are no visible streams, wet swales, wetland, or other aquatic feature on the Project site.

The NRCS Web Soil Survey (2022) maps the Project site as "Urban Land." It was found that there are three minor soil components (3%) with a hydric soil rating that can occur within this map unit. Given that there was a potential for soil inclusions of the minor components with a hydric rating, six soil test pits were dug and soils were tested for hydric characteristics. The soil test included the use of an Alpha-alpha-Dipyridyl solution to confirm the presence of ferrous (Fe++) iron in soils. Ferrous iron is an indicator of reducing conditions and the possibility of aquic conditions. Ferrous was not present in the soils tested in the six test pits, and there was no other soil characteristics that would suggest that there are aquic conditions present on the Project site. All six test pits had sandy loam. It is also noted that the *Fort Bragg Wetland Report* (Wildland Resource Managers, March 2022) provides the same conclusions that there are no aquatic resources present on the Project site. That study included four test pits.

Additionally, an inventory of plant species present was made to determine if there was a prevalence of hydrophytes. All plants identified were upland, facultative upland, or facultative plants. These are not classified as hydrophytes according to the National Wetland Plant List.

The hydrology of the Project site is such that storm water that falls on the site either seeps into the soil or sheet flows to roadside culverts and subsequent storm drains. Though the mapped soil type can have minor components with a hydric soil rating, there is no evidence of hydric soils based on specific soil testing. Additionally, there are no Obligate Wetland, or Facultative Wetland plants on the Project site.

Overall, the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.3-5: The proposed Project would not result in substantial adverse effects on riparian habitat or a sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant)

No riparian habitat is mapped on-site or within the vicinity according to the USGS and National Wetland Inventory. Additionally, there was no evidence of riparian habitat on the Project site during recent field surveys. Review of past studies also shows that there is no evidence of riparian habitat on the Project site.

The CNDDB record search revealed documented occurrences of seven sensitive habitats within the six-quadrangle area for the Project site: Coastal and Valley Freshwater Marsh, Coastal Brackish Marsh, Fen, Grand Fir Forest, Mendocino Pygmy Cypress Forest, Northern Coastal Salt Marsh, and Sphagnum Bog. These sensitive natural communities do not occur within the Project site.

Overall, the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.3-6: The proposed Project would not result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)

The site is located in a developed, urban area, and the property is not part of any corridor through which wildlife could move. The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and a Chevron station. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

The Project would not be anticipated to substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The Project site does not contain any streams, creeks, or wetland areas, and is located within an urban built-up environment with no existing wildlife corridors.

There are no existing wildlife nursery sites within or near the site that could be impacted by the project. The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Project site. Therefore, the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.3-7: The proposed Project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (Less than Significant)

The City of Fort Bragg's Coastal General Plan contains policies related to the protection and enhancement of natural resources. The Project site is not mapped for open space or environmentally sensitive areas as indicated on Map OS-1 Open Space and Environmentally Sensitive Habitat Areas.

The relevant Conservation, Open Space, Energy, and Parks Element of the General Plan establish numerous policies related to biological resources as listed below:

CONSERVATION, OPEN SPACE, ENERGY, AND PARKS POLICIES

OS-5.2 To the maximum extent feasible and balanced with permitted use, require that site planning, construction, and maintenance of development preserve existing healthy trees and native vegetation on the site.

> ***Consistent****: As noted previously, the Project site is located within a built-up, urban environment. Currently, four ornamental trees are located in the northwestern portion of the Project site, and additional ornamental trees are located along the South Street frontage. It is possible that the existing trees could be preserved as part of the proposed landscaping plan; however, it is also possible that tree removal in some capacity would be required. Removal of trees may also be necessary in order to have a viable Project design. The proposed landscaping materials have been selected for the local climate. Proposed landscaping includes trees and vegetation along the property boundaries within the proposed parking lot and bioretention basins located along the northwest and southwest boundaries. Trees would be planted along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the parking lot landscaping islands.*

OS-5.3 Require site planning and construction to maintain adequate open space to permit effective wildlife corridors for animal movement between open spaces.

> ***Consistent****: As noted previously, the Project site is located within a built-up, urban environment. The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. A 16,436-sf vacant former office*

building and associated 47-space parking lot are located in the northern half of the site. Wooden fencing is currently located along the western property line and adjacent south of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. There is no designated open space on-site. However, the southern portion of the site is vacant and has characteristics of openness. Nevertheless, any vacant or open space on site is surrounded by urban development, and the southern portion of the site is not connected to a larger corridor through which wildlife can move without interruption.

OS-5.4 Condition development projects, requiring discretionary approval to prohibit the planting of any species of broom, pampas grass, gorse, or other species of invasive non-native plants deemed undesirable by the City.

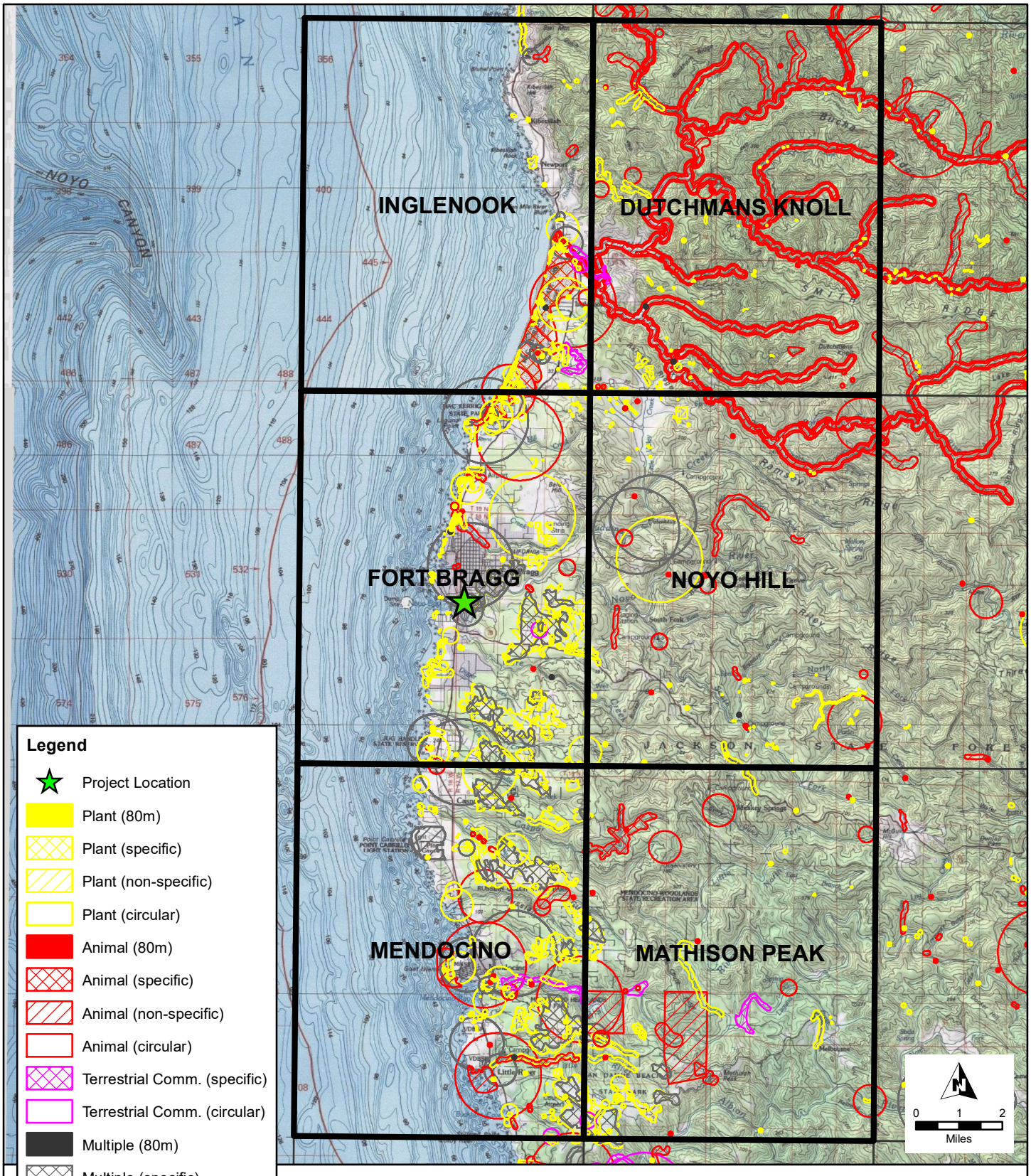
***Consistent**: As noted previously, four ornamental trees are located in the northern portion of the site along South Street, and additional ornamental trees are located along the South Street frontage. It is possible that the existing trees could be preserved as part of the proposed landscaping plan; however, it is also possible that tree removal in some capacity would be required. Removal of trees may also be necessary in order to have a viable Project design. The proposed landscaping materials have been selected for the local climate. Proposed landscaping includes trees and vegetation along the property boundaries within the proposed parking lot and bioretention basins located along the northwest and southwest boundaries. Trees would be planted along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the parking lot landscaping islands. Species of broom, pampas grass, gorse, or other species of invasive non-native plants deemed undesirable by the City would not be utilized in the proposed landscaping.*

OS-15.2 Protect and Restore Open Space: During the development review process, protect and restore open space areas such as wildlife habitats, view corridors, coastal areas, and watercourses as open and natural.

***Consistent**: The southern portion of the site is vacant with a dirt driveway, but does not qualify as one of the types of open space addressed by this policy. It does not qualify as a view corridors or a coastal area, and no watercourses are located on-site. Although limited habitat potential is found in the southern portion of the site, the mitigation measures included in this section would ensure that impacts to special-status bird and bat species would be less than significant.*

CONCLUSION

The Project would not conflict with any local policies or ordinances related to the protection of biological resources. Overall, the proposed Project would have a ***less than significant*** impact relative to this topic.

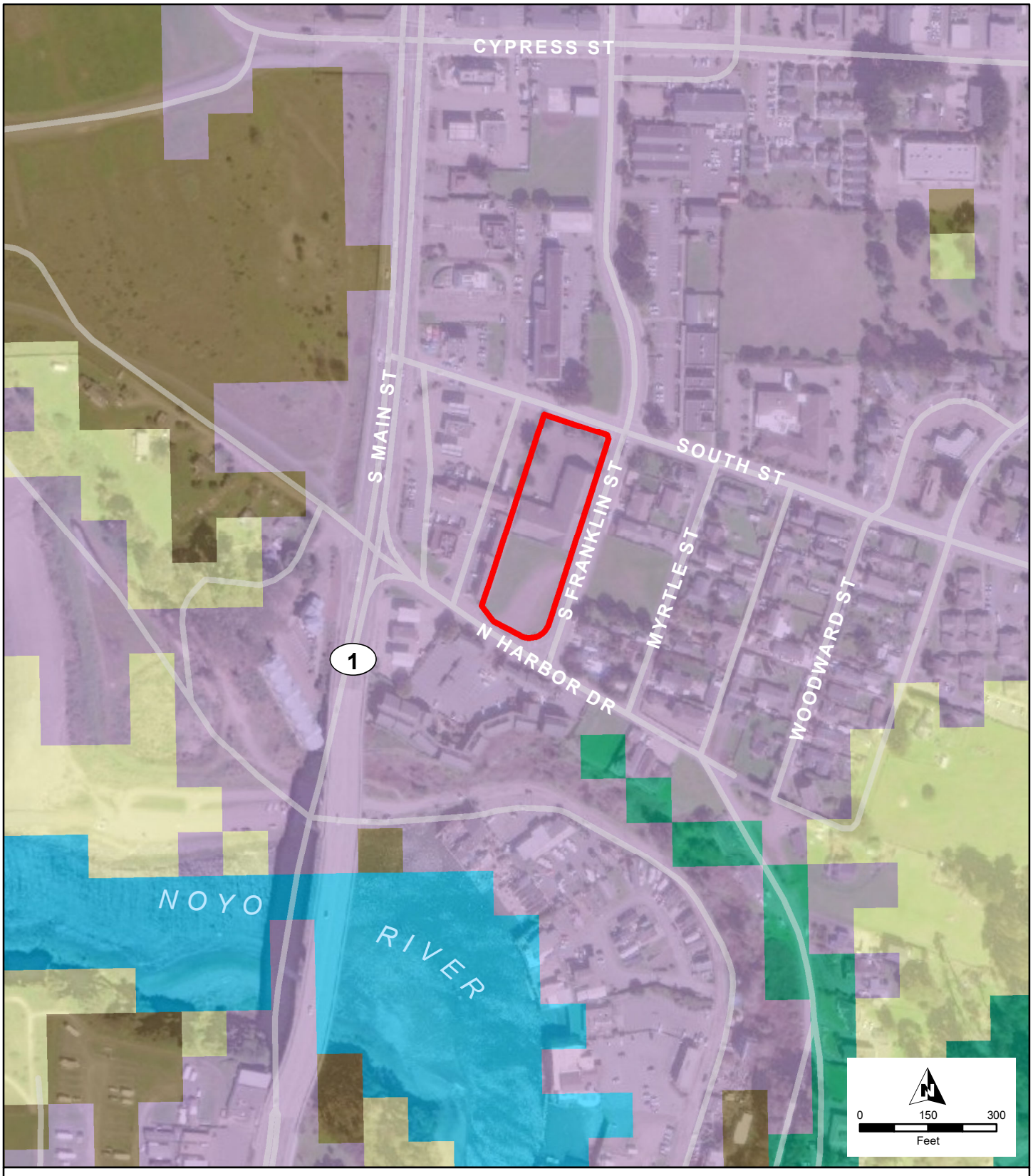


FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 3.3-1. California Natural Diversity Database 6-Quad Search

CNDDB version 1/4/2022. Please Note: the occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area. Basemap: USGS Topographic Map. Map date: January 5, 2022.

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Legend

- Project Boundary
- Annual Grassland
- Barren
- Closed-Cone Pine-Cypress
- Riverine
- Urban

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 3.3-2. Land Cover Types

Sources: Mendocino County; CALFIRE FRAP Vegetation (fveg) 1-1-2015; ArcGIS Online World Imagery Map Service, 4/1/2020. Map date: January 5, 2022.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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This section discusses regional greenhouse gas (GHG) emissions, climate change, and energy conservation impacts that could result from Project implementation. The analysis contained in this section is intended to be at a Project-level. This section provides a background discussion of greenhouse gases and climate change linkages and effects of global climate change. This section is organized with an existing setting, regulatory setting, approach/methodology, and impact analysis. The analysis and discussion of the GHG, climate change, and energy conservation impacts in this section focuses on the proposed Project's consistency with local, regional, and statewide climate change planning efforts and discusses the context of these planning efforts as they relate to the proposed Project. Disclosure and discussion of the Project's estimated energy usage and greenhouse gas emissions are provided.

There were no comments received during the public review period for the Notice of Preparation regarding this topic. Full comments received are included in Appendix A.

3.4.1 ENVIRONMENTAL SETTING

GREENHOUSE GASES AND CLIMATE CHANGE LINKAGES

Various gases in the Earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three GHGs have increased globally by 40, 150, and 20 percent, respectively (IPCC, 2013).

GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial and electricity generation sectors (California Energy Commission, 2020).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern,

respectively. California produced 440 million gross metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2016 (California Air Resources Board, 2018a).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2017, accounting for 41% of total GHG emissions in the state. This category was followed by the industrial sector (24%), the electricity generation sector (including both in-state and out of-state sources) (15%), the agriculture sector (8%), the residential energy consumption sector (7%), and the commercial energy consumption sector (5%) (California Air Resources Board, 2020c).

EFFECTS OF GLOBAL CLIMATE CHANGE

The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of water supply for the State. The snowpack portion of the supply could potentially decline by 50% to 75% by the end of the 21st century (National Resources Defense Council, 2014). This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the State; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven inches during the last century and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels (California Environmental Protection Agency, 2010). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of the Climate Scenarios report (California Environmental Protection Agency, 2010), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25% to 35% under the lower warming range and to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snow pack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snow pack, increasing the risk of summer water shortages.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major State fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25% of the water supply they need; decrease the potential for hydropower production within the State (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

Additionally, encroaching seas and waves could result in negative impacts along California's coast not only through increased flooding, but also by eroding beaches and cliffs, and by raising coastal groundwater levels. Rising seas threaten California's coast in seven categories: public infrastructure, private property, vulnerable communities, natural resources, drinking and agricultural water supplies, toxic contamination, and economic disruption. Between $8 billion and $10 billion of existing property in California is likely to be underwater by 2050, with an additional $6 billion to $10 billion at risk during high tides.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Plant products likely to be most affected include wine grapes, fruits, and nuts.

Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large wildfires. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30% toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90%.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the State. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the State's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with

saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

ENERGY CONSUMPTION

Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 33% of electricity generated from renewable resources by 2020, 60 percent by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under AB 100).

Overall, in 2018, California's per capita energy usage was ranked fourth-lowest in the nation (U.S. EIA, 2020b). California's per capita rate of energy usage has remained relatively constant since the 1970's. Many State regulations since the 1970's, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e., fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles, results in GHG emissions that contribute to global climate change. Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

Electricity Consumption

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. In 2016, more than one-fourth of the electricity supply came from facilities outside of the State. Much of the power delivered to California from states in the Pacific Northwest was generated by wind. States in the Southwest delivered power generated at coal-fired power plants, at natural gas-fired power plants, and from nuclear generating stations (U.S. EIA, 2020a). In 2016, approximately 50 percent of California's utility-scale net electricity generation was fueled by natural gas. In addition, about 25 percent of the State's utility-scale net electricity generation came from non-hydroelectric renewable technologies, such as solar, wind, geothermal, and biomass. Another 14 percent of the State's utility-scale net electricity generation came from hydroelectric generation, and nuclear energy powered an additional 11 percent. The amount of electricity generated from coal negligible (approximately 0.2 percent) (U.S. EIA, 2020a). The percentage of renewable resources as a proportion of California's overall energy portfolio is increasing over time, as directed the State's Renewable Portfolio Standard (RPS).

According to the California Energy Commission (CEC), total statewide electricity consumption increased from 166,979 gigawatt-hours (GWh) in 1980 to 228,038 GWh in 1990, which is an estimated annual growth rate of 3.66 percent. The statewide electricity consumption in 1997 was 246,225 GWh, reflecting an annual growth rate of 1.14 percent between 1990 and 1997 (U.S. EIA, 2020b). Statewide consumption was 274,985 GWh in 2010, an annual growth rate of 0.9 percent

between 1997 and 2010. In 2019, electricity consumption in Mendocino County was 581 GWh (California Energy Commission, 2022).

Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. As of 2016, world consumption of oil had reached 96 million barrels per day. The United States, with approximately five percent of the world's population, accounts for approximately 19 percent of world oil consumption, or approximately 18.6 million barrels per day (U.S. EIA, 2020c). The transportation sector relies heavily on oil. In California, petroleum-based fuels currently provide approximately 96 percent of the State's transportation energy needs.

Natural Gas/Propane

The State produces approximately 12 percent of its natural gas, while obtaining 22 percent from Canada and 65 percent from the Rockies and the Southwest (California Energy Commission, 2012). In 2006, California produced 325.6 billion cubic feet of natural gas (California Energy Commission, 2012). In 2020, natural gas consumption in Mendocino County was 9.7 million therms (California Energy Commission, 2022).

3.4.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, State attainment plans, motor National Ambient Air Quality Standards (NAAQS) vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The EPA is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

On April 2, 2007, in the court case of *Massachusetts et al. vs. the USEPA et al*. (549 U.S. 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the federal Clean Air Act (42 USC Sections 7401-7671q). The Supreme Court held that the Administrator of the United States Environmental Protection Agency must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the Administrator is required to follow the language of Section

202(a) of the Clean Air Act. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA) and CARB, the USEPA developed emission standards for light-duty vehicles (2012-2025 model years), and heavy-duty vehicles (2014-2027 model years).

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, State, and local government and private fleets to purchase a percentage of light duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the

incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 was signed into law on August 8, 2005. Generally, the act provides for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for a clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Federal Climate Change Policy

According to the EPA, "the United States government has established a comprehensive policy to address climate change" that includes slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation. To implement this policy, "the Federal government is using voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science." The EPA administers multiple programs that encourage voluntary GHG reductions, including "ENERGY STAR", "Climate Leaders", and Methane Voluntary Programs. However, as of this writing, there are no adopted federal plans, policies, regulations, or laws directly regulating GHG emissions.

Mandatory Greenhouse Gas Reporting Rule

In 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO_2 per year. This publicly available data will allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost effective opportunities to reduce emissions in the future. Reporting is at the facility level, except that certain suppliers of fossil fuels and industrial GHGs along with vehicle and engine manufacturers will report at the corporate level. An estimated 85% of the total U.S. GHG emissions, from approximately 10,000 facilities, are covered by this final rule.

STATE

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions all across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with statewide climate objectives. The discussion below will address each of these key sets of statutes, as well as CARB "Scoping Plans" intended to achieve GHG reductions under the first set of statutes and recent building code requirements intended to reduce energy consumption.

Statutes Setting Statewide GHG Reduction Targets

ASSEMBLY BILL 32 (GLOBAL WARMING SOLUTIONS ACT)

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006 (Health & Safety Code Section 38500 et seq.), also known as Assembly Bill (AB) 32 (Stats. 2006, ch. 488). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction was to be accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directed the California Air Resources Board (CARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

SENATE BILL 32

SB 32 (Stats. 2016, ch. 249) added Section 38566 to the Health and Safety Code. It provides that "[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [CARB] shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030." In other words, SB 32 requires California, by 2030, to reduce its statewide GHG emissions so that they are 40 percent below those that occurred in 1990.

Between AB 32 (2006) and SB 32 (2016), the Legislature has codified some of the ambitious GHG reduction targets included within certain high-profile Executive Orders issued by the last two Governors. The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger's 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code Section 38501, subd. (i).) That Executive Branch document included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of Cal-EPA leads the Climate Action Team, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Brown issued Executive Order, B-30-15, which created a "new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050." SB 32 codified this target.

In 2018, Governor Brown issued Executive Order B-55-18, which established a statewide goal to "achieve carbon neutrality as soon as possible, and no later than 2045, and maintain and achieve negative emissions thereafter." The order directs the CARB to work with other State agencies to identify and recommend measures to achieve those goals.

Notably, the Legislature has not yet set a 2045 or 2050 target in the manner done for 2020 and 2030 through AB 32 and SB 32, though references to a 2050 target can be found in statutes outside the Health and Safety Code. Senate Bill 350 (SB 350) (Stats. 2015, ch. 547) added to the Public Utilities Code language that essentially puts into statute the 2050 GHG reduction target already identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain State agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code now states that "[t]he Legislature finds and declares [that] … [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification." Furthermore, Section 740.12(b) now states that the California Public Utilities Commission (PUC), in consultation with CARB and the California Energy Commission (CEC), must "direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, … and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050."

Statute Setting Target for the Use of Renewable Energy for the Generation of Electricity

CALIFORNIA RENEWABLES PORTFOLIO STANDARD

In 2002, the Legislature enacted Senate Bill 1078 (Stats. 2002, ch. 516), which established the Renewables Portfolio Standard program, requiring retail sellers of electricity, including electrical corporations, community choice aggregators, and electric service providers, to purchase a specified minimum percentage of electricity generated by eligible renewable energy resources such as wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. (See Pub. Utilities Code, Section 399.11 et seq. [subsequently amended].) The legislation set a target by which 20 percent of the State's electricity would be generated by renewable sources. (Pub. Utility Code, Section 399.11, subd. (a) [subsequently amended].) As described in the Legislative Counsel's Digest, Senate Bill 1078 required "[e]ach electrical corporation … to increase its total procurement of eligible renewable energy resources by at least one percent per year so that 20 percent of its retail sales are procured from eligible renewable energy resources. If an electrical corporation fails to procure sufficient eligible renewable energy resources in a given year to meet an annual target, the electrical corporation would be required to procure additional eligible renewable resources in subsequent years to compensate for the shortfall, if funds are made available as described. An electrical corporation with at least 20 percent of retail sales procured from eligible renewable energy resources in any year would not be required to increase its procurement in the following year."

In 2006, the Legislature enacted Senate Bill 107 (Stats. 2006, ch. 464), which modified the Renewables Portfolio Standard to require that at least 20 percent of electricity retail sales be served by renewable energy resources by year 2010. (Pub. Utility Code, Section 399.11, subd (a) [subsequently amended].)

Senate Bill X1-2 (Stats. 2011, 1st Ex. Sess., ch. 1) set even more aggressive statutory targets for renewable electricity, culminating in the requirement that 33 percent of the State's electricity come from renewables by 2020. This legislation applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities were required to meet renewable energy goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020. (See Pub. Utility Code, Section 399.11 et seq. [subsequently amended].) These goals were met.

SB 350, discussed above, increased the Renewable Portfolio Standard to require 50 percent of electricity generated to be from renewables by 2030. (Pub. Utility Code, Section 399.11, subd. (a); see also Section 399.30, subd. (c)(2).) Of equal significance, Senate Bill 350 also embodies a policy encouraging a substantial increase in the use of electric vehicles. As noted earlier, Section 740.12(b) of the Public Utilities Code now states that the PUC, in consultation with CARB and the CEC, must "direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, … and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050."

Executive Order, B-16-12, issued in 2012, embodied a similar vision of a future in which zero-emission vehicles (ZEV) will play a big part in helping the State meet its GHG reduction targets. Executive Order B-16-12 directed State government to accelerate the market for in California through fleet replacement and electric vehicle infrastructure. The Executive Order set the following targets:

- By 2015, all major cities in California will have adequate infrastructure and be "ZEV ready";
- By 2020, the State will have established adequate infrastructure to support 1 million ZEVs in California;
- By 2025, there will be 1.5 million ZEVs on the road in California; and
- By 2050, virtually all personal transportation in the State will be based on ZEVs, and GHG emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

In 2018, Senate Bill 100 (Stats. 2018, ch. 312) revised the above-described deadlines and targets so that the State will have to achieve a 50% renewable resources target by December 31, 2026 (instead of by 2030) and achieve a 60% target by December 31, 2030. The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all State agencies by December 31, 2045.

In summary, California has set a statutory goal of requiring that, by 2030, 60 percent of the electricity generated in California should be from renewable sources, with increased generation capacity sufficient to allow the mass conversion of the statewide vehicle fleet from petroleum-fueled vehicles to electrical vehicles and/or other ZEVs. By 2045, all electricity must come from renewable resources and other carbon-free resources. Former Governor Brown had an even more ambitious goal for the State of achieving carbon neutrality as soon as possible and by no later than 2045. The Legislature

is thus looking to California drivers to buy electric cars, powered by green energy, to help the State meet its aggressive statutory goal, created by SB 32, of reducing statewide GHG emissions by 2030 to 40 percent below 1990 levels. Another key prong to this strategy is to make petroleum-based fuels less carbon-intensive. A number of statutes in recent years have addressed that strategy. These are discussed immediately below.

Statutes and CARB Regulations Addressing the Carbon Intensity of Petroleum-based Transportation Fuels

ASSEMBLY BILL 1493, PAVLEY CLEAN CARS STANDARDS

In 2002, the Legislature enacted Assembly Bill 1493 ("Pavley Bill") (Stats. 2002, ch. 200), which directed the CARB to develop and adopt regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks beginning with model year 2009. (See Health and Safety Code Section 43018.5.) In September 2004, pursuant to this directive, CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. These regulations created what are commonly known as the "Pavley standards." In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year. These regulations created what are commonly known as the "Pavley II standards." (See California Code of Regulations, Title 13, Sections 1900, 1961, and 1961.1 et seq.)

In 2012, CARB adopted an Advanced Clean Cars (ACC) program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. This historic program, developed in coordination with the USEPA and NHTSA, combined the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The regulations focus on substantially increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years. (See California Code of Regulations, Title 13, Sections 1900, 1961, 1961.1, 1961.2, 1961.3, 1965, 1968.2, 1968.5, 1976, 1978, 2037, 2038, 2062, 2112, 2139, 2140, 2145, 2147, 2235, and 2317 et seq.)

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 34 percent below 2016 levels by 2025, all while improving fuel efficiency and reducing motorists' costs.

Cap and Trade Program

In 2011, CARB adopted the final cap-and-trade program for California (See California Code of Regulations, Title 17, Sections 95801-96022.) The California cap-and-trade program creates a market-based system with an overall emissions limit for affected sectors. The program is intended

to regulate more than 85 percent of California's emissions and staggers compliance requirements according to the following schedule: (1) electricity generation and large industrial sources (2012); (2) fuel combustion and transportation (2015).

According to 2012 CARB guidance, "[t]he Cap-and-Trade Program will reduce GHG emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals. The statewide cap for GHG emissions from major sources, which is measured in metric tons of carbon dioxide equivalent (MTCO2e), will commence in 2013 and decline over time, achieving GHG emission reductions throughout the program's duration. Each covered entity will be required to surrender one permit to emit (the majority of which will be allowances, entities are also allowed to use a limited number of CARB offset credits) for each ton of GHG emissions they emit. Some covered entities will be allocated some allowances and will be able to buy additional allowances at auction, purchase allowances from others, or purchase offset credits."

The guidance goes on to say that "[s]tarting in 2012, major GHG-emitting sources, such as electricity generation (including imports), and large stationary sources (e.g., refineries, cement production facilities, oil and gas production facilities, glass manufacturing facilities, and food processing plants) that emit more than 25,000 $MTCO_2e$ per year will have to comply with the Cap-and-Trade Program. The program expands in 2015 to include fuel distributors (natural gas and propane fuel providers and transportation fuel providers) to address emissions from transportation fuels, and from combustion of other fossil fuels not directly covered at large sources in the program's initial phase." In early April 2017, the Third District Court of Appeal upheld the lawfulness of the cap-and-trade program as a "fee" rather than a "tax." (See *California Chamber of Commerce et al. v. State Air Resources Board et al.* (2017) 10 Cal.App.5th 604.)

AB 398 (Stats. 2017, ch. 135) extended the life of the existing Cap and Trade Program through December 2030.

Statute Intended to Facilitate Land Use Planning Consistent with Statewide Climate Objectives

CALIFORNIA SENATE BILL 375 (SUSTAINABLE COMMUNITIES STRATEGY)

This 2008 legislation built on AB 32 by setting forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for each metropolitan region for 2020 and 2035. Each of California's metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the sustainable communities strategy is to be incorporated into that region's federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the sustainable communities strategy, then an alternative planning strategy must be developed which demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

Climate Change Scoping Plans

AB 32 SCOPING PLAN

In 2008, CARB adopted its first Climate Change Scoping Plan, which contained the main strategies California would have to implement to achieve reduction of approximately 118 million metric tons (MMT) CO_2e, or approximately 22 percent from the State's projected 2020 emission level of 545 MMT of CO_2e under a business-as-usual scenario. This was a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions. CARB's original 2020 projection was 596 MMT CO_2e, but this revised 2020 projection took into account the economic downturn that occurred in 2008. The Scoping Plan also included CARB recommended GHG reductions for each emissions sector of the State GHG inventory. CARB estimated the largest reductions in GHG emissions would be by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles (26.1 MMT CO_2e);
- the Low Carbon Fuel Standard (15.0 MMT CO_2e);
- energy efficiency measures in buildings and appliances (11.9 MMT CO_2e); and
- renewable portfolio and electricity standards for electricity production (23.4 MMT CO_2e).

In 2011, CARB adopted a cap-and-trade regulation. The cap-and-trade program covers major sources of GHG emissions in the State such as refineries, power plants, industrial facilities, and transportation fuels. The cap-and-trade program includes an enforceable emissions cap that will decline over time. The State distributes allowances, which are tradable permits, equal to the emissions allowed under the cap. Sources under the cap are required to surrender allowances and offsets equal to their emissions at the end of each compliance period. Enforceable compliance obligations started in 2013. The program applies to facilities that comprise 85 percent of the State's GHG emissions.

With regard to land use planning, the Scoping Plan reflected CARB's expectation that reductions of approximately 3.0 MMT CO_2e would be achieved through implementation of Senate Bill (SB) 375, which is discussed further below.

2014 SCOPING PLAN UPDATE

CARB next revised and reapproved the Scoping Plan, and prepared the First Update to the 2008 Scoping Plan in 2014 (2014 Scoping Plan). The 2014 Scoping Plan contained the main strategies California would implement to achieve a reduction of 80 MMT of CO_2e emissions, or approximately 16 percent, from the State's projected 2020 emission level of 507 MMT of CO_2e under the business-as-usual scenario defined in the 2014 Scoping Plan. The 2014 Scoping Plan also included a breakdown of the amount of GHG reductions CARB recommended for each emissions sector of the State's GHG inventory. Several strategies to reduce GHG emissions were included: the Low Carbon Fuel Standard, the Pavley Rule, the ACC program, the Renewable Portfolio Standard, and the Sustainable Communities Strategy.

2017 SB 32 SCOPING PLAN

With the passage of SB 32, the Legislature also passed companion legislation AB 197, which provides additional direction for developing the scoping plan. In response, CARB adopted an updated Scoping Plan in December 2017, which remains operative. The document reflects the 2030 target of reducing statewide GHG emissions by 40 percent below 1990 levels codified by SB 32. The GHG reduction strategies in the plan that CARB will implement to meet the target include:

- SB 350 - achieve 50 percent Renewables Portfolio Standard (RPS) by 2030 and doubling of energy efficiency savings by 2030;
- Low Carbon Fuel Standard - increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020);
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario) - maintaining existing GHG standards for light- and heavy-duty vehicles, put 4.2 million zero-emission vehicles on the roads, and increase zero-emission buses, delivery and other trucks.
- Sustainable Freight Action Plan - improve freight system efficiency, maximize use of near-zero emission vehicles and equipment powered by renewable energy, and deploy over 100,000 zero-emission trucks and equipment by 2030;
- Short-Lived Climate Pollutant Reduction Strategy - reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030 and reduce emissions of black carbon 50 percent below 2013 levels by 2030;
- SB 375 Sustainable Communities Strategies - increased stringency of 2035 targets;
- Post-2020 Cap-and-Trade Program - declining caps, continued linkage with Québec, and linkage to Ontario, Canada;
- 20 percent reduction in GHG emissions from the refinery sector; and
- By 2018, develop an Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Building Code Requirements Intended to Reduce GHG Emissions

CALIFORNIA ENERGY CODE

The California Energy Code (California Code of Regulations, Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels, which emit GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The current 2019 Building Energy Efficiency Standards, commonly referred to as the "Title 24" standards, include changes from the previous standards that were adopted, to do the following:

- Provide California with an adequate, reasonably priced, and environmentally sound supply of energy.

- Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandated that California must reduce its GHG emissions to 1990 levels by 2020.
- Pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.
- Act on the California Energy Commission's Integrated Energy Policy Report, which finds that standards are the most cost-effective means to achieve energy efficiency, states an expectation that the Building Energy Efficiency Standards will continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Building Energy Efficiency Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions.
- Meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of State building codes.
- Meet Executive Order S-20-04, the Green Building Initiative, to improve the energy efficiency of non-residential buildings through aggressive standards.

The most recent Title 24 standards are the 2019 Title 24 standards. The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Buildings permitted on or after January 1, 2020, must comply with the 2019 Standards. The California Energy Commission updates the standards every three years.

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. This requirement will reduce greenhouse gas emissions by 700,000 metric tons over three years, equivalent to taking 115,000 fossil fuel cars off the road. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

CALIFORNIA GREEN BUILDING STANDARDS CODE

The purpose of the California Green Building Standards Code (California Code of Regulations Title 24, Part 11) is to improve public health and safety and to promote the general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental quality. The California Green Building Standards, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and State-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and

- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- **Tier I:** 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.
- **Tier II:** 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

CEQA Direction

In 2008, the Office of Planning and Research (OPR), issued Guidance regarding assessing significance of GHGs in California Environmental Quality Act (CEQA) documents; that Guidance stated that the adoption of appropriate significance thresholds was a matter of discretion for the lead agency. The OPR Guidance states:

> "[T]he global nature of climate change warrants investigation of a statewide threshold of significance for GHG emissions. To this end, OPR has asked the CARB technical staff to recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. Until such time as state guidance is available on thresholds of significance for GHG emissions, we recommend the following approach to your CEQA analysis."
>
> **Determine Significance**
>
> - When assessing a project's GHG emissions, lead agencies must describe the existing environmental conditions or setting, without the project, which normally constitutes the baseline physical conditions for determining whether a project's impacts are significant.
> - As with any environmental impact, lead agencies must determine what constitutes a significant impact. In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a "significant impact," individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice.
> - The potential effects of a project may be individually limited but cumulatively considerable. Lead agencies should not dismiss a proposed project's direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence. Documentation of available information and analysis should be provided for any project that

may significantly contribute new GHG emissions, either individually or cumulatively, directly or indirectly (e.g., transportation impacts).

- Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project.

The OPR Guidance did not require Executive Order S-3-05 to be used as a significance threshold under CEQA. Rather, OPR recognized that, until the CARB establishes a statewide standard, selecting an appropriate threshold was within the discretion of the lead agency.

In 2010, the California Natural Resources Agency added Section 15064.4 to the CEQA Guidelines, providing new legal requirements for how agencies should address GHG-related impacts in their CEQA documents. As amended in 2019, Section 15064.4 provides as follows:

> (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
>
> (1) Quantify greenhouse gas emissions resulting from a project; and/or
>
> (2) Rely on a qualitative analysis or performance-based standards.
>
> (b) In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:
>
> (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
>
> (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

> (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.
>
> (c) A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Section 15126.4, subdivision (c), provides guidance on how to formulate mitigation measures addressing GHG-related impacts:

> Consistent with section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:
>
> (1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision;
>
> (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F;
>
> (3) Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions;
>
> (4) Measures that sequester greenhouse gases;
>
> (5) In the case of the adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions,

mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.

California Supreme Court Decisions

THE "NEWHALL RANCH" CASE

On November 30, 2015, the California Supreme Court released its opinion on *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204 (hereafter referred to as the Newhall Ranch Case).

Because of the importance of the Supreme Court as the top body within the California Judiciary, and because of the relative lack of judicial guidance regarding how GHG issues should be addressed in CEQA documents, the opinion provides very important legal guidance to agencies charged with preparing EIRs.

The case involved a challenge to an EIR prepared by the California Department of Fish and Wildlife (CDFW) for the Newhall Ranch development project in Los Angeles County, which consists of approximately 20,000 dwelling units as well as commercial and business uses, schools, golf courses, parks and other community facilities in the City of Santa Clarita.

In relation to GHG analysis, the Newhall Ranch Case illustrates the difficulty of complying with statewide GHG reduction targets at the local level using CEQA to determine whether an individual project's GHG emissions will create a significant environmental impact triggering an EIR, mitigation, and/or statement of overriding consideration. The EIR utilized compliance with AB 32's GHG reduction goals as a threshold of significance and modelled its analysis on the CARB's business-as-usual (BAU) emissions projections from the 2008 Scoping Plan. The EIR quantified the project's annual emissions at buildout and projected emissions in 2020 under a BAU scenario, in which no additional regulatory actions were taken to reduce emissions. Since the Scoping Plan determined a reduction of 29 percent from BAU was needed to meet AB 32's 2020 reduction goal, the EIR concluded that the project would have a less-than-significant impact because the project's annual GHG emissions were projected to be 31 percent below its BAU estimate.

The Supreme Court concluded that the threshold of significance used by the EIR was permissible; however, the BAU analysis lacked substantial evidence to demonstrate that the required percentage reduction from BAU is the same for an individual project as for the entire State. The court expressed skepticism that a percentage reduction goal applicable to the State as a whole would apply without change to an individual development project, regardless of its size or location. Therefore, the Supreme Court determined that the EIR's GHG analysis was not sufficient to support the conclusion that GHG impacts would be less than significant.

In addition, the Supreme Court provided the following guidance regarding potential alternative approaches to GHG impact assessment at the project level for lead agencies:

1. The lead agency determination of what level of GHG emission reduction from business-as-usual projection that a new land development at the proposed location would need to achieve to comply with statewide goals upon examination of data behind the Scoping Plan's business-as-usual emission projections. The lead agency must provide substantial evidence and account for the disconnect between the Scoping Plan, which dealt with the State as a whole, and an analysis of an individual project's land use emissions (the same issues with CEQA compliance addressed in this case);

2. The lead agency may use a project's compliance with performance based standards – such as high building energy efficiency – adopted to fulfill a statewide plan to reduce or mitigate GHG emissions to assess consistency with AB 32 to the extent that the project features comply with or exceed the regulation (See Guidelines Section 15064.4(a)(2), (b)(3); see also Guidelines Section 15064(h)(3)). A significance analysis would then need to account for the additional GHG emissions – such as transportation emissions – beyond the regulated activity. Transportation emissions are in part a function of the location, size, and density or intensity of a project, and thus can be affected by local governments' land use decision making. Additionally, the lead agency may use a programmatic effort including a general plan, long range development plan, or a separate plan to reduce GHG emissions (such as Climate Action Plan or a SB 375 metropolitan regional transportation impact Sustainable Communities Strategy) that accounts for specific geographical GHG emission reductions to streamline or tier project level CEQA analysis pursuant to Guidelines 15183.5(a)-(b) for land use and Public Resources Code Section 21155.2 and 21159.28 and Guidelines Section 15183.5(c) for transportation.

3. The lead agency may rely on existing numerical thresholds of significance for GHG emissions (such as the Bay Area Air Quality Management District's proposed threshold of significance of 1,100 MT CO_2E in annual emission for CEQA GHG emission analysis on new land use projects). The use of a numerical value provides what is "normally" considered significant but does not relieve a lead agency from independently determining the significance of the impact for the individual project (See Guidelines Section 15064.7).

THE SANDAG CASE

In *Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 3 Cal.5th 497 (*SANDAG)*, the Supreme Court addressed the extent to which, if any, an EIR for a Regional Transportation Plan (RTP) with a Sustainable Communities Strategy (SCS) must address the proposed project's consistency with the 2050 target set forth in Executive Order S-03-05 (i.e., 80 percent below 1990 levels). The Court held that SANDAG did not abuse its discretion by failing to treat the 2050 GHG emissions target as a threshold of significance. The Court cautioned, however, that its decision applies narrowly to the facts of the case and that the analysis in the challenged EIR should not be used as an example for other lead agencies to follow going forward. Notably, the RTP itself covered a planning period that extended all the way to 2050.

The Court acknowledged the parties' agreement that "the Executive Order lacks the force of a legal mandate binding on SANDAG[.]" (*Id*. at p. 513.) This conclusion was consistent with the Court's

earlier decision in *Professional Engineers in California Government v. Schwarzenegger* (2010) 50 Cal.4th 989, 1015, which held the Governor had acted in excess of his executive authority in ordering the furloughing of State employees as a money-saving strategy. In that earlier case, which is not mentioned in the *SANDAG* decision, the Court held that the decision to furlough employees was legislative in character, and thus could only be ordered by the Legislature, and not the Governor, who, under the State constitution, may only exercise executive authority. In *SANDAG*, the Court thus impliedly recognized that Governors do not have authority to set statewide legislative policy, particularly for decades into the future. Even so, however, the Court noted, and did not question, the parties' agreement that "the Executive Order's 2050 emissions reduction target is grounded in sound science." (3 Cal.5th at p. 513.) Indeed, the Court emphasized that, although "the Executive Order 'is not an adopted GHG reduction plan' and that 'there is no legal requirement to use it as a threshold of significance,'" the 2050 goal nevertheless "expresses the pace and magnitude of reduction efforts that the scientific community believes necessary to stabilize the climate. This scientific information has important value to policymakers and citizens in considering the emission impacts of a project like SANDAG's regional transportation plan." (*Id*. at p. 515.)

Towards the end of the decision, the Court even referred to "the state's 2050 climate goals" as though the 2050 target from E.O. S-03-05 had some sort of standing under California law. (*Id*. at p. 519.) The Court seemed to reason that, because the Legislature had enacted both AB 32 and SB 32, which followed the downward GHG emissions trajectory recommended in the Executive Order, the Legislature, at some point, was also likely to adopt the 2050 target as well: "SB 32 … reaffirms California's commitment to being on the forefront of the dramatic greenhouse gas emission reductions needed to stabilize the global climate." (*Id*. at p. 519.) Finally, the Court explained that "planning agencies like SANDAG must ensure that CEQA analysis stays in step with evolving scientific knowledge and state regulatory schemes." (*Ibid*.)

In sum, the Court recognized that the Executive Order did not carry the force of law, but nevertheless considered it to be part of "state climate policy" because the Legislature, in enacting both AB 32 and SB 32, seems to be following both the IPCC recommendations for reducing GHG emissions worldwide and evolving science. Nothing in the decision, however, suggests that all projects, regardless of their buildout period, must address the 2050 target or treat it as a significance threshold.

LOCAL

Fort Bragg Coastal General Plan

The Fort Bragg Coastal General Plan includes two policies relevant to air quality. The following policies apply to the proposed Project.

CONSERVATION, OPEN SPACE, ENERGY, AND PARKS ELEMENT

> ***Policy OS-7.1***. Participate in Regional Planning to Improve Air Quality: Continue to cooperate with the Mendocino County Air Quality Management District (MCAQMD) in meeting the Regional Clean Air Plan.

Policy OS-7.2. Air Quality Standards: Seek to comply with State and Federal standards for air quality.

3.4.3 IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, climate change-related impacts are considered significant if implementation of the proposed Project would do any of the following:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a Climate Action Plan). The City of Fort Bragg has not adopted a GHG Reduction Plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018.

Prior to the Newhall Ranch decision, GHG analysis in CEQA documents often involved comparison of the project emissions to a "no action taken" (NAT) scenario. In the Newhall Ranch decision, the court found that, although comparison of a project to NAT (or "business as usual" [BAU]) may be appropriate in concept, the comparison of a specific local project against a statewide business as usual scenario is not an analogous comparison. Specifically, the Court stated that the business as usual approach would need to be based on a substantial evidence-supported link between data in the Scoping Plan and the project, at its proposed location, to demonstrate consistency of a project's reductions with statewide goals. It should be noted that, based on current data available, it is not possible, within the structure of the Scoping Plan sectors, to develop the evidence to reliably relate a specific land use development project's reductions to the Scoping Plan's statewide goal, as envisioned by the Court. Based on the Court's finding, the NAT approach is now considered problematic even though it is still recommended by the San Joaquin Valley Air Pollution Control District, which has not updated its guidance on this topic to account for the outcome in *Newhall Ranch*.

An approach that became popular around the State in the aftermath of the *Newhall Ranch* decision was to use an "efficiency metric" based on GHG emissions that would occur on a per capita basis or, under some more sophisticated analyses, under a "per service population" basis, with "service population" defined as the number of residents plus the number of jobs. Such efficiency metrics were seen as a way of identifying "fair share" GHG reductions attributable to the residents, employers, and workers who would live within new development.

The ability to use this approach was thrown into question, however, with the Court of Appeal decision in *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 904-905 (*Golden Door*), which set aside a significance threshold using an efficiency metric because the threshold, as developed by San Diego County, was based on needed *statewide* GHG reductions, was not tailored to San Diego County, and assumed that all projects within the County could be treated alike, regardless of their land uses or locations. The court in that case also struck down a "Guidance Document" that attempted to justify the efficiency metric threshold. The court reasoned as follows:

> The Efficiency Metric, which relies on statewide standards, must be justified by substantial evidence to explain why it is sufficient for use in projects in the County. The 2016 Guidance Document explains the recommended Efficiency Metric "represents the rate of emissions needed to achieve a fair share of the State's emissions mandate embodied in AB 32 and Executive Orders B-30-15 and S-3-05." It identifies a quantitative efficiency metric for 2020 to be 4.9 metric tons of CO2e per service population per year. The County argues this supplies San Diego specific data. However, as noted by the trial court, the service population number relies on statewide service population and GHG inventory data; it does not address the County specifically, and it does not explain why using statewide data is appropriate for setting the metric for the County. Additionally, the Efficiency Metric "allows the threshold to be applied evenly to most project types," but it does not account for variations between different types of development; nor does it explain why the per person limit would be appropriately evenly applied despite project differences. Without substantial evidence explaining why statewide GHG reduction levels would be properly used in this context, the County fails to comply with CEQA Guidelines.
>
> (27 Cal.App.5th at pp. 904-905.)

In the aftermath of this decision, environmental consultants specializing in GHG analyses, aware of both the *Newhall Ranch* and *Golden Door* decisions, have found it to be virtually impossible to fashion efficiency metrics to support significance thresholds that can account for both geography-specific and industry-specific factors and data. In other words, these consultants have not been able to credibly develop efficiency metrics that quantitatively express the precise per capita or per service population GHG reductions that would be needed for specific proposed projects at specific locations. There are simply too many variables at work. Here, there is no credible efficiency metric that can be feasibly developed to quantitively express the "fair share" of emissions reductions needed by the proposed Project.

Therefore, the analysis below foregoes any attempt to formulate a quantitative efficiency metric for use as a project-specific significance threshold. Instead, consistent with the Supreme Court's statements in *Newhall Ranch*, as mentioned earlier, the analysis focuses on the proposed project's

consistency with the State's climate goals, though as updated to reflect SB 32 (as opposed to just AB 32). In doing so, the analysis assesses whether the proposed project, with its various design features and its obligation to comply with various stringent building code requirements, is doing its *fair share* to meet these state climate goals.

Most of GHG emissions from the proposed project are being targeted at a statewide level through the implementation of existing legislation and the development and implementation of new regulations and ever-tightening building codes. As discussed earlier in this Section (3.4) of this Draft EIR, the State of California is attacking climate change on a number of fronts, and in a number of sectors. In summary, the Legislature has set a statutory goal of requiring that, by 2030, 60 percent of the electricity generated in California should be from renewable sources, with increased generation capacity intended to be sufficient to allow for the mass conversion of the statewide vehicle fleet from petroleum-fueled vehicles to electrical vehicles and/or other ZEVs. By 2045, all electricity must come from renewable resources and other carbon-free resources. Former Governor Brown had an even more ambitious goal for the State of achieving carbon neutrality as soon as possible and by no later than 2045. The Legislature is thus looking to California drivers to buy electric cars, powered by green energy, to help the State meet its aggressive statutory goal, created by SB 32, of reducing statewide GHG emissions by 2030 to 40 percent below 1990 levels. Another key prong to this strategy is to make petroleum-based fuels less carbon-intensive. Most of these mandates are wholly independent of the proposed project.

The approach taken herein consists of qualitatively evaluating the proposed project's consistency with California's GHG reduction targets, which are achieved at a local and regional level through implementation of the GHG reduction measures included within the CARB's 2017 Scoping Plan Update (which has been updated to reflect the State's GHG reduction targets in SB 32) and Mendocino Council of Government's (MCOG's) 2017 Regional Transportation Plan & Active Transportation Plan (RTP), which represents the latest RTP adopted by MCOG. Thus, if the proposed project is consistent with each of the relevant GHG reduction measures contained within these plan documents, the proposed project would comply with the State's GHG reduction targets (including SB 32) and would be doing its "fair share" to meet those targets. Therefore, in light of the *Newhall Ranch* and *Golden Door* decisions, the proposed Project is evaluated for consistency with the GHG reduction measures contained in the CARB's 2017 Scoping Plan Update and the MCOG's 2017 RTP.

Conclusion

Based on the discussion above, the following threshold is applied to this analysis:

- The proposed Project is evaluated for its consistency with the GHG reduction measures contained in the CARB's 2017 Scoping Plan Update and the MCOG's 2017 RTP.

If the project demonstrates that it is consistent with these plan documents, the proposed Project would not be anticipated to generate GHG emissions that would have a significant impact on the environment, or conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

THRESHOLDS OF SIGNIFICANCE (ENERGY CONSERVATION)

Consistent with Appendices F and G of the CEQA Guidelines, energy-related impacts are considered significant if implementation of the proposed Project would do the following:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;

In order to determine whether or not the proposed Project would result in a significant impact on energy use, this EIR includes an analysis of proposed Project energy use, as provided under *Impacts and Mitigation Measures* below.

IMPACTS AND MITIGATION MEASURES

Impact 3.4-1: Project implementation would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Less than Significant)

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. Implementation of the proposed Project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 and other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O), from mobile sources and utility usage.

The proposed Project's short-term construction-related and long-term operational GHG emissions were estimated using the California Emission Estimator Model (CalEEMod)™ (v.2020.4.0). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., MT CO_2e), based on the global warming potential of the individual pollutants.

SHORT-TERM CONSTRUCTION GHG EMISSIONS

Estimated maximum mitigated GHG emissions associated with construction of the proposed Project are summarized in Table 3.4-1. These emissions include all worker vehicle, vendor vehicle, hauler

vehicle, and off-road construction vehicle GHG emissions. For the purposes of this analysis, based on input from the Project applicants, the proposed Project is assumed to commence construction in 2022 and finish in early 2023. It should be noted that this schedule is an approximation and may change.[1]

TABLE 3.4-1: MAXIMUM CONSTRUCTION GHG EMISSIONS (MITIGATED AVERAGE MT CO_2E/YEAR)

YEAR	BIO- CO_2	NON-BIO- CO_2	TOTAL CO_2	CH_4	N_2O	CO_2E
2022	0	122.8	122.8	<0.1	<0.1	123.9
2023	0	25.4	25.4	<0.1	<0.1	25.6
Maximum	**0**	**122.8**	**122.8**	**<0.1**	**<0.1**	**132.9**

SOURCES: CALEEMOD (V.2020.4.0)

As presented in the table, short-term construction emissions of GHGs are estimated at a maximum of approximately 132.9 MT CO_2e per year. To account for the contribution of construction emissions to the project's non mobile source annual emissions profile, construction emissions are amortized over an assumed 30-year operational timeframe; amortized annual emissions equal 4.43 MT CO_2e.

OPERATIONAL GHG EMISSIONS

The operational GHG emissions estimate for the proposed Project includes on-site area, energy, mobile, waste, and water emissions generated by the Project during its operation. Estimated GHG emissions associated with the proposed Project are summarized in Table 3.4-2, below.

As shown in the following table, as conservatively modeled (as described in further detail below), the annual mitigated GHG emissions associated with the proposed Project would be approximately 696.5 MT CO_2e/year. Total annual mitigated emissions without mobile emissions would be approximately 124.5 MT CO_2e/year.

TABLE 3.4-2: OPERATIONAL GHG EMISSIONS AT BUILDOUT (MITIGATED METRIC TONS/YEAR)

	BIO- CO_2	NON-BIO- CO_2	TOTAL CO_2	CH_4	N_2O	CO_2E
Area	0	<0.1	<0.1	0	0	<0.1
Energy	0	74.3	74.3	<0.1	<0.1	75.0
Mobile	0	558.0	558.0	0.1	<0.1	571.9
Waste	18.5	0	18.5	1.1	0	45.8
Water	0.6	1.0	1.6	0.1	<0.1	3.7
Total	**19.1**	**633.4**	**652.5**	**1.2**	**<0.1**	**696.5**
Total without Mobile	**19.1**	**75.3**	**94.4**	**1.2**	**0**	**124.5**

SOURCES: CALEEMOD (V.2020.4.0)

[1] It should be noted that the actual construction schedule would be later than the construction schedule modeled in CalEEMod. Therefore, the modeling provides for a more conservative estimate of Project construction-related emissions that is anticipated to actually occur, since State-level regulations that affect construction-related (on- and off-road) vehicle emissions become more stringent over time.

VMT and Mobile Source GHG Emissions. It should be noted that CalEEMod does not account for Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20), which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035. This is anticipated to substantially reduce the operational emissions associated with passenger vehicles (i.e. mobile emissions) over time. Therefore, the operational emissions results provided in Table 3.4-2 are likely an overestimate for mobile emissions, assuming the Executive Order is implemented.

Moreover, as described in Section 3.6: Transportation and Circulation, and as described in the *CEQA VMT Analysis* prepared by Fehr & Peers (Fehr & Peers, 2022). the proposed Project has the potential to reduce net VMT (i.e. to lower VMT compared with the baseline condition), which would imply that the results in Table 3.4-2 likely represent a large overestimate for project net mobile emissions. The OPR advises that, for retail projects:

> ***Retail Projects****: Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically reroute travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.*

The traffic study indicated that based on the location of competing stores, the Grocery Outlet Store's most likely effect on regional travel is to slightly reduce the length of trips from areas south of the river off of SR 20 or SR 1 that are today made northbound, and to offer another option for shopping trips made by residents of areas to the north. The regional effect on VMT is likely to be small, but generally will be reduced by offering a closer option for northbound traffic. This conclusion is consistent with the OPR presumption that the VMT effects of locally serving retail uses of 50,000 sf or less may be considered to be less than significant.

It is noted that testimony offered at the Planning Commission supported the conclusion that the Grocery Outlet Store would reduce regional VMT. More specifically, many speakers described driving to the existing Grocery Outlet Store in Willits and stated that they would patronize the new store in Fort Bragg if it were built. This redistribution of current traffic to a closer Grocery Outlet Store is consistent with OPR guidance.

Overall, by introducing a neighborhood retail use on an urban infill site, the proposed project would reduce VMT by offering customers more retail choices in closer proximity to trip origins. Based on guidance provided by the California Office of Planning and Research for implementing California Senate Bill 743, local serving retail uses with building sizes of 50,000 square feet or less can be presumed to have a less than significant impact from generating VMT. Given that the project VMT impact is less than significant, the mobile source GHG emissions the project generates can also be assumed to have a less than significant impact. In fact, the net reduction in existing levels of VMT should translate into a net reduction in existing levels of GHG emissions from persons using automobiles to engage in retail shopping in the retail area to be served by the proposed project. It should also be noted that, although a proportion of the new trips generated by the project would be generated by project employees (i.e. traveling to and from the project site), such trips are not

anticipated to represent more than a miniscule proportion of total daily trips generated by the project.[2]

Non-Mobile Source GHG Emissions. Project operations would generate GHG emissions from energy use (electricity), natural gas use (area source), waste generation, and water use, as shown in Table 3.4-2.

As previously noted, the bright line threshold adopted by the MCAQMD was developed to guide new development within each district with the goal of meeting the state's Assembly Bill 32 statewide GHG emissions reduction target of 20 percent below 1990 levels by 2020. Assembly Bill 32 was passed in 2006.

With the subsequent passage of Senate Bill 32 in 2016, the state set a deeper GHG reduction target of 40 percent below 1990 levels by 2030. Consequently, the bright line thresholds identified above are no longer valid after 2020. Reducing this bright line threshold by an additional 20 percent, to 880 MT CO_2e/year, would approximate bright line values of 40 percent below 1990 levels to meet the 2030 emissions reduction target. The MCAQMD has not adopted this scaled down value as a threshold of significance, nor has the air district or City adopted this value as such. Rather, this value is used to qualitatively assess the relative magnitude of non-mobile source emissions from the proposed project.

As provided in Table 3.4-2, total emissions (without mobile emissions) for the proposed project would be approximately 124.5 MT CO_2e/year, which is well below the scaled down threshold. The project emissions volume is substantially below the value of 880 MT CO_2e/year, which indicates that the non-mobile source project emissions should not be considered to have a significant impact.

CONSISTENCY WITH CALIFORNIA'S POST-2020 TARGETS

The State's 2030 GHG goal was codified under SB 32 and is addressed by the 2017 Scoping Plan Update. The new plan provides a strategy that is capable of reaching the SB 32 target if the measures included in the plan are implemented and achieve reductions within the ranges expected. Under the Scoping Plan Update, local government plays a supporting role through its land use authority and control over local transportation infrastructure. The 2017 Scoping Plan Update includes reductions from implementation of SB 375 that applies to VMT from passenger vehicles. SB 375 is implemented with the MCOG's RTP. The MCOG's RTP envisions an increase in development density that would encourage fewer and shorter trips and more trips by transit, walking, and bicycling in amounts sufficient to achieve the SB 375 targets.

[2] Given that the project would generate approximately 1,094 new daily trips on a weekday and 1,818 on a Saturday (KD Anderson, 2019), and worker daily trips are anticipated to be no greater than approximately 29 new daily trips (based on the project size of 16,436 square feet and an estimate of one daily employee per 1,124 square feet [as estimated by the U.S. Department of Energy], and two new daily trips per employee), the proportion of employee trips would only be approximately 2-3% of new daily trips.

Now that the 2017 Scoping Plan has been adopted, new methodologies and threshold approaches are required to determine the fair-share contributions City projects would need to make to achieve the 2030 target. In the meantime, however, the discussion under "Consistency with SB 32" below addresses the consistency of the proposed project with SB 32, which provides the statutory underpinning of the 2017 Scoping Plan. The SB 32 target requires GHG emissions to be reduced from 1990 levels. As explained earlier, no consensus has been reached around the State on a new quantitative target for new development based on consistency with the SB 32 targets, and the *Golden Door* decision, in any event, disallows efficiency metrics based solely on statewide reduction targets.

The Executive Order S-3-05 2050 target has not been codified by legislation. However, studies have shown that, in order to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the project's impacts further relative to the 2050 goal is speculative for purposes of CEQA.

The CARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate." In addition, the CARB's First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by the ARB would serve to reduce the proposed project's post-2020 emissions level to the extent applicable by law:

- Energy Sector: Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the proposed project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the project's emissions level.

- Transportation Sector: Anticipated deployment of improved vehicle efficiency, zero-emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the project's emissions level.

- Water Sector: The project's emissions level will be reduced as a result of further desired enhancements to water conservation technologies.

- Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the project's emissions level.

For the reasons described above, the project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve "three ambitious goals" that he would like to see accomplished by 2030 to reduce the State's GHG emissions:

- Increasing the State's Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the State agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change.[3]

Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.[4]

Given the proportional contribution of mobile source-related GHG emissions to the State's inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above, the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

Consistency with SB 32

As explained above, the 2017 Scoping Plan Update includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

[3] Brown, Edmund G. Jr. 2015. Press Release: California Establishes Most Ambitious Greenhouse Gas Goal in North America. April 29.
Website: https://agnetwest.com/governor-brown-establishes-most-ambitious-greenhouse-gas-reduction-target-in-north-america/. Accessed April 28, 2022.

[4] Energy and Environmental Economics. 2015. Pathways to Deep Decarbonization in the United States. Website: https://ww2.arb.ca.gov/sites/default/files/2020-07/williams.pdf. Accessed April 28, 2022.

- SB 350
    - Achieve 50 percent Renewables Portfolio Standard by 2030.
    - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard
    - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
    - Maintaining existing GHG standards for light- and heavy-duty vehicles.
    - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
    - Increase ZEV buses, delivery, and other trucks.
- Sustainable Freight Action Plan
    - Improve freight system efficiency.
    - Maximize use of near Zero-Emission Vehicles and equipment powered by renewable energy.
    - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
    - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
    - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
    - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
    - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
    - The ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 3.4-3 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

TABLE 3.4-3: CONSISTENCY WITH THE SB 32 2017 SCOPING PLAN UPDATE

SCOPING PLAN MEASURES	*PROJECT CONSISTENCY*
SB 350 50 percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	**Not applicable**. This measure would apply to utilities and not to individual projects. The proposed Project would purchase electricity from PG&E, a utility subject to the SB 350 Renewable Mandate and the RPS requirements. SB 100 has increased the 2030 RPS standards to 60 percent by 2030, superseding the increase required by SB 350. PG&E has been aggressively adding renewable energy to its energy mix over recent years. As of 2021, renewables accounting for approximately 50 percent of PG&E's 2021 electric power mix.[5] By 2030, PG&E will have in excess of 60 percent of its electric power mix as renewables.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. The proposed Project would not utilize existing buildings. New structures would be required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed Project would be required to comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable**. This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would be required to adhere to these standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Not applicable**. This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would be required to adhere to these standards.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero-emission operation and maximize near zero-emission freight vehicles and equipment powered by renewable energy by 2030.	**Consistent**. This measure applies to owners and operators of trucks and freight operations. The proposed Project would support truck and freight operations that would benefit from this efficiency increase.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Not applicable**. The proposed project would not include major sources of black carbon. This measure revolves around ARB's SLCP Reduction Strategy that was released in April 2016 as a result of SB 650. SB 650 required the State to develop a strategy to reduce emissions of SLCPs. Diesel particulate matter (DPM) reductions have come from strong efforts to reduce on-road vehicle emissions. Car and truck engines used to be the largest sources of anthropogenic black carbon emissions in California, but the State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable**. The proposed project does not include the development of a Regional Transportation Plan.

Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable**. The proposed project is not one targeted by the cap-and-trade system regulations, and therefore, this measure does not apply to the project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not applicable**. The proposed Project would not include land designated for agriculture, and is located at an infill site.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (ARB). 2017. THE 2017 CLIMATE CHANGE SCOPING PLAN UPDATE. JANUARY 20. WEBSITE: HTTPS://WW2.ARB.CA.GOV/SITES/DEFAULT/FILES/CLASSIC/CC/SCOPINGPLAN/2030SP_PP_FINAL.PDF. ACCESSED APRIL 28, 2022.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would be required to comply with whatever measures are enacted that State lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, the ARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, the ARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan Update provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed project's emissions, and the progress being made by the State toward reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment.

Table 3.4-4 provides an analysis of the project's consistency with the MCOG's RTP measures.

[5] See: https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page

TABLE 3.4-4: CONSISTENCY WITH THE MCOG 2017 RTP

SCOPING PLAN MEASURES	*PROJECT CONSISTENCY*
Goal 1: Build a combination of transportation facilities that, when evaluated as a group, will result in improved air quality, reduced transportation-related air toxins and greenhouse gas emissions in Mendocino County, and a more resilient transportation network.	**Consistent**. The proposed Project is anticipated to reduce net VMT, by rerouting some existing trips to the Willits Grocery Outlet (located approximately 35 miles from Fort Bragg) to the Project store. This would help to preserve the existing transportation facilities, and result in improved air quality and a reduction in transportation-related air toxics and greenhouse gases in Mendocino County.
Goal 2: Encourage coordination of land use and public investments in a way that improves accessibility to services, employment and housing – thereby strengthening the local and state economies.	**Consistent**. The proposed Project is an infill project, which improves accessibility to services and employment. Specifically, the proposed Project would develop a grocery store in an area that has a lack of existing grocery stores. Moreover, the proposed Project is anticipated to reroute existing trips to the Willits Grocery Store (located approximately 35 miles from Fort Bragg) to the Project store, thereby strengthening the local economy.
Goal 3: To improve our public spaces so the street, road and transportation system meets the needs of all surface transportation modes, including vehicular, bicycle, pedestrian and transit.	**Consistent**. The proposed Project is an infill project, which utilizes the existing street, road, and transportation system infrastructure. In addition, the Project site would be easily accessible by all surface transportation modes, including vehicular, bicycle, pedestrian, and transit modes.
Goal 4: A transportation system allowing the efficient free flow of goods and freight, including agricultural goods, within and through the region.	**Consistent**. The proposed Project is an infill project, which utilizes the existing transportation infrastructure. The proposed Project would not limit the free flow of goods and freight within and through the region; rather, development of the proposed Project would support the efficient free flow of goods and freight, including agricultural goods, within and through the region.
Goal 5: Provide a safe transportation system and enable rapid and safe evacuation and emergency response.	**Consistent**. The proposed Project is an infill project, which utilizes the existing transportation infrastructure. Therefore, development of the proposed Project would not hinder a safe transportation system, nor would it hinder a rapid and safe evacuation response.
Goal 6: Provide safe, efficient transportation for regional and interregional traffic while maintaining quality of life for residents of the county.	**Consistent**. The proposed Project is an infill project, which utilizes the existing transportation infrastructure. Additionally, net VMT is anticipated to be reduced after development of the proposed Project. Therefore, the proposed Project would not negatively impact the overall transportation system, and would support a safe, efficient transportation for regional and interregional traffic.
Goal 7: Provide a safe and efficient transportation network, connecting local community roads and major transportation corridors and meeting the transportation needs of the communities served by these facilities.	**Consistent**. The proposed Project is an infill project, which utilizes the existing transportation infrastructure. Additionally, net VMT is anticipated to be reduced after development of the proposed Project. Therefore, the proposed Project would not negatively impact the transportation network, and would meet the transportation needs of the community.
Goal 8: Provide a safe and useable network of bicycle and pedestrian facilities throughout the region as a means to lessen dependence on vehicular travel and improve the health of Mendocino County's residents.	**Consistent**. The proposed Project is an infill project, which utilizes the existing transportation infrastructure. The proposed Project would be easily accessible by bicycle and pedestrian modes of transportation. Therefore, the proposed Project would facilitate the existing safe and useable network of bicycle and pedestrian facilities located nearby.
Goal 9: Maximize investment in non-motorized transportation facilities through maintenance.	**Consistent**. The proposed Project is an infill project, which utilizes the existing transportation infrastructure. The proposed Project would be easily accessible by bicycle and pedestrian modes of transportation. Development of the proposed Project would generate additional funds to support nearby existing non-motorized transportation facilities. Therefore, the proposed Project would support non-motorized transportation facilities.

Goal 10: A coordinated and effective public transit system, which serves the needs of the citizens of Mendocino County, to the extent feasible.	**Consistent**. The proposed Project is an infill project, and is located near to the existing public transit system in Fort Bragg, including from the Mendocino Transit Authority. Therefore, it is anticipated that the public transit system would increase with development of the proposed Project. Development of the proposed Project would not hinder the existing public transit system.
Goal 11: A fully operational rail transportation system connecting Mendocino County to interregional, state and national rail system service, providing safe and efficient access for freight and passenger movement.	**Consistent**. The proposed Project is an infill project, which would not conflict with existing rail transportation.
Goal 12: A safe, efficient, and well maintained system of airports that meet the aviation needs of Mendocino County residents, visitors, commerce, and emergency services.	**Consistent**. The proposed Project is an infill project, which would not conflict with existing airports.
Goal 13: An adequate, well maintained, safe and efficient system of maritime facilities that meet the regional and interregional needs of commercial, recreational, and emergency services maritime vessels.	**Consistent**. The proposed Project is an infill project, which would not conflict with existing maritime facilities.
Goal 14: For Tribal residents within Mendocino County to have safe, effective, functional transportation systems, including streets, roads, pedestrian and bicycle facilities and transit.	**Consistent**. The proposed Project is an infill project, which would provide additional services to tribal residents within Mendocino County. Moreover, since the proposed Project is anticipated to reduce net VMT, the proposed Project would reduce the regional impact to the existing transportation systems, overall.
Goal 15: To provide proper stewardship of transportation resources and maximize the effectiveness of these resources to fulfill RTP goals and objectives.	**Consistent**. The proposed Project is an infill project. Since the proposed Project is anticipated to reduce net VMT, the proposed Project would reduce the regional impact to the existing transportation systems, overall.

SOURCE: MENDOCINO COUNCIL OF GOVERNMENTS. 2018. 2017 MENDOCINO COUNTY REGIONAL TRANSPORTATION PLAN. WEBSITE: HTTPS://WWW.MENDOCINOCOG.ORG/FILES/742330750/2017+RTP+AS+ADOPTED%28WEB+FORMAT%29.PDF

CONCLUSION

The proposed Project would not conflict with any of the GHG reduction measures contained with the CARB's 2017 Scoping Plan Update and the MCOG's RPT, as provided above. Moreover, the proposed Project is anticipated to reduce overall VMT, when accounting for even a modest trip redistribution from the VMT currently generated from trips from Fort Bragg to the Willits Grocery outlet. Therefore, the proposed Project would be consistent with the State GHG reduction targets, and would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, the proposed Project's criteria pollutant emissions would be considered to have a ***less than significant*** impact.

Impact 3.4-2: Project implementation would not result in the inefficient, wasteful, or unnecessary use of energy resources (Less than Significant)

The CEQA Guidelines requires consideration of the potentially significant energy implications of a Project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to the CEQA

Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered "wasteful, inefficient, and unnecessary" if it were to violate State and federal energy standards and/or result in significant adverse impacts related to Project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The amount of energy used by the proposed Project during operation would directly correlate with the amount of energy used by Project buildings and outdoor lighting, and the generation of vehicle trips associated with the proposed Project. Other Project energy uses include fuel used by vehicle trips generated during Project construction and operation, fuel used by off-road construction vehicles during construction activities, and fuel used by Project maintenance activities during Project operation.

It should be noted that the proposed Project would incorporate several renewable energy and energy efficiency features. For example, the proposed Project is required by the California Building Energy Efficiency Standards (Energy Code) to be "solar ready";[6] specifically, the proposed Project includes a solar-ready area of 2,400 square feet. Additionally, the proposed Project would include pre-wiring for four EV charging stations, although the actual EV charging stations are not anticipated to be installed at the time of Project first operation. Furthermore, the proposed Project would incorporate water-efficient approaches to landscaping, consistent with the Model Water Efficient Landscaping Ordinance.

The following discussion provides a detailed calculation of energy usage expected for the proposed Project, as provided by applicable modelling software (i.e. CalEEMod v2020.4.0 and the CARB EMFAC2021). Additional assumptions and calculations are provided within Appendix B.2 of this EIR.

ENERGY

Electricity used by the proposed Project would be used primarily to generate energy for the building and the outdoor parking lot lighting. As shown in the following tables, "Energy" is one of the categories that was modeled for GHG emissions. The total unmitigated and mitigated GHG emissions generated from the "Energy" category is 75.0 MT CO_2e.

[6] When a building is built to be solar ready, applicable Energy Code requirements prepare the building for future installation of a solar energy system.

ON-ROAD VEHICLES (OPERATION)

The proposed Project would generate vehicle trips during its operational phase. A description of Project operational on-road mobile energy usage is provided below.

According to the Traffic Study prepared for the proposed Project (KD Anderson, 2019), and as described in more detail in Section 3.6 of this EIR, the proposed Project would increase total vehicle trips by approximately 1,094 net new daily trips during weekdays, and 1,818 net new daily trips on a Saturday. In order to calculate operational on-road vehicle energy usage and emissions, De Novo Planning Group used fleet mix data from the CalEEMod (v2020.4.0) output for the proposed Project, Year 2023 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2021, weighted average MPG factors for gasoline and diesel were derived. Therefore, upon full buildout, the proposed Project would generate operational vehicle trips that would use a total of approximately 147 gallons of gasoline and 25 gallons of diesel per day, or 53,493 gallons of gasoline and 9,134 gallons of diesel per year.

ON-ROAD VEHICLES (CONSTRUCTION)

The proposed Project would also generate on-road vehicle trips during Project construction (from construction workers and vendors travelling to and from the Project site). De Novo Planning Group estimated the vehicle fuel consumed during these trips based the assumed construction schedule, vehicle trip lengths and number of workers per construction phase as provided by CalEEMod, and Year 2022 gasoline and diesel MPG factors provided by EMFAC2021 (year 2022 factors were used to represent a conservative analysis, as the energy efficiency of construction activities is anticipated to improve over time). For the sake of simplicity, it was assumed that all construction worker light duty passenger cars and truck trips use gasoline as a fuel source, and all medium and heavy-duty vendor trucks use diesel fuel. Table 3.4-5, below, describes gasoline and diesel fuel consumed during each construction phase (in aggregate). As shown, the vast majority of on-road mobile vehicle fuel used during the construction of the proposed Project would occur during the building construction phase. There is no feasible mitigation available that would reduce on-road mobile vehicle GHG emissions generated by the Project construction activities (requiring the use of electric construction vehicles was deemed infeasible, given price and availability concerns). See Appendix B.2 of this EIR for a detailed accounting of construction on-road vehicle fuel usage estimates.

TABLE 3.4-5: ON-ROAD MOBILE FUEL GENERATED BY PROJECT CONSTRUCTION ACTIVITIES – BY PHASE

CONSTRUCTION PHASE	*# OF DAYS*	*TOTAL DAILY WORKER TRIPS(A)*	*TOTAL DAILY VENDOR TRIPS(A)*	*TOTAL HAULER WORKER TRIPS(A)*	*TOTAL GALLONS OF GASOLINE FUEL(B)*	*TOTAL GALLONS OF DIESEL FUEL(B)*
Demolition	20	20	0	75	108	103
Site Preparation	2	8	0	0	7	0
Grading	4	10	0	0	17	0
Building Construction	100	27	11	0	1,134	75
Paving	10	13	0	0	55	0
Architectural Coatings	10	5	0	0	21	0
Total	**N/A**	**N/A**	**N/A**	**N/A**	**1,342**	**178**

NOTE: (A) PROVIDED BY CALEEMOD OUTPUT. (B)SEE APPENDIX B.2 OF THIS EIR FOR FURTHER DETAIL

SOURCE: CALEEMOD (V.2020.4.0); EMFAC2021.

OFF-ROAD VEHICLES (CONSTRUCTION)

Off-road construction vehicles would use diesel fuel during the construction phase of the proposed Project. A non-exhaustive list of off-road constructive vehicles expected to be used during the construction phase of the proposed Project includes: forklifts, generator sets, tractors, excavators, and dozers. Based on the total amount of CO_2 emissions expected to be generated by the proposed Project (as provided by the CalEEMod output), and standard conversion factors (as provided by the U.S. Energy Information Administration), the proposed Project would use a total of approximately 2,599 gallons of diesel fuel for off-road construction vehicles. Detailed calculations are provided in Appendix B.2 of this EIR.

CONCLUSION

The proposed Project would use energy resources for the operation of Project buildings (natural gas and electricity), outdoor lighting (electricity), for on-road vehicle trips (e.g. gasoline and diesel fuel) rerouted by the proposed Project, and from off-road and on-road construction activities associated with the proposed Project (e.g. diesel fuel). Each of these activities would require the use of energy resources. The proposed Project would be responsible for conserving energy, to the extent feasible.

The proposed Project would have to comply with all applicable federal, State, and local regulations regulating energy usage. For example, PG&E, the electric and natural gas provider to the proposed Project, is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the statewide RPS to increase the proportion of renewable energy (e.g. solar and wind) within its energy portfolio. PG&E achieved its RPS requirement to achieve at least a 33% mix of renewable energy resources by 2020, and it on track to achieve at least a 60% mix of renewable energy by 2030. Other statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

Moreover, the proposed Project would incorporate several renewable energy and energy efficiency features. For example, the proposed Project is required by the California Building Energy Efficiency Standards (Energy Code) to be "solar ready"; specifically, the proposed Project includes a solar-ready area of 2,400 square feet. Additionally, the proposed Project would include four EV charging stations. Furthermore, the proposed Project would incorporate water-efficient approaches to landscaping, consistent with the Model Water Efficient Landscaping Ordinance.

The proposed Project would comply with all existing energy standards and would not be expected to result in significant adverse impacts on energy resources. For these reasons, the proposed Project would not cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the thresholds as described by the *CEQA Guidelines*. This is a ***less than significant*** impact.

This section describes the existing land uses on the Project site and in the surrounding area, describes the applicable land use regulations, and evaluates the environmental effects of implementation of the proposed Project related to land use. Information in this section is based on the following reference documents: *Fort Bragg Coastal General Plan* (City of Fort Bragg, July 2008), the *City of Fort Bragg Commercial District Design Guidelines* (City of Fort Bragg, June 2004) and the Fort Bragg Municipal Code (City of Fort Bragg, 2021).

One comment was received during the public review period for the Notice of Preparation regarding this topic from the following: Leslie Kashiwada (June 20, 2022). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

As discussed in the Initial Study prepared for the proposed project, development of the Project site would not result in physical barriers, such as a highway, wall, or other division, that would divide an existing community, but would serve as an orderly extension of existing and planned development. Therefore, the proposed Project would have ***no impact*** related to established communities. As such, this CEQA topic will not be further discussed.

3.5.1 ENVIRONMENTAL SETTING

EXISTING PHYSICAL ENVIRONMENT

The Project site is located at 825, 845, and 851 S. Franklin Street in the City of Fort Bragg, Mendocino County, California.

Project Site

The 1.63-acre site is located on the north side of N. Harbor Drive, the west side of S. Franklin Street, and the south side of South Street. The Project site is located approximately 230 to 450 feet east of S. Main Street/Highway 1 (a four-lane conventional highway managed by the California Department of Transportation [Caltrans]) and is located in the City's Coastal Zone. Properties within the Coastal Zone are regulated by the Coastal Land Use and Development Code (CLUDC), also known as Fort Bragg Municipal Code (FBMC) Title 17. The Project site consists of three parcels identified by Assessor's Parcel Numbers (APNs) 018-120-47, 018-120-48 and 018-120-49.

The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. A 16,436 square-foot (sf) vacant former office building and associated 47-space parking lot are located in the northern half of the site. The building, locally referred to as the "Old Social Services Building", has not been leased since 2010 but has been used as storage since then. Wooden fencing is currently located along the western property line and adjacent to the south side of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs.

The Project site does not contain any creeks/streams, riparian areas, or wetlands on-site (USFWS, 2020). The Project site is located in Zone "X", area of minimal flood hazard, as shown on Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer FIRMette map number 06045C1016G, effective July 18, 2017.

GENERAL PLAN AND ZONING

The Project site has a Fort Bragg Coastal General Plan land use designation of Highway Visitor Commercial (CH) and a City zoning designation of Highway Visitor Commercial (CH). No changes to the Project site's current land use or zoning designations are proposed under the proposed Project. The City General Plan land use designations and zoning designations for the Project site and surrounding area are shown on Figure 2.0-4 in Chapter 2.0.

SURROUNDING LAND USES

The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and Chevron. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

3.5.2 REGULATORY SETTING

STATE

Government Code

California Government Code Section 65300 et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a jurisdiction and of any land outside its boundaries that, in the jurisdiction's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the jurisdiction's vision for the area. The general plan is a long-range document that typically addresses the physical character of an area over a substantial time period, such as 20 years. Although the general plan serves as a blueprint for future development and identifies the overall vision for the planning area, it remains general enough to allow for flexibility in the approach taken to achieve the plan's goals.

Chapter 4 of the State Planning and Zoning Law, entitled Zoning Regulations (California Government Code Section 65800 et seq.), establishes that, in general law cities such as Fort Bragg (as opposed to charter cities), zoning ordinances, which are laws that define allowable land uses within a specific district, are required to be consistent with the general plan and any applicable specific plans. When

amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure the land uses designated in the general plan would also be allowable by the zoning ordinance (Government Code, Section 65860, subd. [c]).

LOCAL

Fort Bragg Coastal General Plan

As noted above, General Plans are prepared under a mandate from the State of California, which requires each city and county to prepare and adopt a comprehensive, long-term general plan for its jurisdiction and any adjacent related lands. State law requires General Plans to address seven mandated components: circulation, conservation, housing, land use, noise, open space, and safety. In addition to those components required by State law, the Fort Bragg Coastal General Plan also contains optional elements, including Community Design and Public Facilities.

FORT BRAGG COASTAL GENERAL PLAN POLICIES

General Plan policies associated with specific environmental topics (air quality, biological resources, noise, transportation, utilities, etc.) are discussed in the relevant chapters of this EIR.

Fort Bragg Municipal Code – Coastal Land Use and Development Code

Title 17 of the Fort Bragg Municipal Code constitutes the City of Fort Bragg Coastal Land Use and Development Code, and in part, constitutes the Implementation Program portion of the City's Local Coastal Program and carries out the policies of the Fort Bragg Coastal General Plan, by classifying and regulating the uses of land and development within the geographic portion of the City located within the coastal zone, consistent with the Coastal General Plan. The Development Code is adopted to protect coastal resources, and to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents, and businesses in the City. More specifically, the purposes of this Development Code are to:

A. Provide standards and guidelines for the continuing orderly growth and development within the coastal zone of the City that will assist in protecting the character and community identity of Fort Bragg;
B. Conserve and protect the City's coastal resources including public access opportunities, visitor and recreational facilities, marine resources, biological resources, environmentally sensitive habitat areas, archaeological resources, waterways, hills and trees, scenic vistas, and other historic and environmental resources;
C. Create a comprehensive and stable pattern of land uses upon which to plan transportation, water supply, sewerage, energy, and other public facilities and utilities;
D. Minimize automobile congestion by promoting pedestrian-oriented development, safe and effective traffic circulation, and adequate off-street parking facilities;
E. Ensure compatibility between different types of development and land use;

F. Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners; and
G. Prevent damage and injury from disasters such as flood, tsunamis, and geologic hazards.

ZONING MAP

The Zoning Map identifies zoning districts within the city at the parcel level. The Zoning Map designates the Project site CH. The CH zoning district is applied to sites along Highway 1 and arterials at the entry points to the community. Allowable land uses include lodging, restaurants, and retail stores. The maximum allowable residential density within the CH district for the residential component of a mixed-use project is 24 dwelling units per acre; the maximum floor area ratio (FAR) is 0.40. The CH zoning district implements and is consistent with the CH land use designation of the Coastal General Plan.

CHAPTER 17.22, COMMERCIAL ZONING DISTRICTS

Chapter 17.22 of the Development Code lists the land uses that may be allowed within the commercial zoning districts established by Section 17.14.020 (Zoning Map and Zoning Districts), determines the type of planning permit/approval required for each use, and provides basic standards for site layout and building size.

City of Fort Bragg Citywide Design Guidelines

The City of Fort Bragg Citywide Design Guidelines (2022) set expectations for site and building design in order to maintain and enhance the small-town, coastal, historic, and rural character of Fort Bragg. Property owners and professionals will use these guidelines when planning improvements and City staff, boards, and commissions will use them in development review. Consistency with the Citywide Design Guidelines is mandatory in the Design Review permit process, and these guidelines work in conjunction with other City regulations to ensure development throughout the City is functional and attractive. The Guidelines contain general standards and guidelines for all development, as well as for specific land uses and signs. Some standards are mandatory, while some of preferred.

Some of the applicable Design Guidelines which the Project would be subject to include, but are not limited to, the following:

Architectural Form & Detail Mandatory Standards

1. Franchise architecture is strongly discouraged. Buildings shall be readily reusable by other tenants and should not be identified with a design that is specific to a franchise.
2. Commercial development shall compliment and/or Incorporate design elements and features from the historic architectural styles of the Central Business District, such as bay windows, porches, projecting eaves, awnings, and similar elements that add visual interest to the development.

Architectural Form & Detail Preferred Standards

1. Commercial development should include a higher level of architectural detailing and higher quality materials at the pedestrian level of the building.
2. Architectural style should be compatible with the surrounding character, including building style, form, size, materials, and roofline.
3. The use of awnings, canopies, recesses, and arcades is strongly encouraged to provide protection for pedestrians and to add interest and color to buildings. Awning placement should fit within the scale, proportion, and rhythm created by the distinct architectural elements and should not cover piers, pilasters and other architectural details. Awnings should be compatible in color and design with the buildings. Awning frames and supports should be painted or coated metal or other non-corroding material and designed to withstand wind loads.

Lighting Mandatory Standards

1. Exterior lighting shall be designed as part of the overall architectural style of the building and should illuminate entries, driveways, walkways, and activity areas.
2. Entrances shall be well illuminated for safety and identification purposes.
3. Lighting sources shall be hidden unless the sources are an integral part of the design. Lighting fixtures should not project above the fascia or roofline of the building.
4. Partial or full cutoff lighting is required. Exterior lighting shall be located and designed to avoid shining directly onto nearby residential properties, and shall minimize off-site glare. The latest technical and operational energy conservation concepts should be considered in lighting designs.
5. Parking lot lighting fixtures shall be no taller than 16 feet in height and shall cast light downward without allowing glare or light to encroach upon neighboring properties.

Lighting Preferred Standards

1. Subtle and minimalist lighting may be used to accent architectural features and landscaping. Accent lighting should not contribute to glare or distract from the overall ambient night lighting in the neighborhood.
2. Exterior lighting should not have a color temperature above 4500 Kelvin.
3. Site lighting should minimize impact between the various uses (i.e. shielding commercial lighting from residential uses).

Overall Sign Guidelines Mandatory Standards

1. Signs shall be designed to relate to the architectural features of the building on which they are located and create visual continuity with other storefronts on the same or adjacent buildings.
2. Signs shall coordinate with the building design, materials, color, size, and placement.

Overall Sign Guidelines Preferred Standards

1. Signs that reflect the type of business through design, shape, or graphic form are encouraged.
2. Signs should coordinate with the building design, materials, color, size, and placement.

3.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on land use and planning if it will:

- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Additionally, this section provides an analysis of the potential for the proposed project to result in urban decay. Under CEQA, an EIR should only consider direct and indirect physical effects of projects. Section 15064(d) of the CEQA Guidelines states that, "In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which is caused by and immediately related to the project." Section 15064(d)(3) further states that, "An indirect physical impact is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable." In addition, CEQA requires that a determination that a project may have a significant environmental effect must be based on substantial evidence (CEQA Guidelines §15064(f)).

On the secondary socioeconomic effects of projects, Section 15131(a) of the CEQA Guidelines indicates that, "Economic and social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." In other words, economic and social changes are not, in themselves, considered under CEQA to be significant effects on the environment.

Since only physical effects are to be considered under CEQA, economic and social changes resulting from a project may be considered if they in turn produce changes in the physical environment. To fully satisfy the requirements of an EIR, an economic analysis must start with the economic impacts. The analysis would then follow the causal chain to assess the likelihood of new retail space causing long-term vacancies in existing retail space and ultimately leading to urban decay and physical deterioration of existing retail centers and nodes.

In recent years, the California Courts have identified the term "urban decay" as the physical manifestation of a project's potential socioeconomic impacts and have specifically identified the

need to address the potential for urban decay in environmental documents for large retail projects, or mixed use projects with a notable retail component. The leading case is Bakersfield Citizens for Local Control v. City of Bakersfield (2004) 124 Cal.App.4th 1184, in which the court set aside two environmental impact reports for two proposed Wal-Mart projects that would have been located less than five miles from each other. This was the first court decision to use the term "urban decay," as opposed to the term "blight." The court quoted "experts [who] are now warning about land use decisions that cause a chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake." (Id. at p. 1204.) The court also discussed prior case law that addressed the potential for large retail projects to cause "physical deterioration of [a] downtown area" or "a general deterioration of [a] downtown area." (Id. at pp. 1206, 1207). The Bakersfield court also described the circumstances in which the duty to address urban decay issues arise.

Accordingly, there are two pertinent questions to be asked with regard to the effects of the proposed project in terms of this economic impact and urban decay analysis: 1) would the proposed new retail uses result in sales losses that are sufficiently large at existing retail establishments to force some to close; and 2) would the affected closed stores stay idle long enough to create physical changes that could be defined as urban decay?

While the measurement of urban decay is not strictly defined under CEQA, this analysis assumes that the term describes significant deterioration of existing structures and/or their surroundings. This is based upon the premise that such deterioration occurs when property owners reduce property maintenance activities below that required to keep such properties in good condition. It assumes that property owners make rational economic decisions about maintaining their property and are likely to make reductions in maintenance activities only under conditions where they see little likelihood of future positive returns from such expenditures. Where vacancy rates are low or growth rates are high, property owners are likely to see the prospect of keeping properties leased-up at favorable rents. Where vacancy rates are high and persistent, and growth rates are low, property owners are more likely to have a pessimistic view of the future and be prone to reducing property maintenance as a way to reduce costs.

However, whether or not conditions in between those discussed above (i.e. moderate vacancy levels that persist for a few years) are likely to lead to "urban decay" depends on many factors including the growth prospects of the market area, the future state of the national and local economy, financial strength of existing tenants and landlords, and the profitability and viability of existing commercial centers.

IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: The proposed Project would not conflict with an applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect. (Less than Significant)

Land use plans, policies, and regulations that were adopted to avoid or mitigate an environmental effect include the Fort Bragg General Plan and Fort Bragg Coastal Land Use and Development Code. Consistency with these plans, policies, and regulations are discussed below.

FORT BRAGG COASTAL GENERAL PLAN

Since general plans often contain numerous policies emphasizing differing legislative goals, a development project may be "consistent" with a general plan, taken as a whole, even though the project appears to be inconsistent or arguably inconsistent with some individual policies. (*Sequoyah Hills Homeowners Association v*. *City of Oakland* (1993) 23 Cal.App.4th 704, 719.) "Because policies in a general plan reflect a range of competing interests, the governmental agency must be allowed to weigh and balance the plan's policies when applying them, and it has broad discretion to construe its policies in light of the plan's purposes." (*San Franciscans Upholding the Downtown Plan v. City & County of San Francisco* (2002) 102 Cal.App.4th 656, 678.) Compliance with a particular policy, however, is required where the policy is "fundamental, mandatory and specific[.]" (*Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of Sup'rs* (1998) 62 Cal.App.4th 1332, 1341-1342; see also *Old East Davis Neighborhood Association v. City of Davis* (2021) 73 Cal.App.5th 895 [288 Cal.Rptr.3d 573, 583].)

The ultimate question of the meaning of particular General Plan policies, and thus the proposed Project's consistency with them, lies with the City Council. The language found in general plan is sometimes susceptible to varying interpretations. Case law interpreting the Planning and Zoning Law (Gov. Code, § 65000 et seq.) makes it clear that: (i) the ultimate meaning of such policies is to be determined by the elected city council or a lower tier decision-making body such as a planning commission, as opposed to city staff and EIR consultants, applicants, or members of the public; and (ii) the decision-making body's interpretations of such policies will prevail if challenged in court if the interpretations are "reasonable," even though other reasonable interpretations are also possible (See *No Oil, Inc.* v. *City of Los Angeles* (1987) 196 Cal.App.3d 223, 245-246, 249).

As discussed below, City Staff has concluded that the proposed Project is consistent with the key land use issues and development concepts of the Fort Bragg Coastal General Plan. Should City decision-makers choose to approve the proposed Project, they can rely on the analysis in this section, including Table 3.5-1 below, as support for the conclusion that the proposed Project is consistent with the General Plan policies discussed herein. Certification of the Final EIR will be indicative of agreement with the conclusions in the table.

The Project site is located within the City limits and will provide employment-generating uses that will promote employment and economic development, while providing retail grocery opportunities.

City staff concludes that the proposed Project is consistent with the General Plan land use policies that encourage commercial development located within, contiguous with, or in close proximity to, existing developed areas and encourage employment- and tax-generating businesses that support the economic diversity of the City.

When land uses are not consistent with a General Plan there are two courses of action: 1) the uses are not allowed due to the inconsistency, or 2) the land uses are changed through an amendment to the General Plan to create consistency. The land uses as proposed are consistent with the General Plan designation for the property.

Additionally, as shown in Table 3.5-1, the proposed Project, in City Staff's opinion, is consistent with all of the applicable General Plan policies that aim to avoid or mitigate an environmental effect.

TABLE 3.5-1: GENERAL PLAN POLICY CONSISTENCY

GENERAL PLAN POLICY	*PROJECT CONSISTENCY*
LAND USE	
LU-1.1 Implementation of the Land Use Designations Map: Implement the Land Use Designations Map by approving development and conservation projects consistent with the land use designations, and ensure consistency between the Coastal General Plan and the Coastal Land Use & Development Code	**Consistent.** The Project is consistent with the existing land use designation for the Project site. The Project site has a City of Fort Bragg General Plan land use designation of Highway CH. No change to the Project site's current land use designation is proposed under the Project.
LU-4.1 Formula Businesses and Big Box Retail: Regulate the establishment of formula businesses and big box retail to ensure that their location, scale, and appearance do not detract from the economic vitality of established commercial businesses and are consistent with the small town, rural character of Fort Bragg.	**Consistent.** To determine whether the: 1) location; 2) scale; and 3) appearance of the proposed Grocery Outlet would detract from the economic vitality of established commercial businesses, staff has prepared the following analysis: **Location:** The zoning designation, Highway Visitor Commercial, is applied to sites along CA Hwy 1 and is generally vehicle oriented. Land uses in the immediate vicinity of the project site include lodging, restaurant, café, retail and auto repair. Both the proposed project (retail) and adjacent existing businesses are permitted land uses by right, adhering to the intent of the CH zoning district, and thus would not detract from the economic vitality of established commercial businesses. **Scale:** New development is comparable in scale with existing buildings and streetscape. The size of the proposed retail store is comparable with other buildings in the immediate vicinity and would not detract from the economic vitality of established commercial businesses. The new building is slightly smaller than the existing, and similar two-story buildings exist in the vicinity.

GENERAL PLAN POLICY	*PROJECT CONSISTENCY*
	Appearance: Staff required the applicant to modify and revise the initial project design to better comply with the Citywide Design Guidelines. The Design Review Permit process gives an opportunity to further evaluate the proposed design and, if desired, to further modify the design in order to ensure the appearance does not detract from the economic vitality of established commercial businesses.
LU-4.3 Large-Scale Commercial Development: To maintain scenic views of the coast and to ensure that building sizes at the City's gateways are in scale with the community, no commercial building shall exceed the following limitations on the gross floor area: **a) between the Noyo River and Pudding Creek Bridges - maximum 50,000 square feet;** **b) east of Highway One and north of Pudding Creek Bridge - maximum 30,000 square feet;** **c) west of Highway One and north of Pudding Creek Bridge and south of the Noyo River Bridge - maximum 15,000 square feet; and** **d) east of Highway One and south of Noyo River Bridge – maximum 40,000 square feet.**	**Consistent.** The Project is consistent with this policy. The Project would result in construction of a 16,157-sf Grocery Outlet store on the Project site. The site is located east of Highway 1, north of the Noyo River, and south of the Pudding Creek Bridge.
LU-4.4 Standards for Commercial Uses in Residential Areas: Commercial uses in and adjacent to residential areas shall not adversely affect the primarily residential character of the area.	**Consistent.** The Project is consistent with this policy. Commercial uses are located to the west, north, and south of the site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots zoned General Commercial. The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. Upon development of the Project, the site would contain a grocery store with parking areas. The retail grocery store would be a maximum of 28 feet tall at the top of the proposed canopy and a maximum of 23 feet tall at the top of the proposed parapet. The proposed building includes differentiated treatments along the base, mid-section, and top along the three facades facing public streets, windows would remain clear glass for lighting a view out, and the roofline on the corner cut-off entrance is also unique to the other rooflines for additional visual interest. The building will be composed of elements and details representative of Fort Bragg's architectural heritage, as the Applicant's chosen design elements were influenced by Fort Bragg's downtown architecture. The window and door treatments give homage to the smaller shops along the main downtown street's detailing as well as the Hardie Board (wood composite) wood paneling, masonry, and providing a variety of the materials on the elevations to add visual interest.

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	Rooflines of the building would align with buildings on adjacent properties to avoid clashes in building height. The proposed architecture would blend with the existing surrounding development.
LU-10.2: Locating New Development. New residential, commercial, or industrial development, except as otherwise provided in the LCP, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. Where feasible, new hazardous industrial development shall be located away from existing developed areas.	**Consistent.** The Project site is located in an existing developed area and the proposed Project would include development of a commercial building on a site that can accommodate the proposed use.
LU-10.4: Ensure Adequate Services and Infrastructure for New Development. Development shall only be approved when it has been demonstrated that the development will be served with adequate water and wastewater treatment. Lack of adequate services to serve the proposed development shall be grounds for denial of the development.	**Consistent.** As discussed in Section 3.7 of this Draft EIR, the development will be served with adequate water and wastewater treatment. All impacts related to utilities and services systems, including water and wastewater treatment, would be less than significant. As discussed, the average Grocery Outlet Store uses 300 to 450 gallons of water per day (109,500 to 164,250 gallons per year) in both domestic water for the store and irrigation water for the landscaping. The Grocery Outlet store average use is considerably lower than was estimated using the average commercial space rate. Additionally, drought tolerant landscaping will be required. The usage for the proposed Project is expected to be less than 25 percent of the average water usage of other grocers in the City. In part, this is due to the operations of the market which does not include a deli, meat counter, bakery, or food preparation. Everything arrives packaged and in addition to the landscaping, water is used mainly for sanitation, restrooms, and other minor uses. To provide further context, for the FY 19-20 the City produced 272,833,000 gallons of water and sold 200,164,052 gallons. In that year, grocery stores made up less than 2 percent of the City's water sales. The increase in water sales in the city would be approximately 0.055 percent and a 0.04 percent increase in the usage of treated water. Further, because cause this is a commercial building, the applicant will be required to show that the facility has adequate pressure to accommodate fire suppression. However, this is not a CEQA impact because the project will not impact the water pressure of the existing distribution system. The fire hydrants in this location have sufficient pressure and flows as documented in the

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	2013 study and re-verified in 2015, the last time the City conducted a complete pressure system test. Nothing has changed in system pressure since that time and there is no reason to believe that this business will create a significant change, however, pursuant of the California Building Codes, the water pressure will be tested to document pressures mentioned above.
PUBLIC FACILITIES	
PF-1.1: All new development proposals shall be reviewed and conditioned to ensure that adequate public services and infrastructure can be provided to the development without substantially reducing the services provided to existing residents and businesses.	**Consistent.** As discussed in Section XV, Public Services, of the Initial Study, adequate public services exist to serve the Project. As discussed in Section 3.7 of this Draft EIR, all impacts related to utilities and services systems would be less than significant.
PF-1.2: Ensure Adequate Services and Infrastructure for New Development. No permit for development shall be approved unless it can be demonstrated that such development will be served upon completion with adequate services, including but not limited to potable water; wastewater collection, treatment and disposal; storm drainage; fire and emergency medical response; police protection; transportation; schools; and solid waste collection and disposal; as applicable to the proposed development. **a. Demonstration of adequate water and sewer facilities shall include evidence that adequate capacity will be available within the system to serve the development and all other known and foreseeable development the system is committed to serving, and that the municipal system will provide such service for the development;** **b. Demonstration of adequate road facilities shall include information demonstrating that (i) access roads connecting to a public street can be developed in locations and in a manner consistent with LCP policies; and (ii) that the traffic generated by the proposed development, and all other known and foreseeable development, will not cause Levels of Service (LOS) of roads, streets, and intersections within the City to reduce below LOS standards contained in Policy C-1.1 of the Circulation Element of the Coastal General Plan.**	**Consistent.** The proposed Project would include redevelopment of the Project site in order to replace a 16,436-sf vacant former office building with a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site. As discussed in Section XV, Public Services, of the Initial Study, adequate public services exist to serve the Project. As discussed in Section 3.7 of this Draft EIR, all impacts related to utilities and services systems would be less than significant.
PF-1.3 Ensure Adequate Service Capacity for Priority Uses: **a. New development that increases demand for new services by more than one equivalent dwelling unit (EDU) shall only be permitted in the Coastal Zone if,** • **Adequate services do or will exist to serve the proposed development upon completion of the**	**Consistent. Water Supply.** The City developed a new 45-acre-foot raw water reservoir called Summers Lane Reservoir to ensure adequate water storage during years of severe drought and to meet the water quality needs for the Fort Bragg Water Service District. The reservoir draws water from an existing water line which previously ran from Waterfall Gulch to Newman Gulch and stores raw water for the City's potable water use. With the

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proposed development, and • **Adequate services capacity would be retained to accommodate existing, authorized, and probable priority uses upon completion. Such priority uses include, but are not limited to, coastal dependent industrial (including commercial fishing facilities), visitor serving, and recreational uses in commercial, industrial, parks and recreation, and public facilities districts. Probable priority uses are those that do not require an LCP amendment or zoning variance in the Coastal Zone.** **b. Prior to approval of a coastal development permit, the Planning Commission or City Council shall make the finding that these criteria have been met. Such findings shall be based on evidence that adequate service capacity remains to accommodate the existing, authorized, and probable priority uses identified above.**	development of Summers Lane Reservoir, the City was also able to obtain additional water storage capacity to meet the needs of a buildout development scenario in the City of Fort Bragg. The City has a licensed water right to divert water from the Noyo River as well as permanent license to divert water from both Newman Gulch and Waterfall Gulch, a tributary to Hare Creek. The water is piped from Summers Lane Reservoir to the Newman Reservoir and on to the treatment plant (City of Fort Bragg, 2014). The City currently has the ability to store 6,300,000 gallons of treated water, including two 1,500,000-gallon tanks at the Corporation Yard and one across the street and a smaller tank at the Highway 20 Fire Station. Additional untreated water storage of 3,300,000 gallons is accommodated within the two raw water storage ponds at the Water Treatment Plant, Newman Reservoir, and the Waterfall Gulch pond. There is also a significant volume of water stored within the City's distribution system. The Summers Lane Reservoir holds approximately 14,700,000 gallons of raw water for a total storage of approximately 22,800,000 gallons. City water customers use about 600,000 to a million gallons of water per day in the summer. Water supply analyses indicate the City has sufficient water supply to serve the projected buildout of the City of Fort Bragg as currently zoned within the existing City Limits through 2040. **Water and Wastewater Service.** The existing water connection on South Street includes a 6-inch fire service and is proposed to be the main water service to the building, with a new 8-inch fire connection to be constructed to the east of the existing connection. There is an existing 4-inch sewer lateral extending from the existing manhole on South Street that is proposed to be removed and replaced with the construction of a new 6-inch sewer lateral per City standards. As all-new development is required to pay its fair share of the water system infrastructure and future capital improvements through the Water Capacity Charge, the applicant will be required to pay water capacity charges when they secure their Building Permit. Additionally, as all new development is required to pay its fair share of the wastewater system infrastructure and future capital improvements through the wastewater Capacity Charge, the applicant will be required to pay wastewater capacity charges when they

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	secure their Building Permit.
PF-2.1 Development Pays Its Share: Require that new development pay its share of capital improvements and the cost of public services to maintain adequate levels of service.	**Consistent.** The Project would be required to pay its share of capital improvements and the cost of public services. The Project would be conditioned to have a fair share agreement.
CONSERVATION, OPEN SPACE, ENERGY, AND PARKS	
OS-4.1 Preserve Archaeological Resources: New development shall be located and/or designed to avoid archaeological and paleontological resources where feasible, and where new development would adversely affect archaeological or paleontological resources, reasonable mitigation measures shall be required.	**Consistent.** A Cultural Resources Inventory Survey (Cultural Survey) was prepared by Genesis Society on August 15, 2019, to evaluate the Project's potential to impact cultural resources in conformity with the City of Fort Bragg and Mendocino County rules and regulations, and in compliance with requirements of CEQA and the CEQA Guidelines. This study was reviewed for adequacy as part of the Initial Study that was circulated with the Notice of Preparation. The review determined that there is no potential for new cultural events or historical changes to have occurred on this site since the 2019 Cultural Study was performed. The 2019 Cultural Study was found to be adequate and remains valid. The Cultural Survey (Genesis Society, 2019) found that no historical resources or historic properties have been documented within the project area. While the proposed project includes the demolition of an existing building, the existing building is a contemporary (post-1996) commercial building. As a result, no impact would occur. The project is not anticipated to cause a substantial adverse change in the significance of an archaeological resource or disturb any human remains. Based on the records search conducted at the NWIC, the consultation undertaken with the NAHC, and the Tribal consultation effort completed by Genesis Society (2019), no unique archaeological resources or prehistoric cultural material was identified in the project area. The Cultural Survey recommends archaeological clearance for the proposed project, with the inclusion of general provisions that recommend consultation and protocol in the event of inadvertent discovery. A standard condition of approval to that effect has been applied to the project. The proposed project is found consistent with policies of the City of Fort Bragg for protection of cultural resources, including human remains. It is also noted that the Sherwood Valley Tribe was previously notified of the Project in 2019. As noted in the tribe's response letter for the proposed Project consultation, "The Tribe originally reviewed a cultural resources inventory in 2019. At that time, the Tribe responded and stated no significant historical or unique

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	archaeological resources at this site. As of today, the Tribe, as the Most Likely Descendants (MLD), takes the stance that no significant historical or unique archaeological resources are prevalent at this site. The Sherwood Tribe has no objections to the proposed work at this time. As always, the Tribe requests that if any cultural sites or artifacts are uncovered during work, that work immediately cease and the Sherwood Valley Tribe be notified immediately."
OS-5.1 Native Species: Preserve native plant and animal species and their habitat.	**Consistent.** Limited habitat and native vegetation are located on-site. Four ornamental trees are located in the northern portion of the site along South Street. These trees would likely be removed and replaced with drought tolerant native species as will be required by a special condition. Proposed landscaping includes trees and vegetation along the property boundaries within the proposed parking lot and bioretention basins located along the northwest and southwest boundaries. Trees would be planted along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the parking lot landscaping islands.
OS-5.2 To the maximum extent feasible and balanced with permitted use, require that site planning, construction, and maintenance of development preserve existing healthy trees and native vegetation on the site.	**Consistent.** As noted above in the discussion for Policy OS-5.1, there are four ornamental trees located in the northern portion of the site along South Street. These trees would likely be removed and replaced with landscaping selected for the local climate. Proposed landscaping would be native to the area.
OS-5.3 Require site planning and construction to maintain adequate open space to permit effective wildlife corridors for animal movement between open spaces.	**Consistent.** As noted in Section 3.2, Biological Resources, the site is located in a developed, urban area, and the property is not part of any corridor through which wildlife could move. The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and a Chevron station. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots. The Project would not be anticipated to substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The Project site does not contain any streams, creeks, or wetland areas, and is located within an urban built-up

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	environment with no existing wildlife corridors. There are no existing wildlife nursery sites within or near the site that could be impacted by the project. The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Project site.
OS-5.4: Condition development projects, requiring discretionary approval to prohibit the planting of any species of broom, pampas grass, gorse, or other species of invasive non-native plants deemed undesirable by the City.	**Consistent.** The proposed Project is conditioned so that landscaping would not include invasive non-native plants.
OS-6.1 Energy Conservation Measures in Buildings: Continue to require structures to comply with State energy conservation standards and encourage owners of existing dwellings to retrofit with energy-saving features.	**Consistent.** Construction of the proposed project would be subject to the 2019 California Energy Code, Part 6 of Title 24 of the California Code of Regulations, which contains energy conservation standards applicable to residential and non-residential buildings throughout California to ensure new and existing buildings achieve energy efficiency and preserve outdoor and indoor environmental quality.
OS-7.2 Air Quality Standards: Seek to comply with State and Federal standards for air quality.	**Consistent.** While the anticipated development at the Site would generate temporary emissions and direct and indirect emissions once construction is complete, the project would not include any source of visible emissions, including intentional fire/burning or manufacturing, and would control exhaust emissions from construction equipment by minimizing idling. In addition, the contractor would suppress fugitive dust during construction and operation, pursuant to Rule-1-430 (Fugitive Dust Emissions) of Chapter IV (Prohibitions) of Regulation 1 (Air Pollution Control Rules) of the Mendocino County Air Quality Management District (MCAQMD's) Rules and Regulations (February 2011), and would maintain all construction equipment in good working order such that exhaust and fugitive dust emissions are minimized. The project would be subject to current and future regulations adopted by MCAQMD, including the PM Attainment Plan (2005), and compliance with these regulations would ensure the project would not result in a substantial increase of PM10 within the vicinity of the Site. To further reduce the project's potential impact, Special Condition 8 is required. In accordance with a Special Condition, the project is required to comply with existing policies of the MCAQMD regarding the control of fugitive dust during these activities, which include maintaining all construction equipment in good working condition and limiting truck idling on-site to a maximum of five

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	minutes, pursuant to State law. Additionally, construction is required to comply with the City's dust management plan and the site-specific Dust Prevention and Control Plan required for construction of the project, pursuant to the City CLUDC. The Dust Prevention and Control Plan would be submitted in conjunction with a grading plan or other plan involving the movement of dirt.
OS-11.6: Use Permeable Pavement Materials. To enhance stormwater infiltration capacity, development shall use permeable pavement materials and techniques (e.g., paving blocks, porous asphalt, permeable concrete, and reinforced grass or gravel), where appropriate and feasible. Permeable pavements shall be designed so that stormwater infiltrates into the underlying soil, to enhance groundwater recharge and provide filtration of pollutants. All permeable pavement that is not effective in infiltrating as designed will be replaced with effective stormwater detention and infiltration methods.	**Does not Conflict.** The Plan Set Site Plans shows that the project would create more than 10,000 square feet of new impervious surfaces (buildings, sidewalks and Asphalt Concrete Parking). For that reason, the project is categorized as a project of Special Water Quality Concern by the CLUDC. The preliminary Grading and Drainage plan and Stormwater Low Impact Development (LID) Area plan (Attachment 2) included in the packet has been reviewed by the City's Public Works Department. Three Special Conditions (reproduced below) were developed for the project during the City staff's previous review and consideration of the Project. These special conditions remain applicable and will be imposed on the Project to ensure compliance with the stormwater and water quality requirements described above, and ensure compliance with the stormwater management requirements of the City's Coastal General Plan. It is noted that the Project does not include permeable pavement materials. 1) Bioretention features shall be sized and designed to retain and infiltrate runoff produced by all storms up to and including the 85th percentile (0.83" in 24-hours). A Maintenance and Operations agreement for ongoing maintenance of the bioretention features installed with this project shall be submitted to the City for review and approval and shall be recorded with the County Recorder's office to ensure that the bioretention features are maintained and remain effective. Recordation of the Maintenance Agreement shall be completed prior to Certificate of Occupancy. 2) Prior to issuance of the Building Permit the applicant shall submit a Water Quality Management Plan and/or a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the City Engineer. 3) All work shall be done in compliance with all conditions required by the City of Fort Bragg Grading

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	Ordinance; Land Use Code Chapter 17.60-17.64 – Grading and Stormwater Runoff Requirements and Procedures. If construction is to be conducted between October and April (the rainy season) approval from the Public Works Department and additional construction BMP's will be required.
OS-12.1: Developments of Special Water Quality Concern. The categories of development listed below have the potential for greater adverse coastal water quality impacts, due to the development size, type of land use, impervious site coverage, or proximity to coastal waters. A development in one or more of the following categories shall be considered a "Development of Special Water Quality Concern," and shall be subject to additional requirements set forth in Policy OS-12.2 below to protect coastal water quality. Developments of Special Water Quality Concern include the following: **a) Housing developments of ten or more dwelling units.** **b) Hillside developments on slopes greater than 12 percent, located in areas with highly erodible soil.** **c) Developments that result in the creation, addition, or replacement of 10,000 square feet or more of impervious surface area.** **d) Parking lots with 5,000 square feet or more of impervious surface area, potentially exposed to stormwater runoff.** **e) Heavy industrial developments.** **f) Vehicle service facilities (including retail gasoline outlets, service stations, commercial car washes, and vehicle repair facilities).** **g) Commercial or industrial outdoor storage areas of 5,000 square feet or more, or as determined by the review authority based on the use of the storage area, where used for storage of materials that may contribute pollutants to the storm drain system or waterbodies.** **h) All developments within 125 feet of the ocean or a coastal waterbody (including estuaries, wetlands, rivers, streams, and lakes), or that discharge directly to the ocean or a waterbody, if such development results in the creation, addition, or replacement of 2,500 square feet or more of impervious surface area.** **a. "Discharge directly to" the ocean or a waterbody means outflow from a drainage conveyance system that is composed entirely of**	**Consistent.** The preliminary Grading and Drainage plan and Stormwater Low Impact Development (LID) Area plan (Attachment 2) included in the packet has been reviewed by the City's Public Works Department. The above noted Special Conditions were developed for the project during the City staff's previous review and consideration of the Project. These special conditions remain applicable and will be imposed on the Project to ensure compliance with the stormwater and water quality requirements described above, and ensure compliance with the stormwater management requirements of the City's Coastal General Plan.

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flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands. **i) Any other development determined by the review authority to be a Development of Special Water Quality Concern.**	
OS-12.2: Additional Requirements for Developments of Special Water Quality Concern. All Developments of Special Water Quality Concern (as identified in Policy OS-12.1, above) shall be subject to the following four additional requirements to protect coastal water quality: **1) Water Quality Management Plan. The applicant for a Development of Special Water Quality Concern shall be required to submit for approval a Water Quality Management Plan (WQMP), prepared by a qualified licensed professional, which supplements the Runoff Mitigation Plan required for all development. The WQMP shall include hydrologic calculations per City standards that estimate increases in pollutant loads and runoff flows resulting from the proposed development, and specify the BMPs that will be implemented to minimize post-construction water quality impacts.** **2) Selection of Structural Treatment Control BMPs. As set forth in Policy OS-10.4, if the review authority determines that the combination of Site Design and Source Control BMPs is not sufficient to protect water quality and coastal waters as required by Policy OS-9.3, structural Treatment Control BMPs shall also be required. The WQMP for a Development of Special Water Quality Concern shall describe the selection of Treatment Controls BMPs, and applicants shall first consider the BMP, or combination of BMPs, that is most effective at removing the pollutant(s) of concern, or provide a justification if that BMP is determined to be infeasible.** **3) 85th Percentile Design Standard for Treatment Control BMPs. For post-construction treatment of runoff in Developments of Special Water Quality Concern, Treatment Control BMPs (or suites of BMPs) shall be sized and designed to treat, infiltrate, or filter the amount of stormwater runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event (with an appropriate safety factor of 2 or greater) for flow-based BMPs.**	**Consistent.** The preliminary Grading and Drainage plan and Stormwater Low Impact Development (LID) Area plan has been reviewed by the City's Public Works Department. The three special conditions noted above have been placed on the project to ensure compliance with the stormwater and water quality requirements described above, and ensure compliance with the stormwater management requirements of the City's Coastal General Plan.

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4) Goal for Runoff Reduction. In Developments of Special Water Quality Concern, the post-development peak stormwater runoff discharge rate shall not exceed the estimated pre-development rate for developments where an increased discharge rate will result in increased potential for downstream erosion or other adverse habitat impacts.	
OS-16.2 Right of Public Access: Development in the Coastal Zone shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. Public prescriptive rights must be protected wherever they exist.	**Consistent.** The project is not in an area used by the public to access the coast nor is it identified in the Coastal General Plan as a location for public access to the Noyo River. The properties to the north and south are identified as access points and irrevocable offers to dedicate will be required when these projects are developed in the future.
OS-15.2: Protect and Restore Open Space: During the development review process, protect and restore open space areas such as wildlife habitats, view corridors, coastal areas, and watercourses as open and natural.	**Consistent**. The southern portion of the site is vacant with a dirt driveway, but does not qualify as one of the types of open space addressed by this policy. It does not qualify as a view corridors or a coastal area, and no watercourses are located on-site. Although limited habitat potential is found in the southern portion of the site, the mitigation measures included in this section would ensure that impacts to special-status bird and bat species would be less than significant.
CIRCULATION	
C-1.3: Do not permit new development that would result in the exceedance of roadway and intersection Levels of Service standards unless one of the following conditions is met: **a) Revisions are incorporated in the proposed development project which prevent the Level of Service from deteriorating below the adopted Level of Service standards; or** **b) Funding of prorata share of the cost of circulation improvements and/or the construction of roadway improvements needed to maintain the established Level of Service is included as a condition or development standard of project approval.**	**Consistent.** A Traffic Impact Analysis was completed for the Project, which includes Level of Service (LOS) analysis. See Appendix F of this EIR. It is noted that LOS is no longer used as the metric to determine environmental impacts under CEQA. In the cumulative condition, LOS standards would be exceeded. However, the Project would contribute their fair share to the cost of regional circulation improvements by paying adopted fees and making frontage improvements. In addition, the Project would contribute its fair share to the cost of cumulatively needed improvements to the SR 1 (Main Street) / South Street intersection.
C-1.4: Include specific time frames for the funding and completion of roadway improvements for projects which cause adopted roadway and intersection Level of Service standards to be exceeded. Require security, bonding or other means acceptable to the City to ensure the timely implementation of roadway mitigations.	**Consistent.** As discussed in Section 3.7, Transportation and Circulation, the Grocery Outlet Store Project proponents should contribute their fair share to the cost of regional circulation improvements by paying adopted fees and making frontage improvements. In addition, the project should contribute its fair share to the cost of cumulatively needed improvements to the SR 1 (Main Street) / South Street intersection. Table 3.7-16 in Section 3.7 notes the Grocery Outlet Store

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	project's relative contribution to future traffic volumes at each study intersection based on the method recommended in Caltrans traffic study guidelines. As shown, project trips represent 16.1% of the future new traffic at the SR 1 / South Street intersection. Assuming a $500,000 traffic signal, the project's contribution could be $84,500.
C-1.5: Traffic Impact Fees. When traffic impact fees are collected, establish a schedule from the date of collection of said fee for the expenditure of funds to construct roadway improvements that meets project needs. Where a project would cause a roadway or intersection to operate below the adopted traffic Level of Service standards, the roadway or intersection improvements should be completed in a timely manner but no later than five years after project completion.	**Consistent.** As noted above, the Project's fair share to the cost of cumulatively needed improvements to the SR 1 (Main Street) / South Street intersection could be $84,500. The improvements are cumulatively needed and the project would not cause a roadway or intersection to operate below the adopted traffic Level of Service standards.
C-2.6: Traffic Studies for High Trip Generating Uses: Traffic studies shall be required for all major development proposals, including but not limited to, drive-through facilities, fast food outlets, convenience markets, major tourist accommodations, shopping centers, commercial development, residential subdivisions, and other generators of high traffic volumes that would affect a Level of Service. Traffic studies shall identify, at a minimum: **(a) the amount of traffic to be added to the street system by the proposed development;** **(b) other known and foreseeable projects and their effects on the street system;** **(c) the direct, indirect, and cumulative adverse impacts of project traffic on street system operations, safety, and public access to the coast;** **(d) mitigation measures necessary to provide for project traffic while maintaining City Level of Service standards;** **(e) the responsibility of the developer to provide improvements; and** **(f) the timing of all improvements.**	**Consistent.** As noted above in the discussion for Policy C-1.3, a Traffic Impact Analysis was completed for the Project.
C-9.2: Require Sidewalks. Require a sidewalk on both sides of all collector and arterial streets and on at least one side of local streets as a condition of approval for new development.	**Consistent.** A sidewalk would be constructed along the South Street, S. Franklin Street, and N. Harbor Drive frontages, as required by City standards and to provide pedestrian access around the Site. Where required, existing sidewalks would be upgraded to meet City standards.
C-10.5 Bicycle Parking: Provide adequate and secure bicycle parking at public transit facilities, park and ride lots, schools, the library, parks, City offices, and commercial areas.	**Consistent.** Two bicycle parking racks would be provided on-site.
C-11.2: Handicapped Access. In conformance with State and Federal regulations, continue to review all projects	**Consistent.** The proposed pedestrian improvements would be Americans with Disabilities Act (ADA)-

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for handicapped access and require the installation of curb cuts, ramps, and other improvements facilitating handicapped access.	compliant. The project includes ADA-compliant features, including three ADA-accessible parking spaces. In addition, the project will include an internal system of walkways and crosswalks to provide pedestrian connectivity between the parking lot, building, and sidewalk, and would be ADA-compliant.
C-14.1 Development to Pay Its Fair Share: Require new development to pay its fair share of transportation improvements to maintain levels of service and traffic safety in the City.	**Consistent.** As noted above in the discussion for Policy C-1.3, a Traffic Impact Analysis was completed for the Project. The Project would contribute their fair share to the cost of regional circulation improvements by paying adopted fees and making frontage improvements. In addition, the Project would contribute its fair share to the cost of cumulatively needed improvements to the SR 1 (Main Street) / South Street intersection.
COMMUNITY DESIGN	
CD-1.1: Visual Resources: Permitted development shall be designed and sited to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance scenic views in visually degraded areas.	**Consistent.** In the opinion of City staff, the project site is not located "along the ocean" or within a "scenic coastal area" within the meaning of Policy CD 1.1, as the site is on the landward side of Highway 1, and there is intervening commercial development between the site and Highway 1. The project is replacing an existing structure with one of approximately the same size. Current views from the middle and southern portions of the project site are limited by the adjacent two-story motel adjacent west of the site, which is the direction in which the Pacific Ocean and landscapes immediately adjacent to the coast are located. Although the proposed structure will block an existing view of the ocean from the far northern portion of the project site, that view is not easily discernable by pedestrians and is interrupted by two large trees and a Chevron Station and an intervening vacant legal lot between the project site and that Chevron Station. This vacant lot could be developed under existing conditions, and a new structure could completely block the existing interrupted view of the Chevron Station and ocean. As discussed in Section I, Aesthetics and Visual Resources, of the Initial Study, the proposed development is compatible with the character of surrounding areas. The proposed Project would include redevelopment of the Project site in order to replace a 16,436-sf vacant former office building with a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site. The retail grocery store would be a maximum of 28 feet tall at the top of the proposed canopy and a maximum of 23 feet tall at the top of the proposed parapet.
CD-1.4: New development shall be sited and designed to minimize adverse impacts on scenic areas visible from scenic roads or public viewing areas to the maximum feasible extent.	**Consistent.** In the opinion of City staff, the project site is not located within a "scenic area" within the meaning of Policy CD 1.4, as the site is on the landward side of Highway 1, and there is intervening commercial development between the site and Highway 1. As noted

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	above in the discussion for Policy CD-1.1, the project is replacing an existing structure with one of approximately the same size, and current views from the middle and southern portions of the project site are limited by the adjacent two-story motel adjacent west of the site, which is the direction in which the Pacific Ocean and landscapes immediately adjacent to the coast are located. Although the proposed structure will block an existing view of the ocean from the far northern portion of the project site, that view is not easily discernable by pedestrians and is interrupted by two large trees and a Chevron Station and an intervening vacant legal lot between the project site and that Chevron Station. This vacant lot could be developed under existing conditions, and a new structure could completely block the existing interrupted view of the Chevron Station and ocean. The proposed Project would include redevelopment of the Project site in order to replace a 16,436-sf vacant former office building with a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site.
CD-1.5: All new development shall be sited and designed to minimize alteration of natural landforms by: **1. Conforming to the natural topography.** **2. Preventing substantial grading or reconfiguration of the project site.** **3. Minimizing flat building pads on slopes. Building pads on sloping sites shall utilize split level or stepped-pad designs.** **4. Requiring that man-made contours mimic the natural contours.** **5. Ensuring that graded slopes blend with the existing terrain of the site and surrounding area.** **6. Minimizing grading permitted outside of the building footprint.** **7. Clustering structures to minimize site disturbance and to minimize development area.** **8. Minimizing height and length of cut and fill slopes.** **9. Minimizing the height and length of retaining walls.** **10. Cut and fill operations may be balanced on-site, where the grading does not substantially alter the existing topography and blends with the surrounding area. Export of cut material may be required to preserve the natural topography.**	**Consistent.** The Project is nearly flat and does not contain significant grading or slopes. Limited retaining walls are proposed to the west of the proposed building.
CD-1.6: Fences, walls, and landscaping shall minimize blockage of scenic areas from roads, parks, beaches, and other public viewing areas.	**Consistent.** In the opinion of City staff, the project site is not located within a "scenic area" within the meaning of Policy CD 1.6, as the site is on the landward side of

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	Highway 1, and there is intervening commercial development between the site and Highway 1. As noted above in the discussion for Policy CD-1.1, the Project is replacing an existing structure with one of approximately the same size, and current views from the middle and southern portions of the project site are limited by the adjacent two-story motel adjacent west of the site, which is the direction in which the Pacific Ocean and landscapes immediately adjacent to the coast are located. Although the proposed structure will block an existing view of the ocean from the far northern portion of the site, that view is not easily discernable by pedestrians and is interrupted by two large trees and a Chevron Station and an intervening vacant legal lot between the project site and that Chevron Station. This vacant lot could be developed under existing conditions, and a new structure could completely block the existing interrupted view of the Chevron Station and ocean. The proposed building would be located approximately where the existing building is located. Limited fencing and walls would be developed on-site. The proposed landscaping would not block scenic areas.
CD-1.9: Exterior lighting (except traffic lights, navigational lights, and other similar safety lighting) shall be minimized, restricted to low intensity fixtures, and shielded so that no light shines beyond the boundary of the property.	**Consistent.** As discussed in Section I, Aesthetics and Visual Resources, of the Initial Study, the Project site currently contains limited lighting in the northern portion of the site. Upon development of the proposed grocery store, building and parking lot lighting would be provided. The lighting would be shielded and directed downward to eliminate light trespass. In order to assure compliance with Policy CD-1.9 a special condition has been added which says "Prior to issuance of a building permit, final lighting plan shall be approved the Public Works Director or their designee, and be consistent with the CLUDC and Dark Sky Standards. .
CD-1.11: New development shall minimize removal of natural vegetation. Existing native trees and plants shall be preserved on the site to the maximum extent feasible.	**Consistent.** Limited natural vegetation exists on-site. Four ornamental trees are located in the northern portion of the site along South Street, and additional ornamental trees are located along the South Street frontage. It is possible that the existing trees could be preserved as part of the proposed landscaping plan; however, it is likely that tree removal in some capacity would be required. Removal of some trees may also be necessary in order to have a viable Project design. Proposed landscaping includes trees and vegetation along the property boundaries within the proposed parking lot and bioretention basins located along the northwest and southwest boundaries. Trees would be planted along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the

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	parking lot landscaping islands.
CD-2.2 Large Commercial Development: Ensure that large commercial development, such as shopping centers, big box retail, and mixed use development, fits harmoniously with the scale and design of existing buildings and streetscape of the City.	**Consistent.** The Project is not a large commercial development along the lines of a big box retail store. Rather, the Project's grocery store will only be 16,157 square feet in size. Even if the Project were subject to this policy, however, it would comply. Commercial uses are located to the west of the site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots. The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. As noted above in the discussion for Policy LU-4.4, upon development of the Project, the site would contain a grocery store with parking areas. The retail grocery store would be a maximum of 28 feet tall at the top of the proposed canopy and a maximum of 23 feet tall at the top of the proposed parapet. The proposed building includes differentiated treatments along the base, mid-section, and top along the three facades facing public streets, windows would remain clear glass for lighting a view out, and the roofline on the corner cut-off entrance is also unique to the other rooflines for additional visual interest. The building will be composed of elements and details representative of Fort Bragg's architectural heritage, as the Applicant's chosen design elements were influenced by Fort Bragg's downtown architecture. The window and door treatments give homage to the smaller shops along the main downtown street's detailing as well as the Hardie Board (wood composite) wood paneling, masonry, and providing a variety of the materials on the elevations to add visual interest. Rooflines of the building would align with buildings on adjacent properties to avoid clashes in building height. The proposed architecture would blend with the existing surrounding development.
CD-2.5 Scenic Views and Resource Areas: Ensure that development does not adversely impact scenic views and resources as seen from a road and other public rights-of-way.	**Consistent.** In the opinion of City staff, the project site does not current provide any "scenic views" or "scenic resources" within the meaning of Policy CD 2.5, as the site is on the landward side of Highway 1, and there is intervening commercial development between the site and Highway 1. As noted above in the discussion for Policy CD-1.1, the Project is replacing an existing structure with one of approximately the same size. Current views from the middle and southern portions of the project site are limited by the adjacent two-story motel adjacent west of the site, which is the direction in which the Pacific Ocean and landscapes immediately adjacent to the coast are located. Although the proposed structure will block an existing view of the ocean from the far northern portion of the project site, that view is not easily discernable by

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	pedestrians and is interrupted by two large trees and a Chevron Station and an intervening vacant legal lot between the project site and that Chevron Station. This vacant lot could be developed under existing conditions, and a new structure could completely block the existing interrupted view of the Chevron Station and ocean. The current building is located in the central and northern portions of the site. The proposed building would be located approximately where the existing building is located. The southern portion of the site would contain the parking area and landscaping. As such, any views afforded in the southern portion of the site would generally be maintained.
CD-2.7 Landscaping: Encourage attractive native and drought-tolerant landscaping in residential and commercial developments.	**Consistent.** As noted previously, four ornamental trees are located in the northern portion of the site along South Street, and additional ornamental trees are located along the South Street frontage. It is possible that the existing trees could be preserved as part of the proposed landscaping plan; however, it is likely that tree removal in some capacity would be required. Removal of some trees may also be necessary in order to have a viable Project design. Should removal be required, and the trees would be replaced with landscaping selected for the local climate conditions. The proposed landscaping would be native and drought-tolerant. The project is conditioned to revise the landscaping plan to entirely consist of drought tolerant native species, per Special Condition 18.
CD-5.1 Parking Location: Wherever feasible, locate parking facilities to the rear of the development so that the building facade is contiguous with the street frontage, and parking areas are hidden from the street.	**Consistent.** The proposed building would be located approximately where the existing building is located. The southern portion of the site would contain the parking area and will be screened by landscaping. The proposed building would be contiguous with S Franklin Street, and walkways from the sidewalk to the proposed building would be provided.
CD-8.2 Provide Public Open Spaces: Encourage the development of public open spaces for gatherings and fairs in commercial areas of the City.	**Consistent.** The seating area was removed from the final plans and will not be there. Just a canopy to keep people dry.
SAFETY	
SF-2.2: Require professional inspection of foundations and excavations, earthwork, and other geotechnical aspects of site development during construction on those sites specified in soils, geologic, and geotechnical studies as being prone to moderate or high levels of seismic hazard	**Consistent.** To reduce the impact of seismic ground shaking, the proposed Project would be required to be constructed using standard engineering and seismic safety design techniques of the California Building Code. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures would be able to: (1) resist minor

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	earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.
SF-2.5: Review development proposals to ensure that new development is not in an area subject to tsunami damage and if such development is otherwise allowable that it is designed to withstand tsunami damage.	**Consistent.** According to the Mendocino County Tsunami Hazard Map maintained by the California Department of Conservation[1], the Project site is located outside the tsunami hazard area.
SF-3.5: Require, where necessary, the construction of siltation/detention basins to be incorporated into the design of development projects.	**Consistent.** The Project includes detention basins as part of the proposed storm drainage plan. The Project would be designed to capture stormwater and pre-treat it on-site to remove dirt, oil, and heavy metals using bioretention basins located along the northwest and southwest boundaries.
SF-5.1 Minimize Fire Risk in New Development: Review all development proposals for fire risk and require mitigation measures to reduce the probability of fire.	**Consistent.** As discussed in Section XX, Wildfire, of the Initial Study, the California Department of Forestry and Fire Protection (CAL FIRE) designates the Project site as a Local Responsibility Area (LRA). The site is not within an area classified as a Very High Fire Hazard Severity Zone. The Project would be subject to the California Building Code, which requires fire sprinkler systems be installed.
SF-6.1 Demand for Police Services: Review development proposals for their demand for police services and implement measures to maintain adequate police services.	**Consistent.** The Project was reviewed for its demand on police services. As discussed in Section XV, Public Services, of the Initial Study, impacts related to police protection would be less than significant.
NOISE	
N-1.2 Reduce Noise Impacts: Avoid or reduce noise impacts first through site planning and project design. Barriers and structural changes may be used as mitigation techniques only when planning and design prove insufficient.	**Consistent.** As discussed in Section 3.5, Noise, the noise impacts were determined to be less-than-significant or less-than-significant with implementation of mitigation. Operational noise would be less-than-significant, while temporary construction noise and vibration impacts would require implementation of Mitigation Measures 3.5-1 and 3.5-2.
N-1.6 Mitigate Noise Impacts: Mitigate noise impacts to the maximum feasible extent.	**Consistent.** As noted in the discussion above for Policy N-1.2, the noise impacts were determined to be less-than-significant or less-than-significant with implementation of mitigation.

SOURCE: DE NOVO PLANNING GROUP, 2022.

Overall, the proposed Project would have a ***less than significant*** impact relative to the General Plan.

[1] Available at: https://www.conservation.ca.gov/cgs/tsunami/maps/mendocino

FORT BRAGG COASTAL LAND USE AND DEVELOPMENT CODE

Article 2, Section 17.22.020 E, of the CLUDC indicates that the CH zoning district's allowable land uses include lodging, restaurants, and retail stores. The City of Fort Bragg CLUDC defines "Groceries, specialty foods" as "a retail business where the majority of the floor area open to the public is occupied by food products packaged for preparation and consumption away from the store. The definition includes retail bakeries, where any on-site baking is only for on-site sales" and defines "General retail – 5,000 sf or larger" as "stores and shops selling many lines of merchandise." These are both permitted land uses in the CH district and have no "specific land use standards". As such, the proposed retail store would be a permitted use on-site, subject to the approval of a Zoning Clearance and Coastal Development Permit.

Per Chapter 17.22 – Commercial Zoning Districts, of the CLUDC, the proposed Project is consistent with the purpose of this chapter by meeting the following applicable requirements:

- Minimum parcel size;
- Minimum parcel width and maximum parcel depth;
- Front, interior, and street-side setbacks;
- Floor area ratio;
- Maximum floor area allowed for individual commercial buildings between the Noyo River and Pudding Creek bridges;
- Lot coverage; and
- Maximum height.

Per Chapter 17.30 – Standards for all Development and Land Uses, of the CLUDC, the proposed Project is consistent with the purpose of this chapter by meeting the following applicable requirements:

- Height of fencing, landscaping at street corners, and outdoor light fixtures;
- Outdoor lighting;
- Performance standards for dust;
- Public improvements (i.e. frontage);
- Solid waste/recyclable materials storage and enclosures; and
- Underground utility connections.

Per Chapter 17.34 – Landscaping Standards, of the CLUDC, the proposed Project is consistent with the purpose of this chapter by meeting the following applicable requirements:

- Submittal of preliminary landscape plan;
- Landscape setbacks and establishment in unused areas;
- Landscape buffers provided in parking areas, as well as adjacent to site or rear property lines, and structures;
- Amount and location of interior parking lot landscaping;
- Landscaping minimum dimensions;
- Size at time of planting and proposed groundcover and shrubs;

- Irrigation system for water efficiency and scheduling; and
- Proposed maintenance of landscaped areas.

Per Chapter 17.36 – Parking and Loading, of the CLUDC, the proposed Project is consistent with the purpose of this chapter by meeting the following applicable requirements:

- Parking spaces by land use;
- RV space within the Site (a Minor Use Permit will be applied for to waive this requirement);
- Bicycle parking spaces, and design and devices;
- Motorcycle parking spaces and dimensions;
- Location and access to nonresidential parking;
- Minimum parking space configuration and surfacing of all parking spaces and maneuvering areas;
- Number of driveways and site access for nonresidential development;
- Proposed driveways distances from street corners;
- Driveway spacing and dimensions for nonresidential development;
- Providing off-street loading spaces; and
- Loading space dimensions, location, and screening.

Per Chapter 17.38 – Signs, of the CLUDC, the proposed Project is consistent with the purpose of this chapter by meeting the following applicable requirement:

- The proposed signs do not exceed the standards of Sections 17.38.070 (Zoning District Sign Standards) and 17.38.080 (Standards for Specific Sign Types), and are of the minimum size and height necessary to enable pedestrians and motorists to readily identify the Site from a sufficient distance to safely and conveniently access the Site;
- The placement of the sign on the Site is appropriate for the height and area of a freestanding and wall sign;
- The proposed signs relate to the architectural design of the structure;
- The proposed signs do not unreasonably block the sightlines of existing signs on adjacent properties;
- The placement and size of the sign will not impair pedestrian or vehicular safety;
- The design, height, location, and size of the signs are visually complementary and compatible with the scale, and architectural style of the primary structures on the Site, prominent natural features on the Site, and structures and prominent natural features on adjacent properties on the same street; and
- The proposed signs are in substantial conformance with the design criteria in Subsection 17.38.060.F (Design criteria for signs).

Per Chapter 17.50 – Land and Marine Resource Protection, of the CLUDC, the proposed Project is consistent with the purpose of this chapter by providing evidence that the following sensitive coastal resources are not applicable:

- Archaeological resource preservation;
- Environmentally sensitive habitat areas; and

- Visual Resources, as the proposed project is not located in an area that triggers requirements of Section 17.50.070.

The Fort Bragg Zoning Code implements the General Plan. As noted previously, the Project site has a City zoning designation of CH. No changes to the Project site's current land use or zoning designations are proposed under the Project. All existing City development standards and zoning requirements for the existing zoning are applicable to the proposed activities on the Project site. The City reviews all plans (improvement plans, building plans, site plans, etc.) that are submitted for final approval to ensure that they are consistent with the City's Zoning ordinance.

Overall, the proposed Project would have a ***less than significant*** impact relative to the Zoning Code.

CONCLUSION

The proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect as the project is consistent with all applicable land use plans, policies, and regulations, including the City of Fort Bragg's CLUDC. A ***less than significant*** impact would occur.

Impact 3.5-2: Impacts related to the physical deterioration and urban decay of existing retail commercial development in the City of Fort Bragg and surrounding area. (Less than Significant)

The decision by the Fifth District Court of Appeal in Bakersfield Citizens for Local Control v. The City of Bakersfield indicated that, in some instances, CEQA requires a lead agency to consider and analyze the potential for the introduction of planned retailers to result in adverse physical impacts on the environment by causing a chain reaction of store closures and long-term vacancies, otherwise referred to as a condition of "urban decay." This analysis is not required for all projects subject to CEQA, but only projects where there is concrete evidence of the potential for urban decay or deterioration to result.

The term "urban decay" is generally defined as, among other characteristics, visible symptoms of physical deterioration that invite vandalism, loitering, and graffiti that is caused by a downward spiral of business closures and long term vacancies. This physical deterioration to properties or structures is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community.

A key indicator from a CEQA perspective is impacts on the existing physical environment, which in this instance pertains to the commercial retail market, since most grocery facilities are located in retail space, or otherwise comprise commercial space most akin to retail space.

The proposed Project includes demolition of the existing 16,436-sf vacant former office building and parking area and subsequent development and operation of a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site. Grocery Outlet is a value grocer,

meaning that it sells brand name products at bargain prices due to their opportunity buying style. Associated improvements include a parking lot, loading dock and trash enclosure, circulation and access improvements, and utility infrastructure.

There are nine grocery facilities distributed throughout different residential neighborhoods and commercial establishments in the community, including: Safeway (660 South Main Street), Harvest Market (171 Boatyard Drive), Purity Supermarket (242 North Franklin Street), Nello's Market and Deli (860 North Main Street), La Mexicana Market (116 S. Main Street), Down Home Foods (115 S. Franklin Street), Colombi Market and Deli (647 E Oak Street), B&C Grocery (401 E. Oak Street) and El Yuca (242 North Mcpherson Street). The range of these grocery facilities includes small grocery/convenience stores, a high end/natural food grocery store, and a big-box chain grocery store. Even if any facilities close as a result of the proposed project, this alone would not signify urban decay. The concern of urban decay typically arises when real estate market demand is stagnant or so low that vacated properties are not backfilled or are not maintained to a standard that wards off the indicators of urban decay, such as boarded up windows, lingering trash or graffiti, and loitering.

Fieldwork conducted in March through May 2022 indicated there were no significant signs of litter, graffiti, weeds, or rubbish associated with existing commercial nodes and corridors in Fort Bragg, with only a few isolated instances of small amounts of fast food-related trash near some commercial properties. It is noted that the City has reported some issues with transient populations at the on-stie vacant building in the past. The City of Fort Bragg Code Enforcement Department receives a limited number of complaints pertaining to commercial properties, and most of these complaints do not pertain to issues associated with urban decay.

For the reasons listed above, the proposed project is not expected to result in urban decay in the City of Fort Bragg. This is a ***less than significant*** impact.

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This section provides a general description of the existing noise sources in the Project vicinity, a discussion of the regulatory setting, and identifies potential noise impacts associated with the proposed Project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for significant noise-related impacts.

There were no Notice of Preparation comments received regarding this topic. As discussed in the Initial Study (see Appendix A), the proposed Project is not located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The closest airport is the Fort Bragg Airport, which is privately owned and located approximately three miles north of the Project site. An airport land use plan for this airport has not been adopted. As such, there is ***no impact*** related to this topic. As such, this California Environmental Quality Act (CEQA) topic is not relevant to the proposed Project and will not be addressed further.

3.6.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
$L_{(n)}$	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L_{50} is the sound level exceeded 50 percent of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
SEL	Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn}, but includes

a +5 dB penalty for evening noise. Table 3.6-1 lists several examples of the noise levels associated with common situations.

TABLE 3.6-1: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	*NOISE LEVEL (DBA)*	*COMMON INDOOR ACTIVITIES*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1 dBA change cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;

- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Existing and Surrounding Land Uses

The Project site is located within the City of Fort Bragg, California. The Project site is within the Fort Bragg Coastal Region. The site contains an existing but unused commercial structure. The Project site is located at the southwest corner of the intersection of South Street and South Franklin Street.

The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and Chevron. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the Project vicinity, one continuous (24-hour) noise level measurement was conducted near receptors adjacent to the Project site from January 10th to January 11th, 2022. A short-term noise level measurement was conducted at one location to the southeast of the project on January 10th, 2022. The noise measurement locations are shown on Figure 3.6-1. The noise level measurement survey results are provided in Table 3.6-2. Appendix B of Appendix E shows the complete results of the continuous noise monitoring at sites LT-1 and ST-1.

TABLE 3.6-2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

			AVERAGE MEASURED HOURLY NOISE LEVELS, DB					
			DAYTIME (7AM-10PM)			*NIGHTTIME (10PM-7AM)*		
SITE	*LOCATION*	L_{DN}	L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
CONTINUOUS (24-HOUR) NOISE LEVEL MEASUREMENTS								
LT-1	Eastern Project Boundary	60	58	53	80	52	46	72
SHORT-TERM NOISE LEVEL MEASUREMENTS								
ST-1	East of Project Boundary	N/A	56	52	70	N/A	N/A	N/A

SOURCE: SAXELBY ACOUSTICS, 2022.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

To predict existing and cumulative noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the proposed Project (KD Anderson & Associates, 2019). Truck percentages and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Where traffic noise barriers are predominately along a roadway segment, a -5 offset was added to the noise prediction model to account for various noise barrier heights. A -5 to dB offset was also applied where outdoor activity areas are shielded by intervening buildings. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project-area roadway segments analyzed in this report.

Table 3.6-3 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of Appendix E.

TABLE 3.6-3: EXISTING TRAFFIC NOISE LEVELS

ROADWAY	*SEGMENT*	*EXTERIOR TRAFFIC NOISE LEVEL, DB L_{DN}*
Cypress St.	East of Main St.	59.7
Cypress St.	East of Franklin St.	59.3
Main St.	South of Cypress St.	66.6
Main St.	South of South St.	64.2
Main St.	South of North Harbor Dr.	67.5
Franklin St.	South of Cypress St.	61.3
Franklin St.	South of South St.	56.3
Franklin St.	North of North Harbor Dr.	57.2
South St.	East of Main St.	56.9
South St.	East of Franklin St.	59.8
N Harbor Dr.	East of Franklin St.	61.0

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KD ANDERSON & ASSOCIATES AND SAXELBY ACOUSTICS. 2022.

3.6.2 REGULATORY SETTING

FEDERAL

There are no federal regulations related to noise that apply to the proposed Project.

STATE

California Environmental Quality Act

CEQA Guidelines, Appendix G, includes questions that indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or causes a substantial permanent or temporary increase in ambient noise levels. CEQA case law also addresses noise impacts. (See, e.g., *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 883-894.) CEQA standards are discussed more below under the Thresholds of Significance section.

LOCAL

The Project site is located within the Coastal Region of the City of Fort Bragg. The City addresses noise in the Noise Element of the Fort Bragg Coastal General Plan and in the Municipal Code.

Fort Bragg Coastal General Plan

The Noise Element of the Fort Bragg Coastal General Plan establishes standards to provide compatible noise environments for new development or redevelopment projects and to control excessive noise exposure of existing developments. Goals, policies, actions, and standards provided in the Noise Element provide the basis for decision-making on determining land use compatibility with noise sources associated with the proposed Project, as well as mitigation requirements.

Table N-4 of the Noise Element shows a summary of different land uses in the City and their associated acceptable and unacceptable noise levels. These guidelines state that environments with noise levels ranging up to 60 dBA L_{dn} are considered “normally acceptable” for new residential land

use development; environments with ambient noise levels greater than 60 dBA and up to 75 dBA L_{dn} are considered "conditionally acceptable" for new residential development and new construction should only be undertaken after a detailed analysis of noise reduction requirements are made and needed noise insulation features are included in the design.

Policy N-1.4 of the City of Fort Bragg Coastal Region General Plan establishes a standard of 45 Ldn for indoor noise levels for all new residential development including hotels and motels and a standard of 60 Ldn for outdoor noise at residences. These limits shall be reduced by 5 dB for senior housing and residential care facilities.

For non-transportation noise sources, the General Plan establishes the standards for sensitive uses. See Table 3.6-4 for the non-transportation noise standards.

TABLE 3.6-4: CITY OF FORT BRAGG GENERAL PLAN NON-TRANSPORTATION NOISE STANDARDS

NOISE LEVEL DESCRIPTOR	*OUTDOOR ACTIVITY AREA DAYTIME (7 A.M. TO 10 P.M.)*	*OUTDOOR ACTIVITY AREAS NIGHTTIME (10 P.M. TO 7 A.M.)*
Hourly equivalent sound level (L_{eq}), dB	55	45
Maximum sound level (L_{max}), dB	75	65

NOTE: THESE NOISE LEVELS APPLY TO THE RESIDENTIAL PROPERTY LINE NEAREST THE PROJECT. EACH OF THE NOISE LEVELS SHALL BE LOWERED BY FIVE DB FOR SIMPLE TONE NOISES, NOISES CONSISTING PRIMARY OF SPEECH OR MUSIC, OR FOR RECURRING IMPULSIVE NOISES. THESE NOISE LEVEL STANDARDS DO NOT APPLY TO RESIDENTIAL UNITS ESTABLISHED IN CONJUNCTION WITH INDUSTRIAL OR COMMERCIAL USES (E.G., CARETAKER DWELLINGS). CITY OF FORT BRAGG COASTAL REGION GENERAL PLAN NOISE ELEMENT TABLE N-5.

City of Fort Bragg Municipal Code

Section 9.44.020 of the City of Fort Bragg Municipal Code limits the hours construction-generated noise may occur. Between the hours of 10:00 p.m. and 7:00 a.m., it is unlawful for any person within a residential zone, or within a radius of 500 feet therefrom, to generate noise. This includes the operation of equipment or performance of any outside construction or repair work on buildings, structures, or projects or operation of construction-type devices.

3.6.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines and CEQA case law, the Project will have a significant impact related to noise if it will result in:

- Generation of a temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of ambient conditions; and/or
- Generation of excessive groundborne vibration or groundborne noise levels.

Determination of a Significant Increase in Noise Levels

TEMPORARY CONSTRUCTION NOISE IMPACTS

With temporary noise impacts (construction), identification of "substantial increases" depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. Per the City of Fort Bragg Municipal Code, construction activities operating between 10 p.m. and 7 a.m. which create a noise disturbance at the property boundary of a residence are prohibited and would be considered a significant impact.

For short-term noise associated with Project construction, Saxelby Acoustics recommends use of the Caltrans increase criteria of 12 dBA (Caltrans Traffic Noise Protocol, 2020).

OPERATIONAL IMPACTS

The noise standards applicable to the proposed Project include the relevant portions of the City of Fort Bragg General Plan and Municipal Code described in the Regulatory Setting section above (Section 3.6.2), and the following standards. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. The City of Fort Bragg General Plan Noise Element provides specific standards to be used in the determination of a significant impact. These criteria are reproduced below:

> Program N-1.2.2: Consider requiring an acoustical study and mitigation measures for projects that would cause a "substantial increase" in noise as defined by the following criteria or would generate unusual noise which could cause significant adverse community response:
>
> a) cause the L_{dn} in existing residential areas to increase by 3 dB or more;
>
> b) cause the L_{dn} in existing residential areas to increase by 2 dB or more if the L_{dn} would exceed 70 dB; or
>
> c) cause the L_{dn} resulting exclusively from project-generated traffic to exceed an L_{dn} of 60 dB at any existing residence.

VIBRATION STANDARDS

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards

pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City of Fort Bragg does not have specific policies pertaining to vibration levels. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.6-5 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 3.6-5: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

P.P.V.		HUMAN REACTION	EFFECT ON BUILDINGS
MM/SEC.	IN./SEC.		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: The proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)

TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS WITH AND WITHOUT THE PROJECT

Implementation of the proposed Project would result in an increase in daily traffic volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables 3.6-6 and 3.6-7 show the predicted traffic noise level increases on the local roadway network for Existing, Existing Plus Project, Cumulative No Project, and Cumulative Plus

Project conditions. Appendix C of Appendix E provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE 3.6-6: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS					
			EXIST.	PROJECT ONLY	EXIST. + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Cypress St.	East of Main St.	40	59.7	44.7	59.8	0.1	+ 3 dB	No
Cypress St.	East of Franklin St.	35	59.3	37.8	59.3	0.0	+ 3 dB	No
Main St.	South of Cypress St.	85	66.6	49.8	66.7	0.1	+ 3 dB	No
Main St.	South of South St.	125	64.2	44.5	64.2	0.0	+ 3 dB	No
Main St.	South of North Harbor Dr.	75	67.5	50.8	67.6	0.1	+ 3 dB	No
Franklin St.	South of Cypress St.	30	61.3	49.6	61.6	0.3	+ 3 dB	No
Franklin St.	South of South St.	35	56.3	54.8	58.6	2.3	+ 3 dB	No
Franklin St.	North of North Harbor Dr.	35	57.2	41.8	57.4	0.2	+ 3 dB	No
South St.	East of Main St.	40	56.9	52.4	58.3	1.4	+ 3 dB	No
South St.	East of Franklin St.	30	59.8	38.8	59.8	0.0	+ 3 dB	No
N Harbor Dr.	East of Franklin St.	30	61.0	0.0	61.0	0.0	+ 3 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KD ANDERSON & ASSOCIATES AND SAXELBY ACOUSTICS, 2022.

TABLE 3.6-7: CUMULATIVE AND CUMULATIVE PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS					
			CUMU.	PROJECT ONLY	CUMU. + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Cypress St.	East of Main St.	40	60.4	44.7	60.5	0.1	+ 3 dB	No
Cypress St.	East of Franklin St.	35	60.1	37.8	60.1	0.0	+ 3 dB	No
Main St.	South of Cypress St.	85	67.3	49.8	67.3	0.0	+ 3 dB	No
Main St.	South of South St.	125	64.8	44.5	64.9	0.1	+ 3 dB	No
Main St.	South of North Harbor Dr.	75	68.1	50.8	68.2	0.1	+ 3 dB	No
Franklin St.	South of Cypress St.	30	62.0	49.6	62.3	0.3	+ 3 dB	No
Franklin St.	South of South St.	35	57.2	54.8	59.1	1.9	+ 3 dB	No
Franklin St.	North of North Harbor Dr.	35	57.9	41.8	58.0	0.1	+ 3 dB	No
South St.	East of Main St.	40	57.8	52.4	58.9	1.1	+ 3 dB	No
South St.	East of Franklin St.	30	60.8	38.8	60.8	0.0	+ 3 dB	No
N Harbor Dr.	East of Franklin St.	30	61.7	0.0	61.7	0.0	+ 3 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KD ANDERSON & ASSOCIATES AND SAXELBY ACOUSTICS, 2022.

PROJECT-GENERATED NON-TRANSPORTATION NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

The primary non-transportation noise sources associated with the proposed Project are the proposed loading docks, on-site parking lot circulation, and HVAC equipment. In order to evaluate these noise sources at the nearest sensitive receptors, Saxelby Acoustics used the SoundPLAN noise prediction model to generate noise level predictions according to the assumptions outlined below.

The SoundPLAN noise prediction model was used to plot noise contours and to calculate noise levels at the sensitive receptors located around the Project site. Inputs to the SoundPLAN model included ground topography and ground type, noise source locations and heights, receiver locations, and sound power level data. These predictions are made in accordance with International Organization

for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors).

It should be noted that sound power is a measure of the total acoustic energy emitted by a noise source and is irrespective of distance from the source. Sound power is input into the SoundPLAN model as a representation of the total acoustic energy emitted by a specific noise source. Sound power levels in this report are A-weighted decibel levels, noted as "dBA, PWL" per industry standards. The model then corrects for the many factors (i.e., distance, terrain shielding, atmospheric absorption, etc.) which affect sound propagation from the noise source to the receiver location.

Loading Dock Noise Generation: To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a Wal-Mart loading dock was utilized. This data is conservative considering that the Walmart loading dock supports a much larger store than the proposed Grocery Outlet. As such, the noise analysis completed for the loading dock noise is considered a worst-case scenario.

The noise level measurements were conducted at a distance of 100 feet from the center of the two-bay loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the worst-case loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA Leq at a distance of 100 feet from the center of the loading dock truck maneuvering lanes. This analysis assumes that the proposed loading docks would operate at this level of activity in a busy hour during either daytime (7:00 a.m. to 10:00 p.m.) or nighttime (10:00 p.m. to 7:00 a.m.).

Parking Lot Circulation: Based upon the Traffic Impact Analysis prepared for the Project, the peak hour trips for the proposed Project would be 165 vehicles. It was assumed that in the peak hour, two of these vehicles could be truck deliveries. Based upon noise measurements conducted of vehicle movements in parking lots, the SEL for a single passenger vehicle is 71 dBA at a distance of 50 feet while the SEL of a tractor-trailer is 85 dBA at the same distance. It was assumed that truck deliveries could occur during nighttime (10:00 p.m. to 7:00 a.m.) hours. It was also assumed that the store would not be open to the public during nighttime hours.

Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors. Input data included the loading dock and parking lot noise generation, as discussed above. Figures 3.6-2 and 3.6-3 show the results of this analysis for the site layout in terms of the daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) peak hour average (L_{eq}). Daytime (7:00 a.m. to 10:00 p.m.) noise levels are expected to be similar to the nighttime scenario. Figures 3.6-4 and 3.6-5 show the results of this analysis in terms of the peak hour maximum noise levels (L_{max}) for daytime and nighttime hours.

HVAC Equipment: Saxelby Acoustics assumed that the proposed Project could utilize a packaged HVAC unit rated up to 50 tons. Saxelby Acoustics utilized manufacturer's data for a Lennox 50-ton LGH packaged rooftop unit to predict mechanical noise levels. The unit is reported to have a sound power level of 91 dBA. It was also assumed that up to five 4.0-ton multi-split condensing units could be utilized on the project rooftop. These units would have a sound power level of approximately 64 dBA. It was assumed that the HVAC units could operate continuously during daytime (7:00 a.m. to 10:00 p.m.) hours at full capacity and 50 percent of the time during nighttime (10:00 p.m. to 7:00 a.m.) hours.

CONSTRUCTION NOISE ENVIRONMENT

The Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM) was used to predict noise levels for standard construction equipment used for roadway improvement projects. The assessment of potential significant noise effects due to construction is based on the standards and procedures described in the Federal Transit Authority (FTA) guidance manual and FHWA's RCNM.

The RCNM is a Windows-based noise prediction model that enables the prediction of construction noise levels for a variety of construction equipment based on a compilation of empirical data and the application of acoustical propagation formulas. It enables the calculation of construction noise levels in more detail than the manual methods, which eliminates the need to collect extensive amounts of project-specific input data. RCNM allows for the modeling of multiple pieces of construction equipment working either independently or simultaneously, the character of noise emission, and the usage factors for each piece of equipment.

Construction noise varies depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week), and the duration of the construction work.

Noise sources in the RCNM database include actual noise levels and equipment usage percentages. This source data was used in this construction noise analysis. Table 3.6-8 shows predicted construction noise levels for each of the project construction phases.

TABLE 3.6-8: CONSTRUCTION EQUIPMENT NOISE LEVELS FOR PRIMARY CONSTRUCTION PHASES

EQUIPMENT	*QUANTITY*	*USAGE (%)*	*MAXIMUM, LMAX (DBA AT 50 FEET)*	*HOURLY AVERAGE, LEQ (DBA AT 50 FEET)*
DEMOLITION – BUILDING DEMOLITION				
Excavator	1	40	81	77
Dump Truck	3	40	76	77
			Total:	**80**
DEMOLITION – FOUNDATION				
Concrete Saw	1	40	85	81
Dump Truck	3	40	82	78
Excavator	1	40	84	80
			Total:	**85**

EQUIPMENT	*QUANTITY*	*USAGE (%)*	*MAXIMUM, LMAX (DBA AT 50 FEET)*	*HOURLY AVERAGE, LEQ (DBA AT 50 FEET)*
SITE PREPARATION				
Grader	1	40	85	81
Dozer	1	40	82	78
Tractor/Loader/Backhoe	1	40	84	80
			Total:	**85**
GRADING				
Grader	1	40	85	81
Dozer	1	40	82	78
Tractor/Loader/Backhoe	2	40	84	83
			Total:	**86**
BUILDING CONSTRUCTION				
Crane	1	16	81	73
Fork Lift	1	40	83	79
Generator	1	50	81	78
Tractor/Loader/Backhoe	1	40	84	80
Welder / Torch	3	40	74	75
			Total:	**85**
PAVING				
Concrete Mixer Truck	1	40	79	75
Paver	1	50	77	74
Paving Equipment	1	50	77	74
Roller	1	20	80	73
Tractor/Loader/Backhoe	1	40	84	80
			Total:	**83**
ARCHITECTURAL COATING				
Air Compressors	1	40	79	75
			Total:	**75**

SOURCE: FHWA, ROADWAY CONSTRUCTION NOISE MODEL (RCNM), JANUARY 2006; SAXELBY ACOUSTICS, 2022.

Based upon the Table 3.6-8 data, the loudest phase of demolition, with an average noise exposure of 85 dBA Leq at 50 feet, would occur during foundation demolition activities. The complete demolition and haul off of all the debris would take five days. There would be one concrete saw, one excavator with a clam shell and three trucks that will haul off the debris. The procedure is that the excavator clam shell would dismantle the building and place the material directly into the trucks. The debris would be trucked to Willits as the closest receiving station. The building demolition would take two days. The concrete foundation would require the concrete saw for one day, and the debris would also be trucked to Willits and would take three days because the weight of the concrete is greater than the building debris.

The loudest phase of construction would be grading at 86 dBA Leq at 50 feet. Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors in terms of the City's daytime (Leq) noise level criterion. The results of the construction noise analysis are shown graphically on Figure 3.6-6 (demolition) and Figure 3.6-7 (grading). A summary of the noise prediction results for each phase of construction are shown in Table 3.6-9. Receptor locations are

shown on Figure 3.6-6. The construction noise modeling includes an 8-foot-tall temporary sound barrier around the construction area.

TABLE 3.6-9: PREDICTED CONSTRUCTION NOISE LEVELS PHASE

RECEIVER (USE)	*MEASURED DAYTIME NOISE LEVEL, LEQ*[1]	*PREDICTED CONSTRUCTION NOISE LEVEL, LEQ*	*TOTAL NOISE LEVEL (AMBIENT + CONSTRUCTION)*	*CHANGE (DB)*
DEMOLITION - BUILDING				
R1 (Residential)	56.0 dBA	59.9	61.4	5.4
R2 (Residential)	56.0 dBA	61.0	62.2	6.2
R3 (Residential)	56.0 dBA	62.6	63.5	7.5
R4 (Residential)	56.0 dBA	59.4	61.0	5.0
R5 (Residential)	56.0 dBA	57.7	59.9	3.9
DEMOLITION - FOUNDATION				
R1 (Residential)	56.0 dBA	64.9	65.4	9.4
R2 (Residential)	56.0 dBA	66.0	66.4	10.4
R3 (Residential)	56.0 dBA	67.6	67.9	11.9
R4 (Residential)	56.0 dBA	64.4	65.0	9.0
R5 (Residential)	56.0 dBA	62.7	63.5	7.5
SITE PREPARATION				
R1 (Residential)	56.0 dBA	64.5	65.1	9.1
R2 (Residential)	56.0 dBA	65.2	65.7	9.7
R3 (Residential)	56.0 dBA	66.4	66.8	10.8
R4 (Residential)	56.0 dBA	65.4	65.9	9.9
R5 (Residential)	56.0 dBA	64.3	64.9	8.9
GRADING				
R1 (Residential)	56.0 dBA	65.5	66.0	10.0
R2 (Residential)	56.0 dBA	66.2	66.6	10.6
R3 (Residential)	56.0 dBA	67.4	67.7	11.7
R4 (Residential)	56.0 dBA	66.4	66.8	10.8
R5 (Residential)	56.0 dBA	65.3	65.8	9.8
BUILDING CONSTRUCTION				
R1 (Residential)	56.0 dBA	64.5	65.1	9.1
R2 (Residential)	56.0 dBA	65.2	65.7	9.7
R3 (Residential)	56.0 dBA	66.4	66.8	10.8
R4 (Residential)	56.0 dBA	65.4	65.9	9.9
R5 (Residential)	56.0 dBA	64.3	64.9	8.9
PAVING				
R1 (Residential)	56.0 dBA	62.5	63.4	7.4
R2 (Residential)	56.0 dBA	63.2	64.0	8.0
R3 (Residential)	56.0 dBA	64.4	65.0	9.0
R4 (Residential)	56.0 dBA	63.4	64.1	8.1
R5 (Residential)	56.0 dBA	62.3	63.2	7.2
ARCHITECTURAL COATING				
R1 (Residential)	56.0 dBA	54.5	58.3	2.3
R2 (Residential)	56.0 dBA	55.2	58.6	2.6
R3 (Residential)	56.0 dBA	56.4	59.2	3.2
R4 (Residential)	56.0 dBA	55.4	58.7	2.7
R5 (Residential)	56.0 dBA	54.3	58.2	2.2

[1] AS MEASURED AT SITE ST-1.
SOURCE: FHWA, ROADWAY CONSTRUCTION NOISE MODEL (RCNM), JANUARY 2006; SAXELBY ACOUSTICS, 2022.

CONCLUSIONS

Increased Traffic Noise Levels at Existing Receptors: The Noise Element of the Fort Bragg Coastal General Plan specifies criteria to determine the significance of traffic noise impacts. An increase of 3 dB L_{dn} or more at noise sensitive uses will be considered significant. Additionally, if the L_{dn} would exceed 70 dB at a sensitive use, a 2 dB increase will be considered significant. A significant impact would also occur if project traffic exclusively would generate levels of 60 dB or more at sensitive uses.

As shown in Tables 3.6-8 and 3.6-9, noise levels are not predicted to exceed 70 dB L_{dn} in the vicinity of the project. Traffic noise level increases are not expected to be greater than 2.3 dBA L_{dn}. The maximum noise level at a sensitive receptor caused by project traffic alone would be 54.8 dBA.

Therefore, impacts resulting at existing receptors from increased traffic noise would be considered ***less-than-significant***.

Operational Noise Levels at Existing Receptors: Operational noise levels at the existing receptors to in the vicinity of the site resulting from the proposed Project are quantified and shown in Figures 3.6-2 to 3.6-5. Figures 3.6-2 and 3.6-3 show the average (L_{eq}) Project noise contours for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours, respectively, and Figures 3.6-4 and 3.6-5 show the maximum (L_{max}) Project noise contours for daytime and nighttime hours.

Based upon Figures 3.6-2 and 3.6-3, the proposed Project would generate peak hour average noise levels of up to 46 dBA L_{eq} during daytime hours and 44 dBA L_{eq} during nighttime hours at the outdoor activity areas of adjacent residential uses to the east. The predicted noise levels would comply with the City of Fort Bragg 55 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime noise level standards.

Based upon Figures 3.6-4 and 3.6-5, the proposed Project would generate peak hour maximum noise levels of up to 66 dBA L_{max} during daytime hours and 64 dBA L_{max} during nighttime hours at the outdoor activity areas of adjacent residential uses. The predicted noise levels would comply with the City of Fort Bragg 75 dBA L_{max} daytime and 65 dBA L_{max} nighttime noise level standards.

Therefore, the Project would comply with the City's stationary noise level standards and this would be considered a ***less-than-significant*** impact.

Construction Noise: During the demolition and construction phases of the proposed Project, noise from construction activities would add to the noise environment in the immediate Project vicinity. Based upon the Table 3.6-9 data, the proposed Project is predicted to generate construction noise

levels of up to 67.6 dBA Leq. This would equal an approximate noise increase of up to 11.9 dBA over ambient noise conditions at the closest sensitive receptor.

Compliance with the City's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices (both outlined in Mitigation Measure 3.6-1), would help to ensure that noise levels stay below the 12 dBA threshold.

Based upon the Table 3.6-9 data, construction noise levels are not predicted to exceed the 12 dBA test of significance. Therefore, with implementation of Mitigation Measure 3.6-1, temporary construction noise impacts would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-1: *To reduce potential construction noise impacts during Project construction, the following multi-part mitigation measure shall be implemented for the Project:*

- *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.*
- *Quiet construction equipment, particularly air compressors, shall be selected whenever possible.*
- *All stationary noise-generating construction equipment such as generators or air compressors shall be located as far as is practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.*
- *Exterior construction activities shall be limited to 7:00 a.m. to 8:00 p.m., and interior construction activities shall be limited to 7:00 a.m. to 10:00 p.m. All construction activities shall be limited to Monday to Saturday, holidays excluded.*
- *Staging areas on the Project site shall be located in areas that maximize, to the extent feasible, the distance between staging activity and sensitive receptors.*
- *An 8-foot-tall temporary construction sound wall shall be constructed along the east and south sides of the project site, as shown on Figures 3.6-6 and 3.6-7. The sound barrier fencing should consist of ½" plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier should be free from gaps, openings, or penetrations to ensure maximum performance.*

Impact 3.6-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels. (Less than Significant with Mitigation)

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural damage. The primary vibration-generating activities would be grading, utilities placement, and parking lot construction. Table 3.6-10 shows the typical vibration levels produced by construction equipment.

With the exception of vibratory compactors, Table 3.6-10 data indicates that construction vibration levels anticipated for the proposed Project are less than the 0.2 in/sec threshold at a distance of 25 feet. Use of vibratory compactors within 26 feet of the adjacent buildings could cause vibrations in excess of 0.2 in/sec. Structures which could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are located less than 26 feet from the Project site. Therefore, this is a potentially significant impact and mitigation measures would be required.

TABLE 3.6-10: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	*P.P.V. AT 25 FEET (INCHES/SECOND)*	*P.P.V. AT 50 FEET (INCHES/SECOND)*	*P.P.V. AT 100 FEET (INCHES/SECOND)*
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES. FEDERAL TRANSIT ADMINISTRATION. MAY 2006.

Mitigation Measure 3.6-2 requires that any compaction less than 26 feet from an adjacent residential structure be accomplished using static drum rollers. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring could be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. With this mitigation measure. This impact would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-2: *To reduce potential vibration impacts during Project construction, the following mitigation measure shall be implemented for the Project:*

- *Any compaction required less than 26 feet from the adjacent residential structures to the south shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compaction. As an alternative to this requirement, pre-*

construction crack documentation and construction vibration monitoring should be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. Any such documented damage would be required to be repaired by the applicant.



Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-1

Noise Measurement Sites

Legend

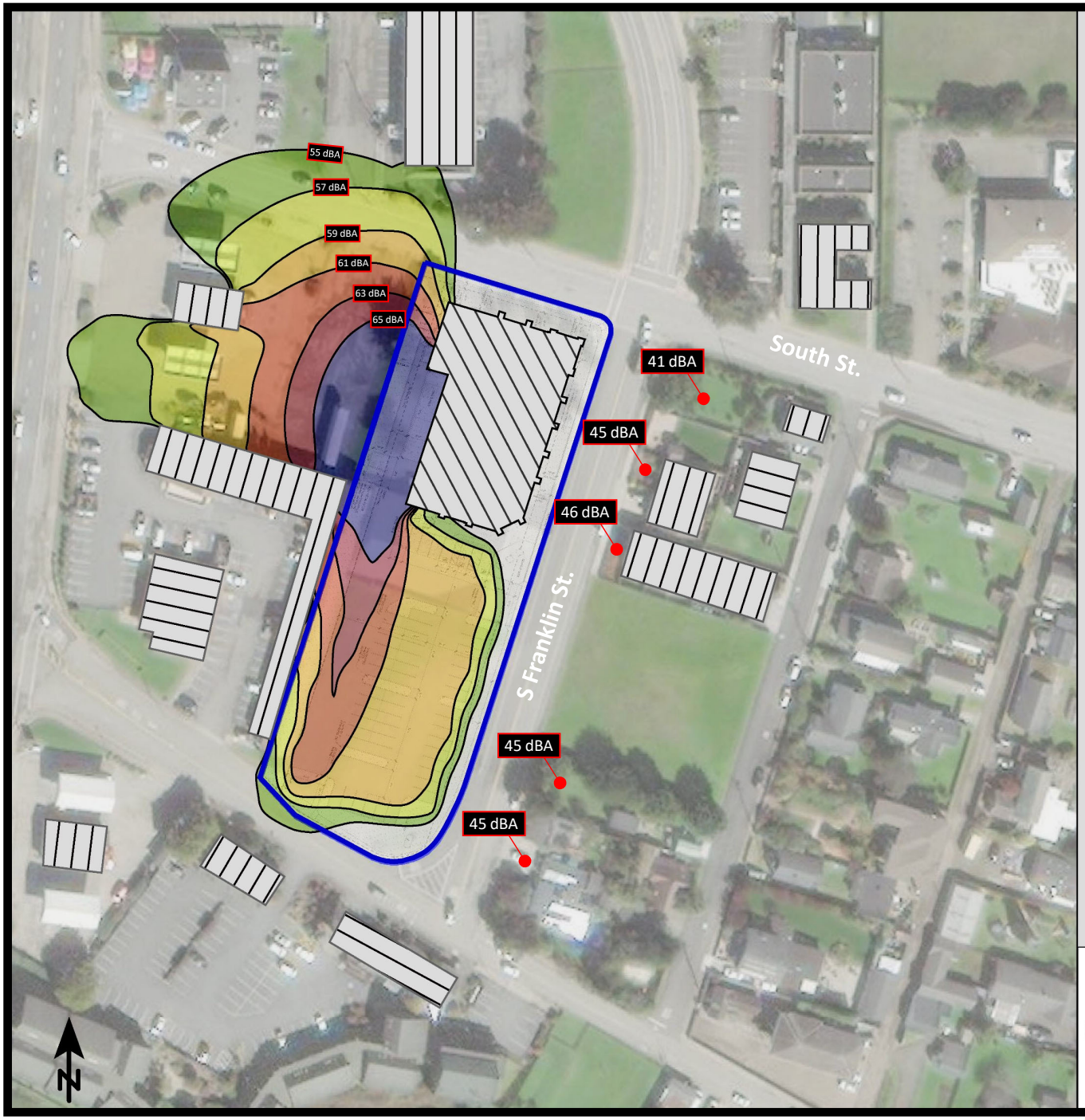
- Project Site
- Noise Measurement - Long Term
- Noise Measurement - Short Term

0 ft 50 ft 100 ft 150 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 01/19/2022

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-2

Daytime (7:00 a.m. to 10:00 p.m.)
Project Noise Contours (dBA L_{eq})

Signs and symbols

- Project Boundary
- Proposed Building
- Existing Building

Levels in dB(A)

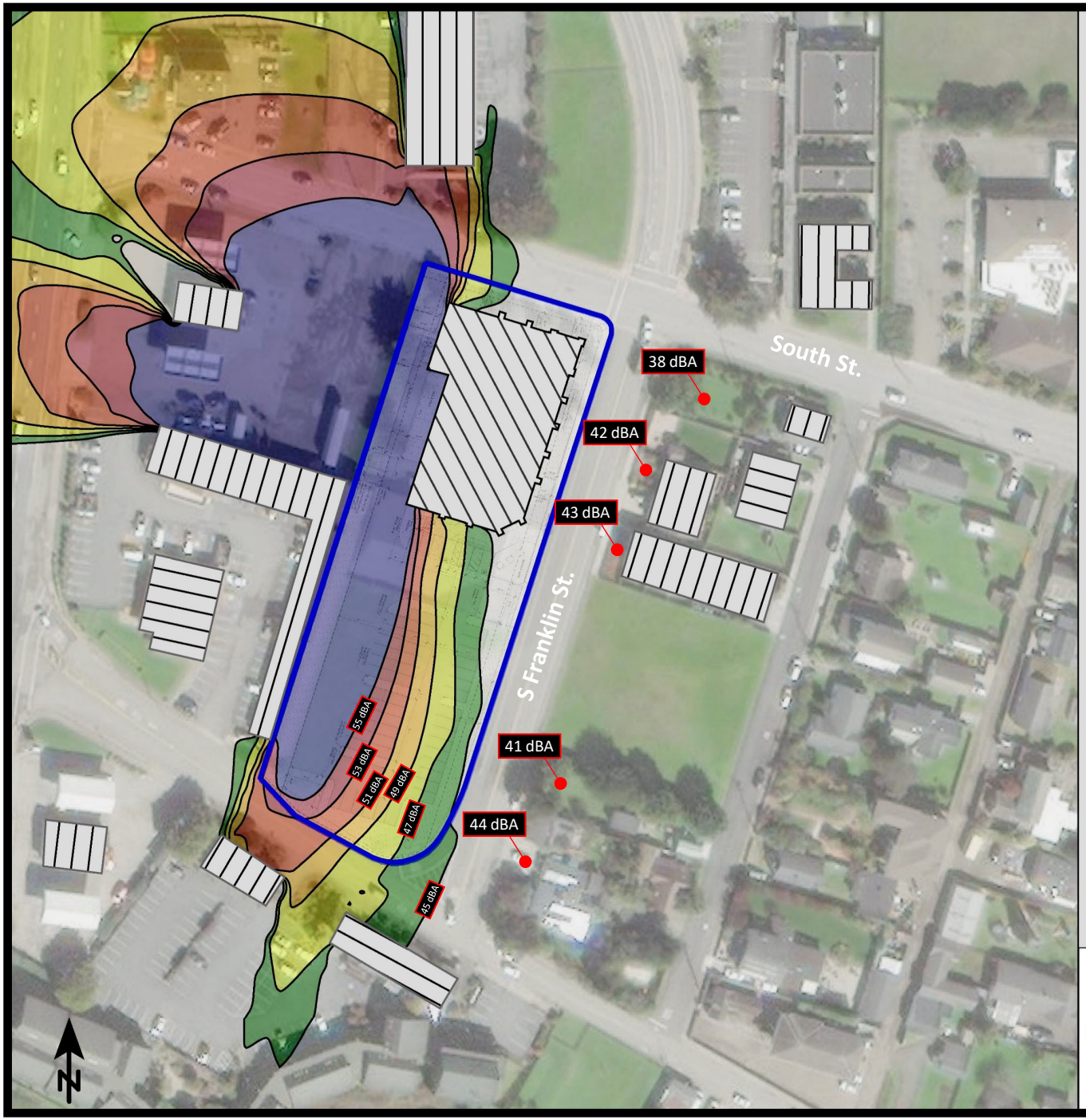
<= 55
55 - 57
57 - 59
59 - 61
61 - 63
63 - 65
> 65

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-3

Nighttime (10:00 p.m. to 7:00 a.m.)
Project Noise Contours (dBA L_{eq})

Signs and symbols

- Project Boundary
- Proposed Building
- Exising Building

Levels in dB(A)

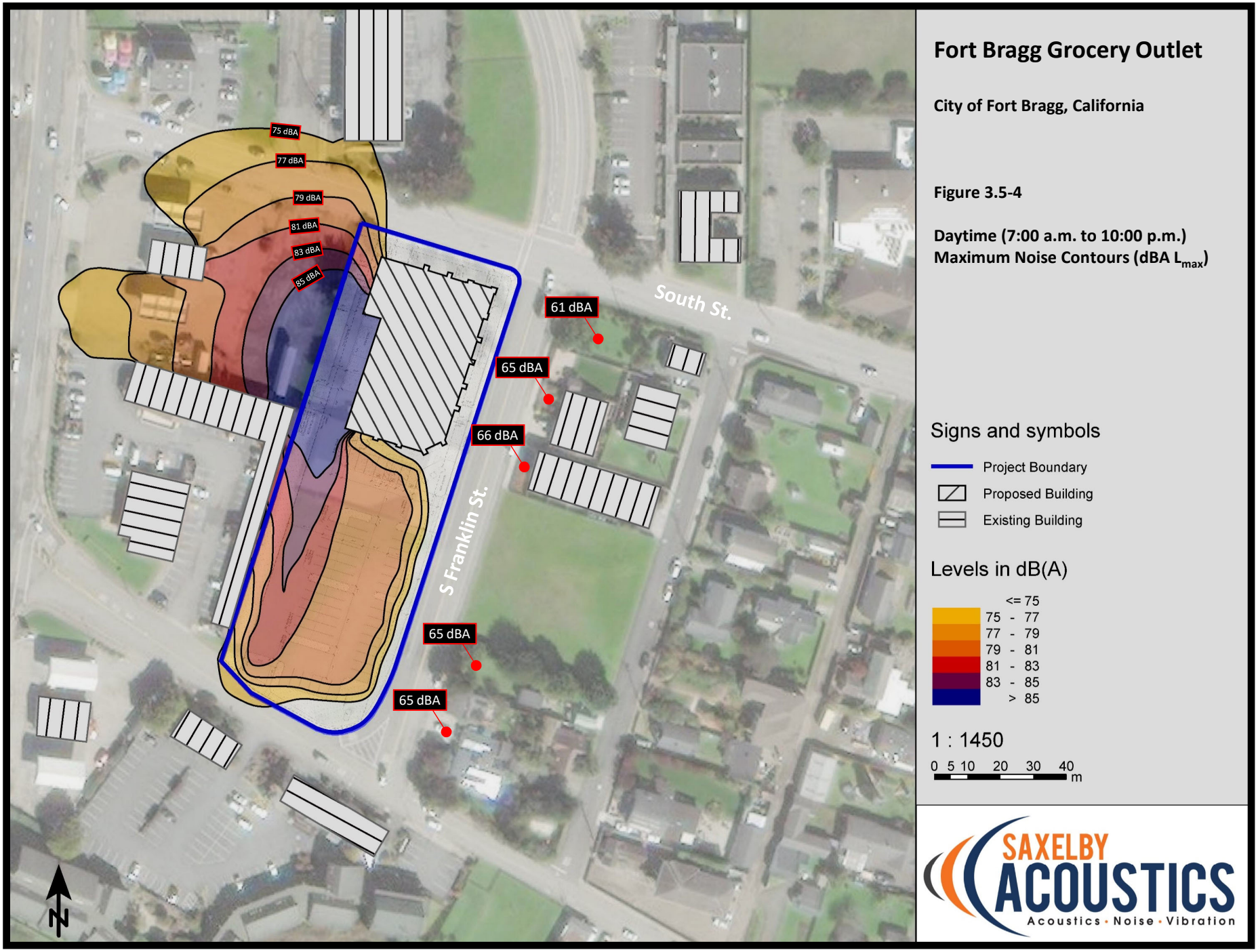
<= 45
45 - 47
47 - 49
49 - 51
51 - 53
53 - 55
> 55

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-4

Daytime (7:00 a.m. to 10:00 p.m.)
Maximum Noise Contours (dBA L_{max})

Signs and symbols

- Project Boundary
- Proposed Building
- Existing Building

Levels in dB(A)

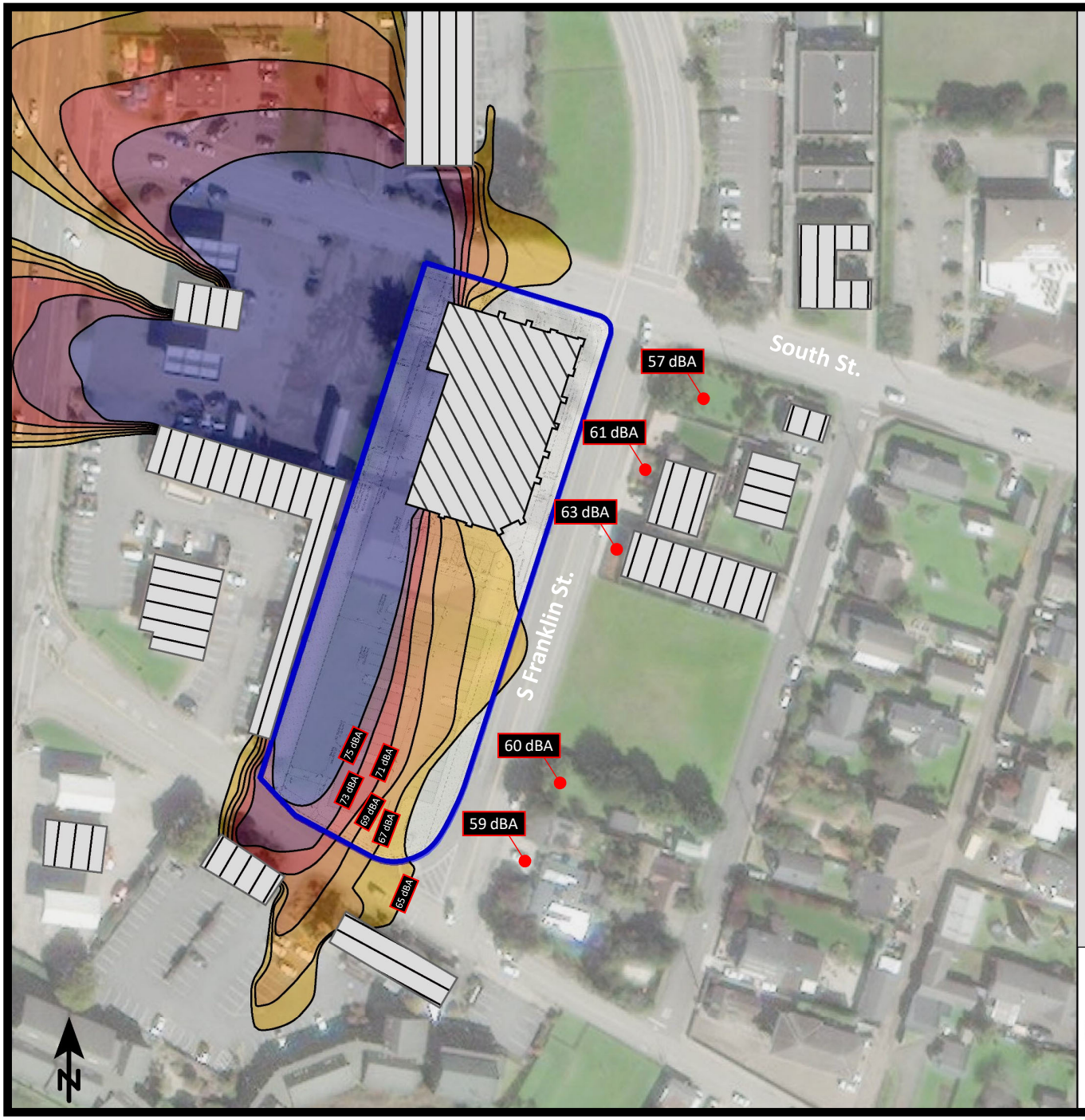
- <= 75
- 75 - 77
- 77 - 79
- 79 - 81
- 81 - 83
- 83 - 85
- > 85

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-5

Nighttime (10:00 p.m. to 7:00 a.m.)
Maximum Noise Contours (dBA L_{max})

Signs and symbols

- Project Boundary
- Proposed Building
- Existing Building

Levels in dB(A)

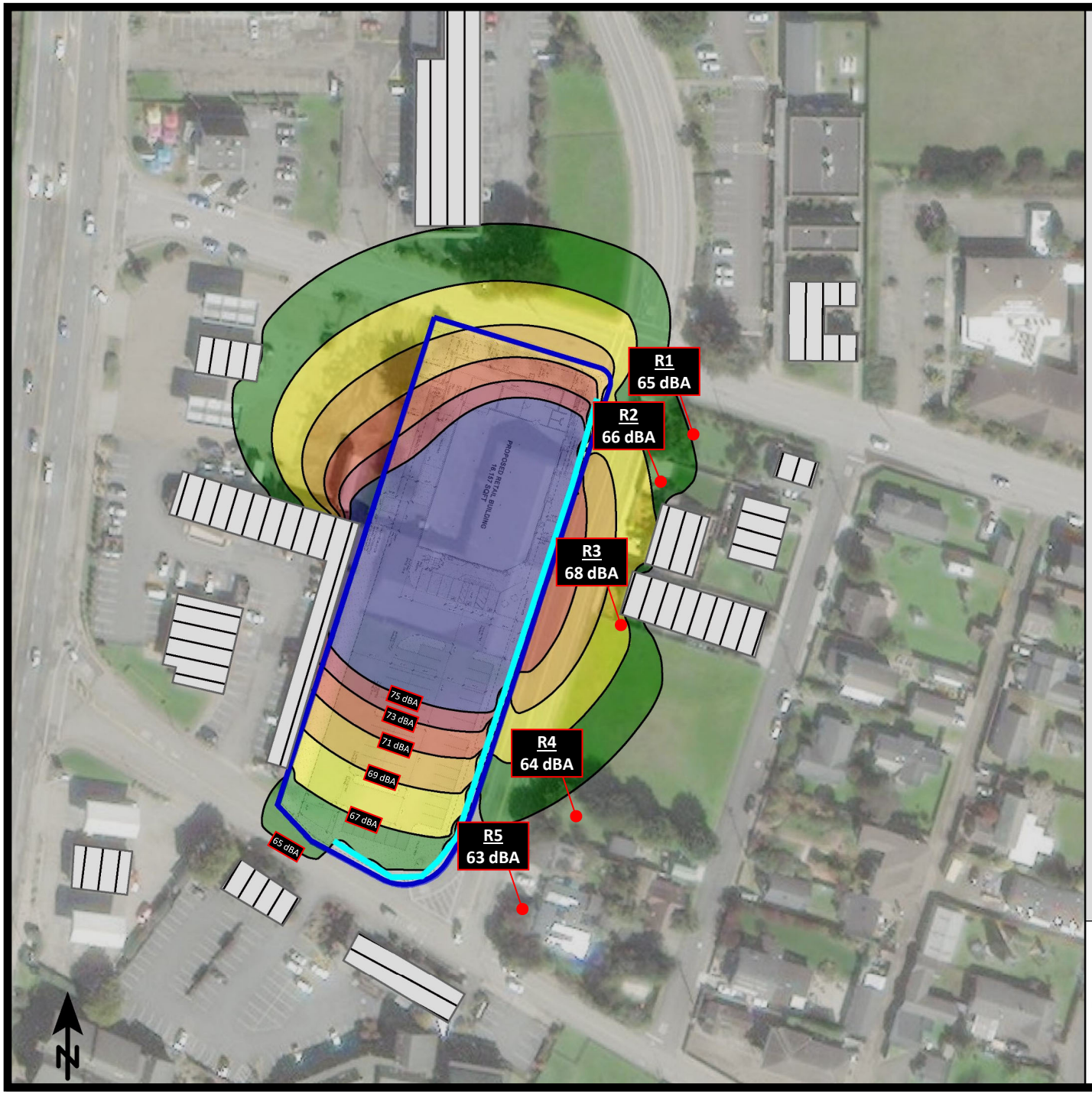
- <= 65
- 65 - 67
- 67 - 69
- 69 - 71
- 71 - 73
- 73 - 75
- > 75

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-6

Predicted Demolition Noise Levels (dBA, Leq)

Signs and symbols

- Project Boundary
- 8' Sound Wall

Levels in dB(A)

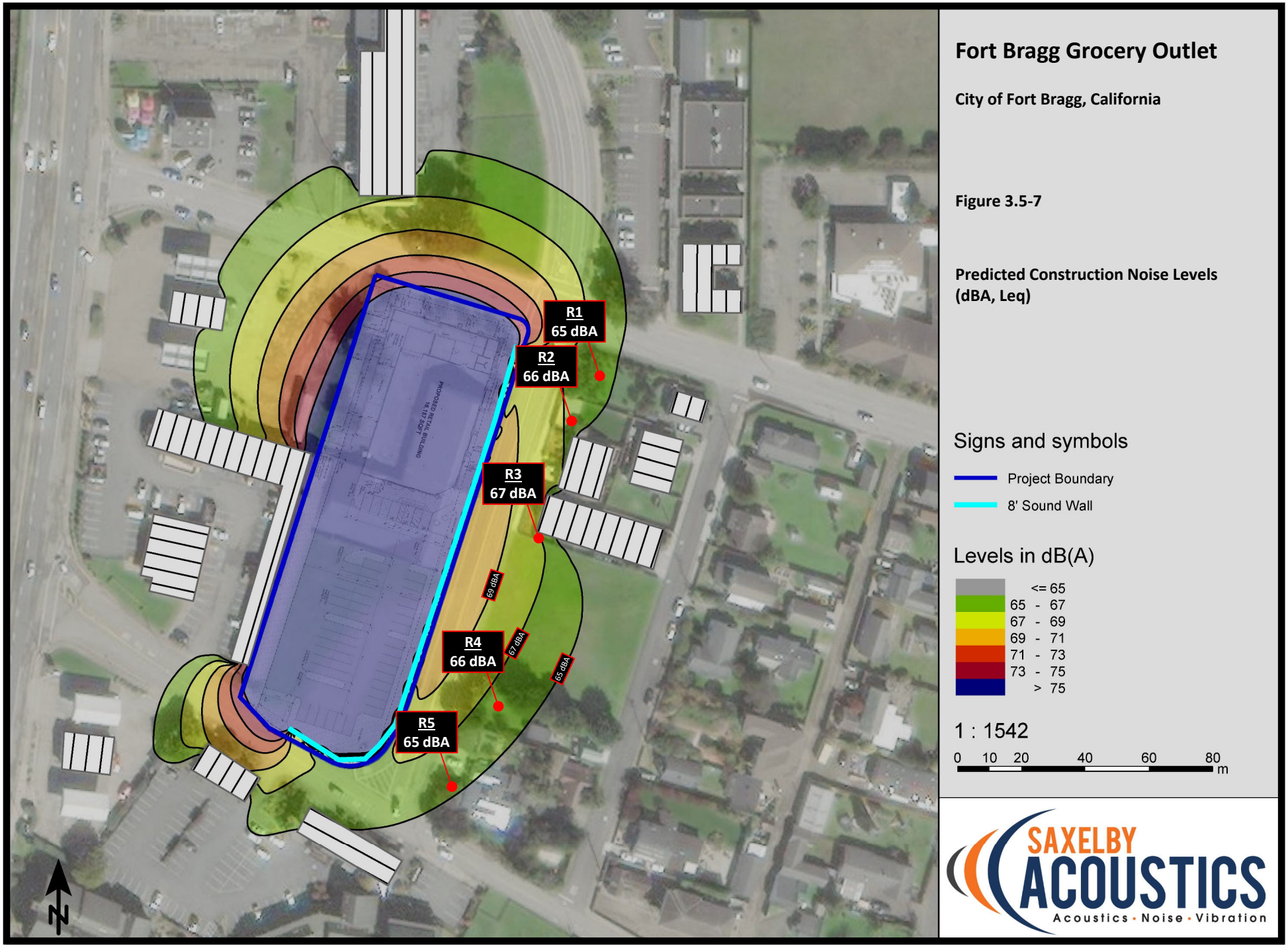
<= 65
65 - 67
67 - 69
69 - 71
71 - 73
73 - 75
> 75

1 : 1542

0 10 20 40 60 80 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-7

Predicted Construction Noise Levels (dBA, Leq)

Signs and symbols

- Project Boundary
- 8' Sound Wall

Levels in dB(A)

<= 65
65 - 67
67 - 69
69 - 71
71 - 73
73 - 75
> 75

1 : 1542

0 10 20 40 60 80 m

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This section analyzes the potential environmental impacts of the proposed Project on the transportation system. This section identifies the potential transportation impacts of future buildout of the Project and recommends mitigation measures to lessen their significance. Information in this section is derived primarily from the following (as well as other information described in this section):

- *Final Memorandum RE: Fort Bragg Grocery Outlet Project – CEQA VMT Analysis* (Fehr & Peers, 2022);
- *Traffic Impact Analysis for Grocery Outlet Store, Fort Bragg, California* (KD Anderson & Associates, Inc., 2019);
- *Addendum to Traffic Impact Analysis for Grocery Outlet Store, Fort Bragg, California* (KD Anderson & Associates, Inc., 2021);
- *Fort Bragg Coastal General Plan* (City of Fort Bragg, July 2008);
- *City of Fort Bragg 2009 Bicycle Master Plan* (November 2009);
- State of California, Governor's Office of Planning and Research (OPR), *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR, December 2018);
- *Trip Generation Manual, 10th Edition* (ITE, 2017); and
- *Trip Generation Handbook, 3rd Edition* (ITE, 2017).

Comments were received during the public review period for the Notice of Preparation regarding this topic from the following: Jacob Patterson (June 7, 2022), Leslie Kashiwada (June 20, 2022), Renz Martin (June 18, 2022), and Whitney Anderson (June 7, 2022). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

Senate Bill (SB) 743, enacted in 2013, created Public Resources Code section 21099, which directed OPR and the Secretary of the Natural Resources Agency to establish criteria for determining the significance of transportation impacts of projects within transit priority areas, with the option of creating new statewide criteria. The significance criteria for transit priority areas were to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the new criteria, OPR and the Secretary were to recommend potential metrics that included, but were not limited to, vehicle miles traveled [VMT], vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. Section 21099 further provided that, once the CEQA Guidelines had been updated as required by the statute, "automobile delay, as described solely by level of service [LOS] or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any."

Consistent with these directives, the Natural Resources Agency promulgated CEQA Guidelines section 15064.3, which became effective in late 2018. It provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts," with VMT referring to "the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel." Rather than limit its

scope only to transit priority areas, the section changed the approach to assessing transportation impacts under CEQA all over the State. By its own terms, however, the section did not require agencies to begin using VMT as a new metric until July 1, 2020. LOS had ceased to be a valid significance criterion as of late 2018, however. (See *Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609, 625-626.)

In December 2018, OPR published final technical guidance for implementing CEQA Guidelines Section 15064.3. While this document does not have the force of law, the technical guidance provides helpful information to agencies such as the City, and sets forth OPR's own understanding of the best strategies for implementing Section 15064.3.

Therefore, unlike previous EIRs published in Fort Bragg, this Draft EIR uses VMT as the primary CEQA significance criterion and includes a discussion of Level of Service (LOS) only in order to aid the City of Fort Bragg and Caltrans in the understanding of potential increases in vehicle delay at key signalized intersections (Policy TR-4: Effective Transportation Assessment) and determine improvements to the local and regional transportation system as required by the Circulation Element of the City's Coastal General Plan. Pages 22 through 57 of Appendix F present the results of Existing Conditions Impacts and Mitigation Measures and the Cumulative Conditions Impacts and Mitigation Measures.

In addition to addressing VMT (for CEQA) and LOS (for the Coastal General Plan Circulation Element), this section also addresses many other important transportation-related CEQA areas of concern, including pedestrian/bicycle facilities, transit facilities and services, emergency vehicle response, hazardous conditions, and temporary construction-related conditions.

3.7.1 ENVIRONMENTAL SETTING

PROJECT LOCATION

The Project site is located at 825, 845, and 851 S. Franklin Street in the City of Fort Bragg, Mendocino County, California. The 1.63-acre site is located on the north side of N. Harbor Drive, the west side of S. Franklin Street, and the south side of South Street. The Project site is located approximately 230 to 450 feet east of S. Main Street/State Route (SR) 1 (a four-lane conventional highway managed by the California Department of Transportation [Caltrans]) and is located in the City's Coastal Zone. Properties within the Coastal Zone are regulated by the Coastal Land Use and Development Code (CLUDC), also known as Fort Bragg Municipal Code (FBMC) Chapter 17. The Project site consists of three parcels identified by Assessor's Parcel Numbers (APNs) 018-120-47, 018-120-48 and 018-120-49.

The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. A 16,436 square-foot (sf) vacant former office building and associated 47-space parking lot are located in the northern half of the site. The building, locally

referred to as the "Old Social Services Building", has not been leased since 2010 but has been used as storage since then. Wooden fencing is currently located along the western property line and adjacent to the south side of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs.

The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 400 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and a Chevron station. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

ROADWAY SYSTEM

Study Area Circulation System

The following are descriptions of the primary roadways in the vicinity of the Project site:

Main Street (SR 1). SR 1 runs north-south along the California coast and is a primary access to the Mendocino Coast. Through Fort Bragg the route is Main Street and is designated an Arterial Street in the Circulation Element of the Fort Bragg Coastal General Plan. In the area of the Project site, Main Street is a four-lane conventional highway with a center Two-Way Left-Turn (TWLT) lane. Paved shoulder exists on both sides of the road, and sidewalk is available on the east side of the highway. The posted speed limit is 40 miles-per-hour (mph). The most recent Caltrans traffic volume data available indicates that SR 1 carries an Annual Average Daily Traffic (AADT) volume of 21,200 vehicles per day (vpd) south of Cypress Street, with the daily volume rising to 24,200 vpd in the peak month. Trucks comprise about three percent of the daily traffic in this area.

Franklin Street. Franklin Street is a north-south route that lies about 450 feet east of Main Street. Franklin Street extends from an intersection on N. Harbor Drive for about 1½ miles to its northern terminus near Pudding Creek. The Circulation Element designates Franklin Street as a Major Collector. In the area of the Project site, Franklin Street is a two-lane roadway with paved shoulders, and sidewalk exists on both sides of the street in the area near the South Street intersection. A prima facie 25 mph speed limit is in effect. Franklin Street was observed to carry 1,928 to 2,194 vpd in the area of the Project and 2,394 to 3,540 vpd north of South Street.

Cypress Street. Cypress Street is an east-west street that extends east from Main Street for about ½ mile. The Circulation Element identifies Cypress Street as a Minor Collector. In the area immediately east of SR 1 Cypress Street is a two-lane street with a center TWLT lane. Sidewalk exists on both sides of the street, and the posted speed limit is 25 mph. Recent 24-hour traffic counts indicated that Cypress Street carried 3,529 to 5,214 vpd near Main Street.

South Street. South Street is an east-west street that extends easterly from Main Street for about ½ mile along the north boundary of the Project site. The Circulation Element identifies South Street as

a Minor Collector. In the area of the Project site, South Street is a two-lane street with paved shoulders and sidewalks. The posted speed limit is 25 mph. The traffic counts conducted for this analysis indicated that South Street carried 1,665 to 2,449 vpd.

***North Harbor Drive*.** North Harbor Drive is a street that extends east from an intersection on Main Street to the City's Noyo River harbor area. This two-lane road is designated a Local Street in the Circulation Element. Sidewalk exists near Main Street but not at locations east of the Project site. The posted speed limit is 25 mph. The daily traffic counts conducted for this analysis indicated that North Harbor Drive carried 2,488 to 3,200 vpd.

TABLE 3.7-1: DAILY TRAFFIC VOLUMES ON FORT BRAGG STREETS

STREET	LOCATION	DAILY TRAFFIC (VPD)		
		THURSDAY 7/18/2019	FRIDAY 7/19/2019	SATURDAY 7/20/2019
Franklin Street	Cypress Street to South Street	3,540	3,497	2,394
	South Street to N. Harbor Drive	1,936	2,194	1,928
Cypress Street	Main Street to Franklin Street	5,078	5,214	3,529
South Street	Main Street to Franklin Street	2,449	2,345	1,665
N. Harbor Drive	Main Street to Franklin Street	2,488	2,949	3,200

SOURCE: KDANDERSON & ASSOCIATES, 2019.

Study Area Intersections

The quality of traffic flow is often governed by the operation of key intersections. The following intersections have been identified for evaluation in consultation with City of Fort Bragg staff.

The **SR 1 (Main Street) / Cypress Street intersection** is a four-way intersection controlled by traffic signal. The west leg of the intersection opposite Cypress Street is the access to the Georgia Pacific Mill site. Each approach has a separate left turn lane with protected left turn phasing. Crosswalks are striped on each leg of the intersection, and pedestrian indications and push buttons are present. Street lights exist on each corner.

The **Cypress Street / Franklin Street intersection** is a four-way intersection controlled by an all-way stop. Separate left turn lanes are provided on Cypress Street, but the Franklin Street approaches are single lanes. Crosswalks are striped across each leg of the intersection, and there is a street light on the southeast corner.

The **SR 1 (Main Street) / South Street intersection** is a "tee" controlled by a stop sign on the South Street approach. A continuous TWLT lane is present on SR 1. The westbound South Street approach is a single travel lane, and a crosswalk is striped across the South Street approach. Street lights are available on each corner.

The **South Street / Franklin Street intersection** is a four-way intersection controlled by a stop sign on northbound and southbound Franklin Street approaches. Each approach has a single travel lane. A crosswalk is striped across the north Franklin Street leg, and there is a streetlight on the northeast

corner. It is noted that a four-way stop sign was previously warranted at this intersection. The four-way stop sign will be constructed when the City begins work on the roadway.

The **SR 1 (Main Street) / North Harbor Drive intersection** is a four-way intersection controlled by stop signs on the eastbound and westbound approaches. The west leg of the intersection is Noyo Point Road. A crosswalk is striped across North Harbor Drive, and streetlights exist at the intersection.

The **North Harbor Drive / Franklin Street intersection** is a "tee" controlled by an all-way stop. The North Harbor Drive approaches are single travel lanes, but the Franklin Street approach has as separate right turn lane. There are no crosswalks striped at the intersection, and a streetlight is present on the southeast corner.

EXISTING TRAFFIC VOLUMES / LEVELS OF SERVICE

Traffic Volume Counts. The periods for intersection analysis were selected based on review of the hourly results from daily traffic volume counts. For this study during the weekday p.m. peak hour (4:00 to 6:00 pm) and Saturday midday peak hour (noon to 2:00 pm) were the highest volume periods. The highest hourly traffic volume period within each two hour window was identified as the peak hour and used for this analysis.

Figure 3.7-1 illustrates the intersection turning movement count data for study intersections. This figure also notes the geometric layout of each intersection and the location of traffic controls. This data has been used to determine the operating Level of Service (LOS) at each intersection.

As indicated in Table 3.7-2, each intersection delivers a peak hour Level of Service that satisfies minimum City of Fort Bragg requirements. It is worthwhile to note that at the SR 1 / North Harbor Drive intersection a few left turns and through traffic movements were made contrary to posted turn prohibitions. These movements were excluded from the LOS calculations. It is noted, however, that the turn prohibitions have since been removed.

TABLE 3.7-2: EXISTING INTERSECTION LEVEL OF SERVICE

		WEEKDAY PM PEAK HOUR			*SATURDAY PEAK HOUR*		
			OBSERVED			*OBSERVED*	
INTERSECTION	*CONTROL*	*MIN*	*LOS*	*AVERAGE DELAY (SEC/VEH)*	*MIN*	*LOS*	*AVERAGE DELAY (SEC/VEH)*
SR 1 - Main Street / Cypress Street	Signal	D	B	14	D[1]	B	13
Cypress Street / Franklin Street	AWS	C	B	12	C	A	9
SR 1 – Main Street / South Street							
Southbound left turn	WB Stop	D	B	11	D[1]	B	11
Westbound approach			C	23		C	22

INTERSECTION	CONTROL	WEEKDAY PM PEAK HOUR			SATURDAY PEAK HOUR		
			OBSERVED			OBSERVED	
		MIN	LOS	AVERAGE DELAY (SEC/VEH)	MIN	LOS	AVERAGE DELAY (SEC/VEH)
South Street / Franklin Street							
Westbound left turn	NB/SB Stop	C	A	7	C	A	7
Eastbound left turn			A	8		A	7
Northbound approach			B	12		B	11
Southbound approach			B	12		B	11
SR 1 – Main Street / N Harbor Drive							
Northbound left turn	WB Stop	D	B	11	D[1]	B	11
Southbound left turn			B	11		B	11
Eastbound approach[2]			C	17		B	13
Westbound approach[2]			B	14		C	16
No Harbor Drive / Franklin Street	AWS	C	A	8	C	A	9

[1] *LOS F ACCEPTED ON SATURDAY SUMMER PEAK HOUR*

[2] *EXISTING LEFT TURN AND THROUGH TRAFFIC CONTRARY TO POSTED TRAFFIC CONTROLS IS NOT INCLUDED IN LOS CALCULATION*

***BOLD** INDICATES CONDITIONS IN EXCESS OF ADOPTED STANDARD.*

SOURCE: KDANDERSON & ASSOCIATES, 2019.

PEAK PERIOD QUEUES

Table 3.7-3 identifies the 95th percentile queue lengths occurring at the signaled SR 1 (Main Street) / Cypress Street intersection during the weekday p.m. peak hour and Saturday peak hour. As noted, the westbound queue length exceeds the length of the striped left turn lane on that approach. In this case the queue extends back into the 40-foot long transition area between the westbound lane at the SR 1 intersection and the TWLT lane that continues towards the Cypress Street / Franklin Street intersection. The 95th percentile queue would not block access to the existing driveway served by the TWLT lane.

TABLE 3.7-3: EXISTING INTERSECTION QUEUES

INTERSECTION	MOVEMENT	STORAGE (FEET)	WEEKDAY PM PEAK HOUR		SATURDAY PEAK HOUR	
			VOLUME (VPH)	95TH % QUEUE (FEET)	VOLUME (VPH)	95TH % QUEUE (FEET)
SR 1 - Main Street / Cypress Street	NB left	120	20	35	34	50
	SB left	130	43	55	29	45
	EB left	80	17	<25	15	<25
	WB left	100	219	140	204	130
Cypress Street / Franklin Street	EB left	75	45	<25	46	<25
	WB left	55	8	<25	2	<25

HIGHLIGHTED VALUES EXCEED AVAILABLE STORAGE

SOURCE: KDANDERSON & ASSOCIATES, 2019.

TRAFFIC SIGNAL WARRANTS

The volume of traffic occurring at unsignalized intersections was compared to peak hour traffic warrants, and the results are noted in Table 3.7-4. As shown, the current volume at the SR 1 (Main Street) / South Street intersection is close to satisfying warrants, but the volumes at this location remain below the minimum requirements for the side street approach (i.e., 100 vph). On Saturday, the peak hour volumes at the SR 1 (Main Street) / North Harbor Drive intersection reach the level that satisfy peak hour warrants, but because the approach is limited to right-turns-only, a traffic signal is not justified.

TABLE 3.7-4: CURRENT TRAFFIC SIGNAL WARRANTS

INTERSECTION	WEEKDAY PM PEAK HOUR			SATURDAY PEAK HOUR		
	VOLUME (VPH)		WARRANT MET?[1]	VOLUME (VPH)		WARRANT MET?[1]
	MAJOR	MINOR		MAJOR	MINOR	
Cypress Street / Franklin Street	533	179	No	404	102	No
SR 1 – Main Street / South Street	2,277	88	No	2,224	78	No
South Street / Franklin Street	237	143	No	238	63	No
SR 1 – Main Street / N Harbor Drive	2,330	72	No	2,338	130	**Yes**
N Harbor Drive / Franklin Street	299	69	No	382	89	No

[1] *BASED ON RURAL PEAK HOUR VOLUME WARRANT ONLY*
SOURCE: KDANDERSON & ASSOCIATES, 2019.

ALTERNATIVE TRANSPORTATION MODES

This section describes the existing pedestrian, bicycle, and transit facilities in the vicinity of the Project site.

Pedestrian Facilities

There are sidewalks in many locations on the street surrounding the Project site. Sidewalk is present at these locations:

- both sides of Franklin Street from a point about 250 feet south of South Street northerly to Cypress Street;
- east side of Franklin Street for 100 feet north of North Harbor Drive;
- both sides of Cypress Street;
- both sides of South Street;
- north side of North Harbor Drive from SR 1 to the Project site (230 feet);
- south side of North Harbor Drive from SR 1 to 160 feet east;
- east side of Main Street (SR 1).

Crosswalks are striped at intersections as noted earlier, and ADA ramps have been provided at most locations.

Bicycle Facilities

SR 1 along the Pacific coast is a popular area for recreational cyclists. The *City of Fort Bragg 2009 Bicycle Master Plan* outlines the location and nature of existing bicycle facilities in the community. Bicycle facilities are categorized within three classifications:

- Class I Bikeway: trails or paths that are separated from automobile traffic;
- Class II Bikeway: bicycle lanes that are on street but delineated by striping;
- Class III Bikeway: bicycle routes where bicycles and automobiles share the road.

There are currently Class II striped bicycle lanes on the east and west side of Franklin Street north of South Street to the Oak Street intersection. Main Street (SR 1) is designated a Class III bike route through Fort Bragg. The Bicycle Master Plan suggests that South Street and North Harbor Drive south of Woodward Street should be developed as Class II bike routes.

Transit Facilities

The Mendocino Transit Authority (MTA) provides transit service to the Mendocino and Sonoma County areas. Two routes (5 and 60) pass the Project site. Route 5 (Braggabout) and Route 60 (The Coaster) traverse the community and have a stop near the County Social Services building at the South Street / Franklin Street intersection. Route 5 provides service on one-hour headways from 7:00 to 6:00 p.m. Monday thru Friday, with service extending to 8:30 on Saturdays. Route 60 runs four circuits on weekdays at 7:30 a.m., 11:57 a.m., 2:57 p.m. and 3:57 p.m., and this route also extends later on Saturdays.

PROJECT CHARACTERISTICS

The relative impacts of developing the Grocery Outlet Store and the adequacy of site access is dependent on the physical characteristics of the adjoining street system, as well as the amount of traffic generated by the proposed project. The amount of additional traffic on a particular section of the street network is dependent upon two factors:

I. Trip Generation, the number of new trips generated by the project; and

II. Trip Distribution and Assignment, the specific routes that the new traffic takes.

Trip Generation

TRIP GENERATION RATES

This analysis considered trip generation rates derived from several sources. The Institute of Transportation Engineers (ITE) publication *"Trip Generation, 10th Edition"* provides information on the characteristics of various retail uses. The use most similar to a Grocery Outlet Store is "Supermarket" (Code 850). Table 3.7-5 identifies the average trip generation rates reported by ITE.

TABLE 3.7-5: PROJECT TRIP GENERATION RATES AND ESTIMATES

LAND USE / SOURCE	*UNIT*	*SATURDAY PEAK HOUR*			*WEEKDAY PM PEAK HOUR*		
		IN	*OUT*	*TOTAL*	*IN*	*OUT*	*TOTAL*
Supermarket (Code 850)	KSF	51%	49%	10.34	51%	49%	9.24
Grocery Outlet	16 KSF	84	81	165	75	73	148
Pass-by Trips	36%	<30>	<30>	<60>	<27>	<26>	<53>
Net Primary Trips	--	54	51	105	48	47	95

SOURCE: KDANDERSON & ASSOCIATES, 2019.

TRIP GENERATION FORECASTS

Table 3.7-5 displays the Saturday midday and weekday p.m. peak hour trip generation forecasts for the project. As indicated, the project would generate 165 Saturday and 148 weekday p.m. peak hour trips at its driveways. A portion of the traffic drawn to these stores would be drawn from the stream of traffic already passing the site. The ITE *Trip Generation Handbook, 3rd Edition* notes that 36% of the weekday trips generated by supermarkets are typically "passby", and this rate has been used for both study time periods.

As noted in Table 3.7-5, the project is expected to generate 105 "primary" trips during the Saturday peak hour, and 95 during the weekday p.m. peak hour.

ITE data is also available for daily traffic volumes. On a daily basis, a 16,000 sf Grocery Outlet Store could generate 1,709 weekday daily trips, with 2,842 trips on Saturday. After discounting for "pass-by trips", the proposed project may generate 1,094 new daily trips (½ inbound and ½ outbound) on a weekday and 1,818 on a Saturday.

Vehicle Trip Distribution and Assignment

VEHICLE TRIP DISTRIBUTION

The distribution of project traffic was determined based on consideration of the demographic distribution of residences and competing stores in this area of Mendocino County, on the typical trade area characteristics of Grocery Outlet Stores, and on assumptions made for other retail projects in previous Fort Bragg traffic studies. Grocery Outlet Stores in rural communities can attract customers from a relatively broad area that extends beyond the limits of the community, particularly on weekends. Based on assumptions made for other traffic studies, the City assumed that 50% of the trips specifically made to visit the Grocery Outlet Store (i.e., primary trips) will have origins / destination south of the Noyo River and use SR 1 and SR 20 to reach the site. The balance will be oriented to the north and to areas of the community east of Franklin Street. Table 3.7-6 summarizes the assumed distribution of new trips.

TABLE 3.7-6: DIRECTIONAL TRIP DISTRIBUTION (PRIMARY TRIP)

DIRECTION	*ROUTE*	*PERCENTAGE OF NEW TRIPS*
North	SR 1 north of Cypress Street	36%
	Franklin Street north of Cypress Street	10%
East	Harbor Dr., South St. and Cypress St. east of Franklin St.	4%
South	SR 1 south of Noyo River	50%
	Total	**100%**

SOURCE: KDANDERSON & ASSOCIATES, 2019.

Pass-by trips will be drawn from traffic already passing the site as part of other trips. In this case, because the volume of traffic on Main Street (SR 1) is much greater than that occurring on Franklin Street or North Harbor Drive adjoining the site, it has been assumed that pass-by traffic will mainly be diverted from the state highway. Because the volume of peak hour traffic headed northbound and southbound on SR 1 is relatively even, pass-by trips have been assumed to be diverted equally from each direction.

VEHICLE TRIP ASSIGNMENT

Using the trip generation and distribution assumptions described above, the trips generated by the proposed project were assigned to the study area street system. In this case consideration was given to the relative travel time along alternative routes to the same destination. This consideration particularly involved traffic leaving the project headed south on SR 1 and reflects the left turn prohibition at the North Harbor Drive intersection, the stop controls at the South Street intersection and the availability of signaled access to southbound SR 1 at the Cypress Street intersection. It is noted that the left turn prohibition at the North Harbor Drive intersection has since been removed. City staff report that on peak weekend many drivers elect to drive north past South Street to Cypress and turn onto SR 1 at that location. This analysis assumes this maneuver will be attractive, and 1/3 of the exiting project traffic headed south of SR 1 has been assigned along that route. Figure 3.7-2 presents resulting peak hour volumes accompanying the Grocery Outlet project. As indicated, based on the layout of the site and these assumptions we anticipate that the Franklin Street driveway will be the primary access to the site, and 70% of the project's total traffic in and out is shown to use that driveway.

LEVELS OF SERVICE

To assess the quality of existing traffic conditions, Levels of Service were calculated at study area intersections. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening traffic operating conditions, is assigned to an intersection or roadway segment. Table 3.7-7 presents the characteristics associated with each LOS grade. As shown in Table 3.7-7, LOS "A", "B" and "C" are considered acceptable to most motorists, while LOS "D" is marginally acceptable. LOS "E" and "F" are associated with severe congestion and delay and are unacceptable to most motorists.

TABLE 3.7-7: LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE	*SIGNALIZED INTERSECTION*	*UNSIGNALIZED INTERSECTION*	*ROADWAY (DAILY)*
"A"	Uncongested operations, all queues clear in a single-signal cycle. Ave Delay < 10 seconds per vehicle	Little or no delay. Ave Delay < 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10 sec/veh and < 20 sec/veh	Short traffic delays. Delay > 10 sec/veh and < 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay >20 sec/veh and <35 sec/veh	Average traffic delays. Delay > 15 sec/veh and < 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35 sec/veh and < 55 sec/veh	Long traffic delays. Delay > 25 sec/veh and < 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay >55 sec and < 80 sec/veh	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and < 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80 sec/veh	Intersection often blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

SOURCES: HIGHWAY CAPACITY MANUAL, 6TH EDITION, AND TRANSPORTATION RESEARCH BOARD (TRB) SPECIAL REPORT 209.

Minimum Standards

Local agencies and Caltrans adopt minimum Level of Service standards for their facilities.

Coastal General Plan. The City's Coastal General Plan identifies acceptable Levels of Service for regular non-summer conditions based on location and traffic control, as noted in Table 3.7-8. As noted, LOS D is the minimum on SR 1 at intersections controlled by a traffic signal or all-way stop, while LOS C is the minimum at other City street intersections with similar controls. Minimum Level of Service at intersections controlled by side street stops is based on the delay experienced by motorists on the side street approaches and is similarly LOS D on state highways and LOS C at intersections on city streets. However, allowance is made for low volume approaches which do not carry volumes that do not satisfy traffic signal warrants.

The Circulation Element acknowledges the effects of peak summer weekend traffic along SR 1. The maximum allowable LOS standards for Main Street identified above apply to the p.m. peak hour weekdays during the summer and to the p.m. peak hour on weekdays and weekends during the remainder of the year. During the peak hours on summer weekends and holidays, Main Street can operate at LOS F.

SR 1 Transportation Concept Report. The Caltrans SR 1 Transportation Concept Report (SR 1 TCR) indicates that agencies expectations for the performance of the state highway. The SR 1 TCR is currently unavailable on the Caltrans website as that source undergoes accessibility updates.

Methods

Levels of Service were calculated for different intersection control types using the respective methods presented in the Highway Capacity Manual, 6th Edition (HCM 6 Ed). Intersection Levels of Service were calculated using SYNCHRO 10.0 software. For intersections controlled by side street stop signs, the reported Level of Service reflects the "worst case" movement, which is typically those motorists waiting to enter the major street.

Traffic Signal Warrants. The extent to which a traffic signal may be justified is determined based on many factors. From the standpoint of traffic impact analysis, signal warrant criteria contained in the *California Manual of Uniform Traffic Control Devices (CA MUTCD)* are employed in order to assess the relative impact of the additional traffic accompanying a development proposal. For this analysis, Warrant 3 (Peak Hour Traffic) has been employed, and based on the speed limit on SR 1 (40 mph) and Circulation Element policy, rural criteria have been employed.

Vehicle Queues. The extent to which traffic operations at intersections result in vehicle queues that exceed available storage has been assessed. Statistically, the 95th percentile queue has been evaluated. This represents the queue length that would only be exceeded 5% of the time during the peak period. The 95th percentile queues are a byproduct of HCM LOS analysis.

TABLE 3.7-8: CITY OF FORT BRAGG MINIMUM LOS STANDARDS

LOCATION	*MINIMUM STANDARD*
Signalized and All-Way Stop Intersection along SR 1	LOS D
Side Street Stop Controlled Intersections on SR 1 (side street approach)	LOS D, or LOS F IF there are less than 15 vehicles per hour (vph) left turns and through movements from the side street AND the intersection volumes do not exceed Caltrans rural peak hour signal warrant criteria levels
Signalized and All-way Stop intersections not on SR 1	LOS C
Side Street Stop controlled Intersections not along SR 1 (side street approach)	LOS C, or LOS IF there are less than 15 vehicles per hour (vph) left turns and through movements from the side street AND the intersection volumes do not exceed Caltrans rural peak hour signal warrant criteria levels

[1]*SOURCE: CITY OF FORT BRAGG COASTAL GENERAL PLAN CIRCULATION ELEMENT GOAL C-1.1*

EXISTING PLUS PROJECT TRAFFIC CONDITIONS AND LEVELS OF SERVICE

Figure 3.7-3 superimposes project trips onto the current background traffic volumes to create the "Existing plus Project" condition. Subsequent tables compare the "Existing" and "Existing plus Project" Levels of Service.

Project Traffic Impacts to Level of Service at Intersections

As shown in Table 3.7-9, the addition of project traffic would not appreciably increase the length of delays already occurring at most study intersections, but the project does change the Level of Service at one location. At the Main Street / South Street intersection the addition of project trips will result in LOS D conditions on the westbound approach. However, LOS D is considered acceptable on approaches to the state highway, and as a result the project's impact is not significant for purposes of compliance with the Coastal General Plan Circulation Element.

Project Impacts based on Peak Period Queue Lengths

As noted in Table 3.7-10, the project will add traffic at some locations where turn lane queues are a consideration. At the Main Street / Cypress Street intersection the project will add westbound left turns, and the 95th percentile queue may increase by about 10 feet during peak periods. As noted in the discussion of existing conditions, the queue will continue to extend into the transition area between the left turn lane and the adjoining TWLT lane but will not spillover into the adjoining through lane. Because the through travel lane is not affected, the project's impact is not significant for purposes of compliance with the Coastal General Plan Circulation Element.

Traffic Signal Warrants

The volume of traffic occurring at each intersection with development of the project was again compared to the CA MUTCD peak hour signal warrant thresholds, as noted in Table 3.7-11. With the project, peak hour traffic signal warrants are met at the SR 1 (Main Street) / South Street intersection during the weekday p.m. and Saturday peak period. However, under General Plan policy this is not a significant impact because the approach Level of Service is acceptable (i.e., LOS D). The SR 1 (Main Street) / North Harbor Drive intersection would continue to carry volumes that satisfy peak hour warrants on Saturday, but because the Level of Service remains acceptable, the project's impact is not significant for purposes of compliance with the Coastal General Plan Circulation Element.

TABLE 3.7-9: EXISTING PLUS GROCERY OUTLET STORE INTERSECTION LOS

INTERSECTION	CONTROL	WEEKDAY PM PEAK HOUR					SATURDAY PEAK HOUR				
			EXISTING		EX PLUS PROJECT			EXISTING		EX PLUS PROJECT	
		MIN	LOS	AVERAGE DELAY (SEC/VEH)	LOS	AVERAGE DELAY (SEC/VEH)	MIN	LOS	AVERAGE DELAY (SEC/VEH)	LOS	AVERAGE DELAY (SEC/VEH)
SR 1 - Main Street / Cypress Street	Signal	D	B	14	B	14	D[1]	B	13	B	13
Cypress Street / Franklin Street	AWS	C	B	12	B	12	C	A	9	B	10
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Westbound approach			C	23	D	29		C	22	D	29
South Street / Franklin Street											
Westbound left turn			A	7	A	7		A	7	A	7
Eastbound left turn	NB/SB Stop	C	A	8	A	8	C	A	7	A	7
Northbound approach			B	12	B	14		B	11	B	12
Southbound approach			B	12	B	13		B	11	B	11
SR 1 – Main Street / No Harbor Drive											
Northbound left turn			B	11	B	11		B	11	B	11
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Eastbound approach[2]			B	13	B	13		B	13	B	13
Westbound approach[2]			B	14	B	15		C	16	C	17
No Harbor Drive / Franklin Street	AWS	C	A	8	A	8	C	A	9	A	9

[1] *LOS F ACCEPTED ON SATURDAY SUMMER PEAK HOUR.*

[2] *EXISTING LEFT TURN AND THROUGH TRAFFIC CONTRARY TO POSTED TRAFFIC CONTROLS IS NOT INCLUDED IN LOS CALCULATION.*

***BOLD** INDICATES CONDITIONS IN EXCESS OF ADOPTED STANDARD.* *HIGHLIGHTED VALUES ARE A SIGNIFICANT IMPACT.*

SOURCE: KDANDERSON & ASSOCIATES, 2019.

TABLE 3.7-10: EXISTING PLUS GROCERY OUTLET STORE INTERSECTION QUEUES

INTERSECTION	MOVEMENT	STORAGE (FEET)	WEEKDAY PM PEAK HOUR					SATURDAY PEAK HOUR				
			EXISTING		EXISTING PLUS PROJECT			EXISTING		EXISTING PLUS PROJECT		
			VOLUME (VPH)	95TH % QUEUE (FEET)	VOLUME (VPH)		95TH % QUEUE (FEET)	VOLUME (VPH)	95TH QUEUE (FEET)	VOLUME (VPH)		95TH % QUEUE (FEET)
					PROJECT ONLY	TOTAL				PROJECT ONLY	TOTAL	
SR 1 - Main Street / Cypress Street	NB left	120	20	35	0	20	35	34	50	0	34	50
	SB left	130	43	55	0	43	55	29	45	0	29	45
	EB left	80	17	<25	0	0	<25	15	<25	0	15	<25
	WB left	100	219	140	12	231	150	204	130	13	217	140
Cypress Street / Franklin Street	EB left	75	45	<25	0	45	<25	46	<25	0	46	<25
	WB left	55	8	<25	0	9	<25	2	<25	0	2	<25

HIGHLIGHTED VALUES EXCEED AVAILABLE STORAGE

SOURCE: KDANDERSON & ASSOCIATES, 2019.

TABLE 3.7-11: EXISTING PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL WARRANTS

INTERSECTION	WEEKDAY PM PEAK HOUR			SATURDAY PEAK HOUR		
	VOLUME (VPH)		WARRANT MET?[1]	VOLUME (VPH)		WARRANT MET?[1]
	MAJOR	MINOR		MAJOR	MINOR	
Cypress Street / Franklin Street	556	180	No	429	102	No
SR 1 – Main Street / South Street	2,305	132	**Yes**	2,254	128	**Yes**
South Street / Franklin Street	289	135	No	314	94	No
SR 1 – Main Street / No Harbor Drive	2,382	83	No	2,296	141	**Yes**
No Harbor Drive / Franklin Street	299	69	No	387	89	No

[1]*BASED ON RURAL PEAK HOUR VOLUME WARRANT ONLY*
SOURCE: KDANDERSON & ASSOCIATES, 2019.

CUMULATIVE IMPACTS

The extent to which the Grocery Outlet Store project complies with Circulation Element standards has also been considered within the context of future traffic conditions in this area of Fort Bragg. Long term traffic conditions have been forecast and evaluated based on growth assumptions made in other recent traffic studies and based on understanding of other approved projects in this area.

Year 2040 Long Term Background Cumulative Conditions

APPROACH TO DEVELOPING TRAFFIC VOLUME FORECASTS

Future traffic volumes were created based on long term future traffic volumes growth rates provide by Caltrans. *Caltrans 2014 Growth Factors (2014)* have been employed for recent Fort Bragg traffic studies and have been used herein. These 20-year growth factors were developed from California Air Resources Board traffic growth projections and historic traffic growth data. A growth factor of 1.15 has been employed, which is equivalent to roughly 0.7% annual growth.

The extent to which other approved projects should be considered in future forecasts in addition to the growth rate was considered. City of Fort Bragg staff reported that one approved project exists in the area of the Grocery Outlet Store that would be expected to result in traffic volume increases beyond that already addressed by the assumed background growth rate. *The Plateau Housing Project* is located on the east end of South Street south of Kempe Way.

That project totals 68 residences, divided between 20 units of permanent supportive housing, 25 units of affordable senior housing and 23 units of workforce / family housing. Based on ITE rates for Detached Senior Residences (code 215) and Multiple Family Residences (code 220) the project could generate 432 weekday and 418 Saturday daily trips, with 32 trips in the weekday p.m. peak hour and 36 trips in the Saturday midday peak. The trip generation calculation for the workforce / family housing portion of *The Plateau Housing Project* is considered a worst-case scenario. These trips were assigned to the study area street system based on current travel patterns, and subsequently superimposed onto the cumulative background forecast.

TRAFFIC VOLUME FORECASTS

Figure 3.7-4 identifies "No Project" background Year 2040 traffic volumes created by applying the identified growth rate to observed traffic volumes and adding trips from the approved project. Peak hour data was rounded to the nearest five (5) vehicles. Figure 3.7-5 identifies Year 2040 volumes with Grocery Outlet Store that were created by superimposing project traffic onto the No Project background condition.

NO PROJECT CONDITIONS

Future conditions without the project were reviewed as noted in the text which follows.

Levels of Service. Peak hour intersection Levels of Service were recalculated for the future background condition assuming no change to current intersection geometries. As shown in Table 3.7-12, without the project all study intersections will continue to operate with Levels of Service that satisfy minimum LOS D standard at intersections on SR 1 and LOS C at other locations.

Peak Queues. As noted in Table 3.7-13, background traffic growth will result in longer queues at the intersections on Cypress Street. At the Main Street / Cypress Street intersection the 95th percentile queue in the westbound left turn lane may increase to 165 feet during peak periods. However as noted in the discussion of existing conditions, the queue will continue to extend into the transition area between the left turn lane and the adjoining TWLT lane but will not spillover into the adjoining through lane. Because the through travel lane is not affected, background conditions would be acceptable.

TABLE 3.7-12: YEAR 2040 PLUS GROCERY OUTLET STORE INTERSECTION LOS

INTERSECTION	CONTROL	WEEKDAY PM PEAK HOUR					SATURDAY PEAK HOUR				
			YEAR 2040 BASE		BASE PLUS PROJECT			YEAR 2040 BASE		BASE PLUS PROJECT	
		MIN	LOS	AVERAGE DELAY (SEC/VEH)	LOS	AVERAGE DELAY (SEC/VEH)	MIN	LOS	AVERAGE DELAY (SEC/VEH)	LOS	AVERAGE DELAY (SEC/VEH)
SR 1 - Main Street / Cypress Street	Signal	D	B	19	B	20	D[1]	B	16	B	17
Cypress Street / Franklin Street	AWS	C	B	15	B	15	C	B	11	B	11
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	13	B	13	D[1]	B	13	B	13
Westbound approach			D	32	**E**	**47**		D	32	**E**	**48**
WB right turn only[2]					C	20					
All-way stop					**F**	**176**					
Roundabout					A	9					
Traffic Signal					A	10					
South Street / Franklin Street											
Westbound left turn	NB/SB Stop	C	A	7	A	8	C	A	7	A	7
Eastbound left turn			A	8	A	8		A	7	A	7
Northbound approach			B	14	B	16		B	12	B	13
Southbound approach			B	14	B	15		B	11	B	12
SR 1 – Main Street / No Harbor Drive											
Northbound left turn	WB Stop	D	B	12	B	13	D[1]	B	12	B	12
Southbound left turn			B	13	B	13		B	13	B	13
Eastbound approach[3]			C	15	B	15		B	14	B	14
Westbound approach[3]			C	16	B	17		C	19	C	20
No Harbor Drive / Franklin Street	AWS	C	A	9	A	9	C	A	9	A	9

[1] LOS F ACCEPTED ON SATURDAY SUMMER PEAK HOUR

[2] THE SR 1 / CYPRESS STREET INTERSECTION WILL OPERATE AT LOS C WITH 21.0 SECONDS OF DELAY

[3] EXISTING LEFT TURN AND THROUGH TRAFFIC CONTRARY TO POSTED TRAFFIC CONTROLS IS NOT INCLUDED IN LOS CALCULATION

***BOLD** INDICATES CONDITIONS IN EXCESS OF ADOPTED STANDARD. HIGHLIGHTED VALUES ARE A SIGNIFICANT IMPACT*

SOURCE: KDANDERSON & ASSOCIATES, 2019.

TABLE 3.7-13: YEAR 2040 PLUS GROCERY OUTLET STORE INTERSECTION QUEUES

INTERSECTION	MOVEMENT	STORAGE (FEET)	WEEKDAY PM PEAK HOUR					SATURDAY PEAK HOUR				
			YEAR 2040 BASE		EXISTING PLUS PROJECT			EXISTING		EXISTING PLUS PROJECT		
			VOLUME (VPH)	95TH % QUEUE (FEET)	VOLUME (VPH)		95TH % QUEUE (FEET)	VOLUME (VPH)	95TH QUEUE (FEET)	VOLUME (VPH)		95TH % QUEUE (FEET)
					PROJECT ONLY	TOTAL				PROJECT ONLY	TOTAL	
SR 1 - Main Street / Cypress Street	NB left	120	25	40	0	25	40	40	55	0	40	55
	SB left	130	55	70	0	55	70	35	50	0	35	50
	EB left	80	20	<25	0	20	<25	20	<25	0	20	<25
	WB left	100	255	165	12	267	170	235	150	13	248	160
Cypress Street / Franklin Street	EB left	75	55	<25	0	55	<25	55	<25	0	55	<25
	WB left	55	10	<25	0	10	<25	2	<25	0	2	<25

HIGHLIGHTED VALUES EXCEED AVAILABLE STORAGE

SOURCE: KDANDERSON & ASSOCIATES, 2019.

Traffic Signal Warrants. Table 3.7-14 notes Year 2040 background traffic volumes and identifies the status of resulting peak hour traffic signal warrants. As indicated, the SR 1 (Main Street) / South Street intersection carries volumes that satisfy warrants in the weekday p.m. peak hour, while the SR 1 (Main Street) / North Harbor Drive intersection satisfies peak hour warrants in the Saturday peak hour.

TABLE 3.7-14: YEAR 2040 PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL WARRANTS

	WEEKDAY PM PEAK HOUR			*SATURDAY PEAK HOUR*		
	VOLUME (VPH)		*WARRANT MET?[1]*	*VOLUME (VPH)*		*WARRANT MET?[1]*
INTERSECTION	*MAJOR*	*MINOR*		*MAJOR*	*MINOR*	
Cypress Street / Franklin Street	615	205	No	465	120	No
SR 1 – Main Street / South Street	2,620	100	**Yes**	2,565	90	No
South Street / Franklin Street	271	165	No	275	70	No
SR 1 – Main Street / N Harbor Dr	2,678	85	No	2,575	150	**Yes**
N Harbor Drive / Franklin Street	345	80	No	445	105	No

[1] *BASED ON RURAL PEAK HOUR VOLUME WARRANT ONLY*
SOURCE: KDANDERSON & ASSOCIATES, 2019.

Plus Project Conditions. Year 2040 conditions with the addition of Grocery Outlet Store were evaluated and the significance of project impacts was determined.

Level of Service. As noted in Table 3.7-12, the addition of project trips increases delays somewhat and at one intersection the operating Level of Service will be in excess of the LOS D minimum. At the SR 1 (Main Street) / South Street intersection the Level of Service on the westbound approach will drop to LOS E in the weekday p.m. peak hour and in the peak Saturday hour. LOS E exceeds the weekday p.m. peak hour standard of LOS D, but is accepted under the General Plan policy for peak summer conditions.

Peak Queues. As noted in Table 3.7-13, the project will add westbound left turns at the SR 1 (Main Street) / Cypress Street intersection, and the 95th percentile queue may increase by about 10 feet during peak periods. However as noted in the discussion of existing plus project impacts, the queue will continue to extend into the transition area between the left turn lane and the adjoining TWLT lane but will not spillover into the adjoining through lane. Because the through travel lane is not affected, the project's impact is not significant for purposes of compliance with the Coastal General Plan Circulation Element.

Traffic Signal Warrants. Table 3.7-15 notes Year 2040 Plus Project traffic volumes and identifies the status of resulting peak hour traffic signal warrants. As indicated, peak hour traffic signal warrants would be satisfied at the same intersections identified under the background Year 2040 conditions. The SR 1 (Main Street) / South Street intersection would carry volumes that satisfy warrants in both the weekday p.m. peak hour and Saturday peak hour, while the SR 1 (Main Street) / North Harbor Drive intersection satisfies peak hour warrants in the Saturday peak hour.

TABLE 3.7-15: YEAR 2040 PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL WARRANTS

INTERSECTION	WEEKDAY PM PEAK HOUR			SATURDAY PEAK HOUR		
	VOLUME (VPH)		WARRANT MET?[1]	VOLUME (VPH)		WARRANT MET?[1]
	MAJOR	MINOR		MAJOR	MINOR	
Cypress Street / Franklin Street	638	206	No	490	120	No
SR 1 – Main Street / South Street	2,648	144	**Yes**	2,595		**Yes**
South Street / Franklin Street	321	152	No	351	101	No
SR 1 – Main Street / No Harbor Dr	2,730	96	No	2,633	161	**Yes**
No Harbor Drive / Franklin Street	350	65	No	450	85	No

[1] *BASED ON RURAL PEAK HOUR VOLUME WARRANT ONLY*

SOURCE: KDANDERSON & ASSOCIATES, 2019.

Project Impacts / Mitigation Options. Based on General Plan policy, the project's cumulative impact is significant for purposes of compliance with the Coastal General Plan Circulation Element at the SR 1 (Main Street) / South Street intersection since the project will cause the intersection to operate at LOS E, which exceeds the LOS D minimum, and peak hour traffic signal warrants are met. The project's impact is significant for purposes of compliance with the Coastal General Plan Circulation Element, and Conditions of Approval are required based on LOS.

To address future conditions at this location it would be necessary to consider alternatives such as:

Prohibit westbound left turns, as is the case at the SR 1 (Main Street) / North Harbor Drive intersection.

Install traffic controls that stop the flow of traffic on SR 1 in order to allow side street traffic to enter, such as an **all-way stop**, a **traffic signal** or a **roundabout.**

Pursuant to a Condition of Approval for the Project, the Project applicant would be required to pay their fair share fee for the traffic control at the SR 1 (Main Street) / North Harbor Drive intersection.

Table 3.7-12 also presents the Levels of Service occurring during the weekday p.m. peak hour with the Grocery Outlet Store as these treatments are pursued. As indicated, prohibiting left turns would result in LOS C at the intersection. While traffic diverted will likely make a right turn before making a u-turn at Cypress Street, the SR 1 (Main Street) / Cypress Street intersection would still operate at LOS C with this additional traffic. The cost to sign and stripe the intersection for these new controls would be minimal. Either a traffic signal or roundabout would yield LOS A, a Level of Service that satisfies the City's minimum standard, but the feasibility of either option at an intersection that is only 700 feet from the Cypress Street traffic signal will need to be confirmed. The cost of a traffic signal on the state highway would likely be about $500,000, depending on the extent of ancillary intersection improvements required under Caltrans standards. The cost to retrofit an existing intersection to a two-lane roundabout would likely be in the range of $1.5 to $2.5 million.

Because any improvements within the state right of way require Caltrans approval, it is important to consider the steps needed to gain approval for any mitigation. Caltrans policy regarding applicable

traffic controls has recently been expanded based on ***Traffic Operations Policy Directive 13-02.*** This directive requires that Caltrans consider the relative merits of alternative traffic controls when it becomes necessary to stop traffic on state highways. Roundabouts are the default intersection control, but all-way stops and traffic signals are to be considered. The policy directive requires preparation of an ***Intersection Control Evaluation (ICE)*** to determine the preferred traffic control. A preliminary ICE report would consider issues such as comparative traffic operations, right of way requirements, effects on adjoining access, etc. City of Fort Bragg preferences amongst feasible alternatives can also be considered. After an applicable solution is identified and funded, work would be completed in the Caltrans right of way under an encroachment permit from Caltrans.

Mitigations. The Grocery Outlet Store project proponents should contribute their fair share to the cost of regional circulation improvements by paying adopted fees and making frontage improvements. In addition, the project should contribute its fair share to the cost of cumulatively needed improvements to the SR 1 (Main Street) / South Street intersection.

Table 3.7-16 notes the Grocery Outlet Store project's relative contribution to future traffic volumes at each study intersection based on the method recommended in Caltrans traffic study guidelines. As shown, project trips represent 16.1% of the future new traffic at the SR 1 / South Street intersection. Assuming a $500,000 traffic signal, the project's contribution could be $84,500.

TABLE 3.7-16: FAIR SHARE CALCULATION

	WEEKDAY PM PEAK HOUR TRAFFIC (VPH)					
		YEAR 2040		*PROJECT ONLY*	*NET FUTURE GROWTH*	*FAIR SHARE*
	EXISTING	*NO PROJECT*	*PLUS PROJECT*			
LOCATION	*A*	*B*	*C*	*C-B*	*C-A*	*(C-B)/(C-A)*
SR 1 / Cypress St	2,392	2,780	2,827	47	435	10.8%
Cypress St / Franklin St	815	965	989	24	175	13.7%
SR 1 / South St	2,365	2,740	2,812	72	447	16.1%
South St / Franklin St	458	559	655	96	197	48.7%
SR 1 / No Harbor Dr	2,413	2,788	2,851	63	438	14.4%
No Harbor Dr / Franklin St	363	425	430	5	67	7.5%

SOURCE: KDANDERSON & ASSOCIATES, 2019.

VEHICLE MILES TRAVELED

This section describes the approach, methods, and CEQA significance thresholds for the VMT analysis.

CEQA Checklist Criterion for VMT

Under CEQA Guidelines §15064.3, congestion related project effects (such as those measured by LOS or similar metrics) are deemed to be not a suitable basis on which to determine a significant environmental effect. Relevant subsections of CEQA Guidelines §15064.3(b) for the project read as follows:

1. Land Use Projects. Vehicle-miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle-miles-traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
2. Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

The State OPR, in their Technical Advisory on the Evaluation of Transportation Impacts in CEQA (December 2018), has provided non-binding guidance on thresholds that could be used in the analysis of CEQA transportation impacts, using VMT as the quantified metric for evaluation. The basis of these OPR-recommended thresholds includes state climate planning documents and legislation.

CEQA Guidelines §15064.3(a) notes that, for the purposes of §15064.3 and CEQA Transportation analysis, VMT "refers to the amount and distance of automobile travel attributable to a project." This statement has been interpreted by OPR to mean automobile and light-duty truck travel (e.g., pickup trucks). For many retail land uses, the amount and distance of automobile travel is the overwhelming component of weekday daily VMT. OPR notes that heavy-duty truck VMT could be included for convenience and ease of calculation, if a lead agency so chooses, but are not required to be included in the calculations.

In the Technical Advisory, OPR has recommended thresholds and calculation approaches for three project types: residential, office and retail. The thresholds and calculation approaches noted in the Technical Advisory are in part based on the legislative intent of SB 743, which include promoting (1) a diversity of land uses, (2) the development of multimodal transportation networks, and (3) the reduction of greenhouse gas emissions. In essence, the switch to VMT as the CEQA Transportation metric measures the efficiency of land use patterns and streamlines development that enhance a diversity of land uses and access to common goods and commercial/public services.

In its discretion as lead agency, the City of Fort Bragg may choose to adopt its own thresholds of significance based on substantial evidence, or to rely on substantial evidence developed by other agencies (e.g. OPR). OPR, in its review of the legislative intent of SB 743 and its development of substantial evidence to support their published thresholds, has noted that retail projects should be analyzed on the basis of net change in total VMT because "retail projects typically re-route travel from other retail destinations." Furthermore, OPR's Technical Advisory suggests that:

> "By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant."

The Mendocino Council of Governments (MCOG) has provided non-binding guidance to its member agencies to aid in addressing the switch to VMT as the CEQA Transportation metric as a result of SB 743. MCOG's *SB 743 VMT Regional Baseline Study* (Fehr & Peers, 2020) outlines VMT metrics that agencies may adopt. The two main metrics for potential adoption are a VMT per service population metric and a net-change in VMT metric. To date, no agency in Mendocino County has formally adopted the VMT per service population metric for land use projects and agencies are actively assessing other VMT metrics for projects.

Based on the guidance presented in the *Technical Advisory* and the MCOG report, Fehr and Peers recommends that the City of Fort Bragg use the following VMT-based threshold to be applied to assess the CEQA significance of the Project's effect on VMT:

- The Project would result in a significant impact related to VMT if the project would result in a net increase in VMT.

The threshold noted above is consistent with OPR's recommended threshold; projects that are redistributive in nature (e.g., educational facility, retail, etc.) and result in an increase in VMT are not in-line with the portion of the legislative intent of SB 743 related to promoting the reduction of greenhouse gas emissions.

Methodology

The VMT analysis prepared for the CEQA transportation section is performed based on the total VMT metric, with a net-increase threshold being used to identify a significant CEQA impact. Typically, a travel demand model is used to assess changes in VMT resulting from a project, given their predictive power in terms of trip generation, trip distribution and trip assignment. The local travel demand model – the MCOG Travel Demand Forecasting Model (MCOG model) – was used to estimate VMT for the proposed project. The MCOG model includes a base year of 2009 and a future horizon year of 2030. The VMT analysis in this report is performed for both the 2009 and 2030 scenarios, with the delta between "no project" and "plus project" VMT for these two horizon years being interpolated to arrive at a delta reflecting a project baseline year of 2022. A boundary defined by the retail influence area of the Project was chosen as the extents of the VMT calculation. This boundary covers approximately 20 miles to the north and to the south of the Project, from the Town of Westport to the unincorporated community of Whitesboro, respectively, as well as the City of Willits and State Route 20 between Fort Bragg and Willits.

3.7.2 REGULATORY SETTING

Existing transportation polices, laws, and regulations that would apply to the proposed Project are summarized below. This information provides a context for the impact discussion related to the Project's consistency with applicable regulatory conditions and development of significance criteria for evaluating Project impacts.

STATE

Senate Bill 743

As discussed previously, Senate Bill (SB) 743 was signed into law in 2013 and is leading to substantial changes in the way transportation impact analyses are being prepared. Notably, it precludes the use of level of service (LOS) to identify significant transportation impacts in CEQA documents for land use projects, recommending instead that VMT be used as the preferred metric. On December 28, 2018, the CEQA Guidelines were amended to add Section 15064.3, Determining the Significance of Transportation Impacts, which states that generally, VMT is the most appropriate measure of transportation impacts. According to 15064.3(a), "Except as provided in subdivision (b)(2) (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact." Beginning on July 1, 2020, the provisions of 15064.3 applied statewide.

To aid in SB 743 implementation, OPR released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement the SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion and with the provision of substantial evidence to support alternative approaches.

The Technical Advisory identifies "screening thresholds" to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria should be expected to have a less-than-significant impact on VMT:

- **Small projects** – projects consistent with a SCS and local general plan that generate or attract fewer than 110 trips per day.
- **Projects near major transit stops** – certain projects (residential, retail, office, or a mix of these uses) proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor.
- **Affordable residential development** – a project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT.
- **Local-serving retail** – local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project will likely be local-serving, but generally acknowledges that retail development including stores larger than 50,000 square feet might be considered regional-serving. The Technical Advisory

suggests lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant).

- **Projects in low VMT areas** – residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

OPR provides the following direction specifically for retail projects:

- Retail Projects. Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.

LEVEL OF SERVICE (LOS)

As previously noted, LOS may no longer be used to identify significant transportation impacts in CEQA documents for land use projects. However, this analysis includes a LOS analysis to determine if the proposed Project would result in unacceptable intersection operations per the City of Fort Bragg standards, which are set forth below.

LOCAL

Fort Bragg Coastal General Plan

The Circulation Element of the Fort Bragg Coastal General Plan includes several goals, policies, and actions that are relevant to transportation and circulation. General Plan goals, policies, and actions applicable to the Project are identified below:

1. TRANSPORTATION PLANNING

Goal C-1 Coordinate land use and transportation planning.

Policy C-1.1 Level of Service Standards: Establish the following Level of Service (LOS) standards:

Signalized and All-Way-Stop Intersections Along Highway One	LOS D
Side Street Stop Sign Controlled Intersections Along Highway One (Side Street Approach)	LOS D, or LOS F if there are less than 15 vehicles/hour left turns plus through movements from the side street and the volumes do not exceed Caltrans rural peak hour signal warrant criteria levels.
Signalized and All-Way Stop Intersections Not Along Highway One	LOS C

Side Street Stop Sign Controlled Intersections Not Along Highway One (Side Street Approach)	LOS C, or LOS E if there are less than 15 vehicles/hour left turns plus through movements from the side street and the volumes do not exceed Caltrans rural peak hour signal warrant criteria levels.

- If volumes at an unsignalized intersection are increased to meet or exceed Caltrans rural peak hour signal Warrant #11 criteria levels and the intersection is operating at an unacceptable level of service, then signalization of the intersection is warranted.
- LOS E for Main Street (Highway One) between the northbound lane merge area and Manzanita Street.
- LOS D for Main Street south of the northbound merge lane and north of Manzanita Street and other City-designated arterials and collectors.
- LOS C on all City-designated local streets.
- The maximum allowable LOS standards for Main Street apply to the p.m. peak hour weekdays during the summer and to the p.m. peak hour on weekdays and weekends during the remainder of the year. They do not apply to p.m. peak hours on weekends and holidays during the summer. During the p.m. peak hours on summer weekends and holidays, Main Street can operate at LOS F.

Policy C-1.2 Coordinate Land Use and Transportation: Ensure that the amount and phasing of development can be adequately served by transportation facilities.

- Program C-1.2.1: Review development proposals for their direct and cumulative effects on roadway Level of Service standards. During the development review process, City staff will determine whether traffic studies need to be carried out and the scope of such studies.

Policy C-1.3: Do not permit new development that would result in the exceedance of roadway and intersection Levels of Service standards unless one of the following conditions is met:

a) Revisions are incorporated in the proposed development project which prevent the Level of Service from deteriorating below the adopted Level of Service standards; or

b) Funding of prorata share of the cost of circulation improvements and/or the construction of roadway improvements needed to maintain the established Level of Service is included as a condition or development standard of project approval.

Policy C-1.4: Include specific time frames for the funding and completion of roadway improvements for projects which cause adopted roadway and intersection Level of Service standards to be exceeded. Require security, bonding or other means acceptable to the City to ensure the timely implementation of roadway mitigations.

Policy C-1.5: Traffic Impact Fees. When traffic impact fees are collected, establish a schedule from the date of collection of said fee for the expenditure of funds to construct roadway improvements that meets project needs. Where a project would cause a roadway or intersection to operate below the adopted traffic Level of Service standards, the roadway or intersection improvements should be completed in a timely manner but no later than five years after project completion.

2. RECOMMENDED ROADWAY IMPROVEMENTS

Goal C-2 Develop and manage a roadway system that accommodates future growth and maintains acceptable Levels of Service while considering the other policies and programs of the Coastal General Plan.

Policy C-2.1 Roadway Improvements: In coordination with Caltrans and Mendocino County, plan for and seek funding for on-going improvements to the local and regional road system to ensure that the roadway system operates safely and efficiently and to ensure that SR 1 in rural areas outside the Mendocino County urban/rural boundary will remain a scenic two-lane road consistent with Section 30254 of the Coastal Act. Project applicants are fiscally responsible for their fair share of roadway improvements necessary to serve their projects.

Policy C-2.2: Improvements to major road intersections for public safety or increased vehicle capacity shall be permitted, as necessary, in existing developed areas and where such improvements are sited and designed to be consistent with all policies of the LCP.

Policy C-2.3: Design Roadways to Protect Scenic Views. In scenic areas, roadway improvements, including culverts, bridges or overpasses, shall be designed and constructed to protect public views and avoid or minimize visual impacts and to blend in with the natural setting to the maximum extent feasible.

- Program C-2.3.1: When a traffic analysis of levels of service and/or safety hazards indicates the need, construct the following roadway improvements where such roadway improvements are found to be consistent with all applicable policies of the LCP including, but not limited to, the wetland, environmentally sensitive habitat area, public access, and visual protection policies:

  a) Signalize the Main Street/Pudding Creek Road intersection;

  b) Signalize the Franklin Street/Oak Street intersection;

  c) Widen the section of Main Street from the Pudding Creek Bridge to the northern City Limits to three lanes, adding a center turn lane;

  d) Reconstruct the Main Street/Ocean View Drive intersection at time of development of the property between the College of the Redwoods and Main Street. Require a traffic engineering analysis of the intersection to determine

appropriate geometrics and signal timing. Construct turning lane mitigations as needed.

e) Signalize the Main Street/Laurel Street intersection or provide some other improvement to provide for pedestrian safety;

f) Signalize the Main Street/Pine Street intersection;

g) Construct bicycle lane and pedestrian improvements on Chestnut Street and Oak Street;

h) Consider extending Harrison Street south from Walnut Street to Cypress Street.

i) Continue the two northbound through lanes on Main Street from Oak Street to just north of Laurel Street. Stripe the curb lane as a right turn only lane between Redwood Avenue and Laurel Street. This improvement shall only be implemented if there are no other feasible circulation improvements that would result in the street operating at a LOS E or better.

j) Construct a second southbound through travel lane on Main Street from Elm Street to Laurel Street. This improvement shall only be implemented if there are no other feasible circulation improvements that would result in the street operating at a LOS E or better.

Policy C-2.4 Roadway Standards: Continue to provide consistent standards for the City's street system.

- Program C-2.4.1: Establish standards for public streets, which allow for the following:

  a) traffic "calming" measures;

  b) sidewalks with curbs, gutters, and a planting strip between the sidewalk and the roadway;

  c) rounded street corners with "bulb-outs" at key intersections;

  d) continuation of the grid street system; and

  e) standards for radius returns for local, collector, and arterial streets.

- Program C-2.4.1.2: Adopt standards for alleyways which address parking restrictions, shared access, lighting, and maintenance.

Policy C-2.5: Continue to prohibit the establishment of private roads.

Policy C-2.6: Traffic Studies for High Trip Generating Uses: Traffic studies shall be required for all major development proposals, including but not limited to, drive-through facilities,

fast food outlets, convenience markets, major tourist accommodations, shopping centers, commercial development, residential subdivisions, and other generators of high traffic volumes that would affect a Level of Service. Traffic studies shall identify, at a minimum:

(a) the amount of traffic to be added to the street system by the proposed development;

(b) other known and foreseeable projects and their effects on the street system;

(c) the direct, indirect, and cumulative adverse impacts of project traffic on street system operations, safety, and public access to the coast;

(d) mitigation measures necessary to provide for project traffic while maintaining City Level of Service standards;

(e) the responsibility of the developer to provide improvements; and

(f) the timing of all improvements.

Policy C-2.7: Consider Impacts to Roads for LCP Amendments. Direct, indirect, and cumulative adverse impacts to SR 1 capacity in the rural areas surrounding Fort Bragg shall be considered during the review of proposed LCP amendments that would increase density or change land use classifications to ensure that SR 1 in rural areas outside the Mendocino County urban/rural boundary remains a scenic two-lane road consistent with Section 30254 of the Coastal Act.

Policy C-2.8 Continuation of Streets: Require the continuation of streets and bicycle and pedestrian paths through new developments wherever possible.

Policy C-2.9: Facilitate Street Connections. Review site plans for new development to facilitate the continuation of streets to improve local circulation. Priority shall be given to providing pedestrian and bicycle trails that establish connections to streets wherever possible.

Policy C-2.10 Continue Grid System onto Mill Site: Ensure that the grid street system and a north/south arterial on the Mill Site be designed to ensure the maximum benefit to local traffic, pedestrian, and bicycle circulation and to provide maximum public access to the coast.

Policy C-2.11 Right-of-Way Acquisition: Require right-of-way acquisition for new development to meet the City's roadway width standards.

Policy C-2.12 Roadway Safety: Improve the safety of the roadway system. All safety improvements shall be consistent with the applicable policies of the LCP including, but not limited to, the wetlands, environmentally sensitive habitat area, public access, and visual protection policies.

- Program C-2.12.1: Periodically analyze the locations of traffic accidents to identify problems and use this information to set priorities for improvements as a part of the City's Capital Improvement Program.

3. RESIDENTIAL AREAS

The City's residential neighborhoods need to be protected from excessive through-traffic. When Main Street and other arterial streets become congested, drivers may seek alternate routes to their destination, often taking local streets through residential areas.

Excessive traffic on local streets has an impact on the quality of life. Through-traffic can generate excessive noise and present potential safety hazards to children. The goals, policies, and programs below are intended to address this issue.

Goal C-3 Preserve the peace and quiet of residential areas.

Policy C-3.1 Reduce Through-Traffic on Local Streets: Reduce through-traffic on local streets to preserve the peace and quiet of residential areas.

- Program C-3.1.1: Develop measures to limit through-traffic on residential streets when traffic studies indicate that traffic volumes on such streets exceed the adopted Levels of Service and/or safety concerns warrant such measures.
- Program C-3.1.2: Consider the following measures, as appropriate, to reduce through traffic from using local streets in residential areas:

  a) narrow and landscape the street entrances to residential areas that experience heavy traffic;

  b) restrict turning movements into residential areas; and

  c) use traffic calming measures such as permitting wider sidewalks, additional on-street parking, and landscape strips between the sidewalk and the road.

Policy C-3.2 Additional Connector Streets: Establish additional connectors between residential streets to improve emergency access, particularly on dead-end streets south of Chestnut Street.

4. MAIN STREET CORRIDOR

Transportation improvements to Main Street and principal streets in the Central Business District will enhance the character, sense of place and economic well-being of this area.

However, the need to accommodate traffic flow through the City should be considered in the context of the community's desire to preserve and enhance the historic character of Fort Bragg's Central Business District.

Goal C-4 Regard the quality of life in Fort Bragg and maintaining community identity as more important than accommodating through-traffic.

Policy C-4.1 Community Priorities for Transportation Improvements: Place a higher priority on maintaining a sense of place and enhancing the attractiveness of the Central Business District than on efficient traffic flow and movement. (The adopted Level of Service Standards make an exception for Main Street between the northbound lane merge area, currently located just south of Laurel Street, to Manzanita Streets, to prevent street widening and/or elimination of on-street parking which would require acquisition of the right-of-way, and consequently change the character of the City's historic downtown. Widening this segment of Main Street would require acquisition of right-of-way and reduction in on-street parking, thereby changing the intimate, pedestrian-oriented downtown the City wishes to preserve and enhance.)

- Program C-4.1.1: Consider traffic safety, the ease and safety of pedestrian movement across Main Street, and adequacy of on-street parking as key factors in evaluation of proposed roadway improvements along Main Street.
- Program C-4.1.2: Ensure that property and business owners in the Central Business District are informed and actively involved in planning future improvements to Main Street and other nearby streets.
- Program C-4.1.4: Consider signalizing the intersection of Pine Street and Main Street to provide adequate pedestrian safety.
- Program C-4.1.5: Consider options for increasing the capacity of Main Street north of the northbound lane merge area south of Laurel Street that do not require elimination of parking.

5. PARKING

Adequate off-street parking is essential for Central Business District businesses1. Fort Bragg has implemented an in-lieu fee to build additional off-street parking facilities. Providing additional off-street parking facilities in the Central Business District will have a community-wide benefit.

Goal C-5 Provide additional parking spaces in the Central Business District.

Policy C-5.1 Additional Off-Street Parking: Continue to construct additional off-street parking spaces in the Central Business District.

- Program C-5.1.1: Continue, and update, as needed, the City's parking in-lieu fee program for the Central Business District.
- Program C-5.1.2: Define priorities for the acquisition of property and the construction of additional parking facilities.

- Program C-5.1.3: Encourage the use of reciprocal access agreements and interconnecting off-street parking and circulation between adjacent commercial uses.
- Program C-5.1.4: Revise the Coastal LUDC to allow shared parking and driveways for commercial uses having day/night activity patterns.
- Program C-5.1.5: Develop a comprehensive signage program within the Central Business District to direct vehicles to off-street parking areas.
- Program C-5.1.6: Develop incentives for employers and employees to park off-street in the Central Business District.
- Program C-5.1.7: Continue enforcing parking restrictions in alleyways to ensure access for emergency and delivery vehicles.
- Program C-5.1.8: Review building setback standards from alleyways to ensure adequate emergency vehicle access.

6. ADDITIONAL ACCESS TO NOYO HARBOR

Currently, access to the north side of Noyo Harbor is limited to North Harbor Drive. Another access is required to improve traffic circulation and to ensure that emergency vehicles can reach Noyo Harbor in the event North Harbor Drive is obstructed. Improved access to the Noyo Harbor would be considered if and when the City annexes the harbor.

Goal C-6 Improve access to the North Part of the Noyo Harbor.

Policy C-6.1 Provide Additional Access Routes to Noyo Harbor: Consider constructing a new access route from the west side of Main Street to the north side of the Noyo Harbor. Any new access route to the north side of the Noyo Harbor shall be consistent with all applicable policies of the LCP including, but not limited to, the wetland, environmentally sensitive habitat area, public access, and visual protection policies.

- Program C-6.1.1: Evaluate the economic and environmental feasibility of acquiring an access route to Noyo Harbor using existing road alignments extended onto the Georgia-Pacific site.

Policy C-6.2 Improve Existing North Harbor Drive: Consider improvements to North Harbor Drive to increase capacity and safety for vehicles and pedestrians. Any improvements to North Harbor Drive shall be consistent with all applicable policies of the LCP including, but not limited to, the wetland, environmentally sensitive habitat area, public access, and visual protection policies.

- Program C-6.2.1: Develop a plan to improve North Harbor Drive by enlarging lane widths and constructing a sidewalk along one side of the street.

7. ADDITIONAL EASTERN EMERGENCY ROUTE

The City needs to establish an emergency route to the east for emergency vehicles and for evacuation in the event bridges are blocked or destroyed.

Goal C-7 Improve emergency access to the City.

Policy C-7.1 Emergency Access: Establish an access route out of Fort Bragg that could be used in the event of damage to the Noyo River and Pudding Creek Bridges.

- Program C-7.1.1: Work with the Georgia-Pacific Corporation to obtain temporary use, in the event of an emergency, of the logging road that begins on Cypress Street and provides access to Highway 20, east of Fort Bragg.
- Program C-7.1.2: Prepare an emergency evacuation route plan for the City.

8. PUBLIC TRANSIT

Fort Bragg is served by the Mendocino Transit Authority (MTA). MTA provides daily bus service (the "65 CC Rider") between Fort Bragg, Willits, Ukiah, and Santa Rosa. A separate bus route (the "60 The Coaster") provides weekday service between Fort Bragg, Mendocino, and the Navarro River.

MTA has a fixed-route weekday bus service (the "5 BraggAbout") in Fort Bragg with seven fixed stops that connect the College of the Redwoods, shopping centers, the Central Business District, and the hospital. Local trips within the Fort Bragg area are also provided by MTA's diala-ride service where riders can call to be picked up and delivered to their destination Monday through Saturday. In addition, the Redwood Senior Center provides transportation services for seniors in the community.

Goal C-8 Provide better public transportation.

Policy C-8.1: Encourage Transit Use.

- Program C-8.1.1: Continue to support the expansion of transit services provided by MTA and other public transit providers.

Policy C-8.2: Bus Shelters: Encourage attractive, well-lighted, and comfortable bus shelters placed in convenient locations.

- Program C-8.2.1: Continue to require the provision of bus stops, bus shelters, benches, turnouts, and related facilities in all major new commercial, industrial, residential, and institutional developments, and identify, in collaboration with MTA, additional locations for bus stops and shelters.

Policy C-8.3: Transit Facilities in New Development. Continue to require the provision of bus stops, bus shelters, benches, turnouts, and related facilities in all major new commercial, industrial, residential, and institutional developments.

9. PEDESTRIAN FACILITIES

Most areas of Fort Bragg have sidewalks for pedestrians. There are, however, a number of residential streets which lack sidewalks, and substandard sidewalk facilities exist throughout the City. Better pedestrian access across Fort Bragg's bridges and along Main Street from the Noyo Bridge to the southern City limits and from Elm Street north is needed. New development must be served by adequate pedestrian facilities. In addition to the policies and programs listed below, see the Conservation, Open Space, and Parks Element regarding policies and programs recommended for increasing and improving the trail system within the Planning Area.

Goal C-9 Make it easier and safer for people to walk in Fort Bragg.

Policy C-9.1: Provide Continuous Sidewalks: Provide a continuous system of sidewalks throughout the City.

Policy C-9.2: Require Sidewalks. Require a sidewalk on both sides of all collector and arterial streets and on at least one side of local streets as a condition of approval for new development.

- Program C-9.2.1: Consider implementing the following funding sources for the purpose of installing sidewalks in existing developed areas of the City:

  a) special benefit assessment districts; and/or

  b) a low-interest revolving loan fund.

- Program C-9.2.2: Work with the Mendocino Council of Governments and Caltrans to construct pedestrian walkways over the Hare Creek and Pudding Creek Bridges. These facilities may qualify for Transportation Enhancement Activities (TEA) funding available through Mendocino Council of Governments (MCOG).

Policy C-9.3: Where feasible, incorporate pedestrian facilities into the design and construction of all road improvements.

- Program C-9.3.1: Incorporate additional sidewalks from the Noyo Bridge to Ocean View Drive in the Capital Improvement Program.

Policy C-9.4: Sidewalk Maintenance: Ensure that property owners maintain sidewalks in a safe manner.

- Program C-9.4.1: Continue to implement City regulations that require sidewalks to be maintained by property owners. Carry out regular inspections, notification, and enforcement of this requirement.

- Program C-9.4.2: Financial Concerns: Consider the financial ability of property owners when establishing proposed sidewalk assessment districts.

- Program C-9.4.3: Seek available funding from grants and other funding sources for the construction of sidewalks in existing developed areas.
- Program C-9.4.4: Consider deferring payment for sidewalk installations for property owners with low incomes and/or on fixed incomes.

Policy C-9.5 Pedestrian Paths: Develop a series of continuous pedestrian walkways throughout the commercial districts and residential neighborhoods.

- Program C-9.5.1: Allow asphalt or other approved surface pedestrian paths in very low density single-family residential areas where sidewalks are not required.
- Program C-9.5.2: Revise the Subdivision and Coastal Program to allow approved surface pedestrian paths within developments to create pedestrian connections to nearby streets, community facilities, and adjacent developments as a part of on- and offsite improvements.

Policy C-9.6: Ensure that pedestrian paths are sited to avoid wetlands and other environmentally sensitive areas.

Policy C-9.7: Improve Pedestrian Safety.

- Program C-9.7.1: Continue to provide traffic controls and well-lit intersections in areas with a high volume of pedestrian movement.
- Program C-9.7.2: Consider expanded use of illuminated crosswalks.

10. BIKEWAYS

With better facilities and trails, bicycling can become a more significant part of the transportation system and an alternative to automobile use. Fort Bragg has few constraints to bicycling: most of the City is flat, the weather is mild, and the City is compact with relatively short distances between residential areas, schools, parks, and commercial centers.

The California Street and Highway Code has established three categories of bicycle trails based on the physical conditions of the right-of-way.

Class 1 Bikeway - Bike Path or Bike Trail: These facilities are constructed on a separate right-of-way, are completely separated from street traffic, and have minimal cross flows of automobile traffic. The State standard for minimum paved width of a two-way bike trail is eight feet.

Class 2 Bikeway - Bike Lane: A restricted right-of-way for the exclusive use of bicycles with vehicle parking and cross flow by pedestrians and motorists permitted. Bike lanes are normally striped within paved areas of highways and are one-directional with a minimum standard width of five feet.

Class 3 Bikeway - Bike Route: A route for bicyclists designated by signs or other markings and shared with pedestrians and motorists. Bike routes are typically designated to provide linkages to the bikeway system where Class 1 or 2 Bikeways cannot be provided.

The following local bikeway projects are identified as high priority by Mendocino County's 2000 Regional Bikeway Plan. A full description of recommended improvements is included in that Plan.

- The Pudding Creek Trestle to Otis Johnson Park Bikeway would provide a link between a park in northeast Fort Bragg and the beach at the mouth of Pudding Creek. It would also connect with the Old Haul Road, which travels north through MacKerricher State Park. As indicated on Map C-2, this path would serve Fort Bragg Middle School and neighborhoods in the northwest area of the City through a combination of Class 2 and 3 Bikeways. New Class 3 segments would be required from the Pudding Creek Trestle to Elm Street. Class 3 improvements would be constructed on Elm Street, Franklin Street, and Laurel Street.
- The Otis Johnson Park/Dana Street Bikeway would provide a north-south link within central Fort Bragg. This bicycle route would connect Fort Bragg Middle School and Fort Bragg High School. The proposed bike route would use existing bikeways and a section of the proposed bikeway improvement listed above for Laurel Street. It would consist of Class 3 Bikeway improvements on Oak Street and Class 1 Bikeway improvements on Dana Street.
- The Dana Gray School to Maple Street Bikeway would provide east-west access between Dana Gray School and an existing bikeway on Maple Street. Class 3 Bikeways would be constructed on S. Sanderson Way, Willow Street, and Lincoln Street.

Goal C-10 Make it easier and safer for people to travel by bicycle.

Policy C-10.1 Comprehensive Bikeway System: Establish a comprehensive and safe system of bikeways connecting all parts of Fort Bragg.

- Program C-10.1.1: Complete the bikeway system as indicated in Map C-2: Bicycle Paths. Make the completion of the Pudding Creek Trestle/Glass Beach to Otis Johnson Park a high priority.

- Program C-10.1.2: Incorporate bicycle and pedestrian facilities into the design and construction of all road improvements as feasible.

- Program C-10.1.3: Continue to participate in MCOG's Regional Bikeway Plan to qualify for State Bicycle Lane Account funds.

- Program C-10.1.4: Utilize parking-in-lieu funds, dedications, grant funding, traffic impact fees, and other means, as appropriate, to acquire rights-of-way needed for a comprehensive bikeway system as indicated in Map C-2.

- Program C-10.1.5: Maintain bikeways to ensure that they are free of debris and other obstacles. Consider increasing the number of trash receptacles, solar-powered emergency telephones, and increased lighting along bicycle trails.

Policy C-10.2: Require Bikeways. Require new development to provide on-site connections to existing and proposed bikeways, as appropriate.

Policy C-10.3: Require that streets linking residential areas with school facilities be designed to include bikeways.

Policy C-10.4: Consider bicycle operating characteristics in the design of intersections and traffic control systems.

Policy C-10.5 Bicycle Parking: Provide adequate and secure bicycle parking at public transit facilities, park and ride lots, schools, the library, parks, City offices, and commercial areas.

- Program C-10.5.1: Revise the Coastal LUDC parking standards to require larger commercial and multi-family residential projects, public buildings, and transit facilities to provide secure bicycle parking.
- Program C-10.5.2: Continue the bicycle safety program conducted by the Police Department.

11. ACCESS FOR THE MOBILITY IMPAIRED

Providing transportation facilities accessible to persons who are mobility-impaired is essential. Approximately three percent of the population in Fort Bragg cannot use conventional public transit due to a disability. The Federal Americans with Disabilities Act of 1990 contains many requirements regarding removal of barriers for persons with disabilities.

Goal C-11 Provide mobility-impaired persons with access to transportation.

Policy C-11.1: Regulations for Disabled Persons: Enforce Federal and State regulations regarding access for persons with disabilities.

Policy C-11.2: Handicapped Access. In conformance with State and Federal regulations, continue to review all projects for handicapped access and require the installation of curb cuts, ramps, and other improvements facilitating handicapped access.

- Program C-11.2.1: Assist organizations, such as the Senior Center, which provide transit service to the elderly and the mobility-impaired, in identifying and obtaining funding.

Policy C-11.3 Support Improved Access: Support improved access to public transportation and pedestrian facilities for people with disabilities.

- Program C-11.3.1: Continue to apply for grants for ADA-related projects from MCOG and other sources.

- Program C-11.3.2: Consider funding to implement the City's ADA Access and Transportation Plan through the City's Capital Improvement Plan (CIP), grants, and State and Federal transportation funds.

12. TRAIN SERVICE

The Sierra Railroad, known as the Skunk Line, operates a rail system between Willits and Fort Bragg. It is the only railroad in the region that has maintained passenger service on a regular basis since its founding. Train service is offered daily (approximately eleven months per year), and handles approximately 80,000 passengers annually. Freight service is provided on request.

The Skunk Depot, located at Laurel Street in the Central Business District, has been recently renovated, including additional parking facilities. It provides access to MTA's local and regional buses. The railroad not only benefits from the extensive tourist traffic on the Mendocino Coast, it is also a major generator of visitors to the Willits and Fort Bragg areas.

Although the use of the Skunk Line for freight transportation has decreased in recent years, it continues to provide freight service. If the rail lines were upgraded to carry heavier loads, it could serve as an incentive to increase freight loads.

Goal C-12 Increase use of the Skunk Line for transportation of people and freight.

Policy C-12.1 Skunk Train: Encourage increased use of the Skunk Train.

- Program C-12.1.1: Continue to work with the Skunk Train Company to improve and expand facilities at the Skunk Depot.

- Program C-12.1.2: Work with the Mendocino Council of Governments to facilitate increased use of the Skunk Line as an alternative to automobile transportation between Fort Bragg and Willits.

13. COORDINATE REGIONAL TRANSPORTATION PLANNING

Traffic congestion along Fort Bragg's Main Street is connected to development in unincorporated areas to the north and south of the City. Main Street is Highway One which is the primary north-south route for all communities on the coast. Land use decisions made by the County of Mendocino have a significant impact on transportation in the Fort Bragg area. The City works closely with the regional agencies described below:

- County of Mendocino: maintains and plans the county road system.
- Mendocino Council of Governments (MCOG): prepares and carries out a Regional Transportation Plan, establishes priorities for Federal and State funding, and funds studies of transportation corridors.
- Mendocino Transit Authority, (MTA): operates several transit routes serving the City and the region. It is a county-wide authority created through a joint powers agreement among cities and the County.

Goal C-13 Coordinate regional traffic planning.

Policy C-13.1 Regional Transportation Efforts: Participate in regional transportation planning efforts.

- Program C-13.1.1: Continue to provide City Council and staff representation on regional transportation planning agencies.
- Program C-13.1.2: Work with the MCOG and Caltrans to coordinate transportation planning and to identify funding for necessary transportation improvements.
- Program C-13.1.3: Continue to ensure that MCOG's Regional Transportation Plan (RTP), the State Transportation Improvement Program (STIP) and the State Highway Systems Operation and Protection Plan (SHOPP) include needed improvements to Highway One and Highway 20 in the Fort Bragg Planning area. Such improvements shall be designed to ensure that Highway One in rural areas outside the Mendocino County urban/rural boundary remains a scenic two-lane road consistent with Section 30254 of the Coastal Act.

14. FUNDING TRANSPORTATION IMPROVEMENTS

Funding transportation improvements is predominantly a Federal, State, and regional responsibility. For many years the road system has received the largest proportion of public expenditures for transportation. Although increased funding for alternative modes of transportation has significant environmental and social benefits, roadway funding will continue to receive the highest priority. Fort Bragg remains a relatively isolated coastal community and depends on the road system for the majority of its transportation needs.

A significant amount of the traffic in Fort Bragg is through-traffic (trips that originate or have destinations outside of the City). The logging industry, tourist travel, and people coming to Fort Bragg from around the region for shopping, educational, medical, and other services generate much of the traffic.

It is necessary that funding mechanisms be expanded to ensure effective coordination among different government jurisdictions. The goals, policies, and programs below complement those in the Land Use and Public Facilities Elements requiring new development to pay for its fair share of maintaining the City's infrastructure and service levels.

Goal C-14 Promote balanced funding for transportation.

Policy C-14.1 Development to Pay Its Fair Share: Require new development to pay its fair share of transportation improvements to maintain levels of service and traffic safety in the City.

- Program C-14.1.1: Develop a City-wide Traffic Mitigation Fee Program.

- Program C-14.1.2: Work with the County of Mendocino and MCOG to develop traffic mitigation fees for the Fort Bragg Sphere of Influence. Consider adopting a memorandum of understanding between the City of Fort Bragg and the County regarding traffic mitigation fees.

- Program C-14.1.3: Work with MCOG to ensure that the standards and requirements contained in the joint City and County Traffic Mitigation Program between Fort Bragg and the County are incorporated into the Regional Transportation Plan.

- Program C-14.1.4: Include in the Traffic Mitigation Fee Program mitigation fees for new development with primary access to Highway One and Highway 20. Utilize the funds collected as a local match to encourage Caltrans to raise the priority of Highway One and Highway 20 improvements.

- Program C-14.1.5: Ensure that the City's Pavement Management System obtains funding from the Traffic Mitigation Fee Program, as deemed appropriate by the traffic impact fee nexus study and applicable State law.

- Program C-14.1.6: Carry out an ongoing inventory of transportation system needs to be included in the City's Capital Improvement Plan.

3.7.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on transportation and circulation if it would result in:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and/or
- Result in inadequate emergency access.

IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Project implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities (Less than Significant)

PEDESTRIAN IMPACTS

Pedestrians were included in the intersection traffic counts. There are sidewalks in many locations on the streets surrounding the project. Sidewalk is present at these locations:

- both sides of Franklin Street from a point about 250 feet south of South Street northerly to

Cypress Street
- east side of Franklin Street for 100 feet north of North Harbor Drive
- both sides of Cypress Street
- both sides of South Street
- north side of North Harbor Drive from SR 1 to the project site (230 feet)
- south side of North Harbor Drive from SR 1 to 160 feet east
- east side of Main Street (SR 1)

Crosswalks are striped at intersections as noted earlier, and ADA ramps have been provided at most locations.

Some Grocery Outlet Store employees or customers will elect to walk to and from the site, as there is residential and commercial development near the site. However, sidewalk exists on the streets adjoining the site, and with frontage improvements installed by Grocery Outlet Store, sidewalks will generally provide a complete path of travel to and from the site. There are two locations where gaps in the pedestrian system may remain, including:

- The south side of South Street from Franklin Street easterly to Myrtle Street (150 feet)
- The north side of North Harbor Drive between Franklin Street and Myrtle Street (100 feet)

The gaps exist at locations where it appears that residences were constructed prior to the City of Fort Bragg requiring frontage improvements. Privately maintained landscaping exists near the road. The availability of right of way to construct improvements is unknown.

BICYCLE IMPACTS

Bicyclists were included in intersection traffic counts. The SR 1 along the Pacific coast is a popular area for recreational cyclists. The *City of Fort Bragg 2009 Bicycle Master Plan (2009)* outlines the location and nature of existing bicycle facilities in the community. Bicycle facilities are categorized within three classifications:

Class I Bikeway: trails or paths that are separated from automobile traffic,

Class II Bikeway: bicycle lanes that are on street but delineated by striping, and

Class III Bikeway: bicycle routes where bicycles and automobiles share the road.

There are currently Class II striped bicycle lanes on the east and west side of Franklin Street north of South Street to the Oak Street intersection. Main Street (SR 1) is designated a Class III bike route through Fort Bragg. The plan suggests that South Street and North Harbor Drive south of Woodward Street should be developed as Class II bike routes.

The use of bicycles may be an option for employees or customers to the site. Typically, grocery stores do not attract large numbers of cyclists due to the need to carry goods purchased; however, it is likely that current bicycle activity by visitors to the Mendocino coast leads to greater use of that mode in the community. The number of cyclists associated with this project is not likely to create

any appreciable safety impacts on adjoining streets, as Class II bike lanes exist on Franklin Street north of the site, and Franklin Street along the project frontage is wide enough to accommodate shared bicycle and automobile activity. While the project's off-site impact is not significant, applicable short-term bicycle storage facilities should be installed on site, as required by the City of Fort Bragg.

TRANSIT IMPACTS

The Mendocino Transit Authority (MTA) provides transit service to the Mendocino and Sonoma County areas. Two routes pass the project site. Route 5 (Braggabout) and Route 60 (The Coaster) traverse the community and have a stop near the Old Social Services Building at the South Street / Franklin Street intersection. Route 5 provides service on one-hour headways from 7:00 to 6:00 p.m. Monday thru Friday, with service extending to 8:30 on Saturdays. Route 60 runs four circuits on weekdays at 7:30 a.m., 11:57 a.m., 2:57 p.m. and 3:57 p.m., and this route also extends later on Saturdays.

Project employees or customers will be able to use MTA service as it already passes the project site and stops near the corner of South Street and Franklin Street.

CONCLUSION

Implementation of the proposed Project would not result in a conflict with an existing or planned pedestrian facility, bicycle facility, or transit service/facility. In addition, the Project would not interfere with the implementation of a planned bicycle facility, pedestrian facility, or transit service/facility. The Project would not cause a degradation in transit service such that service does not meet performance standards established by the transit operator. Overall, implementation of the proposed project would have a ***less than significant*** impact relative to this topic.

Impact 3.7-2: Project implementation would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (Less than Significant)

Starting in July 2020, CEQA Guidelines section 15064.3 requires agencies to move from a Level of Service based impacts analysis under CEQA to analysis based on regional Vehicle Miles Traveled (VMT). Current direction regarding methods to identify VMT and comply with state requirements is provide by the California Governor's OPR December 2018 publication, *Technical Advisory on Evaluating Transportation Impacts in CEQA*.

This advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. Again, OPR provides this Technical Advisory as a resource for the public to use at their discretion. OPR is not enforcing or attempting to enforce any part of the recommendations contained therein. (Gov. Code, § 65035 ["It is not the intent of the Legislature to vest in the Office of Planning and Research any direct operating or regulatory powers over land use, public works, or other state, regional, or local projects or programs."].) OPR provides this direction for retail projects:

> ***Retail Projects.*** *Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically reroute travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.*

OPR also provides guidance regarding ***Screening Thresholds*** that would allow agencies to quickly identify when a project should be expected to cause a less-than significant impact without conducting as detailed study. OPR states:

> By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.
>
> Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-specific information, such as market studies or economic impacts analyses that might bear on customers' travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local-serving. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

The relevant applicable analysis scenarios were analyzed using the methodologies described above, and the VMT analysis results are summarized in Table 3.7-17. The results in Table 3.7-17 indicate that the Project would result in a net increase in VMT over baseline conditions. However, the model considers a very limited amount of re-routing of Fort Bragg residents that currently go to the Grocery Outlet store located in Willits for grocery shopping. As such, the VMT calculation was adjusted for re-routing.

According to information provided by Grocery Outlet, over the last 12 months (June 2021 to June 2022), around 9% of the people that visit their Willits store come from Fort Bragg. Considering that the length of a one-way trip from Fort Bragg to the Willits Grocery Outlet store is approximately 35 miles, and one mile from Fort Bragg to the Project, 990 VMT is equivalent to the re-routing of 30 one-way trips or 15 round trips from the Willits Grocery Outlet store to the Project store. Per the Institute of Transportation Engineers *Trip Generation Manual, 11th Edition*, a grocery store such as the one in Willits generates approximately 3,500 daily one-way trips.

Therefore, in conclusion, the re-routing of less of 1% of these trips would result in a net decrease in VMT for both baseline (2022) and future year (2030) conditions. Table 3.7-18 shows the adjusted VMT results accounting for a trip redistribution from the Willits Grocery Outlet to the Fort Bragg Grocery Outlet of 1% and 9%.

TABLE 3.7-17: PROJECT EFFECT ON VMT AFTER INITIAL MODELING

ANALYSIS HORIZON YEAR	*SCENARIO*	*SCENARIO VMT*
Model Base Year 2009	No Project	659,672
	Plus Project	658,755
	Year 2009 Delta	**-917**
Model Future Year 2030	No Project	763,620
	Plus Project	764,610
	Year 2030 Delta	**+990**
Interpolated Baseline Year 2022 Delta		***+ 263***

SOURCE: FEHR & PEERS, 2022.

Thus, per the significance criteria, the modeled VMT results, and the adjustments based on market information presented previously, the Project results in a ***less-than-significant*** impact.

Impact 3.7-3: Project implementation would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (Less than Significant)

SITE ACCESS

Throat Depth. Access to the site is proposed via driveways on S. Franklin Street and on North Harbor Drive. The S. Franklin Street driveway is 30 feet wide, and the main parking aisle is separated from the street by about 40 feet of throat. Two waiting vehicles can queue in this area prior to blocking inbound access to those parking spaces. Because the background traffic volume on Franklin Street is low, HCM Level of Service calculations completed for the access indicate that the 95th percentile queue at the exit will be one (1) vehicle or less during peak periods, and this queue can be accommodated. Thus, the access is adequate from this standpoint.

The North Harbor Drive driveway is also 30 feet wide, and has a 50 foot throat. Based on HCM calculations, the peak queue is also less than one (1) vehicle, and queuing is not an issue at this location.

Sight Distance. The adequacy of sight distance at each driveway was reviewed from the standpoint of the minimum requirements of the Caltrans Highway Design Manual (HDM). HDM Table 201.1 notes that for a 25 mph design speed a minimum of 150 feet of sight distance is needed. Review of the proposed driveway locations reveals that the view in both directions from each location is unobstructed, and that the minimum requirement will clearly be satisfied.

CONCLUSION

Implementation of the proposed Project would not result in a geometric design feature that is inconsistent with applicable design standards for the City of Fort Bragg. The Project would not result in a significant change to the vehicle mix or speed of traffic that is not compatible with the design of existing or planned facility design.

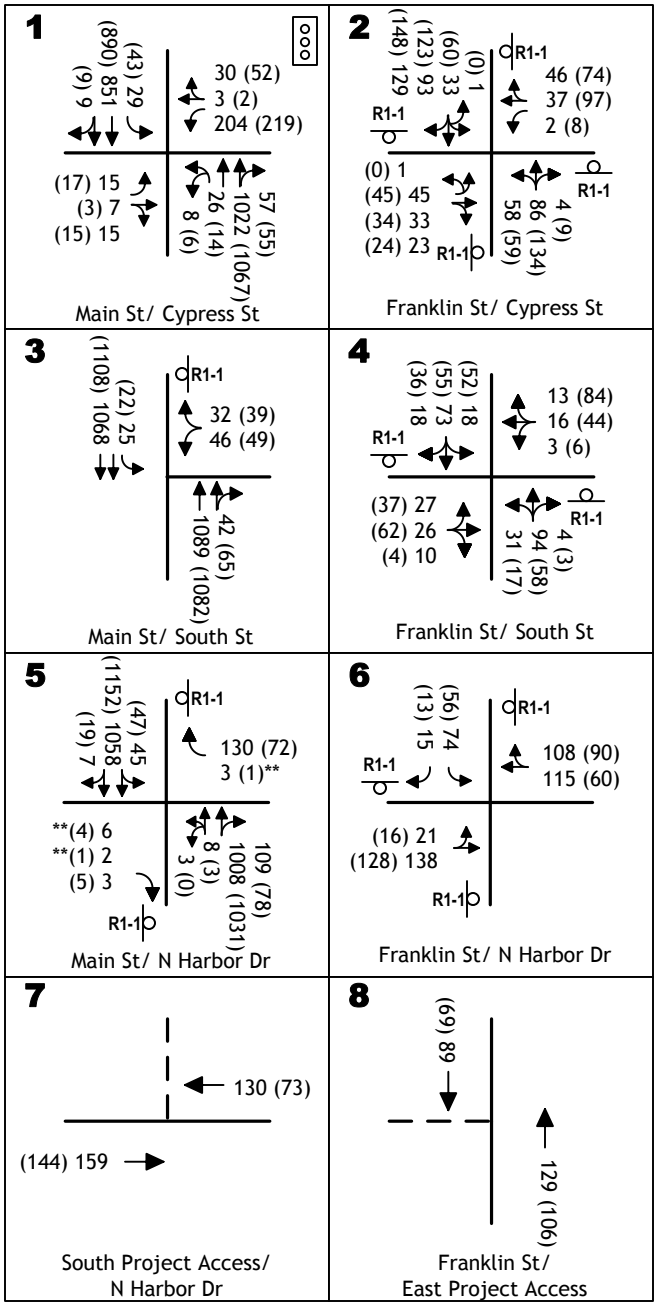
The Project does not propose any new roadways or transportation facilities that would be inconsistent with applicable design standards for the City of Fort Bragg. As discussed above, the Site is accessed on the north end via a paved entrance to South Street, and an existing dirt driveway runs across the southern parcel from S. Franklin Street to N. Harbor Drive. The proposed project includes construction of new, defined entrances to S. Franklin Street and N. Harbor Drive on the south and east end of the Site to accommodate the retail store entrance. The existing driveway on the north end of the Site would be removed as part of the project. The project will additionally include an internal system of walkways and crosswalks to provide pedestrian connectivity between the parking lot, building, and sidewalk. A sidewalk would be constructed along the South Street, S. Franklin Street, and N. Harbor Drive frontages, as required by City standards to provide pedestrian access around the Site, and where required, existing sidewalks would be upgraded to meet City standards. The City standards which the Project would be subject to are designed to prevent hazards due to geometric design features. Additionally, it is noted that proposed Project Special Condition 25 requires stop signs at all four points of the intersection at South Street and South Franklin.

As indicated in the *Traffic Impact Analysis*, the proposed Project may result in pedestrians in two roadway locations near the project where sidewalks do not exist. Therefore, the City should consider installing No Parking signs in these areas. As demonstrated by the proposed design improvements shown on the Site Plan, the Site has been designed to provide ample access, driveway width, and turning radii. Overall, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.7-4: Project implementation would not result in inadequate emergency access (Less than Significant)

Implementation of the proposed Project would not create roadway and transportation facilities that impede access for emergency response vehicles. All existing roadways and intersections, and internal transportation network is designed to maintain levels of accessibility for police and fire response times, which ensures vehicles have the necessary access when responding to an emergency. Therefore, this impact would be ***less than significant***.



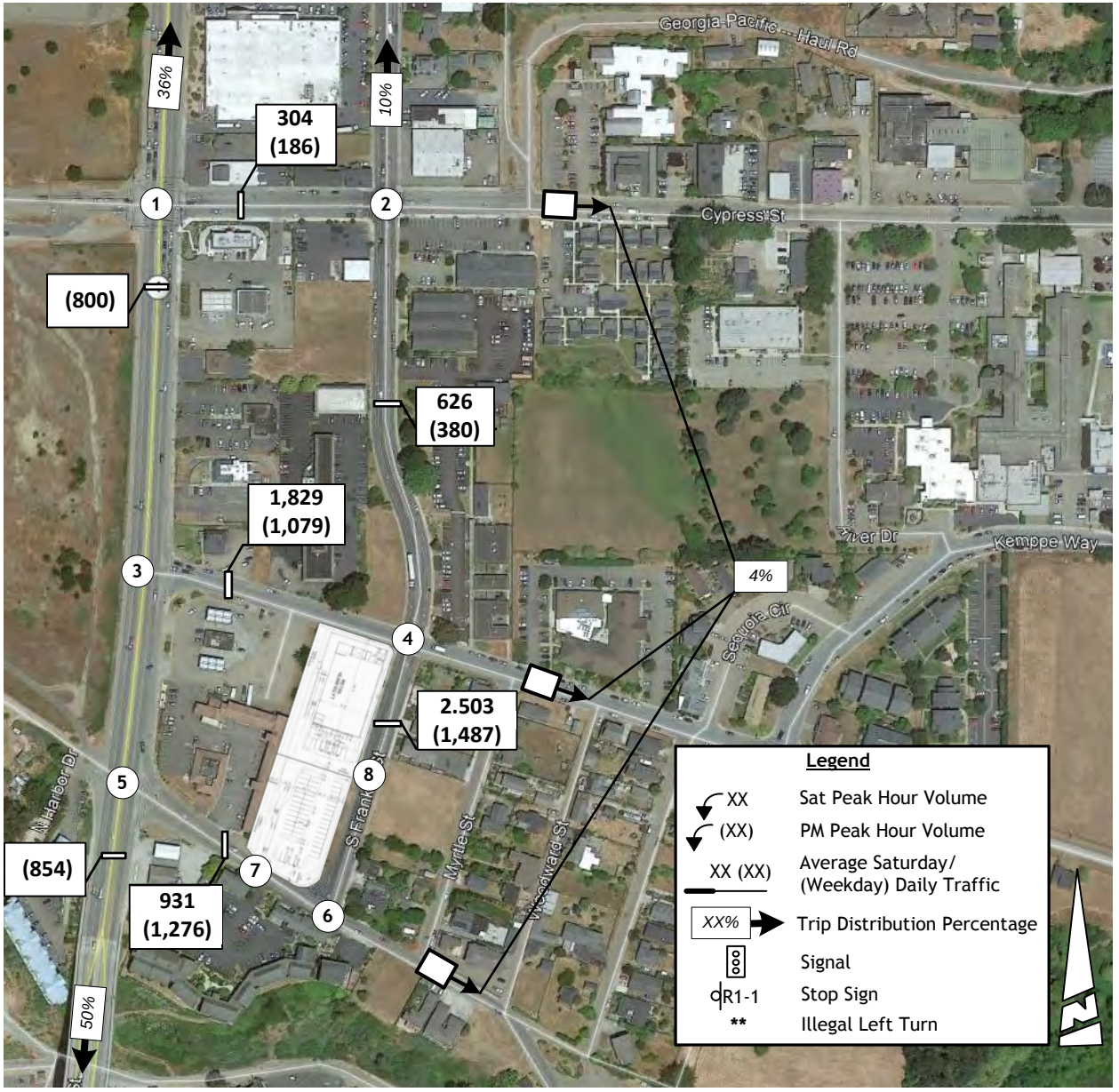


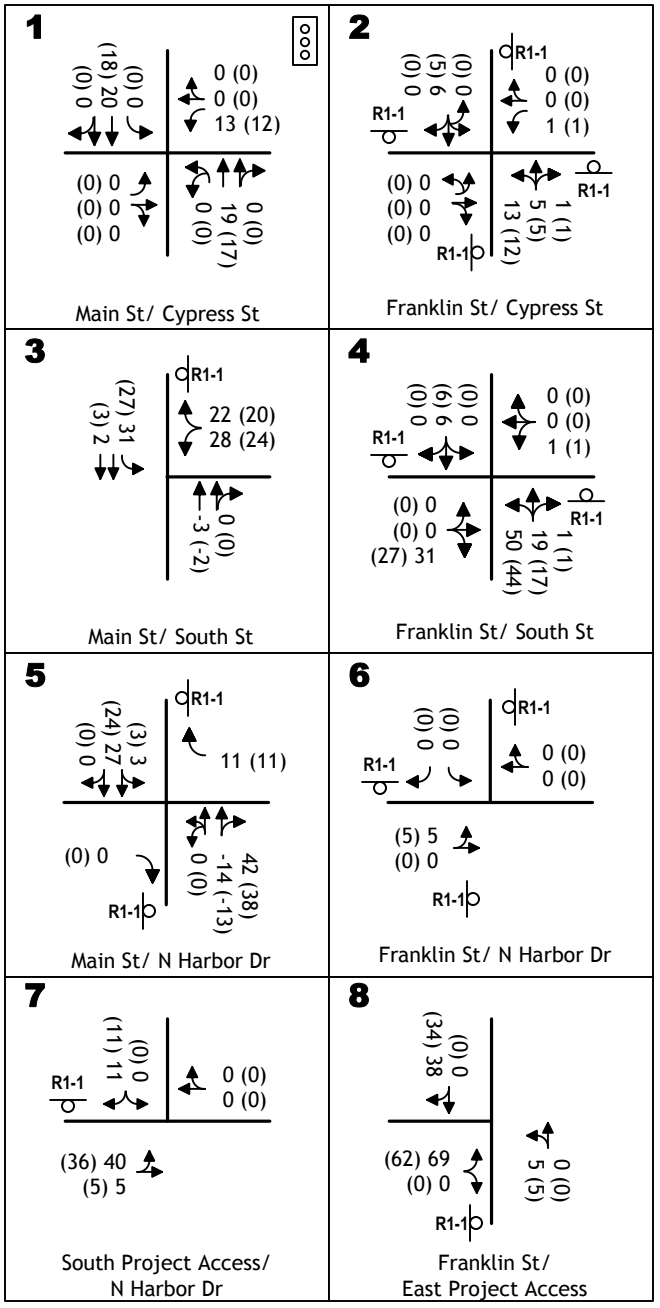
EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

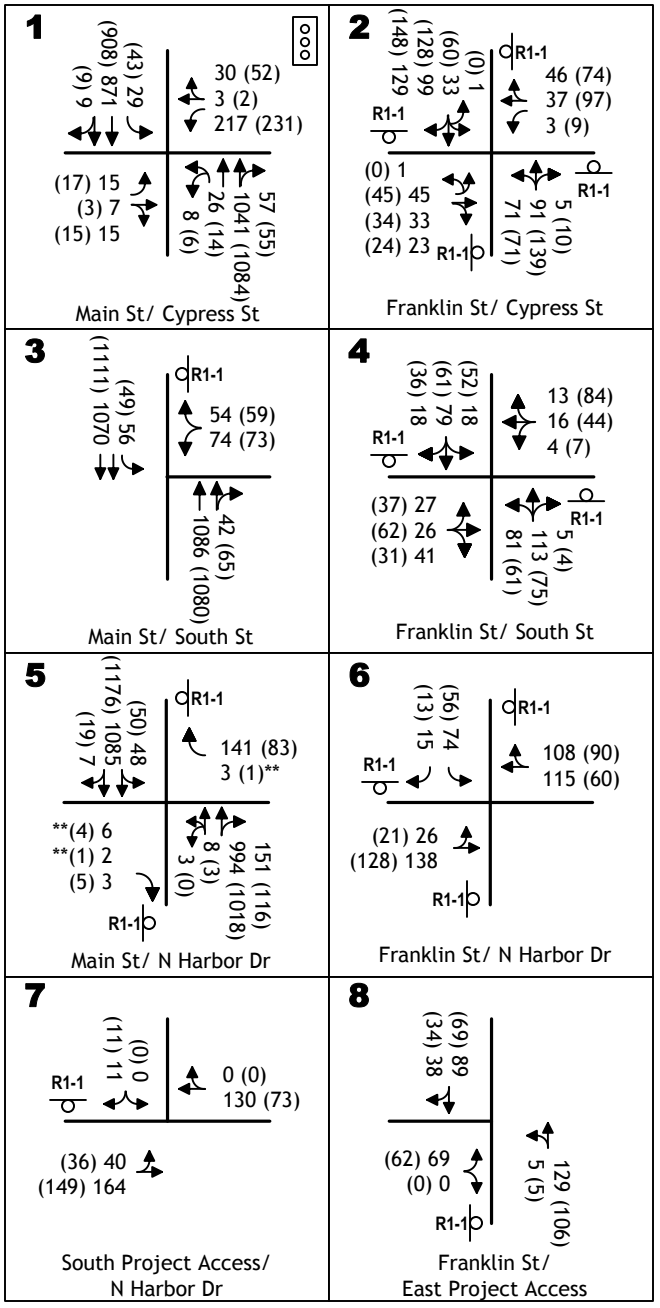
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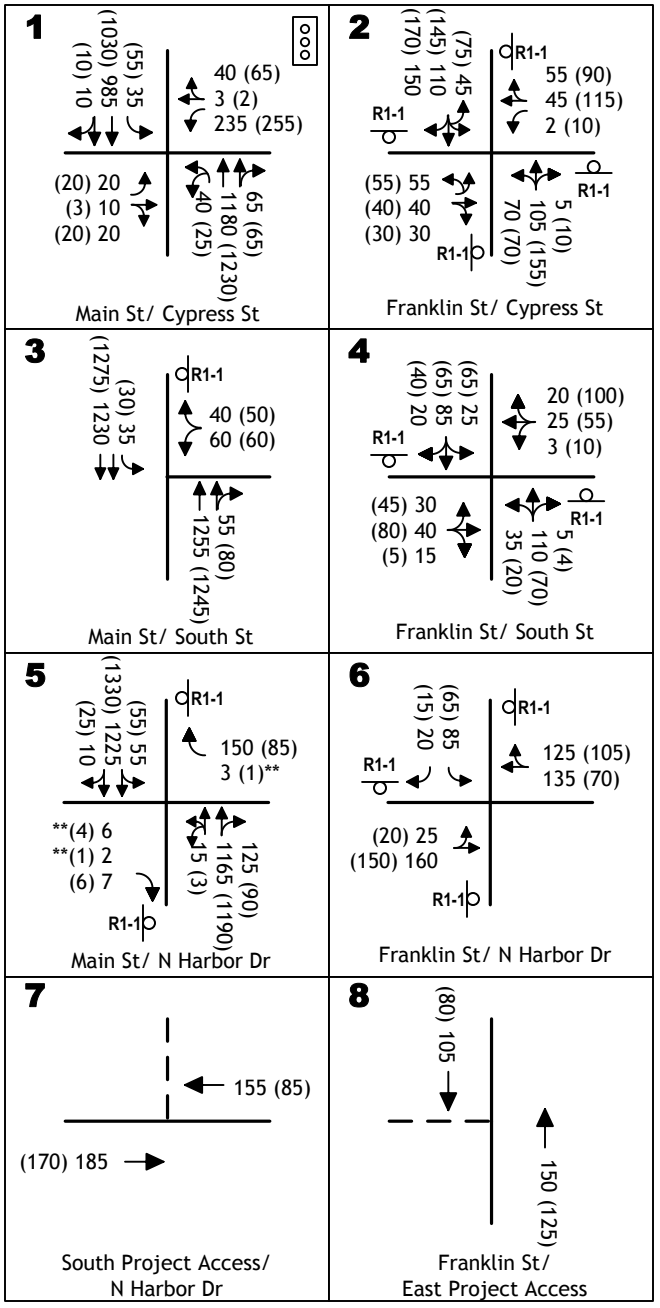
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EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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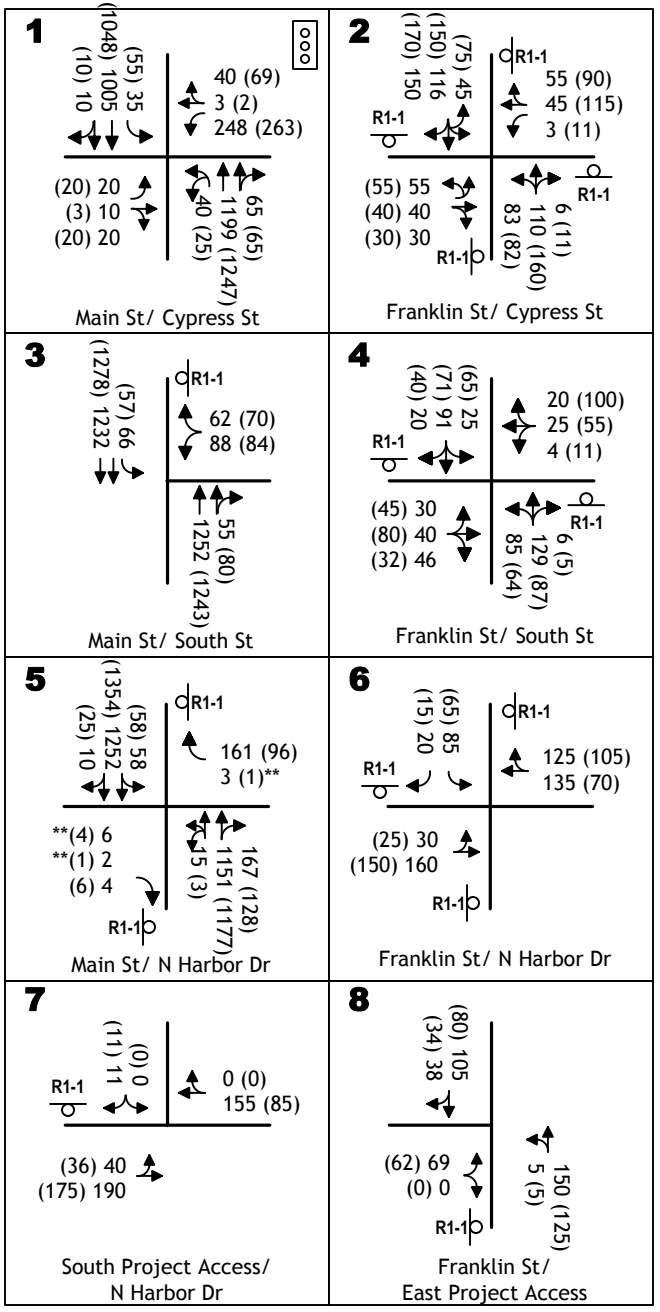
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CUMULATIVE 2040 BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.7-4

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CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Figure 3.7-5

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This section describes the regulatory setting, impacts associated with wastewater services, water services, storm drainage, and solid waste disposal that are likely to result from Project implementation, and measures to reduce potential impacts to wastewater, water supplies, storm drainage, and solid waste facilities. This section is based in part on the following documents, reports and studies: *California's Groundwater,* CalRecycle *Solid Waste Information System,* CalRecycle *Jurisdiction Diversion/Disposal Rate Summary*, *Water System Study and Master Plan* (1986), *Storm Drain Master Plan* (Winzler & Kelly 2004), *Storm Water Management Program* (Coastland Civil Engineering 2005), *City of Fort Bragg General Plan, Public Facilities Element* (Fort Bragg 2008), *City of Fort Bragg & Fort Bragg Municipal Improvement District No 1, Municipal Service Review and Sphere of Influence Update* (Mendocino LAFCo 2017), *Sewer System Management Plan* (Freshwater Environmental Services 2019), and the Coastal Mendocino County Stormwater Resource Plan (LACO Associates 2019).

One comment was received during the public review period for the Notice of Preparation regarding this topic from the following: Leslie Kashiwada (June 20, 2022). Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

3.8.1 WASTEWATER SERVICES

WASTEWATER SERVICE OVERVIEW

The public wastewater treatment system includes collection, treatment, and discharge facilities. The wastewater system serving the City is owned by the Fort Bragg Municipal Improvement District (MID/District) No. 1 and is operated and maintained by the City at the expense of the District.

The Fort Bragg MID No. 1 (District) was formed to acquire and construct wastewater system improvements including a wastewater treatment plant and to provide for the incurring of indebtedness for the costs and expansion of such improvements. Any territory annexed to the MID is subject to all the liabilities, including previously authorized taxes, benefit assessments, fees or charges for services, and is entitled to all benefits of the District.

The Wastewater Treatment Plant (WWTP) is located at 101 West Cypress Street in Fort Bragg. The WWTP operates under Waste Discharge Requirements pursuant to Order R1-2019-0020, NPDES No. CA0023078, and WDID No. 1B84083OMEN issued by the North Coast Regional Water Quality Control Board. The MID serves a population of approximately 6,052 within the City, and an additional 125 parcels outside the City but within the MID Sphere Of Influence. This includes approximately 2,450 residential wastewater connections, 350 commercial dischargers, and one industrial customer within the District, and serves MacKerricher State Park located outside the District.

All MID operations and maintenance are performed by City staff. The City has two Lead Treatment Operators and five level II Treatment Plant Operators, including one Electrician, that jointly operate and maintain both the water treatment system and the wastewater treatment system.

City staff is responsible for operating and maintaining the treatment plant, wastewater collection system, six lift stations, and discharge in compliance with State and Federal water quality standards.

WASTEWATER CONVEYANCE

The MID wastewater system is comprised of over 25 miles of gravity-fed pipelines and pressure force mains, six sewage lift stations, the WWTP, and an ocean outfall pipeline that extends 690 feet into the Pacific Ocean. The collection system is made up of clay and concrete main lines, ranging in size from 6 inches to 30 inches in diameter. Most of the system is in need of rehabilitation. The City's Capital Improvement Plan includes funds for Cure-In-Place Pipe projects every other year to reduce inflow and infiltration (I&I), and has included upgrading/rehabilitation of the six lift stations. Collection system rehabilitation and repair is an ongoing process and to date has resulted in a decrease in the number and magnitude of sanitary sewer overflows.

WASTEWATER TREATMENT CAPACITY AND DEMAND

The WWTP was originally completed in 1971. In 2016, the District's average daily flow volume was 0.842 MGD, which was within the design capacity of the WWTP at the time, and the peak flow volume was 4.075 MGD due to wet weather events, which was above the design capacity of the WWTP at that time. Upgrades, renovations, and system redundancy projects were necessary to improve the long-term performance of the WWTP facility based on future conditions including considerations for City growth and increases in nutrient loading from the North Coast Brewing Company (NCBC). The following table shows wastewater flow data for the City between 2013 and 2016.

TABLE 3.8-1 CITY OF FORT BRAGG WASTEWATER FLOW DATA 2013-2016

PARAMETER	*UNIT*	*2013*	*2014*	*2015*	*2016*	*AVERAGE*
ADF	MGD	0.649	0.716	0.595	0.842	0.701
ADWF	MGD	0.610	0.624	0.490	0.502	0.557
AWWF	MDG	0.669	0.762	0.648	1.010	0.772
MDF	MDG	1.247	2.565	2.717	4.075	2.651
MMF	MG	27.13	41.45	30.07	51.34	37.50

NOTES: ADF=AVERAGE DAILY FLOW
ADWF=AVERAGE DRY WEATHER FLOW (JUNE 1-AUGUST 31)
AWWF=AVERAGE WET WEATHER FLOWS
MDF=MAXIMUM DAILY FLOW
MMF=MAXIMUM MONTHLY FLOW
SOURCE: FORT BRAGG, JULY 2017.

It was estimated that a 10% increase in flow (an average daily flow volume of 0.0842 MGD) for future residential and general commercial/industrial growth within the City would occur through 2023. It was also estimated that a 40% increase in NCBC discharge related to a projected expansion of annual brewing operations from 50,000 to 85,000 barrels would occur. These growth parameters provided the basis for City's recommended design criteria to size the WWTP Upgrade Project. The District does not anticipate a significant increase in demand for wastewater service

within the District boundary nor does the District expect inclusion of any new customers outside their boundary within the next five years.

The City recently completed construction of the new Wastewater Treatment Plant Upgrade Project which included excavation to accommodate a 128-foot-wide by 164-foot long Biological Treatment Facility. This work also included the addition of two equalization basins, new solids handling system, onsite stormwater capture and treatment, and relocated the biosolids storage area. The upgraded treatment system also consists of a Parshall flume for influent flow monitoring prior to the headworks, headworks, grit removal, equalized influent flow monitoring following the Influent Pump Station, Aero-Mod system, chlorine disinfection using sodium hypochlorite, and sodium bisulfite dichlorination. The Aero-Mod system is an extended aeration, activated sludge treatment system that includes a selector tank, two first-stage aeration (nitrification) tanks, two second-stage aeration (denitrification) tanks, and two clarification tanks. The existing clarifiers will be repurposed and used as flow equalization basins during large storm events and to allow maintenance of the influent pump station when needed. Sludge generated from the Aero-Mod system is treated in aerobic digestion tanks and dewatered through a belt filter press. Dewatered sludge from the belt filter press is placed in the sludge drying beds prior to landfill disposal or land application.

The upgraded WWTP has a facility design flow capacity of 1.0 mgd (average dry weather treatment capacity), 4.9 mgd (peak daily wet weather treatment capacity), 2.2 mgd (average monthly wet weather treatment capacity). The upgraded capacity of the WWTP is sufficient to meet the wastewater service demands, and is a significant improvement to the City's ability to handle/manage overflows.

REGULATORY SETTING

Clean Water Act / National Pollutant Discharge Elimination System Permits

The Clean Water Act (CWA) is the cornerstone of water quality protection in the United States. The federal statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the National Pollutant Discharge Elimination System (NPDES) regulatory program, which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Operators of point sources must obtain a discharge permit from the proper authority, in this case the North Coast Regional Water Quality Control Board. NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, stormwater

associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into the sanitary sewer system for treatment. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

The City's current NPDES Permit, which regulates the wastewater effluent quantity and quality upon discharge, was issued by the North Coast Regional Water Quality Control Board and is Order R1-2019-0020.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the State Water Resources Control Board (SWRCB) has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the SWRCB to a Regional Water Quality Control Board (RWQCB). The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the Regional Water Quality Control Board (RWQCB) NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

City of Fort Bragg General Plan

The Fort Bragg Coastal General Plan includes several goals and policies that are relevant to public facilities. General Plan policies applicable to the proposed Project are identified below:

PUBLIC FACILITIES ELEMENT

Goal PF-1: Ensure that new development is served by adequate public services and infrastructure.

***Policy PF-1.1*.** All new development proposals shall be reviewed and conditioned to ensure that adequate public services and infrastructure can be provided to the development without substantially reducing the services provided to existing residents and businesses.

Policy PF-1.2. No permit for development shall be approved unless it can be demonstrated that such development will be served upon completion with adequate services, including but not limited to potable water; wastewater collection, treatment and disposal; storm drainage; fire and emergency medical response; police protection; transportation; schools; and solid waste collection and disposal; as applicable to the proposed development.

a. Demonstration of adequate water and sewer facilities shall include evidence that adequate capacity will be available within the system to serve the development and all other known and foreseeable development the system is committed to serving, and that the municipal system will provide such service for the development;

***Policy PF-1.3*.** Ensure Adequate Service Capacity for Priority Uses

a. New development that increases demand for new services by more than one equivalent dwelling unit (EDU) shall only be permitted in the Coastal Zone if,
    i. Adequate services do or will exist to serve the proposed development upon completion of the proposed development, and
    ii. Adequate services capacity would be retained to accommodate existing, authorized, and probable priority uses upon completion. Such priority uses include, but are not limited to, coastal dependent industrial (including commercial fishing facilities), visitor serving, and recreational uses in commercial, industrial, parks and recreation, and public facilities districts. Probable priority uses are those that do not require an LCP amendment or zoning variance in the Coastal Zone.
b. Prior to approval of a coastal development permit, the Planning Commission or City Council shall make the finding that these criteria have been met. Such findings shall be based on evidence that adequate service capacity remains to accommodate the existing, authorized, and probable priority uses identified above.

Goal PF-2: Assure that the City's infrastructure is maintained and expanded to meet the needs of the City's residents.

***Policy PF-2.1*.** Require that new development pay its share of capital improvements and the cost of public services to maintain adequate levels of service.

***Policy PF-2.5*.** Review wastewater capacity and expansion plans as needed when regulations change and as the treatment and disposal facility nears capacity. In addition to providing capacity for potential build-out under the City General Plan outside the coastal

zone, any expansion of capacity of wastewater facilities shall be designed to serve no more than the maximum level of development in the coastal zone allowed by the certified LCP that is consistent with all other policies of the LCP and Coastal General Plan. The City shall identify and implement wastewater system improvements or changes in service area that are designed to ensure adequate service capacity to accommodate existing, authorized, and probable future priority uses. Such uses include, but are not limited to, industrial (including commercial fishing facilities), visitor serving, and recreational priority uses in commercial, industrial, parks and recreation, and public facilities districts.

City of Fort Bragg Municipal Code

The City of Fort Bragg Municipal Code (Code), Title 14, Water and Sewers, consists of a number of provisions relating to wastewater, including Chapter 14.16 (Use of Public Sewers) which regulates the disposal of sanitary sewer and waste into watercourses and requires connection to public sewer; Chapter 14.17 (Individual Wastewater Discharge Permit and General Permit) requires significant industrial users connecting to or discharging into the sewer to obtain a wastewater discharge permit; Chapter 14.28 (Lateral Sewers and Connections), which requires construction of a lateral sewer, or connection with any public sewer, to obtain a permit from the District and paying all fees and connection charges.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with Utilities if it will:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new wastewater treatment and/or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment and/or collection provider which serves or may serve the Project that is does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: The proposed Project does not have the potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. (Less than Significant)

WASTE DISCHARGE REQUIREMENTS (WDRS) BOARD ORDER NUMBER NO R1-2019-0020 NPDES PERMIT NO. CA0023078).

Order No. R1-2019-0020 (NPDES No. CA0023078) provides waste discharge requirements for the Fort Bragg Wastewater Treatment Plant (WWTP). This Order was adopted on June 20, 2019 and is effective until July 31, 2024. If the Permittee wishes to continue this Order after the expiration date, the Permittee would be required to apply for and obtain a new permit. The Permittee would be required to file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with Title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than August 2, 2023.

The WWTP has a facility design flow capacity of 1.0 mgd (average dry weather treatment capacity), 4.9 mgd (peak daily wet weather treatment capacity), 2.2 mgd (average monthly wet weather treatment capacity). As noted previously, the District's average daily flow volume in 2016 was 0.842 mgd. The upgraded capacity of the WWTP is sufficient to meet the wastewater service demands through buildout of the General Plan, and is a significant improvement to the City's ability to handle/manage overflows. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.8-2: The proposed Project will require or result in the construction of new wastewater treatment or collection facilities, but the construction of them will not cause significant environmental effects. (Less than Significant)

The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's existing infrastructure requirements. Sizing of existing infrastructure in the City varies based on location. There is an existing 4-inch sewer lateral extending from the existing manhole on South Street which is proposed to be removed and replaced with the construction of a new 6-inch sewer lateral to serve the project per City standards. The existing facilities have undergone environmental review and have waste discharge permits from the State.

Utility lines within the Project site and adjacent roadways would be extended throughout the Project site. All onsite wastewater utility improvements will be located in areas currently developed with the vacant former office building and parking lot, or the southern vacant lot. Construction of the onsite wastewater infrastructure would not have the potential to induce growth beyond what is proposed because the infrastructure is not oversized to accommodate additional projects or growth.

New wastewater collection and conveyance infrastructure needed for the proposed Project will require trenching/excavation of earth, and placement of pipe within the trenches at specific locations, elevations, and gradients. The applicant will refine the wastewater collection/conveyance infrastructure design through the development of improvements plans which undergo a review by the Public Works Department to ensure consistency with the City's engineering standards. This improvement plan process will include full engineering design (i.e. location, depth, slope, etc.) of all conveyance infrastructure as well as a review of new sewer pump stations and new force mains if needed. The potential environmental effects of the construction of the wastewater infrastructure are discussed throughout this Draft EIR. Ultimately, the sanitary sewer collection system will be an underground collection system installed as per the City of Fort Bragg standards and specifications. Sanitary sewer disposal and treatment will be to the City of Fort Bragg Wastewater Treatment Plant, which does not require any expansion or other construction activities. The proposed Project is required to pay its fair share of the wastewater system infrastructure and future capital improvements through the Wastewater Capacity Fee.

Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.8-3: The proposed Project does not have the potential to result in a determination by the wastewater treatment and/or collection provider which serves or may serve the Project that is does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. (Less than Significant)

Wastewater generated on-site would be collected, treated, and disposed of by the City of Fort Bragg Municipal Improvement District No. 1.

According to wastewater generation factors of similar cities in California, Commercial uses are estimated to generate 750 gallons per gross acre per day. The Project site includes 16,517 square feet of Commercial uses on 1.63 acres. Using this rate, the proposed Commercial uses would generate approximately 1,223 gallons per day (gpd) of wastewater. The WWTP has a facility design flow capacity of 1.0 mgd (average dry weather treatment capacity), 4.9 mgd (peak daily wet weather treatment capacity), 2.2 mgd (average monthly wet weather treatment capacity). In 2016, the District's average daily flow volume was 0.842 mgd. The approximately 0.001 mgd of wastewater generated by the Project accounts for 0.12 percent of the total WWTP capacity

The proposed Project would increase the amount of wastewater requiring treatment; however, the City's WWTP has sufficient capacity to service the proposed Project. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

3.8.2 WATER SUPPLIES

WATER SERVICE OVERVIEW

The City public water system includes raw water collection, treatment, and distribution facilities, which are owned and operated by the City. The Water Treatment Plant (WTP) is located at 31301 Cedar Street in Fort Bragg. The WTP operates under Domestic Water Supply Permit Number 02-03-09P2310001, issued by the State Water Resources Control Board Drinking Water Division on October 6, 2009. The City currently serves approximately 2,829 water connections consisting primarily of residential homes, 356 commercial customers, and 32 customers located outside the City.

The City has two Lead Treatment Operators and five level II Treatment Plant Operators, including one Electrician, who jointly operate and maintain the water treatment system and the wastewater treatment system. City staff is responsible for operating and maintaining the water treatment plant, source water intakes, three water storage facilities, and various pump stations. The transmission and distribution systems including water meters are maintained by the Public Works maintenance crew; this division includes five distribution operators.

WATER CAPACITY

The City's water system is comprised of three surface water sources; three raw water transmission mains; two raw water storage ponds located at the WTP; the WTP with a capacity of 2.2 million gallons per day (MGD); three 1.5-million-gallon (MG) steel storage tanks, including one finished in 2018, and one 300,000-gallon storage tank; over 30 miles of distribution lines that deliver water throughout Fort Bragg; and one booster pump station for the East Fort Bragg pressure zone.

The City's water supply system draws raw water primarily from the Noyo River with the limitation that pumping does not exceed 3.0 cubic feet per second (cfs). The Noyo River direct diversion flows by gravity into a 5,000-gallon wet well and is then pumped via pipeline to the WTP from a pump station on the river bank.

The Newman Reservoir is an on-stream reservoir located on a 54-acre parcel owned by the City of Fort Bragg and impounds water from the Newman Gulch.

The Summers Lane Reservoir, an off-stream storage facility that holds water from Waterfall Gulch, is a new reservoir with a capacity of 45 acre-feet (AF) located on this same property. During Fiscal Year 2016-2017, the City completed the Summers Lane Reservoir Project, providing an additional 15 million gallons (MG) of raw water storage to help ensure a reliable water supply during the late summer months when flows are low at the City's three water sources. In addition, this new raw water storage will ensure adequate water supply during severe drought years and will help to meet the needs of future development for the City.

Additionally, in 2021, the City installed reverse-osmosis desalination plant ready to treat 144,000 gallons per day. The system is expected to help the city survive extreme drought conditions that have left the Noyo River, one of its three primary drinking water sources, susceptible to water

quality issues during high tide events. High tides lead to saltwater intrusion in the Noyo River all the way up to the city's water intake pumps whenever the streamflow falls below 1.5 cubic feet per seconds (CFS).

Approximately 20% of the City's water supply during the summer months is drawn from the Newman and Summers Lane Reservoirs and approximately 25% throughout the year is from the Waterfall Gulch diversion, all of which are gravity fed through a single ten-inch pipeline to the raw water storage ponds at the WTP. Table 3.8-2 shows the City's approved water appropriations by water source.

TABLE 3.8-2: CITY OF FORT BRAGG WATER APPROPRIATIONS

WATER SUPPLY SOURCE	*WATER APPROPRIATIONS*	*ESTIMATED RELIABLE PUMPING CAPACITY*
Noyo River	1,500 AF (488.777 MG)	3.0 cfs
Newman Gulch	300 AF (97.755 MG)	0.5 cfs
Waterfall Gulch	475 AF (154.779 MG)	0.668 cfs
Total	**2,275 AF (741.312 MG)**	**4.168 cfs**

SOURCE: CITY OF FORT BRAGG MUNICIPAL IMPROVEMENT DISTRICT NO. 1 MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE.

The City's operational treated water storage requirement is 3.3 MG. Table 3.8-3 below shows the water storage capacity for each of the City's water storage facilities.

TABLE 3.8-3: CITY OF FORT BRAGG WATER STORAGE

STORAGE FACILITY	*STORAGE CAPACITY*
Summers Lane Reservoir	14.6 MG
Newman Reservoir	0.3 MG
Water Fall Reservoir	0.005 MG
Raw Water Ponds	3.0 MG
Clearwell	0.025 MG
Total	**17.93 MG**

SOURCE: CITY OF FORT BRAGG MUNICIPAL IMPROVEMENT DISTRICT NO. 1 MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE.

WATER DEMAND

The water system annual demand is approximately 250 MG or 767 acre-feet (AF) of drinking water. During the summer months, the water demand peaks at around 0.900 MGD with the peak tourist season. During winter months, the water demand averages 0.600 MGD. Table 3.8-4 below shows the water demand levels for fiscal year 2015-2016 by season.

TABLE 3.8-4: CITY OF FORT BRAGG 2015-2016 WATER DEMAND (MGD)

SEASON	*AVERAGE DEMAND*	*MAXIMUM MONTHLY DEMAND*	*PEAK DAY DEMAND*
Summer	0.7188	29.697	1.153
Winter	0.514	16.903	0.728

SOURCE: CITY OF FORT BRAGG MUNICIPAL IMPROVEMENT DISTRICT NO. 1 MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE.

Table 3.8-5 below shows the total historic water demand by source over the 10 year period between 2007 - 2016, which includes the range of wet to critically dry water year types.

TABLE 3.8-5: CITY OF FORT BRAGG HISTORIC ANNUAL WATER DEMAND (MG)

SOURCE	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*
1	326.22	188.72	210.51	217.9	180.88	171.93	128.27	142.58	145.04	137.65
2	31.08	74.01	49.52	53.36	49.27	56.08	74.54	56.05	58.31	50.21
3	39.66	68.63	46.51	37.09	60.77	76.10	71.88	51.32	56.23	59.58
Total	396.97	331.37	306.55	308.42	290.9	304.1	274.70	249.9	259.6	247.4

SOURCE: CITY OF FORT BRAGG MUNICIPAL IMPROVEMENT DISTRICT NO. 1 MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE.

According to the City's most recent Municipal Service Review (adopted December 2017), on a daily basis, the City currently produces about 50 gallons/resident and 78 gallons/1,000 square-feet (SF) of commercial/industrial space of treated water. The Project site is located in the Coastal Area. Residential development within the Inland Area through 2022 is anticipated to include 63 new residential units (156 new residents), which would require 7,800 additional gallons of water per day, and 52,000 SF of new commercial/industrial development, which will require 4,000 gallons of water per day. In total, all new development proposed for the Inland Area will result in 12,000 additional gallons of demand, a 1.9% overall increase in water demand. The City currently has sufficient water supply and storage to meet an 8% increase in water demand and could accommodate the additional growth in the Inland Area without developing additional water storage. Additionally, since the completion of the Summers Lane Reservoir with approximately 45 AF of water storage capacity, the City can accommodate approximately a 20% growth in water demand. All new development is required to pay its fair share of the water system infrastructure and future capital improvements through the Water Capacity Charge. Additionally, the proposed Project would be required to comply with the Model Water Efficiency Landscaping Ordinance, which contains regulations for the landscaping and irrigation.

INFRASTRUCTURE NEEDS OR DEFICIENCIES

The aging infrastructure of the water system and the reliability of the water collection conduits are the primary factors influencing the City's ability to provide water services to customers. The improvement projects identified in the City's 1986 Water System Study and Master Plan have been addressed. The City plans for capital projects through the rolling five-year Capital Improvement Program (CIP) as part of the annual budget development process.

REGULATORY SETTING

Safe Drinking Water Act

The federal Safe Drinking Water Act as passed in 1947 and amended in 1986 and 1996. It is the Country's primary law regulating drinking water quality and in implemented by the United States Environmental Protection Agency (US EPA). The Safe Drinking Water Act authorizes the US EPA to set national health-based standards for drinking water and requires actions to protect drinking water and its sources. Additionally, it provides for treatment, monitoring, sampling, analytical methods, reporting, and public information requirements. Implementation of the Act, in California, is under the jurisdiction of the California Department of Public Health (CDPH), Division of Drinking Water and Environmental Management. Drinking Water regulations are set forth in the California Code of Regulations (CCR), Titles 7 and 22.

Senate Bill (SB) 610

Senate Bill (SB) 610 was adopted in 2001 and reflects the growing awareness of the need to incorporate water supply and demand analysis at the earliest possible stage in the land use planning process. SB 610 amended the statutes of the Urban Water Management Planning Act, as well as the California Water Code Section 10910 et seq. The foundation document for compliance with SB 610 is the Urban Water Management Plan (UWMP), which provides an important source of information for cities and counties as they update their general plans. Likewise, planning documents such as general plans and specific plans form the basis for the demand information contained in an UWMP, as well as a Water Supply Assessment required under SB 610.

In addition, SB 610 requires the preparation of a Water Supply Assessment if a project meets the definition of a "Project" under Water Code Section 10912 (a). The code defines a "Project" as meeting any of the following criteria:

1. A proposed residential development of more than 500 dwelling units;
2. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
3. A commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
4. A hotel or motel with more than 500 rooms;
5. A proposed industrial, manufacturing, or processing plant, or industrial park, planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
6. A mixed-use project that includes one or more of these elements; or
7. A project creating the equivalent demand of 500 residential units.

Alternately, if a public water system has less than 5,000 service connections, the definition of a "Project" includes any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of service connections for the public water system. Fort Bragg has less than 5,000 connections.

Water Code Section 10910 (c)(4) states "If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses."

Water supply planning under SB 610 requires reviewing and identifying adequate available water supplies necessary to meet the demand generated by a project, as well as the cumulative demand for the general region over the next 20 years, under a broad range of water conditions. This information is typically found in the current UWMP for the project area. SB 610 requires the identification of the public water supplier for a project.

Based on the following assumptions, SB 610 does not apply to the proposed Project:

1. The proposed Project, a commercial building having 16,157 of floor space, does not meet the definition of a "Project" as specified in Water Code section 10912(a) paragraph (3) as defined for commercial development.

Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act was established to ensure that adequate water supplies are available for future uses. To promote the conservation and efficient use of water, the Water Conservation in Landscaping Act requires local agencies to adopt a water efficient landscape ordinance. When such an ordinance has not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary, must be adopted. In the absence of such an ordinance or findings, the policies and requirements contained in the "model" ordinance drafted by the State of California shall apply within the affected jurisdiction.

Model Water Efficient Landscape Ordinance

New development and retrofitted landscape water efficiency standards are governed by the Model Water Efficient Landscape Ordinance (MWELO). The MWELO is also referenced by Title 24, Part 11 CalGreen Building Code. All local agencies must adopt, implement, and enforce the MWELO or a local Water Efficient Landscape Ordinance (WELO) that is at least as effective as the MWELO. Usually, local agencies that adopt WELOs create a more stringent ordinance than MWELO.

The purpose of water efficient landscape ordinances is to not only increase water efficiency but to improve environmental conditions in the built environment. Landscaping should be valued beyond the esthetic because landscapes replace habitat lost to development and provide many other related benefits such as improvements to public health and quality of life, climate change mitigation, energy and materials conservation and increased property values.

City of Fort Bragg General Plan

The Fort Bragg Coastal General Plan includes several goals and policies that are relevant to public facilities. General Plan policies applicable to the proposed Project are identified below:

PUBLIC FACILITIES ELEMENT

Goal PF-1: Ensure that new development is served by adequate public services and infrastructure.

Policy PF-1.1. All new development proposals shall be reviewed and conditioned to ensure that adequate public services and infrastructure can be provided to the development without substantially reducing the services provided to existing residents and businesses.

***Policy PF-1.2*.** No permit for development shall be approved unless it can be demonstrated that such development will be served upon completion with adequate services, including but not limited to potable water; wastewater collection, treatment and disposal; storm drainage; fire and emergency medical response; police protection; transportation; schools; and solid waste collection and disposal; as applicable to the proposed development.

a. Demonstration of adequate water and sewer facilities shall include evidence that adequate capacity will be available within the system to serve the development and all other known and foreseeable development the system is committed to serving, and that the municipal system will provide such service for the development;
b. Demonstration of adequate road facilities shall include information demonstrating that (i) access roads connecting to a public street can be developed in locations and in a manner consistent with LCP policies; and (ii) that the traffic generated by the proposed development, and all other known and foreseeable development, will not cause Levels of Service (LOS) of roads, streets, and intersections within the City to reduce below LOS standards contained in Policy C-1.1 of the Circulation Element of the Coastal General Plan.

Policy PF-1.3. Ensure Adequate Service Capacity for Priority Uses.

a. New development that increases demand for new services by more than one equivalent dwelling unit (EDU) shall only be permitted in the Coastal Zone if,

    - Adequate services do or will exist to serve the proposed development upon completion of the proposed development, and
    - Adequate services capacity would be retained to accommodate existing, authorized, and probable priority uses upon completion. Such priority uses include, but are not limited to, coastal dependent industrial (including commercial fishing facilities), visitor serving, and recreational uses in commercial, industrial, parks and recreation, and public facilities districts.

Probable priority uses are those that do not require an LCP amendment or zoning variance in the Coastal Zone.

b. Prior to approval of a coastal development permit, the Planning Commission or City Council shall make the finding that these criteria have been met. Such findings shall be based on evidence that adequate service capacity remains to accommodate the existing, authorized, and probable priority uses identified above.

Goal PF-2: Assure that the City's infrastructure is maintained and expanded to meet the needs of the City's residents.

Policy PF-2.1. Require that new development pay its share of capital improvements and the cost of public services to maintain adequate levels of service.

Policy PF-2.2. Develop long-term solutions regarding the supply, storage, and distribution of potable water and develop additional supplies. In addition to providing capacity for potential build-out under the City General Plan outside the coastal zone, any expansion of capacity of water facilities shall be designed to serve no more than the maximum level of development in the coastal zone allowed by the certified LCP that is consistent with all other policies of the LCP and Coastal General Plan. The City shall identify and implement water system improvements or changes in service areas that are designed to ensure adequate service capacity to accommodate existing, authorized, and projected probable future coastal dependent priority uses. Such uses include, but are not limited to, industrial (including commercial fishing facilities), visitor serving, and recreational priority uses in commercial, industrial, parks and recreation, and public facilities districts.

Policy PF-2.4. Maintain the safety of the water supply.

City of Fort Bragg Municipal Code

The following chapters of the Fort Bragg Municipal Code relate to water service.

CHAPTER 11.28 WATER DEPARTMENT AND REGULATIONS

This chapter establishes the Water Department, water rates, and the standards and regulations for the operation of water service within Fort Bragg.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with Utilities if it would:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or

- Have insufficient water supplies available to serve the Project from existing entitlements and resources, or if new or expanded entitlements are needed.

IMPACTS AND MITIGATION MEASURES

Impact 3.8-4: The proposed Project will require or result in the construction of new water treatment or collection facilities, but the construction of them will not cause significant environmental effects. (Less than Significant)

Water service would be provided to the Project site by the City of Fort Bragg. There are currently on-site utility connections; however, the recorded use of the building was for office space and the proposed use is retail grocery, which means water capacity fees would be associated with the proposed increase in use. The existing water connection on South Street includes a 6-inch fire service line and is proposed to be the main water service to the building, with a new 6-inch fire connection to be constructed to the east of the existing connection. A total of three (3) fire hydrants with valve lines are proposed for fire suppression on the Project site. There is one existing hydrant that will be relocated and two new ones are being added with the project.

The City's water storage capacity as shown on Table 3.8-3 is 17.93 million gallons, and operational treated water storage requirement is 3.3 million gallons. The City has water appropriations of 741 million gallons as shown on Table 3.8-2. The City currently has sufficient water supply and storage to meet an 8% increase in water demand and could accommodate the additional growth without developing additional water storage. Additionally, since the completion of the Summers Lane Reservoir with approximately 45 AF of water storage capacity, the City can accommodate approximately a 20% growth in water demand. The City will not need to expand water appropriations, storage, or treatment capacity to serve the proposed Project. The proposed Project is required to pay its fair share of the water system infrastructure and future capital improvements through the Water Capacity Fee. All water distribution will be supplied by an underground distribution system to be installed per the City of Fort Bragg standards and specifications. The potential environmental effects of the construction of the water infrastructure are discussed throughout this Draft EIR.

Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.8-5: The proposed Project would have sufficient water supplies available to serve the Project (including all phases of the Project) from existing entitlements and resources. (Less than Significant)

Water service would be provided to the proposed Project by the City of Fort Bragg. As stated above, the City's water storage capacity is 17.93 million gallons, the operational treated water storage requirement of 3.3 million gallons, and the City has water appropriations of 741 million gallons.

The City supplies treated potable water at a rate of approximately 78 gallons/1,000 square-feet (SF) of commercial space. The proposed Project is estimated to demand 1,288 gallons per day utilizing this average rate. The rates identified in the *1986 Water System Study and Master Plan* were slightly higher, showing a rate of 1,656 gallons per day/gross acre of commercial. Utilizing this higher rate, the proposed Project could demand 2,699 gallons per day. However, this water demand is likely an overestimation as the proposed Project would not have onsite food preparation or processing as all food arrives pre-packaged. For these reasons, this is considered a conservative estimate. The City has adequate capacity in their appropriations, storage, and treatment ability to serve the additional demand under either water demand rate.

As described earlier, Water supply analyses within the Municipal Service Review and Sphere of Influence Update indicate that the City has sufficient water supply to serve the projected buildout of the City of Fort Bragg as currently zoned within the existing City Limits through 2040. An amendment to the existing zoning or General Plan land use designation is not proposed for the proposed Project and therefore is consistent with the water supply analysis of the City of Fort Bragg Municipal Service Review.

Water bills from comparable Grocery Outlet stores in Northern California were also reviewed to estimate the proposed Project water demand. The average Grocery Outlet Store uses 300 to 450 gallons of water per day (109,500 to 164,250 gallons per year) in both domestic water for the store and irrigation water for the landscaping. The Grocery Outlet store average use is considerably lower than was estimated using the average commercial space rate.

The water supply for the proposed Project will have the same water supply reliability and water quality as the water supply available to each of the City's other existing and future water customers. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

3.8.3 STORM WATER

WATERSHEDS

Pudding Creek-Frontal Pacific Ocean Watershed

The majority of Fort Bragg is located in the Pudding Creek-Frontal Pacific watershed, which drains directly to the Pacific Ocean and has an elevation range from average mean sea level at the mouth of the creek to 1,600 feet in the headwater areas. This watershed is located north of the Noyo River watershed and consists of a distinct drainage basin. Pudding Creek is a second-order stream and has approximately 14.3 miles of blue line stream according to the USGS Fort Bragg 7.5-minute quadrangle. The distinct drainage basin pool depths are at least two feet in depth in first and second order streams and at least three feet in depth in third and fourth order streams. Streambeds with greater depths are favorable to salmonid populations specifically due to the presence of large woody debris (LWD). The canopy cover along the coastal streams mainly consists of coniferous trees that provide shade year-round.

Noyo River Watershed

A small part of Fort Bragg is located in the Noyo River watershed, which is primarily used for timber production. The terrain includes elevations that range from sea level at the mouth of the Noyo River to 2,850 feet at the headwaters in the eastern portion of the watershed. The Noyo River supports an anadromous fishery including: steelhead trout, Coho salmon, and Chinook salmon. Turbidity levels in the river remain elevated after the cessation of rain.

ENVIRONMENTAL SETTING

The dominant physiographic features of Fort Bragg are the Noyo River on the south side, Pudding Creek on the north side, and the Pacific Ocean on the west side. The majority of the City lies between the two rivers, with only small areas extending beyond the rivers along California State Highway 1. The City is largely low density in character with a central downtown commercial and business district surrounded largely by residential lands.

The main portion of the City lies on a gradually sloping plain which drains west toward the Pacific Ocean. Areas of the City along the Noyo River, Pudding Creek, and the Pacific Ocean contain sharp elevation drops, forming steep undeveloped cliffs. There are areas within the City limits that are subject to flooding during severe storm events. Since the terrain of Fort Bragg is generally flat, a 100-year storm may exceed the capacity of the storm drain system to move runoff water to outfalls into natural drainages and the Pacific Ocean. Such an event may result in localized flooding and standing water in low areas.

The primary natural waterways in Fort Bragg, the Noyo River and Pudding Creek, are primarily in their natural, unchannelized state. Alder Creek, which historically drained the central Fort Bragg area, was altered in the late 1800's and early 1900's, and now flows in a closed conduit system beginning at the intersection of Oak Street and Whipple Street and draining to the Georgia-Pacific log pond. In the rural areas, the storm drainage system consists largely of roadside ditches and

culverts. The City's stormwater flows by gravity to seven discharge points on Pudding Creek, 10 discharge points on the Noyo River, and three ocean outfalls.

The City's storm drainage system consists of open channels, storm drains, closed conduits, detention basins, and pumping facilities that are owned, operated, and maintained by the City. The storm drainage piping is primarily reinforced concrete pipe (RCP) and asbestos-cement pipe (ACP) with diameters ranging from 8" to 54". Since the mid-1980's, several subdivisions have been constructed with storm drains consisting of RCP, corrugated metal pipe (CMP), and high-density poly-ethylene (HDPE) pipe with diameters ranging from 12 to 30 inches.

REGULATORY SETTING

Clean Water Act

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e);
- Issue permits "for the discharge of dredged or fill material into the navigable waters at specified disposal sites": subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas": subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such State or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r);
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s); and
- Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

The California State Water Resources Control Board and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. In the Fort Bragg Planning Area, the North Coast RWQCB is responsible for protecting surface and groundwater from both point and non-point sources of pollution. Water

quality objectives for all of the water bodies within the Fort Bragg Planning Area were established by the RWQCB and are listed in its the Water Quality Control Plan for the North Coast Region (discussed below).

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and its implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti- degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB under the CWA are also Waste Discharge Requirements issued under the authority of the state Porter-Cologne Water Quality Control Act (see below).

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. To expedite the permit issuance process, the SWRCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the North Coast Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

A new Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the State Water Resources Control Board on February 20, 2020 and became effective April 1, 2020. The Permit has numerous new components and the City is required to implement these components in stages over the five year period of the Permit.

Federal Emergency Management Agency

Mendocino County is a participant in the National Flood Insurance Program (NFIP), a Federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations.

Department of Water Resources

The Department of Water Resources' (DWR) major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring waterways, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

> (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:
>
> > (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
> >
> > (2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the

state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Water Quality Control Plan for the North Coast Region

The Water Quality Control Plan for the North Coast Region includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Water Quality Control Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Water Quality Control Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

City of Fort Bragg General Plan

The Fort Bragg Coastal General Plan includes several goals and policies that are relevant to public facilities. General Plan policies applicable to the proposed Project are identified below:

PUBLIC FACILITIES ELEMENT

Goal PF-1: Ensure that new development is served by adequate public services and infrastructure.

***Policy PF-1.1*.** All new development proposals shall be reviewed and conditioned to ensure that adequate public services and infrastructure can be provided to the development without substantially reducing the services provided to existing residents and businesses.

Goal PF-2: Assure that the City's infrastructure is maintained and expanded to meet the needs of the City's residents.

Policy PF-2.6. Annually review storm drain system capacity and expansion plans.

Policy PF-2.1. require that new development pays its share of capital improvements and the cost of public services to maintain adequate levels of service.

City of Fort Bragg Municipal Code

The following chapters of the Fort Bragg Municipal Code relate to stormwater and drainage.

CHAPTER 15.32 FLOODPLAIN MANAGEMENT

This chapter addresses floodplain regulations and requirements for new development and construction within Flood Hazard Areas delineated by Flood Insurance Rate Maps published by FEMA.

CHAPTER 12.14 DRAINAGE FACILITY IMPROVEMENTS AND DRAINAGE FEES

This chapter addresses the standards and operations of storm drainage improvements by incorporation of Low Impact Development (LID) strategies that minimize impermeable areas, maximize permeable areas, and that slow, spread, and sink runoff so as to recharge groundwater and minimize runoff.

CHAPTER 14.16 SANITARY CODE

This chapter addresses City requirements for stormwater management and discharge control, including controlling non-stormwater discharges to the stormwater conveyance system, eliminating discharges to the stormwater conveyance system from spills, dumping or disposal of materials other than stormwater, reducing pollutants in urban stormwater discharges to the maximum extent practicable.

City of Fort Bragg Storm Drainage Master Plan

The purpose of the Storm Drainage Master Plan is to provide a detailed overview of the adequacy of the major storm drainage facilities serving the City. The Storm Drainage Master Plan provides the following review and update of the hydrology and hydraulics of the watershed:

- A comprehensive description and mapping of the City's storm drain system and facilities;
- Update of the City's Utility Map that shows the locations of existing public storm drains and facilities, size of pipelines, and pipe material in electronic format;
- An assessment of the capacity of the existing creeks, channels, culverts and closed conduits having diameters 12 inches and larger;
- Identification of existing and future system deficiencies;
- Recommendations on upgrades required;
- Opinion of the probable cost of these upgrades, and financing options;
- A creek and channel maintenance program.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with Utilities if it would:

1. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

IMPACTS AND MITIGATION MEASURES

Impact 3.8-6: The proposed Project will require or result in the construction of new storm water drainage facilities, but the construction of them will not cause significant environmental effects. (Less than Significant)

Flooding events can result in damage to structures, injury or loss of human and animal life, exposure of waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater. The Project site is not located within the 100 or 200-year floodplain as delineated on the most recent flood plain maps for Fort Bragg.

As the topography of the Project site is relatively flat, stormwater typically infiltrates in the undeveloped portion of the Project site or flows to the northwest and southwest towards the neighboring property, in the developed portion of the Project site. The nearest bodies of water are the Noyo River, which is located approximately 600 feet south of the Project site, and the Pacific Ocean, which is located approximately 1,200 feet west of the Project site. Regional drainage is controlled by the Noyo River. Frontage improvements including curbs, gutters, and sidewalks, will be located on South Street, S. Franklin Street, and N. Harbor Street.

Drainage improvements proposed to be developed as part of the proposed Project include post-construction BMPs, which include bioretention facilities sized to capture and treat runoff from the proposed impervious surfaces produced by the 24-hour 85th percentile rain event and landscaped areas throughout the Project site to encourage natural stormwater infiltration. The proposed Project additionally includes the construction of pedestrian facilities, including curbs, gutters, and sidewalks along the north, south, and east side of the Project site. Off-site improvements, such as sidewalk, curbs and gutters, would be required to convey flows from the post-construction BMPs at the Project site to the existing Caltrans stormwater drainage system located west of the Project site on State Highway 1, which does not currently exist in the vicinity of the Project site. Figure 2.0-8. Shows the proposed Preliminary Storm Water Management Plan for the Project site.

Installation of the proposed Project's storm drainage system will be subject to current City of Fort Bragg Design Specifications and Standards. The proposed storm drainage collection and detention system will be subject to the SWRCB and City of Fort Bragg regulations, including: Fort Bragg Storm Drain Master Plan, 2004; Phase II, NPDES Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines.

The proposed stormwater and drainage improvements would be located within the footprint of the Project site. The impacts associated with development of the Project site have been analyzed throughout this EIR. All impacts were found to be less-than-significant or less-than-significant with mitigation.

There are a variety of state and federal regulations already in place that require obtaining permits, preparing Storm Water Pollution Prevention Plans, and implementing Best Management Practices during construction to manage construction related storm water. The Project applicant will be required to comply with existing regulations and obtain necessary permits.

About half of the Project site is currently impervious from the existing paved surface and building. The other half of the Project site is currently pervious and would need storm drainage control. The following mitigation measure requires the Project applicant to install storm drainage infrastructure that meets standards and specifications of the City of Fort Bragg. Prior to the issuance of a building or grading permit, the Project applicant would be required to submit a drainage plan to the City of Fort Bragg for review and approval. The plan would be an engineered storm drainage plan that calculates the runoff volume and describes the volume reduction measures, if needed, and treatment controls used to reach attainment consistent with the Fort Bragg Storm Drain Master Plan and City of Fort Bragg Design Specifications and Standards. Overall, drainage impacts would be reduced to ***less than significant***.

3.8.4 SOLID WASTE

ENVIRONMENTAL SETTING

Redwood Waste Solutions provides weekly curbside residential and commercial garbage, recycling, and green waste collection within the City of Fort Bragg. Waste collected by Redwood Waste Solutions is taken to a transfer station in Willits for processing and transport. The waste is then disposed of at the Potrero Hills Landfill.

According to the California Department of Resources Recycling and Recovery (CalRecycle), in 2020, Fort Bragg disposed of approximately 4,121 tons of solid waste. CalRecycle provides an average per-capita solid waste disposal rate for residents and business. In Fort Bragg, CalRecycle identified solid waste disposal rates of 3.0 tons per resident per day and 5.9 tons per employee per day in 2020 (CalRecycle Jurisdiction Diversion/Disposal Rate Summary, 2020).

Redwood Waste Solutions Inc. also provides recycling services to city residents and businesses. Redwood Waste Solutions Inc. provides curbside residential collection of recyclable materials. Acceptable materials include glass containers, all plastics, tin and aluminum cans, plastic milk cartons, newsprint, boxboard, corrugated cardboard, bond paper and magazines. Residents may also recycle some materials at buy-back centers. Special recycling programs include a medical waste disposal, fluorescent light and mercury recycling, and organic farming and mulch recycling programs.

REGULATORY SETTING

California's Integrated Waste Management Act of 1989 (AB 939)

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. In order to achieve this goal, AB 939 requires that each City and County prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 939 also established requirements for cities and counties to develop and implement plans for the safe management of household hazardous wastes. In order to achieve this goal, AB 939 requires that each city and county prepare and submit a Household Hazardous Waste Element.

75 Percent Solid Waste Diversion

AB 341 requires CalRecycle to issue a report to the Legislature that includes strategies and recommendations that would enable the state to recycle 75 percent of the solid waste generated in the state by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by July 1, 2012, and also streamlines various regulatory processes.

Construction and Demolition Waste Materials Diversion

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the California Integrated Waste Management Board (CIWMB, which is now CalRecycle) to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

California Green Building Standards Code (CALGreen)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects (CALGreen Section 5.713).

California Organic Waste Regulations (SB 1383)

SB 1383 was adopted to reduce organics waste landfill disposal by 75% (from 2014 levels) by 2025. This means diverting more than 20 million tons from landfills. The legislation aims to slow climate change by diverting organic materials from landfills, recovering 20% of edible food and redirecting it to food-insecure Californians.

Beginning January 1, 2022, residences and businesses are required to sort and separately collect food scraps, yard debris and food-soiled paper from trash and recycling and subscribe to an organic waste collection service.

City of Fort Bragg General Plan

The Fort Bragg Coastal General Plan includes several goals and policies that are relevant to public facilities. General Plan policies applicable to the proposed Project are identified below:

PUBLIC FACILITIES ELEMENT

Goal OS-8: Reduce, recycle, and reuse solid waste generated in the City.

> ***Policy OS-8.1.*** Comply with State requirements to reduce the volume of solid waste through recycling and reduction of solid waste.

Goal PF-8: Ensure that new development is served by adequate public services and infrastructure.

> ***Policy PF-1.1.*** All new development proposals shall be reviewed and conditioned to ensure that adequate public services and infrastructure can be provided to the development without substantially reducing the services provided to existing residents and businesses.
>
> ***Policy PF-1.2***. No permit for development shall be approved unless it can be demonstrated that such development will be served upon completion with adequate services, including but not limited to potable water; wastewater collection, treatment and disposal; storm drainage; fire and emergency medical response; police protection; transportation; schools; and solid waste collection and disposal; as applicable to the proposed development.

City of Fort Bragg Municipal Code, Chapter 6.08

Chapter 6.08 of the Municipal Code regulates the collection, transportation, and disposal of refuse and solid waste of all kinds, and the collection, transfer and recovery of recyclable and yard waste material in order to promote community welfare, convenience, health, and safety.

City of Fort Bragg Municipal Code, Chapter 15.34

Chapter 15.34 of the Municipal Code regulates the disposal of discarded materials generally considered to be not water soluble and non-hazardous in nature as part of a construction or demolition project or from the renovation of a structure within the city.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with Utilities if it will:

1. Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs.
2. Comply with federal, State, and local statutes and regulations related to solid waste.

IMPACTS AND MITIGATION MEASURES

Impact 3.8-7: The proposed Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, and would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals (Less than Significant)

Redwood Waste Solutions would provide solid waste collection services to the Project site, where solid waste would be collected from a trash bin enclosure to be installed in the western portion of the Project site. Solid waste is taken to the Potrero Hills Landfill. The addition of the volume of solid waste associated with the proposed Project is estimated to be 50.4 pounds per day using a Supermarket rate from CalRecycle of 3.12lbs/1,000sf/day (Table 3.8-6).

TABLE 3.8-6: ESTIMATED SOLID WASTE GENERATION

LAND USE	*GENERATION FACTOR (1)*	*PROJECT*	*ESTIMATED SOLID WASTE (LBS/DAY)*
Supermarket	3.12 lb./1,000 s.f./day	16,157 s.f.	50.4

(1) CalRecycle 2019

The proposed Project is not anticipated to be a significant generator of solid waste. All solid waste generated under the proposed Project would be disposed of in accordance with all federal, state, and local statutes and regulations related to solid waste including state and local waste diversion requirements. As noted above, the proposed Project would be served by Redwood Waste Solutions, located within the City of Fort Bragg. The additional solid waste would not cause an exceedance of the landfill's maximum permitted throughput of 4,330 tons per day.

Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

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The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) to evaluate a project's effects in relationship to broader changes occurring, or that are reasonably foreseeable to occur, in the surrounding environment. Accordingly, this chapter presents a discussion of CEQA-mandated analysis for cumulative impacts, significant irreversible effects, and significant and unavoidable impacts associated with the proposed Project.

4.1 CUMULATIVE SETTING AND IMPACT ANALYSIS

INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed Project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" is defined in CEQA Guidelines section 15065(a)(3) as means that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (as described in Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

> *…the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,

(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

CUMULATIVE SETTING

The cumulative setting uses growth projections listed in Department of Finance statistics. Table 4.0-1 shows growth projections for the State and County.

TABLE 4.0-1: GROWTH PROJECTIONS

CALENDAR YEAR	*ESTIMATED POPULATION (MENDOCINO COUNTY)*	*ESTIMATED POPULATION (CALIFORNIA)*
2020	87,491	40,619,346
2025	88,746	42,373,301
2030	89,232	44,085,600
2035	89,106	45,747,645
2040	88,205	47,233,240

SOURCE: DEPARTMENT OF FINANCE (2019).

CUMULATIVE EFFECTS OF THE PROJECT

Cumulative settings are identified under each cumulative impact analysis. Cumulative settings vary because the area that the impact may affect is different. For example, noise impacts generally only impact the local surrounding area because noise travels a relatively short distance while air quality impacts affect the whole air basin as wind currents control air flow and are not generally affected by natural or manmade barriers which would affect noise. Cumulative Project impacts are addressed and summarized below.

Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. State CEQA Guidelines 15130 requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is: the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a

period of time (State CEQA Guidelines 15355[b]). Cumulative impact analysis may be less detailed than the analysis of the project's individual effects (State CEQA Guidelines 15130[b]).

There are two approaches to identifying cumulative projects and the associated impacts. The list approach identifies individual projects known to be occurring or proposed in the surrounding area in order to identify potential cumulative impacts. The projection approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. This EIR uses the projection approach for the cumulative analysis.

Project Assumptions

The proposed Project's contribution to environmental impacts under cumulative conditions is based on full buildout of the Project site. See Chapter 2.0, Project Description, for a complete description of the proposed Project.

Cumulative Impacts

Some cumulative impacts for issue areas are not quantifiable and are therefore discussed in general terms as they pertain to development patterns in the surrounding region. Exceptions to this are traffic, utilities, noise and air quality (the latter two of which are associated with traffic volumes), which may be quantified by estimating future traffic patterns, pollutant emitters, etc. and determining the combined effects that may result. In consideration of the cumulative scenario described above, the proposed Project may result in the following cumulative impacts.

AESTHETICS AND VISUAL RESOURCES

The cumulative setting for aesthetics impacts is the City of Fort Bragg and surrounding areas of Mendocino County.

Impact 4.1: Cumulative Impact on Aesthetics and Visual Resources (Less than Significant and Less than Cumulatively Considerable)

The Project would not have a substantial adverse effect on a scenic vista. The proposed Project would be located on city streets and not along any highway. Neither of the two highways near the Project site, State Highway 1 and State Highway 20, are state scenic highways. Per Caltrans Scenic Highway System Lists, State Highway 1 and State Highway 20 are eligible state scenic highways, although they have not been designated as scenic (Caltrans, 2019). Additionally, the proposed Project would be separated from State Highway 1 by an existing hotel and gas station. Although the proposed Project would likely be visible from State Highway 1, it would only be visible behind the existing commercial development. This view is east of State Highway 1 and away from the Pacific Ocean. In addition, the existing vacant former office building slated to be demolished is not listed on any local, state, or federal historic list or registry, as it was constructed sometime between 1996 and 1998 as indicated in the Cultural Survey, prepared by Genesis Society, dated August 15, 2019.

The proposed Project is not located in an area designated as having "potential scenic views toward the ocean or the Noyo River". The proposed retail store would occupy a location similar to that of

the existing structure on the northern portion of the Project site, where views looking to the west toward the Pacific Ocean are blocked by the existing hotel, west of the Project site. Views to the Project site are currently dominated by the existing former office building and associated parking lot, which has been vacant since 2010. The southern portion of the Project site is partially bare, with vegetation consisting of grasses and forbs, with scattered shrubs. Existing views to the Project site are not characterized as scenic; therefore, the proposed Project is not anticipated to substantially degrade the existing visual character or quality of the public views of the Project site and its surroundings, as the height of the proposed retail store would be consistent with the Project site's existing development and would comply with all required development standards, including maximum building height. Although the Project site is located on urban and built-up land per the California Department of Conservation, the Project is not located in an "urbanized area," as defined by either Public Resources Code section 21071 or CEQA Guidelines section 15387.

To minimize potential impacts associated with light and glare on surrounding development, the proposed Project includes exterior lighting that would utilize energy-efficient fixtures and lamps, shielded or recessed, and directed downward in compliance with regulations set by the International Dark-Sky Association. Outdoor lighting would be installed in conformance with all City codes and ordinances, applicable safety and illumination requirements, and California Title 24 requirements. Additionally, the Project would be subject to the 2022 Citywide Design Guidelines, which contain standards for lighting. Further, according to the Site Lighting Layout and associated illuminance analysis, proposed lighting would not penetrate into residential communities or adjacent properties. Through the design review and approval process, lighting proposed for the Project site would be reviewed to ensure spillover lighting onto adjacent properties would be minimized.

Vehicle parking would occur along the perimeter of the Project site and could create new sources of glare. However, parked vehicles within the Project site would be screened from view by the proposed landscaping, proposed building, and existing adjacent building to the west of the site. Thus, significant impacts from the potential glare from parked vehicles within the site are not anticipated.

Cumulative development in the City would not impact a Designated Scenic Highway. Additionally, future projects within the County would be subject to the light and glare standards and site design established by the individual jurisdictions. These regulations are designed to minimize potential light and glare impacts of new development and ensure development is compatible with the visual character of the area. Implementation of these regulations would ensure that future projects minimize their potential aesthetic-related impacts, resulting in a ***less than significant*** cumulative impact relative to this environmental topic. For these reasons, cumulative impacts on aesthetics are less than significant, and the proposed Project's impact is ***less than cumulatively considerable.*** No mitigation is required.

AGRICULTURAL AND FOREST RESOURCES

The cumulative setting for agricultural and forest resources impacts is the City of Fort Bragg.

Impact 4.2: Cumulative Impact on Agriculture and Forest Resources (Less than Significant and Less than Cumulatively Considerable)

As described in Section II, Agriculture and Forestry Resources of the Initial Study, the proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, conflict with existing zoning for agricultural use, or a Williamson Act contract. The Project site is designated as "Urban and Built-Up Land" under the Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation (DOC) and is located within the City of Fort Bragg in an urban built-up environment. Because the proposed Project only includes redevelopment of the Project site within an urban area of the City designated for urban uses, the Project has no potential to convert any off-site agricultural land, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

The Project site is not zoned for agricultural use nor is it under a Williamson Act contract. The proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

The Project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland.

For these reasons, cumulative impacts on agriculture and forestry resources would be ***less than significant*** and would have a ***less than cumulatively considerable*** contribution.

AIR QUALITY

The cumulative setting for air quality impacts is the North Coast Air Basin (NCAB), which includes Del Norte, Humboldt, Trinity, Mendocino, and northern Sonoma counties. Mendocino County lies entirely within the Coast Range Geomorphic Province of California with a western limit marked by the Pacific Ocean. The province is characterized by a series of northwest-trending mountain ranges and intervening canyons or valleys. The eastern portion of Mendocino County is characterized by warm, dry summers and cool, wet winters.

Impact 4.3: Cumulative Impact on the Region's Air Quality (Less than Significant and Less than Cumulatively Considerable)

As described in Section 3.1, Mendocino County has a State designation Attainment or Unclassified for all criteria pollutants except for particulate matter of 10 microns or less in size (PM_{10}). Mendocino County has a national designation of either Unclassified or Attainment for all criteria pollutants. Table 3.1-2 presents the state and nation attainment status for Mendocino County.

Air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment or nonattainment designations under the NAAQS and

CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. Emissions generated by the Project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations, could lead to increased incidence of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions. As such, a project's incremental contribution cannot be traced to specific health outcomes on a regional scale without speculation, and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis. This is particularly true for a project as small as the proposed Project.

As discussed under Impact 3.1-1 in Section 3.1, the proposed Project would result in increased emissions primarily from vehicle miles travelled associated with Project implementation. Specifically, the proposed Project is anticipated to lead to a slight increase in existing VMT. The relevant Mendocino County Air Quality Management District (MCAQMD) CEQA operations-related criteria-pollutant emissions thresholds of significance are as follows: 54 pounds per day of oxides of nitrogen (NOx), 54 pounds per day of reactive organic gases (ROG), 82 pounds per day of PM_{10}, 54 pounds per year of particulate matter of 2.5 microns or less in size ($PM_{2.5}$); 10 tons per year of NOx, 10 tons per year of ROG, 10 tons per year of PM10, and 10 tons per year of PM2.5. Moreover, the MCAQMD has issued clarification (in a December 2013 Advisory) that MCAQMD's indirect and permitting rules allow 125 tons per year of CO. The MCAQMD's criteria-pollutant emissions thresholds of significance were specifically developed to identify projects that would generate a cumulative impact related to criteria pollutant emissions. Those projects that would exceed the MCAQMD's criteria-pollutant emissions thresholds of significance are therefore assumed to generate a cumulative impact on the region's air quality, while those projects that would generate emissions below the MCAQMD's criteria-pollutant emissions thresholds of significance would not have a significant air quality impact.

As shown in Table 3.1-8 in Section 3.1, operational emissions would not exceed any of the applicable criteria pollutant thresholds. Additionally, as shown in Table 3.1-9 in Section 3.1, the proposed Project does not exceed the applicable thresholds of significance for construction criteria pollutants.

Further, the proposed Project is located in an area that is designated attainment and attainment-unclassified for carbon monoxide. Substantial concentrations of carbon monoxide are not expected at or along any streets or intersections affected by the development of the proposed Project, with or without development of the Project. Specifically, several factors combine to make substantial concentrations of carbon monoxide unlikely. Existing physical constraints such as high-density, high-profile buildings or other obstructions that could prevent dispersion of carbon monoxide are largely absent. Predominant weather conditions in the area include air movement

that would help facilitate carbon monoxide dispersion. Congested traffic conditions that otherwise could result in concentration of carbon monoxide would be of short duration. Further, under existing regulatory and legislative mandates, emissions volumes from all vehicle classes will continue to decline. Given these factors, substantial concentrations of carbon monoxide are not expected at or along any affected roadways or intersections.

Commercial use of the site anticipated with buildout of the Project is generally consistent with growth projections assumed in the Fort Bragg Coastal General Plan for the same time horizon. The proposed Project, as well as future projects in the City and County, will be subject to the requirements of the MCAQMD, including but not limited to:

- Rule 1-400(a) Public Nuisance – This is a general requirement that is applicable to odors as well as other air contaminants. Specifically, the rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or that endanger the comfort, repose, health or safety of any such persons or the public or that cause or have a natural tendency to cause injury or damage to business or property.

- Rule 1-410 Visible Emissions – This applies to any source at the facility and limits visible emissions to no more than 20-percent opacity for more than a 3-minute period in any 1 hour.

- Rule 1-420 Particulate Matter – This rule imposes particulate matter emission rate limitations and is applicable to combustion and non-combustion sources. Combustion sources do not include mobile sources. The Proposed Project will have both combustion and non-combustion sources that would be subject to these requirements.

- Rule 1-430 Fugitive Dust Emissions – This rule requires that (a) all reasonable precautions be taken to prevent particulate matter from becoming airborne and (b) specifies airborne dust control measures that would be required. The Project would be subject to these requirements.

For these reasons, cumulative impacts on air quality would be ***less than significant*** and would have a **less *than cumulatively considerable*** contribution.

BIOLOGICAL RESOURCES

The cumulative setting for biological resources includes the Project site and the greater Mendocino County region. Development associated with implementation of the local General Plan(s) would contribute to the ongoing loss of natural lands in Mendocino County. Cumulative development would result in the conversion of existing habitat to urban uses. The local General Plan(s), in addition to regional, State and federal regulations, includes policies and measures that mitigate impacts to biological resources associated with General Plan buildout.

Impact 4.4: Cumulative Loss of Biological Resources Including Habitats and Special Status Species (Less than Significant and Less than Cumulatively Considerable)

Under cumulative conditions, buildout of the General Plan(s) within Mendocino County will result in impacts to biological resources in the cumulative area through new and existing development. The General Plan(s) includes policies that are designed to minimize impacts to the extent feasible.

As described in Section 3.2, Biological Resources, construction in the Project site has the potential to result in impacts to special-status species in the region. Although there has been no documented sighting within the immediate area in, or near the Project site, the Project site provides potential habitat for limited species, including those discussed in Section 3.2. New sources of noise and light during the construction and operational phases of the project could adversely affect nesters if they located adjacent to the Project site in any given year. Additionally, the proposed Project would eliminate the disturbed grass areas on the southern portion of the Project site, which serve as potential low-quality foraging habitat for birds throughout the year. Further, regardless of the absence of bats, or evidence of bats, on the Project site during the site survey, there remains a possibility that bats could establish a roost in the abandoned building in the future.

Mitigation Measure 3.2-1 requires measures to avoid or minimize impacts on other protected bird species that may occur on-site, such as preconstruction surveys and appropriate buffers, if needed. Mitigation Measure 3.2-2 requires a preconstruction bat survey and appropriate exclusion methods, if needed.

As such, impacts to biological resources would be a ***less than significant*** and the project's contribution would be ***less than cumulatively considerable.***

CULTURAL AND TRIBAL CULTURAL RESOURCES

The cumulative setting for land use impacts is the City of Fort Bragg.

Impact 4.5: Cumulative Impact on Cultural and Tribal Cultural Resources (Less than Significant and Less than Cumulatively Considerable)

As described in Section V, Cultural Resources, of the Initial Study, the Cultural Survey (Genesis Society, 2019) found that no historical resources or historic properties have been documented within the Project area. While the proposed Project includes the demolition of an existing building, the existing building is a contemporary (post-1996) commercial building. As a result, no impact would occur. Even so, the proposed Project, along with probably future projects, will be subject to a standard condition of approval requiring that, in the event of the discovery during construction of potential historical resources of an archaeological nature, unique archaeological resources, or tribal cultural resources, work in the affected area will cease until a qualified archaeologist, working with City staff, determines whether, indeed, any such resources are actually present and, if so, formulates and carries out measures for either avoiding them or otherwise treating them.

Additionally, the Project is not anticipated to cause a substantial adverse change in the significance of an archaeological resource or disturb any human remains. As noted above, based on the records

search conducted at the Northwest Information Center (NWIC), the consultation undertaken with the Native American Heritage Commission (NAHC), and the Tribal consultation effort completed by Genesis Society (2019), no unique archaeological resources or prehistoric cultural material was identified in the Project area. The Cultural Survey recommends archaeological clearance for the proposed Project, with the inclusion of general provisions that recommend consultation and protocol in the event of inadvertent discovery. A standard condition of approval to that effect, as discussed above, will be applied to the proposed project and probable future projects. Further, no Tribal Cultural Resources were identified at or near the Project site during the records review and pedestrian survey.

For these reasons, cumulative impacts on cultural and tribal resources would be ***less than significant*** and would have a ***less than cumulatively considerable*** contribution.

GEOLOGY AND SOILS

Impacts related to geology and soils are not inherently cumulative. Geology and soils concerns are related to risks, hazards or development constraints that are largely site-specific. However, seismic hazards are regional, and management of seismic hazards is vested with the local planning and building authority. For these reasons, the potential for cumulative geology and soils impacts are considered in the context of the City of Fort Braff and vicinity.

Impact 4.6: Cumulative Impact on Geology and Soils (Less than Significant and Less than Cumulatively Considerable)

The analysis of impacts associated with existing environmental hazards must be informed by case law relevant to that subject matter. As explained in section 3.6.3, “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project’s future users or residents.” (California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, 377, Italics added.) Rather, “ordinary CEQA analysis is concerned with a project’s impact on the environment, rather than with the environment’s impact on a project and its users or residents.” (Id. at p. 378.) Even so, “when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project’s impact on the environment—and not the environment’s impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” (Id. at pp. 377-378, italics added.)

As described in Section VII, Geology and Soils, of the Initial Study, implementation of the proposed Project has limited potential for liquefaction, liquefaction induced settlement, and lateral spreading. However, mitigation measures provided in Section 3.6 ensure that this impact will be less than significant. While the City is not within an area known for its seismic activity, there will always be a potential for groundshaking caused by seismic activity anywhere in California, including the Specific Plan Area. Seismic activity could come from a known active fault such as the San Joaquin fault, or any number of other faults in the region. In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be

designed in accordance with the latest seismic design standards of the California Building Code. The California Building Code, Title 24, Part 2, Chapter 16 addresses structural design and Chapter 18 addresses soils and foundations. Collectively, these state requirements, which have been adopted by the City of Fort Bragg, include design standards and requirements that are intended to minimize impacts to structures in seismically active areas of California. Section 1613 specifically provides structural design standards for earthquake loads. Section 1803.5.11 and 1803.5.12 provide requirements for geotechnical investigations for structures assigned varying Seismic Design Categories in accordance with Section 1613. The proposed Project and probable future projects in the area would be subject to these requirements.

Geologic and soils impacts tend to be site-specific and Project-specific. Implementation of the proposed Project would not result in increased risks or hazards related to geologic conditions in the cumulative setting area, nor would it result in any off-site or indirect impacts. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to geologic and soil resources would result in a ***less than cumulatively considerable*** contribution.

GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY

As the California Supreme Court has reasoned, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself. The challenge for CEQA purposes is to determine whether the impact of the project's emissions of greenhouse gases is cumulatively considerable, in the sense that 'the incremental effects of [the] individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.'" (*Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 219.) "'With respect to climate change, an individual project's emissions will most likely not have any appreciable impact on the global problem by themselves, but they will contribute to the significant cumulative impact caused by greenhouse gas emissions from other sources around the globe. The question therefore becomes whether the project's incremental addition of greenhouse gases is "cumulatively considerable" in light of the global problem, and thus significant.'" (*Ibid*.)

The cumulative setting for analysis of greenhouse gas (GHG) emissions and climate change impacts for this analysis is global, since GHG emissions are cumulative by nature.

Impact 4.7: Cumulative Impact on Climate Change from Increased Project-Related Greenhouse Gas Emissions (Less than Significant and Less than Cumulatively Considerable)

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a Climate Action Plan). The City of Fort Bragg has not adopted a GHG Reduction Plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018.

Prior to the Newhall Ranch decision, GHG analysis in CEQA documents often involved comparison of the project emissions to a "no action taken" (NAT) scenario. In the Newhall Ranch decision, the court found that, although comparison of a project to NAT (or "business as usual" [BAU]) may be appropriate in concept, the comparison of a specific local project against a statewide business as usual scenario is not an analogous comparison. Specifically, the Court stated that the business as usual approach would need to be based on a substantial evidence-supported link between data in the Scoping Plan and the project, at its proposed location, to demonstrate consistency of a project's reductions with statewide goals. It should be noted that, based on current data available, it is not possible, within the structure of the Scoping Plan sectors, to develop the evidence to reliably relate a specific land use development project's reductions to the Scoping Plan's statewide goal, as envisioned by the Court. Based on the court's finding, the NAT approach is now considered problematic even though it is still recommended by the San Joaquin Valley Air Pollution Control District, which has not updated its guidance on this topic to account for the outcome in *Newhall Ranch*.

Based on the discussion in Section 3.4, the following threshold is applied to this analysis:

- The proposed Project is evaluated for its consistency with the GHG reduction measures contained in the CARB's 2017 Scoping Plan Update and the MCOG's 2017 RTP.

If the project demonstrates that it is consistent with these plan documents, the proposed Project would not be anticipated to generate GHG emissions that would have a significant impact on the environment, or conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

As presented in Table 3.4-1 in Section 3.4, short-term construction emissions of GHGs are estimated at a maximum of approximately 132.9 MT CO_2e per year. To account for the contribution of construction emissions to the project's non mobile source annual emissions profile, construction emissions are amortized over an assumed 30-year operational timeframe; amortized annual emissions equal 4.43 MT CO_2e. Additionally, as shown in presented in Table 3.4-2 in Section 3.4, as conservatively modeled, the annual mitigated GHG emissions associated with the proposed Project would be approximately 696.5 MT CO_2e/year. Total annual mitigated emissions without mobile emissions would be approximately 124.5 MT CO_2e/year.

The proposed Project would not conflict with any of the GHG reduction measures contained with the CARB's 2017 Scoping Plan Update and the MCOG's RPT. Moreover, the proposed Project is

anticipated to reduce overall VMT, when accounting for even a modest trip redistribution from the VMT currently generated from trips from Fort Bragg to the Willits Grocery outlet. Therefore, the proposed Project would be consistent with the State GHG reduction targets, and would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, implementation of the proposed Project would have a ***significant and unavoidable*** and ***cumulatively considerable*** contribution.

HAZARDS AND HAZARDOUS MATERIALS

The cumulative context for the analysis of cumulative hazards and human health impacts is Mendocino County, including all cumulative growth therein, as represented by full implementation of each respective General Plan (i.e., Fort Bragg and Mendocino County).

Impact 4.8: Cumulative Impact Related to Hazards and Hazardous Materials (Less than Significant and Less than Cumulatively Considerable)

As discussed in Section IX, Hazards and Hazardous Materials, of the Initial Study, implementation of the proposed Project would not result in any significant impacts related to this environmental topic.

The proposed Project, in conjunction with cumulative development in the region, would include areas designated for a variety of urban, agricultural, and open space uses as defined by the applicable General Plan. Cumulative development would include continued operation of, or development of, new facilities as allowed under each land use designation. New development would inevitably increase the use of hazardous materials within the region, resulting in potential health and safety effects related to hazardous materials use. For the most part, potential impacts associated with new and future development would be confined to commercial and industrial areas and would not involve the use of hazardous substances in large quantities or that would be particularly hazardous. Incidents, if any, would typically be site specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere (i.e., construction workers). Hazard-related impacts tend to be site-specific and Project-specific. The proposed Project site is not associated with any existing hazardous materials spills.

Implementation of the proposed Project would not result in significant increased risks of hazards in the cumulative setting area, nor would it result in any significant off-site or indirect impacts. The same is true of other foreseeable development in the County, which would similarly be bound to comply with strict federal and state laws. For these reasons, cumulative impacts associated with hazards and hazardous materials would be ***less than significant***, and the proposed Project would have a ***less than cumulatively considerable*** impact.

HYDROLOGY AND WATER QUALITY

Potential cumulative issues associated with surface waters can be addressed on a watershed basis, or in the case of groundwater, in the context of a groundwater basin. Because water resources are highly interconnected, the cumulative setting is based on the Noyo River Watershed.

Impact 4.9: Cumulative Impact on Hydrology and Water Quality (Less than Significant and Less than Cumulatively Considerable)

As discussed in Section X, Hydrology and Water Quality, of the Initial Study, the Project site is located in Zone "X" – area of minimal flood hazard – as shown on Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer FIRMette map number 06045C1016G, effective July 18, 2017. Based on the FEMA designation, the risk of flooding to occur at the Project site is low.

The proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. As discussed above, the Project site is located within the City of Fort Bragg and is located in the Coastal Zone. As such, the proposed Project would be required to obtain a Coastal Development Permit (CDP), which requires conformance with all relevant regulations of the City of Fort Bragg, including Chapter 17.64 Stormwater Runoff Pollution Control and Chapter 12.14 Drainage Facility Improvements of the CLUDC. As described above, compliance with Chapter 17.64 and 12.14 of the CLUDC and the Statewide CGP, for projects disturbing over one acre, would ensure that the proposed Project would minimize pollutant loading and erosive stormwater runoff flows both during and post-construction.

Future development within the City, including the proposed Project, would be subject to the regulations provided in Chapter 17.64 Stormwater Runoff Pollution Control of the City of Fort Bragg CLUDC. This chapter outlines standards for managing stormwater runoff water quality and discharge during and post-construction. Compliance with Chapter 17.64 of the CLUDC would require the preparation of a SWPPP, in accordance with the CLUDC and the CGP, described above, which would evaluate and minimize potential construction-phase impacts to water quality and coastal waters by specifying temporary Best Management Practices (BMPs) to minimize erosion and sedimentation during construction and prevent the contamination of runoff from the Project site, and would require preliminary and final Runoff Mitigation Plans, which would describe post-construction BMPs that would be used in the Project to minimize increases in stormwater runoff volume and to prevent polluted runoff from the built Project. In addition, in accordance with Section 17.64.045 Developments of Special Water Quality Concern of the CLUDC, as the proposed Project includes the construction of greater than 10,000 sf of impervious surface area, it would be considered a "Development of Special Water Quality Concern" and would be subject to additional requirements designed to minimize potential adverse impacts to coastal water quality, including submittal of a Water Quality Management Plan, which would include BMPs to minimize post-construction water quality impacts.

The proposed Project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. As discussed above, the proposed

Project would be subject to the Statewide CGP and the standards outlined in Chapter 17.64 of the CLUDC, which would ensure that the proposed Project would minimize pollutant loading and erosive stormwater runoff flows both during and post-construction. Compliance with these regulations would facilitate the implementation of water quality control efforts at the local and state levels. In addition, there is currently no sustainable groundwater management plan for the Fort Bragg Terrace Area in which the proposed Project would be located.

For these reasons, cumulative impacts on hydrology and water quality would be ***less than significant*** and would have a ***less than cumulatively considerable*** contribution.

LAND USE

The cumulative setting for land use impacts is the City of Fort Bragg.

Impact 4.10: Cumulative Impact on Communities and Local Land Uses (Less than Significant and Less than Cumulatively Considerable)

Cumulative land use impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site- and Project-specific. The City's General Plan Draft EIR found that impacts related to the physical division of an established community would be less than significant.

The Fort Bragg Zoning Code implements the General Plan. The Project site is currently within the jurisdiction of the City of Fort Bragg. The Project site has a City of Fort Bragg General Plan land use designation of Highway Visitor Commercial (CH) and a City zoning designation of Highway Visitor Commercial (CH). No changes to the Project site's current land use or zoning designations are proposed under the Project.

It is noted that consistency with relevant Fort Bragg Coastal General Plan policies is discussed in Table 3.4-1 of Section 3.4. As shown, the proposed Project is consistent with all of the applicable General Plan policies that aim to avoid or mitigate an environmental effect. The City will review each component of the proposed Project as plans (improvement plans, building plans, site plans, etc.) are submitted for final approval to ensure that they are consistent with the City's Zoning ordinance.

Cumulative impacts related to land use and planning would be ***less than significant***. Implementation of the proposed Project would have a ***less than cumulatively considerable*** incremental impact relative to this topic.

MINERAL RESOURCES

The cumulative setting for mineral resources impacts is the City of Fort Bragg.

Impact 4.11: Cumulative Impact on Mineral Resources (Less than Significant and Less than Cumulatively Considerable)

As described in Section XII, Mineral Resources, of the Initial Study, the proposed Project is not located in an area of known rock, aggregate, sand, or other mineral resource deposits of local,

regional, or state residents. There are no known mineral resources of significance on the Project site that would be made unavailable by the proposed Project. Furthermore, the Project site is not utilized for Surface Mining and Reclamation Act (SMARA) activities. The proposed Project area does not contain mineral resources that are of value locally, to the region, or to residents of the City, County, or state. According to the Mineral Land Classification Studies Index of the California Department of Conservation (DOC, 2015), the proposed Project is not located in an area with known mineral resources. The proposed Project area is not identified as a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, the proposed Project would not interfere with materials extraction or otherwise cause a short-term or long-term decrease in the availability of mineral resources.

According to the City's General Plan Draft EIR, there are no mapped or known mineral resources in the Fort Bragg SOI. Historically, various parties have taken small amounts of aggregate from area streams, but this is no longer the case. Because the California Division of Mines and Geology has not identified any significant mineral resources in the SOI, and there are no known sources contemplated for development, there will not be any significant impacts resulting from development of potentially valuable mineral resources as a result of General Plan buildout.

For these reasons, cumulative impacts on mineral resources would be ***less than significant*** and the proposed project would have a ***less than cumulatively considerable*** incremental impact relative to this topic.

NOISE

The cumulative setting for noise impacts consists of the existing and future noise sources that could affect the Project site or surrounding uses.

Impact 4.12: Cumulative Exposure of Existing Noise-Sensitive Land Uses to Increased Noise Resulting from Cumulative Development (Less than Significant and Less than Cumulatively Considerable)

The cumulative context for noise impacts associated with the proposed Project consists of the existing and future noise sources that could affect the Project or surrounding uses. The extent to which other approved projects should be considered in future traffic forecasts in addition to the growth rate was considered for cumulative traffic noise. City of Fort Bragg staff reported that one approved project exists in the area of the Grocery Outlet Store that would be expected to result in traffic volume increases beyond that already addressed by the assumed background growth rate. The Plateau Housing Project is located on the east end of South Street south of Kempe Way.

Noise generated by Project construction would be temporary, and would not add to the permanent noise environment or be considered as part of the cumulative context. The total noise impact of the proposed Project would be fairly small and would not be a substantial increase to the existing future noise environment. Thus, the proposed Project would result in a less-than-significant cumulative impact.

Traffic Noise: Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to the proposed Project and on-site activities resulting from operation of the proposed Project. Table 3.5-9 in Section 3.5, Noise, shows cumulative traffic noise levels with and without the proposed Project. As discussed in Section 3.5, the Project would not result in significant increases in traffic noise levels at existing sensitive receptors. Future development projects in the City would be required to demonstrate compliance with the City's mobile noise level standards. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to traffic noise would result a ***less than cumulatively considerable*** contribution.

Non-Traffic Noise: The primary non-transportation noise sources associated with the proposed Project are the proposed loading docks, on-site parking lot circulation, and HVAC equipment. Based upon Figures 3.5-2 and 3.5-3 in Section 3.5, the proposed Project would generate peak hour average noise levels of up to 46 dBA L_{eq} during daytime hours and 44 dBA L_{eq} during nighttime hours at the outdoor activity areas of adjacent residential uses to the east. The predicted noise levels would comply with the City of Fort Bragg 55 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime noise level standards.

Based upon Figures 3.5-4 and 3.5-5, the proposed Project would generate peak hour maximum noise levels of up to 66 dBA L_{max} during daytime hours and 64 dBA L_{max} during nighttime hours at the outdoor activity areas of adjacent residential uses. The predicted noise levels would comply with the City of Fort Bragg 75 dBA L_{max} daytime and 65 dBA L_{max} nighttime noise level standards.

Therefore, the Project would comply with the City's stationary noise level standards. Future development projects in the City would be required to demonstrate compliance with the City's stationary noise level standards. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to non-traffic operational noise would result a ***less than cumulatively considerable*** contribution.

Construction Noise: Noise generated by construction would be temporary, and would not add to the permanent noise environment or be considered as part of the cumulative context. Implementation of the proposed Project would have a ***less than significant*** cumulative impact relative to this environmental topic. As such, impacts related to construction noise would result a ***less than cumulatively considerable*** contribution.

POPULATION AND HOUSING

The cumulative setting for population and housing impacts is the City of Fort Bragg.

Impact 4.13: Cumulative Impact on Population and Housing (Less than Significant and Less than Cumulatively Considerable)

Based on the U.S. Census Bureau Quick Facts, Fort Bragg city, a census-designated place had a population of approximately 7,291 persons as of July 1, 2019, a decrease of approximately 0.2 percent since April 1, 2018. There were an estimated 2,775 households between 2014 and 2018,

with 2.56 persons per household. Approximately 8 percent of the persons living in Mendocino County reside in the City of Fort Bragg, based on estimates provided by the U.S. Census Bureau.

The Project includes the construction and operation of a 16,157 sf, one-story, Grocery Outlet (retail store). The proposed retail store would serve as a grocery and retail store for the City of Fort Bragg and surrounding area. The retail store would be equipped with 11,189 sf of merchandising space and 2,231 sf of stock space and be operated by 15 to 25 full-time staff and two managers and would be open from 9:00 AM to 10:00 PM, 7 days per week with two different shifts covering operating hours.

No housing is located on-site. Therefore, the Project would not displace any of people or existing housing.

The proposed Project would not induce substantial unplanned population growth in the area, as the Project entails the construction and operation of a comparatively small retail store and only up to a total of 15 to 25 employees are anticipated under operation of the Project. While some employees may relocate to the Fort Bragg area to work at the proposed retail store, most, if not all, of the employees would be anticipated to commute from their current residences within the City of Fort Bragg and surrounding communities. In addition, customers who would shop at the proposed retail store would largely be those who reside in Fort Bragg and surrounding communities. The proposed Project would be constructed over an approximately 6-month period until the entire Project is completed. Because construction of the Project would be temporary in nature, it is anticipated that most, if not all, of the construction workers, would be local, although some workers may temporarily relocate to the area for the duration of the construction period. Although there may be a minimal increase in employees and population in the area as a result of the Project, changes would be limited, and no significant infrastructure improvements would be required to serve the Project.

The Project site has been identified in the City of Fort Bragg' General Plan for future Highway Visitor Commercial uses. Infrastructure needed to support development of the Project area, and the subsequent employment increases, have already been planned and evaluated. Additionally, all lands within the General Plan jurisdiction have been planned to accommodate growth within the City have been evaluated in the General Plan FEIR.

While the proposed Project will result in employment growth, it is not anticipated to significantly induce growth beyond the levels analyzed in the City's General Plan. Implementation of the proposed Project, together with other past, present, and probable future projects, would have a ***less than significant*** cumulative impact relative to this environmental topic. As a result, implementation of the proposed Project would have a ***less than cumulatively considerable*** incremental contribution to cumulative impacts related to population and housing.

PUBLIC SERVICES AND RECREATION

The cumulative setting would include all areas covered in the service areas of the City of Fort Bragg.

Impact 4.14: Cumulative Impact on Public Services and Recreation (Less than Significant and Less than Cumulatively Considerable)

Under cumulative conditions future local and regional growth will result in increased demand for schools, police protection, fire protection, schools, parks/recreation, and library services. The City and its associated service providers must continue to evaluate the levels of service desired and the funding sources available to meet increases in demand.

The General Plan EIR analyzed impacts to public services (including police protection, fire and emergency services, schools, parks, and libraries), and found that General Plan policies addressed the public services needs of future development resulting from implementation of the General Plan.

The Project site has been identified in the City of Fort Bragg's Coastal General Plan for CH uses. Infrastructure needed to support development of the Project area, and the subsequent employment increase expected through development and operation of the Project, have already been planned and evaluated. Additionally, all lands within the General Plan jurisdiction have been planned to accommodate growth within the City have been evaluated in the General Plan FEIR and the City's Municipal Service Review.

The proposed Project and other past, present, and probable future projects would be subject to all fees that are paid toward the enhancement of public services within the region. Payment of the applicable impact fees by the proposed Project applicant, other project applicants, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the proposed Project and other past, present, and probable future projects, would assist in maintaining existing fire, police, schools, and park services.

The proposed Project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the various General Plans within Mendocino County), would not be expected to cause significant cumulative public services or recreation impacts. As such, cumulative impacts on public services and recreation would be ***less than significant***. Because no significant impacts related to public services and recreation were identified for the proposed Project, and the Project would not necessitate the construction of public facilities, implementation of the proposed Project would have a ***less than cumulatively considerable*** incremental contribution to cumulative impacts on public services and recreation.

TRANSPORTATION AND CIRCULATION

The impacts of the Grocery Outlet Store project have been considered within the context of future traffic conditions in this area of Fort Bragg. Long term traffic conditions have been forecast and evaluated based on growth assumptions made in other recent traffic studies and based on understanding of other approved projects in this area. The extent to which other approved projects should be considered in future forecasts in addition to the growth rate was considered. City of Fort Bragg staff reported that one approved project exists in the area of the Grocery Outlet Store that would be expected to result in traffic volume increases beyond that already addressed

by the assumed background growth rate. *The Plateau Housing Project* is located on the east end of South Street south of Kempe Way.

Under CEQA Guidelines section 15064.3, VMT became the required metric for assessing the significance of traffic impacts statewide on July 1, 2020. The landmark legislation associated with this Guidelines provision specified that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

Therefore, unlike previous EIRs published in Fort Bragg, this Draft EIR uses VMT as the primary significance criteria and uses Level of Service (LOS) only to aid the City of Fort Bragg and Caltrans in the understanding of potential increases in vehicle delay at key signalized intersections (Policy TR-4: Effective Transportation Assessment) and determine improvements to the local and regional transportation system. It is noted that pages 22 through 57 of Appendix F present the results of Existing Conditions Impacts and Mitigation Measures and the Cumulative Conditions Impacts and Mitigation Measures.

Impact 4.15: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (Less than Significant and Less than Cumulatively Considerable)

As noted in Section 3.7, starting in July 2020, CEQA Guidelines section 15064.3 requires agencies to move from a Level of Service based impacts analysis under CEQA to analysis based on regional Vehicle Miles Traveled (VMT). Current direction regarding methods to identify VMT and comply with state requirements is provide by the California Governor's OPR December 2018 publication, *Technical Advisory on Evaluating Transportation Impacts in CEQA*.

OPR provides this direction for retail projects:

> ***Retail Projects.*** *Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically reroute travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.*

OPR also provides guidance regarding ***Screening Thresholds*** that would allow agencies to quickly identify when a project should be expected to cause a less-than significant impact without conducting as detailed study. OPR states:

> By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may

> tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.
>
> Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-specific information, such as market studies or economic impacts analyses that might bear on customers' travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local-serving. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

The relevant applicable analysis scenarios were analyzed using the methodologies described above, and the VMT analysis results are summarized in Table 3.7-17 in Section 3.7. The results indicate that the Project would result in a net increase in VMT over baseline conditions. The model considers a very limited amount of re-routing of Fort Bragg residents that currently go to the Grocery Outlet store located in Willits for grocery shopping. According to information provided by Grocery Outlet, over the last 12 months (June 2021 to June 2022), around 9% of the people that visit their Willits store come from Fort Bragg. Considering that the length of a one-way trip from Fort Bragg to the Willits Grocery Outlet store is approximately 35 miles, and one mile from Fort Bragg to the Project, 990 VMT is equivalent to the re-routing of 30 one-way trips or 15 round trips from the Willits Grocery Outlet store to the Project store. Per the Institute of Transportation Engineers *Trip Generation Manual, 11th Edition*, a grocery store such as the one in Willits generates approximately 3,500 daily one-way trips. Therefore, the re-routing of less of 1% of these trips would result in a net decrease in VMT for both baseline (2022) and future year (2030) conditions.

Overall, implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic**.**

Impact 4.16: Under Cumulative conditions, the proposed Project would not adversely affect pedestrian and bicycle facilities (Less than Significant and Less than Cumulatively Considerable)

Implementation of the proposed Project would not result in a conflict with an existing or planned pedestrian facility, bicycle facility, or transit service/facility. In addition, the Project would not interfere with the implementation of a planned bicycle facility, pedestrian facility, or transit service/facility. The Project would not cause a degradation in transit service such that service does not meet performance standards established by the transit operator.

Implementation of the proposed Project and past, present, and probable future projects would not result in a conflict with an existing or planned pedestrian facility, bicycle facility, or transit

service/facility. The proposed Project, as well as past, present, and probable future projects in the City, would be required to comply with the applicable requirements outlined in the Fort Bragg General Plans pertaining to bicycle and pedestrian improvements, connectivity, and funding. Coastal General Plan Policy C-9.2 requires a sidewalk on both sides of all collector and arterial streets and on at least one side of local streets as a condition of approval for new development. Coastal General Plan Policy C-10.5 requires the provision of adequate and secure bicycle parking at public transit facilities, park and ride lots, schools, the library, parks, City offices, and commercial areas.

Overall, the Project would not interfere with the implementation of a planned bicycle facility, pedestrian facility, or transit service/facility. The Project, in combination with and past, present, and probable future projects associated with buildout of the various general plans in the County, would not cause a degradation in transit service such that service does not meet performance standards established by the transit operator. The proposed Project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the City's General Plan), would not be expected to cause any significant cumulative pedestrian or bicycle facilities impacts. Cumulative impacts to pedestrian and bicycle facilities would be ***less than significant***, and the proposed Project would have a ***less than cumulatively considerable*** incremental contribution to cumulative impacts on pedestrian or bicycle facilities.

UTILITIES

The cumulative setting includes all areas covered in the service areas of the City's wastewater system, water system, stormwater system, and the solid waste collection and disposal services. Under General Plan buildout conditions, the City would see an increased demand for water service, sewer service, solid waste disposal services, and stormwater infrastructure needs.

Impact 4.17: Cumulative Impact on Wastewater Utilities (Less than Significant and Less than Cumulatively Considerable)

The public wastewater treatment system includes collection, treatment, and discharge facilities. The wastewater system serving the City is owned by the Fort Bragg Municipal Improvement District (MID/District) No. 1 and is operated and maintained by the City at the expense of the District. The Wastewater Treatment Plant (WWTP) is located at 101 West Cypress Street in Fort Bragg. The WWTP operates under Waste Discharge Requirements pursuant to Order R1-2019-0020, NPDES No. CA0023078, and WDID No. 1B84083OMEN issued by the North Coast Regional Water Quality Control Board.

The WWTP has facility design flow capacity of 0.8 mgd (average dry weather treatment capacity), 4.9 mgd (peak daily wet weather treatment capacity), 2.2 mgd (average monthly wet weather treatment capacity). The upgraded capacity of the WWTP is sufficient to meet the wastewater service demands through buildout of the General Plan, and is a significant improvement to the City's ability to handle/manage overflows. The development of the proposed Project would not exceed the wastewater discharge requirements in this Order as described under Impact 3.7-1 in

Section 3.7. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's existing infrastructure requirements. Sizing of existing infrastructure in the City varies based on location. There is an existing 4-inch sewer lateral extending from the existing manhole on South Street and proposed to be removed and replaced with the construction of a new 6-inch sewer lateral per City standards. The existing facilities have undergone environmental review and have waste discharge permits from the State.

New wastewater collection and conveyance infrastructure needed for the proposed Project would require trenching/excavation of earth, and placement of pipe within the trenches at specific locations, elevations, and gradients. Ultimately, the sanitary sewer collection system will be an underground collection system installed as per the City of Fort Bragg standards and specifications. Sanitary sewer disposal and treatment will be to the City of Fort Bragg Wastewater Treatment Plant, which does not require any expansion or other construction activities. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

According to wastewater generation factors of similar cities in California, commercial uses are estimated to generate 750 gallons per gross acre per day. The Project site includes 16,517 square feet of Commercial uses on 1.63 acres. Using this rate, the proposed Commercial uses would generate approximately 1,223 gallons per day (gpd) of wastewater. The proposed Project would increase the amount of wastewater requiring treatment; however, the City's WWTP has sufficient capacity to service the proposed Project.

The proposed Project in combination with future projects associated with buildout of the various general plans in the County would not result in a deficit of capacity warranting improvements to increase treatment capacity. Each Project that receives wastewater collection and treatment services is required to pay a connection fee, which serves as a Project share of service expansion. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Impact 4.18: Cumulative Impact on Water Utilities (Less than Significant and Less than Cumulatively Considerable)

Water service would be provided to the Project site by the City of Fort Bragg. There are currently on-site utility connections; however, the recorded use of the building was for office space and the proposed use is retail grocery, which means water fees would be associated with the proposed increase in use. The existing water connection on South Street includes a 6-inch fire service line and is proposed to be the main water service to the building, with a new 6-inch fire connection to be constructed to the east of the existing connection. A total of three (3) fire hydrants with valve lines are proposed for fire suppression on the Project site. Construction of the water infrastructure would not have the potential to induce growth beyond what is proposed because the infrastructure is not oversized to accommodate additional projects or growth.

The proposed Project would require the construction of new onsite water infrastructure. Construction of the onsite water infrastructure would not result in the extension of water utilities to an area of the City currently served by water utilities, and as such, would not have the potential to indirectly induce population growth.

The proposed Project would not require the construction of new water treatment facilities or expansion of existing water treatment facilities for water service. The City has adequate water supplies to support existing demand in the City in addition to the proposed Project under average daily and maximum daily demand conditions. Water supply analyses within the Municipal Service Review and Sphere of Influence Update indicate that the City has sufficient water supply to serve the projected buildout of the City of Fort Bragg as currently zoned within the existing City Limits through 2040. An amendment to the existing zoning or General Plan land use designation is not proposed for the proposed Project and therefore is consistent with the water supply analysis of the City of Fort Bragg Municipal Service Review.

Under General Plan buildout conditions, the City of Fort Bragg would see an increased demand for water services. There are available water supplies to serve the proposed Project from existing entitlements and resources. Additionally, the proposed Project would not cause a significant impact related to the construction of the water system.

The water supply for the proposed Project will have the same water supply reliability and water quality as the water supply available to each of the City's other existing and future water customers. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Impact 4.19: Cumulative Impact on Stormwater Facilities (Less than Significant and Less than Cumulatively Considerable)

Past, pending, and probable future development projects in the area could result in additional discharges of stormwater during storm events. When combined, these future development projects could, in theory, lead to an incremental increase in peak stormwater runoff and potential incremental increases in downstream flood elevations. However, these past, pending, and probable future development projects in the area would be subject to the applicable Fort Bragg Municipal Code relating to stormwater and drainage. Chapter 15.32 Floodplain Management, addresses floodplain regulations and requirements for new development and construction within Flood Hazard Areas delineated by Flood Insurance Rate Maps published by FEMA. Chapter 12.14, Drainage Facility Improvements and Drainage Fees, addresses the standards and operations of storm drainage improvements by incorporation of Low Impact Development (LID) strategies that minimize impermeable areas, maximize permeable areas, and that slow, spread, and sink runoff so as to recharge groundwater and minimize runoff. Chapter 14.16, Sanitary Code, addresses City requirements for stormwater management and discharge control, including controlling non-stormwater discharges to the stormwater conveyance system, eliminating discharges to the stormwater conveyance system from spills, dumping or disposal of materials other than stormwater, reducing pollutants in urban stormwater discharges to the maximum extent practicable.

Drainage improvements proposed to be developed as part of the proposed Project include post-construction BMPs, which include bioretention facilities sized to capture and treat runoff from the proposed impervious surfaces produced by the 24-hour 85th percentile rain event and landscaped areas throughout the Project site to encourage natural stormwater infiltration. The proposed Project additionally includes the construction of pedestrian facilities, including curbs, gutters, and sidewalks along the north, south, and east side of the Project site. Off-site improvements, such as sidewalk, curbs and gutters would be required to convey flows from the post-construction BMPs at the Project site to the existing Caltrans stormwater drainage system located west of the Project site on State Highway 1, which does not currently exist in the vicinity of the Project site.

Installation of the proposed Project's storm drainage system will be subject to current City of Fort Bragg Design Specifications and Standards. The proposed storm drainage collection and detention system will be subject to the SWRCB and City of Fort Bragg regulations, including: Fort Bragg Storm Drain Master Plan, 2004; Phase II, NPDES Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines.

The Project applicant would be required to install storm drainage infrastructure that meets standards and specifications of the City of Fort Bragg. The design of such infrastructure considers the drainage volume that flows through the drainage from the entire watershed to ensure that there isn't flooding.

The proposed Project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the Fort Bragg General Plan), would not be expected to cause any significant cumulative stormwater impacts. The proposed Project would not have cumulatively considerable impacts associated with stormwater. Implementation of the proposed project would have a ***less than significant cumulative impact*** and ***less than cumulatively considerable*** incremental contribution to cumulative impacts on stormwater.

Impact 4.20: Cumulative Impact on Solid Waste Facilities (Less than Significant and Less than Cumulatively Considerable)

The cumulative context for cumulative impacts on solid waste facilities includes the Waste Management service area. Waste Management, provides weekly curbside residential and commercial garbage, recycling, and green waste collection within the City of Fort Bragg. Waste collected by Waste Management is taken to Fort Bragg Disposal located at 219 Pudding Creek Road in Fort Bragg for processing and transport. The disposal facility has a maximum daily permitted throughput capacity of 99 tons and per day. The disposal facility is approximately 9.2 acres.

The addition of the volume of solid waste associated with the proposed Project is estimated to be 50.4 pounds per day using a Supermarket rate from CalRecycle of 3.12lbs/1,000sf/day. The proposed Project would be required to comply with applicable state and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. The addition of the volume of solid waste associated with the proposed Project, approximately 50.4 pounds per

day (approximately 9.2 tons per year) at total buildout, to the Potrero Hills Landfill would not exceed the landfill's remaining capacity.

The Waste Management service area is expected to add numerous developments through 2045. These projects within the region are likely to generate new sources of solid waste that would need to be processed at the Potrero Hills Landfill. The Landfill has sufficient capacity to serve future projects in the City. Implementation of the proposed project, together with past, present, and probable future projects, would have a less than significant cumulative impact relative to this environmental topic. Therefore, this would result in a ***less than significant*** and a ***less than cumulatively considerable*** impact on solid waste facilities.

WILDFIRE

The cumulative setting for wildfire impacts is the City of Fort Bragg.

Impact 4.21: Cumulative Impact on Wildfire (Less than Significant and Less than Cumulatively Considerable)

As described in Section XX, Wildfire, of the Initial Study, the Project site is located within the LRA (Mendocino County Maps – Fort Bragg – Fire Responsibility Areas, 2019) and, per the City of Fort Bragg website (Not Dated), is served by the Fort Bragg Fire Department. The Fire Department is a Joint Powers Authority formed in 1990 by the City of Fort Bragg and the Fort Bragg Rural Fire Protection District to jointly provide fire services within the City of Fort Bragg and outlying rural areas. The Project site is mapped as located within an area with "Moderate" Fuel Rank fire hazard severity zone per Figure C- 13 of the 2014 Mendocino County Multi-Hazard Mitigation Plan. The nearest fire station to the Project site is the Fort Bragg Fire Department, located approximately 1-mile northwest of the Project site.

Under the proposed Project, it is not anticipated that wildfire risks would be exacerbated due to slope, prevailing winds, and other factors. The proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage challenges, as the Project site is relatively flat, with elevations at the Project site ranging between approximately 117 and 122 feet above mean sea level, and is surrounded by an urban built-up environment.

The City of Fort Bragg approved an Emergency Plan on January 11, 2016, under Resolution Number 3881-2016. The purpose of the City's Emergency Plan is to "bring a renewed focus on what emergencies can happen here (Fort Bragg) and how we (community) can respond to them – together." The County of Mendocino County also adopted a County EOP on September 13, 2016, under Resolution Number 16-119. As noted on the Plans and Publications webpage of the MCOES, the County EOP, which complies with local ordinances, state law, and state and federal emergency planning guidance, serves as the primary guide for coordinating and responding to all emergencies and disasters within the County. The purpose of the County EOP is to "facilitate multi-agency and multi-jurisdictional coordination during emergency operations, particularly between Mendocino

County, local and tribal governments, special districts as well as state and Federal agencies" (MCOES – Plans and Publications, 2019).

The facility would be constructed in accordance with state and local standards, including safety and emergency access requirements. The proposed Project and probable future projects in the area would be subject to the building and County EOP requirements. For these reasons, cumulative impacts on wildfire would be ***less than significant*** and would have a ***less than cumulatively considerable*** contribution.

4.2 SIGNIFICANT IRREVERSIBLE EFFECTS

LEGAL CONSIDERATIONS

EIRs for certain kinds of projects, as set forth in CEQA Guidelines section 15127, must discuss significant irreversible environmental changes. These projects include those involving (i) the adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency, (ii) the adoption by a Local Agency Formation Commission of a resolution making determinations, or (iii) the parallel preparation of an environmental impact statement under the federal National Environmental Policy Act.

Here, the proposed Project does not fall into one of those categories, meaning that this EIR is not required to address significant irreversible environmental changes.

4.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. No significant and unavoidable impacts would result from the proposed Project.

4.4 IMPACTS FOUND TO BE LESS THAN SIGNIFICANT IN THE INITIAL STUDY

CEQA Guidelines Section 15128 provides that "[a]n EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study."

Included below is a brief summary of findings from the Initial Study on environmental topics that were either found to have no impact or be less than significant. For full Initial Study Findings and individual topics found to be less than significant through the Initial Study process refer to **Appendix A** of this EIR.

AGRICULTURE AND FOREST RESOURCES

The proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, conflict with existing zoning for agricultural use, or a

Williamson Act contract. As noted above, the Project site is designated as "Urban and Built-Up Land" under the FMMP of the DOC and is located within the City of Fort Bragg in an urban built-up environment. Because the proposed Project only includes redevelopment of the Project site within an urban area of the City designated for urban uses, the Project has no potential to convert any off-site agricultural land, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Therefore, there is no impact.

The Project site is not zoned for agricultural use nor is it under a Williamson Act contract. The proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Implementation of the proposed Project would have no impact relative to this issue.

The Project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Implementation of the proposed Project would have no impact relative to this issue.

CULTURAL AND TRIBAL CULTURAL RESOURCES

The Cultural Survey (Genesis Society, 2019) found that no historical resources or historic properties have been documented within the Project area. While the proposed Project includes the demolition of an existing building, the existing building is a contemporary (post-1996) commercial building. As a result, no impact would occur. Even so, the proposed Project, if approved, will be subject to a standard condition of approval requiring that, in the event of the discovery during construction of potential historical resources of an archaeological nature, unique archaeological resources, or tribal cultural resources, work in the affected area will cease until a qualified archaeologist, working with City staff, determines whether, indeed, any such resources are actually present and, if so, formulates and carries out measures for either avoiding them or otherwise treating them.

The Project is not anticipated to cause a substantial adverse change in the significance of an archaeological resource or disturb any human remains. As noted above, based on the records search conducted at the NWIC, the consultation undertaken with the NAHC, and the Tribal consultation effort completed by Genesis Society (2019), no unique archaeological resources or prehistoric cultural material was identified in the Project area. The Cultural Survey recommends archaeological clearance for the proposed Project, with the inclusion of general provisions that recommend consultation and protocol in the event of inadvertent discovery. A standard condition of approval to that effect, as discussed above, will be applied to the Project. The proposed Project is found consistent with policies of the City of Fort Bragg for protection of cultural resources, including human remains. A less than significant impact would occur.

Further, no Tribal Cultural Resources were identified at or near the Project site during the records review and pedestrian survey. While the proposed Project includes the demolition of an existing building, the existing building is a contemporary (post-1996) commercial building. In addition, no responses were received from the Tribal consultation effort and there are no known tribal cultural resources in the Project area. Even so, the proposed Project, if approved, will be subject to a

standard condition of approval requiring that, in the event of the discovery during construction of potential historical resources of an archaeological nature, unique archaeological resources, or tribal cultural resources, work in the affected area will cease until a qualified archaeologist, working with City staff, determines whether, indeed, any such resources are actually present and, if so, formulates and carries out measures for either avoiding them or otherwise treating them. A less than significant impact would occur.

GEOLOGY AND SOILS

The CGS evaluates faults and determines if a fault should be zoned as active, potentially active, or inactive. All active faults are incorporated into a Special Studies Zone, also referred to as an Alquist-Priolo Special Study Zone. The Project site is not located within an Earthquake Fault Zone or an area currently designated as a "Seismic Hazard Zone" by the State and the nearest active fault to the Project site is the San Andreas Fault Zone, located approximately 9 miles west of the Project site (City, 2008). However, since the Project site is located within a seismically active region proximal to multiple seismic sources (the Mayacama Fault Zone and San Andreas Fault) capable of generating moderate to large ground motions, it is expected that the Project area would likely experience large earthquakes that display strong shaking during the economic life span of any Project site development, including the proposed Project. Given the proximity of the proposed Project to active seismic sources within the region currently and based on the distance between the Project site and the closest active fault, the San Andreas Fault zone, the potential for surface rupture at the Project site is considered moderate.

The proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to earthquake faults. There will always be a potential for groundshaking caused by seismic activity anywhere in California, including the Project site. In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Code (CBC). Design in accordance with these standards would reduce any potential impact to a less than significant level. These issues will not be addressed further in the EIR.

The Project site is not mapped for liquefaction potential, although geologic maps indicate the Project site is underlain by Pleistocene aged marine and marine terrace deposits that are potentially susceptible to liquefaction (DMG, 1960). The proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to liquefaction. Additionally, since the proposed Project would be subject to the requirements of the latest version of the CBC to reduce any potential geological risks, a less than significant impact would occur.

There are several categories of landslides including: rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill).

Landslides generally occur on relatively steep slopes and/or on slopes underlain by weak sediments. As previously discussed, no historic landslides have been mapped in the vicinity nor within the boundaries of the Project site. As seen from Google Earth imagery, the Project site is relatively flat with gentle slopes of less than 5 percent to the northwest and southwest towards the neighboring property, in the developed portion of the Project site and elevations ranging from approximately 117 feet and 122 feet amsl. As noted previously, the proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to landslides. Given the relatively low slopes, both on and adjacent to the Project site, and no historic landslides mapped in the vicinity of the Project site, no impact would occur.

Construction activities including grading could temporarily increase soil erosion rates during and shortly after Project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters. The Construction General Permit issued by the State Water Board and implemented and enforced by Regional Water Quality Control Boards (Construction General Permit Order 2009-0009-DWQ, also known as the CGP) requires a Project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each Project that disturbs an area one acre or larger. The SWPPP will include Project specific best management measures that are designed to control drainage and erosion.

On-site development would require demolition, excavation, and groundbreaking activities. All development activities, including the proposed retail store, would be subject to the site development regulations in Article 6, Chapter 17.60 of the City's CLUDC, which include environmental protection and Best Management Practices (BMPs) for minimizing erosion resulting from construction, avoiding runoff into sensitive habitat areas, limiting ground disturbance to the minimum necessary, and stabilizing disturbed surfaces as soon as feasible after construction is complete. In compliance with these regulations, the Project contractor would be required to implement the BMPs provided on the approved Erosion and Sediment Control Plan (ESCP) prepared for the Project, which may include, but are not limited, to straw bales, fiber rolls, and/or silt fencing structures. As a result, a less than significant impact would occur.

Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and

some gravelly soils. Cohesive soils are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces or deep foundations are present. Because the compaction and placement history of the fill is unknown, and the anticipated seismic and groundwater conditions, the exact liquefaction potential is unknown, although it is expected to be low during seismic events.

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Areas in the region that are susceptible to this hazard are located along creeks or open water bodies, or within the foothills to the west. There are no creeks or open bodies of water within an appropriate distance from the Project site for lateral spreading to occur on the Project site. For this reason, the probability of lateral spreading occurring on the Project site is low.

Landslides are not known to have previously occurred on or in the immediate vicinity of the Project site, as no historic landslides have been mapped in the vicinity nor within the boundaries of the Project site. Additionally, the majority of the Project site contains gentle slopes, and the potential for liquefaction at the Project site is low since the Project site is not located within a mapped liquefaction zone. As a result, the potential for lateral spreading and subsidence at the Project site is considered low.

The Project site is not located within a mapped Alquist-Priolo special studies zone; however, the Project site is located within a seismically active region and would experience large earthquakes that display strong shaking during the economic life span of any development on the Project site. As noted previously, the proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to unstable soils. The proposed Project would be subject to the requirements of the latest version of the CBC in order to minimize potential geological risks. A less than significant impact would occur.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume during changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections.

Soil expansion is dependent on many factors. The more clayey, critically expansive surface soil and fill materials will be subjected to volume changes during seasonal fluctuations in moisture content. Sycamore silt loam, drained, zero percent slopes, is the only soil located on the Project site. The Sycamore series consists of soils formed under poorly drained conditions, although the Project site

soils are drained. The soils formed in mixed sedimentary alluvium. The site surface soils have low expansion potential.

No known expansive soils are located at the Project site. Expansive soils generally consist of cohesive fine- grained clay soils and represent a significant structural hazard to buildings founded on them as they have a tendency to undergo volume changes (shrink or swell) with changes in moisture content, especially where seasonal fluctuations in soil moisture occur at the foundation-bearing depth. As described above, the soils at the Project site are predominantly covered by impervious surfaces or have been altered by cutting, filling, and grading. About 25 percent consists of unaltered soils that are extremely variable and require an onsite investigation to evaluate the potential and limitations for any proposed use (USDA, 2006). The Project site contains existing development primarily within the northern half, the subsurface soils are predominately covered by impervious surfaces or have been altered by cutting, filling, and grading, and would be unlikely to be affected by seasonal wetting and drying. The southern-most lot is vacant and has been heavily disturbed, with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. A less than significant impact would occur.

The Project site is currently and would continue to be served by community water and sanitary sewer systems, provided by the City of Fort Bragg's Public Works Department, which would be modified to serve the proposed retail store. Since the Project would not require the use of septic tanks or alternative wastewater disposal systems, no impact would occur.

Per Element 4 (Conservation, Open Space, Energy, and Parks) of the City's Coastal General Plan, Map OS-2 indicates that the Project site is not within a special review area, areas of known or potential archaeological or paleontological resources. As such, the probability of a unique paleontological resource or site or unique geologic feature at the Project site is low. It is a standard practice that in the event that fossils or fossil-bearing deposits are discovered during Project construction, a qualified paleontologist examines the discovery, and excavations within 50 feet of the find are temporarily halted or diverted. The area of discovery is then protected to ensure that fossils are not removed, handled, altered, or damaged until the Project site is properly evaluated, and further action is determined. The paleontologist documents a discovery as needed, in accordance with the Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluates the potential resource, and then assesses the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5 and Public Resources Code section 21083.2, subdivision (g). The paleontologist notifies the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the Project proponent determines that avoidance is not feasible, the paleontologist prepares an excavation plan for mitigating the effect of the Project based on the qualities that make the resource important. The plan is reviewed and approved by the City prior to implementation. While the Project site is not in a special review area for paleontological resources, the City's standard practice of halting construction in the event of a find until the resource can be evaluated is appropriate in the event a resource is encountered during Project construction. A standard condition of approval to that effect will be applied to the Project. The proposed Project is

found consistent with policies of the City of Fort Bragg for protection of paleontological resources. With implementation of standard practices in the event of a find, a less than significant impact would occur.

HAZARDS AND HAZARDOUS MATERIALS

The Project proposes the construction and operation of a retail store that would be anticipated to require the routine transport, use, or disposal of hazardous materials common to construction and operations of retail stores. During construction, common hazardous materials such as gasoline, diesel fuel, hydraulic fluids, oils, lubricants, and cleaning solvents would be anticipated to be utilized on-site. However, the types and quantities of hazardous materials to be used are not expected to pose a significant risk to the public and/or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Operation of the proposed Project may require the use of hazardous materials such as materials utilized in the routine cleaning of the building or for landscaping maintenance, and hazardous materials, including but not limited to cleaning supplies and batteries, would be anticipated to be sold on-site. In accordance with the guidance in The Permit Place of the Mendocino County Division of Environmental Health (EH) (2008), a business that handles a hazardous material or a mixture containing a hazardous material in a quantity equal to or greater than 55 gallons liquid, 500 pounds solid material, or 200 cubic feet gaseous material at any one time during the year may be required to obtain a Certified Unified Program Agency (CUPA) Permit through EH, the approved CUPA for Mendocino County. As part of the CUPA Permit process, a Hazardous Materials Management Plan (HMMP) would be required to be prepared, implemented, and filed with EH. Any hazardous materials transported, used, sold, or disposed of on-site would be managed in accordance with federal, state, and local regulations. A less than significant impact would occur.

The schools closest to the Project site include Sprouts Montessori Children's located approximately 0.49 miles southwest of the Project site, Three Rivers Charter School located approximately 0.53 miles southwest of the Project site, both located across the Noyo River from the Project site, and Redwood Elementary School located approximately 0.64 miles northeast of the Project site. The Project site is not located within one-quarter mile of a school. No impact would occur.

As shown in Table HAZ-1 above, eight listed hazardous materials sites listed on the SWRCB's GeoTracker database are located within one-quarter mile of the Project site and no hazardous materials sites within the vicinity of the Project site are included on DTSC's EnviroStor database. Of the eight total sites, seven are Leaking Underground Storage Tank (LUST) sites, and the case has been completed and closed for each. The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. No impact would occur.

The Project site is located approximately 2.8 miles southwest of the Fort Bragg airport. As the proposed Project is not located within the vicinity of an airport, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area. No impact would occur.

The City of Fort Bragg and County of Mendocino has adopted numerous plans related to hazard management and mitigation, and emergency response, including but not limited to: the City of Fort Bragg Emergency Operations Plan (2010), the Mendocino County Community Wildfire Protection Plan (2005), Hazardous Waste Management Plan, Mendocino County Operational Area Emergency Operations Plan (2016), and Mendocino County Multi-Jurisdictional Hazard Mitigation Plan (2014), in which the City of Fort Bragg (City) is a participant. In addition, the Safety Element of the City of Fort Bragg Coastal General Plan aims at protecting people and property from natural hazards and other locally relevant safety issues.

The County of Mendocino adopted the Mendocino County Operational Area Emergency Operations Plan (County EOP) on September 13, 2016, under Resolution Number 16-119. As noted on the Plans and Publications webpage of the Mendocino County Office of Emergency Services (MCOES), the County EOP, which complies with local ordinances, state law, and state and federal emergency planning guidance, serves as the primary guide for coordinating and responding to all emergencies and disasters within the County. The purpose of the County EOP is to "facilitate multi-agency and multi-jurisdictional coordination during emergency operations, particularly between Mendocino County, local and tribal governments, special districts as well as state and federal agencies" (MCOES – Plans and Publications, 2019). The proposed development would be compatible with existing surrounding development and would be designed to current standards with suitable road widths and turn radii to accommodate emergency vehicles. A less than significant impact would occur.

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. The Project site is located within a "Low" Fuel Rank fire hazard severity zone per Figure C-13 of the 2014 Mendocino County Multi-Hazard Mitigation Plan, in an urban built- up environment within the City of Fort Bragg's city limits. Additionally, the Project site is located within the Local Responsibility Area (LRA) (Mendocino County Maps – Fort Bragg – Fire Responsibility Areas, 2019) and, per the City of Fort Bragg website (Not Dated), is served by the Fort Bragg Fire Department, a Joint Powers Authority formed in 1990 by the City of Fort Bragg and the Fort Bragg Rural Fire Protection District to jointly provide fire services within the City of Fort Bragg and outlying rural areas. The nearest fire station to the Project site is the Main Street Fire Station located at 141 N. Main Street, approximately 0.9 miles north of the Project site. The proposed retail store would be constructed in accordance with state and local standards, including safety and emergency access requirements. By meeting current standards and design requirements and with sufficient fire protection services available to serve the Project site, a less than significant impact would occur.

HYDROLOGY AND WATER QUALITY

The proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. As discussed above, the Project site is located within the City of Fort Bragg and is located in the Coastal Zone. As such, the proposed Project would be required to obtain a Coastal Development Permit (CDP), which requires conformance with all relevant regulations of the City of Fort Bragg, including Chapter 17.64 Stormwater Runoff Pollution Control and Chapter 12.14 Drainage Facility Improvements of the CLUDC. As described above, compliance with Chapter 17.64 and 12.14 of the CLUDC and the Statewide CGP, for projects disturbing over one acre, would ensure that the proposed Project would minimize pollutant loading and erosive stormwater runoff flows both during and post-construction. Additionally, the proposed development would be provided water and wastewater collection service by the City of Fort Bragg. These service providers are required to operate in compliance with all water quality standards and waste discharge requirements. Through proper implementation of appropriate BMPs, and compliance with the aforementioned regulations required as part of the CDP process, the proposed Project would not violate any water quality standards or waste discharge requirements. A less than significant impact would occur.

The proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. As noted above, the proposed development would be provided water and wastewater collection service by the City of Fort Bragg and would therefore not require the use of groundwater to serve the proposed development. As the Project site is partially undeveloped, the proposed Project would increase the amount of impervious surfaces on-site. However, the Project proposal includes landscaping and post-construction BMPs, including bioretention facilities, designed to capture and treat runoff from the proposed impervious surfaces, and substantial landscaping that would allow for stormwater infiltration and groundwater recharge throughout the Project site. With the incorporation of landscaping and post- construction BMPs, development of the 1.63-acre Project site would not significantly impact groundwater recharge, and a less than significant impact would occur.

The proposed Project would not alter the existing drainage pattern of the Project site in a manner which would result in substantial erosion or siltation on- or off-site or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site since any potential runoff from the Project site would be controlled within the guidance of existing regulations. During construction, erosion would be minimized, and runoff would be managed through the implementation of Project-specific BMPs detailed in the SWPPP prepared for the proposed Project, which may include physical barriers such as straw bales, fiber rolls, and/or silt fencing structures, and preventative actions such as scheduling construction for the non-rainy season, if possible, soil compaction, and seeding/mulching disturbed areas. In addition, post-construction runoff and stormwater flows would be managed through stormwater facilities designed in accordance with Chapter 17.64 of the CLUDC. Off-site improvements, such as sidewalk curbs and gutters, would be required to convey flows from the post-construction BMPs at the Project site to the existing Caltrans stormwater drainage system located west of the Project site on

State Highway 1, which does not currently exist in the vicinity of the Project site. With the implementation of off-site improvements, a less than significant impact would occur.

The proposed Project would not be anticipated to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. As previously discussed, drainage improvements on-site would include post- construction BMPs, including bioretention basins located along the northwest and southwest boundaries, designed to capture stormwater and pre-treat it on-site to remove dirt, oil, and heavy metals, in accordance with Chapter 17.64 of the CLUDC, and landscaped areas throughout the Project site to encourage natural stormwater infiltration. Stormwater from the proposed impervious surfaces would be directed to landscaped areas and bioretention basins to maximize infiltration first and then any runoff exceeding the design storm would flow towards the Caltrans storm drain collection system. The Caltrans storm drain collection system is located west of the Project site on State Highway 1, as no infrastructure related to the City of Fort Bragg stormwater drainage system exists in this area. Off-site improvements such as sidewalk curbs and gutters, are required to be installed to adequately convey any surface water in excess of the design storm from the development to the nearest receiving inlet. Off-site improvements to the stormwater drainage system would be designed in accordance with the applicable sections of the CLUDC and would be reviewed and approved by Caltrans and the City of Fort Bragg Public Works Department, which would ensure runoff from the Project site would not exceed the capacity of the stormwater drainage system. A less than significant impact would occur.

As discussed above, the Project site is located in Zone "X" – area of minimal flood hazard – as shown on FEMA's National Flood Hazard Layer FIRMette map number 06045C1016G, effective July 18, 2017. Based on the FEMA designation, the risk of flooding to occur at the Project site is low. No impact would occur.

The Project site is located approximately 600 feet north of the Noyo River and 1,200 feet east of the Pacific Ocean. As shown on the Tsunami Inundation Map for Emergency Planning for the Fort Bragg Quadrangle, the Project site is not located in a tsunami inundation area (DOC, 2009). As noted above, the Project site is located in an area of minimal flood hazard (FEMA, 2017). No impact would occur.

The proposed Project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. As discussed above, the proposed Project would be subject to the Statewide CGP and the standards outlined in Chapter 17.64 of the CLUDC, which would ensure that the proposed Project would minimize pollutant loading and erosive stormwater runoff flows both during and post-construction. Compliance with these regulations would facilitate the implementation of water quality control efforts at the local and state levels. In addition, there is currently no sustainable groundwater management plan for the Fort Bragg Terrace Area in which the proposed Project would be located. A less than significant impact would occur.

LAND USE AND PLANNING

The Project site is located within the Fort Bragg city limits and is adjacent to developed land on all sides. The Project would result in redevelopment of the site with a retail grocery store. Development of the Project would not result in any physical barriers, such as a wall, or other division, that would divide an existing community, but would serve as an orderly extension of existing utilities. The Project would have no impact in regards to the physical division of an established community. This issue will not be addressed further in the EIR.

MINERAL RESOURCES

The proposed Project area does not contain mineral resources that are of value locally, to the region, or to residents of the City, County, or state. According to the Mineral Land Classification Studies Index of the California Department of Conservation (DOC, 2015), the proposed Project is not located in an area with known mineral resources. The proposed Project area is not identified as a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, the proposed Project would not interfere with materials extraction or otherwise cause a short-term or long-term decrease in the availability of mineral resources. Overall, there would be no impact regarding the loss of availability of a known mineral resource that would be of value to the region.

NOISE

The Project has been determined to not be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The Project site is located approximately 2.8 miles southwest of the Fort Bragg airport. As such, there is no impact.

POPULATION AND HOUSING

The proposed Project would not induce substantial unplanned population growth in the area, as the Project entails the construction and operation of a comparatively small retail store and only up to a total of 15 to 25 employees are anticipated under operation of the Project. While some employees may relocate to the Fort Bragg area to work at the proposed retail store, most, if not all, of the employees would be anticipated to commute from their current residences within the City of Fort Bragg and surrounding communities. In addition, customers who would shop at the proposed retail store would largely be those who reside in Fort Bragg and surrounding communities. The proposed Project would be constructed over an approximately 6-month period until the entire Project is completed. Because construction of the Project would be temporary in nature, it is anticipated that most, if not all, of the construction workers, would be local, although some workers may temporarily relocate to the area for the duration of the construction period. Although there may be a minimal increase in employees and population in the area as a result of the Project, changes would be limited, and no significant infrastructure improvements would be required to serve the Project. No housing is located on-site. As such, a less than significant impact would occur. This issue will not be addressed further in the EIR.

PUBLIC SERVICES AND RECREATION

As previously discussed, the Project site is located within the LRA (Mendocino County Maps – Fort Bragg – Fire Responsibility Areas, 2019) and is mapped as located within an area with "Moderate" Fuel Rank fire hazard severity zone per Figure C-13 of the 2014 Mendocino County Multi-Hazard Mitigation Plan. Per the City of Fort Bragg website (Not Dated), the Project site is served by the Fort Bragg Fire Department. The City of Fort Bragg (City) and the Fort Bragg Rural Fire Protection District formed a Joint Powers Authority in 1990 to jointly provide fire services within the City and outlying rural areas. As detailed on the City's website, the Fort Bragg Fire Department is a volunteer fire department with 36 firefighters and four auxiliary members. Currently, there are four (4) paid positions in the department: a full-time Fire Chief, an Office Manager, a Maintenance Engineer, and a Fire Prevention Officer. The nearest fire station to the Project site is the Main Street Fire Station located at 141 N. Main Street, approximately 0.9 miles north of the Project site.

A significant population increase is not anticipated as a result of the Project and the Project would be located within the service boundaries of the Fort Bragg Fire Department. No new or expanded Fire Department facilities would be required. A less than significant impact would occur.

Since the Project site is located within the City of Fort Bragg, the Project site and surrounding area are currently and would continue to be served by the Fort Bragg Police Department (Fort Bragg PD). The Fort Bragg PD is located at 250 Cypress Street, in Fort Bragg, California, approximately 0.30 miles north of the Project site. As the Project would entail developing a currently developed but vacant Project site, a significant population increase is not anticipated as a result of the Project and the Project would be located within the service boundaries of the Fort Bragg PD. No new or expanded Fort Bragg PD facilities would be required. A less than significant impact would occur.

The Project site is located within the Fort Bragg Unified School District (FBUSD), which is comprised of two elementary schools, one middle school, one high school, and one alternative school. Mendocino College, which is not affiliated with the FBUSD, is located approximately 0.9 miles southwest of the Project site, and Redwood Elementary School, which is affiliated with the FBUSD, is located approximately 1.11 miles northeast of the Project site. The proposed Project does not involve the development of any residential units and does not directly generate a student population. No new or expanded school facilities would be required. Implementation of the proposed Project would have a less than significant impact relative to this topic.

Fourteen parks and recreational facilities are located within 4.5 miles of the Project site, including C.V. Starr Community and Aquatic Center, and Fort Bragg Dog Park, which is located approximately 1.2 miles northeast of the Project site, and Harold O. Bainbridge Park, located approximately 1.3 miles northeast of the Project site. No residential units are proposed nor is a significant population increase anticipated as a result of the Project. As a result, the use of the existing park and recreational facilities in the City and the surrounding unincorporated area of Mendocino County would not substantially increase as a result of the Project, and there would not be a need for a new or physically altered park facility. No residential units would be constructed, nor is the population expected to substantially increase, as a result of the proposed Project. Demand for the

existing park and recreational facilities would not be expected to substantially increase and there would not be a need for a new or physically-altered park or recreational facility. A less than significant would occur.

There are no elements of the proposed Project that would impact other public facilities, such as libraries or governmental facilities. The Project involves the demolition of an existing vacant building and the construction and operation of a Grocery Outlet (retail store) that would serve customers who reside in the City of Fort Bragg and surrounding community. No new or expanded library facilities or other government facilities would be required. A less than significant impact would occur.

WILDFIRE

Under the proposed Project, it is not anticipated that wildfire risks would be exacerbated due to slope, prevailing winds, and other factors. The Project site is relatively flat, with elevations at the Project site ranging between approximately 117 feet and 122 feet above mean sea level. In addition, the Project site is located in an urban built- up environment where there is a low threat of wildfire. No impact would occur.

The Project site would be served with electricity from PG&E, propane by an existing tank on-site, and water and wastewater service by the City of Fort Bragg, and solid waste services by a local waste hauler. There are existing utility connections located on Project site that served the vacant former office building. These existing water and wastewater utility connections would require new connections to the proposed retail store as part of the Project. Under the proposed Project, all utility lines would be underground. As such, the Project would not require the installation or maintenance of infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. No impact would occur.

The proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage challenges, as the Project site is relatively flat, with elevations at the Project site ranging between approximately 117 and 122 feet above mean sea level, and is surrounded by an urban built-up environment. In addition, bioretention basins would be constructed on-site to capture and treat increased stormwater flows due to the proposed increase in impervious surfaces. As such, a less than significant impact would occur.

5.1 CEQA REQUIREMENTS

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) analyze a reasonable range of feasible alternatives that would feasibly attain most of the basic project objectives while reducing or avoiding one or more significant environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed. The only impacts that were determined to be significant were for biological resources with regard to special-status bird and mammal species, construction noise impacts, and construction vibration.

PROJECT OBJECTIVES

The underlying purpose of the proposed Project is to construct and operate a Grocery Outlet retail store at a location within the City of Fort Bragg on which the existing General Plan and zoning designations allow for such a use.

Consistent with this underlying purpose, the proposed Project seeks to attain the following project objectives:

- Develop a grocery store that provides its customers with comparatively affordable groceries at a convenient location for their shopping needs.
- Develop a grocery store that would generate additional revenues to the City in the form of increased sales and property tax revenues.
- Develop a grocery store that would create new jobs in the City.
- Develop an aesthetically attractive grocery store and landscaping on an infill site.
- Design a site plan that minimizes circulation conflicts between automobiles and pedestrians.

ALTERNATIVES NOT SELECTED FOR FURTHER ANALYSIS

A Notice of Preparation was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed Project. One specific alternative was recommended by the general public during the NOP public review process. The suggested alternative was to reuse the existing building for the proposed grocery store. This alternative is analyzed below.

The City of Fort Bragg considered alternative locations early in the public scoping process. The City's key considerations in identifying an alternative location were as follows:

- Is there an alternative location where significant effects of the Project would be avoided or substantially lessened?
- Is there a site available within the City's Sphere of Influence with the appropriate size and characteristics such that it would meet the basic Project objectives?

The City's consideration of alternative locations for the Project included a review of previous land use planning and environmental documents in Fort Bragg including the General Plan. The City has found that there are no feasible alternative locations that exist within the City's Sphere of Influence with the appropriate size and characteristics that would meet the basic Project objectives while avoiding or substantially lessening a significant effect of the proposed Project. The City has determined that alternative locations outside the Sphere of Influence would not be desirable because an expansion of the Sphere of Influence would induce unplanned growth and cause impacts greater than development on the Project site. Moreover, the proposed Project is consistent with both the General Plan designation and the zoning designation for the Project site, and thus is consistent with past City planning decisions regarding the appropriate locations for commercial uses within the City. For these reasons, the City of Fort Bragg determined that there are no alternative locations that need to be included in order to meet the CEQA requirement to address a reasonable range of alternatives.

In addition, as discussed in *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 (*Goleta II*), where a project is consistent with an approved general plan, no off-site alternative need be analyzed in the EIR except in unusual circumstances. The EIR "is not ordinarily an occasion for the reconsideration or overhaul of fundamental land-use policy." (*Goleta II*, *supra*, 52 Cal.3d at p. 573.) In approving a general plan, the local agency has already identified and analyzed suitable alternative sites for particular types of development and has selected a feasible land use plan. "Informed and enlightened regional planning does not demand a project EIR dedicated to defining alternative sites without regard to feasibility. Such ad hoc reconsideration of basic planning policy is not only unnecessary, but would be in contravention of the legislative goal of long-term, comprehensive planning." (*Goleta II*, *supra*, 52 Cal.3d at pp. 572-573.) Here, the proposed Project is generally consistent with the types of uses considered in the Fort Bragg General Plan, and thus, in addition to the reasons discussed above, an off-site alternative need not be further discussed in this EIR.

5.2 ALTERNATIVES CONSIDERED IN THIS EIR

Three alternatives to the proposed Project were developed based on input from City staff, the public during the NOP review period, and the technical analysis performed to identify the environmental effects of the proposed Project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Project.

- **No Project (No Build) Alternative**: Under this alternative, development of the Project site would not occur, and the Project site would remain in its current existing condition.
- **Building Reuse Alternative:** Under this alternative, the proposed Project would be developed with the same amenities as described in the Project Description, but the existing vacant former office building would be renovated and reused for the grocery store use.
- **Decreased Density Alternative:** Under this alternative, the proposed Project would be developed with the same amenities as described in the Project Description, but the density of the grocery store use would be decreased.

NO PROJECT (NO BUILD) ALTERNATIVE

Under the No Project (No Build) Alternative, development of the Project site would not occur, and the Project site would remain in its current existing condition. The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. An unoccupied 16,436 square-foot (sf) vacant former office building and associated 47-space parking lot are located in the northern half of the site. The building, locally referred to as the "Old Social Services Building", has not been leased since 2010 but has been used as storage since then. Wooden fencing is currently located along the western property line and adjacent to the south side of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. All existing conditions would remain intact. It is noted that the No Project (No Build) Alternative would fail to meet the Project objectives identified by the City of Fort Bragg.

BUILDING REUSE ALTERNATIVE

Under the Building Reuse Alternative, the proposed Project would be developed with the same uses as described in the Project Description, but the existing vacant former office building would be renovated and reused for the proposed grocery store use. Under the Building Reuse Alternative, the existing 16,436 sf vacant former office building would be converted to a grocery store use. In order to provide adequate facilities for the grocery store use, the office building would be substantially renovated, consistent with the current California Building Code. The building size and footprint of the existing building would not change. Additionally, similar to the proposed Project, the southern portion of the site would be developed with a parking area and associated landscaping and stormwater improvements. The existing parking area in the northern portion of the site would also be improved consistent with the proposed southern parking area.

DECREASED DENSITY ALTERNATIVE

Under the Decreased Density Alternative, the proposed Project would be developed with the same components as described in the Project Description, but the size of the grocery store building and parking lot would be reduced, resulting in an increase of undeveloped land. The grocery store would be located in the northern portion of the site, similar to the Project. The grocery store would be reduced by approximately 30 percent from 16,157 sf to 11,310 square feet. The parking lot would be reduced by approximately 30 percent from 51,650 sf (1.18 acres) to 36,155 sf (0.083 acres). The total acreage dedicated to the proposed Project would be reduced by approximately 30 percent. The total acreage developed would be 1.14 acres, with 0.49 acres remaining in its current state. The 0.49 acres that would remain undeveloped would be located in the southern portion of the site.

5.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR. Following the analysis of each alternative, Table 5.0-1 summarizes the comparative effects of each alternative.

NO PROJECT (NO BUILD) ALTERNATIVE

Aesthetics

As discussed under Impact 3.1-1 in Section 3.1, while the proposed Project would permanently convert the developed site from a vacant building to a new grocery store building, the Project site is designated for and consistent with the use established by the General Plan for the site. As discussed under Impact 3.1-2, impacts associated with substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, would be less than significant. Similarly, Project implementation would not conflict with an applicable zoning or other regulation governing scenic quality within an urbanized area. Further, impacts associated with light and glare would be less than significant.

Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no change in the visual character of the site, scenic resources, or light and glare emanating from the site. As such, this impact would be reduced when compared to the proposed Project.

Air Quality

Under buildout conditions in Mendocino County, the North Coast Air Basin (NCAB) would continue to experience increases in criteria pollutants. As described in Section 3.1, Mendocino County has a State designation Attainment or Unclassified for all criteria pollutants except for particulate matter of 10 microns or less in size (PM_{10}). Mendocino County has a national designation of either Unclassified or Attainment for all criteria pollutants. Table 3.1-2 presents the state and nation attainment status for Mendocino County.

As discussed under Impact 3.2-1 in Section 3.2, the proposed Project would result in increased emissions primarily from vehicle miles travelled associated with Project implementation. The relevant Mendocino County Air Quality Management District (MCAQMD) CEQA operations-related emissions thresholds of significance as follows: 54 pounds per day of oxides of nitrogen (NOx), 54 pounds per day of reactive organic gases (ROG), 82 pounds per day of PM_{10}, 54 pounds per year of particulate matter of 2.5 microns or less in size ($PM_{2.5}$); 10 tons per year of NOx, 10 tons per year of ROG, 10 tons per year of PM_{10}, and 10 tons per year of $PM_{2.5}$. Moreover, the MCAQMD has issued clarification (in a December 2013 Advisory) that MCAQMD's indirect and permitting rules allow 125 tons per year of CO. As shown in Table 3.1-8 in Section 3.3, operational emissions would not exceed any of the applicable criteria pollutant thresholds. Additionally, as shown in Table 3.1-9 in Section 3.1, the proposed Project does not exceed the applicable thresholds of significance for construction criteria pollutants. Further, the Project is located in an area that is designated attainment and attainment-unclassified for carbon monoxide. No Project-level conformity analysis is necessary for CO. Substantial concentrations of carbon monoxide are not expected at or along any streets or intersections affected by the development of the Project site.

Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no net change in emissions and no potential for a conflict with any adopted plans or

policies related to air quality. As such, this impact would be reduced when compared to the proposed Project.

Biological Resources

As described in Section 3.2, Biological Resources, construction in the Project site has the potential to result in impacts to some special-status bird and bat species in the region. Although not high quality, potential nesting habitat is potentially present in the larger trees located within the Project site and in the vicinity. Although on-site vegetation is limited, there is also the potential for other birds that do not nest in this region and represent migrants or winter visitants to forage on the Project site. Additionally, common raptors may nest in or adjacent to the Project site. Additionally, although no evidence of bat roosting on the Project site was present, there remains a possibility that bats could establish a roost in the abandoned building in the future. Although there has been no documented sighting within the immediate area in, or near the Project site, the Project site provides potential habitat for several species, including those discussed in Section 3.2.

Mitigation Measure 3.2-1 requires measures to avoid or minimize impacts on other protected bird species that may occur on-site, such as preconstruction surveys and appropriate buffers, if needed. Mitigation Measure 3.2-2 requires a preconstruction bat survey and appropriate exclusion methods, if needed.

Under the No Project (No Build) Alternative, the proposed Project would not be constructed, no trees, structures, or potential habitat would be removed, and no ground disturbing activities would occur. As such, this impact would be reduced when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Short-term construction greenhouse gas (GHG) emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. The City of Fort Bragg has not adopted a regional GHG reduction plan (such as a Climate Action Plan. However, the MCAQMD has developed GHG thresholds for operational emissions. Specifically, the MCAQMD's CEQA Guidelines include guidance on assessing GHGs and climate change impacts as required under CEQA Section 15183.5(b) and establish thresholds of significance for impacts related to GHG emissions. These guidelines are based on substantial evidence to attribute an appropriate share of GHG emissions reductions necessary to reach California GHG reduction goals for new land use development projects in the air district's jurisdiction that are evaluated pursuant to CEQA. The Project is assessed against the MCAQMD numeric threshold of significance of 1,100 metric tons of CO_2e per year. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to the Statewide GHG emissions reduction goals. Thus, both cumulatively and individually, projects that generate less than 1,100 metric tons CO_2e (MT CO_2e) per year have a negligible contribution to overall emissions.

As presented in Table 3.3-1 in Section 3.3, short-term construction emissions of GHGs are estimated at a maximum of approximately 123.9 MT CO_2e per year. As shown in presented in

Table 3.3-2 in Section 3.3, the annual mitigated GHG emissions associated with the proposed Project would be approximately 696.5 MT CO_2e.

Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no net change in emissions and no potential for a conflict with any adopted plans or policies related to GHG reductions. As such, this impact would be reduced when compared to the proposed Project. This is mainly because of GHG emissions associated with construction and the need to supply the Grocery Outlet structure with electricity. GHG emissions from vehicles would be less under the proposed Project, as it would result in small reductions in vehicle miles traveled compared with existing conditions.

Land Use

The proposed Project would not conflict with an applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect. Under the No Project (No Build) Alternative, the Project site would not be developed and there would be no potential for conflicts or urban decay. As such, land use impacts would be reduced when compared to the proposed Project.

Noise

The proposed Project could increase noise-generating activities associated with the maintenance and operation of the proposed Project, as well as from vehicular traffic and construction. Additionally, increased construction noise and vibration would temporarily result from demolition of the current building and construction of the proposed grocery store. Mitigation measures provided in Section 3.5 would reduce all potential impacts to a less than significant level.

Under the No Project (No Build) Alternative, the Project site would not be developed and there would be no potential for new noise sources. As such, this impact would be reduced when compared to the proposed Project.

Transportation and Circulation

The Project would result in a net increase in VMT over baseline conditions. However, the model considers a very limited amount of re-routing of Fort Bragg residents that currently go to the Grocery Outlet store located in Willits for grocery shopping. As such, the VMT calculation was adjusted for re-routing. According to information provided by Grocery Outlet, over the last 12 months (June 2021 to June 2022), around 9% of the people that visit their Willits store come from Fort Bragg. Considering that the length of a one-way trip from Fort Bragg to the Willits Grocery Outlet store is approximately 35 miles, and one mile from Fort Bragg to the Project, 990 VMT is equivalent to the re-routing of 30 one-way trips or 15 round trips from the Willits Grocery Outlet store to the Project store. Per the Institute of Transportation Engineers Trip Generation Manual, 11th Edition, a grocery store such as the one in Willits generates approximately 3,500 daily one-way trips. Therefore, the re-routing of less of 1% of these trips would result in a net decrease in VMT for both baseline (2022) and future year (2030) conditions. Table 3.7-18 shows the adjusted VMT results accounting for a trip redistribution from the Willits Grocery Outlet to the Fort Bragg

Grocery Outlet of 1% and 9%. All transportation-related impacts were determined to be less than significant.

The No Project (No Build) Alternative would not introduce additional vehicle trips onto the study area roadways. Rather, retail customers would continue their existing driving patterns in pursuit of groceries. According to information provided by Grocery Outlet, over the last 12 months (June 2021 to June 2022), around 9% of the people that visit their Willits store come from Fort Bragg. Considering that the length of a one-way trip from Fort Bragg to the Willits Grocery Outlet store is approximately 35 miles, and one mile from Fort Bragg to the Project, 990 VMT is equivalent to the re-routing of 30 one-way trips or 15 round trips from the Willits Grocery Outlet store to the Project store. Per the Institute of Transportation Engineers *Trip Generation Manual, 11th Edition*, a grocery store such as the one in Willits generates approximately 3,500 daily one-way trips. Therefore, as noted in Section 3.7 of this Draft EIR, the re-routing of less of 1% of these trips would result in a net decrease in VMT for both baseline (2022) and future year (2030) conditions. Table 3.7-18 shows the adjusted VMT results accounting for a trip redistribution from the Willits Grocery Outlet to the Fort Bragg Grocery Outlet of 1% and 9%. Under the No Project (No Build) Alternative, re-routing of traffic would not occur, and a net decrease in VMT for both baseline (2022) and future year (2030) conditions would not occur. As such, impacts related to CEQA Guidelines Section 15064.3, subdivision (b) would be increased compared to the Project.

Additionally, under the No Project (No Build) Alternative, transit use would not increase, bicycle storage facilities would not be installed, and pedestrian frontage improvements would not be constructed. Impacts related to conflicts with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be increased under this alternative. Further, impacts related to hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) and emergency access would be similar to the Project. Overall, this alternative would result in increased traffic related impacts compared to the Project.

Utilities

Implementation of the proposed Project would result in increased flows to the public wastewater system. The wastewater system is capable of handling the increased flows with their existing permit and infrastructure.

Implementation of the proposed Project would result in increased demand for potable water. The City has adequate water supply to handle the increased demand with its existing supply and infrastructure.

Implementation of the proposed Project would result in increased storm drainage from new impervious surfaces. The proposed Project includes a storm drainage collection system to handle the increased storm drainage.

Implementation of the proposed Project would result in increased generation of solid waste. However, the landfill has adequate capacity to dispose the solid waste.

Under the No Project (No Build) Alternative, the Project site would not increase the demand for any utilities, including wastewater services, potable water supplies, or solid waste disposal. There would be no need to construct stormwater drainage infrastructure. Overall, the demand for utilities would be reduced under the No Project (No Build) Alternative when compared to the proposed Project.

BUILDING REUSE ALTERNATIVE

Aesthetics

As discussed under Impact 3.1-1 in Section 3.1, while the proposed Project would permanently convert the developed site from a vacant building to a new grocery store building, the Project site is designated for and consistent with the use established by the General Plan for the site. As discussed under Impact 3.1-2, impacts associated with substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, would be less than significant. Similarly, Project implementation would not conflict with an applicable zoning or other regulation governing scenic quality within an urbanized area. Further, impacts associated with light and glare would be less than significant.

While the Building Reuse Alternative would be substantially renovated, consistent with the current California Building Code, the building footprint, height, and massing would be similar to the current vacant former office building. As such, impacts related to scenic vistas, scenic resources, and visual character would be reduced when compared to the proposed Project. The building renovation would include renovated interior, exterior, and parking lot lighting in order to facilitate operation of the grocery store use. As such, impacts associated with light and glare would be similar to the Project.

Air Quality

Under buildout conditions in Mendocino County, the North Coast Air Basin (NCAB) would continue to experience increases in criteria pollutants. As described in Section 3.1, Mendocino County has a State designation Attainment or Unclassified for all criteria pollutants except for particulate matter of 10 microns or less in size (PM_{10}). Mendocino County has a national designation of either Unclassified or Attainment for all criteria pollutants. Table 3.1-2 presents the state and nation attainment status for Mendocino County.

As discussed under Impact 3.2-1 in Section 3.2, the proposed Project would result in increased emissions primarily from vehicle miles travelled associated with Project implementation. The relevant MCAQMD CEQA operations-related emissions thresholds of significance as follows: 54 pounds per day of NOx, 54 pounds per day of ROG, 82 pounds per day of PM_{10}, 54 pounds per year of $PM_{2.5}$; 10 tons per year of NOx, 10 tons per year of ROG, 10 tons per year of PM_{10}, and 10 tons per year of $PM_{2.5}$. Moreover, the MCAQMD has issued clarification (in a December 2013 Advisory) that MCAQMD's indirect and permitting rules allow 125 tons per year of CO. As shown in Table 3.1-8 in Section 3.3, operational emissions would not exceed any of the applicable criteria pollutant thresholds. Additionally, as shown in Table 3.1-9 in Section 3.1, the proposed Project does not exceed the applicable thresholds of significance for construction criteria pollutants.

Further, the Project is located in an area that is designated attainment and attainment-unclassified for carbon monoxide. No Project-level conformity analysis is necessary for CO. Substantial concentrations of carbon monoxide are not expected at or along any streets or intersections affected by the development of the Project site.

Implementation of the proposed Project would cause an increase in traffic, which is the dominant source of air emissions associated with the proposed Project. Under the Building Reuse Alternative, the proposed Project would be developed with the same uses as described in the Project Description, but the existing vacant former office building would be renovated and reused for the proposed grocery store use. The size of the grocery store would somewhat increase from 16,157 sf under the proposed Project to 16,436 sf (an increase of 279 sf). The amount of traffic generated from the Project site would be comparable under this alternative to the proposed Project. Mobile source air emissions are directly correlated to traffic volume; therefore, it is estimated that the similar trip volume would result in a similar amount of the mobile source emissions. Additionally, because the office building would be substantially renovated, consistent with the current California Building Code, the area source emissions would be similar to the Project. However, because full demolition and construction of a new building would not be required under this alternative, construction emissions would be reduced. It is noted that there may be a need to demolish certain aspects of the existing building (i.e. roof, walls, paneling, electrical, etc.).

The grocery store use in the Building Reuse Alternative would be required to adhere to the same mitigation measures as the proposed Project. The Building Reuse Alternative would result in somewhat reduced air emissions associated with the construction phase when compared to the proposed Project.

Biological Resources

As described in Section 3.2, Biological Resources, construction in the Project site has the potential to result in impacts to some special-status bird and bat species in the region. Although not high quality, potential nesting habitat is potentially present in the larger trees located within the Project site and in the vicinity. Although on-site vegetation is limited, there is also the potential for other birds that do not nest in this region and represent migrants or winter visitants to forage on the Project site. Additionally, common raptors may nest in or adjacent to the Project site. Additionally, although no evidence of bat roosting on the Project site was present, there a remains a possibility that bats could establish a roost in the abandoned building in the future. Although there has been no documented sighting within the immediate area in, or near the Project site, the Project site provides potential habitat for several species, including those discussed in Section 3.2.

Mitigation Measure 3.2-1 requires measures to avoid or minimize impacts on other protected bird species that may occur on-site, such as preconstruction surveys and appropriate buffers, if needed. Mitigation Measure 3.2-2 requires a preconstruction bat survey and appropriate exclusion methods, if needed.

The Building Reuse Alternative would result in development of the entire Project site. Under this alternative, the areas which provide habitat for a variety of bird and bat species would be disturbed or removed. The same mitigation measures required for the proposed Project would be required for this alternative. As such, the Building Reuse Alternative would result in similar impacts to biological resources when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Short-term construction GHG emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. The City of Fort Bragg has not adopted a regional GHG reduction plan (such as a Climate Action Plan. However, the MCAQMD has developed GHG thresholds for operational emissions. Specifically, the MCAQMD's CEQA Guidelines include guidance on assessing GHGs and climate change impacts as required under CEQA Section 15183.5(b) and establish thresholds of significance for impacts related to GHG emissions. These guidelines are based on substantial evidence to attribute an appropriate share of GHG emissions reductions necessary to reach California GHG reduction goals for new land use development projects in the air district's jurisdiction that are evaluated pursuant to CEQA. The Project is assessed against the MCAQMD numeric threshold of significance of 1,100 metric tons of CO_2e per year. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to the Statewide GHG emissions reduction goals. Thus, both cumulatively and individually, projects that generate less than 1,100 MT CO_2e per year have a negligible contribution to overall emissions.

As presented in Table 3.3-1 in Section 3.3, short-term construction emissions of GHGs are estimated at a maximum of approximately 123.9 MT CO_2e per year. As shown in presented in Table 3.3-2 in Section 3.3, the annual mitigated GHG emissions associated with the proposed Project would be approximately 696.5 MT CO_2e.

Under the Building Reuse Alternative, the proposed Project would be developed with the same uses as described in the Project Description, but the existing vacant former office building would be renovated and reused for the proposed grocery store use. In order to provide adequate facilities for the grocery store use, the office building would be substantially renovated, consistent with the current California Building Code. The renovation would increase the energy efficiency of the building compared to existing conditions. The grocery store use in the Building Reuse Alternative would be required to adhere to the same mitigation measure as the proposed Project. The comparable size of the proposed grocery store building and the Building Reuse Alternative grocery store building would result in a corresponding comparable level of operational GHG emissions when compared to the proposed Project. However, because demolition and construction of a new building would not be required under this alternative, construction-related GHG emissions would be reduced. As such, the GHG emissions relating to construction would be somewhat reduced when compared to the proposed Project.

Land Use

The proposed Project would not conflict with an applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect. The Building Reuse Alternative would result

in a comparable amount of grocery store square footage on the same site as the Project. The same land use and zoning regulations would apply to this alternative as the Project. Because the same use and comparable size would result under this alternative, the impacts to land use would be comparable to the Project.

Noise

The proposed Project could increase noise-generating activities associated with the maintenance and operation of the proposed Project, as well as from vehicular traffic. Additionally, increased construction noise and vibration would temporarily result from demolition of the current building and construction of the proposed grocery store. Mitigation measures provided in Section 3.6 would reduce all potential impacts to a less than significant level.

The Building Reuse Alternative would result in a comparable amount of grocery store square footage as the Project; therefore, the operational noise impacts associated with the alternative would be similar to the vehicular and operational activities of the proposed Project. However, because demolition and construction of a new building would not be required under this alternative, construction noise and vibration would be reduced. It is noted that all noise and vibration issues would be mitigated, as appropriate, through noise attenuation and best management practices. Nevertheless, due to the reduced construction noise under this alternative, construction noise and vibration impacts would be reduced when compared to the proposed Project.

Transportation and Circulation

The Project would result in a net increase in VMT over baseline conditions. However, the model considers a very limited amount of re-routing of Fort Bragg residents that currently go to the Grocery Outlet store located in Willits for grocery shopping. As such, the VMT calculation was adjusted for re-routing. According to information provided by Grocery Outlet, over the last 12 months (June 2021 to June 2022), around 9% of the people that visit their Willits store come from Fort Bragg. Considering that the length of a one-way trip from Fort Bragg to the Willits Grocery Outlet store is approximately 35 miles, and one mile from Fort Bragg to the Project, 990 VMT is equivalent to the re-routing of 30 one-way trips or 15 round trips from the Willits Grocery Outlet store to the Project store. Per the Institute of Transportation Engineers Trip Generation Manual, 11th Edition, a grocery store such as the one in Willits generates approximately 3,500 daily one-way trips. Therefore, in conclusion, the re-routing of less of 1% of these trips would result in a net decrease in VMT for both baseline (2022) and future year (2030) conditions. Table 3.7-18 shows the adjusted VMT results accounting for a trip redistribution from the Willits Grocery Outlet to the Fort Bragg Grocery Outlet of 1% and 9%. All transportation-related impacts were determined to be less than significant.

Under the Building Reuse Alternative, the proposed Project would be developed with the same uses as described in the Project Description, but the existing vacant former office building would be renovated and reused for the proposed grocery store use. The comparable size of the grocery store buildings under the proposed Project and this alternative would result in a comparable amount of traffic generated from the Project site. However, due to the current layout of the

existing office building, paired with the divided parking areas that would be provided in the southern and northern portions of the site, substantial improvements would be required to ensure that on-site circulation and pedestrian access is safe and adequately provided. Overall, the Building Reuse Alternative would result in similar traffic related impacts when compared to the proposed Project.

Utilities

Implementation of the proposed Project would result in increased flows to the public wastewater system. The wastewater system is capable of handling the increased flows with their existing permit and infrastructure.

Implementation of the proposed Project would result in increased demand for potable water. The City has adequate water supply to handle the increased demand with their existing supply and infrastructure.

Implementation of the proposed Project would result in increased storm drainage from new impervious surfaces. The proposed Project includes a storm drainage collection system to handle the increased storm drainage.

Implementation of the proposed Project would result in increased generation of solid waste. However, the landfill has adequate capacity to dispose the solid waste.

Under the Building Reuse Alternative, the proposed Project would be developed with the same uses as described in the Project Description, but the existing vacant former office building would be renovated and reused for the proposed grocery store use. Utility improvements would still be required for this alternative. Operation of the Building Reuse Alternative would result in a comparable amount of wastewater, water demand, stormwater runoff, and solid waste generated from the Project site. The amount of pervious surfaces under this alternative would be comparable to the Project. Additionally, the grocery store use in the Building Reuse Alternative would be required to adhere to the same mitigation measures as the proposed Project, and the comparable amount of square footage would result in similar utility demands. The Building Reuse Alternative would result in similar demand on utility systems when compared to the proposed Project. However, because demolition of the existing building would not occur under this alternative, the amount of construction debris and waste would decrease compared to the Project.

Overall, this alternative would have comparable wastewater treatment demand, water demand, and storm water runoff when compared to the proposed Project. Nevertheless, due to the decrease in construction debris and waste compared to the Project, this alternative would have somewhat reduced impacts related to solid waste generation when compared to the proposed Project.

DECREASED DENSITY ALTERNATIVE

Aesthetics

As discussed under Impact 3.1-1 in Section 3.1, while the proposed Project would permanently convert the developed site from a vacant building to a new grocery store building, the Project site is designated for and consistent with the use established by the General Plan for the site. As discussed under Impact 3.1-2, impacts associated with substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway, would be less than significant. Similarly, Project implementation would not conflict with an applicable zoning or other regulation governing scenic quality within an urbanized area. Further, impacts associated with light and glare would be less than significant.

The Decreased Density Alternative would result in development on the Project site, but the development would be reduced with 0.49 acres remaining in its current condition. The 0.49 acres that would remain undeveloped would be located in the southern portion of the site, which is largely undeveloped. As such, the amount of light and glare emanating from the site would be reduced compared to the Project. Similarly, the reduced building size would result in reduced impacts related to scenic vistas, scenic resources, and scenic quality.

Air Quality

Under buildout conditions in Mendocino County, the NCAB would continue to experience increases in criteria pollutants. As described in Section 3.1, Mendocino County has a State designation Attainment or Unclassified for all criteria pollutants except for PM_{10}. Mendocino County has a national designation of either Unclassified or Attainment for all criteria pollutants. Table 3.1-2 presents the state and nation attainment status for Mendocino County.

As discussed under Impact 3.2-1 in Section 3.2, the proposed Project would result in increased emissions primarily from vehicle miles travelled associated with Project implementation. The relevant MCAQMD CEQA operations-related emissions thresholds of significance as follows: 54 pounds per day of NOx, 54 pounds per day of ROG, 82 pounds per day of PM_{10}, 54 pounds per year of $PM_{2.5}$; 10 tons per year of NOx, 10 tons per year of ROG, 10 tons per year of PM_{10}, and 10 tons per year of $PM_{2.5}$. Moreover, the MCAQMD has issued clarification (in a December 2013 Advisory) that MCAQMD's indirect and permitting rules allow 125 tons per year of CO. As shown in Table 3.1-8 in Section 3.3, operational emissions would not exceed any of the applicable criteria pollutant thresholds. Additionally, as shown in Table 3.1-9 in Section 3.1, the proposed Project does not exceed the applicable thresholds of significance for construction criteria pollutants. Further, the Project is located in an area that is designated attainment and attainment-unclassified for carbon monoxide. No Project-level conformity analysis is necessary for CO. Substantial concentrations of carbon monoxide are not expected at or along any streets or intersections affected by the development of the Project site.

Implementation of the proposed Project would cause an increase in traffic, which is the dominant source of air emissions associated with the proposed Project. Under the Decreased Density

Alternative, the proposed Project would be developed with the same components as described in the Project Description, but the size of the grocery store building and parking lot would be reduced, resulting in an increase of undeveloped land. Because the disturbance area would be comparable to the Project, and because the same type of building would be constructed on the site, the construction related emissions would be comparable to the Project. However, this approximately 30 percent reduction in square footage and parking area would likely represent an approximately 30 percent reduction in the amount of traffic generated from the Project site. Mobile source air emissions are directly correlated to traffic volume; therefore, it is estimated that the reduced trip volume would reduce the mobile source emissions by approximately the same 30 percent. Additionally, this alternative would have a reduction in area source emissions proportional to the reduction in square footage.

The decrease in square footage and reduced traffic volumes under this Alternative would result in reductions in air emissions. Therefore, the Decreased Density Alternative would result in reduced air emissions when compared to the proposed Project.

Biological Resources

As described in Section 3.2, Biological Resources, construction in the Project site has the potential to result in impacts to some special-status bird and bat species in the region. Although not high quality, potential nesting habitat is potentially present in the larger trees located within the Project site and in the vicinity. Although on-site vegetation is limited, there is also the potential for other birds that do not nest in this region and represent migrants or winter visitants to forage on the Project site. Additionally, common raptors may nest in or adjacent to the Project site. Additionally, although no evidence of bat roosting on the Project site was present, there a remains a possibility that bats could establish a roost in the abandoned building in the future. Although there has been no documented sighting within the immediate area in, or near the Project site, the Project site provides potential habitat for several species, including those discussed in Section 3.2.

Mitigation Measure 3.2-1 requires measures to avoid or minimize impacts on other protected bird species that may occur on-site, such as preconstruction surveys and appropriate buffers, if needed. Mitigation Measure 3.2-2 requires a preconstruction bat survey and appropriate exclusion methods, if needed.

The Decreased Density Alternative would result in development on the Project site, but the development would be reduced with 0.49 acres remaining in its current condition. The 0.49 acres that would remain undeveloped would be located in the southern portion of the site, which is largely undeveloped. As such, because a portion of the area not currently developed would remain open and undeveloped, and would retain whatever biological values are associated with that condition. The same mitigation measures required for the proposed Project would be required for this alternative. For this reason, the Decreased Density Alternative would have a somewhat reduced impact to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Short-term construction GHG emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. The City of Fort Bragg has not adopted a regional GHG reduction plan (such as a Climate Action Plan. However, the MCAQMD has developed GHG thresholds for operational emissions. Specifically, the MCAQMD's CEQA Guidelines include guidance on assessing GHG and climate change impacts as required under CEQA Section 15183.5(b) and establish thresholds of significance for impacts related to GHG emissions. These guidelines are based on substantial evidence to attribute an appropriate share of GHG emissions reductions necessary to reach California GHG reduction goals for new land use development projects in the air district's jurisdiction that are evaluated pursuant to CEQA. The Project is assessed against the MCAQMD numeric threshold of significance of 1,100 metric tons of CO_2e per year. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to the Statewide GHG emissions reduction goals. Thus, both cumulatively and individually, projects that generate less than 1,100 MT CO_2e per year have a negligible contribution to overall emissions.

Under the Decreased Density Alternative, the proposed Project would be developed with the same components as described in the Project Description, but the size of the grocery store building and parking lot would be reduced, resulting in an increase of undeveloped land. Because the disturbance area would be comparable to the Project, and because the same type of building would be constructed on the site, the construction related emissions would be comparable to the Project. The decrease in building square footage and parking under this Alternative would significantly decrease the total GHG emissions. As such, the GHG emissions impact is reduced when compared to the proposed Project.

Land Use

The proposed Project would not conflict with an applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect. Under the Decreased Density Alternative, the grocery store would be reduced by approximately 30 percent from 16,157 sf to 11,310 square feet and the development would be reduced with 0.49 acres remaining in its current condition. The same land use and zoning regulations would apply to this alternative as the Project. The same use as the Project would result under this alternative, and the size of the grocery store under this alternative would be within the allowed range for the site. As such, the impacts to land use would be comparable to the Project.

Noise

The proposed Project could increase noise-generating activities associated with the maintenance and operation of the proposed Project, as well as from vehicular traffic. Additionally, increased construction noise and vibration would temporarily result from demolition of the current building and construction of the proposed grocery store. Mitigation measures provided in Section 3.5 would reduce all potential impacts to a less than significant level.

Because the development footprint and development type would be the same or comparable to the Project, noise impacts would also be similar to the Project. Because the Decreased Density Alternative would result in less development, the noise impacts associated with the future use would be reduced when compared to the proposed Project. All other noise issues would be similar to the proposed Project, but on a reduced scale given the 30 percent decrease in development intensity under this alternative. The same mitigation measures required for the proposed Project would be required for this alternative. Under this alternative, noise impacts would be reduced proportionate to the reduced development area.

Transportation and Circulation

The Project would result in a net increase in VMT over baseline conditions. However, the model considers a very limited amount of re-routing of Fort Bragg residents that currently go to the Grocery Outlet store located in Willits for grocery shopping. As such, the VMT calculation was adjusted for re-routing. According to information provided by Grocery Outlet, over the last 12 months (June 2021 to June 2022), around 9% of the people that visit their Willits store come from Fort Bragg. Considering that the length of a one-way trip from Fort Bragg to the Willits Grocery Outlet store is approximately 35 miles, and one mile from Fort Bragg to the Project, 990 VMT is equivalent to the re-routing of 30 one-way trips or 15 round trips from the Willits Grocery Outlet store to the Project store. Per the Institute of Transportation Engineers Trip Generation Manual, 11th Edition, a grocery store such as the one in Willits generates approximately 3,500 daily one-way trips. Therefore, the re-routing of less of 1% of these trips would result in a net decrease in VMT for both baseline (2022) and future year (2030) conditions. Table 3.7-18 shows the adjusted VMT results accounting for a trip redistribution from the Willits Grocery Outlet to the Fort Bragg Grocery Outlet of 1% and 9%. All transportation-related impacts were determined to be less than significant.

Under this alternative, the decrease in square footage and parking areas, and the corresponding decreases in traffic volumes, would result in reductions in traffic congestion. Therefore, the Decreased Density Alternative would result in reduced traffic related impacts when compared to the proposed Project.

Utilities

Implementation of the proposed Project would result in increased flows to the public wastewater system. The wastewater system is capable of handling the increased flows with their existing permit and infrastructure.

Implementation of the proposed Project would result in increased demand for potable water. The City has adequate water supply to handle the increased demand with their existing supply and infrastructure.

Implementation of the proposed Project would result in increased storm drainage from new impervious surfaces. The proposed Project includes a storm drainage collection system to handle the increased storm drainage.

Implementation of the proposed Project would result in increased generation of solid waste. However, the landfill has adequate capacity to dispose the solid waste.

Under the Decreased Density, the proposed Project would be developed with the same components as described in the Project Description, but the size of the grocery store building and parking lot would be reduced, resulting in an increase of undeveloped land. The total development would be reduced by approximately 30 percent. This reduction in square footage and footprint would represent an approximately 30 percent reduction in the amount of wastewater and solid waste generated from the Project site. This reduction would also reduce water demand by approximately 30 percent. There would be approximately 0.49 more acres of pervious soils, thereby reducing the amount of storm drainage from the Project site. While uses in the Decreased Density Alternative would be required to adhere to the same mitigation measures as the proposed Project, the decrease in square footage and parking areas would reduce the utility demands.

Overall, this alternative would have less wastewater treatment demand, less water demand, less solid waste generated, and less storm water runoff when compared to the proposed Project. As such, this alternative would have a reduced impact when compared to the proposed Project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project (No Build) Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed Project.

Table 5.0-1 presents a comparison of the alternative Project impacts with those of the proposed Project.

As shown in the table, the No Project (No Build) Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project (No Build) Alternative is the environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Building Reuse Alternative and Decreased Density Alternative both rank higher than the proposed Project. Comparatively, the Decreased Density Alternative would result in less impact than the Building Reuse Alternative because it provides the greatest reduction of potential impacts in comparison to the proposed Project. However, neither the Decreased Density Alternative nor the Building Reuse Alternative fully meet all of the Project objectives.

See Section 5.4 below for a comparative evaluation of the objectives for each alternative.

TABLE 5.0-1: COMPARISON OF ALTERNATIVE PROJECT IMPACTS TO THE PROPOSED PROJECT

ENVIRONMENTAL TOPIC	*PROPOSED PROJECT*[1]	*NO PROJECT (NO BUILD) ALTERNATIVE*	*BUILDING REUSE ALTERNATIVE*	*DECREASED DENSITY ALTERNATIVE*
SECTION 3.1, AESTHETICS				
AES Impact 3.1-1	LS	Less	Equal	Less
AES Impact 3.1-2	LS	Less	Equal	Less
AES Impact 3.1-3	LS	Less	Equal	Less
AES Impact 3.1-4	LS	Less	Equal	Less
SECTION 3.2, AIR QUALITY				
AQ Impact 3.2-1	LS	Less	Less	Less
AQ Impact 3.2-2	LS	Less	Less	Less
AQ Impact 3.2-3	LS	Less	Equal	Equal
AQ Impact 3.2-4	LS	Less	Less	Less
AQ Impact 3.2-5	LS	Less	Equal	Equal
SECTION 3.3, BIOLOGICAL RESOURCES				
BIO Impact 3.3-1	LS	Less	Equal	Equal
BIO Impact 3.3-2	LS/MM	Less	Equal	Less
BIO Impact 3.3-3	LS/MM	Less	Equal	Equal
BIO Impact 3.3-4	LS	Less	Equal	Equal
BIO Impact 3.3-5	LS	Less	Equal	Equal
BIO Impact 3.3-6	LS	Less	Equal	Equal
BIO Impact 3.3-7	LS	Less	Equal	Equal
SECTION 3.4, GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY				
GHG Impact 3.4-1	LS	Less	Less	Less
GHG Impact 3.4-2	LS	Less	Less	Less
SECTION 3.5, LAND USE				
LU Impact 3.5-1	LS	Less	Equal	Equal
LU Impact 3.5-2	LS	Less	Equal	Equal
SECTION 3.6, NOISE				
NOI Impact 3.6-1	LS/MM	Less	Equal	Less
NOI Impact 3.6-2	LS/MM	Less	Less	Less
SECTION 3.7, TRANSPORTATION AND CIRCULATION				
TC Impact 3.7-1	LS	More	Equal	Less
TC Impact 3.7-2	LS	More	Equal	Less
TC Impact 3.7-3	LS	Less	Equal	Less

ENVIRONMENTAL TOPIC	*PROPOSED PROJECT*[1]	*NO PROJECT (NO BUILD) ALTERNATIVE*	*BUILDING REUSE ALTERNATIVE*	*DECREASED DENSITY ALTERNATIVE*
TC Impact 3.7-4	LS	Less	Equal	Less
SECTION 3.8, UTILITIES AND SERVICE SYSTEMS				
UT Impact 3.8-1	LS	Less	Equal	Less
UT Impact 3.8-2	LS	Less	Equal	Less
UT Impact 3.8-3	LS	Less	Equal	Less
UT Impact 3.8-4	LS	Less	Equal	Less
UT Impact 3.8-5	LS	Less	Equal	Less
UT Impact 3.8-6	LS W/ MM	Less	Equal	Less
UT Impact 3.8-7	LS	Less	Less	Less

5.4 COMPARATIVE EVALUATION OF THE ALTERNATIVES' ABILITY TO SATISFY PROJECT OBJECTIVES

This section examines how each of the alternatives selected for more detailed analysis meets the underlying Project purpose and specific Project objectives.

1. *Construct and operate a Grocery Outlet retail store at a location within the City of Fort Bragg on which the existing General Plan and zoning designations allow for such a use.*

The No Project (No Build) Alternative would not satisfy this objective because under this alternative, the Project site would remain in its current existing condition and would not design a grocery store that is consistent with the City's General Plan and Zoning Code. Both the Building Reuse Alternative and the Decreased Density Alternative would design grocery stores that are consistent with the City's General Plan and Zoning Code. As such, both would satisfy this objective.

2. *Develop a grocery store that provides customers with comparatively affordable groceries at a convenient location for their shopping needs.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and development of a grocery store that provides customers with a convenient location for their shopping needs would not occur. Both the Building Reuse Alternative and Decreased Density Alternative would meet this objective because both alternatives would develop a grocery store on-site. However, due to the reduced size of the Decreased Density Alternative, this alternative would meet this objective to a lesser extent than the proposed Project and the Building Reuse Alternative.

3. *Develop a grocery store that would generate additional revenues to the City in the form of increased sales and property tax revenues.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not develop a grocery store that would generate additional revenues to the City in the form of increased sales and property tax revenues. Both the Building Reuse Alternative and the Decreased Density Alternative would meet this objective because both alternatives would generate additional revenues to the City. It is noted, however, that the reduced building size under the Decreased Density Alternative would likely result in decreased sales and property tax revenues compared to the Project.

4. *Develop a grocery store that would create new jobs in the City.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not develop a grocery store that would create new jobs in the City. Both the Building Reuse Alternative and the Decreased Density Alternative would meet this objective because both alternatives would create new jobs in the City. It is noted, however, that (similar to the above) the reduced building size

under the Decreased Density Alternative would likely result in decreased jobs generation compared to the Project.

5. *Develop an aesthetically attractive grocery store and landscaping on an infill site.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and development of a grocery store on an infill site with new improvements and landscaping to improve the aesthetic of the site for residents and passersbys would not occur. The Building Reuse Alternative would partially meet this objective because although a grocery store would be developed on-site, the existing building would remain in place. But the existing structure would be retained rather than replaced with a more attractive structure, which will reflect compliance with applicable design requirements and the outcome of the formal design review process. Moreover, in testimony before the City Council on July 26, 2021, Terry Johnson of the Best Development Group testified that the existing building cannot be feasibly reused, as it has mold and asbestos and does not meet current codes. The Decreased Density Alternative would meet this objective because a grocery store would be developed on an infill site with new improvements and landscaping to improve the aesthetic of the site for residents and passersbys.

6. *Design a site plan that minimizes circulation conflicts between automobiles and pedestrians.*

The No Project (No Build) Alternative would not satisfy this objective because under this alternative, the Project site would remain in its current existing condition and would not design a site plan that minimizes circulation conflicts between automobiles and pedestrians. Under the Building Reuse Alternative, due to the current layout of the existing office building, paired with the divided parking areas that would be provided in the southern and northern portions of the site, substantial improvements would be required to ensure that site circulation and pedestrian access is safe and adequately provided. Therefore, this alternative would meet this objective, but to a lesser extent than the proposed Project and the Decreased Density Alternative. The Decreased Density Alternative would meet this objective.

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APPENDIX A

Initial Study, Notice of Preparation, and NOP Comments

INITIAL STUDY

FOR THE

BEST DEVELOPMENT GROCERY OUTLET

MAY 19, 2022

Prepared for:

City of Fort Bragg
Community Development Department
416 N. Franklin Street
Fort Bragg, CA 95437

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Best Development Grocery Outlet Project

LEAD AGENCY NAME AND ADDRESS

City of Fort Bragg
Community Development Department
416 N. Franklin Street
Fort Bragg, CA 95437

CONTACT PERSON AND PHONE NUMBER

Heather Gurewitz
City of Fort Bragg
Community Development Department
416 N. Franklin St.
Fort Bragg, CA 95437
(707) 961-2827

PROJECT SPONSOR'S NAME AND ADDRESS

Terry Johnson
Best Development Group
2580 Sierra Blvd., Suite E
Sacramento, CA 95825

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis that is prepared to determine the relative environmental impacts associated with a proposed Project. Initial Studies are frequently used as measuring mechanisms to determine whether substantial evidence indicates that proposed projects may have one or more significant effects on the environment, thereby triggering the need to prepare Environmental Impact Reports (EIRs).

An IS may also be used, however, to "[a]ssist in the preparation of an EIR, if one is required, by: (A) Focusing the EIR on the effects determined to be significant, (B) Identifying the effects determined not to be significant, [and] (C) Explaining the reasons for determining that potentially significant effects would not be significant[.]" (California Environmental Quality Act [CEQA] Guidelines Section 15063[c][3].) Where an IS serves this latter function, a lead agency may use the conclusions in the IS to satisfy the requirement in CEQA Guidelines section 15128 that "[a]n EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."

At a meeting held on February 28, 2022, the Fort Bragg City Council adopted Resolution 4517-2022, which directed City staff to undertake the preparation of an EIR for the proposed Best Development Grocery Outlet Project (Project). The City Council took this action at the request of the Best Development Group, the Project applicant, for reasons set forth in a letter from Best's legal counsel dated February 2, 2022. On July 26, 2021, the City Council had previously approved

the Project based on a Mitigated Negative Declaration (MND). On August 24, 2021, however, two petitioners – Fort Bragg Local Business Matters and Leslie Kashiwada – sued the City under CEQA, challenging the City's reliance on the MND and arguing for the need for an EIR. Best was required by a condition of approval to defend the City's MND in court, and asked the City, through its counsel's letter of February 2, 2022, to prepare an EIR in order to avoid the cost in time and money associated with defending the City's MND in that litigation. The City Council granted this request.

This Initial Study has been prepared, consistent with CEQA Guidelines Section 15063[c][3], to determine the specific issues associated with Project that merit detailed discussion in the text of the EIR for the Project. The IS will be an appendix to the EIR intended to satisfy the requirements of CEQA Guidelines section 15128.

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The Project site is located at 825, 845, and 851 S. Franklin Street in the City of Fort Bragg, Mendocino County, California. The 1.63-acre site is located on the north side of N. Harbor Drive, the west side of S. Franklin Street, and the south side of South Street. The Project site is located approximately 230 to 450 feet east of S. Main Street/Highway 1 (a four-lane conventional highway managed by the California Department of Transportation [Caltrans]) and is located in the City's Coastal Zone but outside the area in which appeals of coastal development approvals may be appealed to the California Coastal Commission pursuant to Public Resources Code section 30606. Properties within the Coastal Zone are regulated by the Coastal Land Use and Development Code (CLUDC), also known as Fort Bragg Municipal Code (FBMC) Chapter 17. The Project site consists of three parcels identified by Assessor's Parcel Numbers (APNs) 018-120-47, 018-120-48 and 018-120-49.

Figures 1 and 2 show the Project's regional location and vicinity.

EXISTING PROJECT SITE USES

The northern portion of the Project site contains existing development and the southern portion of the site is vacant with a dirt driveway. A 16,436 square-foot (sf) vacant former office building and associated 47-space parking lot are located in the northern half of the site. The building, locally referred to as the "Old Social Services Building", has not been leased since 2010 but has been used as storage since then. Wooden fencing is currently located along the western property line and adjacent south of the building. Shrubs and trees are located in the northern portion of the site. The southern-most lot is vacant, with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs.

The Project site does not contain any creeks/streams, riparian areas, or wetlands on-site. The Project site is located in Zone "X", area of minimal flood hazard, as shown on Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer FIRMette map number 06045C1016G, effective July 18, 2017.

The Project site is relatively flat with site elevations ranging from approximately 117 feet to 122 feet above mean sea level (msl).

Figure 3 shows the aerial view of the Project site.

SURROUNDING LAND USES

The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and Chevron. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

GENERAL PLAN AND ZONING DESIGNATIONS

The Project site has a City of Fort Bragg General Plan land use designation of Highway Visitor Commercial (CH) and a City zoning designation of Highway Visitor Commercial (CH). No changes to the Project site's current land use or zoning designations are proposed under the Project.

The City General Plan land use designations and zoning designations for the Project site and surrounding area are shown on Figure 4.

PROJECT DESCRIPTION

PROJECT CHARACTERISTICS

The proposed Project includes demolition of the existing 16,436-sf vacant former office building and parking area and subsequent development and operation of a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site. Grocery Outlet is self-described as a value grocer, meaning that it sells brand name products at bargain prices due to their opportunity buying style. Associated improvements include a parking lot, loading dock and trash enclosure, circulation and access improvements, and utility infrastructure. The proposed site plan is shown in Figure 5.

The Project would also include a merger of three existing parcels (lots) to create one 71,002 sf (1.63 acres) parcel (see Table PD-1) to accommodate the footprint of the proposed retail store within the resulting parcel.

Table PD-1: Proposed Parcel Merger

Existing Parcels	***Proposed Parcel***
APN 018-120-47, ±17,119 SF (±0.393 acres)	APN to be determined ±71,002 SF (±1.6299816 acres)
APN 018-120-48, ±14,723 SF (±0.338 acres)	
APN 018-120-49, ±38,986 SF (±0.895 acres)	

SOURCE: BEST DEVELOPMENT GROUP, 2021.

Retail Operations

The proposed Project would be operated by 15 to 25 full-time staff and two managers. The Project would be open from 8:00 AM to 10:00 PM, seven days per week with two different shifts covering operating hours.

Building Architecture and Signage

The proposed Project would include 51,650 sf (1.18 acres) of hardscape areas that would be covered with the proposed store, parking lot, accessways or sidewalks, and driveways. As shown in Figure 2.0-5, the retail building would be located in the northern portion of the site with parking in the south portion.

The retail grocery store would be a maximum of 32.25 feet tall at the top of the proposed canopy and a maximum of 23 feet tall at the top of the proposed parapet. The proposed building includes differentiated treatments along the base, mid-section, and top along the three facades facing public streets. Windows would remain clear glass that allows persons inside the store to see outside but does not allow people outside the store to see inside, and the roofline on the corner cut-off entrance is also unique to the other rooflines for additional visual interest. The building will be composed of elements and details representative of Fort Bragg's architectural heritage, as the Applicant's chosen design elements were influenced by Fort Bragg's downtown architecture. The window and door treatments give homage to the smaller shops along the main downtown street's detailing as well as the Hardie Board (wood composite) wood paneling, masonry, and providing a variety of the materials on the elevations to add visual interest. Rooflines of the building would align with buildings on adjacent properties to avoid clashes in building height. Architectural perspectives of the proposed building are shown in Figure 6.

The proposed Project would include the installation of a six-foot-tall illuminated monument sign on the southeast corner of the site. The monument sign would have 15 sf of branding on each side, in addition to the unbranded base. Additionally, an 83.3-sf illuminated channel sign would be located on the sign parapet along the front elevation of the building.

All exterior lighting would be limited to a maximum height of 18 feet and utilize energy-efficient fixtures and lamps. No permanently installed lighting would blink, flash, or be of unusually high intensity or brightness. Exterior lighting would be shielded or recessed and directed downward and away from adjoining properties and public right-of-way to reduce light bleed so that no on-site light fixture directly illuminates an area off-site, in compliance with regulations set by the International Dark-Sky Association.

Landscaping

Currently, four ornamental trees are located in the northwestern portion of the Project site, and additional ornamental trees are located along the South Street frontage. It is possible that the existing trees could be preserved as part of the proposed landscaping plan; however, it is likely that tree removal in some capacity would be required. Proposed landscaping includes trees and vegetation along the property boundaries within the proposed parking lot. Trees would be planted primarily along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the parking lot landscaping islands. Approximately 19,265 sf (0.44 acres) of the site would be landscaped and permeable to stormwater as the proposed Project would be designed to capture stormwater and pre-treat it on-site to remove dirt, oil, and heavy metals using bioretention basins located along the northwest and southwest boundaries. The proposed landscaping plan would comply with the Model Water Efficient Landscape Ordinance (MWELO). The MWELO is also referenced by Title 24, Part 11 CalGreen Building Code. The purpose of MWELO is to not only increase water efficiency but to improve environmental conditions in the built environment. Landscaping should be valued beyond the aesthetic because landscapes replace habitat lost to development and provide many other related benefits such as improvements to public health and quality of life, climate change mitigation, energy and materials conservation and increased property values.

CIRCULATION, TRANSPORTATION, AND PARKING

Currently, the site is accessed on the north end via a paved entrance to South Street. There is an existing dirt driveway that runs across the southern parcel from S. Franklin Street to N. Harbor Drive. The proposed Project includes the construction of a new, 30-foot-wide entrance on N.

Harbor Drive and a 35-foot entrance on S. Franklin Street. The existing driveway on the north end of the site would be removed as part of the Project. Additionally, the proposed Project will include an internal system of walkways and crosswalks to provide pedestrian connectivity between the parking lot, building, and sidewalk. The pedestrian improvements would comply with the Americans with Disabilities Act (ADA). A sidewalk would be constructed along the South Street, S. Franklin Street, and N. Harbor Drive frontages, as required by City standards and to provide pedestrian access around the Site. Where required, existing sidewalks would be upgraded to meet City standards.

As part of the proposed Project, a parking area with 53 parking spaces would be constructed on the south side of the Grocery Outlet building. Two electric vehicle parking stalls will be provided with the required wiring for charging facilities to be installed in the future. Additionally, six clean air vehicle priority parking spots will be provided. Further, an internal system of walkways and crosswalks would be provided, as well as two bicycle parking racks.

UTILITIES AND SERVICES

The Project site is currently served by electrical, propane, city water and wastewater, solid waste, and telecommunication services. The proposed Project would connect to existing City infrastructure to provide water, sewer, and storm drainage utilities. The Project would be served by the following existing service providers:

1. City of Fort Bragg for water;
2. City of Fort Bragg for wastewater collection and treatment;
3. City of Fort Bragg for stormwater collection;
4. Pacific Gas and Electric Company (PG&E) for electricity.

Water

A six-inch fire service line water connection currently exists on South Street. As part of the proposed Project, this line would be the main water service to the building, and a new six-inch fire connection would be constructed to the east of the existing connection. A total of three fire hydrants with valve lines are proposed for fire suppression on the site.

The proposed preliminary sewer and water plan is shown in Figure 7.

Wastewater

A four-inch sewer lateral currently extends from the existing manhole on South Street. As part of the proposed Project, this lateral would be removed and replaced with a new six-inch sewer lateral per City standards. Wastewater generated on-site would be collected, treated, and disposed of by the City of Fort Bragg Municipal Improvement District No. 1. The District is larger than the City and includes much of the proposed Sphere of Influence. Currently, the District facility serves residences and businesses within the City.

The proposed preliminary sewer and water plan is shown in Figure 7.

Stormwater Drainage

Currently, stormwater typically infiltrates in the undeveloped portion of the Project site or flows to the northwest and southwest towards the neighboring property in the developed portion of the site. As part of the proposed Project, on-site drainage will be managed utilizing post-

construction Low Impact Development (LID) site design measures and Best Management Practices (BMPs). For example, bioretention facilities would be sized to capture and treat runoff from the proposed impervious surfaces produced by the 24-hour, 85th percentile rain event. Additionally, landscaped areas would be provided throughout the site to encourage natural stormwater infiltration. Perimeter improvements, such as sidewalk curbs and gutters, would be required to convey flows from the Project site to the existing Caltrans stormwater drainage system located west of the Site on State Highway 1, which does not currently exist in the vicinity of the site.

The proposed preliminary grading and drainage plan is shown in Figure 8. The proposed storm water management plan is shown in Figure 9.

Other Utilities and Services

As noted previously, electricity would be provided by PG&E. Gas service, if needed, would be provided via a propane tank located on the northern portion of the site.

Solid waste collection service is provided through City contractors (C & S Waste Solutions effective 7/1/22). Solid waste would be collected from a trash bin enclosure to be installed in the western portion of the site.

Xfinity (Comcast) provides cable TV and internet services, with various telecommunication companies providing land-line telephone service to the surrounding area. All utility lines within the Project site would be underground.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

CITY OF FORT BRAGG

The City of Fort Bragg will be the Lead Agency for the proposed Project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. If the final City decision making body, either the Planning Commission or (on appeal) the City Council, certifies the EIR in accordance with CEQA requirements, the City may use the EIR to support the following actions:

- Adoption of a Mitigation Monitoring and Reporting Program (MMRP);
- Approval of a Zoning Clearance (ZC);
- Approval of a Coastal Development Permit (CDP);
- Approval of Design Review;
- Approval of a Parcel Merger;
- Approval of a Sign Permit;
- Approval of an Encroachment Permit;
- Approval of a Grading Permit;
- Approval of a Building Permit.

OTHER GOVERNMENTAL AGENCY APPROVALS

The proposed Project is subject to a number of existing requirements of regulatory agencies other than the City of Fort Bragg, but will not require any specific discretionary approvals from such agencies. For example, although the proposed Project is subject to the policies of the Local Coastal Program governing portions of the City and requires a coastal development permit from the City, the approval by the City of such a permit for the proposed Project cannot be appealed to the

California Coastal Commission due to the character and location of the Project site. (See Public Resources Code section 30606.)

In addition, although the proposed Project is subject to water quality regulations and general permits put in place by state and federal agencies, no state or federal approvals are required in order for site construction to proceed. Construction activities for the proposed Project will be subject to the requirements of General Construction Activity Stormwater Permit (Construction General Permit Order 2009-0009-DWQ, also known as the CGP), issued by the State Water Resources Control Board. This General Permit requires operators of construction sites to implement stormwater controls and develop a Stormwater Pollution Prevention Plan (SWPPP) identifying specific best management practices (BMPs) to be implemented to minimize the amount of sediment and other pollutants associated with construction sites from being discharged in stormwater runoff. SWPPPs must be submitted to the applicable Regional Water Quality Control Board (here, the North Coastal Regional Water Quality Control Board), but advance approval of the SWPPP by that state agency is not required.

Discharges of stormwater and non-stormwater from the Municipal Separate Storm Sewer System (MS4) within the jurisdictional boundary of the City of Fort Bragg are subject to Water Quality Order No. 2013-0001-DWQ, NPDES General Permit No. CAS00004, Waste Discharge Requirements for Storm Water Discharges from MS4s (Phase II MS4 Permit). The Phase II MS4 Permit authorizes the City to discharge stormwater runoff and certain non-stormwater discharges from its MS4 to waters of the United States and provides a framework and requirements for the implementation of the City MS4 Program. The proposed Project can operate within the parameters of these existing authorizations without the need for any specific discretionary approvals from the North Coastal Regional Water Quality Control Board, the United States Environmental Protection Agency, or any other federal or state agency.

Finally, construction activities of the proposed Project will be subject to the Mendocino County Air Quality Management District (MCAQMD), but no individual permit is required for project construction or operation to proceed.

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Legend

- Project Location
- Incorporated Area
- County Boundary

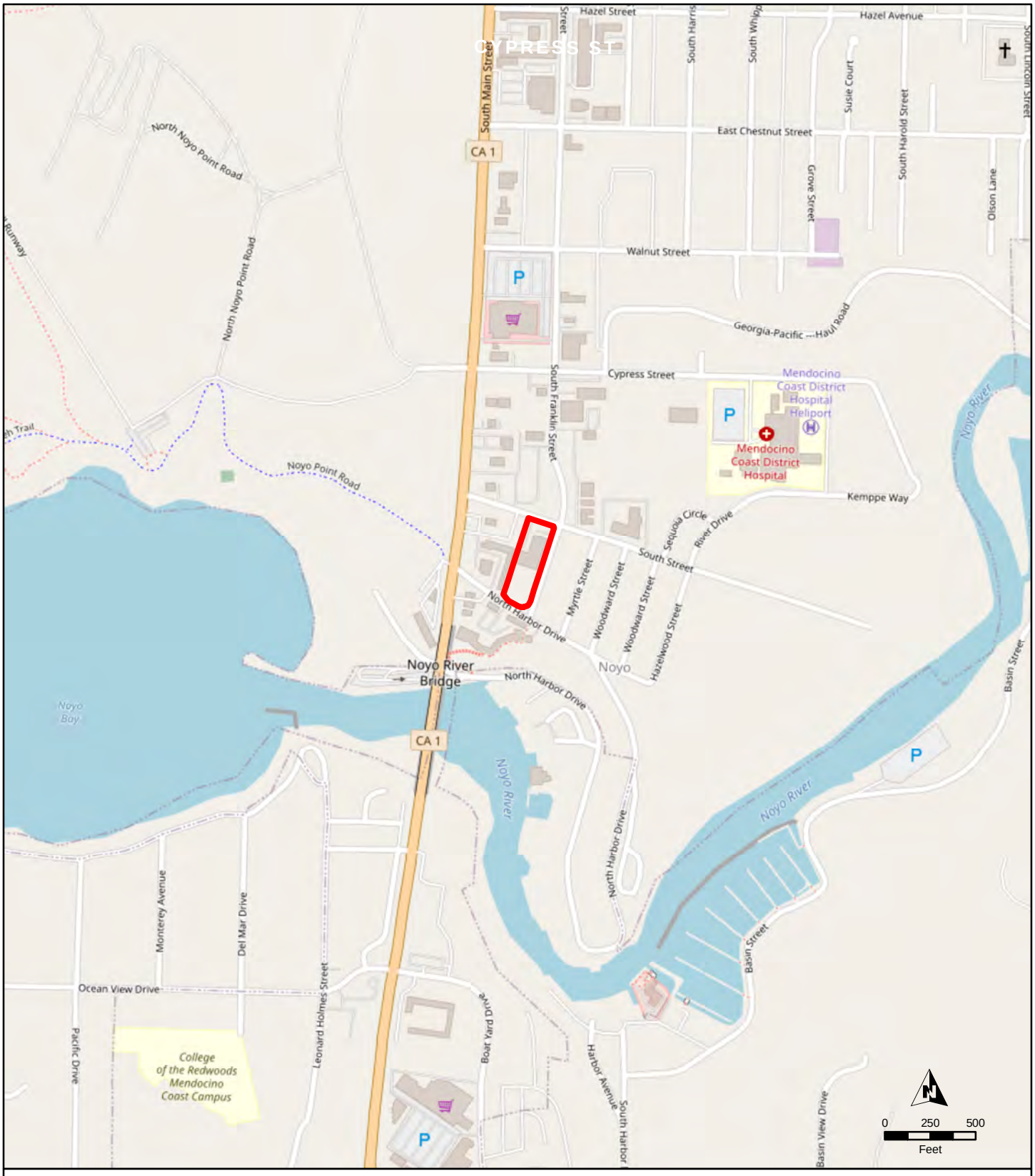
Sources: California State Geoportal.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 1. Regional Location Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Legend

Project Boundary

Figure 2. Vicinity Map

Sources: Mendocino County; ArcGIS Online OpenStreetMap Map Service.

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FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Legend

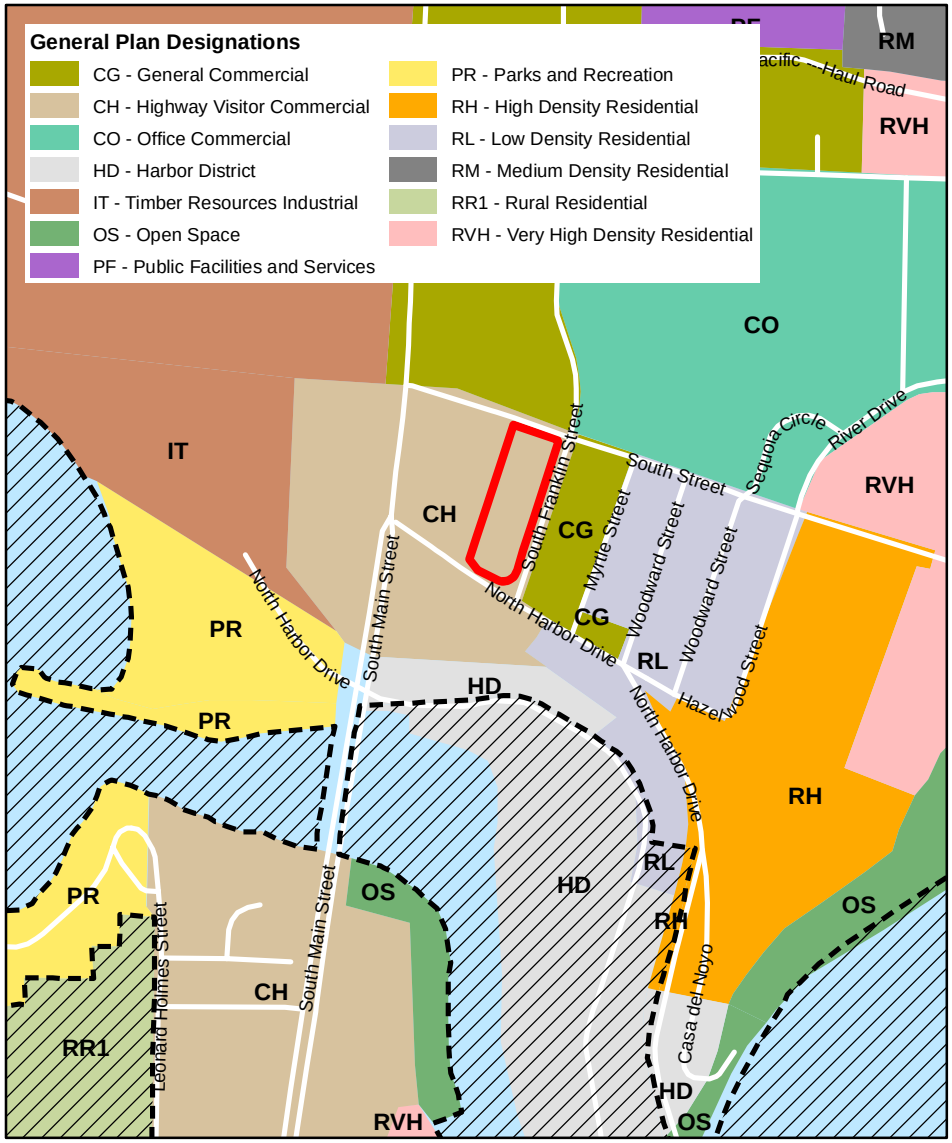
Project Boundary

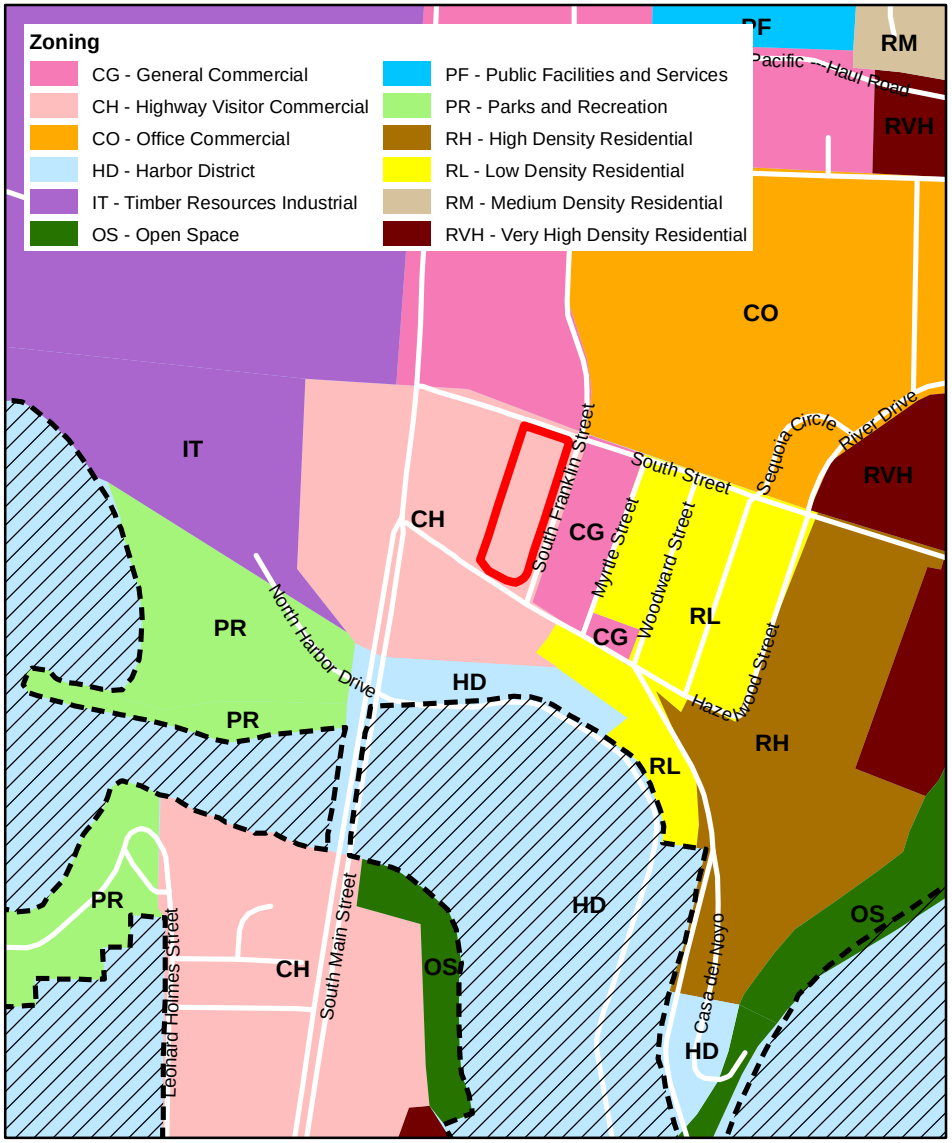
Figure 3. Aerial View of Project Site

Sources: Mendocino County; ArcGIS Online World Imagery Map Service, 3/13/2020.

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Legend

- Project Boundary
- Fort Bragg City Boundary
- Unincorporated Mendocino County

Sources: City of Fort Bragg Map LU-1 Land Use Designations, July 2008; City of Fort Bragg 7A Att4 New 2016 Zoning Map.

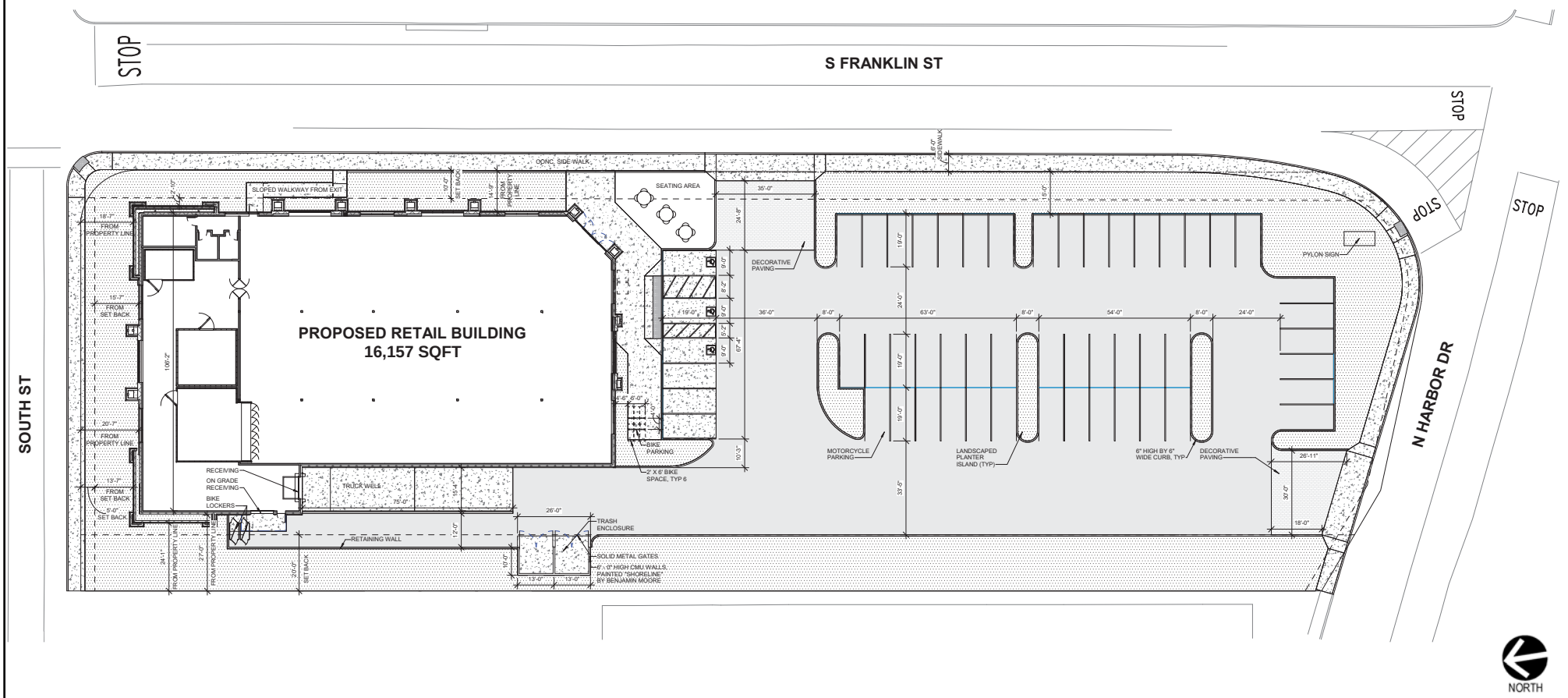
0 250 500
Feet

FORT BRAGG BEST DEVELOPMENT GROCERY OUTLET PROJECT

Figure 4. Existing General Plan and Zoning

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PROPERTY LINE

SET BACK

DECORATIVE PAVING

AC PAVEMENT

LANDSCAPE AREA

TRUNCATED DOMES

Source: Best Development

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 5. Site Plan

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Entrance Perspective



Parking Lot Perspective



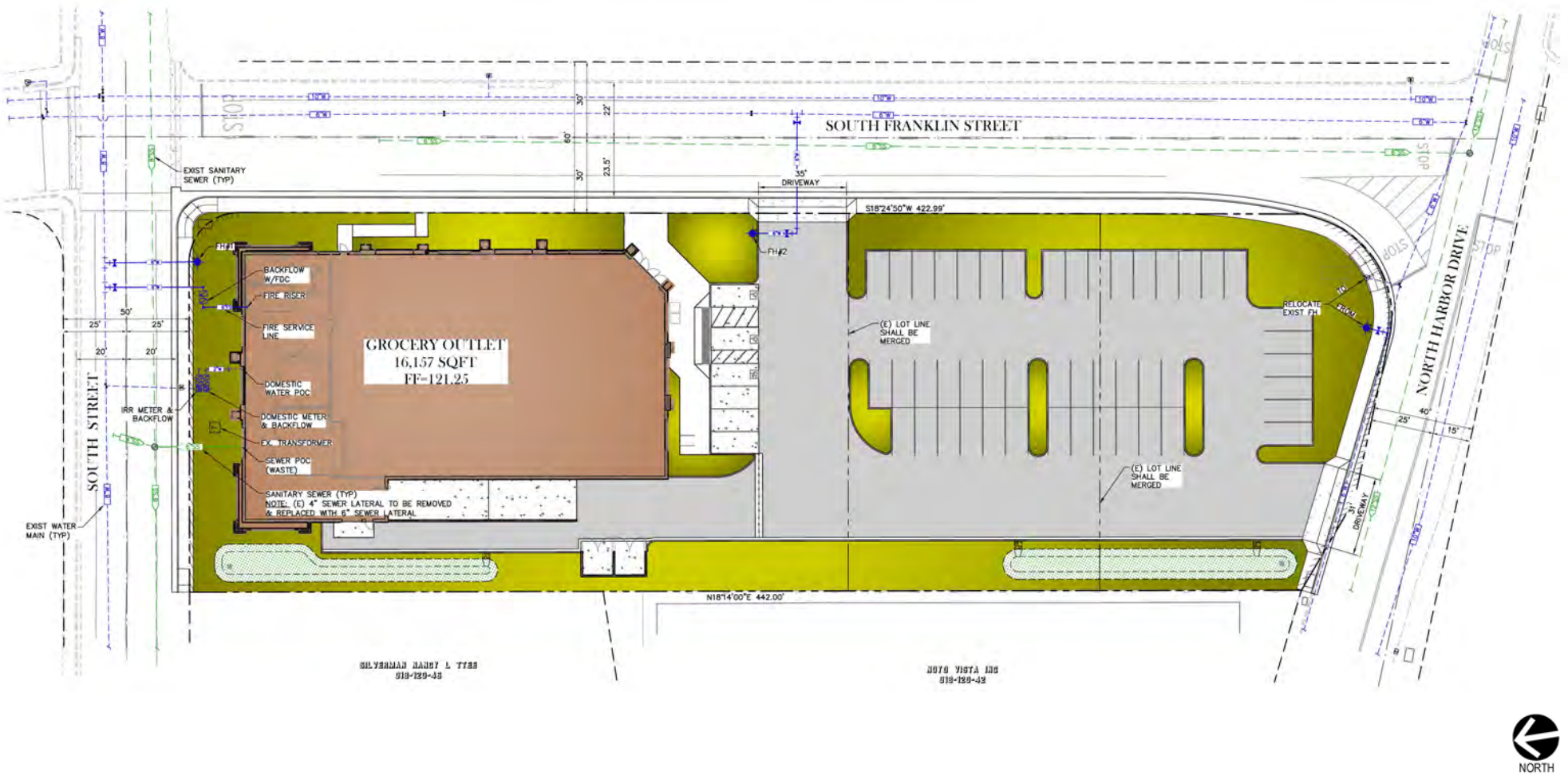
South St Corner Perspective

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 6. Perspectives

Sources: brr Architects

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ASPHALT PAVEMENT

BUILDING AREA

LANDSCAPE AREA

CONCRETE SIDEWALK

BIO RETENTION BASIN

8"W WATER MAIN

6"FS FIRE SERVICE

FIRE DEPARTMENT CONNECTION (FDC)

METER & BACKFLOW

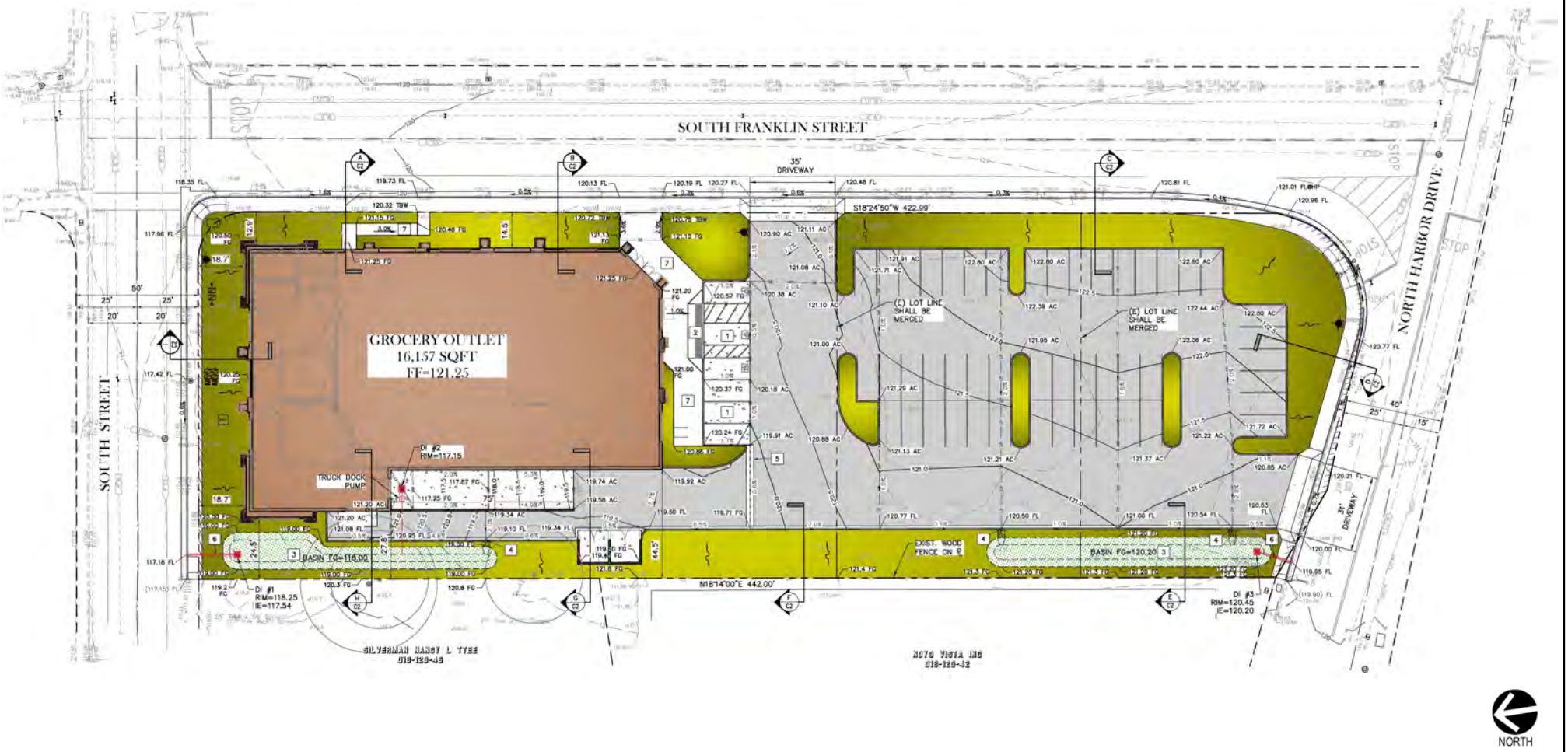
6"SS SANITARY SEWER

Source: Best Development

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 7. Preliminary Sewer and Water Plan

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1 ACCESSIBLE PARKING/LOADING ZONE
2 ACCESSIBLE CURB RAMP
3 BIO-RETENTION BASIN (A/C4)
4 1-FOOT CURB OPENING INTO BASIN (A/C1)
5 CONCRETE VALLEY GUTTER
6 (2) 3" PVC SIDEWALK DRAIN PIPE
7 SIDEWALK

PROPOSED EXISTING

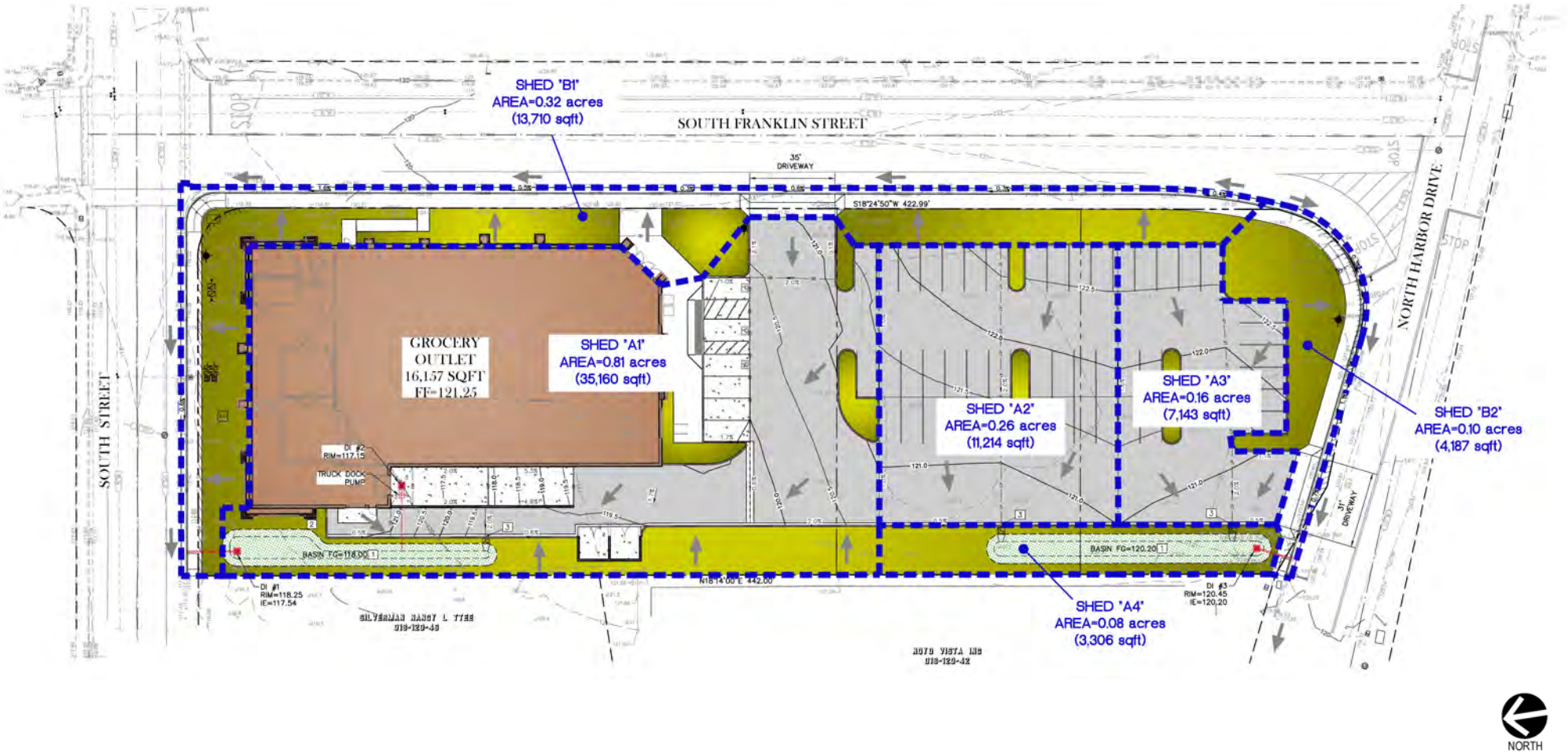
168.0 AC — ELEVATION — (165.5) FL
SIDEWALK DRAIN
DRAINAGE OUTLET
ASPHALT PAVEMENT
BUILDING AREA
LANDSCAPE AREA
P.C.C. CONCRETE
BIO RETENTION BASIN
CONCRETE SIDEWALK
DRAINAGE DIRECTION

Source: Best Development

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 8. Preliminary Grading and Drainage Plan

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DRAINAGE INLET

ASPHALT PAVEMENT

BUILDING AREA

LANDSCAPE AREA

P.C.C. CONCRETE

BIO RETENTION BASIN

CONCRETE SIDEWALK

OVERLAND RELEASE

Source: Best Development.

FORT BRAGG BEST DEVELOPMENT
GROCERY OUTLET PROJECT

Figure 9. Preliminary Storm Water Management Plan

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The City finds, pursuant to CEQA Guidelines section 15063[c][3], that the environmental factors listed below will need to be discussed in detail in the text of the EIR for the Project, as described on the following pages.

	Aesthetics		Agriculture and Forestry Resources	X	Air Quality
X	Biological Resources		Cultural Resources	X	Energy
	Geology and Soils	X	Greenhouse Gasses		Hazards and Hazardous Materials
	Hydrology and Water Quality	X	Land Use and Planning		Mineral Resources
X	Noise		Population and Housing		Public Services
	Recreation	X	Transportation		Tribal Cultural Resources
X	Utilities and Service Systems		Wildfire	X	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
X	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. Many environmental effects of the proposed Project, however, will be less than significant, and need not be addressed in the text of the EIR. Rather, the explanations and conclusions reached herein with respect to those less than significant effects are sufficient to satisfy the requirements of CEQA Guidelines section 15128. This Initial Study will be made an appendix to the Draft EIR and thus will be a part of the Draft EIR circulated for public comment.
	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Signature _____ Date _____

EVALUATION INSTRUCTIONS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 21 environmental topic areas.

I. AESTHETICS

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Discussion

The Project site is located within the City of Fort Bragg city limits on urban and built-up land, surrounded by parcels utilized for commercial businesses, residences, and two vacant lots. The Project site contains existing development primarily within the northern half of the Project site. The northern lot is 95 percent covered by a paved parking area with shrubbery planted around the edges. The existing 16,436 sf vacant former office building is located on the middle lot. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. Currently, the Project site is accessed on the north end via a paved entrance to South Street. There is an existing dirt driveway that runs across the southern parcel from S. Franklin Street to N. Harbor Drive.

Under the proposed Project, an existing 16,436 sf vacant former office building and associated 47-space parking lot and wooden fencing along the property line would be demolished, and a Grocery Outlet (retail store) would be constructed on the Project site. Conceptual plans for the proposed Project indicate that the retail store would be a one-story structure, 16,157 sf in size. Associated improvements and infrastructure on-site would include a loading dock and trash enclosure on the west side of the store, a parking area with 53 parking spaces on the south side of the store, an internal system of walkways and crosswalks, two bicycle racks, two driveways, a

new fire connection, replacement of an existing sewer connection, connection to underground utilities, landscaping for stormwater capture and treatment, illuminated signage, and landscaping throughout the Project site. The existing planted ornamental trees along the South Street frontage would be removed and replaced with landscaping selected for the local climate. Landscaping includes trees and vegetation along the property boundaries within the proposed parking lot and bioretention basins located along the northwest and southwest boundaries. Trees would be planted along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the parking lot landscaping islands. The Project would include the installation of a six-foot-tall illuminated monument sign on the southeast corner of the Project site. The monument sign would have 15 sf of branding on each side, in addition to the unbranded base. Additionally, an 83.3 sf illuminated channel sign would be located on the sign parapet along the front elevation. All exterior lighting would utilize energy-efficient fixtures and lamps, shielded or recessed, and directed downward in compliance with regulations set by the International Dark-Sky Association.

The Project site is bordered to the north by South Street, to the east by S. Franklin Street, to the south by N. Harbor Drive, and to the west by a Super 8, Mountain Mike's Pizza, and Chevron. Nearby uses include commercial businesses to the north, west, and south, and residences and two vacant lots to the east. State Highway 1 is located on the other side of the existing commercial businesses, approximately 400 feet west of the Project site.

Responses to Checklist Questions

Response a): The Project would not have a substantial adverse effect on a scenic vista. Per the City's Community Design Element of the Coastal General Plan Map CD-1., the proposed Project is not located in an area designated as having "potential scenic views toward the ocean or the Noyo River".

In the opinion of City staff, the Project site is not located "along the ocean" or within a "scenic coastal area" within the meaning of Coastal General Plan Policy CD 1.1, which provides that "[p]ermitted development shall be designed and sited to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance scenic views in visually degraded areas." Rather, the Project site is located on the landward side of State Highway 1, and there is intervening visually obtrusive commercial development between the site and State Highway 1.

The proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site, where views looking to the west toward the Pacific Ocean are blocked by the existing Super 8 hotel, west of the Project site, which is the direction in which the Pacific Ocean and landscapes immediately adjacent to the coast are located. There are limited views of the Pacific Ocean through the Project site from S. Franklin Street along the north boundary as these views extend through numerous parcels, including an existing Chevron gas station and the undeveloped Mill Project site to the west of State Highway 1. These views are interrupted by two large trees, which substantially obscure pedestrians' and drivers' views of the ocean. The 'keyhole' view is also dependent on the future development patterns of these sites. The vacant Mill Project site could be developed under existing zoning, and a new structure could completely block the existing interrupted view of the Chevron Station and ocean.

The proposed retail store would be setback 10 feet from the north boundary and vegetation is proposed along the boundary as seen in the landscape plan (see Figure 4), which excludes new

tree planting within the 10-foot setback, preserving a limited view to the Pacific Ocean through the northern portion of the Project site. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response b): The proposed Project would be located on city streets and not along any highway. Neither of the two highways near the Project site, State Highway 1 and State Highway 20, are state scenic highways. Per Caltrans Scenic Highway System Lists, State Highway 1 and State Highway 20 are eligible state scenic highways, although they have not been designated as scenic (Caltrans, 2019). Additionally, the proposed Project would be separated from State Highway 1 by an existing hotel and gas station. Although the proposed Project would likely be visible from State Highway 1, it would only be visible behind the existing commercial development. This view is east of State Highway 1 and away from the Pacific Ocean. In addition, the existing vacant former office building slated to be demolished is not listed on any local, state, or federal historic list or registry, as it was constructed sometime between 1996 and 1998 as indicated in the Cultural Survey, prepared by Genesis Society, dated August 15, 2019.

As previously mentioned, the southern portion of the Project site is approximately one-third bare soil but is otherwise vegetated with annual grasses and forbs, with scattered shrubs. The northern portion is almost completely paved or developed with an existing structure; however, the northern property boundary has ornamental landscaping. The existing vegetation would be removed for the development of the new building, parking lot, and the Project site's landscaping. The existing vegetation was likely planted as ornamental landscaping around the existing parking lot, and is not part of a natural scenic landscape. The replacement of the existing vegetation with landscaping selected for the local climate, including the planting of 37 new trees, would not be anticipated to damage any existing scenic resources on Project site, such as existing trees or rock outcroppings. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response c): The proposed Project would replace an existing structure with one of approximately the same size. While development of the proposed Project would change and alter the existing visual character of the Project site, these changes would not degrade the visual quality of the site or the surrounding areas. The proposed building incorporates a mix of materials, architectural features, varied roof lines, building recesses and articulation which provide visual interest and maintain the City's urban character.

Various temporary visual impacts could occur as a result of construction activities as the Project develops, including grading, equipment and material storage, and staging. Though temporary, some of these impacts could last for several weeks or months during any single construction phase. The loss of existing landscaping and trees would also be a temporary impact until new landscaping matures. Because impacts would be temporary and viewer sensitivity in the majority of cases would be slight to moderate, significant impacts would not occur.

As previously mentioned, the proposed Project is not located in an area designated as having "potential scenic views toward the ocean or the Noyo River". The proposed retail store would occupy a location similar to that of the existing structure on the northern portion of the Project site, where views looking to the west toward the Pacific Ocean are blocked by the existing hotel, west of the Project site. Views to the Project site are currently dominated by the existing former office building and associated parking lot, which has been vacant since 2010. The southern portion of the Project site is partially bare, with vegetation consisting of grasses and forbs, with scattered shrubs. Existing views to the Project site are not characterized as scenic; therefore, the proposed Project is not anticipated to substantially degrade the existing visual character or

quality of the public views of the Project site and its surroundings, as the height of the proposed retail store would be consistent with the Project site's existing development and would comply with all required development standards, including maximum building height. Although the Project site is located on urban and built-up land per the California Department of Conservation, the Project is not located in an "urbanized area," as defined by either Public Resources Code section 21071 or CEQA Guidelines section 15387.

The proposed Project would be consistent with the Fort Bragg Coastal General Plan, and would adhere to the requirements of the City's site plan and architectural approval process. Therefore, this is considered a ***less than significant*** impact, and no additional mitigation is required. This issue will not be addressed further in the EIR.

Response d): The Project site is currently mostly developed and contains one vacant building with associated parking. Existing lighting at the Project site includes exterior building lighting, interior building lighting, and street lighting. There is a potential for the proposed Project to create new sources of light and glare, although the amount of light and glare would likely be similar to the existing conditions in the immediate vicinity of the Project site. Examples of lighting would include construction lighting, exterior building lighting, interior building lighting, and automobile lighting. Examples of glare would include reflective building materials and automobiles.

The proposed Project has the potential to increase light and glare and impact nighttime views as compared to existing conditions, as the Project site's current development consists of a former office building that has been vacant since 2010. A six-foot illuminated monument sign on the southeast corner of the Project site is proposed, in addition to an 83.3 sf illuminated channel sign located on the sign parapet along the front elevation of the retail store. To minimize potential impacts associated with light and glare on surrounding development, the proposed Project includes exterior lighting that would utilize energy-efficient fixtures and lamps, shielded or recessed, and directed downward in compliance with regulations set by the International Dark-Sky Association. Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic. This issue will not be addressed further in the EIR.

II. AGRICULTURE AND FORESTRY RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Discussion

The Project site is located within the Coastal Zone in the City of Fort Bragg city limits. The approximately 1.63-acre Project site contains existing development primarily within the northern half of the Project site. The northern lot is 95 percent covered by a paved parking area with shrubbery planted around the edges. The existing 16,436 sf vacant former office building is located on the middle lot. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. The properties in the immediate vicinity of the Project site either are already developed or are vacant but ready for development if and when development applications are filed and approved. No nearby properties are actively farmed, as they are located in an urban setting.

The Project site is designated as "Urban and Built-Up Land" under the Farmland Mapping and Monitoring Program (FMMP) of the California Department of Conservation (DOC), Division of Land Resource Protection, and is not under a Williamson Act Agricultural Preserve contract (Mendocino County Maps - Timber Production & Williamson Act Lands, 2014).

Responses to Checklist Questions

Response a): The proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, conflict with existing zoning for agricultural use, or a Williamson Act contract. As noted above, the Project site is designated as "Urban and Built-Up Land" under the FMMP of the DOC and is located within the City of Fort Bragg in an urban built-up environment.

Because the proposed Project only includes redevelopment of the Project site within an urban area of the City designated for urban uses, the Project has no potential to convert any off-site agricultural land, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Therefore, there is ***no impact***. This environmental issue will not be addressed further in the EIR.

Response b): The Project site is not zoned for agricultural use nor is it under a Williamson Act contract. The proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. Implementation of the proposed Project would have ***no impact*** relative to this issue. This issue will not be addressed further in the EIR.

Responses c), d): The Project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Implementation of the proposed Project would have ***no impact*** relative to this issue. These issues will not be addressed further in the EIR.

III. AIR QUALITY

Appendix G to the CEQA Guidelines states that "[w]here available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations." Consistent with this approach, the proposed Project will have a significant impact on the environment associated with air quality if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	X			
c) Expose sensitive receptors to substantial pollutant concentrations?	X			
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	X			

Responses to Checklist Questions

Responses a-d): Based on air quality concerns raised by public comments, the City has determined that the potential impacts on air quality caused by the proposed Project will require a detailed analysis in the text of the EIR. Consequently, the City will examine each of the four environmental issues listed in the checklist above in the EIR and will decide whether the proposed Project has the potential to have a significant impact on air quality. At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the text of the EIR.

The text of the EIR will include an air quality analysis that presents the methodology, thresholds of significance, an air quality plan consistency analysis, a cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce any potential impacts on air quality. The Project may result in toxic air contaminant emissions, short-term construction-related emissions, and long-term operational emissions, primarily attributable to emissions from vehicle trips and from energy consumption by the commercial uses. The proposed Project is located within North Coast Air Basin (NCAB), which is under the jurisdiction of the Mendocino County Air Quality Management District (MCAQMD). The City will consult with the MCAQMD regarding the Project's potential to cause impacts, and the applicability of the MCAQMD's Rules and Regulations. The City will also consult with the California Air Resources Board (CARB). The air quality analysis will include the following:

- A description of regional and local air quality as well meteorological conditions that could affect air pollutant dispersal or transport in the vicinity of the Project site. Applicable air quality regulatory framework, standards, and significance thresholds will be discussed.
- An analysis of the proposed Project's potential to conflict with or obstruct implementation of any applicable air quality plans.

- An analysis of the MCAQMD Rules and Regulations that are applicable to the proposed Project.
- Short-term (i.e., construction) increases in regional criteria air pollutants will be quantitatively assessed. The latest version of the CARB-approved California Emissions Estimator Model (CalEEMod) computer model will be used to estimate regional mobile source and particulate matter emissions associated with the construction of the proposed Project.
- Long-term (operational) increases in regional criteria air pollutants will be quantitatively assessed for area source, mobile sources, and stationary sources. The CARB-approved CalEEMod computer model will be used to estimate emissions associated with the proposed Project. Modeling will be provided for the worst-case proposed Project land use scenario.
- Exposure to odorous or toxic air contaminants during the Project's operational phase will be assessed through an air toxics health risk assessment, utilizing AERMOD and HARP-2 risk modeling software, following guidance as provided by the MCAQMD and the CARB. Incremental cancer risk for residents and workers, and chronic and acute hazards will be assessed.
- Local mobile-source (carbon monoxide) (CO) concentrations will be assessed through a CO screening method as recommended by the MCAQMD. If the screening method indicates that modeling is necessary, upon review of the traffic analysis, CO concentrations will be modeled using the California Department of Transportation (Caltrans)-approved CALINE4 computer model.
- The potential for the proposed Project to generate objectionable odors on neighboring sensitive receptors will be assessed qualitatively following CARB recommendations.

IV. BIOLOGICAL RESOURCES

CEQA Guidelines Appendix G is a sample Initial Study checklist that includes a number of factual inquiries related to the subject of biological resources, as it does on a whole series of additional environmental topics. Notably, lead agencies are under no obligation to use these inquiries in fashioning thresholds of significance on any subject addressed in the checklist. (Save Cuyama Valley v. County of Santa Barbara (2013) 213 Cal.App.4th 1059, 1068.) Rather, with few exceptions, "CEQA grants agencies discretion to develop their own thresholds of significance." (Ibid.) Even so, it is a common practice for lead agencies to take the language from the inquiries set forth in Appendix G and to use that language in fashioning thresholds.

Although CEQA generally gives agencies considerable discretion in fashioning significance thresholds, there are some thresholds that must, as a matter of law, be used by public agencies. Many of these relate to biological resources, and are found in CEQA Guidelines section 15065 ("Mandatory Findings of Significance").

Finally, the City is aware that neither Appendix G nor section 15065 sets forth language directly addressing potential effects on birds of prey or nesting birds due to violation of laws (described earlier) intended to protect them. The City has therefore exercised its discretion to formulate a threshold to address this particular category of impact.

In light of the foregoing, for purposes of this EIR, consistent with CEQA Guidelines section 15065, subdivision (a)(1), and Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on biological resources if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Substantially reduce the habitat of a fish or wildlife species?	X			
b) Cause a fish or wildlife population to drop below self-sustaining levels?	X			
c) Threaten to eliminate a plant or animal community?	X			
d) Substantially reduce the number or restrict the range of an endangered, rare or threatened species?	X			
e) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	X			
f) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
g) Have a substantial adverse effect on state or federally protected wetlands (including, but not	X			

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
h) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	X			
i) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	X			
j) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Responses to Checklist Questions

Responses a-i): Based on known biological resources in the region, and the potential for special-status species habitat in the region, the City has been determined that the potential impacts on biological resources caused by the proposed Project will require a detailed analysis in the text of the EIR. As such, the City will examine each of the nine environmental issues listed in the checklist above in the text of the EIR and will decide whether the proposed Project has the potential to have a significant impact on biological resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in text of the EIR.

The EIR text will provide a summary of local biological resources, including descriptions and mapping of plant communities, the associated plant and wildlife species, and sensitive biological resources known to occur, or with the potential to occur in the Project vicinity. The analysis will conclude with a consistency analysis regarding local policies or ordinances protecting biological resources (such as a tree preservation policy or ordinance), cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented in order to reduce impacts on biological resources and to ensure compliance with federal and state regulations.

Responses j): The proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, as there are no such plans applicable to the Project site. Therefore, the proposed Project would have ***no impact*** relative to this topic

V. CULTURAL RESOURCES

Consistent with Public Resources Code sections 21084.1, 21084.2, CEQA Guidelines section 15064.5[b], and Appendix G of the CEQA Guidelines, the proposed Project is considered to have a significant impact on cultural resources if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X	
c) Disturb any human remains, including those interred outside of formal cemeteries?			X	

Discussion

Consistent with Public Resources Code sections 21084.1, 21084.2, CEQA Guidelines section 15064.5[b], and Appendix G of the CEQA Guidelines, the proposed Project is considered to have a significant impact on cultural resources if it will:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5;
- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines §15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries; or
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.

CEQA guidelines use the following definitions to analyze impacts on historical or archaeological resources:

- Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (§ 15064.5(b)(1)).
- The significance of a historical resource would be materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that

convey its historic significance or justify its inclusion in, or eligibility for, the NRHP, CRHR, or local registers (§ 15064.5(b)(2)(A–C)).

Various City policies exist related to the protection and preservation of cultural and historical resources, including but not limited to: Policies OS-4.1 through OS-4.5 of Chapter 4 (Conservation, Open Space, Energy, and Parks) of the Coastal General Plan of the City of Fort Bragg (2008). These policies seek to protect and preserve cultural resources by requiring new development to be located and/or designed to avoid archaeological and paleontological resources, where feasible, archaeological resources reports for development in specific areas, and standard protocol in the event archaeological resources are uncovered during construction.

A Cultural Resources Inventory Survey (Cultural Survey) was prepared by Genesis Society on August 15, 2019, to evaluate the Project's potential to impact cultural resources in conformity with the City of Fort Bragg and Mendocino County rules and regulations, and in compliance with requirements of CEQA and the CEQA Guidelines. Due to the sensitive and confidential nature of cultural reports, a copy of the Cultural Survey is not included as an appendix to this Initial Study. This study was reviewed for adequacy as part of this Initial Study. The review determined that there is no potential for new cultural events or historical changes to have occurred on this site since the 2019 Cultural Study was performed. The 2019 Cultural Study is found to be adequate and remains valid.

According to the Cultural Resources Inventory Survey, the region in which the Project site is located was first inhabited more than 12,000 years ago. Prior to historic settlement, the lands surrounding the Noyo River were covered by a variety of coastal scrub and a mixed forest dominated by Bishop pine and including redwood, conifers, and hardwoods such as tanoak and madrone. The Project site is located within the territory claimed by the Northern Pomo at the time of initial European-American entry into the region. The Northern Pomo consisted of multiple tribelets, which consisted of three (3) to five (5) primary villages. One (1) ethnographic village, Kadiu, was located immediately north of the Noyo River and is today identified immediately west of State Highway 1, west of the Project site. Pomo cultural materials are documented in both ethnographic and archaeological records and artifacts include a wide variety of materials and expressions. Colonization of the region began in 1812 with the establishment of Fort Ross by Russia, approximately 80 miles south of the Project site, and was followed by other European-American explorers who visited, then later settled, the Mendocino Coast beginning in the 1830s. In 1855, the federal government created the 25,000-acre Mendocino Indian Reservation adjacent to the north side of the Noyo River. In 1857, Fort Bragg was established between Pudding Creek and the Noyo River, to administer the large reservation until 1864 when the interred Native Americans were forcibly moved to the Round Valley Indian Reservation near Covelo. Widespread settlement in Mendocino County was spurred by demand for both lumber and agricultural lands and led to the establishment of mills throughout the County and the 1891 formation of the Union Lumber Company in Fort Bragg; the Union Lumber Company closed in 1969 (Genesis Society, 2019).

A records search was conducted at the Northwest Information Center (NWIC) located on the Sonoma State University campus on July 16, 2019 (File No. 18-2464), which included a review of all records on file for lands within a 0.25-mile radius of the Project site, including archaeological site and survey records, and numerous registries and inventories reviewed as part of the NWIC search, or evaluated separately. Topographic maps from 1943 through 1985 depict a school within the Project area; however, aerial photographs show that no structures existed on the Project site between 1943 and 1996. As such, the Cultural Survey deduced that the school icon visible on historic topographic maps represents an "artifact" from older topographic maps. A

review of the historic registers and inventories indicated that no archaeological investigation had been previously prepared for the Project site and no historic properties or cultural resources have been documented within the Project area; however, eight cultural resources have been documented within a 0.25-mile radius of the Project site.

As noted in the Cultural Survey, fieldwork was conducted on August 10, 2019, by Genesis Society and entailed an intensive pedestrian survey by means of walking systematic transects, spaced at 10-meter intervals within the portions of the Project site that did not contain existing impervious surface cover, including building, parking, roads, etc. In surfaced areas, structure and road margins were inspected for any native soils. The Cultural Survey notes that the majority of the Project site has been subjected to intensive disturbance as a result of wholesale demolition, grading, and subsequent contemporary (post-1996) commercial building construction. No evidence of prehistoric or historic use or occupation was observed within the Project site, most likely due to the degree of contemporary disturbance to which the Project site has been subjected. Based on the findings of the records search and pedestrian survey, no significant historical resources or unique archaeological resources are present within the Project area and none will be affected by the proposed Project (Genesis, 2019).

On June 20, 2019, Genesis Society contacted the Native American Heritage Commission (NAHC) to request information concerning archaeological sites or traditional use areas for the Project area. The NAHC response letter, dated June 28, 2019, indicated that a Sacred Lands File (SLF) search was completed and returned a negative result. The NAHC provided a list of 13 Native American contacts who may have knowledge of cultural resources in the Project area and suggested that Genesis Society contact all of those indicated. The NAHC Native American Contacts List dated June 27, 2019, including the Director and Chairperson of the Cahto Tribe; the Chairpersons of the Coyote Valley Band of Pomo Indians, Guidiville Band of Pomo Indians, Hopland Band of Pomo Indians, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Manchester Band of Pomo Indians, Noyo River Indian Community, Pinoleville Pomo Nation, Potter Valley Tribe, Redwood Valley or Little River Band of Pomo Indians, and Sherwood Valley Band of Pomo Indians; and the President of the Round Valley Reservation/Covelo Indian Community.

On July 22, 2019, Genesis Society sent letters to all representatives on the NAHC contact list, and those contacted were requested to supply any information they might have concerning prehistoric sites or traditional use areas within, adjacent, or near the Project area. A follow-up email and telephone call were placed with Tina Sutherland of the Sherwood Valley Band of Pomo Indians on Saturday, August 10, 2019, prior to the pedestrian survey. No responses were received from the contacted parties. As no prehistoric cultural material was identified during the records search or pedestrian survey, no additional consultation was undertaken by Genesis Society or the City of Fort Bragg (City), and the City, as Lead Agency, has deemed the Tribal consultation process complete. Copies of the NAHC response and Native American Contacts List and an example of the letters sent to Tribal representatives are included in the Cultural Survey (Genesis Society, 2019).

Responses to Checklist Questions

Response a): As discussed above, the Cultural Survey (Genesis Society, 2019) found that no historical resources or historic properties have been documented within the Project area. While the proposed Project includes the demolition of an existing building, the existing building is a contemporary (post-1996) commercial building. As a result, ***no impact*** would occur. Even so, the proposed Project, if approved, will be subject to a standard condition of approval requiring that, in the event of the discovery during construction of potential historical resources of an

archaeological nature, unique archaeological resources, or tribal cultural resources, work in the affected area will cease until a qualified archaeologist, working with City staff, determines whether, indeed, any such resources are actually present and, if so, formulates and carries out measures for either avoiding them or otherwise treating them. These issues will not be addressed further in the EIR.

Responses b-c): The Project is not anticipated to cause a substantial adverse change in the significance of an archaeological resource or disturb any human remains. As noted above, based on the records search conducted at the NWIC, the consultation undertaken with the NAHC, and the Tribal consultation effort completed by Genesis Society (2019), no unique archaeological resources or prehistoric cultural material was identified in the Project area. The Cultural Survey recommends archaeological clearance for the proposed Project, with the inclusion of general provisions that recommend consultation and protocol in the event of inadvertent discovery. A standard condition of approval to that effect, as discussed above, will be applied to the Project. The proposed Project is found consistent with policies of the City of Fort Bragg for protection of cultural resources, including human remains. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

VI. ENERGY

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	X			
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	X			

Responses to Checklist Questions

Responses a), b): Appendix F of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to minimize significant effects on the environment, including measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The amount of energy used at the Project site would directly correlate to the size of the future building, the energy consumption of associated technology, machinery, and appliances, and outdoor lighting. Other major sources of energy consumption associated with future buildout of the Project site include fuel used by vehicle trips generated during Project construction and operation, and fuel used by off-road construction vehicles during construction.

As a result, the potential impacts on energy caused by the proposed Project will require a detailed analysis in the text of the EIR. Consequently, the City will examine each of the environmental issues listed in the checklist above in the EIR text and will decide whether the proposed Project has the potential to have a significant impact on energy resources. The EIR text will include a discussion and analysis that provides calculated levels of energy use expected for the proposed Project, based on commonly used modelling software (i.e. CalEEMod v.2016.3.2 and the CARB's EMFAC2014). At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the text of the EIR.

VII. GEOLOGY AND SOILS

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation***	***Less Than Significant Impact***	***No Impact***
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Discussion

The City of Fort Bragg (City) is located in the Coast Ranges geologic province, an area dominated by north-west trending mountain ranges, which have been cut by major river valleys. As provided in Chapter 7 (Safety) of the City of Fort Bragg Coastal General Plan, the City is located approximately nine miles east of the San Andreas Fault Zone and 22 miles west of the Mayacama Fault Zone, which are the two major fault systems capable of generating significant earthquakes in the region.

As provided in Chapter 3, The Land Use Plan: Resources and Development Issues and Policies of the Mendocino County Coastal Element, the Coastal Zone is seismically active and vulnerable to earthquake hazards which include surface rupture, ground shaking, liquefaction, and differential settlement (County, 1985). The Project site is not located within an Alquist-Priolo special studies zone nor do any known faults traverse the Project site (California Geologic Survey [CGS], 2019). Since the Project site is located within a seismically active region and per the Earthquake Shaking Potential for California map, there is a high likelihood of experiencing large earthquakes that display strong shaking to occur during the economic lifespan (50 years) of any development on the Project site (CGS, 2016).

The specific soil type underlying the Project site is classified as Urban land, 0 to 15 percent slopes (Soil Type #219). This soil type is predominantly covered by impervious surfaces or has been altered by cutting, filling, and grading. About 25 percent consists of unaltered soils that are extremely variable and require an onsite investigation to evaluate the potential and limitations for any proposed use (USDA, 2006). No historic landslides have been mapped in the vicinity nor within the boundaries of the Project site. Additionally, the Project site is not mapped for liquefaction potential, although geologic maps indicate the Project site is underlain by Pleistocene aged marine and marine terrace deposits that are potentially susceptible to liquefaction (DMG, 1960). The Project site is relativity flat with gentle slopes of less than 5 percent to the northwest and southwest towards the neighboring property, in the developed portion of the Project site.

Paleontology is defined as a science dealing with the life of past geological periods as known from fossil remains. Paleontological resources include fossil remains, as well as fossil localities and formations that have produced fossil material. Such locations and specimens are important nonrenewable resources. According to the County of Mendocino General Plan Update Draft EIR, a search of the University of California Museum of Paleontology (UCMP) collections database identified 182 paleontological resources in Mendocino County. These resources primarily consist of vertebrates and invertebrates. The majority of the resources are invertebrates found in the Coastal Zone.

Response to Checklist Questions

Response a.i-ii): The CGS evaluates faults and determines if a fault should be zoned as active, potentially active, or inactive. All active faults are incorporated into a Special Studies Zone, also referred to as an Alquist-Priolo Special Study Zone. The Project site is not located within an Earthquake Fault Zone or an area currently designated as a "Seismic Hazard Zone" by the State and the nearest active fault to the Project site is the San Andreas Fault Zone, located approximately 9 miles west of the Project site (City, 2008). However, since the Project site is located within a seismically active region proximal to multiple seismic sources (the Mayacama Fault Zone and San Andreas Fault) capable of generating moderate to large ground motions, it is expected that the Project area would likely experience large earthquakes that display strong shaking during the economic life span of any Project site development, including the proposed Project. Given the proximity of the proposed Project to active seismic sources within the region currently and based on the distance between the Project site and the closest active fault, the San Andreas Fault zone, the potential for surface rupture at the Project site is considered moderate.

The proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to earthquake faults. There will always be a potential for groundshaking caused by seismic activity

anywhere in California, including the Project site. In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Code (CBC). Design in accordance with these standards would reduce any potential impact to a ***less than significant*** level. These issues will not be addressed further in the EIR.

Response a.iii): The Project site is not mapped for liquefaction potential, although geologic maps indicate the Project site is underlain by Pleistocene aged marine and marine terrace deposits that are potentially susceptible to liquefaction (DMG, 1960). The proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to liquefaction. Additionally, since the proposed Project would be subject to the requirements of the latest version of the CBC to reduce any potential geological risks, a ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response a.iv): There are several categories of landslides including: rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill).

Landslides generally occur on relatively steep slopes and/or on slopes underlain by weak sediments. As previously discussed, no historic landslides have been mapped in the vicinity nor within the boundaries of the Project site. As seen from Google Earth imagery, the Project site is relatively flat with gentle slopes of less than 5 percent to the northwest and southwest towards the neighboring property, in the developed portion of the Project site and elevations ranging from approximately 117 feet and 122 feet amsl. As noted previously, the proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to landslides. Given the relatively low slopes, both on and adjacent to the Project site, and no historic landslides mapped in the vicinity of the Project site, ***no impact*** would occur. This issue will not be addressed further in the EIR.

Response b): Construction activities including grading could temporarily increase soil erosion rates during and shortly after Project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters. The Construction General Permit issued by the State Water Board and implemented and enforced by Regional Water Quality Control Boards (Construction General Permit Order 2009-0009-DWQ, also known as the CGP) requires a Project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each Project that disturbs an area one acre or larger. The SWPPP will include Project specific best management measures that are designed to control drainage and erosion.

On-site development would require demolition, excavation, and groundbreaking activities. All development activities, including the proposed retail store, would be subject to the site development regulations in Article 6, Chapter 17.60 of the City's CLUDC, which include environmental protection and Best Management Practices (BMPs) for minimizing erosion resulting from construction, avoiding runoff into sensitive habitat areas, limiting ground

disturbance to the minimum necessary, and stabilizing disturbed surfaces as soon as feasible after construction is complete. In compliance with these regulations, the Project contractor would be required to implement the BMPs provided on the approved Erosion and Sediment Control Plan (ESCP) prepared for the Project, which may include, but are not limited, to straw bales, fiber rolls, and/or silt fencing structures. As a result, a ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response c): Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and some gravelly soils. Cohesive soils are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces or deep foundations are present. Because the compaction and placement history of the fill is unknown, and the anticipated seismic and groundwater conditions, the exact liquefaction potential is unknown, although it is expected to be low during seismic events.

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Areas in the region that are susceptible to this hazard are located along creeks or open water bodies, or within the foothills to the west. There are no creeks or open bodies of water within an appropriate distance from the Project site for lateral spreading to occur on the Project site. For this reason, the probability of lateral spreading occurring on the Project site is low.

As previously discussed, landslides are not known to have previously occurred on or in the immediate vicinity of the Project site, as no historic landslides have been mapped in the vicinity nor within the boundaries of the Project site. Additionally, the majority of the Project site contains gentle slopes, and the potential for liquefaction at the Project site is low since the Project site is not located within a mapped liquefaction zone. As a result, the potential for lateral spreading and subsidence at the Project site is considered low.

As described above, the Project site is not located within a mapped Alquist-Priolo special studies zone; however, the Project site is located within a seismically active region and would experience large earthquakes that display strong shaking during the economic life span of any development on the Project site. As noted previously, the proposed Project would replace an existing structure with one of approximately the same size. The proposed retail store would occupy a similar location to the existing structure on the northern portion of the Project site. The Project does not include any off-site improvements. The Project would not cause any effects by exacerbating existing hazards, including those related to unstable soils. The proposed Project would be subject to the requirements of the latest version of the CBC in order to minimize potential geological risks. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response d): Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume

during changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections.

Soil expansion is dependent on many factors. The more clayey, critically expansive surface soil and fill materials will be subjected to volume changes during seasonal fluctuations in moisture content. Sycamore silt loam, drained, zero percent slopes, is the only soil located on the Project site. The Sycamore series consists of soils formed under poorly drained conditions, although the Project site soils are drained. The soils formed in mixed sedimentary alluvium. The site surface soils have low expansion potential.

No known expansive soils are located at the Project site. Expansive soils generally consist of cohesive fine- grained clay soils and represent a significant structural hazard to buildings founded on them as they have a tendency to undergo volume changes (shrink or swell) with changes in moisture content, especially where seasonal fluctuations in soil moisture occur at the foundation-bearing depth. As described above, the soils at the Project site are predominantly covered by impervious surfaces or have been altered by cutting, filling, and grading. About 25 percent consists of unaltered soils that are extremely variable and require an onsite investigation to evaluate the potential and limitations for any proposed use (USDA, 2006). The Project site contains existing development primarily within the northern half, the subsurface soils are predominately covered by impervious surfaces or have been altered by cutting, filling, and grading, and would be unlikely to be affected by seasonal wetting and drying. The southern-most lot is vacant and has been heavily disturbed, with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response e): The Project site is currently and would continue to be served by community water and sanitary sewer systems, provided by the City of Fort Bragg's Public Works Department, which would be modified to serve the proposed retail store. Since the Project would not require the use of septic tanks or alternative wastewater disposal systems, ***no impact*** would occur. This issue will not be addressed further in the EIR.

Response f): Per Element 4 (Conservation, Open Space, Energy, and Parks) of the City's Coastal General Plan, Map OS-2 indicates that the Project site is not within a special review area, areas of known or potential archaeological or paleontological resources. As such, the probability of a unique paleontological resource or site or unique geologic feature at the Project site is low. It is a standard practice that in the event that fossils or fossil-bearing deposits are discovered during Project construction, a qualified paleontologist examines the discovery, and excavations within 50 feet of the find are temporarily halted or diverted. The area of discovery is then protected to ensure that fossils are not removed, handled, altered, or damaged until the Project site is properly evaluated, and further action is determined. The paleontologist documents a discovery as needed, in accordance with the Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluates the potential resource, and then assesses the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5 and Public Resources Code section 21083.2, subdivision (g). The paleontologist notifies the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the Project proponent determines that avoidance is not feasible, the paleontologist prepares an excavation plan for mitigating the effect of the Project based on the qualities that make the resource important. The plan is reviewed and approved by the City prior to implementation. While the Project site is not in a special review area for paleontological resources, the City's standard practice of halting construction in the event of a find until the resource can be evaluated is appropriate in the event a resource is encountered during Project

construction. A standard condition of approval to that effect will be applied to the Project. The proposed Project is found consistent with policies of the City of Fort Bragg for protection of paleontological resources. With implementation of standard practices in the event of a find, a ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

VIII. GREENHOUSE GAS EMISSIONS

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	X			

Discussion

The Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32, is a State law that establishes a comprehensive program to reduce greenhouse gas (GHG) emissions from all sources throughout the State. AB 32 requires the State to reduce its total GHG emissions to 1990 levels by 2020, a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. Pursuant to the AB 32 Scoping Plan (last reviewed in 2018), the California Air Resources Board (ARB) must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The following major GHGs and groups of GHGs being emitted into the atmosphere are included under AB 32: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3). The 2020 GHG emissions statewide limit set by AB 32, equal to the 1990 level, is 431 million metric tons of carbon dioxide (CO2) equivalent (MMTCO2e). In addition, in 2016, Senate Bill (SB) 32 was signed into law to codify the reduction target to reduce GHG emissions to 40 percent below the 1990 levels by 2030 (ARB, 2018). The 2019 edition of ARB's California Greenhouse Gas Emissions for 2000 to 2017 (California GHG Emission Inventory) states that GHG emissions within the State of California have followed a declining trend since 2007. In 2017, statewide GHG emissions were 424 MMTCO2e, which was 5 MMTCO2e lower than 2016 levels and lower than the 2020 statewide GHG limit of 431 MMTCO2e. The transportation section remains the largest source of GHG emissions in the State, accounting for 41 percent of the State's GHG emissions in 2017 (CARB, 2019).

In 2012, the City of Fort Bragg adopted a Climate Action Plan. The plan sets GHG reduction goals, including a 30 percent reduction in GHG for the municipality by 2020, and a 7 percent reduction goal for the community by 2020. As noted in Section III (Air Quality) above, the Project site is located within the NCAB and is subject to the requirements of the MCAQMD. The MCAQMD is responsible for monitoring and enforcing federal, state, and local air quality standards in Mendocino County.

Responses to Checklist Questions

Responses a), b): Implementation of the proposed Project could generate greenhouse gases (GHGs) from a variety of sources, including but not limited to vehicle trips, electricity consumption, water use, and solid waste generation. There could also be additional GHGs generated from stationary sources, such as industrial processes and/or diesel generators. The City has determined that the potential impacts from GHG emissions by the proposed Project will require a detailed analysis in the EIR. As such, the City will examine each of the environmental issues listed in the checklist above in the text of the EIR and will decide whether the proposed

Project has the potential to have a significant impact from GHG emissions. At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the text of the EIR.

The EIR text will include a GHG emissions analysis pursuant to the requirements of the California Governor's Executive Order S-3-05 and The Global Warming Solutions Act of 2006 (AB 32), Senate Bill 375 (SB 375), and Senate Bill 32 (SB 32). The analysis will follow the California Air Pollution Control Officers Association (CAPCOA) white paper methodology and recommendations presented in "Climate Change and CEQA", which was prepared in coordination with the CARB and the Governor's Office of Planning and Research (OPR) as a common platform for public agencies to ensure that GHG emissions are appropriately considered and addressed under CEQA. Also, a GHG emissions analysis will be performed. These analyses will consider a regional approach toward determining whether GHG emissions are significant, and will present mitigation measures to reduce any potential impacts. The discussion and analysis will include quantification of GHGs generated by the Project using the CalEEMod computer model as well as a qualitative discussion of the Project's consistency with any applicable state and local plans to reduce the impacts of climate change.

IX. HAZARDS AND HAZARDOUS MATERIALS

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the Project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Discussion

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or has characteristics defined as hazardous by a federal, state, or local agency. Chemical and physical properties such as toxicity, ignitability, corrosiveness, and reactivity cause a substance to be considered hazardous. These properties are defined in the California Code of Regulations, Title 22, Article 3: Characteristics of Hazardous Waste (effective July 1, 1991). A "hazardous waste" includes any hazardous material that is discarded, abandoned, or will be recycled. The criteria that render a material hazardous also cause a waste to be classified as hazardous, per California Health and Safety Code, Chapter 6.5, Section 25117 (effective January 1, 1997).

The Project site does not include any known hazardous waste sites, as mapped by the State Water Resources Quality Control Board (SWRQCB) or the California Department of Toxic Substances

Control (DTSC). The Project site or immediate vicinity does not include any known hazardous waste sites as mapped by the California DTSC. As provided on the SWRQCB's GeoTracker, eight listed sites are located within one-quarter mile of the Project site, as provided in Table HAZ-1, below.

Table HAZ-1: GeoTracker-Listed Hazardous Materials Sites within Close Proximity (0.2135 miles) to Site

ID	*Name & Case No.*	*Case Type*	*Location*	*Distance & Direction to Site*	*Cleanup Status*
1	Chevron #9-3892 [T0604500037; RB Case #: 1TMC043]	LUST Cleanup Site	1004 Main St., South	175 feet SW of Site	Completed – Case Closed
2	Cummings Trust–Lot #2 [T0604530112; RB Case #: 1TMC558]	LUST Cleanup Site	32100 Harbor Dr., North	550 feet SE of Site	Completed – Case Closed
3	CDOT Noyo Bridge [T0604593397; RB Case #: 1NMC328]	Cleanup Program Site	Highway 1 / Noyo Bridge	715 feet SW of Site	Completed – Case Closed
4	Texaco, R&F [T0604500059; RB Case #: 1TMC068]	LUST Cleanup Site	700 Main St., South	725 feet NW of Site	Completed – Case Closed
5	Cummings Trust-Lot #3 [T0604559616; RB Case #: 1TMC553]	LUST Cleanup Site	32200 Harbor Dr., North	730 feet SE of Site	Completed – Case Closed
6	Private Residence [T0604548745; RB Case #: 1TMC544]	LUST Cleanup Site	Private Residence	825 feet N of Site	Completed – Case Closed
7	Wharf Restaurant, The [T0604593496; RB Case #: 1TMC446]	LUST Cleanup Site	32260 Harbor Dr., North	905 feet SE of Site	Completed – Case Closed
8	Mendocino Coast District Hospital [T0604500352; RB Case #: 1TMC429]	LUST Cleanup Site	700 River Dr.	995 feet NE of Site	Completed – Case Closed

NOTE: LUST = LEAKING UNDERGROUND STORAGE TANK.
SOURCE: SWRCB, 2020.

The Project would require the transport, use, storage, and disposal of small quantities of hazardous materials common for equipment and property maintenance and operation, such as gasoline, diesel fuel, hydraulic fluids, oils, lubricants, and cleaning solvents and supplies. All hazardous materials would be utilized and disposed of in accordance with all applicable federal and state regulations.

Responses to Checklist Questions

Responses a-b): The Project proposes the construction and operation of a retail store that would be anticipated to require the routine transport, use, or disposal of hazardous materials common to construction and operations of retail stores. During construction, common hazardous materials such as gasoline, diesel fuel, hydraulic fluids, oils, lubricants, and cleaning solvents would be anticipated to be utilized on-site. However, the types and quantities of hazardous materials to be used are not expected to pose a significant risk to the public and/or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Operation of the proposed Project may require the use of hazardous materials such as materials utilized in the routine cleaning of the building or for landscaping maintenance, and hazardous materials, including but not limited to cleaning supplies and batteries, would be anticipated to be

sold on-site. In accordance with the guidance in The Permit Place of the Mendocino County Division of Environmental Health (EH) (2008), a business that handles a hazardous material or a mixture containing a hazardous material in a quantity equal to or greater than 55 gallons liquid, 500 pounds solid material, or 200 cubic feet gaseous material at any one time during the year may be required to obtain a Certified Unified Program Agency (CUPA) Permit through EH, the approved CUPA for Mendocino County. As part of the CUPA Permit process, a Hazardous Materials Management Plan (HMMP) would be required to be prepared, implemented, and filed with EH. Any hazardous materials transported, used, sold, or disposed of on-site would be managed in accordance with federal, state, and local regulations. A ***less than significant*** impact would occur. These issues will not be addressed further in the EIR.

Response c): The schools closest to the Project site include Sprouts Montessori Children's located approximately 0.49 miles southwest of the Project site, Three Rivers Charter School located approximately 0.53 miles southwest of the Project site, both located across the Noyo River from the Project site, and Redwood Elementary School located approximately 0.64 miles northeast of the Project site. The Project site is not located within one-quarter mile of a school. ***No impact*** would occur. This issue will not be addressed further in the EIR.

Response d): As shown in Table HAZ-1 above, eight listed hazardous materials sites listed on the SWRCB's GeoTracker database are located within one-quarter mile of the Project site and no hazardous materials sites within the vicinity of the Project site are included on DTSC's EnviroStor database. Of the eight total sites, seven are Leaking Underground Storage Tank (LUST) sites, and the case has been completed and closed for each. The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5. ***No impact*** would occur. This issue will not be addressed further in the EIR.

Response e): The Project site is located approximately 2.8 miles southwest of the Fort Bragg airport. As the proposed Project is not located within the vicinity of an airport, the Project would not the Project result in a safety hazard or excessive noise for people residing or working in the Project area. ***No impact*** would occur. This issue will not be addressed further in the EIR.

Response f): The City of Fort Bragg and County of Mendocino has adopted numerous plans related to hazard management and mitigation, and emergency response, including but not limited to: the City of Fort Bragg Emergency Operations Plan (2010), the Mendocino County Community Wildfire Protection Plan (2005), Hazardous Waste Management Plan, Mendocino County Operational Area Emergency Operations Plan (2016), and Mendocino County Multi-Jurisdictional Hazard Mitigation Plan (2014), in which the City of Fort Bragg (City) is a participant. In addition, the Safety Element of the City of Fort Bragg Coastal General Plan aims at protecting people and property from natural hazards and other locally relevant safety issues.

The County of Mendocino adopted the Mendocino County Operational Area Emergency Operations Plan (County EOP) on September 13, 2016, under Resolution Number 16-119. As noted on the Plans and Publications webpage of the Mendocino County Office of Emergency Services (MCOES), the County EOP, which complies with local ordinances, state law, and state and federal emergency planning guidance, serves as the primary guide for coordinating and responding to all emergencies and disasters within the County. The purpose of the County EOP is to "facilitate multi-agency and multi-jurisdictional coordination during emergency operations, particularly between Mendocino County, local and tribal governments, special districts as well as state and federal agencies" (MCOES – Plans and Publications, 2019). The proposed development would be compatible with existing surrounding development and would be designed to current

standards with suitable road widths and turn radii to accommodate emergency vehicles. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response g): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. The Project site is located within a "Low" Fuel Rank fire hazard severity zone per Figure C-13 of the 2014 Mendocino County Multi-Hazard Mitigation Plan, in an urban built- up environment within the City of Fort Bragg's city limits. Additionally, the Project site is located within the Local Responsibility Area (LRA) (Mendocino County Maps – Fort Bragg – Fire Responsibility Areas, 2019) and, per the City of Fort Bragg website (Not Dated), is served by the Fort Bragg Fire Department, a Joint Powers Authority formed in 1990 by the City of Fort Bragg and the Fort Bragg Rural Fire Protection District to jointly provide fire services within the City of Fort Bragg and outlying rural areas. The nearest fire station to the Project site is the Main Street Fire Station located at 141 N. Main Street, approximately 0.9 miles north of the Project site. The proposed retail store would be constructed in accordance with state and local standards, including safety and emergency access requirements. By meeting current standards and design requirements and with sufficient fire protection services available to serve the Project site, a ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

X. HYDROLOGY AND WATER QUALITY

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			X	
(i) Result in substantial erosion or siltation on- or off-site;			X	
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
(iv) Impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Discussion

The National Pollutant Discharge Elimination System (NPDES) permit program of the U.S. Environmental Protection Agency (EPA) addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. Created in 1972 by the Clean Water Act, the NPDES permit program grants authority to state governments to perform many permitting, administrative, and enforcement aspects of the program. Within California, the NPDES permit program is administered by the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards. Construction projects that would disturb more than one acre of land, such as the proposed Project, would be subject to the requirements of General Construction Activity Stormwater Permit (Construction General Permit Order 2009-0009-DWQ, also known as the CGP), which requires operators of such construction sites to implement stormwater controls and develop a SWPPP identifying specific BMPs to be implemented to minimize the

amount of sediment and other pollutants associated with construction sites from being discharged in stormwater runoff. Discharges of stormwater and non-stormwater from the Municipal Separate Storm Sewer System (MS4) within the jurisdictional boundary of the City of Fort Bragg are subject to Water Quality Order No. 2013-0001-DWQ, NPDES General Permit No. CAS00004, Waste Discharge Requirements for Storm Water Discharges from MS4s (Phase II MS4 Permit). The Phase II MS4 Permit authorizes the City to discharge stormwater runoff and certain non-stormwater discharges from its MS4 to waters of the United States and provides a framework and requirements for the implementation of the City MS4 Program.

All development activities proposed on-site would be subject to the regulations provided in Chapter 17.64 Stormwater Runoff Pollution Control of the City of Fort Bragg CLUDC. This chapter outlines standards for managing stormwater runoff water quality and discharge during and post-construction. Compliance with Chapter 17.64 of the CLUDC would require the preparation of a SWPPP, in accordance with the CLUDC and the CGP, described above, which would evaluate and minimize potential construction-phase impacts to water quality and coastal waters by specifying temporary Best Management Practices (BMPs) to minimize erosion and sedimentation during construction and prevent the contamination of runoff from the Project site, and would require preliminary and final Runoff Mitigation Plans, which would describe post-construction BMPs that would be used in the Project to minimize increases in stormwater runoff volume and to prevent polluted runoff from the built Project. In addition, in accordance with Section 17.64.045 Developments of Special Water Quality Concern of the CLUDC, as the proposed Project includes the construction of greater than 10,000 sf of impervious surface area, it would be considered a "Development of Special Water Quality Concern" and would be subject to additional requirements designed to minimize potential adverse impacts to coastal water quality, including submittal of a Water Quality Management Plan, which would include BMPs to minimize post-construction water quality impacts.

As indicated in the City of Fort Bragg Public Works Department's referral dated September 2, 2020, as this development includes over one acre of disturbance, the Applicant is required to submit a SWPPP to the North Coastal Regional Water Quality Control Board pursuant to the CGP. A Runoff Mitigation Plan (RMP) is required by the City to demonstrate the Project meets the requirements established by local, state, and federal regulations. The City's RMP requirement can be fulfilled by a SWPPP instead. If using a SWPPP to fulfill the RMP, a draft version should be submitted to the City to ensure the Project is in compliance prior to filing for a Notice of Intent (NOI) with the State. The draft SWPPP and/or RMP would be due prior to the issuance of a building permit. All drainage and LID features shall be constructed in accordance with the approved RMP and/or SWPPP.

The 1.63-acre Project site consists of three lots located on the west side of S. Franklin Street. The Project site contains existing development primarily within the northern half of the Project site. The northern lot is 95 percent covered by a paved parking area with shrubbery planted around the edges of the lot. The existing 16,436 sf vacant former office building, locally referred to as the "Old Social Services Building," is located on the middle lot. The southern-most lot is vacant with one-third bare soil and two-thirds covered with annual grasses and forbs with scattered shrubs. The Project site is not known to contain any creeks/streams, riparian areas, or wetlands on-site (USFWS, 2020; Wildland Resources Managers, Revised March 2022). The Project site is located in Zone "X" – area of minimal flood hazard – as shown on Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer FIRMette map number 06045C1016G, effective July 18, 2017. As the topography of the Project site is relatively flat, stormwater typically infiltrates in the undeveloped portion of the Project site or flows to the northwest and southwest

towards the neighboring property, in the developed portion of the Project site. The nearest bodies of water are the Noyo River, which is located approximately 600 feet south of the Project site, and the Pacific Ocean, which is located approximately 1,200 feet west of the Project site. Regional drainage is controlled by the Noyo River. The Noyo River is on the SWRCB's 303(d) list of impaired waterbodies for sediment. The listing was the result of water quality problems related to sedimentation throughout the watershed, which impacts the cold-water fishery utilized by cold-water fish such as coho salmon and steelhead trout (USEPA, 1999).

The proposed Project includes the demolition of an existing 16,436 sf vacant former office building and associated 47-space parking lot and wooden fencing along the property line, and the construction and operation of a 16,157 sf, one-story, retail store with a 53-space parking lot and associated improvements and infrastructure. The Project would include 51,650 sf (1.18 acres) of hardscape area, which includes the proposed store, parking lot, accessways, or sidewalks, and approximately 19,265 sf (0.44 acres) of landscaped areas throughout the Project site that would encourage natural stormwater infiltration. The existing planted ornamental trees along the South Street frontage would be removed and replaced with landscaping selected for the local climate and would include trees and vegetation along the north, south, and east boundaries, with a few along the west boundary, as well as one tree within each of the parking lot landscaping islands. Drainage improvements on-site would include post-construction BMPs, including bioretention basins located along the northwest and southwest boundaries, designed to capture stormwater and pre-treat it on-site to remove dirt, oil, and heavy metals. Off-site improvements, such as sidewalk curbs and gutters, would be required to convey flows from the post-construction BMPs at the Project site to the existing Caltrans stormwater drainage system located west of the Project site on State Highway 1.

Responses to Checklist Questions

Response a): The proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. As discussed above, the Project site is located within the City of Fort Bragg and is located in the Coastal Zone. As such, the proposed Project would be required to obtain a Coastal Development Permit (CDP), which requires conformance with all relevant regulations of the City of Fort Bragg, including Chapter 17.64 Stormwater Runoff Pollution Control and Chapter 12.14 Drainage Facility Improvements of the CLUDC. As described above, compliance with Chapter 17.64 and 12.14 of the CLUDC and the Statewide CGP, for projects disturbing over one acre, would ensure that the proposed Project would minimize pollutant loading and erosive stormwater runoff flows both during and post-construction. Additionally, the proposed development would be provided water and wastewater collection service by the City of Fort Bragg. These service providers are required to operate in compliance with all water quality standards and waste discharge requirements. Through proper implementation of appropriate BMPs, and compliance with the aforementioned regulations required as part of the CDP process, the proposed Project would not violate any water quality standards or waste discharge requirements. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response b): The proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. As noted above, the proposed development would be provided water and wastewater collection service by the City of Fort Bragg and would therefore not require the use of groundwater to serve the proposed development. As the Project site is partially undeveloped, the proposed Project would increase the amount of impervious surfaces on-site. However, the Project proposal includes landscaping and post-construction BMPs, including bioretention facilities, designed to capture and treat runoff from the proposed

impervious surfaces, and substantial landscaping that would allow for stormwater infiltration and groundwater recharge throughout the Project site. With the incorporation of landscaping and post- construction BMPs, development of the 1.63-acre Project site would not significantly impact groundwater recharge, and a ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Responses c.i-ii): The proposed Project would not alter the existing drainage pattern of the Project site in a manner which would result in substantial erosion or siltation on- or off-site or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site since any potential runoff from the Project site would be controlled within the guidance of existing regulations. During construction, erosion would be minimized, and runoff would be managed through the implementation of Project-specific BMPs detailed in the SWPPP prepared for the proposed Project, which may include physical barriers such as straw bales, fiber rolls, and/or silt fencing structures, and preventative actions such as scheduling construction for the non-rainy season, if possible, soil compaction, and seeding/mulching disturbed areas. In addition, post-construction runoff and stormwater flows would be managed through stormwater facilities designed in accordance with Chapter 17.64 of the CLUDC. Off-site improvements, such as sidewalk curbs and gutters, would be required to convey flows from the post-construction BMPs at the Project site to the existing Caltrans stormwater drainage system located west of the Project site on State Highway 1, which does not currently exist in the vicinity of the Project site. With the implementation of off-site improvements, a ***less than significant*** impact would occur. These issues will not be addressed further in the EIR.

Response c.iii): The proposed Project would not be anticipated to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. As previously discussed, drainage improvements on-site would include post- construction BMPs, including bioretention basins located along the northwest and southwest boundaries, designed to capture stormwater and pre-treat it on-site to remove dirt, oil, and heavy metals, in accordance with Chapter 17.64 of the CLUDC, and landscaped areas throughout the Project site to encourage natural stormwater infiltration. Stormwater from the proposed impervious surfaces would be directed to landscaped areas and bioretention basins to maximize infiltration first and then any runoff exceeding the design storm would flow towards the Caltrans storm drain collection system. The Caltrans storm drain collection system is located west of the Project site on State Highway 1, as no infrastructure related to the City of Fort Bragg stormwater drainage system exists in this area. Off-site improvements such as sidewalk curbs and gutters, are required to be installed to adequately convey any surface water in excess of the design storm from the development to the nearest receiving inlet. Off-site improvements to the stormwater drainage system would be designed in accordance with the applicable sections of the CLUDC and would be reviewed and approved by Caltrans and the City of Fort Bragg Public Works Department, which would ensure runoff from the Project site would not exceed the capacity of the stormwater drainage system. A ***less than significant*** impact would occur.

Response c.iv): As discussed above, the Project site is located in Zone "X" – area of minimal flood hazard – as shown on FEMA's National Flood Hazard Layer FIRMette map number 06045C1016G, effective July 18, 2017. Based on the FEMA designation, the risk of flooding to occur at the Project site is low. ***No impact*** would occur. This issue will not be addressed further in the EIR.

Response d): The Project site is located approximately 600 feet north of the Noyo River and 1,200 feet east of the Pacific Ocean. As shown on the Tsunami Inundation Map for Emergency Planning for the Fort Bragg Quadrangle, the Project site is not located in a tsunami inundation

area (DOC, 2009). As noted above, the Project site is located in an area of minimal flood hazard (FEMA, 2017). ***No impact*** would occur. This issue will not be addressed further in the EIR.

Response e): The proposed Project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. As discussed above, the proposed Project would be subject to the Statewide CGP and the standards outlined in Chapter 17.64 of the CLUDC, which would ensure that the proposed Project would minimize pollutant loading and erosive stormwater runoff flows both during and post-construction. Compliance with these regulations would facilitate the implementation of water quality control efforts at the local and state levels. In addition, there is currently no sustainable groundwater management plan for the Fort Bragg Terrace Area in which the proposed Project would be located. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

XI. LAND USE AND PLANNING

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	X			

Discussion

The Applicant proposed to construct a Grocery Outlet (retail store) on a 1.63-acre site located at 825, 845, and 851 S. Franklin Street, Fort Bragg, and identified by APNs 018-120-47, 018-120-48, and 018-120-49 (Project site). The Project site is located in the Coastal Zone within the City of Fort Bragg city limits but outside the area in which appeals of coastal development approvals may be appealed to the California Coastal Commission pursuant to Public Resources Code section 30606. The Project site has a City of Fort Bragg land use designation of CH (2008) and a zoning designation of CH per the City of Fort Bragg Zoning Map (2016). No changes to the Project site's current land use or zoning designations are proposed under the Project.

The Project includes the demolition of an existing 16,436 sf vacant former office building and associated 47-space parking lot and wooden fencing along the property line, and the construction and operation of a 16,157 sf, one-story, retail store with a 53-space parking lot and associated improvements and infrastructure. The Project would include 51,650 sf (1.18 acres) of hardscape areas that would be covered with the proposed store, parking lot, accessways, or sidewalks. Associated improvements and infrastructure on-site would include a loading dock and trash enclosure on the west side of the store, a parking area with 53 parking spaces on the south side of the store, an internal system of walkways and crosswalks, two bicycle racks, two driveways, a new fire connection, replacement of an existing sewer connection, connection to underground utilities, landscaping for stormwater capture and treatment, illuminated signage, and landscaping throughout the Project site. The Project would be operated by 15 to 25 full-time staff and two managers and would be open from 9:00 AM to 10:00 PM, 7 days per week with two different shifts covering operating hours.

Per the CLUDC Article 2, Policy No. 17.22.020 D, the CH zoning district's allowable land uses include lodging, restaurants, and retail stores. The City of Fort Bragg CLUDC (2018) defines a "Groceries, specialty foods" as "a retail business where the majority of the floor area open to the public is occupied by food products packaged for preparation and consumption away from the store. Includes retail bakeries, where any on-site baking is only for on-site sales" and defines "General retail - 5,000 sf or larger" as "stores and shops selling many lines of merchandise." These are both permitted land uses in the CH district and have no "special use regulations"; therefore, the proposed retail store would be a permitted use on-site, subject to the approval of a ZC and CDP. The Project site is located in an urban built-up environment and is surrounded by commercial businesses to the north, west, and south, and residences and two vacant lots to the east, of similar scale to the proposed Project.

Responses to Checklist Questions

Response a): The Project site is located within the Fort Bragg city limits and is adjacent to developed land on all sides. The Project would result in redevelopment of the site with a retail grocery store. Development of the Project would not result in any physical barriers, such as a wall, or other division, that would divide an existing community, but would serve as an orderly extension of existing utilities. The Project would have ***no impact*** in regards to the physical division of an established community. This issue will not be addressed further in the EIR.

Response b): The proposed Project may cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect This land use and planning impact will require a detailed analysis in the text of the EIR. As such, the City will examine this environmental issue in the EIR text and will decide whether the proposed Project has the potential to have a significant impact. At this point a definitive impact conclusion for this environmental topic will not be made; rather, this is considered ***potentially significant*** until a detailed analysis is prepared in the text of the EIR.

The EIR text will include a detailed discussion of the Project entitlements as they relate to the existing General Plan, Zoning Code, and other local regulations. The local, regional, state, and federal jurisdictions potentially affected by the Project will be identified, as well as their respective plans, policies, laws, and regulations, and potentially sensitive land uses. The proposed Project will be evaluated for consistency the Fort Bragg Coastal General Plan, the Zoning Ordinance, and other local planning documents. Planned development and land use trends in the region will be identified based on currently available plans. Reasonably foreseeable future development projects within the region will be noted, and the potential land use impacts associated with the Project will be presented.

This section will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to ensure consistency with the existing and planned land uses.

XII. MINERAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Discussion

The proposed Project is not located in an area of known rock, aggregate, sand, or other mineral resource deposits of local, regional, or state residents. There are no known mineral resources of significance on the Project site that would be made unavailable by the proposed Project. Furthermore, the Project site is not utilized for Surface Mining and Reclamation Act (SMARA) activities.

Responses to Checklist Questions

Responses a-b): The proposed Project area does not contain mineral resources that are of value locally, to the region, or to residents of the City, County, or state. According to the Mineral Land Classification Studies Index of the California Department of Conservation (DOC, 2015), the proposed Project is not located in an area with known mineral resources. The proposed Project area is not identified as a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, the proposed Project would not interfere with materials extraction or otherwise cause a short-term or long-term decrease in the availability of mineral resources. Overall, there would be ***no impact*** regarding the loss of availability of a known mineral resource that would be of value to the region. This issue will not be addressed further in the EIR.

XIII. NOISE

Consistent with Appendix G of the CEQA Guidelines and CEQA case law, the Project will have a significant impact related to noise if it will result in:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of ambient conditions?	X			
c) Generation of excessive groundborne vibration or groundborne noise levels?	X			
d) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the Project area to excessive noise levels?				X

Responses to Checklist Questions

Responses a-c): Based on concerns raised from the public regarding noise impacts, the City has determined that the potential impacts from noise caused by the proposed Project will require a detailed analysis in the text of the EIR. As such, the City will examine each of the three environmental issues listed in the checklist above in the EIR text and will decide whether the proposed Project has the potential to have a significant impact from noise. At this point a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the text of the EIR.

The EIR text will identify sensitive receptors, land use compatibility, noise impacts, and attenuation of noise related impacts. The noise study will also include an assessment of construction noise and vibration impacts. The noise analysis will identify the noise level standards contained in the General Plan Noise Element and Municipal Code, as well as any germane state, and federal standards. Continuous (24-hour) and short-term noise measurements will be performed in the Project site and in the Project vicinity in order to quantify existing ambient noise levels from existing community noise sources.

The EIR will provide an estimate of existing traffic noise levels adjacent to the Project site roadways through application of accepted traffic noise prediction methodologies. Noise sources from the Project will be quantified through noise level measurements. Proposed on-site mobile and stationary noise sources will be evaluated. This will include noise generating equipment, such as HVAC systems, generators, etc., as well as mobile noise sources such as truck loading/docking/idling. The EIR text will include thresholds of significance, a consistency

analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce any potential impacts associated with noise.

Response d) The Project has been determined to not be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The Project site is located approximately 2.8 miles southwest of the Fort Bragg airport. As such, there is ***no impact*** related to this topic and it will not be addressed further in the EIR.

XIV. POPULATION AND HOUSING

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Discussion

Based on the U.S. Census Bureau Quick Facts, Fort Bragg city, a census-designated place had a population of approximately 7,291 persons as of July 1, 2019, a decrease of approximately 0.2 percent since April 1, 2018. There were an estimated 2,775 households between 2014 and 2018, with 2.56 persons per household. Approximately 8 percent of the persons living in Mendocino County reside in the City of Fort Bragg, based on estimates provided by the U.S. Census Bureau.

The Project includes the construction and operation of a 16,157 sf, one-story, Grocery Outlet (retail store). The proposed retail store would serve as a grocery and retail store for the City of Fort Bragg and surrounding area. The retail store would be equipped with 11,189 sf of merchandising space and 2,231 sf of stock space and be operated by 15 to 25 full-time staff and two managers and would be open from 9:00 AM to 10:00 PM, 7 days per week with two different shifts covering operating hours.

Responses to Checklist Questions

Response a): The proposed Project would not induce substantial unplanned population growth in the area, as the Project entails the construction and operation of a comparatively small retail store and only up to a total of 15 to 25 employees are anticipated under operation of the Project. While some employees may relocate to the Fort Bragg area to work at the proposed retail store, most, if not all, of the employees would be anticipated to commute from their current residences within the City of Fort Bragg and surrounding communities. In addition, customers who would shop at the proposed retail store would largely be those who reside in Fort Bragg and surrounding communities. The proposed Project would be constructed over an approximately 6-month period until the entire Project is completed. Because construction of the Project would be temporary in nature, it is anticipated that most, if not all, of the construction workers, would be local, although some workers may temporarily relocate to the area for the duration of the construction period. Although there may be a minimal increase in employees and population in the area as a result of the Project, changes would be limited, and no significant infrastructure improvements would be required to serve the Project. As such, a ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response b): No housing is located on-site. Implementation of the proposed Project would have ***no impact*** relative to this topic. This issue will not be addressed further in the EIR.

XV. PUBLIC SERVICES

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact if it:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Discussion

There are no elements of the proposed Project that would impact the ability of the City of Fort Bragg or other local service providers to provide public services to the Project site or local community. The Project includes the demolition of an existing 16,436 sf vacant former office building and associated 47-space parking lot and wooden fencing along the property line, and the construction and operation of a 16,157 square-foot, one-story, retail store with a 53-space parking lot and associated improvements and infrastructure. Associated improvements and infrastructure on-site would include a loading dock and trash enclosure on the west side of the store, a parking area with 53 parking spaces on the south side of the store, an internal system of walkways and crosswalks, two bicycle racks, two driveways, a new fire connection, replacement of an existing sewer connection, connection to underground utilities, landscaping for stormwater capture and treatment, illuminated signage, and landscaping throughout the Project site. The Project site would be landscaped and permeable to stormwater as the Project would be designed to capture stormwater and pre-treat it on-site to remove dirt, oil, and heavy metals using bioretention basins located along the northwest and southwest boundaries. The proposed driveways and parking area would be designed to current standards with suitable road widths and turn radii to accommodate emergency vehicles.

While it is expected that most, if not all, of the Project site's employees (25 maximum) would already live locally, it is possible that some workers may relocate from another location or may commute from their current residences in the surrounding communities. In addition, customers who would shop at the proposed retail store would largely be those who reside in the City of Fort Bragg and surrounding communities. Since a significant population is not expected as a result of the Project, significant impacts on public services are also not anticipated.

Response to Checklist Questions

Response a): As previously discussed, the Project site is located within the LRA (Mendocino County Maps – Fort Bragg – Fire Responsibility Areas, 2019) and is mapped as located within an area with "Moderate" Fuel Rank fire hazard severity zone per Figure C-13 of the 2014 Mendocino

County Multi-Hazard Mitigation Plan. Per the City of Fort Bragg website (Not Dated), the Project site is served by the Fort Bragg Fire Department. The City of Fort Bragg (City) and the Fort Bragg Rural Fire Protection District formed a Joint Powers Authority in 1990 to jointly provide fire services within the City and outlying rural areas. As detailed on the City's website, the Fort Bragg Fire Department is a volunteer fire department with 36 firefighters and four auxiliary members. Currently, there are four (4) paid positions in the department: a full-time Fire Chief, an Office Manager, a Maintenance Engineer, and a Fire Prevention Officer. The nearest fire station to the Project site is the Main Street Fire Station located at 141 N. Main Street, approximately 0.9 miles north of the Project site.

A significant population increase is not anticipated as a result of the Project and the Project would be located within the service boundaries of the Fort Bragg Fire Department. No new or expanded Fire Department facilities would be required. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Since the Project site is located within the City of Fort Bragg, the Project site and surrounding area are currently and would continue to be served by the Fort Bragg Police Department (Fort Bragg PD). The Fort Bragg PD is located at 250 Cypress Street, in Fort Bragg, California, approximately 0.30 miles north of the Project site. As the Project would entail developing a currently developed but vacant Project site, a significant population increase is not anticipated as a result of the Project and the Project would be located within the service boundaries of the Fort Bragg PD. No new or expanded Fort Bragg PD facilities would be required. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

The Project site is located within the Fort Bragg Unified School District (FBUSD), which is comprised of two elementary schools, one middle school, one high school, and one alternative school. Mendocino College, which is not affiliated with the FBUSD, is located approximately 0.9 miles southwest of the Project site, and Redwood Elementary School, which is affiliated with the FBUSD, is located approximately 1.11 miles northeast of the Project site. The proposed Project does not involve the development of any residential units and does not directly generate a student population. No new or expanded school facilities would be required. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic. This issue will not be addressed further in the EIR.

As detailed in Section XVI (Recreation), below, 14 parks and recreational facilities are located within 4.5 miles of the Project site, including C.V. Starr Community and Aquatic Center, and Fort Bragg Dog Park, which is located approximately 1.2 miles northeast of the Project site, and Harold O. Bainbridge Park, located approximately 1.3 miles northeast of the Project site. No residential units are proposed nor is a significant population increase anticipated as a result of the Project. As a result, the use of the existing park and recreational facilities in the City and the surrounding unincorporated area of Mendocino County would not substantially increase as a result of the Project, and there would not be a need for a new or physically altered park facility. A ***less than significant*** would occur. This issue will not be addressed further in the EIR.

There are no elements of the proposed Project that would impact other public facilities, such as libraries or governmental facilities. The Project involves the demolition of an existing vacant building and the construction and operation of a Grocery Outlet (retail store) that would serve customers who reside in the City of Fort Bragg and surrounding community. No new or expanded library facilities or other government facilities would be required. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

XVI. RECREATION

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion

The Project site is located within the vicinity of the following neighborhood parks and recreational facilities:

- C.V. Starr Community and Aquatic Center, located approximately 1.2 miles northeast of the Project site;
- Fort Bragg Dog Park, located approximately 1.2 miles northeast of the Project site;
- Harold O. Bainbridge Park, located approximately 1.3 miles northeast of the Project site;
- Fort Bragg Skatepark, located approximately 1.4 miles northeast of the Project site;
- Otis R. Johnson Wilderness Park, located approximately 1.6 miles northeast of the Project site;
- Noyo Beach Off-Leash Dog Area, located approximately 1 mile southwest of the Project site;
- Noyo Headlands Park, located approximately 2 miles west of the Project site;
- Todds Point, located approximately 1.2 miles southwest of the Project site;
- Pomo Bluffs Park, located approximately 1.3 miles southwest of the Project site;
- Glass Beach, located approximately 2 miles northwest of the Project site;
- Ka Kahleh Coastal Trail, located approximately 0.5 miles west of the Project site;
- Coastal Trail, located approximately 2 miles northwest of the Project site;
- Pudding Creek Beach, located approximately 2.3 miles northwest of the Project site; and
- Mac Kerricher State Park extends approximately nine miles along the coast beginning at Glass Beach. There is a campground located approximately 2.75 miles north of Glass Beach.

Responses to Checklist Questions

Responses a-b): No residential units would be constructed, nor is the population expected to substantially increase, as a result of the proposed Project. Demand for the existing park and recreational facilities would not be expected to substantially increase and there would not be a need for a new or physically-altered park or recreational facility. ***No impact*** would occur. These issues will not be addressed further in the EIR.

XVII. TRANSPORTATION

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	X			
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	X			
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
d) Result in inadequate emergency access?	X			

Responses to Checklist Questions

Responses a-d): Based on concerns raised by the public regarding traffic/transportation, the City has determined that traffic impacts will require a detailed analysis in the text of the EIR. As such, the City of Fort Bragg will examine each of the four environmental issues listed in the checklist above in the EIR text and will determine whether the proposed Project has the potential to have a significant impact from traffic. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is conducted in the text of the EIR.

The EIR will include a Traffic Impact Analysis (TIA) to address the impacts of the proposed Project on the surrounding transportation system including the roadways, transit service, pedestrian facilities, and bicycle facilities. The TIA will be conducted to address compliance with the City's General Plan and other requirements under CEQA. It will be prepared following applicable guidelines and standards of the City of Fort Bragg, Mendocino County, and Caltrans, as applicable. The EIR will describe existing and future traffic conditions and will identify the trips that will be generated by the Project and the projected distribution of those trips on the roadway system. Potential impacts associated with site access, on-site circulation, vehicle miles traveled (VMT), and consistency with CEQA Guidelines section 15064.3, subdivision (b) will also be addressed in the EIR.

The TIA will include an evaluation of existing conditions, cumulative conditions, cumulative plus Project conditions, access and circulation, and Project alternatives. Future conditions will be evaluated with the use of the applicable travel model. Significant impacts will be identified in accordance with the established criteria, and mitigation measures will be identified to lessen the significance of any potential impacts.

The EIR text will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with transportation.

XVIII. TRIBAL CULTURAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?			X	
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.			X	

Discussion

Assembly Bill 52 (AB 52), enacted in 2014, modified CEQA to require lead agencies, in some circumstances, to consider whether projects will adversely affect tribal cultural resources. Public Resources Code Section 21074 defines "Tribal cultural resources" as "either of the following: 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following: A) Included or determined to be eligible for inclusion in the California Register of Historical Resources. B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1."

Under AB 52, a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. Where the lead agency receives no timely response from a notified tribe, the AB 52 consultation process is complete. As explained below, the City and its consultants complied with AB 52 in connection with the Mitigated Negative Declaration prepared for the proposed Project in 2021.

A Cultural Resources Inventory Survey was prepared by Genesis Society on August 15, 2019, to evaluate the Project's potential to impact cultural resources in conformity with City of Fort Bragg and Mendocino County rules and regulations, and in compliance with CEQA (including changes made by AB 52) and the CEQA Guidelines. Due to the sensitive and confidential nature of the report, a copy of the Cultural Survey is not included in this Initial Study.

According to the Cultural Resources Inventory Survey, the region in which the Project site is located was first inhabited more than 12,000 years ago. Prior to historic settlement, the lands surrounding the Noyo River were covered by a variety of coastal scrub and a mixed forest dominated by Bishop pine and including redwood, conifers, and hardwoods such as tanoak and madrone. The Project site is located within the territory claimed by the Northern Pomo at the time of initial European-American entry into the region. The Northern Pomo consisted of multiple tribelets, which consisted of three to five primary villages, one ethnographic village, Kadiu, was located immediately north of the Noyo River and is today identified immediately west of State Highway 1, west of the Project site. Pomo cultural materials are documented in both ethnographic and archaeological records and artifacts include a wide variety of materials and expressions. Colonization of the region began in 1812 with the establishment of Fort Ross by Russia, approximately 80 miles south of the Project site, and was followed by other European-American explorers who visited, then later settled, the Mendocino Coast beginning in the 1830s. In 1855, the federal government created the 25,000-acre Mendocino Indian Reservation adjacent to the north side of the Noyo River. In 1857, Fort Bragg was established between Pudding Creek and the Noyo River, to administer the large reservation until 1864 when the interred Native Americans were forcibly moved to the Round Valley Indian Reservation near Covelo. Widespread settlement in Mendocino County was spurred by demand for both lumber and agricultural lands and led to the establishment of mills throughout the County and the 1891 formation of the Union Lumber Company in Fort Bragg, which closed in 1969 (Genesis Society, 2019).

A records search was conducted at the Northwest Information Center (NWIC) located on the Sonoma State University campus on July 16, 2019 (File No. 18-2464), which included a review of all records on file for lands within a 0.25-mile radius of the Project site, including archaeological site and survey records, and numerous registries and inventories reviewed as part of the NWIC search, or evaluated separately. Topographic maps from 1943 through 1985 depict a school within the Project area; however, aerial photographs show that no structures existed on the Project site between 1943 and 1996. As such, the Cultural Survey deduced that the school icon visible on historic topographic maps represents an "artifact" from older topographic maps. A review of the historic registers and inventories indicated that no archaeological investigation had been previously prepared for the Project site and no historic properties or cultural resources have been documented within the Project area; however, eight cultural resources have been documented within a 0.25-mile radius of the Project site.

As noted in the Cultural Survey, fieldwork was conducted on August 10, 2019, by Genesis Society and entailed an intensive pedestrian survey by means of walking systematic transects, spaced at 10-meter intervals within the portions of the Project site that did not contain existing impervious surface cover, including building, parking, roads, etc. In surfaced areas, structure and road margins were inspected for any native soils. The Cultural Survey notes that the majority of the Project site has been subjected to intensive disturbance as a result of wholesale demolition, grading, and subsequent contemporary (post-1996) commercial building construction. No evidence of prehistoric or historic use or occupation was observed within the Project site, most likely due to the degree of contemporary disturbance to which the Project site has been subjected. Based on the findings of the records search and pedestrian survey, no significant historic resources or unique archaeological resources are present within the Project area and none will be affected by the proposed Project (Genesis, 2019).

On June 20, 2019, Genesis Society contacted the NAHC to request information concerning archaeological sites or traditional use areas for the Project area. The NAHC response letter, dated June 28, 2019, indicated that a SLF search was completed and returned a negative result. The

NAHC provided a list of 13 Native American contacts who may have knowledge of cultural resources in the Project area and suggested that Genesis Society contact all of those indicated. The NAHC Native American Contacts List dated June 27, 2019, including the EPA Director and Chairperson of the Cahto Tribe; the Chairpersons of the Coyote Valley Band of Pomo Indians, Guidiville Band of Pomo Indians, Hopland Band of Pomo Indians, Kashia Band of Pomo Indians of the Stewarts Point Rancheria, Manchester Band of Pomo Indians, Noyo River Indian Community, Pinoleville Pomo Nation, Potter Valley Tribe, Redwood Valley or Little River Band of Pomo Indians, and Sherwood Valley Band of Pomo Indians; and the President of the Round Valley Reservation/ Covelo Indian Community.

On July 22, 2019, Genesis Society sent letters to all representatives on the NAHC contact list, and those contacted were requested to supply any information they might have concerning prehistoric sites or traditional use areas within, adjacent, or near the Project area. A follow-up email and telephone call were placed with Tina Sutherland of the Sherwood Valley Band of Pomo Indians on Saturday, August 10, 2019, prior to the pedestrian survey. No responses were received from the contacted parties. As no prehistoric cultural material was identified during the records search or pedestrian survey, no additional consultation was undertaken by Genesis Society or the City of Fort Bragg (City), and the City, as Lead Agency, has deemed the AB 52 Tribal consultation process complete. Copies of the NAHC response and Native American Contacts List and an example of the letters sent to Tribal representatives are included in the Cultural Study.

Responses to Checklist Questions

Responses a.i), a.ii): As discussed above, no Tribal Cultural Resources were identified at or near the Project site during the records review and pedestrian survey. While the proposed Project includes the demolition of an existing building, the existing building is a contemporary (post-1996) commercial building. In addition, no responses were received from the Tribal consultation effort and there are no known tribal cultural resources in the Project area. Even so, the proposed Project, if approved, will be subject to a standard condition of approval requiring that, in the event of the discovery during construction of potential historical resources of an archaeological nature, unique archaeological resources, or tribal cultural resources, work in the affected area will cease until a qualified archaeologist, working with City staff, determines whether, indeed, any such resources are actually present and, if so, formulates and carries out measures for either avoiding them or otherwise treating them. A ***less than significant*** impact would occur. These issues will not be addressed further in the EIR.

XIX. UTILITIES AND SERVICE SYSTEMS

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Require or result in the relocation or construction of new or expanded water, wastewater or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	X			
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	X			
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	X			
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	X			
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	X			

Responses to Checklist Questions

Responses a-e): Implementation of the proposed Project would result in increased demands for utilities to serve the Project. As such, the EIR text will examine each of the environmental issues listed in the checklist above and will decide whether the proposed Project has the potential to have a significant impact to utilities and service systems. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR text.

The text of the EIR will analyze wastewater, water, and storm drainage infrastructure, as well as other utilities (i.e. solid waste, gas, electric, etc.), that are needed to serve the proposed Project. The wastewater assessment will include a discussion of the proposed collection and conveyance system, treatment methods and capacity at the treatment plants, disposal location(s) and methods, and water use for irrigation in the future. The EIR text will analyze the impacts associated with future on-site construction of the conveyance system, including temporary impacts associated with the construction phase. The proposed infrastructure will be presented. The EIR text will provide a discussion of the wastewater treatment plants that are within proximity to the Project site, including current demand and capacity at these plants. The analysis will discuss the disposal methods and location, including environmental impacts and permit requirements associated with disposal of treated wastewater.

The storm drainage assessment will include a discussion of the proposed drainage collection system, including impacts associated with on-site construction of the storm drainage system. The EIR text will identify permit requirements and mitigation needed to minimize and/or avoid impacts. The proposed infrastructure will be presented.

The EIR text will include an assessment for consistency with City and outside agency Master Plans and Management Plans that are directly related to these utilities.

The EIR text will analyze the impacts associated with water supply and on-site and off-site construction of the water system, including temporary impacts associated with the construction phase. The EIR text will also identify permit requirements and mitigation needed to minimize and/or avoid impacts, and will present the proposed infrastructure as provided by the Project engineering reports.

The EIR text will also address solid waste collection and disposal services for the proposed Project. This will include an assessment of the existing capacity and Project demands. The assessment will identify whether there is sufficient capacity to meet the Project demands.

The EIR text will provide thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with utilities and service systems).

XX. WILDFIRE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
d) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Discussion

The Project site is located within the LRA (Mendocino County Maps – Fort Bragg – Fire Responsibility Areas, 2019) and, per the City of Fort Bragg website (Not Dated), is served by the Fort Bragg Fire Department. The Fire Department is a Joint Powers Authority formed in 1990 by the City of Fort Bragg and the Fort Bragg Rural Fire Protection District to jointly provide fire services within the City of Fort Bragg and outlying rural areas. The Project site is mapped as located within an area with "Moderate" Fuel Rank fire hazard severity zone per Figure C- 13 of the 2014 Mendocino County Multi-Hazard Mitigation Plan. The nearest fire station to the Project site is the Fort Bragg Fire Department, located approximately 1-mile northwest of the Project site.

Responses to Checklist Questions

Response a): The City of Fort Bragg approved an Emergency Plan on January 11, 2016, under Resolution Number 3881-2016. The purpose of the City's Emergency Plan is to "bring a renewed focus on what emergencies can happen here (Fort Bragg) and how we (community) can respond to them – together."

The County of Mendocino County also adopted a County EOP on September 13, 2016, under Resolution Number 16-119. As noted on the Plans and Publications webpage of the MCOES, the County EOP, which complies with local ordinances, state law, and state and federal emergency planning guidance, serves as the primary guide for coordinating and responding to all emergencies and disasters within the County. The purpose of the County EOP is to "facilitate multi-agency and multi-jurisdictional coordination during emergency operations, particularly between Mendocino County, local and tribal governments, special districts as well as state and Federal agencies" (MCOES – Plans and Publications, 2019).

As discussed under Section IX (Hazards and Hazardous Materials), above, there are no components of the Project that would impair an adopted emergency response plan or emergency evacuation plan, including the adopted County EOP. The Project site is located within the LRA and within a "Moderate" Fuel Rank fire hazard severity zone per Figure C-13 of the 2014 Mendocino County Multi-Hazard Mitigation Plan. The facility would be constructed in accordance with state and local standards, including safety and emergency access requirements. As such, there are no components of the Project that would impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. A ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

Response b): Under the proposed Project, it is not anticipated that wildfire risks would be exacerbated due to slope, prevailing winds, and other factors. The Project site is relatively flat, with elevations at the Project site ranging between approximately 117 feet and 122 feet above mean sea level. In addition, the Project site is located in an urban built- up environment where there is a low threat of wildfire. ***No impact*** would occur. This issue will not be addressed further in the EIR.

Response c): The Project site would be served with electricity from PG&E, propane by an existing tank on-site, and water and wastewater service by the City of Fort Bragg, and solid waste services by a local waste hauler. There are existing utility connections located on Project site that served the vacant former office building. These existing water and wastewater utility connections would require new connections to the proposed retail store as part of the Project. Under the proposed Project, all utility lines would be underground. As such, the Project would not require the installation or maintenance of infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. ***No impact*** would occur. This issue will not be addressed further in the EIR.

Response d): The proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage challenges, as the Project site is relatively flat, with elevations at the Project site ranging between approximately 117 and 122 feet above mean sea level, and is surrounded by an urban built-up environment. In addition, bioretention basins would be constructed on-site to capture and treat increased stormwater flows due to the proposed increase in impervious surfaces. As such, a ***less than significant*** impact would occur. This issue will not be addressed further in the EIR.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to this topic if it will:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X			
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X			

Responses to Checklist Questions

Response a-c): Certain mandatory findings of significance must be made to comply with CEQA Guidelines §15065. The EIR text will examine each of the environmental topics identified in this Initial Study as ***potentially significant*** to determine if there would be an impact related to these mandatory findings. At this point a definitive impact conclusion for each of these environmental topics will not be made; rather, the impacts considered ***potentially significant*** until a detailed analysis is prepared in the text of the EIR. Many of the issues raised by the mandatory findings of significance will be addressed along the way. Thus, for example, the analysis of biological resources in the EIR text will address whether the proposed Project would substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of a rare or endangered plant or animal. For all other topics similarly addressed in detail in the text of the EIR, the City will address whether the proposed Project will have impacts that are individually limited but cumulatively considerable impacts. The analysis of air quality in the EIR text will address whether air pollution associated with the proposed Project will cause substantial adverse effects on human beings.

All other topics addressed in this Initial Study were deemed to be ***less than significant***, or ***no impact***, and do not warrant further environmental review. As to these other topics, this Initial Study has found that the proposed Project does not have the potential to substantially degrade the quality of the environment.

As discussed in Sections V, Cultural Resources, and XVIII, Tribal Cultural Resources, the proposed Project would not eliminate important examples of the major periods of California history or prehistory. As discussed previously, the Cultural Survey (Genesis Society, 2019) found that no historical resources or historic properties have been documented within the Project area. While the proposed Project includes the demolition of an existing building, the existing building is a contemporary (post-1996) commercial building. Additionally, the Project is not anticipated to cause a substantial adverse change in the significance of an archaeological resource or disturb any human remains. As noted previously, based on the records search conducted at the NWIC, the consultation undertaken with the NAHC, and the Tribal consultation effort completed by Genesis Society (2019), no unique archaeological resources or prehistoric cultural material was identified in the Project area. The Cultural Survey recommends archaeological clearance for the proposed Project, with the inclusion of general provisions that recommend consultation and protocol in the event of inadvertent discovery. A standard condition of approval to that effect will has been applied to the proposed Project if it is approved. The proposed Project is found consistent with policies of the City of Fort Bragg for protection of cultural resources, including human remains.

The analyses in Sections IX, Hazards and Hazardous Materials, and X, Hydrology and Water Quality, of this Initial Study have determined that substantial adverse effects on human beings will not result from the use of, or exposure to, hazardous materials or from the proposed Project's effects on water quality. Those topics therefore will not be addressed in the text of the EIR.

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Jared Blumenfeld
Secretary for
Environmental Protection

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

June 17, 2022

Ms. Heather Gurewitz
Associate Planner
Community Development Department, City of Fort Bragg
416 N. Franklin Street
Fort Bragg, CA 95437
hgurewitz@fortbragg.com

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE BEST DEVELOPMENT GROCERY OUTLET – DATED MAY 2022
(STATE CLEARINGHOUSE NUMBER: 2022050308)

Dear Ms. Heather Gurewitz:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of an Environmental Impact Report (EIR) for the Best Development Grocery Outlet (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the EIR:

1. The EIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The EIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil, DTSC recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR.

3. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*.

4. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material*.

5. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

DTSC appreciates the opportunity to comment on the EIR. Should you need any assistance with an environmental investigation, please visit DTSC's Site Mitigation and Restoration Program page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

If you have any questions, please contact me at (916) 255-3582 or via email at Brian.McAloon@dtsc.ca.gov.

Sincerely,



Brian McAloon
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

smcmurtry@denovoplanning.com

Subject: FW: Written Comments on the NOP for the Grocery Outlet Project EIR

From: Jacob Patterson <jacob.patterson.esq@gmail.com>
Sent: Wednesday, June 8, 2022 9:27 AM
To: Gurewitz, Heather <hgurewitz@fortbragg.com>
Subject: Written Comments on the NOP for the Grocery Outlet Project EIR

Heather,

Please confirm receipt and process this email as a written comment on the NOP. As I mentioned in my oral comments during the scoping session meeting yesterday evening, I would like to incorporate by reference all public and responsible agency comments received by the City for the prior S. Franklin Street Grocery Outlet application and associated MND for the same project that was approved and then formally cancelled at the request of the applicant. That is technically a separate entitlement with a separate administrative record from the current application that is being processed with an EIR so I think it prudent to formally submit those prior comments as formal comments for this project.

Since most of the comments concerned the adequacy of the CEQA review and MND, they are informative of the scope of what should be evaluated in this EIR. That is, the objections to alleged inadequacies in the prior MND and planning review can be used to identify the issues that will likely require detailed analysis in this EIR.

Please also let me know if this incorporation by reference is sufficient for your purposes or if the City would prefer that I download the comment files from the relevant agenda packets and then submit them again through email (that would be technically chalenging based on the file sizes of the comments . I am submitting those prior comments at this stage of the CEQA review (i.e., as comments on the NOP concerning what should be included in the EIR) rather than as formal comments on the forthcoming EIR itself because it would be incredibly burdensome and inefficient if the City has to respond in writing to every point raised in the prior comments.

Thanks,

--Jacob

smcmurtry@denovoplanning.com

Subject: FW: GrocOut EIR NOP Comment

From: Jacob Patterson <jacob.patterson.esq@gmail.com>
Sent: Tuesday, June 14, 2022 8:55 AM
To: Gurewitz, Heather <hgurewitz@fortbragg.com>
Subject: GrocOut EIR NOP Comment

Heather,

I wanted to follow up about something I mentioned during my oral comments at the scoping session meeting. As was the concern when staff recommended De Novo over Helix despite Helix receiving better evaluation scores and being truly independent from the applicant, the project objectives listed during the presentation are problematic because the first one clearly appears to be an attempt to create a biased rather than objective environmental document. When first proposed, the project did not include demolishing the existing building and replacing it with a "modern" building as a project objective, although that was certainly part of the project proposal. That is likely being added in as an explicit objective because it will be used in the alternatives section of the EIR to try to argue that what is likely the environmentally superior alternative, reusing the existing building, should be dismissed because it doesn't help achieve an explicit project objective. That alone leads me to believe that this EIR will be a manipulated advocacy piece rather than serving its purpose to facilitate informed decision-making. That so-called project objective should be removed and replaced with the same objectives that were in the first review or the entire document is likely to be tainted as being designed to be biased in favor of approving the proposed project rather than one that is closer in line with our Coastal General Plan, which includes a specific policy that encourages the adaptive reuse of existing structures rather than demolition and new constriction. Staff and the consultant shouldn't assist in manipulating the entitlement review process, either intentionally or unintentionally by letting these kinds of issues infect the process from the start.

--Jacob

smcmurtry@denovoplanning.com

Subject: FW: Grocery Outlet Project

From: Janet Kabel <jmkabel@sbcglobal.net>
Sent: Thursday, May 19, 2022 9:53 AM
To: Gurewitz, Heather <hgurewitz@fortbragg.com>
Subject: Grocery Outlet Project

Janet Kabel
309 East Bush St
Fort Bragg, CA 95437

Dear Ms Gurewitz,

I am writing in support of the Grocery Outlet Initial CEQA report. I do want to point one inconsistency that the detractors of the project will seize upon at some point to derail the process. In various parts of the document it states that the hours of operation will be from 8:00 am to 10 pm 7 days a weeks but in other locations it states the hours of operation will be from 9:00 am to 10:00 pm. Please have the De Novo Group correct the draft report to reflect the correct hours of operation in all places.

Thank you for spear heading the city's review of the project. I believe most residents support the building of the Grocery Outlet and I for one believe it would be a great addition to the city of Fort Bragg.

Sincerely,

Janet Kabel

From: Leslie Kashiwada
Re: Public Comment – Scoping for Grocery Outlet Bargain Market EIR
Date: 20 June, 2022

I have commented extensively about this project in the past, including my public comment on the staff recommendation to hire De Novo Planning Group (DNPG) to conduct the Environmental Impact Report (EIR) dated 4/25/2022, public comment regarding the request by Best Development Group (BDG) for the City to vacate their prior approval of the Mitigated Negative Declaration (MND) for the Grocery Outlet Bargain Market (GOBM) dated 2/28/2022, an Appeal Document submitted after the Planning Commission approved the MND for the BDG/GOBM project dated 7/26/2021, and public comments on the BDG/GOBM Initial Study MND dated 5/26/2021 and 1/20/21. I have appended these below.

I think my concerns have been adequately laid out in these previous comments, so I want to focus these comments on the difference between an EIR and an MND, and what I will be looking for in this new CEQA document. Perhaps I am stating the obvious, but past EIRs prepared by other consultants have not met these guidelines, and City staff did call them out for these inadequacies.

The purpose of any CEQA document is to provide documentation of likely impacts and the projected significance of each, and to suggest and analyze the effectiveness of possible mitigations for potentially significant impacts (or indicate that an impact cannot be mitigated to less than significant). The previous MND identified only Biological Resources, Geology/Soils, and Noise as environmental factors where there might be a “Potentially Significant Impact” or “Potentially Significant Impact Unless Mitigation Incorporated.” The EIR for this project should address additional areas of concern including, but not limited to, Aesthetics, Air Quality, Green House Gas Emissions, Land Use/Planning, Public Services, Transportation, Utilities/Service Systems, and Mandatory Findings of Significance, all of which were mentioned in public comments for the project. Analyses of these areas of potential impact must include established standards and/or thresholds for significance – something that was lacking previously. It should address cumulative impacts in all areas.

Traffic was a particular area of concern for many citizens. While I understand the State criteria for analyzing traffic impact has changed and the City General Plan still uses the previous criteria (LOS), the bottom line is that this project will impact the flow of traffic in the area. The complexity of the intersections due to the proximity of the Noyo River Bridge, along

with North Harbor Drive as the only access to the harbor, and South Street as the main access to the Adventist Hospital ER means any traffic control measures must be carefully analyzed.

The EIR should include all the Special Conditions added to the MND by the Planning Commission, along with proper study and analysis. I say this because some of the Special Conditions may not be possible given the current configuration of the proposed project. Knowing that each Special Condition was added to address a serious concern means that if the proposed project cannot attain the intended goal of a given Special Condition, it should be modified so that it can. These Special Conditions cover a variety of impacts and must be formally incorporated into the EIR.

I particularly want to call out all the Special Conditions imposed by the Planning Commission to address pedestrian safety. There is no single category that address this impact, but it could be addressed in several categories of impact including Population/Housing, Public Services, Transportation, Utilities/Service Systems, and/or Mandatory Findings of Significance. Public comment for this project made it abundantly clear that many people who live in the area plan to walk to GOBM. This project will definitely increase pedestrian flow from areas that don't currently have a lot of pedestrians, and may not have the infrastructure for safe passage (e.g., sidewalks, crosswalks, and signage). The EIR must include an analysis of pedestrian flow from residences and apartments that are within walking distance of the project, including safety issues along the various routes of travel, and an estimate of the fair share cost of improvements.

The EIR must include appropriate, realistic alternatives, along with substantial analysis. These alternatives should include, but are not limited to, issues like re-use of the existing building, footprint and position of a new building, parking lot layout and safety measures, and the like.

And, finally, the EIR should provide mitigations that are real, actual remedies for the identified impacts rather than just a mention of some future work that may or may not address the actual impact. This has been a major issue in EIRs produced by other consultants, and it is my deep wish that this EIR break from that precedent.

I, along with many others, will be reading this EIR carefully, and are looking forward to a complete, thorough, and thoughtful document with relevant and current studies.

Previous comments appended below:

From: Leslie Kashiwada
To: Fort Bragg City Council
Re: Agenda Item 8B on April 25, 2022

On Feb 28, 2022, I submitted a comment (see below) about the decision by Best Development Group (BDG) to have the City Council vacate their approval of the MND and building permit for a Grocery Outlet Bargain Market (GOBM) on the southwest corner of the intersection of S. Franklin St and South St. They made this request to make way for an EIR, which is the CEQA document that should have been prepared from the start.

I expressed my concern that the EIR would merely be a repackaging of the MND. My concerns are even greater now viewing the proposed contract with De Novo Planning Group (DNPG) to prepare the EIR. The scope of work indicates that they plan to use some of the previously prepared studies (e.g., traffic and biological study, which are incomplete and dated) instead of running new studies. Given all the special conditions the Planning Commission put on the MND, it is clear that these, and other studies, need to be redone. In particular, the traffic control around the intersection of S. Franklin St. and South St. must be fully analyzed, including pedestrian safety from housing units within walking distance of the project along all potential routes to the entrance of the store. In addition, redesign of the building footprint (assuming the existing building cannot be reused) and layout of the parking lot is essential. The biological studies were fatally flawed in design and execution and must be redone. These are just a few examples of the deficiencies of the existing studies and analysis.

I am especially concerned that the bid for this contract is ridiculously low for the quantity and quality of the work that must be done to assure that significant impacts are analyzed and multiple alternatives are proposed for mitigation. In addition, It is also imperative that a consulting company based in El Dorado Hills, CA shows that it can be sensitive to and responsive about the location-specific concerns of building a GOBM in Fort Bragg, a small rural community in a remote location with a very special community environment.

Please see my previous comments below for a more detailed description of essential requirements for a full, complete, and up to date EIR for this project.

From: Leslie Kashiwada
Re: Agenda Item 7A on Feb 28, 2022

I was intrigued to find out that Best Development Group (BDG) requested the City vacate their prior approvals for the Grocery Outlet Project on South Franklin Street. I was particularly amused to read the letter from BDG, where they expressed the conviction that they could mount a "spirited legal defense of the MND" given the small size of the project and its minimal environmental effects.

It's important to remember that this project is not small in relation to our community, and that significant impacts were found (and that other impacts were ignored). An EIR is not just a matter of adding a few paragraphs to a pre-existing MND. All the prior concerns of the public and all the mitigations imposed by the Planning Commission must be addressed. Multiple alternatives must be provided with more than just a perfunctory statement that a given alternative is not viable. It is perfectly appropriate to state that the cost of a given alternative might be too high to make the project financially viable, but that does not invalidate that alternative.

The letter implies that the City will complete the EIR, and I assume BDG will pay the costs. Regardless of who prepares the EIR, it should include, but not be limited to, the following list of items:

1. Traffic Study: A thorough, complete, and up-to-date traffic study, with analysis of the various options for traffic control on Main Street, South Franklin Street, North Harbor Drive, and South Street. Pedestrian safety as well as flow of vehicles must be fully addressed.

2. New build versus Reuse of Existing Building: The General Code for the City states that reuse of existing buildings is preferred and encouraged. The similarity in square footage of the Old Social Services Building and the proposed new build requires that a full analysis be done for building reuse. If the exiting building is deemed unusable due to mold, then an air quality study should be performed. If the layout of the existing building is not workable, present diagrams showing that the space cannot be reconfigured to meet the needs of the client (Grocery Outlet). Indicate how the existing parking lot might be repurposed for loading and unloading, and for parking.

3. New building placement and parking lots: Alternatives for the placement of the new building should be presented and include analysis of parking lot function and pedestrian safety. The Planning Commission specifically

asked BDG about building placement and they said it couldn't be changed. However, in the same hearing, BDG went on to say that they did change the placement of a new building in another location because (drum roll please) the Planning Commission in that town demanded it. As currently proposed, there is far too much interaction between vehicles and customers walking to the entrance of the building. One of the mitigations imposed by the Planning Commission to provide separation between customers walking to the entrance and vehicles coming, going, and driving in the parking lot is not actually possible given the proposed configuration of the parking lot. Therefore, it is essential to provide alternatives for building placement, parking lot placement, and placement of the entrance. In addition, accommodation for employee parking needs to be addressed

4. Noise Study: The MND for this project used data from a previous study done nearby (not as part of this project). Their analysis indicated no significant impact. The analysis done by an expert for FBLBM used the same data to show that there would be significant impact. During the appeal hearing, a statement was made that those data could not be relied on as valid. That means a new study should be done in the actual area of the project.

5. Biological Review: The initial and follow up studies were an embarrassment. The surveys were superficial and included some incorrect species identifications. The timing of the survey for wetland plants was inappropriate. The bat studies, as requested by California Department of Fish and Wildlife were never completed. A time series should be undertaken with in depth surveys of flora and fauna monthly for 1 year (or quarterly at a minimum). The study should include wet as well as dry seasons.

6. Survey for wetland soils: While the methodology appeared appropriate, the area with the greatest likelihood of having wetland soils was studiously avoided. This must be corrected.

7. Retention of Mature Trees: While many of the mature trees on the site are Monterey Cypress (a tree that is not native to the area), these mature trees provide important habitat and should be maintained. The EIR should include analysis of the measures to be taken that will protect not only these trees, but also their root structure.
These are a few of the areas that must be fully addresses in an EIR. Simply repackaging the MND will not be sufficient.

ADDITIONAL SUBMISSION BY APPELLANT LESLIE KASHIWADA
July, 26, 2021

I, Leslie Jan Kashiwada, Ph.D. am submitting the following statement with regards to my appeal of the Planning Commission approval of the permit for Best Development Group to build a Grocery Outlet at 815 S. Franklin St., Fort Bragg. My qualifications as a qualified expert is provided in Appendix I.

Procedural Objections:
The required noticing for this project did not meet the legal requirement, including, but not limited to, timely posting of the notices in a prominent location on the site of the proposed building about this appeal hearing. This is true for the prior hearing before the Planning Commission as well.

There were also procedural issues with how timely public comments were accepted by the city, published on the city's website, and made available to the public prior to and during the public hearings, including at the initial public hearing date before the Planning Commission. These issues prevented the public from having timely access to all relevant information in order to inform their public comments, which were also cut short during the hearing itself when the Planning Commission reduced oral comment times to only two minutes per speaker rather than three minutes per speaker as had been indicated on the published agenda. That meant many people who had prepared a script for their oral public comments were cut short. Moreover, since many people participated via Zoom, they were unable to even submit their prepared scripts to the City at the meeting when they could not finish reading their prepared public comments.

In addition, all required parties did not receive mailed notice of the appeal hearing. I am the appellant and did not receive mailed notice of this hearing. I was told at the time of filing my appeal that the appeal hearing would likely be July 12, 2021.

Overall:
The purpose of any CEQA document (like an MND or EIR) is to provide documentation of likely impacts and the projected significance of each, and to suggest and analyze the effectiveness of possible mitigations for potentially significant impacts (or indicate that the impact cannot be mitigated to less than significant). Required public comment isn't just something to tolerate and get through – it is designed to gain the perspective of a wide audience who might bring up issues not previously considered and who could be affected by the impacts of a project.

Unfortunately, this process has been undertaken in an adversarial way by staff, and concerns are mostly treated with contempt, derision, or dismissed outright as simply opinion rather than being respected as valuable public input, and, in some cases, qualified expert opinion.

While the staff is there to help shepherd projects through the process, staff should not be an advocate for the developer by fending off or ignoring valid concerns. Instead, all documents produced by and for the developer should be reviewed in a careful analytical way, and all comments fully documented and indexed, and made readily available to the public. The role of staff should be to examine applicant submissions thoroughly alongside all applicable policies because what is left out is often just as important, if not more so, that what is included. In addition, this MND is particularly rife with unsupported assertions rather than findings supported with robust studies and evaluated with established thresholds of significance. Anything can be asserted or assumed to have no significant impact if there is no standard or threshold for evaluation or no relevant facts provided that are necessary to perform the required analysis.

The City is constrained by the requirement that ALL policies in the CLUDC (Coastal Land Use and Development Code) are adhered to, rather than a less stringent standard, such as a preponderance of land use policies being met, with allowance for relaxation of a few standards based on perceived benefit of the project to the community (not benefit to the developer, which should be irrelevant). Currently, this requirement often isn't adhered to, with some policies being ignored or effectively waived by staff on an ad hoc basis. The inconsistent application of the requirement that ALL policies in the CLUDC be met opens the city decisions up to challenges based on arbitrary and capricious decision- making, favoritism or even allegations of corruption.

With regards to this MND, page 11 of the Initial Study includes a list of environmental factors where the project might have a "Potentially Significant Impact" or the impacts might be "Potentially Significant Unless Mitigation [is] Incorporated." Curiously, only Biological Resources, Geology/Soils and Noise were identified in this list even though there is substantial evidence supporting a fair argument that the project may have potentially significant impacts in other areas as well, including those areas identified in various public comments.

Not identified as being potentially impacted were Aesthetics, Agriculture and Forestry Resources, Air Quality, Cultural Resources, Energy,

Greenhouse Gas Emissions, Hazards & Hazardous Materials, Hydrology/Water Quality, Land
, Mineral Resources, Population/Housing, Public Services, Recreation, , Tribal Cultural Resources, Utilities/Service Systems, Wildfire, or . Based on the details and aspects of the proposed project, the 6 highlighted categories should have also been identified as having “Potentially Significant Impact” or the impacts might be “Potentially Significant Unless Mitigation [is] Incorporated” including several areas where the project contributes to cumulatively significant impacts when considered with other projects.

The Initial Study asserts, but does not support that: “An explanation for all checklist responses is included, and all answers take into account the whole action involved and the following types of impacts: off-site and on-site; cumulative and project-level; indirect and direct; and construction and operational. The explanation of each issue identifies (a) the threshold of significance, if any, used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance. The mitigation measures are provided in the Mitigation Monitoring and Reporting Program (MMRP) (see Appendix D).

This sounds complete and thorough, at least superficially, but the Initial Study did not meet these criteria, and neither did the Mitigated Negative Declaration prepared using this document.

In addition, the IS/MND and all the public comments received for this project are tucked away in the agenda and meeting notes for the Planning Commission meeting rather than being part of the more readily accessible active permit page for the Community Development Department. One has to know which meeting (City Council, Planning Commission, etc) and which date to find these items. This is governmental obfuscation, not transparency, particularly when the city formerly provided all information about pending development projects on a special webpage that was deleted from the City’s website during the entitlement review process for this project. The city actually purposefully limited public access to information on this project during Covid-19 when City Hall was closed to the public so people couldn’t even go in to review the relevant information in person.

The following contains fact-finding, analysis and discussion of some areas of environmental impact previously brought up in public comments where the IS/MND falls short. This section will be followed by discussion of the some of the 32 special conditions applied to this permit. The number of

special conditions alone is a clear indication that this application is incomplete and lacking in merit because it required so many alterations to even be able to come close to determining that it was consistent with our local planning requirements.

Land Use/Planning – Building Re-use versus New Building (not included in IS/MND) or Coastal General Plan Consistency Analysis
Issue:
The Coastal General Plan states that building re-use is preferred over new construction (e.g., Policy LU-3.5 “Encourage the adaptive re-use and more complete utilization of buildings in the Central Business District and other commercial districts”). The CEQA document did not mention, let alone discuss the feasibility of repurposing and retrofitting the existing building, including a cost- benefit or feasibility analysis of re-using the existing building versus demolition and new construction. This was also not adequately addressed in any of the staff reports or during the hearings.

Facts:
The Initial Study indicates that the project proposes to tear down the old Social Services Building (16,436 sq ft) and build a new building (16,157 sq ft) with a very different location and much greater visual impact than the existing building. Coastal General Plan Policy LU-3.5 or public comments related to building re-use versus demolition and new building construction and the shifted location of the new building were not addressed during any phase of the CEQA or permit review process. Facts relevant to the analysis of the feasibility of retaining and reusing the existing building were provided in several public comments but these facts were not incorporated into any analysis of this area of concern.

Analysis:
Given that adaptive re-use of existing buildings is the established policy of the city per the Coastal General Plan Policy LU-3.5, the IS/MND and permit review need to address the feasibility of repurposing and retrofitting the existing building, including a cost-benefit analysis of re-using the existing building versus demolition with a new building. During the project review, city staff asserted that the old building had mold issues and therefore could not be reused, for the proposed Grocery Outlet, but no evidence of this, including no mold, mildew, or interior air quality studies were prepared or presented to back this unsupported assertion. In fact, no attempt was made to address the feasibility of reuse or consistency with Policy LU-3.5 in any way; it was simply ignored. The mere desire of the applicant to construct a new building is not sufficient grounds to waive the local requirement to consider adaptive re-use in a meaningful way.

Conclusion:
The CEQA document and agenda materials are rife with errors of omission. Simply ignoring policies that don't suit the developer's preferences is not acceptable. One can only assume that the developers are not willing to consider adaptive building re-use, and that requiring them to do so would kill the project. If that is the case, then it should be stated up front, not ignored. As a franchise, Grocery Outlet has particular preferred looks and branded designs, but there are plenty of examples of feasible adaptive re-use of existing structures. One need look no further than the Grocery Outlet stores in Ukiah and Willits to find such examples.

Aesthetics
Issue:
Both the IS/MND assert that the project would have a "Less Than Significant Impact" on a scenic vista or other aesthetic resources. But the "threshold of significance" was only a restatement of the required conclusion, and not a measurable threshold or metric. The CEQA documents did not bring up Coastal General Plan policies that were adopted and intended to protect visual resources, nor did they discuss how the proposed project might impact those resources, including signage and the altered building location on the site relative to the existing building.

Facts:
The Citywide Design Guidelines and corresponding Coastal General Plan policies were not mentioned in section 2.3, including the protection of view corridors, and aesthetically-pleasing mature trees, avoiding blocking viewsheds, and establishing a strong tie to both streets on corner lots that should encourage pedestrian activity. Yet the proposed building footprint and elevations have the potential to substantially degrade the existing visual character and quality of public views towards the ocean, which was mentioned in various public comments and objections. In addition, there was no analysis of the proposed signage under Design Guidelines, Chapter 4.

Analysis:
The new building footprint and elevations have the potential to substantially degrade the existing visual character and quality of public views towards the ocean from South and Franklin streets, and proposed the removal of all vegetation on the north side of the lot, including three mature trees. This impact could be mitigated by re-using and revitalizing the existing building or by moving the location of the proposed building on the merged lots. For instance, employee parking could be provided in a lot along South Street by pushing the building footprint to the south. This

would minimize the impact of the boxy building elevations on the existing viewshed.

The proposed illuminated sign on the southeast corner of the site and the illuminated channel sign on the sign parapet along the front elevation do not meet Chapter 4 of the Citywide Design Guidelines due to interior illumination and bright, jarring colors that clash with the proposed exterior color. The design aspects of these signs is a reminder that the very nature of franchise stores (even when locally owned and operated) do not fit within the community and neighborhood character.

Note that several special conditions were put in place by the Planning Commission, including lowering the height of the building. Retaining the trees was not explicitly included in a written condition, as it should have been because it is required by applicable Coastal General Plan policies discussed in public comments and at the meetings, even though staff stated that the applicant agreed to retain the existing trees. However, a special condition of retaining the trees was not included in the list so it isn't actually an aspect of this project even though it is being treated as such based on the Planning Commission deliberations, and lowering the height of the building while allowing it to be sited as before does nothing to protect existing viewsheds.

Conclusion:
Instead of discussing the actual visual impact of the building and proposing possible mitigations, along with discussion of the pros and cons of each proposal, the CEQA documents merely state that there is no significant impact without even attempting to first establish an applicable threshold of significance
for these potentially significant visual impacts. This is patently false and provides another instance of a huge error of omission.

Biological Study – Biota
Issue:
The criteria for determining whether or not the project would have a significant impact or potentially significant impact on biological resources merely restated the checklist of six areas of concern and did not include measurable thresholds of significance. The Biological Review and Fort Bragg Wetland Report are inadequate and incomplete. CDFW comments about the first study were mostly addressed through mitigation measure BIO-1 and Special Conditions 3, 4, and 18, but significant gaps remain. In addition, as far as I am aware, CDFW was not asked to review the supplemental Wetland Report to see if their concerns were addressed.

Instead staff just assumed that was the case despite lacking any qualifications to do so because staff members are not scientists with biological expertise or even really any planning expertise. Mature trees to be retained as discussed by the Planning Commission during the hearing on May 26 was not included in the list of Special Conditions and it must be added in an enforceable manner in order for the city to determine that this project, as conditioned, is consistent with the applicable policies of the Coastal General Plan. The placement of bio-retention basins in the proposed locations may impact these protected biological resources but those impacts have not been addressed nor have the trees been protected from damage due to demolition or construction activities. So, even if they are retained, they may die due to the project activities seriously undermining their health and structural integrity because of likely and foreseeable damage to their root structures. The landscape plan still includes non-native, invasive plants per CDFW, and some of the native plants are not regionally appropriate, including planting additional Monterey cypress trees, which are prohibited by the Coastal General Plan as invasive non-locally native plants.

Facts:
The Biological Review prepared by Wildland Resource Managers consisted of a one-day visit on August 9, 2020. Plant species observed were listed and identified as dominant or not dominant. Gopher mounds were noted, as were two crows (note: these were probably ravens because crows don't occur in this area). No animal species were observed. Plants observed on the north side of the property were described generically as 'planted' and an incomplete list provided. The mature Monterey cypress trees and shore pine on the northwest side of the property were not mentioned, but do appear in the aerial photo on page 7.The Biological Review states (pages 8 and 9) that the soil type is hydric, but that the plant species identified on site during the visit are associated with non-hydric soil conditions. The planned survey for bats was abandoned due to weather.

CDFW commented on the Biological Review giving 5 recommendations (letter dated February 16, 2021, page 3):
A wetland delineation following ACOE protocol should be conducted to identify any locations where one or more wetland parameter indicators are present (**Recommendation 1**).

> A supplemental Wetland Report was prepared based on a one-day site visit on March 15, 2021. Four locations were studied in detail, identifying numerous plants not previously described. The data sheet for site 1 noted 8 plant species (pages 8-9) 7 of which were not noted in the Biological Review. These were *Rumex acetosella* (OBL),

Plantago lanceolata (FAC), *Danthonia californica* (FAC), *Anthoxanthum odoratum* (FACU), *Scarzoneroides autumalis* (FACU), *Oxalis pes-caprae* (UP), and *Trifolium subterraneum* (UP). OBL and FAC plant species covered 50% of the ground, while FACU and UP species covered 47% of the ground) and the hydrophytic vegetation indicator dominance test was >50%. Remarks indicated that "Hydrophytic plants are present but not sufficient to qualify as a wetland dominants." [NOTE: OBL are obligate wetland plants and occur almost always under natural conditions in wetlands, FAC are facultative wetland plants, equally likely to occur in wetlands and non-wetlands, FACU are facultative upland plants, usually occuring in non-wetlands but occasionally found in wetlands, and UP are upland plants which occur in wetlands in another region, but occur almost always under natural conditions in non-wetlands in the region specified. https://www.fws.gov/wetlands/documents/National-Wetland-Plant-List- Indicator-Rating-Definitions.pdf] The data sheet for site 2 (pages 10-11) noted 7 plant species, none of which were noted in the Biological Review, though 2 of them were the same genus. None of those plant species were OBL species but 4 were FACU species representing 48% of the total ground cover, while UP species represented 47% of total ground cover. The data sheet for site 3 (pages 12-13) noted 5 plant species none of which were noted in the Biological Review. FAC species represented 10% of total ground cover, while FACU and UP species represented 90% of total ground cover. The data sheet for site 4 (pages 14-15) noted 4 plant species, 3 of which were not noted in the Biological Review. FACU species represented 10% of total ground cover, while UP species represented 81% of total ground cover. Soil sampling down to 18" was conducted at all 4 sites. The soil at site 1 was noted as sand/loam, site 2 was noted as sand/sandy loam, and both sites 3 and 4 were noted as sandy in the first 6 inches and sandy with small stones from 6-18 inches depth. There is no review of this study from CDFW. It is not known if one was requested or if it was not considered necessary.

Survey methods and qualifications of biologists conducting the bat survey should be provided to CDFW prior to surveys to ensure proper assessment. The survey should include visual surveys inside the building (**Recommendation 2**).
And
To ensure proper methods and timing of bat exclusion activities, methods for exclusion should be provided to CDFW for review and concurrence 30 days prior to commencement of removal (**Recommendation 3**).

One of the three mitigation measures included in the IS/MND included BIO-1 (B.3.a. in the City Council packet, page 4) states that “A bat survey shall be conducted prior to demolishing the existing building on-site. If no bats are found no further mitigation is required. If bats are discovered, prior to demolition the bats must be removed through live exclusion or similar means that do not harm bats. If bats are discovered no removal can occur during the maternity season (typically late May through mid-August) to protect flightless baby bats.” Special Condition 3 (page 10) also adds that, “Survey methods and qualifications of biologists conducting the bat survey should be provided to CDFW prior to surveys to ensure proper assessment. The survey shall include visual surveys inside the building. If a bat survey identifies bats present in the existing building, the method and timing of exclusion activities shall be provided to CDFW for review and concurrence 30 days prior to commencement of removal.”

Any nesting bird habitat within the Site designated for removal should be removed between September 1 and February 28 to reduce potential nesting habitat. If nesting habitat is to remain, and construction, grading, or other project- related improvements are scheduled during the nesting season (March 1 through August 31), a pre-construction nesting survey should be conducted no more than five days prior to commencement of project activities. The survey should include the parcel and suitable nesting habitat within a 100-foot buffer. If nesting birds are detected, appropriate buffers, monitoring, and operational restrictions should be put in place with review and concurrence from CDFW (**Recommendation 4**).

Special Condition 4 (pages 10-11) restates this recommendation almost word for word.

Landscaping plan should emphasize regionally appropriate California native plants and should not include invasive plants. (**Recommendation 5**).

Special Condition 18 (page 12) states that, “A landscape plan shall be prepared for review and approval by the Community Development Director that consists entirely of drought tolerant native species. All landscaping and irrigation shall comply with the requirements of the State of California Model Water Efficient Landscape Ordinance (MWELO).

Jacob Patterson noted the presence of great blue herons on the site (Public Comment 7A) and submitted photos of his observations. He also added them to the iNaturalist database, and those can be found at

https://www.inaturalist.org/observations?photos&place_id=any&subview=map&u ser_id=jrplaw&verifiable=any

I visited the site on several occasions and took photos documenting the three mature trees on February 15. These trees included two Monterey cypress and one unidentified pine, which appears to be a shore pine. Photos of those trees were included in my initial comments submitted on February 16 at 2:33 pm via email, during the public comment period for the Initial Study. I also visited the site on July 20 around 6:15 pm and July 24 around 5:15 pm. While there, I photographed plants near the fence on the western side of the south lot and submitted those to iNaturalist (https://www.inaturalist.org/observations?place_id=any&user_id=ljkashiwada&ver ifiable=any). I noted many of the same plant species that were identified in the Wetland Report, some of which indicate the presence of seasonal wetlands.

As previously noted, the initial Biological Review was prepared from data collected on August 9, 2020, in the middle of summer during a drought year with less than half the normal amount of rain. No photos were provided to document the conditions. The only photos are satellite imagery from Google taken on an unknown date. It is not surprising that very few plants were noted on the south lot given the dry conditions. However, the satellite image on page 7 of the report (and below) shows a distinctly green area on the west side of the property next to the fence. The reddish line drawn by the authors of the review obscures that area of greenery (and does not appear to be drawn on the actual boundaries of the parcels). This same satellite image clearly shows the three mature trees on the northwest corner of the project site.

I visited the project site on July 20, 2021 and took photos of the area on the south lot showing a distinctly lower area next to the fence along with plants that are still green despite a second year of drought conditions (see attached photo). The motel on the other side of the fence backs right up to it and there is no evidence of landscape watering there that would support these plants.

The proposed northwest bio-retention basin is placed in the exact location of the two mature Monterey cypress trees. The proposed southwest bio-retention basin and landscaping is located in a area with potential to be an ESHA.

A chart showing precipitation in rain seasons 2018-19, 2019-20 and 2020-21 is shown below the photos.

Analysis:
The Biological Review prepared for the IS/MND was not performed in a way that could fully characterize the site. The one-day site visit in August, in the middle of summer, was not a good time to assess the plant species, and the follow-up Wetland Report identified far more plant species (more about this report in the next section). This is indicative of a superficial look at the plants on the initial site visit – a survey that probably wasn't expecting to find much and didn't. However, my visits on July 20 and 26 of this year, also in the middle of summer (and a second year of drought conditions), showed many plants near the fence not noted in the Biological Review. However those plants were noted in the Wetland Report. This is another indication that the first study was superficial at best, and potentially misleading.

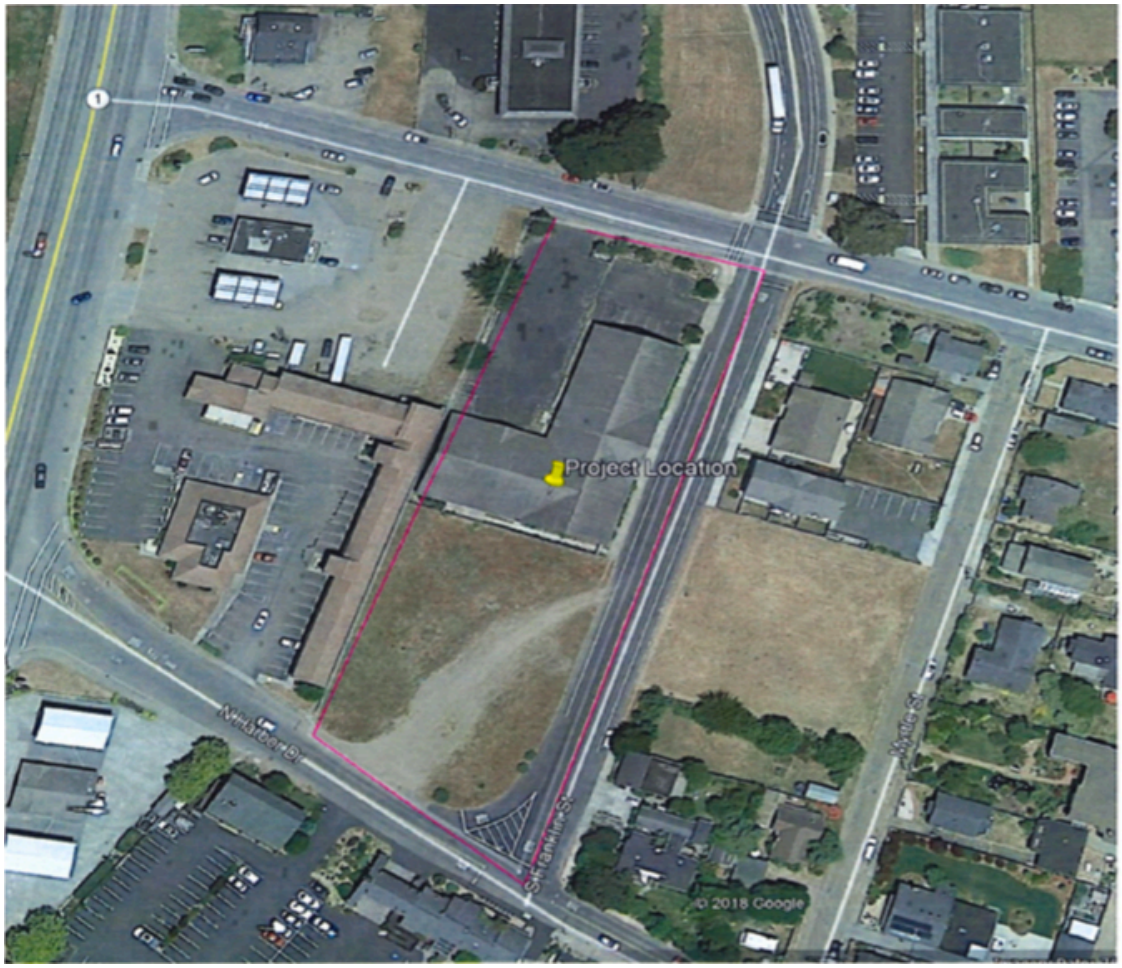
There was not sufficient time spent on the site to observe animals using the site as a primary habitat, other than noting the gopher holes. I also noted numerous gopher holes during my visits. Use of the site by birds, reptiles, insects, or amphibians for forage, resting, and/or nesting would not and could not be noted during such a short time period for observation. No conclusions about use of this site by animals can be made based on the Biological Review. The Wetland Report only surveyed plants and was not designed to assess use of the area by animals.

The CDFW recommendations were mostly addressed in the special conditions, however, the landscape plan (Special Condition 18) did not mention that the plan "should emphasize regionally appropriate California native plants and should not include invasive plants." This special condition requires the use of drought- tolerant plants, which is an excellent idea, but the most current landscape plan shown still includes Monterey cypress, which is not regionally appropriate (though native to California) and is considered invasive. The landscape Special Condition is also incomplete and will be discussed further in a later section.

Note that while planting new Monterey cypress is not desirable, the presence (and retention) of mature Monterey cypress trees is desirable for the ecological services provided (e.g., habitat, carbon sequestration, shade, water retention) and aesthetic value. The Planning Commission indicated that they wanted the mature Monterey cypress trees and the mature pine on the northwest corner of the property to be retained, but there is no Special Condition in the permit that explicitly requires this. In addition, the placement of the northwest bio-retention basin is not clearly compatible with retaining the mature Monterey cypress trees because it is the location of their root structures and therefore this bio-retention basin

must be moved or additional protective measure incorporated to protect their root structure from damage from construction activities. Protecting the mature trees includes not disturbing the ground with anything more than hand tools or an air spade within a minimum ten-foot radius around the trees in order to preserve and protect their root systems. In addition, the southwest bio- retention basin is located in an area that may be an Environmentally Sensitive Habitat Area (ESHA)(see below).

Conclusion:
The Biological Review was incomplete and insufficient to come to the conclusion that this project would have no significant or potentially significant impact on the environment, and there is substantial evidence in the record supporting the conclusion that the project will have a significant impact on biological resources that supports preparing an EIR and/or significant revisions to the IS/MND, including incorporating additional mitigation measures. Thus, the finding or determination that there will be no significant impact on biological resources cannot be made based on this report, or the Wetland Report (see below).





Fort Bragg Precipitation, Rain Seasons 2018-19, 2019-20, and 2020-21

Month/2018	**Total Amount**	**Avg Amount**
October	1.08	2.49
November	4.33	5.31
December	6.07	8.46
Month/2019	**Total Amount**	**Avg Amount**
January	7.33	7.51
February	14.36	6.84
March	7.60	6.27
April	2.28	3.32
May	6.35	1.80
June	0.02	0.72
July	0.05	0.09
August	0.24	0.21
September	0.75	0.45
Total:	50.46	43.47

7 inches above average, most of that excess from Feb 2019 with over 5.5 inches of rain falling the last 3 days of Feb

Month/2019	Total Amount	Avg Amount
October	0.62	2.49
November	1.24	5.31
December	7.26	8.46
Month/2020	**Total Amount**	**Avg Amount**
January	6.77	7.51
February	0.12	6.84
March	2.18	6.27
April	1.84	3.32
May	2.39	1.80
June	0.17	0.72
July	0.03	0.09
August	0.00	0.21
September	0.07	0.45
Total:	22.69	43.47

Biological Study 8/9/2020
only half the average amount of ppt

Month/2020	Total Amount	Avg Amount
October	0.14	2.49
November	2.39	5.31
December	3.63	8.46
Month/2021	**Total Amount**	**Avg Amount**
January	6.42	7.51
February	3.50	6.84
March	3.92	6.27
April	0.90	3.32
May	0.10	1.80
June	0.62	0.72
July*	0.00	0.09
Total to date:	21.62	42.72

Wetland Study 3/15/2021
most rain fell before 3/11
fractional rain fell 3/14 and 3/15 *no rain forecast through 7/31
only half the average amount of ppt

Data for 2019 from
https://www.usclimatedata.com/climate/fort-bragg/california/united-states/usca0394

Data for 2020 and 2021 from the Press Democrat

Biological Study – Soils

Issue:
The Biological Review was not sufficient to establish the presence or absence of wetland habitat (an ESHA) and CDFW requested further study. A supplemental Wetland Report was prepared but is inadequate because the area most likely to be classified as wetland was not sampled. Landscaping along western property boundary and the southwest bio-retention basin are located in this possibly sensitive area.

Facts:
The letter from CDFW stated that, "The Site is located within the Coastal Zone subject to California Coastal Act (CCA) and California Coastal Commission (CCC) coastal wetland regulations. The CCC's regulation (California Code of Regulations Title 14) establishes a "one parameter definition" that requires evidence of only a single parameter to establish wetland conditions. The wetland delineation protocol in the U.S Army Corps of Engineers (ACOE) Wetland Delineation Manual (Environmental Laboratory 1987) and Western Mountains Valleys and Coast Supplement (ACOE 2010) describes how to evaluate and document wetland indicators of three parameters: vegetation, soil, and hydrology. The protocol also suggests delineations should occur two-weeks following a significant rainfall event during the growing season to observe indicators of hydrology and obtain accurate identification of plant species. With a single site visit in August, the presence of FAC plants, and no description of wetland assessment methods, the conclusion that wetlands are absent is not supported with substantial evidence. The IS/MND should provide substantial evidence to support the determination that wetlands are absent. A wetland delineation following ACOE protocol should be conducted to identify any locations where one or more wetland parameter indicators are present (**Recommendation 1**)."

The supplemental Fort Bragg Wetland Report was prepared by Wildland Resource Managers using data collected on March 15, 2021. This past spring was dry with very little rain. Fortunately, 1.63 inches of rain was recorded in Fort Bragg on 3/6/2021, 0.43 inches of rain on 3/9/2021, and 0.83 inches of rain 3/10/2021. This does not quite meet the requirement for significant rainfall two weeks prior to the study, but at least there was rain nine days, six days, and five days prior. There had been no rain for weeks before that. As previously described, four locations were studied in detail, identifying numerous plants not previously noted in the Biological Report (see facts section above). Soil sampling down to 18" was conducted at all four locations. The soil at site 1 was noted as sand/loam, site 2 was noted as sand/sandy loam, and both sites 3 and 4 were noted as sandy in the first 6 inches and sandy with small stones from 6-18 inches depth.

The site map (shown below) shows the four locations sampled. Each location was taken to represent one quadrant of the property. Note that the outline of the property lines was more accurately placed than in the site map in the Biological Review. Also note the green area next to the fence on the western side of the property. The photo I took on July 20 (see above) shows the plants along the fence to the left (west) of sites 2 and 3.

I found a number of *Rumex acetosella* (OBL) an obligate wetland plant in this area and documented this with a photo uploaded to iNaturalist. This photo can be viewed at https://www.inaturalist.org/observations/88485082 following a significant rainfall event during the growing season to observe delineations should occur two-weeks
indicators of hydrology and obtain accurate identification of plant species.

The site map for the project shows landscaping in this area and a bio-retention basin in the southwest side of the property.

Analysis:
This area of persistently green plants along the fence indicates that this area collects water, and has the potential to meet the “one parameter definition” of a wetland as described by CDFW. Yet, the locations studied in the Wetland Report did not sample this area. Instead, the four study sites were in the “table-top” area of the property. The distinctively different look of the more low-lying land running along the fence represents an entirely unique habitat zone on the south lot and there is no information about the plant and animal species that can be found there or that utilize it as habitat.

The proposed southwest bio-retention basin is sited along the fence, as is extensive landscaping. Unfortunately, the impact of digging up this area cannot be determined because the biological resources have not been described. So, while the Wetland Report superficially met the requirement of a more thorough study, it did not actually evaluate the area most likely to include a potential wetland, and area where I found previously undisclosed plants that indicate wetland conditions.

I do not know if CDFW was given the supplemental Wetland Report to review and confirm its adequacy to address their earlier concerns, but there is no evidence in the record to suggest that they have, nor is there any statement by this agency that the reports adequately described the entire site.

Conclusion:
The Fort Bragg Wetland Report and the Biological Review were incomplete and insufficient to come to the conclusion that this project would have no significant or potentially significant impact on the environment and staff is not qualified to opine on its adequacy. In particular, the area most likely to contain wetland habitat was not evaluated. The determination that there will be no significant impact on biological resources cannot be made based on the studies performed so far. In fact, there is substantial evidence in the record to support a fair argument that this project will have significant impact on biological resources and an EIR should be prepared or the IS/MND should be revised to include additional relevant analysis and potential mitigation measures.



Geology and Soils

Issue:
The mitigation measure GEO-1 and Special Condition 2 relies on the contractor to identify and report the presence of fossils or fossil bearing deposits.

Fact:
Special Condition 2 states, “Pursuant to Mitigation Measure GEO-1, in the event that fossils or fossil-bearing deposits are discovered during the project constructions, the contractor shall notify a qualified paleontologist to examine the discovery, and excavations within 50 feet of the find hall be temporarily halted or diverted. The area of discovery shall e protects to ensure that fossils are not removed, handled, altered, or damaged until the Site is properly evaluate, and further action is determined...”

Contractors are typically not qualified to identify fossils or fossil-bearing deposits, and have a counter incentive to report any findings as that might stall or delay construction and lengthen timelines for completion.

Analysis:
Given that contractors are not typically qualified to identify fossils or fossil-bearing deposits and have a conflict of interest in reporting such findings, it is essential that a qualified paleontologist be present on site during all earth- disturbing activities. In fact, there is local anecdotal evidence that contractors have bulldozed such deposits during the construction phase of other projects to avoid having to report them or comply with similar restrictions and requirements.

Conclusion:
The Mitigation Measure GEO-1 and Special Condition 2 are not written in a way to guarantee that fossils and fossil-bearing deposits are protected during the construction phase of the project.

Utilities/Service Systems – Water Usage and Water System Infrastructure

Issue:
The criteria for determining whether or not the project would have a significant impact or potentially significant impact on utilities and service systems merely restated the first two items on the checklist concerning water service and supply and did not include measurable thresholds of significance. The IS/MND and associated reports do not contain sufficient data about water use to determine if a significant impact or potentially significant impact might result both during the construction and operation of the proposed project.

Fact:
The Grocery Outlet Appeal Report prepared by city staff states that, “The impacts on the City’s existing water supply are negligible as the average water usage of a Grocery Outlet, as supplied by the applicant, is 250 – 350 gallons per day, including irrigation for the landscaping. As drought tolerant landscaping will be required, the average is probably on the lower end of this scale. The usage is expected to be less than 25% of the average water usage of other grocers in the City. In part, this is due to the operations of the market which does not include a deli, meat counter, bakery, or food preparation. Everything arrives packaged and in addition to the landscaping, water is used mainly for sanitation, restrooms, and other minor uses. To provide further context, for the FY 19-20 the City produced 272,833,000 gallons of water and sold 200,164,052 gallons. In that year, grocery stores made up less than 2% of the City’s water sales. The increase in water sales in the city would be approximately 0.055% and a 0.04% increase in the usage of treated water. This will be a less than significant increase in water usage.”

A Water Model Study prepared by KASL Consulting Engineers indicated an estimated average daily demand for the Hare Creek Center (anchored by a Grocery Outlet) to be 8.260 gallons per day, with a maximum daily demand of 16,520 gallons per day and a peak hour demand of 23.128 per day using 4 different studies (page 4). This includes multiple buildings and landscaping.

The MND for the Hare Creek Project estimated that the water demand for the grocery store (Grocery Outlet) would be 960,000 gallons per year for internal operations, which is an average of 2667 gallons per day (page 43). The MND further states that the average of 55 gallons/year per square foot for a grocery store was in line with water usage in other stores in the area.

The proposed Grocery Outlet is 16,157 square feet. Using the established usage of 55 gallons/year per square foot, the usage should be around 888, 635 gallons per year, or 2,435 gallons/day.

The city has issued numerous water emergency declarations over the last two years, requesting that businesses and residents conserve water and reduce consumption. The most current mandatory reduction resulted in an 8% reduction in water use (from 0.716 million gallons per day to 0.653 million gallons per day) and water use is down 15% from July 2020.

There is no analysis of water usage during the construction phase of the project at all, and only conclusory statements and unsupported assertions concerning ongoing water use of the project once it is operational.

The water storage systems used by the city do not provide additional water. They are like a savings account, where money is set aside to use as needed to cover shortfalls. The current storage capacity is not sufficient to cover extended periods of drought because the estimated amount in storage at full capacity is 45 days or less.

Analysis:
The threshold for significant impact should be very low given the continued drought conditions. In fact, one could argue that any additional water demand is a significant impact on the ability of the city to obtain and provide water for existing businesses and residences. Merely saying that grocery stores don't use a significant percent of water supplies ignores the fact that the additional demand will still impact water usage, especially as everyone is being asked to cut back, and that this additional use likely amounts to a cumulatively considerable contribution to the overall impacts of successive development projects on the City's water supply and storage capacity.

Given that the applicant's estimate is water usage in 10% of the estimated water usage for grocery stores, the IS/MND or supplemental studies should have provided the source for this estimate rather than simply relying on an asserted but highly suspect projected amount of water use provided by the applicant without any support for the figure, and which clearly conflicts with the projections for water use associated with a comparable past project that was actually backed up by relevant studies and analysis.

In the absence of such documentation, this estimate seems unreasonably low and merely an unsupported assertion by the applicant, who has an incentive to underestimate water usage.

The cumulative impact of this project, along with other projects was not addressed, yet may require the city to build additional water storage capacity. In addition the impact of sea level rise and increasingly high king tides compromises the intake facility on the Noyo River, as discussed in numerous public comments and which is supported by substantial evidence in the record. The record clearly supports a fair argument that the project will contribute to these existing issues in a cumulatively considerable way and there is insufficient evidence in the record to support

staff's recommended conclusion that this project does not present any concerns related to water supply.

Conclusion:
Any additional demand on water supplies has a significant impact on the availability of the city to produce and supply water to existing businesses and residents. Because no measurable threshold or metric was used related to water supply analysis, and the actual supported water analysis for a recent Grocery Outlet project of a similar size as this proposal indicates this project will have far higher water use than what was asserted by the applicant the determination that this project will have no significant impact on the city's water service system and supply cannot be upheld and the necessary findings required in order to approve the project cannot be made.

Utilities/Service Systems – Storm Water Drainage
Issue:
The criteria for determining whether or not the project would have a significant impact or potentially significant impact on utilities and service systems did not include measurable thresholds of significance for storm water drainage. The IS/MND discussed conditions under normal, dry, and multiple dry years, but did not address increasingly common flooding events from atmospheric rivers that are projected to continue to occur with increasing frequency and severity, as reported by numerous articles and studies, many of which have been submitted into the record through public comments.

Fact:
100-year, even 1,000-year events are now occurring regularly (floods in NE US, Europe and China), an indication of climate chaos (climate change). Atmospheric rivers increasingly drop phenomenal amounts of rain in short periods of time, resulting in catastrophic flooding. Moreover, the moon's orbit is predicted to begin fluctuating significantly more than it has been starting in the 2030s, increasing terrestrial tidal fluctuations and coastal flooding, which are predicted to devastate coastal communities.

Analysis:
It's seems contradictory to consider flooding events when we are experiencing multiple years of extreme drought. Nonetheless, the frequency of flooding from atmospheric rivers is increasing every year and is predicted to increase in the years to come, including during the useful life of the proposed development.

Relying on established standards of design for storm water drainage based purely on historical conditions will no longer serve us well or facilitate informed decision-making concerning this, or other, proposed development projects. This is not to say that the project design does not meet current standards, or will after Special Condition 1 and 24 are applied. Rather, consideration of 100-year and 1,000-year flood events need to be discussed, if only to look at what is predicted to result from system failure. That is, what natural systems will be impacted (e.g., Noyo River, Pacific Ocean) when a flooding event washing the contents of the parking lot and trash storage containers into them occurs. What hazards and hazardous materials will be deposited into these systems and what are the short- term and long-term impacts?

Conclusion:
Storm water drainage will likely fail during extreme flooding events, and an assessment of the results of that failure needs to be provided. The agenda materials and current IS/MND fail to incorporate this relevant information and modeling into the analysis, and there is substantial evidence in the record to support a fair argument that such analysis must be included in the IS/MND or an EIR for this project. Until such analysis is incorporated and circulated for review
by the public and responsible agencies, the City Council would be abusing its discretion to adopt the flawed IS/MND or approve this project.

Transportation – Pedestrian Safety
Issue:
Pedestrian safety was not analyzed in the IS/MND. However, during the public comment period and during the prior public hearings, numerous people indicated they welcomed this project because they could walk from their residence to the site, including many nearby residents of the multi-family housing developments in the vicinity. With this new information, complete routes of pedestrian travel from residences to the project site should have been analyzed in the agenda materials and IS/MND with regards to existing infrastructure and pedestrian safety due to crossing nearby streets to access the project on foot. The only external point of concern discussed at length during the Planning Commission hearings was the intersection of South and S. Franklin Streets. In addition, the location of the proposed building and point of entry for cars on S. Franklin Street was discussed as creating a substantial risk to pedestrians within the parking lot, which does not have internal pedestrian walkways separated from the vehicular travel lanes.

Facts:
The proposed site plan places the building on the north side of the merged parcel and all parking on the south side.

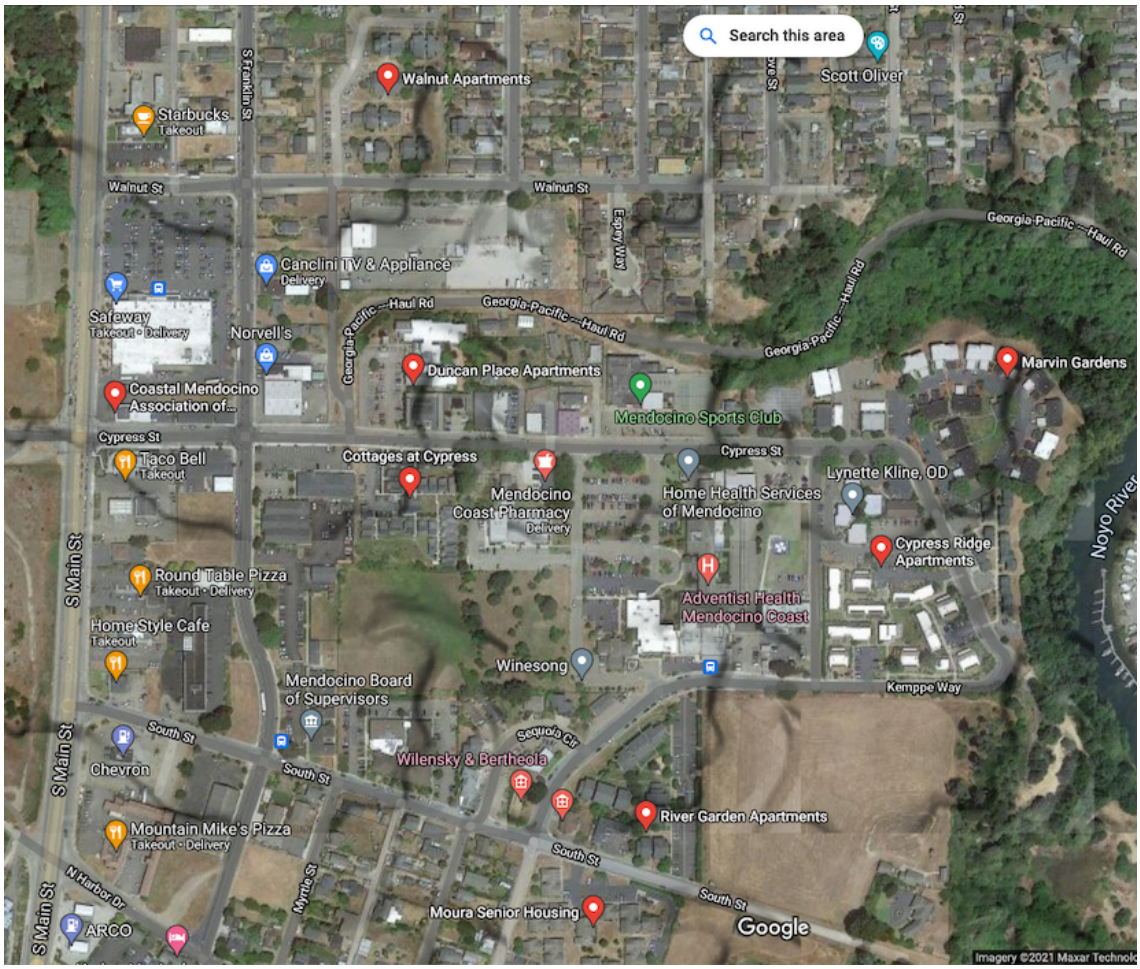
There are many dense multi-family apartment buildings in the vicinity of the proposed project, and this project will attract many pedestrians along routes from these apartment buildings to the site as evidenced by public testimony during the hearings (see map below).

The intersection of South Street and S. Franklin Street is currently only controlled with stop signs at Franklin Street (and no stop signs on South Street). Special Condition 25 requires the applicant to improve infrastructure at this intersection, including installing a 4-way stop, including signage, striping, and pedestrian facilities to provide crossing at all legs of the intersection. This Special Condition also requires the installation of sidewalk curb and gutter for a total length of 57 linear feet along the east side of S. Franklin Street, as well as a curb return to provide sufficient pedestrian landing facilities on the southeast corner of the intersection. These improvements must be completed prior to final certificate of occupancy on the building permit.

The proposed car entry from S. Franklin St into the parking lot is right in front of the store entrance, a location that presents a risk to pedestrian safety because it concentrates vehicular traffic entering the parking lot right where the greatest concentration of pedestrian activity is as well, which is heavily discouraged by the Citywide Design Guidelines. Special Condition 32 requires that the sidewalk at the southeast side of the building entrance must extend a minimum of 4’ beyond the parking space length to provide additional pedestrian visibility for vehicles entering the parking lot from S. Franklin Street. Additionally, another pedestrian ramp must be added to provide egress to the west side of the parking area.

There were discussions during the hearings about flipping the overall site plan and moving the building location and vehicle entry points to the parking lot to improve pedestrian safety and parking lot layout, but the applicant asserted those changes were not possible without adequately explaining why. During the hearing several examples of the alternate layouts built by the applicant in other towns were shown. The applicant said changes similar to those discussed by the Planning Commission were made because it was required for the project to be approved by those other towns.

Apartments near proposed Grocery Outlet



Analysis:
It is clear that this project is being welcomed by many people in the community, especially those who live in controlled-rent and senior apartment complexes on the south side of Fort Bragg. There were many comments expressing support and enthusiasm for this more affordable shopping option. Many of these supporters indicated they planned to walk from their residence (or place of work) to the site of the project.

The infrastructure for pedestrians is not sufficiently developed for pedestrians to safely walk to the site. Special Condition 25 partially addresses this concern by requiring the applicant to construct improvements to the intersection of South and S. Franklin Streets. These improvements are necessary, but not sufficient for pedestrian safety because there are other areas between the housing complexes and the site that need improvement. The various routes should have been

thoroughly described and any additional improvements to pedestrian facilities along the routes of travel brought to the Planning Commission for consideration.

While Special Condition 32 was added to improve pedestrian safety at the entrance of the store, it is not even clear that it can be accomplished as there may not be sufficient room in the parking lot to accommodate the widened sidewalk. At the core of this issue is the insistence by the applicant that the site layout is the only one they will consider. Alternate layouts were discussed that may improve entrance and egress of cars to the parking lot and pedestrians to the building and bring the layout into conformity with applicable provisions of the Citywide Design Guidelines, but these were summarily dismissed as not feasible without actually evaluating the feasibility in any meaningful way. Yet, the applicants admitted that they had altered layouts in other locations (e.g., Truckee) to accomplish similar goals, and they did so because it was required for them to receive their permit, so it is clearly feasible for them to do so for their proposal in our town as well.

One problem seems to be that the proposed parking lot barely meets the minimum required parking spaces for the project, although one of those required spaces is now be designated for a cart corral as required by Special Condition 28 (the other cart corral is placed in an area previously designated for landscaping). In addition, internal pedestrian walkways to safely separate pedestrian paths of travel from vehicular paths of travel cannot be accommodated in the existing modified parking lot design, which was not reviewed by the Planning commission. A different layout may ameliorate the conflict between the need for parking and pedestrian safety. In fact, it might be necessary for the applicant to purchase additional land for parking (perhaps the lot between the Chevron and the project site on South Street) – perhaps allowing for a separate parking area for employees.

Conclusion:
The addition of Special Conditions 25 and 32 represent a significant change to the permit, changes that should have gone through the complete review process, including the Design Review to ensure that the project is consistent will applicable local requirements. Tacking on the Special Conditions does not address the significant impact the project will have on pedestrian traffic to and from the project site, and this impact should be thoroughly studied in an update MND or EIR along with the other relevant pedestrian safety concerns discussed above and in public comments.

Transportation – Traffic Study

Issue:

The analysis of traffic was muddled by the current state code using VMT as the criteria of measuring impact versus city code, which requires LOS be used to establish criteria for determining impact. Based on LOS, the traffic study said impact would be significant, especially at the intersection of Main Street and South Street and could not be mitigated. Special Condition 25 requires the addition of a 4-way stop at the intersection of South and S. Franklin streets, but no analysis was conducted to determine the impact this change would have on the flow of vehicles.

Fact:

Traffic will be impacted by increased vehicle traffic to and from the proposed project.

The traffic study indicated a decrease in LOS at the intersection of Main Street and N. Harbor Drive and the intersection of Main Street and South Street. The decrease in LOS at Main and South Streets was determined to be significant.

Discussions about improving the infrastructure and the affected intersections occurred during the hearing and in a document from CalTrans dated December 24, 2019. These included discussion about removing the left turn prohibition from N. Harbor Drive onto Main Street and possibly installing a roundabout, adding a signal at the intersection of Main Street and South Street. CalTrans indicated that the decrease in LOS was not sufficient to obtain state funds for improvement. Special Condition 16 requires a “fair share” contribution to improvements on Highway 1.

The required infrastructure improvement at the intersection of South and S Franklin streets as written in Special Condition 25 will significantly change the flow of traffic in the area.

Analysis:

While Special Conditions 16 and 25 partially address the traffic impacts, there is insufficient study of the various alternatives and their impacts. In particular, emergency vehicles access the hospital ER on South Street, and the addition of
a light at Main Street and a 4-way stop at Franklin Street may impact that access. That impact may be positive or may be negative, but there is no analysis to determine the best configuration of intersection improvements to achieve the desired objectives of increased access and safety for vehicles and pedestrians.

Conclusion:
This project will increase vehicle traffic (e.g., cars and delivery trucks) and pedestrian traffic to the site. These increases will be directly due to the proposed project. Other than the traffic study, these impacts were not well documented, and various alternatives to address the impacts were not proposed and discussed. Therefore, the necessary findings required in order to approve the project cannot be made.

Noise
Issue:
Although a measurable threshold of significance was established, there was no data to support the finding of no significant impact. Data presented were collected in 2008 (not 2011) in a different area of town.
This area of concern was well-addressed by other appellant

Air Quality
Issue:
Increased delivery truck traffic and car trips could degrade air quality in the neighborhood, but no measurable criteria or threshold of significance was established and no data were collected.
This area of concern was well-addressed by other appellant

Special Conditions
This permit had 32 Special Conditions applied to it, many of them incomplete or not enforceable, as raised in public comments. In addition, many of them should have triggered additional analysis and alternative mitigations, which should have required an amended MND, along with additional periods of public comment

Conclusions
As described above and in the other appeal document, as well as numerous public comments, the findings of this IS/MND are not supported and the approval by the Planning Commission overturned. As I have indicated here and in my previous comments, the IS/MND must be amended or an EIR required before the full impact of this project and be determined and the appropriate mitigations properly designed and applied.

Appendix I



Leslie Jan Kashiwada, Ph.D.
Leslie has lived in Fort Bragg since 1999 after teaching for many years in the San Diego area. She has a varied background in science including the evaluation of technical documents. She is also well read and has a many of interests including meditation, music, cooking, and gardening.

Education
Ph.D. Biological Oceanography, Scripps Institution of Oceanography 1985
Dissertation: Demersal Zooplankton of the Giant Kelp *Macrocystis pyrifera*: Patterns of Emergence and the Population Structure of Three Gammarid Amphipod Species
B.A. Biology with honors, University of California, Santa Cruz 1976

Career
2015 – present
California Department of Fish and Wildlife, Scientific Aid Marine Region Education and Outreach
Write articles and produce printed and online content

2003-present
Director, Music Together on the Mendocino Coast
Music and movement classes for families with young children
Administration of all applicable policies, lesson planning and implementation, grant writing, training

2011-2014
Community Center of Mendocino Facilities Coordinator
2008-2011 Independent Consultant Medical Transcription
2001-2003
California Department of Fish and Game, Scientific Aid Video Analysis of footage taken from ROV

2000
US Census Bureau Trainer

1988-1999
MiraCosta Community College
Professor of Biology
Department Chair 1998-1999
Director, Southern California Biotechnology Center 1995-1999
Taught courses in Marine Biology, Human Anatomy, Human Biology, Techniques in Biotechnology, Biotechnology Seminar

1986-1987
MiraCosta Community College Adjunct Faculty
Taught Human Biology

1986-1987
San Diego State University
Taught Oceanography, Science and Society

1976-1985
Scripps Institution of Oceanography
Research Assistant
Evaluated EIR and EIS reports for sewer outfalls along coastal California as required by new water quality standards at state and federal level
Conducted research on meiofauna in the Central North Pacific
Designed and conducted research on the demersal zooplankton found in the holdfasts of giant kelp, *Macrocystis pyrifera*
Course work: Physical Oceanography, Population and Community Modeling, Marine Communities and Environment, Marine Geology, Marine Chemistry, Marine Arthropods, Biological Oceanographic Techniques, Biology of Fishes, Coastal Marine Geochemistry, Pelagic Ecology, Community Ecology, Applied Statistics, Multivariate Analysis, Natural History of Coastal Habitats, Deep-Sea Biology, and numerous specialized seminars

Best Development Grocery Outlet Bargain Market May 26, 2021
Comments submitted by Leslie Jan Kashiwada, Ph.D.,
kashiwa@mcn.org

The staff report for this project recommends adoption of the resolution approving Coastal Development Permit, Design Review, Merger, and adopting the Initial Study MND pursuant to all the evidence presented, both oral and documentary, and further based on findings and conditions state therein.

I am surprised that this recommendation includes adoption of the Initial Study MND, without significant change or new evaluation. In particular, I found the dismissal of community concerns to be disconcerting, especially the statement that, 'These comments have been considered and none of these comments change the conclusions of the Mitigated Negative Declaration. Additionally, no further changes to the project were made as a result of these comments.'

For this reason, I am resubmitting my comments about the shortfalls of the Initial Study MND, with the following additional input:

Building Re-Use versus New Building: See my comments below. There was no substantive discussion of this aspect of the project, even though adaptive re-use of existing building is a stated policy with the Coastal General Plan.

Biological Study – Biota: See my comments below and those submitted by CDFW. A token Wetland Report was prepared to supposedly address the issues brought up by CDFW. This consisted of one afternoon in March 2021. Given the current extreme drought conditions, it is not surprising that wetland conditions were not detected. And the four test locations were placed well away from the area that is most likely to sustain wetland conditions in non-drought years (this is the area were an engineered swale is proposed). None of the other concerns brought up in my comments or by CDFW were addressed.

Water Usage: See my comments below. Currently the city does not have sufficient water to support any new development.

Traffic Study: See my comments below. This project will increase traffic and the city should be prepared for an increase in vehicular and pedestrian accidents. This is especially true if the left turn prohibition on North Harbor Drive is removed. I personally know of a serious t-bone collision from

someone turning left onto Hwy 1 from Safeway, and we will likely see many more of those types of accidents with this development. Unfortunately, any serious collision in the vicinity of this project will impede the ability of emergency vehicles to move freely to the accident, and potentially to impede movement of emergency vehicles to the south.

Economic Analysis: See my comments below. Any development of this size needs to include an unbiased economic analysis of benefits and losses. This is a loss to existing businesses, but a gain for local residents. This was not addressed. There will be an impact on similar businesses, but with a benefit of additional shopping options to residents (perhaps resulting in fewer trips to Willits or Ukiah). There will be some additional jobs, but how many and at what pay level? This was not addressed. Most jobs in this kind of store are part-time and do not pay benefits. Is this the kind of jobs the city wants to support? This can't be analyzed because no information was provided.

Many of the deficiencies are the result of ignoring existing policies, poorly supported analyses, errors of omission (and commission), and wishful thinking. The job of the Community Development Department should be to require full, accurate analyses, which the Planning Commission and City Council can use to make decisions about approving or denying permits. In this case, and others, it seems city staff and helping developers jump through required "hoops" with little critical assessment of whether or not the actual information needed to make an informed decision was provided. City staff should represent the citizens of the community as much as developers.

-Leslie Kashiwada

Initial Study and Environmental Checklist for Best Development Grocery Outlet Bargain Market Jan 20, 2021
Comments submitted by Leslie Jan Kashiwada, PhD,
kashiwa@mcn.org

Building Re-Use versus New Building
The Initial Study indicates that the project proposes to tear down the old Social Services Building (16,436 sq ft) and build a new building (16,157 sq ft) with a very different footprint and much greater visual impact. Given that adaptive re-use of existing buildings is a stated policy within the Coastal General Plan, this study needs to discuss the feasibility of repurposing and retrofitting the existing building, including a cost-benefit analysis of re-using the existing building versus demolition with a new building.

Biological Study - Biota
The site doesn't appear very interesting biologically, but the Biological Study was very superficial and severely lacking as a thorough effort to characterize the environment at the proposed site. The biological study consisted of one day on site (August 9) including a plant inventory (methodology not provided, but likely just a presence/absence survey) and visual evidence of animal activity (noting only gopher mounds and a crow). No mention was made of insects, reptiles or amphibians. The proposed night survey for bats (potentially roosting in the old building) was not conducted because of weather. In addition, the survey only included the south lot. The pine and mature cypress trees on the western edge of the northern lot were lumped in with "shrubbery planted around the edges." There was no mention of the habitat provided by these trees (more on this below). The study recommended a follow-up survey on bats and the Initial Study mentions a bat survey will be required as a mitigation (page 10). There is no indication of when that survey will be conducted; only that, if bats are found, then CDFW will be consulted. That study should be done sooner rather than later in order to settle this issue before more time and money are spent on the project.

The proposal makes no effort to retain existing trees on the western edge of the northern lot, and only mentions new landscaping. The new landscaping includes Monterey cypress, but it will be many decades before any of them reach maturity, if they ever do. Because Monterey cypress trees have spreading limbs, these trees may be kept trimmed in a way that will not develop the habitat provided by the mature trees currently on site. In addition, because Monterey cypress is not native to the area, there should be an effort to find more appropriate native evergreens to use for landscaping. The existing trees (see photos below) should be retained to the maximum extent possible, and the study should address how this objective can be achieved. New trees should only be planted where there are currently no trees, or where an existing tree has to be removed, and they should be substantial in size.

Biological Study - Soils
The biological study noted that the soils are hydric, but no wetland species were found. However, the date of the one-day survey was at the end of the summer (dry season) and therefore those conclusions are at best preliminary, pending further surveys done at a variety of times throughout the year. A one- day survey does not provide sufficient data for a complete characterization of any site, no matter how uninteresting or disturbed.

Water Usage
The Initial Study notes that the change of site usage from offices to retail will include increased water use (especially given that the existing building has been vacant for over a decade). The report discusses the City's water supply (page 68), but there is no analysis of the amount of water the project will need and how that need will be met given that the City has had repeated water rationing during the dry season (even with several water storage reservoirs, which only store water – they do not produce new water). For comparison, KASL Consulting Engineers produced a Water Model Study for the 2015 Hare Creek Project MND, which noted that the average day demand would be 8,260 gpd (peak hour demand of 23,128 gpm). Although not directly comparable (The Hare Creek Project was much larger), most of that water use was allocated to a Grocery Outlet Bargain Market. The city's own water analysis shows that a minimal rise in sea level in conjunction with king tides will produce multiple days where the water system will not be able to draw water because of saltwater intrusion. This kind of in-depth look at water use and availability is essential for every proposed project that will depend on the City for its water supply, including this one.

Water System Infrastructure
The Initial Study barely mentions the capacity of City water system (infrastructure) to serve the needs of the project. On page 4 (and page 67) it states that "The existing water connection on South Street includes a 6-inch fire service line and is proposed to be the main water service to the building, with a new 6-inch fire connection to be constructed to the east of the existing connection. A total of three (3) fire hydrants with valve lines are proposed for fire suppression on the Site." Note: page 67 says there will be a new 8-inch fire connection. The KASL Water Model Study referenced above relied on a report taken from the City of Fort Bragg, Phase 1 Water Facilities Study: Existing Water Collection, Distribution and Capacity, Nov 2013 for a baseline of existing system demands. The Phase 1 Water Facilities Study noted some areas of low water pressure that might not meet demand on the south end of town, particularly at fire hydrants. Is this no longer an issue or will adding a new 6-inch (or 8-inch) fire connection further reduce water pressure in the area? Has any new data been produced that show water pressure at fire hydrants meets all current applicable requirements?

Storm Water Drainage
Storm water drainage is addressed in a very perfunctory way (page 5 and page 69). The Initial Study states that the swale and "bioretention facilities [are] sized to capture and treat runoff from the proposed impervious

surfaces produced by the 24 hour 85th percentile rain event...” The study does not address runoff that exceeds this percentile. No system can retain all the water that might result from an atmospheric river dumping massive amounts of water in a short period of time. Because the site is in close proximity to the Noyo River and the Pacific Ocean there needs to be a Water Quality Management Plan that addresses these significant events, which will be more common in the coming years.

Traffic Study

The findings of the Traffic Study were not fully addressed in the Initial Study. In fact, the Initial Study concluded that would be a less than significant impact on transportation (based on VMT instead of LOS). I work in the harbor and make a right turn at North Harbor Drive every weekday on my way to the CDFW office (excluding this pandemic period). I usually drive out via South Franklin Street across South Street and take a left turn at the 4-way stop at Cypress Street. This affords me the safety of a left turn at the traffic light at Cypress Street onto Highway One. Crossing South Street at South Franklin Street (a 2-way stop) can be a challenge and the increased traffic brought about by this proposed project will only make it worse. In addition, I regularly see people illegally turning left onto Highway One from the Arco Station (signage at North Harbor Drive indicates “no left turn”) and turning left onto Highway One from South Street, an action that is allowed but often harrowing.

This proposed project would bring significantly more trips from both the north and the south and the Traffic Study indicated that LOS will worsen. The Traffic Study recommended improvements at several intersections to help mitigate those negative impacts. However, I do not think those improvements are viable for the following reasons:

1) The intersection of Highway One and North Harbor Drive is too close to the bridge for a stop sign or light. Was CalTrans asked to comment on this? I suspect that even the intersection of Highway One and South Street is too close to the bridge for stop signs or light. I assume the entrance to the Grocery
Outlet Bargain Market was located facing North Harbor Drive to keep traffic off South Street as much as possible.

2) South Street is the primary access for ambulances to the hospital. Putting any kind of traffic control on South Street at South Franklin Street could negatively impact this access route.

Unfortunately, neither the Traffic Study nor the Initial Study address the issue of intersection improvement feasibility. In addition, despite the recommendation of the Traffic Study, the Initial Study did not indicate any responsibility on the part of the developer to pay for any road

improvements (independent of feasibility). Is the City willing to let LOS worsen, including more accidents in the affected intersection, especially on Highway One and South Street? The issue of using VMT instead of LOS as a measure of impact is something the Initial Study said the county and city need to address (pages 61 and 62), but I think these metrics are only indicators, and likely not very good ones for area like the proposed site which has complex intersections.

Note on Zoning
The zoning is mostly described as Highway Visitor Commercial (pg 1, 3, 7, 46, Figure 2: Land Use Designation Map), but the Site Map lists zoning as General Commercial (pg 89).

Economic Analysis
This Initial Study goes through a checklist of CEQA evaluations, but an Economical Analysis is not included. Perhaps it was not a required part of the report, but it should be. Before progressing further with this project, the impact on existing grocery stores must be analyzed. Can the community support another grocery store or will one of the existing full-service stores go under? Are the anticipated tax receipts from the proposed Grocery Outlet Bargain Market offset by loss of tax receipts at the other stores? If so, by how much?

In addition, the Initial Study indicates that the store will be operated by 15 to 25 full-time staff and 2 managers. What are the salary ranges for these full-time employees? My research shows that there will be corporate pressure to staff the store at the lowest possible level and that many of those employees will be part-time to avoid paying benefits that often come with full-time employment (a quick scan of reviews about pay and benefits indicates that even full-time workers don't receive benefits: https://www.indeed.com/cmp/Grocery-Outlet/reviews?ftopic=paybenefits). I recommend the City conduct an analysis of the employment practices of the other large local franchise stores (Safeway, Dollar Store, Rite Aid, CVS in Fort Bragg and Grocery Outlet Bargain Market in Willits) to determine the most realistic employment model for the store. Relevant metrics would include square footage of retail space, number of check-out stations (staffed and self-serve), employee classifications with both full-time and part-time salary ranges (and which, if any, are covered by a union contract), the number of full- and part-time employees in each classification, and turnover in each classification.

Conclusion

This Initial Study is sorely deficient. While it ticks off “required” boxes, it does not provide the most important information for City Staff, the Planning Commission, or the City Council to make a truly informed decision about this project. We should want smart, forward-looking economic development using a wide perspective on how the different parts of the local economy work together. Merely describing the bare minimum required by law, with no analysis of interdependent factors and cumulative impacts can lead to hollowing out the local economy. The pandemic has devastated our local businesses, and I encourage using a very critical eye on proposed development by non-local corporations. There is a plethora of research showing that this type of development extracts more from the local economy than it brings to it. Instead, I encourage the City to propose pro-active measures to support and foster local businesses. Unfortunately, the Fort Bragg Community Development Department is minimally staffed and only has the capacity to react to applications by property owners with the money to go through the permitting process. This makes the City low-hanging fruit for large corporations to bring franchise businesses to town, which will turn us into Anywhere, USA.



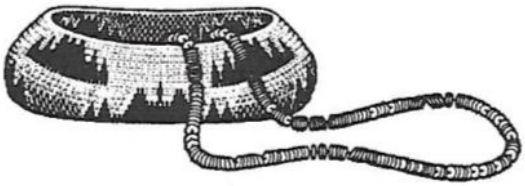


smcmurtry@denovoplanning.com

Subject: FW: Oppose the Grocery Outlet

From: Renz Martin <loverulezzz@yahoo.com>
Sent: Saturday, June 18, 2022 6:08 PM
To: Gurewitz, Heather <hgurewitz@fortbragg.com>
Subject: Oppose the Grocery Outlet

It would congest Highway 1, Noyo Drive and Franklin Streets and decrease the value of real estate around it. It would create public safety problems. It would hurt competing grocery stores which are already abundant enough. It would take away the office space that had been serving the people.
RM, Mendocino County



SHERWOOD VALLEY BAND OF POMO INDIANS

June 1, 2022

Heather Gurewitz, Associate Planner
City of Fort Bragg
416 N. Franklin Street
Fort Bragg, CA 95437

Subject: Grocery Outlet

Dear Ms. Gurewitz:

This correspondence will serve as formal response from the Sherwood Valley Tribe for the notification of the proposed construction of Grocery Outlet at 825, 845, and 851 S. Franklin Street, Fort Bragg.

The Tribe originally reviewed a cultural resources inventory in 2019. At that time, the Tribe responded and stated no significant historical or unique archaeological resources at this site. As of today, the Tribe, as the Most Likely Descendants (MLD), takes the stance that no significant historical or unique archaeological resources are prevalent at this site. The Sherwood Tribe has no objections to the proposed work at this time.

As always, the Tribe requests that if any cultural sites or artifacts are uncovered during work, that work immediately cease and the Sherwood Valley Tribe be notified immediately.

The Tribe is requesting start and end dates of the Grocery Outlet project, be provided to the Tribe. Questions, comments and emails about the project should be directed to Valerie Stanley, Sherwood Valley THPO, at 707-459-9690 or svrthpo@sherwoodvalley.com.

Sincerely,

Melanie Rafanan
Tribal Chairman

BEST DEVELOPMENT GROCERY OUTLET

CITY OF FORT BRAGG

Scoping Meeting Notes

June 7, 2022, 5:30 PM to 6:30 PM

ATTENDEES:

Heather Gurewitz (City of Fort Bragg), Steve McMurtry (De Novo Planning Group), Elise Carroll (De Novo Planning Group), and 13 other attendants (8 on Zoom, 5 in-person)

PUBLIC COMMENTS:

Whitney Anderson:

- Commenter is most cost concerned about impacts to traffic related to increased congestion. For example, there is no left-turn allowed on Harbor, but a lot of people still make a left onto the Highway. Commenter expresses general turning movement concerns, particularly along/entering/exiting Highway 1.
- Commenter states that trash is also a concern due to the proximity of the site to the ocean.

Jacob Patterson:

- Commenter states that the City has the advantage of looking at the IS/MND previously written for the project, and urges the City to look at the previous set of public comments; commenter will submit old public comment packet again for the EIR as the comments are still applicable.
- Commenter agrees with the overall scope of EIR, but notes that the standard checklist questions in Appendix G of the CEQA Guidelines may not be appropriate in all cases; states that we may need to add or change some questions. The commenter also states that this a failing of the previous IS/MND was that it did not use thresholds for all impacts.
- Commenter states that one area that was identified in the IS (2022) as having "no impact" had to do with the soils and wetland indicators on-site. The commenter states they have photos of standing water on-site after a recent rain.
- Commenter states that LOS ("Level of Service") is no longer a transportation impact; however, LOS can still result in impacts in related to land use and policies, and the commenter thinks that may occur here with the proposed Project. The commenter states that the City has policies related to LOS.
- Commenter states that solid waste impacts were not addressed in the previous analysis, particularly related to demolition debris and waste.
- Commenter expresses concern that the project objectives were changed; there is an added objective to replace the building, which the commenter believes is a project preference versus objectiveness. The commenter states that the City has a General Plan policy that discourages demolition.
- Commenter states that the EIR scope should pay attention to specific issues in this area, including pedestrian and vehicle conflicts, particularly related to parking design and crossings.
- Commenter suggests two Project Alternatives: (1) reuse building because of General Plan policy; (2) swap the site layout and move the building to the south side (commenter states this could address planning document conflicts, such as the Design Guidelines).
- Commenter concludes that the same issues as last time apply today.
- Commenter also stated that there was an issue with the swale and the trees.

Sign-in

Name	Address
Whitney Anderson	31833 Airport Rd FB 95437
Ann Breeuna	31833 Airport Rd FB 95437
Rose Patke	30150 Sherwood Rd FB 95437
Karen Knobber	428 N Harrison
Judith G. Green	Judith G 496 S. Harrison FB 95437
Jacob Patterson	444 N. Corry St., FB
Michele e. Morris	1184 N. Main #14 FB.

Best Development
Grocery Outlet EIR
Scoping Meeting



City of Fort Bragg Town Hall
416 North Franklin Street
Fort Bragg, CA 95437

June 7, 2022

De Novo Planning Group

Purpose of Today's Scoping Meeting

California
Environmental
Quality
Act

- **To receive input from the public and interested agencies on the environmental issues that the Draft EIR should address.**
- **To enhance public participation as part of the project's review under the California Environmental Quality Act (CEQA).**

Environmental Review Process

What is an EIR?

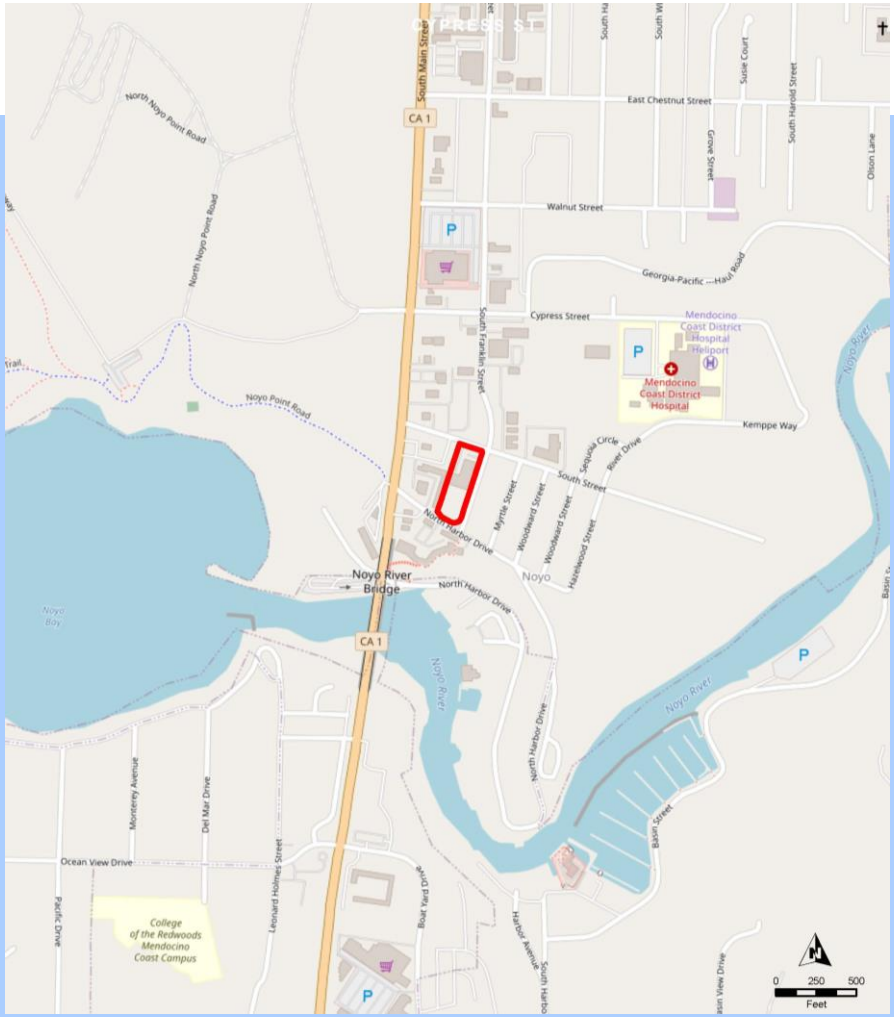
- An informational document describing the anticipated environmental effects of implementing a project, as required by CEQA.
- Acts as a forum for public participation in the environmental review process.
- An EIR includes Mitigation Measures to reduce potential adverse environmental impacts.
- An EIR does not advocate or promote the project.



Project Location

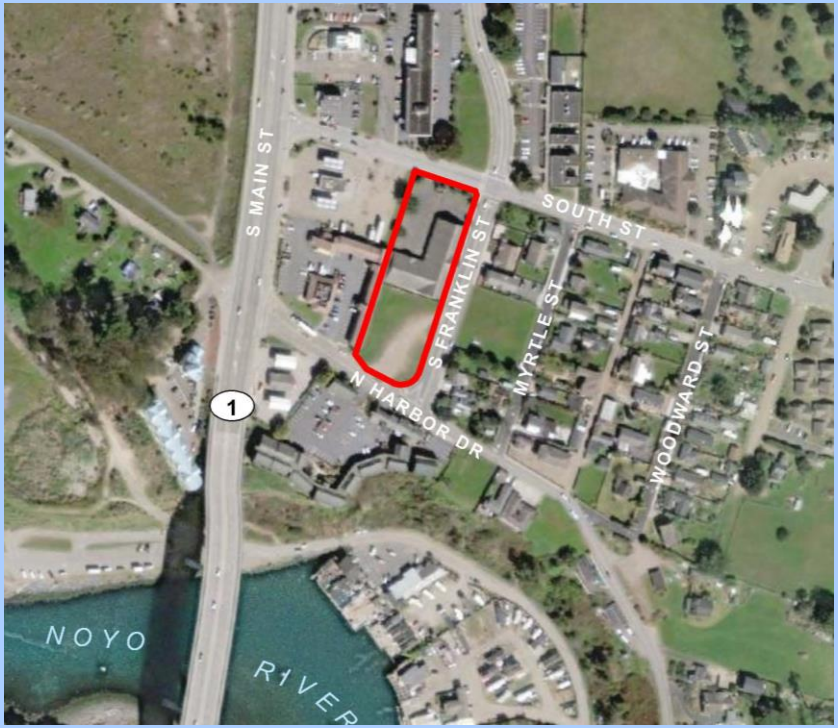
City of Fort Bragg

- 825, 845, and 851 S. Franklin Street
- 230 to 450 feet east of S. Main St/SR 1
- Coastal Zone (outside appeals area)



Project Site

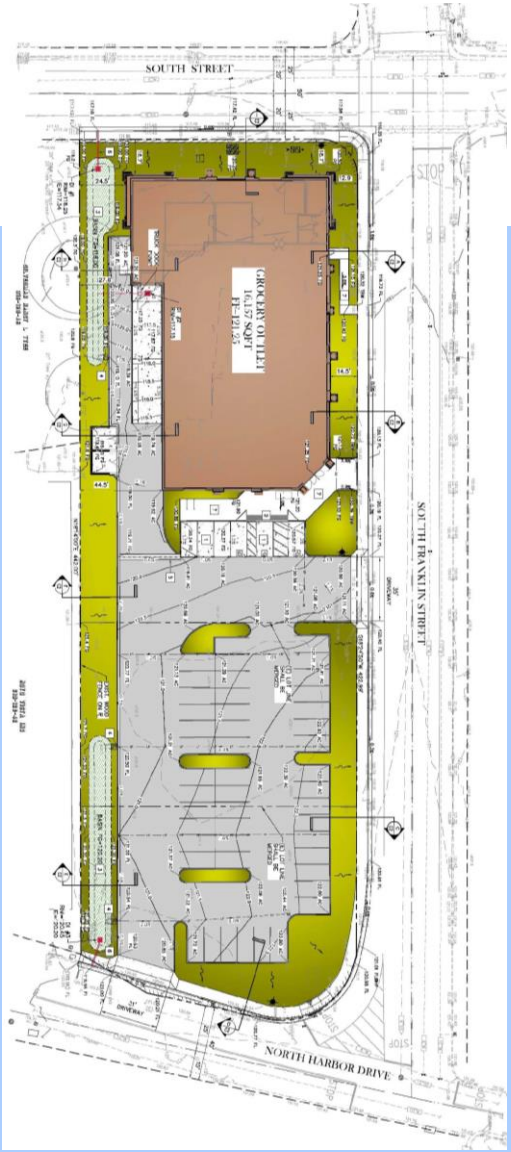
- Project site – 1.63 acres
- Existing "Old Social Services Building"
  - 16,436 sf building
  - 47 parking spaces
  - Landscaping (shrubs/trees)
  - Vacated since 2010
- Southern most lot is vacant
  - 1/3 baren soil
  - 2/3 vegetated grassland
- Elevation 117-122 feet msl
- Commercial uses to the north/south/west
- Residential buildings to the east



Project Approvals Requested

Entitlements Request:

- Certification of EIR;
- Adoption of a Mitigation Monitoring and Reporting Program;
- Approval of a Zoning Clearance (ZC);
- Approval of a Coastal Development Permit (CDP);
- Approval of Design Review;
- Approval of a Parcel Merger;
- Approval of a Sign Permit;
- Approval of an Encroachment Permit;
- Approval of a Grading Permit;
- Approval of a Building Permit.



Project Objectives

Quantifiable Objectives

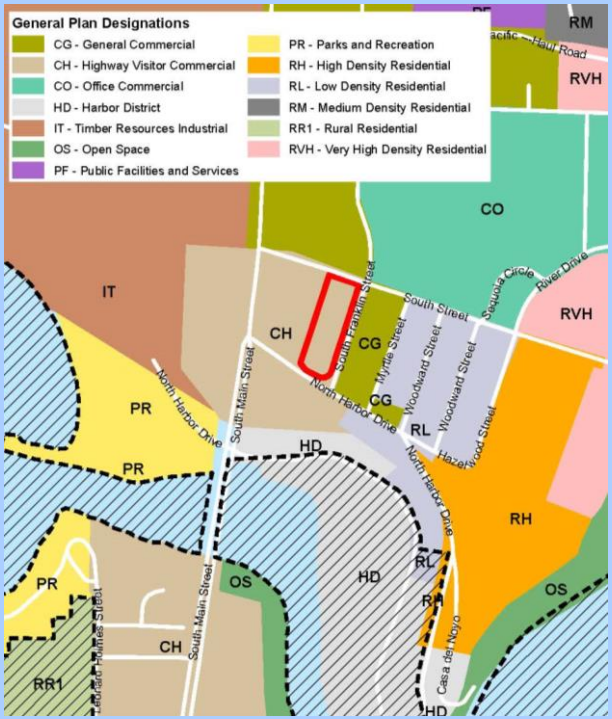
- **Replace the existing dilapidated 16,436 sf building with a modern 16,157 sf building on 1.63 acres.**

Project Objectives

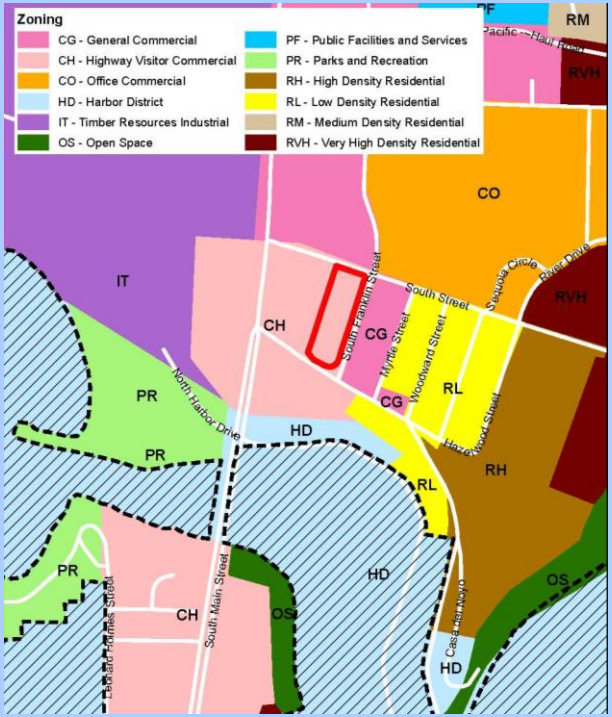
- **Develop a grocery store that provides its customers with comparatively affordable groceries at a convenient location for their shopping needs.**
- **Develop a grocery store that would generate additional revenues to the City in the form of increased sales and property tax revenues.**
- **Develop a grocery store that would create new jobs in the City.**
- **Develop an aesthetically attractive grocery store and landscaping on an infill site that already includes a dilapidated structure that has been vacant for a substantial period of time and for which there apparently is no economically viable use.**
- **Design a site plan that minimizes circulation conflicts between automobiles and pedestrians.**

General Plan and Zoning

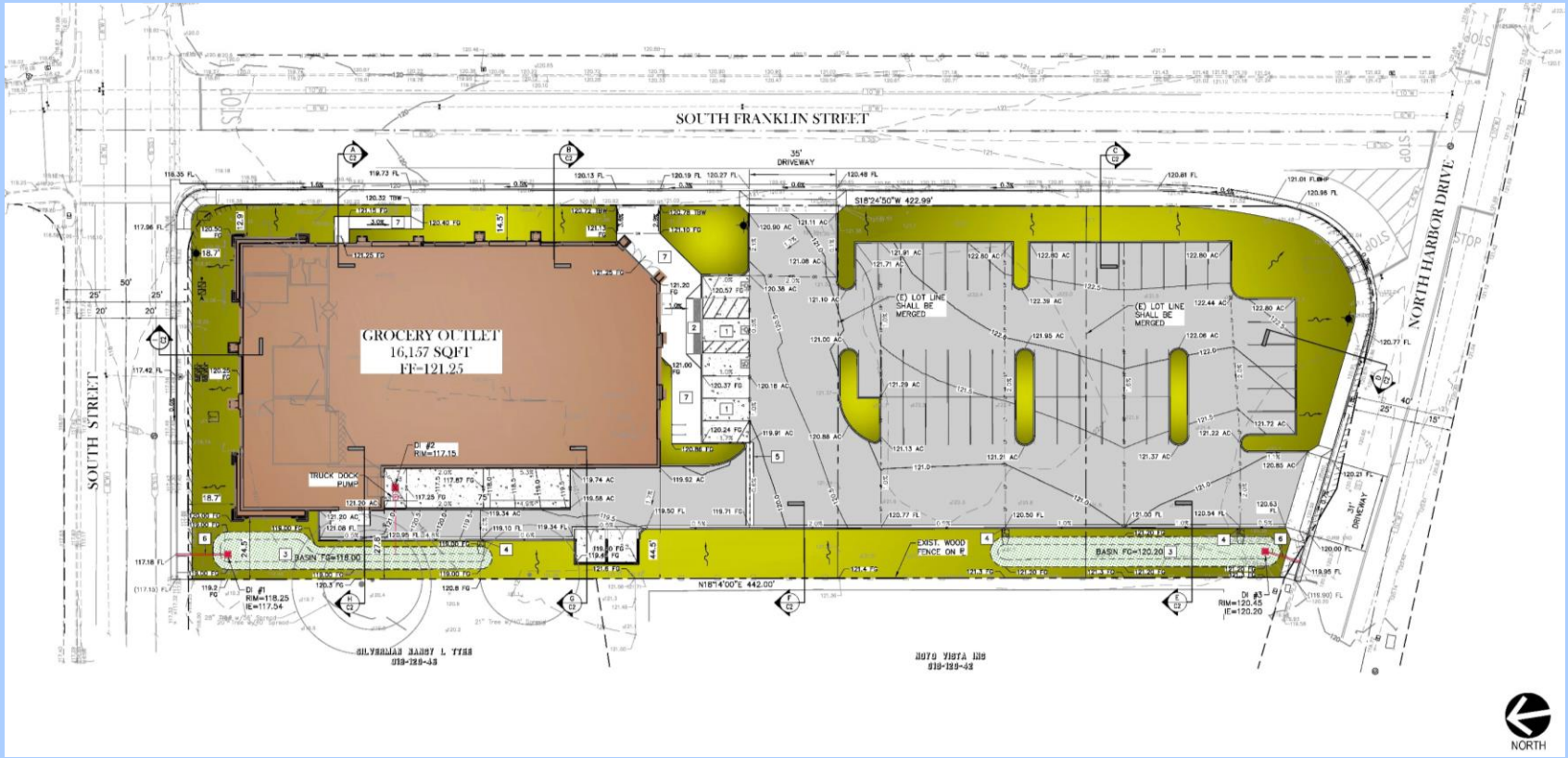
Existing Land Use **CH – Highway Visitor Commercial**



Existing Zoning **CH – Highway Visitor Commercial**



Site Plan



De Novo Planning Group

Building Elevations



Issues Determined to be Less than Significant

The following issues were analyzed and determined to have no change, or a less than significant impact, and do NOT warrant further detailed analysis in an EIR:

- **Aesthetics**
- **Agricultural Resources**
- **Cultural and Tribal Resources**
- **Geology/Soils**
- **Hazards/Hazardous Materials**
- **Hydrology/Water Quality**
- **Population and Housing**
- **Public Services/Recreation**
- **Wildfire**

Issue to be Addressed in the EIR

The following issues will be analyzed in an EIR:

- **Air Quality**
- **Biological Resources**
- **Greenhouse Gas Emissions/Energy**
- **Land Use and Planning/Urban Decay**
- **Noise**
- **Transportation/Circulation**
- **Utilities and Service Systems**

Notice of Preparation

- **30-day public review period - May 19 to June 20, 2022**
- **Comments can be submitted:**
  - **Today (orally or in writing)**
  - **By email to:**
    - Heather Gurewitz, Associate Planner, hgurewitz@fortbragg.com
  - **By mail to:**
    - Attn: Heather Gurewitz, Associate Planner
      City of Fort Bragg
      416 N. Franklin Street
      Fort Bragg, CA 95437

Next Steps

- **Public Draft EIR - 45-day public review and comment period.**
- **Final EIR - Written responses to comments, and any changes made to the Draft EIR.**
- **Certify the EIR**
- **Planning Commission Hearings**
- **City Council Hearings**

Key Information

The NOP is available for review at the City of Fort Bragg. An electronic copy can be emailed to you if requested.

Comments can be sent to:

Heather Gurewitz, Associate Planner
hgurewitz@fortbragg.com

Or:

Attn: Heather Gurewitz, Associate Planner
City of Fort Bragg
416 N. Franklin Street
Fort Bragg, CA 95437

APPENDIX B

Air Quality, Greenhouse Gas, and Energy Appendices

CONTENTS

Appendix B.1: CalEEMod Outputs

Appendix B.2: Energy Outputs

Appendix B.3: Analysis of Models and Tools to Correlate Project-Generated Pollutants to Health End Points

Appendix B.4: GHG Metric Calculation Methodology

APPENDIX B.1

CalEEMod Outputs

Fort Bragg Best Development Grocery Outlet - Mendocino-Coastal County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Fort Bragg Best Development Grocery Outlet

Mendocino-Coastal County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.18	Acre	1.18	51,400.80	0
Supermarket	16.16	1000sqft	0.37	16,157.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	86
Climate Zone	1			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 16,157-sf Grocery Outlet; 1.18 acres of hardscape (parking area).

Construction Phase - Construction schedule provided by Project applicant. Construction start in March 2023 (earliest). Demo = 3 wks; Site Prep = 2 wks; Grading = 3 wks; Building Construction = 5 months; Paving = 2 wks; Arch. coating = 3 wks.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Demolition - Demolition of 16,436-sf vacant former office building.

Fort Bragg Best Development Grocery Outlet - Mendocino-Coastal County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading -

Architectural Coating -

Vehicle Trips - Trip rates as provided by Traffic Impact Assessment (KD Anderson). 67.71059 trips/size/day for weekdays; 112.5209 trips/size day for weekends.

Road Dust - 100% of roads traveled by operational trips generated are assumed to be paved, based on the project location of the City of Fort Bragg.

Area Coating -

Energy Use -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	5
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	2.00	14.00
tblConstructionPhase	NumDays	4.00	21.00
tblConstructionPhase	NumDays	200.00	155.00
tblConstructionPhase	NumDays	10.00	14.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	PhaseEndDate	3/28/2023	3/29/2023
tblConstructionPhase	PhaseEndDate	3/30/2023	4/18/2023
tblConstructionPhase	PhaseEndDate	4/5/2023	5/17/2023
tblConstructionPhase	PhaseEndDate	1/10/2024	12/20/2023
tblConstructionPhase	PhaseEndDate	1/24/2024	1/9/2024
tblConstructionPhase	PhaseStartDate	3/29/2023	3/30/2023
tblConstructionPhase	PhaseStartDate	3/31/2023	4/19/2023
tblConstructionPhase	PhaseStartDate	4/6/2023	5/18/2023
tblConstructionPhase	PhaseStartDate	1/11/2024	12/21/2023
tblConstructionPhase	PhaseStartDate	1/25/2024	1/10/2024

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblLandUse	LandUseSquareFeet	16,160.00	16,157.00
tblRoadDust	RoadPercentPave	70	100
tblVehicleTrips	ST_TR	177.62	112.52
tblVehicleTrips	SU_TR	166.47	112.52
tblVehicleTrips	WD_TR	106.78	67.71

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1727	1.3782	1.3839	2.7200e-003	11.3755	0.0584	11.4339	1.1842	0.0557	1.2399	0.0000	231.3555	231.3555	0.0412	3.3900e-003	233.3957
2024	0.2104	0.0336	0.0528	9.0000e-005	0.3578	1.6300e-003	0.3594	0.0358	1.5500e-003	0.0374	0.0000	7.4055	7.4055	1.4800e-003	2.0000e-005	7.4492
Maximum	**0.2104**	**1.3782**	**1.3839**	**2.7200e-003**	**11.3755**	**0.0584**	**11.4339**	**1.1842**	**0.0557**	**1.2399**	**0.0000**	**231.3555**	**231.3555**	**0.0412**	**3.3900e-003**	**233.3957**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1727	1.3782	1.3839	2.7200e-003	10.2525	0.0584	10.3109	1.0721	0.0557	1.1278	0.0000	231.3553	231.3553	0.0412	3.3900e-003	233.3955
2024	0.2104	0.0336	0.0528	9.0000e-005	0.3220	1.6300e-003	0.3237	0.0322	1.5500e-003	0.0338	0.0000	7.4055	7.4055	1.4800e-003	2.0000e-005	7.4492
Maximum	**0.2104**	**1.3782**	**1.3839**	**2.7200e-003**	**10.2525**	**0.0584**	**10.3109**	**1.0721**	**0.0557**	**1.1278**	**0.0000**	**231.3553**	**231.3553**	**0.0412**	**3.3900e-003**	**233.3955**

Fort Bragg Best Development Grocery Outlet - Mendocino-Coastal County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**9.88**	**0.00**	**9.83**	**9.48**	**0.00**	**9.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-1-2023**	**5-31-2023**	0.5026	0.5026
2	**6-1-2023**	**8-31-2023**	0.4616	0.4616
3	**9-1-2023**	**11-30-2023**	0.4580	0.4580
4	**12-1-2023**	**2-29-2024**	0.3683	0.3683
		Highest	0.5026	0.5026

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0870	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.1000e-004	3.1000e-004	0.0000	0.0000	3.3000e-004
Energy	2.2200e-003	0.0202	0.0170	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	74.3406	74.3406	8.8900e-003	1.4300e-003	74.9890
Mobile	0.6511	0.7069	4.1066	5.8500e-003	0.5402	6.9500e-003	0.5471	0.1448	6.5300e-003	0.1513	0.0000	540.2021	540.2021	0.0593	0.0394	553.4201
Waste						0.0000	0.0000		0.0000	0.0000	18.5006	0.0000	18.5006	1.0934	0.0000	45.8344
Water						0.0000	0.0000		0.0000	0.0000	0.6320	1.0173	1.6492	0.0651	1.5500e-003	3.7388
Total	**0.7403**	**0.7271**	**4.1237**	**5.9700e-003**	**0.5402**	**8.4800e-003**	**0.5487**	**0.1448**	**8.0600e-003**	**0.1528**	**19.1326**	**615.5603**	**634.6928**	**1.2266**	**0.0424**	**677.9826**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0870	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.1000e-004	3.1000e-004	0.0000	0.0000	3.3000e-004
Energy	2.2200e-003	0.0202	0.0170	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	74.3406	74.3406	8.8900e-003	1.4300e-003	74.9890
Mobile	0.6511	0.7069	4.1066	5.8500e-003	0.5402	6.9500e-003	0.5471	0.1448	6.5300e-003	0.1513	0.0000	540.2021	540.2021	0.0593	0.0394	553.4201
Waste						0.0000	0.0000		0.0000	0.0000	18.5006	0.0000	18.5006	1.0934	0.0000	45.8344
Water						0.0000	0.0000		0.0000	0.0000	0.6320	1.0173	1.6492	0.0651	1.5500e-003	3.7388
Total	**0.7403**	**0.7271**	**4.1237**	**5.9700e-003**	**0.5402**	**8.4800e-003**	**0.5487**	**0.1448**	**8.0600e-003**	**0.1528**	**19.1326**	**615.5603**	**634.6928**	**1.2266**	**0.0424**	**677.9826**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2023	3/29/2023	5	21	
2	Site Preparation	Site Preparation	3/30/2023	4/18/2023	5	14	
3	Grading	Grading	4/19/2023	5/17/2023	5	21	

4	Building Construction	Building Construction	5/18/2023	12/20/2023	5	155	
5	Paving	Paving	12/21/2023	1/9/2024	5	14	
6	Architectural Coating	Architectural Coating	1/10/2024	2/7/2024	5	21	

Acres of Grading (Site Preparation Phase): 13.13

Acres of Grading (Grading Phase): 21

Acres of Paving: 1.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 24,236; Non-Residential Outdoor: 8,079; Striped Parking Area: 3,084 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	75.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	27.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2200e-003	0.0000	8.2200e-003	1.2400e-003	0.0000	1.2400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0155	0.1503	0.1413	2.5000e-004		7.1000e-003	7.1000e-003		6.6400e-003	6.6400e-003	0.0000	22.1409	22.1409	5.6100e-003	0.0000	22.2812
Total	**0.0155**	**0.1503**	**0.1413**	**2.5000e-004**	**8.2200e-003**	**7.1000e-003**	**0.0153**	**1.2400e-003**	**6.6400e-003**	**7.8800e-003**	**0.0000**	**22.1409**	**22.1409**	**5.6100e-003**	**0.0000**	**22.2812**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	5.6300e-003	1.1200e-003	2.0000e-005	0.2536	5.0000e-005	0.2537	0.0254	5.0000e-005	0.0254	0.0000	2.1573	2.1573	0.0000	3.4000e-004	2.2585
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	4.5000e-004	4.4400e-003	1.0000e-005	0.4983	1.0000e-005	0.4983	0.0499	1.0000e-005	0.0499	0.0000	0.8679	0.8679	4.0000e-005	3.0000e-005	0.8789
Total	**7.9000e-004**	**6.0800e-003**	**5.5600e-003**	**3.0000e-005**	**0.7519**	**6.0000e-005**	**0.7520**	**0.0753**	**6.0000e-005**	**0.0753**	**0.0000**	**3.0253**	**3.0253**	**4.0000e-005**	**3.7000e-004**	**3.1373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2200e-003	0.0000	8.2200e-003	1.2400e-003	0.0000	1.2400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0155	0.1503	0.1413	2.5000e-004		7.1000e-003	7.1000e-003		6.6400e-003	6.6400e-003	0.0000	22.1409	22.1409	5.6100e-003	0.0000	22.2812
Total	**0.0155**	**0.1503**	**0.1413**	**2.5000e-004**	**8.2200e-003**	**7.1000e-003**	**0.0153**	**1.2400e-003**	**6.6400e-003**	**7.8800e-003**	**0.0000**	**22.1409**	**22.1409**	**5.6100e-003**	**0.0000**	**22.2812**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	5.6300e-003	1.1200e-003	2.0000e-005	0.2283	5.0000e-005	0.2283	0.0229	5.0000e-005	0.0229	0.0000	2.1573	2.1573	0.0000	3.4000e-004	2.2585
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	4.5000e-004	4.4400e-003	1.0000e-005	0.4486	1.0000e-005	0.4486	0.0449	1.0000e-005	0.0449	0.0000	0.8679	0.8679	4.0000e-005	3.0000e-005	0.8789
Total	**7.9000e-004**	**6.0800e-003**	**5.5600e-003**	**3.0000e-005**	**0.6768**	**6.0000e-005**	**0.6769**	**0.0678**	**6.0000e-005**	**0.0678**	**0.0000**	**3.0253**	**3.0253**	**4.0000e-005**	**3.7000e-004**	**3.1373**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0439	0.0000	0.0439	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9400e-003	0.0870	0.0465	1.2000e-004		3.5500e-003	3.5500e-003		3.2700e-003	3.2700e-003	0.0000	10.5800	10.5800	3.4200e-003	0.0000	10.6655
Total	**7.9400e-003**	**0.0870**	**0.0465**	**1.2000e-004**	**0.0439**	**3.5500e-003**	**0.0474**	**0.0210**	**3.2700e-003**	**0.0243**	**0.0000**	**10.5800**	**10.5800**	**3.4200e-003**	**0.0000**	**10.6655**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	1.8200e-003	0.0000	0.2044	0.0000	0.2044	0.0205	0.0000	0.0205	0.0000	0.3561	0.3561	2.0000e-005	1.0000e-005	0.3606
Total	**2.8000e-004**	**1.8000e-004**	**1.8200e-003**	**0.0000**	**0.2044**	**0.0000**	**0.2044**	**0.0205**	**0.0000**	**0.0205**	**0.0000**	**0.3561**	**0.3561**	**2.0000e-005**	**1.0000e-005**	**0.3606**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0439	0.0000	0.0439	0.0210	0.0000	0.0210	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9400e-003	0.0870	0.0465	1.2000e-004		3.5500e-003	3.5500e-003		3.2700e-003	3.2700e-003	0.0000	10.5799	10.5799	3.4200e-003	0.0000	10.6655
Total	**7.9400e-003**	**0.0870**	**0.0465**	**1.2000e-004**	**0.0439**	**3.5500e-003**	**0.0474**	**0.0210**	**3.2700e-003**	**0.0243**	**0.0000**	**10.5799**	**10.5799**	**3.4200e-003**	**0.0000**	**10.6655**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	1.8200e-003	0.0000	0.1840	0.0000	0.1840	0.0184	0.0000	0.0184	0.0000	0.3561	0.3561	2.0000e-005	1.0000e-005	0.3606
Total	**2.8000e-004**	**1.8000e-004**	**1.8200e-003**	**0.0000**	**0.1840**	**0.0000**	**0.1840**	**0.0184**	**0.0000**	**0.0184**	**0.0000**	**0.3561**	**0.3561**	**2.0000e-005**	**1.0000e-005**	**0.3606**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0744	0.0000	0.0744	0.0360	0.0000	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0140	0.1519	0.0914	2.2000e-004		6.3500e-003	6.3500e-003		5.8400e-003	5.8400e-003	0.0000	19.0091	19.0091	6.1500e-003	0.0000	19.1628
Total	**0.0140**	**0.1519**	**0.0914**	**2.2000e-004**	**0.0744**	**6.3500e-003**	**0.0807**	**0.0360**	**5.8400e-003**	**0.0418**	**0.0000**	**19.0091**	**19.0091**	**6.1500e-003**	**0.0000**	**19.1628**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.4000e-004	3.4100e-003	1.0000e-005	0.3833	1.0000e-005	0.3833	0.0384	0.0000	0.0384	0.0000	0.6676	0.6676	3.0000e-005	3.0000e-005	0.6760
Total	**5.3000e-004**	**3.4000e-004**	**3.4100e-003**	**1.0000e-005**	**0.3833**	**1.0000e-005**	**0.3833**	**0.0384**	**0.0000**	**0.0384**	**0.0000**	**0.6676**	**0.6676**	**3.0000e-005**	**3.0000e-005**	**0.6760**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0744	0.0000	0.0744	0.0360	0.0000	0.0360	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0140	0.1519	0.0914	2.2000e-004		6.3500e-003	6.3500e-003		5.8400e-003	5.8400e-003	0.0000	19.0091	19.0091	6.1500e-003	0.0000	19.1628
Total	**0.0140**	**0.1519**	**0.0914**	**2.2000e-004**	**0.0744**	**6.3500e-003**	**0.0807**	**0.0360**	**5.8400e-003**	**0.0418**	**0.0000**	**19.0091**	**19.0091**	**6.1500e-003**	**0.0000**	**19.1628**

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.4000e-004	3.4100e-003	1.0000e-005	0.3450	1.0000e-005	0.3450	0.0345	0.0000	0.0345	0.0000	0.6676	0.6676	3.0000e-005	3.0000e-005	0.6760
Total	**5.3000e-004**	**3.4000e-004**	**3.4100e-003**	**1.0000e-005**	**0.3450**	**1.0000e-005**	**0.3450**	**0.0345**	**0.0000**	**0.0345**	**0.0000**	**0.6676**	**0.6676**	**3.0000e-005**	**3.0000e-005**	**0.6760**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1181	0.9076	0.9774	1.7100e-003		0.0399	0.0399		0.0385	0.0385	0.0000	140.7393	140.7393	0.0239	0.0000	141.3368
Total	**0.1181**	**0.9076**	**0.9774**	**1.7100e-003**		**0.0399**	**0.0399**		**0.0385**	**0.0385**	**0.0000**	**140.7393**	**140.7393**	**0.0239**	**0.0000**	**141.3368**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8300e-003	0.0459	0.0162	1.8000e-004	2.1046	3.0000e-004	2.1049	0.2109	2.9000e-004	0.2112	0.0000	17.1225	17.1225	8.0000e-005	2.4600e-003	17.8571
Worker	0.0105	6.8600e-003	0.0680	1.5000e-004	7.6388	1.1000e-004	7.6389	0.7644	1.0000e-004	0.7645	0.0000	13.3051	13.3051	5.8000e-004	5.1000e-004	13.4724
Total	**0.0124**	**0.0528**	**0.0842**	**3.3000e-004**	**9.7433**	**4.1000e-004**	**9.7438**	**0.9752**	**3.9000e-004**	**0.9756**	**0.0000**	**30.4276**	**30.4276**	**6.6000e-004**	**2.9700e-003**	**31.3295**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1181	0.9076	0.9774	1.7100e-003		0.0399	0.0399		0.0385	0.0385	0.0000	140.7392	140.7392	0.0239	0.0000	141.3366
Total	**0.1181**	**0.9076**	**0.9774**	**1.7100e-003**		**0.0399**	**0.0399**		**0.0385**	**0.0385**	**0.0000**	**140.7392**	**140.7392**	**0.0239**	**0.0000**	**141.3366**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8300e-003	0.0459	0.0162	1.8000e-004	1.8946	3.0000e-004	1.8949	0.1899	2.9000e-004	0.1902	0.0000	17.1225	17.1225	8.0000e-005	2.4600e-003	17.8571
Worker	0.0105	6.8600e-003	0.0680	1.5000e-004	6.8761	1.1000e-004	6.8762	0.6883	1.0000e-004	0.6884	0.0000	13.3051	13.3051	5.8000e-004	5.1000e-004	13.4724
Total	**0.0124**	**0.0528**	**0.0842**	**3.3000e-004**	**8.7707**	**4.1000e-004**	**8.7711**	**0.8782**	**3.9000e-004**	**0.8786**	**0.0000**	**30.4276**	**30.4276**	**6.6000e-004**	**2.9700e-003**	**31.3295**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2600e-003	0.0218	0.0308	5.0000e-005		1.0800e-003	1.0800e-003		1.0000e-003	1.0000e-003	0.0000	4.1204	4.1204	1.3100e-003	0.0000	4.1530
Paving	7.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0300e-003**	**0.0218**	**0.0308**	**5.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**4.1204**	**4.1204**	**1.3100e-003**	**0.0000**	**4.1530**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	1.4800e-003	0.0000	0.1661	0.0000	0.1661	0.0166	0.0000	0.0166	0.0000	0.2893	0.2893	1.0000e-005	1.0000e-005	0.2930
Total	**2.3000e-004**	**1.5000e-004**	**1.4800e-003**	**0.0000**	**0.1661**	**0.0000**	**0.1661**	**0.0166**	**0.0000**	**0.0166**	**0.0000**	**0.2893**	**0.2893**	**1.0000e-005**	**1.0000e-005**	**0.2930**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.2600e-003	0.0218	0.0308	5.0000e-005		1.0800e-003	1.0800e-003		1.0000e-003	1.0000e-003	0.0000	4.1203	4.1203	1.3100e-003	0.0000	4.1530
Paving	7.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0300e-003**	**0.0218**	**0.0308**	**5.0000e-005**		**1.0800e-003**	**1.0800e-003**		**1.0000e-003**	**1.0000e-003**	**0.0000**	**4.1203**	**4.1203**	**1.3100e-003**	**0.0000**	**4.1530**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.5000e-004	1.4800e-003	0.0000	0.1495	0.0000	0.1495	0.0150	0.0000	0.0150	0.0000	0.2893	0.2893	1.0000e-005	1.0000e-005	0.2930
Total	**2.3000e-004**	**1.5000e-004**	**1.4800e-003**	**0.0000**	**0.1495**	**0.0000**	**0.1495**	**0.0150**	**0.0000**	**0.0150**	**0.0000**	**0.2893**	**0.2893**	**1.0000e-005**	**1.0000e-005**	**0.2930**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1600e-003	0.0205	0.0309	5.0000e-005		9.8000e-004	9.8000e-004		9.1000e-004	9.1000e-004	0.0000	4.1209	4.1209	1.3100e-003	0.0000	4.1536
Paving	7.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.9300e-003**	**0.0205**	**0.0309**	**5.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**4.1209**	**4.1209**	**1.3100e-003**	**0.0000**	**4.1536**

Fort Bragg Best Development Grocery Outlet - Mendocino-Coastal County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.3000e-004	1.3500e-003	0.0000	0.1661	0.0000	0.1661	0.0166	0.0000	0.0166	0.0000	0.2803	0.2803	1.0000e-005	1.0000e-005	0.2836
Total	**2.1000e-004**	**1.3000e-004**	**1.3500e-003**	**0.0000**	**0.1661**	**0.0000**	**0.1661**	**0.0166**	**0.0000**	**0.0166**	**0.0000**	**0.2803**	**0.2803**	**1.0000e-005**	**1.0000e-005**	**0.2836**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1600e-003	0.0205	0.0309	5.0000e-005		9.8000e-004	9.8000e-004		9.1000e-004	9.1000e-004	0.0000	4.1209	4.1209	1.3100e-003	0.0000	4.1536
Paving	7.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.9300e-003**	**0.0205**	**0.0309**	**5.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**4.1209**	**4.1209**	**1.3100e-003**	**0.0000**	**4.1536**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.3000e-004	1.3500e-003	0.0000	0.1495	0.0000	0.1495	0.0150	0.0000	0.0150	0.0000	0.2803	0.2803	1.0000e-005	1.0000e-005	0.2836
Total	**2.1000e-004**	**1.3000e-004**	**1.3500e-003**	**0.0000**	**0.1495**	**0.0000**	**0.1495**	**0.0150**	**0.0000**	**0.0150**	**0.0000**	**0.2803**	**0.2803**	**1.0000e-005**	**1.0000e-005**	**0.2836**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9000e-003	0.0128	0.0190	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6847
Total	**0.2070**	**0.0128**	**0.0190**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.6809**	**2.6809**	**1.5000e-004**	**0.0000**	**2.6847**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.5000e-004	1.5600e-003	0.0000	0.1917	0.0000	0.1917	0.0192	0.0000	0.0192	0.0000	0.3234	0.3234	1.0000e-005	1.0000e-005	0.3273
Total	**2.5000e-004**	**1.5000e-004**	**1.5600e-003**	**0.0000**	**0.1917**	**0.0000**	**0.1917**	**0.0192**	**0.0000**	**0.0192**	**0.0000**	**0.3234**	**0.3234**	**1.0000e-005**	**1.0000e-005**	**0.3273**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2051					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9000e-003	0.0128	0.0190	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.6809	2.6809	1.5000e-004	0.0000	2.6847
Total	**0.2070**	**0.0128**	**0.0190**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.6809**	**2.6809**	**1.5000e-004**	**0.0000**	**2.6847**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.5000e-004	1.5600e-003	0.0000	0.1725	0.0000	0.1725	0.0173	0.0000	0.0173	0.0000	0.3234	0.3234	1.0000e-005	1.0000e-005	0.3273
Total	**2.5000e-004**	**1.5000e-004**	**1.5600e-003**	**0.0000**	**0.1725**	**0.0000**	**0.1725**	**0.0173**	**0.0000**	**0.0173**	**0.0000**	**0.3234**	**0.3234**	**1.0000e-005**	**1.0000e-005**	**0.3273**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6511	0.7069	4.1066	5.8500e-003	0.5402	6.9500e-003	0.5471	0.1448	6.5300e-003	0.1513	0.0000	540.2021	540.2021	0.0593	0.0394	553.4201
Unmitigated	0.6511	0.7069	4.1066	5.8500e-003	0.5402	6.9500e-003	0.5471	0.1448	6.5300e-003	0.1513	0.0000	540.2021	540.2021	0.0593	0.0394	553.4201

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Supermarket	1,094.19	1,818.32	1818.32	1,479,914	1,479,914
Total	1,094.19	1,818.32	1,818.32	1,479,914	1,479,914

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Supermarket	9.50	7.30	7.30	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.462685	0.067299	0.203001	0.151418	0.047638	0.008923	0.007298	0.012025	0.000536	0.000296	0.032975	0.001067	0.004839
Supermarket	0.462685	0.067299	0.203001	0.151418	0.047638	0.008923	0.007298	0.012025	0.000536	0.000296	0.032975	0.001067	0.004839

5.0 Energy Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	52.3718	52.3718	8.4700e-003	1.0300e-003	52.8896
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	52.3718	52.3718	8.4700e-003	1.0300e-003	52.8896
NaturalGas Mitigated	2.2200e-003	0.0202	0.0170	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9688	21.9688	4.2000e-004	4.0000e-004	22.0994
NaturalGas Unmitigated	2.2200e-003	0.0202	0.0170	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9688	21.9688	4.2000e-004	4.0000e-004	22.0994

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	411680	2.2200e-003	0.0202	0.0170	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9688	21.9688	4.2000e-004	4.0000e-004	22.0994
Total		**2.2200e-003**	**0.0202**	**0.0170**	**1.2000e-004**		**1.5300e-003**	**1.5300e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**21.9688**	**21.9688**	**4.2000e-004**	**4.0000e-004**	**22.0994**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	411680	2.2200e-003	0.0202	0.0170	1.2000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	21.9688	21.9688	4.2000e-004	4.0000e-004	22.0994
Total		**2.2200e-003**	**0.0202**	**0.0170**	**1.2000e-004**		**1.5300e-003**	**1.5300e-003**		**1.5300e-003**	**1.5300e-003**	**0.0000**	**21.9688**	**21.9688**	**4.2000e-004**	**4.0000e-004**	**22.0994**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	17990.3	1.6645	2.7000e-004	3.0000e-005	1.6810
Supermarket	548045	50.7072	8.2000e-003	9.9000e-004	51.2086
Total		**52.3718**	**8.4700e-003**	**1.0200e-003**	**52.8896**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	17990.3	1.6645	2.7000e-004	3.0000e-005	1.6810
Supermarket	548045	50.7072	8.2000e-003	9.9000e-004	51.2086
Total		**52.3718**	**8.4700e-003**	**1.0200e-003**	**52.8896**

6.0 Area Detail

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0870	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.1000e-004	3.1000e-004	0.0000	0.0000	3.3000e-004
Unmitigated	0.0870	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.1000e-004	3.1000e-004	0.0000	0.0000	3.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0205					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.1000e-004	3.1000e-004	0.0000	0.0000	3.3000e-004
Total	**0.0869**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.1000e-004**	**3.1000e-004**	**0.0000**	**0.0000**	**3.3000e-004**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0205					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.1000e-004	3.1000e-004	0.0000	0.0000	3.3000e-004
Total	**0.0869**	**0.0000**	**1.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.1000e-004**	**3.1000e-004**	**0.0000**	**0.0000**	**3.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.6492	0.0651	1.5500e-003	3.7388
Unmitigated	1.6492	0.0651	1.5500e-003	3.7388

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	1.99201 / 0.0616087	1.6492	0.0651	1.5500e-003	3.7388
Total		**1.6492**	**0.0651**	**1.5500e-003**	**3.7388**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	1.99201 / 0.0616087	1.6492	0.0651	1.5500e-003	3.7388
Total		**1.6492**	**0.0651**	**1.5500e-003**	**3.7388**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	18.5006	1.0934	0.0000	45.8344
Unmitigated	18.5006	1.0934	0.0000	45.8344

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Supermarket	91.14	18.5006	1.0934	0.0000	45.8344
Total		**18.5006**	**1.0934**	**0.0000**	**45.8344**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Supermarket	91.14	18.5006	1.0934	0.0000	45.8344
Total		**18.5006**	**1.0934**	**0.0000**	**45.8344**

9.0 Operational Offroad

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B.2

Energy Outputs

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Mendocino
Calendar Year: 2022, 2023
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Trips	Fuel Consumption	MPG	
Mendocino	2022	All Other Buses	Aggregate	Aggregate	Diesel	12.47326252	599.5628842	111.012	0.066855377	**8.968058**	
Mendocino	2022	LDA	Aggregate	Aggregate	Gasoline	45920.84374	1724628.843	209735.9	60.45316071	**28.52835**	
Mendocino	2022	LDA	Aggregate	Aggregate	Diesel	419.5073249	12403.20631	1730.064	0.30535695	**40.61871**	
Mendocino	2022	LDT1	Aggregate	Aggregate	Gasoline	8992.478741	262660.4412	37118.93	11.33539513	**23.17171**	
Mendocino	2022	LDT1	Aggregate	Aggregate	Diesel	10.9025826	163.561039	31.91037	0.006708884	**24.37977**	
Mendocino	2022	LDT2	Aggregate	Aggregate	Gasoline	26617.08171	1003053.84	121898.9	44.31454932	**22.63486**	
Mendocino	2022	LDT2	Aggregate	Aggregate	Diesel	117.4970509	4571.537802	544.4541	0.149397715	**30.59978**	
Mendocino	2022	LHD1	Aggregate	Aggregate	Gasoline	3437.957994	112899.055	51220.45	12.74771397	**8.856416**	
Mendocino	2022	LHD1	Aggregate	Aggregate	Diesel	4690.226794	158779.1148	58997.15	9.974300139	**15.91882**	
Mendocino	2022	LHD2	Aggregate	Aggregate	Gasoline	334.6414281	11454.58123	4985.659	1.428832372	**8.016743**	
Mendocino	2022	LHD2	Aggregate	Aggregate	Diesel	1225.137956	45210.31221	15410.69	3.490410235	**12.95272**	
Mendocino	2022	MCY	Aggregate	Aggregate	Gasoline	3856.347781	20208.87425	7712.696	0.513284141	**39.37171**	
Mendocino	2022	MDV	Aggregate	Aggregate	Gasoline	19916.60044	696927.1369	89094.74	37.63487682	**18.51812**	
Mendocino	2022	MDV	Aggregate	Aggregate	Diesel	535.8511049	21434.18022	2512.662	0.883743689	**24.25384**	
Mendocino	2022	MH	Aggregate	Aggregate	Gasoline	550.5978184	4287.719812	55.08181	0.946091901	**4.532033**	
Mendocino	2022	MH	Aggregate	Aggregate	Diesel	234.9733562	2035.783952	23.49734	0.218156977	**9.331739**	
Mendocino	2022	Motor Coach	Aggregate	Aggregate	Diesel	3.365726376	481.419708	77.34439	0.087704565	**5.489107**	
Mendocino	2022	OBUS	Aggregate	Aggregate	Gasoline	59.29310377	2593.771721	1186.336	0.55566557	**4.667865**	
Mendocino	2022	PTO	Aggregate	Aggregate	Diesel	0	4351.955065	0	0.903019589	**4.819336**	
Mendocino	2022	SBUS	Aggregate	Aggregate	Gasoline	43.55426499	2165.391381	174.2171	0.229784066	**9.423592**	
Mendocino	2022	SBUS	Aggregate	Aggregate	Diesel	100.0872143	2206.063521	1449.263	0.269689285	**8.180019**	
Mendocino	2022	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	0.852754455	56.31009373	19.5963	0.00638431	**8.820075**	
Mendocino	2022	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	1.149213166	77.24732254	26.40892	0.008734959	**8.843467**	
Mendocino	2022	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	3.45643604	201.849464	79.4289	0.022604659	**8.929551**	
Mendocino	2022	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	6.175081839	1266.101864	141.9034	0.13279921	**9.533956**	**MHD**
Mendocino	2022	T6 Instate Deliver	Aggregate	Aggregate	Diesel	19.60010361	651.8801949	279.6935	0.081065743	**8.041377**	**8.373961**
Mendocino	2022	T6 Instate Deliver	Aggregate	Aggregate	Diesel	6.0403441	196.6713072	86.19571	0.024092946	**8.163024**	
Mendocino	2022	T6 Instate Deliver	Aggregate	Aggregate	Diesel	30.32906723	1009.792925	432.7958	0.123481879	**8.177661**	
Mendocino	2022	T6 Instate Deliver	Aggregate	Aggregate	Diesel	11.03533914	586.4627087	157.4743	0.073507967	**7.97822**	
Mendocino	2022	T6 Instate Other (	Aggregate	Aggregate	Diesel	104.692618	4024.345093	1210.247	0.473093683	**8.506444**	
Mendocino	2022	T6 Instate Other (	Aggregate	Aggregate	Diesel	224.8303134	9938.385672	2599.038	1.180617238	**8.417957**	
Mendocino	2022	T6 Instate Other (	Aggregate	Aggregate	Diesel	161.5803489	6684.584353	1867.869	0.788723526	**8.475193**	
Mendocino	2022	T6 Instate Other (	Aggregate	Aggregate	Diesel	158.4533636	7282.091152	1831.721	0.834173206	**8.729711**	
Mendocino	2022	T6 Instate Tractor	Aggregate	Aggregate	Diesel	0.752992089	30.24767552	8.704589	0.003294493	**9.181285**	
Mendocino	2022	T6 Instate Tractor	Aggregate	Aggregate	Diesel	42.52340934	2381.535033	491.5706	0.263709667	**9.030898**	
Mendocino	2022	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.446381681	29.2278892	10.25785	0.003312577	**8.823307**	
Mendocino	2022	T6 OOS Class 5	Aggregate	Aggregate	Diesel	0.599161064	40.09540813	13.76872	0.004533515	**8.84422**	
Mendocino	2022	T6 OOS Class 6	Aggregate	Aggregate	Diesel	1.806240749	104.7704486	41.50741	0.011732313	**8.930076**	
Mendocino	2022	T6 OOS Class 7	Aggregate	Aggregate	Diesel	3.073359027	761.8114421	70.62579	0.079758684	**9.551454**	
Mendocino	2022	T6 Public Class 4	Aggregate	Aggregate	Diesel	11.42965307	367.9798291	58.63412	0.049554755	**7.425722**	
Mendocino	2022	T6 Public Class 5	Aggregate	Aggregate	Diesel	32.66828755	1178.927873	167.5883	0.155777956	**7.568002**	
Mendocino	2022	T6 Public Class 6	Aggregate	Aggregate	Diesel	15.50914252	517.3728912	79.5619	0.069523559	**7.441692**	
Mendocino	2022	T6 Public Class 7	Aggregate	Aggregate	Diesel	85.08619747	3890.727151	436.4922	0.511369901	**7.60844**	
Mendocino	2022	T6 Utility Class 5	Aggregate	Aggregate	Diesel	8.114628594	330.0522432	103.8672	0.038023886	**8.680129**	
Mendocino	2022	T6 Utility Class 6	Aggregate	Aggregate	Diesel	1.54998543	62.37319281	19.83981	0.007215175	**8.644723**	
Mendocino	2022	T6 Utility Class 7	Aggregate	Aggregate	Diesel	1.774472757	86.7818301	22.71325	0.009923782	**8.744834**	
Mendocino	2022	T6TS	Aggregate	Aggregate	Gasoline	218.1996234	8613.826925	4365.738	1.859805219	**4.631575**	
Mendocino	2022	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	302.2667168	61836.77222	6946.089	10.34851651	**5.975424**	**HHD**
Mendocino	2022	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	271.0120702	73110.12898	6227.857	12.236509	**5.974754**	**5.338717**
Mendocino	2022	T7 NOOS Class 8	Aggregate	Aggregate	Diesel	112.9617435	26559.61121	2595.861	4.472576667	**5.938324**	
Mendocino	2022	T7 Other Port Cla	Aggregate	Aggregate	Diesel	24.78500683	4277.835424	405.4827	0.731161067	**5.850743**	
Mendocino	2022	T7 Public Class 8	Aggregate	Aggregate	Diesel	165.4339842	7210.826296	848.6763	1.406724722	**5.125968**	
Mendocino	2022	T7 Single Concret	Aggregate	Aggregate	Diesel	14.53131392	1029.608603	136.885	0.177519616	**5.799971**	
Mendocino	2022	T7 Single Dump C	Aggregate	Aggregate	Diesel	92.71212165	5078.78725	873.3482	0.876689817	**5.79314**	
Mendocino	2022	T7 Single Other C	Aggregate	Aggregate	Diesel	280.4493792	15377.83958	2641.833	2.64148957	**5.821654**	
Mendocino	2022	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	43.9670175	2848.561348	202.2483	1.127988109	**2.525347**	
Mendocino	2022	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	334.7958737	27370.45816	4864.584	4.539682154	**6.029157**	
Mendocino	2022	T7 Utility Class 8	Aggregate	Aggregate	Diesel	5.566425722	260.613333	71.25025	0.045872031	**5.681312**	
Mendocino	2022	T7IS	Aggregate	Aggregate	Gasoline	0.952092222	26.84131241	19.04946	0.007563468	**3.54881**	
Mendocino	2022	UBUS	Aggregate	Aggregate	Gasoline	16.90500346	1337.598009	67.62001	0.228862329	**5.844553**	
Mendocino	2022	UBUS	Aggregate	Aggregate	Diesel	6.215824071	628.1780757	24.8633	0.06966333	**9.017342**	
Mendocino	2023	All Other Buses	Aggregate	Aggregate	Diesel	12.5328647	599.2299635	111.5425	0.066950602	**8.95033**	
Mendocino	2023	LDA	Aggregate	Aggregate	Gasoline	45719.15415	1736208.096	208935.4	59.82354079	**29.02216**	
Mendocino	2023	LDA	Aggregate	Aggregate	Diesel	390.498783	11405.54672	1597.508	0.278840534	**40.90347**	
Mendocino	2023	LDT1	Aggregate	Aggregate	Gasoline	8557.887158	251234.5504	35229.28	10.71752698	**23.44147**	

Mendocino	2023	LDT1	Aggregate	Aggregate	Diesel	9.588642782	143.9509892	27.5222	0.005903988	**24.38199**	
Mendocino	2023	LDT2	Aggregate	Aggregate	Gasoline	27141.42183	1029146.196	124139.7	44.65225044	**23.04803**	
Mendocino	2023	LDT2	Aggregate	Aggregate	Diesel	120.587944	4672.67613	556.3117	0.150861169	**30.97335**	
Mendocino	2023	LHD1	Aggregate	Aggregate	Gasoline	3375.657621	111530.3165	50292.27	12.41290168	**8.985032**	
Mendocino	2023	LHD1	Aggregate	Aggregate	Diesel	4478.906067	149906.3003	56339	9.4167595	**15.9191**	
Mendocino	2023	LHD2	Aggregate	Aggregate	Gasoline	322.7315575	11122.66492	4808.219	1.367771852	**8.131959**	
Mendocino	2023	LHD2	Aggregate	Aggregate	Diesel	1199.153515	43695.36757	15083.84	3.363311892	**12.99177**	
Mendocino	2023	MCY	Aggregate	Aggregate	Gasoline	3838.560262	19928.78061	7677.121	0.504498051	**39.5022**	
Mendocino	2023	MDV	Aggregate	Aggregate	Gasoline	19827.82182	698004.0975	88598.22	37.08307172	**18.82272**	
Mendocino	2023	MDV	Aggregate	Aggregate	Diesel	539.260773	21183.68771	2504.817	0.869546	**24.36178**	
Mendocino	2023	MH	Aggregate	Aggregate	Gasoline	505.5789373	3966.420938	50.57812	0.874750555	**4.534345**	
Mendocino	2023	MH	Aggregate	Aggregate	Diesel	228.9230731	1964.666052	22.89231	0.210513093	**9.33275**	
Mendocino	2023	Motor Coach	Aggregate	Aggregate	Diesel	3.391932279	483.3113021	77.9466	0.08826148	**5.475903**	
Mendocino	2023	OBUS	Aggregate	Aggregate	Gasoline	56.72266139	2427.988582	1134.907	0.516588268	**4.700046**	
Mendocino	2023	PTO	Aggregate	Aggregate	Diesel	0	4399.887501	0	0.898326426	**4.897872**	
Mendocino	2023	SBUS	Aggregate	Aggregate	Gasoline	43.70526448	2190.850824	174.8211	0.231894025	**9.447638**	
Mendocino	2023	SBUS	Aggregate	Aggregate	Diesel	99.83433578	2205.696686	1445.601	0.267727515	**8.238588**	
Mendocino	2023	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	0.857524248	56.51178202	19.70591	0.006388688	**8.845601**	
Mendocino	2023	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	1.152020214	77.5255005	26.47342	0.008752827	**8.857196**	**MHD**
Mendocino	2023	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	3.617562771	202.4999651	83.13159	0.022546686	**8.981363**	**8.445084**
Mendocino	2023	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	6.280273116	1270.111547	144.3207	0.132838731	**9.561304**	
Mendocino	2023	T6 Instate Deliver	Aggregate	Aggregate	Diesel	19.76339566	654.0791474	282.0237	0.080482016	**8.127022**	
Mendocino	2023	T6 Instate Deliver	Aggregate	Aggregate	Diesel	6.029308939	197.3373219	86.03824	0.023676308	**8.334801**	
Mendocino	2023	T6 Instate Deliver	Aggregate	Aggregate	Diesel	30.51140515	1013.227644	435.3978	0.122482194	**8.272449**	
Mendocino	2023	T6 Instate Deliver	Aggregate	Aggregate	Diesel	10.90529044	588.6571927	155.6185	0.071023517	**8.288201**	
Mendocino	2023	T6 Instate Other (	Aggregate	Aggregate	Diesel	101.3801511	4038.878311	1171.955	0.471401796	**8.567804**	
Mendocino	2023	T6 Instate Other (	Aggregate	Aggregate	Diesel	227.2638682	9973.761122	2627.17	1.178545392	**8.462772**	
Mendocino	2023	T6 Instate Other (	Aggregate	Aggregate	Diesel	159.2890211	6709.016641	1841.381	0.789141556	**8.501664**	
Mendocino	2023	T6 Instate Other (	Aggregate	Aggregate	Diesel	159.8977263	7309.339998	1848.418	0.836653889	**8.736396**	
Mendocino	2023	T6 Instate Tractor	Aggregate	Aggregate	Diesel	0.75477435	30.36085926	8.725191	0.003310917	**9.169923**	
Mendocino	2023	T6 Instate Tractor	Aggregate	Aggregate	Diesel	41.67230865	2390.341526	481.7319	0.266721383	**8.961942**	
Mendocino	2023	T6 OOS Class 4	Aggregate	Aggregate	Diesel	0.449079248	29.337257	10.31984	0.003315811	**8.847687**	
Mendocino	2023	T6 OOS Class 5	Aggregate	Aggregate	Diesel	0.600788924	40.24544109	13.80613	0.004544065	**8.856705**	
Mendocino	2023	T6 OOS Class 6	Aggregate	Aggregate	Diesel	1.891975623	105.162489	43.4776	0.011704793	**8.984566**	
Mendocino	2023	T6 OOS Class 7	Aggregate	Aggregate	Diesel	3.092502225	764.6620633	71.0657	0.079538518	**9.613733**	
Mendocino	2023	T6 Public Class 4	Aggregate	Aggregate	Diesel	11.20270278	367.7426071	57.46987	0.048939752	**7.51419**	
Mendocino	2023	T6 Public Class 5	Aggregate	Aggregate	Diesel	32.76560997	1178.194858	168.0876	0.15464261	**7.618824**	
Mendocino	2023	T6 Public Class 6	Aggregate	Aggregate	Diesel	15.23149667	516.831318	78.13758	0.068610689	**7.532811**	
Mendocino	2023	T6 Public Class 7	Aggregate	Aggregate	Diesel	83.63021536	3886.530789	429.023	0.503558256	**7.718135**	
Mendocino	2023	T6 Utility Class 5	Aggregate	Aggregate	Diesel	8.118365817	329.8689743	103.9151	0.037436324	**8.811468**	
Mendocino	2023	T6 Utility Class 6	Aggregate	Aggregate	Diesel	1.545390548	62.33855869	19.781	0.007052123	**8.839687**	
Mendocino	2023	T6 Utility Class 7	Aggregate	Aggregate	Diesel	1.767192851	86.65948291	22.62007	0.009760108	**8.878947**	
Mendocino	2023	T6TS	Aggregate	Aggregate	Gasoline	209.8506404	8511.196146	4198.692	1.815916909	**4.686996**	
Mendocino	2023	T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	308.4119074	62709.97689	7087.306	10.39305994	**6.033832**	
Mendocino	2023	T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	275.9106884	74225.0708	6340.428	12.1903699	**6.088828**	**HHD**
Mendocino	2023	T7 NOOS Class 8	Aggregate	Aggregate	Diesel	115.5591087	26964.64977	2655.548	4.477917989	**6.021694**	**5.406601**
Mendocino	2023	T7 Other Port Cla	Aggregate	Aggregate	Diesel	23.7183005	4450.828586	388.0314	0.750836289	**5.927828**	
Mendocino	2023	T7 Public Class 8	Aggregate	Aggregate	Diesel	165.0080863	7205.572115	846.4915	1.391575344	**5.177996**	
Mendocino	2023	T7 Single Concret	Aggregate	Aggregate	Diesel	14.58307233	1031.594666	137.3725	0.17689949	**5.83153**	
Mendocino	2023	T7 Single Dump C	Aggregate	Aggregate	Diesel	93.26221106	5099.232913	878.53	0.880564895	**5.790866**	
Mendocino	2023	T7 Single Other C	Aggregate	Aggregate	Diesel	295.5094053	15605.06468	2783.699	2.664467329	**5.85673**	
Mendocino	2023	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	43.93400653	2846.791325	202.0964	1.113166835	**2.557381**	
Mendocino	2023	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	350.100005	27792.45079	5086.953	4.584940196	**6.061682**	
Mendocino	2023	T7 Utility Class 8	Aggregate	Aggregate	Diesel	5.674717366	260.4266516	72.63638	0.045080379	**5.77694**	
Mendocino	2023	T7IS	Aggregate	Aggregate	Gasoline	0.588431851	21.82054914	11.77334	0.005812764	**3.753903**	
Mendocino	2023	UBUS	Aggregate	Aggregate	Gasoline	16.90500346	1337.598009	67.62001	0.228866707	**5.844441**	
Mendocino	2023	UBUS	Aggregate	Aggregate	Diesel	6.215824071	628.1780757	24.8633	0.06966333	**9.017342**	

APPENDIX B.3

Analysis of Models and Tools to Correlate Project-Generated Pollutants to Health End Points

APPENDIX B

Appendix B of the Draft EIR includes additional information regarding models and tools for correlating project-generated criteria pollutant emissions to health end points. The following table is an addition to Appendix B.

ANALYSIS OF MODELS AND TOOLS TO CORRELATE PROJECT-GENERATED CRITERIA POLLUTANT EMISSIONS TO HEALTH END POINTS

TOOL	CREATED BY	DESCRIPTION	RESOLUTION	POLLUTANTS ANALYZED	PROJECT-LEVEL CEQA APPLICABILITY
AERMOD Modeling System[1,2]	AERMIC	A steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The modeling system incorporates air dispersion based on a planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain.	Project-level	SO_2, ROG, NO_2, Lead, $PM_{2.5}$, PM_{10}, NH_3	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NOx and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
AirCounts[3]	Abt Assoc.	Online tool that helps large and medium-sized cities quickly estimate the health benefits of $PM_{2.5}$ emission reductions and economic value of those benefits. The tool estimates the number of deaths (mortality) avoided and economic value related to user-specified regional, annual $PM_{2.5}$ emissions reduction.	City-level	Primary $PM_{2.5}$	This tool is only illustrative, as it is limited to certain cities and does not target specific sectors. The tool is not sector specific, and includes limited California data. It cannot provide results at a project-level. Therefore, the tool is not recommended for project-level CEQA analysis.
Air Pollution Emission Experiments and Policy analysis (APEEP) model[4]	Mueller and Mendelsohn2006, 2009	The Air Pollution Emission Experiments and Policy (APEEP) analysis model (Muller and Mendelsohn 2006, 2009) is a traditional integrated assessment model. Like other integrated assessment models, APEEP connects emissions of air pollution through air-quality modeling to exposures, physical effects, and monetary damages. Making these links requires the use of findings reported in the peer-reviewed literature across several scientific disciplines. The air-quality models in APEEP use the emission data provided by EPA to estimate corresponding ambient concentrations in each county in the coterminous states.	National or county-level	SO_2, ROG, NO_x, Ozone, $PM_{2.5}$, PM_{10}	The model operates at the national scale but may be applied at the county-level (although it is not clear how this adjustment should be made). It cannot provide results at a project-level. The tool is also not commercially available. Therefore, the tool is not recommended for project-level CEQA analysis.

[1] See: https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models

[2] Note: May require additional software to estimate the level of each specific pollutant at the modeled receptors.

[3] See: https://www.abtassociates.com/tools

[4] See: https://public.tepper.cmu.edu/nmuller/APModel.aspx

Tool	Created by	Description	Resolution	Pollutants Analyzed	Project-level CEQA Applicability
CALINE3/ CAL3QHC/ CAL3QHCR[1, 2]	USEPA	A steady-state Gaussian dispersion model designed to determine air pollution concentrations at receptor locations downwind of highways located in relatively uncomplicated terrain. CALINE3 is incorporated into the more refined CAL3QHC and CAL3QHCR models. CAL3QHCR is a more refined version based on CAL3QHC that requires local meteorological data.	Project-level	SO_2, ROG, NO_2, Lead, $PM_{2.5}$, PM_{10}	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NOx and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
Complex Terrain Dispersion Model Plus Algorithms for Unstable Situations (CTDMPLUS)[1, 2]	USEPA	A refined point source gaussian air quality model for use in all stability conditions for complex terrain. The purpose of the model is to provide a practical, refined plum model for elevated point sources near complex terrain.	Project-level	SO_2, ROG, NO_2, Lead, $PM_{2.5}$, PM_{10}	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NOx and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
Co-Benefits Risk Assessment (COBRA)[5]	USEPA	Preliminary screening tool that contains baseline emission estimates of a variety of air pollutants for a single year. COBRA is targeted to state and local governments as a screening assessment for clean energy policies. EPA's CO–Benefits Risk Assessment (COBRA) screening model is a free tool that helps state and local governments: • Explore how changes in air pollution from clean energy policies and programs; • Estimate the economic value of the health benefits associated with clean energy policies and programs to compare against program costs; • Map and visually represent the air quality, human health, and health-related economic benefits from reductions in emissions of particulate matter ($PM_{2.5}$), sulfur dioxide ($S0_2$), nitrogen oxides (NO_X), ammonia (NH_3), and volatile organic compounds (VOCs) that result from clean energy policies and programs.	National, regional, state, or county-levels	$PM_{2.5}$, SO_2, NO_x, NH_3, and ROG	COBRA is a preliminary screening tool only and cannot be used at sub-county resolution. It cannot provide results at a project-level. It also does not account for secondary emission changes resulting from market responses. Accordingly, the tool is not recommended for project-level CEQA analysis.

[5] See: https://www.epa.gov/statelocalenergy/co-benefits-risk-assessment-cobra-health-impacts-screening-and-mapping-tool

Tool	Created by	Description	Resolution	Pollutants Analyzed	Project-level CEQA Applicability
Environmental Benefits and Mapping Program-Community Edition (BenMAP-CE)[6]	USEPA	The USEPA's detailed model for estimating the health impacts from air pollution. It relies on input concentrations and applies concentration-response (C-R) health impact functions, which relate a change in the concentration of a pollutant with a change in the incidence of a health endpoint, including premature mortality, heart attacks, chronic respiratory illnesses, asthma exacerbation and other adverse health effects. Detailed inputs are required for air quality changes (concentrations from AERMOD), population, baseline incidence rates, and effect estimates.	National, County, City, and sub-regional levels	Ozone, PM, NO_2, SO_2, CO	This tool is not well suited to analyze small or localized changes in pollutant concentrations associated with individual projects. Although this tool is under consideration by some California air districts for use towards project-level analysis, no air district in California has promulgated a methodology (using this tool or any other) that would correlate the expected air quality emissions of projects to the likely health consequences of the increased emissions. Accordingly, the tool is not recommended.
Fast Scenario Screening Tool (TM5-FASST)[7]	Joint Research Centre (Italy)	A tool that allows users to evaluate how air pollutant emissions affect large scale pollutant concentrations and their impact on human health (mortality and years of life lost) and crop yield from national to regional air quality policies, such as climate policies. The target policy domains are national to regional air quality policies, or air pollutant scenarios linked to other policy domains (e.g. climate policy). The tool is web-based and does not require coding or modelling. Users must gain access through publishers.	Global and national-levels	$PM_{2.5}$, Ozone, NO_x, NH_3, CO, ROG, CH_4, SO_2	This tool is applicable at national to global scales. It cannot provide results a project-level. Accordingly, the tool is not recommended for project-level CEQA analysis.
Long-range Energy Alternatives Planning System-Integrated Benefits Calculator (LEAP-IBC)[8]	Climate and Clean Air Coalition (CCAC)	A calculator that allows users to rapidly estimate the impacts of reducing emissions on health, climate, and agriculture. The tool uses sensitivity coefficients that link gridded emissions of air pollutants and precursors to health, climate and agricultural impacts at a national level. The tool is primarily used for policy analysis. The tool is currently Excel-based and is available through the developers only. A web-based interface is currently under development.	National-level	$PM_{2.5}$, Ozone, NO_2	This tool is applicable at national scale. Accordingly, the tool is not recommended for project-level CEQA analysis.
Methodology for Estimating Premature Deaths Associated with Long-Term Exposure to Fine Airborne Particulate Matter in California[9]	California Air Resources Board	The staff report identifies a relative risk of premature death associated with $PM_{2.5}$ exposure based on a review of all relevant scientific literature, and a new relative risk factor was developed. This new factor is a 10% increase in risk of premature death per 10 $\mu g/m^3$ increase in exposure to $PM_{2.5}$ concentrations (uncertainty interval: 3% to 20%)	National	$PM_{2.5}$	The primary author of the CARB staff report notes that the analysis method is not suited for small projects and may yield unreliable results due to various uncertainties. The tool also cannot provide results on a project-level. Accordingly, the tool is not recommended for project-level CEQA analysis.

[6] See: https://www.epa.gov/benmap

[7] See: http://tm5-fasst.jrc.ec.europa.eu/

[8] See: https://www.ccacoalition.org/en/resources/long-range-energy-alternatives-planning-integrated-benefits-calculator-leap-ibc-factsheet

[9] See: https://ww3.arb.ca.gov/research/health/pm-mort/pmmortalityreportfinalr10-24-08.pdf

Tool	Created by	Description	Resolution	Pollutants Analyzed	Project-level CEQA Applicability
Multi-Pollutant Evaluation Method (MPEM)[10]	BAAQMD	Estimates the impacts of control measures on pollutant concentration, population exposures, and health outcomes for criteria, toxic, and GHG pollutants. Monetizes the value of total health benefits from reductions in $PM_{2.5}$, ozone, and certain carcinogens, and the social value of GHG reductions. MPEM was designed for development of a Clean Air Plan for the San Francisco Bay Area. The inputs are specific to the SF region and are not appropriate for projects outside BAAQMD.	Regional level in the SFBAAB	Ozone, PM, air toxics, GHG	This tool is designed to support the BAAQMD in regional planning and emissions analysis within the San Francisco Bay Area Air Basin (SFBAAB). The model applies changes in pollutant concentrations over a four-square kilometer grid. The tool also cannot provide results on a project-level. Additionally, this tool is only applicable for the SFBAAB. Accordingly, the tool is not recommended for project-level CEQA analysis.
Offshore and Coastal Dispersion Model Version 5 (OCD)[1, 2]	USEPA	A straight-line Gaussian model developed to determine the impact of offshore emissions from point, area or line sources on the air quality of coastal regions. OCD incorporates overwater plume transport and dispersion as well as changes that occur as the plume crosses the shoreline. Hourly meteorological data are needed from both offshore and onshore locations.	Project-level	SO_2, ROG, NO_2, Lead, $PM_{2.5}$, PM_{10}	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NOx and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
Response Surface Model (RSM)-based Benefit-per-Ton Estimates[11]	USEPA	Consists of tables reporting the monetized $PM_{2.5}$-related health benefits from reducing $PM_{2.5}$ precursors from certain source types nationally and for 9 US cities/regions. Applying these estimates simply involves multiplying the emissions reduction by the relevant benefit per-ton metric. The resulting value is the PM mortality risk estimate at a 3% discount rate.	National or regional (San Joaquin County only) levels	SOx, VOC, NH_3, NO_x	RSM includes regional values specific to San Joaquin County. The values are also dated. Accordingly, the tool is not recommended for project-level CEQA analysis.
Sector-based Benefit-per-Ton Estimates[12]	USEPA	Two specific sets of Benefit-per-ton (BPT) estimates for 17 key source categories are available. Both are a reduced-form approach based on BenMAP modeling. Applying these factors involves multiplying the emissions reduction (in tons) by the relevant benefit (economic value) or incidence (rates of mortality and morbidity) per-ton metric. The resulting value is the economics, mortality, and morbidity of direct and indirect $PM_{2.5}$ emissions.	National-scale	$PM_{2.5}$, SO_2, NO_x	The BPT estimates do not account for project-specific emissions or receptor locations, local dispersion characteristics, or regional photochemistry. The resultant health effects are therefore reflective of national averages and may not be accurate when applied to the project-level. Accordingly, the tool is not recommended for project-level CEQA analysis.

[10] See: http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/mpem_nov_dec_2016-pdf.pdf?la=en

[11] See: https://www.epa.gov/benmap/response-surface-model-rsm-based-benefit-ton-estimates

[12] See: https://www.epa.gov/benmap/sector-based-pm25-benefit-ton-estimates. The updated Technical Support Document (February 2018) is available at: https://www.epa.gov/sites/production/files/2018-02/documents/sourceapportionmentbpttsd_2018.pdf

APPENDIX C

Biological Review with Updated (2022) Database Records

Grocery Outlet Fort Bragg, California Property Biological Review

Prepared for

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Prepared by

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August 2019

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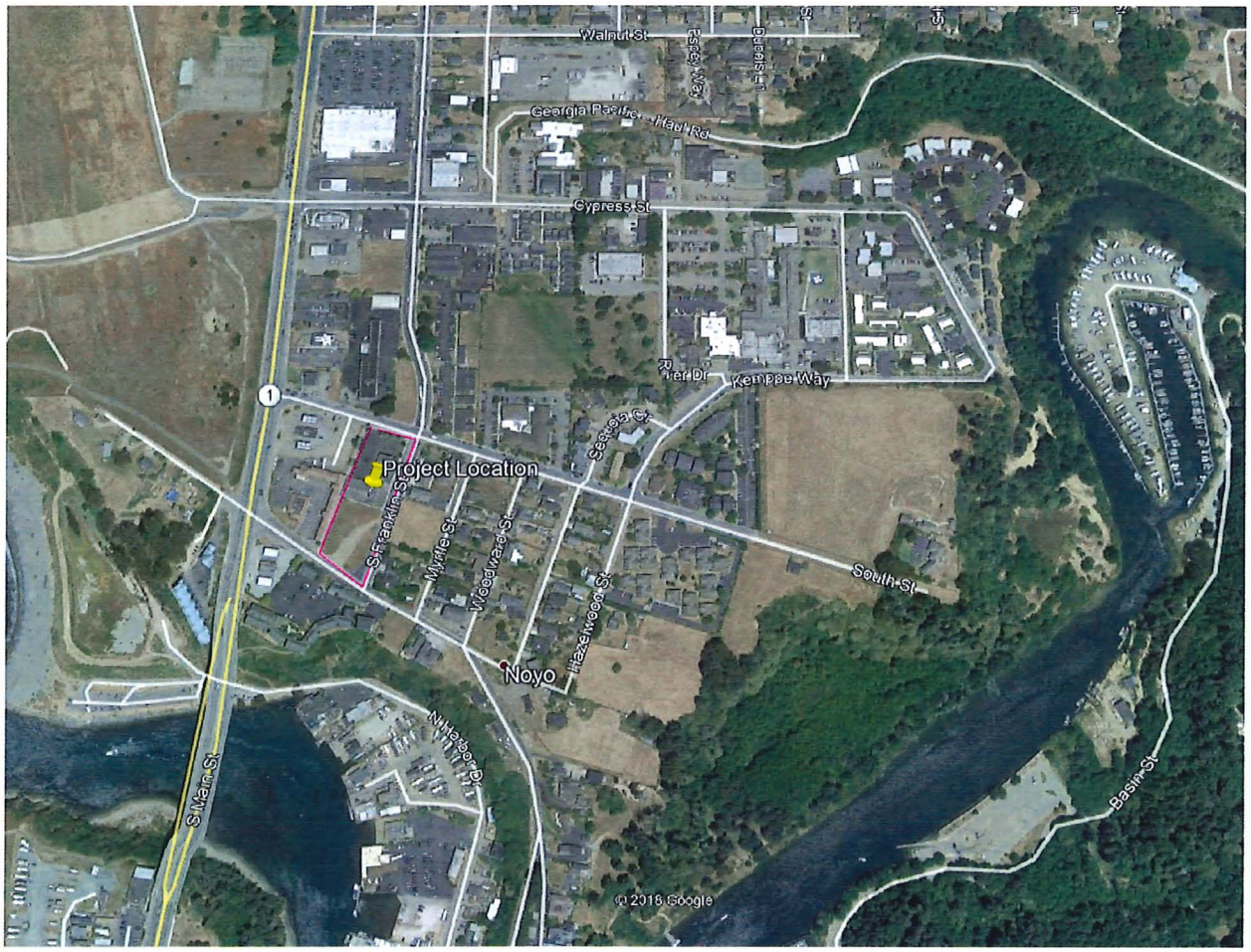
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Introduction

This Biological Review has been prepared at the request of the Best Development Group of Sacramento, California for their project area located in downtown Fort Bragg of Mendocino County, California. The property consists of three lots located on the west side of South Franklin Street in the south central part of Fort Bragg. The legal location is portions of the northwest ¼ of Section 18, Township 18 North, Range 17 West (see Figure 1). The southern-most lot is vacant with on third bare soil and two thirds covered with annual grasses and forbs with scattered shrubs. The middle lot contains an abandoned building and the northern lot is 95% covered by a paved parking area with shrubbery planted around the edges. The purpose of this review is to identify and assess the biological features of the project area inclusive of its soils, vegetation, wetlands, wildlife habitats, and the presence of sensitive species in order to comply with Mendocino County's planning requirements pursuant to the California Environmental Quality Act (CEQA).

Figure 1. Project Location



Methods

Best Development Group provided WRM with project area and lot maps identifying the project's location, lot divisions, and surrounding streets. Background information was gathered for soils (Natural Resource Conservation Service web soil survey), general habitat descriptions (Mayer and Laudenslayer, Jr. 1988), listed plant and wildlife species (California Natural Diversity Data Base (CNDDB)) and on-site reviews.

The site was visited by WRM staff on August 9th for the purpose of assessing the site for biological features and any unique habitat features and/or the presence of any listed plant or animal species. During this survey, vegetative species present were identified along with an estimate of percentage cover of the site. Presence of animal species in the form of visual observation or other evidence were noted. An evening bat survey was run from 1900 hours until dark by observing aerial activity around the project site. However, this survey was severely hampered by a tremendous thunderstorm with heavy rain that rolled through the area at dusk making visual observations nearly impossible.

Regulatory Setting

Any development project must address the following federal, state and county environmental regulations.

A. Federal
    1. Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (ESA) provides protection for federally listed endangered and threatened species and their habitats. An "endangered" species is a species in danger of extinction in a significant portion of its natural range. A "threatened" species is one that is likely to become endangered in the foreseeable future without protection. Other special status species include "proposed" species and "species of special concern." Proposed species are those that have been officially proposed (published in the Federal Register) for listing as threatened or endangered. "Species of concern" are those species for which not enough scientific information has been gathered to support a listing proposal, but still may be appropriate for listing in the future should evidence for listing be obtained. A "delisted" species is one whose population has reached its recovery goal and is no longer in jeopardy. The United States Fish and Wildlife Service (USFWS) administers the Federal ESA. Under the FESA, it is unlawful to "take" any listed species. "Take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." To "harm" has been broadly defined by regulation to include significant habitat modification that actually kills or injures wildlife (by significantly impairing essential behavior patterns like breeding, feeding or sheltering) (50 CFR 17.3). Protection under the FESA also extends to species and habitat proposed for listing.

Section 7(a) of the ESA requires that federal agencies responsible for authorizing projects (authorizing agencies) which could adversely affect a listed species or could adversely modify listed critical habitat designated for such a species, undertake consultation with the USFWS. Consultation could be informal or formal. Informal consultation is a process that includes all discussions and correspondence between the authorizing agency and the USFWS, and is designed to determine if formal consultation is required.

Unless it is readily apparent that formal consultation is necessary, the authorizing agency would typically first consult informally on all actions that could affect a listed species or its listed critical habitat. The authorizing agency would also typically seek recommendation for modification of actions that would avoid the likelihood of adverse effects and contribute to achieving recovery objectives for the listed species or its critical habitat.

Formal consultation is initiated by the authorizing agency through the preparation and submittal to the USFWS of a Biological Assessment prepared by the authorizing agency for the "proposed action." The Biological Assessment would be utilized in association with other informational resources by the USFWS to prepare a Biological Opinion. The Biological Opinion would make the determination of whether the proposed action is likely to jeopardize the continued existence of a listed species. A section of the Biological Opinion would specify the terms and conditions under which the listed species could be taken.

This section also determines appropriate levels of take, as defined by individuals of the species killed, injured or moved and the amount of critical habitat subject to temporary and or permanent disturbance. If the Biological Opinion determines that the proposed action could jeopardize the continued existence of a listed species, the authorizing agency must notify the USFWS in writing prior to its final decision on the proposed action.

2. Migratory Bird Treaty Act

Provisions of the Migratory Bird Treaty Act (1918) (16 USC 701.718h) are applicable to birds within the proposed area of operations. The act prohibits the killing of any migratory birds without a permit. Any activity which contributes to unnatural migratory bird mortality could be prosecuted under the Act. With few exceptions, most birds are considered migratory under the Act. Measures to prevent bird mortality must be incorporated into the project design.

3. Bald and Golden Eagle Protection Act

The Bald Eagle Protection Act (PL 92-535) provides federal protection to the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*). The act prohibits the direct or indirect take of an eagle, eagle part, product or nest. The golden eagle is not listed under the ESA as a threatened or endangered species, however, it is a protected species under the provisions of this act and under the California Endangered Species Act (CESA) as a look-alike species to the bald eagle. The proposed area of operations is within the range of the bald eagle.

4. Clean Water Act

Section 404 of the Clean Water Act (CWA) charges the United States Army Corp of Engineers with the regulatory authority over the discharge of dredged or fill material into waters of the United States. "Waters of the United States" include a range of wet environments such as lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, and wet meadows. "Discharge or fill material" is defined as the addition of fill material into "waters of the U.S." including but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and sub-aqueous utility lines (33 C.F.R. (s)328.2(f). In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into "waters of the U.S.", to obtain a certification that the discharge will comply with the applicable state effluent limitations and water quality standards.

B. State

1. California Endangered Species Act

The California Endangered Species Act of 1984 (CESA) and the California Native Plant Protection Act of 1977 (CNPPA) provide the framework for protection of California's listed rare and endangered plant and animal species. The state also affords protection to candidate species which have been accepted for review for potential listing as rare, threatened or endangered species. CESA status definitions include:

> Endangered: A native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant which is in serious danger of becoming extinct throughout all, or a significant portion of its range due to one or more causes, including loss of habitat, change of habitat, over-exploitation, predation, competition, or disease.
>
> Threatened: A native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant that although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter (Fish and Game Code Chapter 1.5).
>
> Rare: A species, subspecies or variety is rare when, although not presently threatened with extinction, it is in such small numbers throughout its range that it could become endangered if its present environment worsens.
>
> Candidate: A native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant that the Fish and Game Commission has given formal notice as being under review by the California Department of Fish and Wildlife (CDFW) for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list.

Species of Special Concern: Native species or subspecies that have become vulnerable to extinction because of declining population levels, limited ranges, or rarity. The goal is to prevent these species from becoming endangered by addressing the issues of concern early enough to secure long term viability for these species. The CESA prohibits a taking of species listed as endangered or threatened by the Fish and Game Commission (California Fish and Game Code

(s)2080). It also requires lead state agencies to consult with the CDFW to ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any T/E species or result in the destruction or adverse modification of habitat essential to the continued existence of any T/E species.

2. California Fish and Game Code

Several sections of the California Fish and Game Code apply to projects: sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) provide that designated fully protected species may not be taken or possessed without a permit. Incidental take of these species is not authorized by law. Pursuant to Section 3503.5 of the code, it is unlawful to take, possess or destroy any birds of prey; or to take, possess, or destroy any nest or eggs of such birds. Birds of prey refer to species in the orders of Falconiformes and Strigiformes.

Pursuant to Section 1602 of the code, CDFW regulates all diversions, obstructions or changes to the natural flow or bed, channel, or bank or any river, stream, or lake that supports fish or wildlife. Any changes in these areas require authorization from the CDFW by means of entering into an agreement pursuant to Section 1602 of the code.

3. Porter-Cologne Water Quality Control Act

California's primary statute governing water quality and water pollution issues (surface and groundwater) is the 1970 Porter-Cologne Water Quality Control Act. The act grants the State Water Board the power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the federal CWA. The act grants the State Water Board authority and responsibility to adopt plans and policies regulating discharges of waste to surface

and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. It also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil or petroleum products.

4. Oak Woodlands

California public Resources Code Section 21083.4 requires a county, as part of the CEQA process, to consider whether a project would impact oak woodlands, including trees that are 5 inches or more in diameter at breast height. If a project may have a significant effect on oak woodlands (defined in the Fish and Game Code Section 1361 (h) as "an oak stand with a greater than 10% canopy cover or that may have historically supported greater than 10 percent canopy cover") the code requires implementation of specific mitigation measures aimed at reducing impacts to oak woodlands, but also provides for mitigation through county-designed measures. Such measures include conservation of existing oaks woodlands, planting new trees, contribution of funds to the Oak Woodland Conservation Fund, or any other measures developed by the county.

5. California Environmental Quality Act (CEQA)

CEQA requires identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. The CEQA Environmental Checklist (Appendix G) (14 CCR 15000 et. Seq.) is used to analyze the potential significance of the project's impacts. Candidate, sensitive or special status species are analyzed through Section IV(a) of Appendix G. This report considers the following special-status species: California SSC designated by CDFW, mammals and birds that are California fully protected species, and species designated by the USFWS as a general equivalent to SSCs. Section IV (b) of Appendix G also requires identification of a project's potentially significant impacts on riparian habitats (such as wetland, bays, estuaries, and marshes) and other sensitive natural communities including habitats occupied by endangered, rare or threatened species.

6. County

The Mendocino County General Plan states under Principles:

Principle2-1a; Conservation of Mendocino County's natural resources, farmland, forest land and open spaces is essential to the rural quality of life desired by residents and visitors alike.

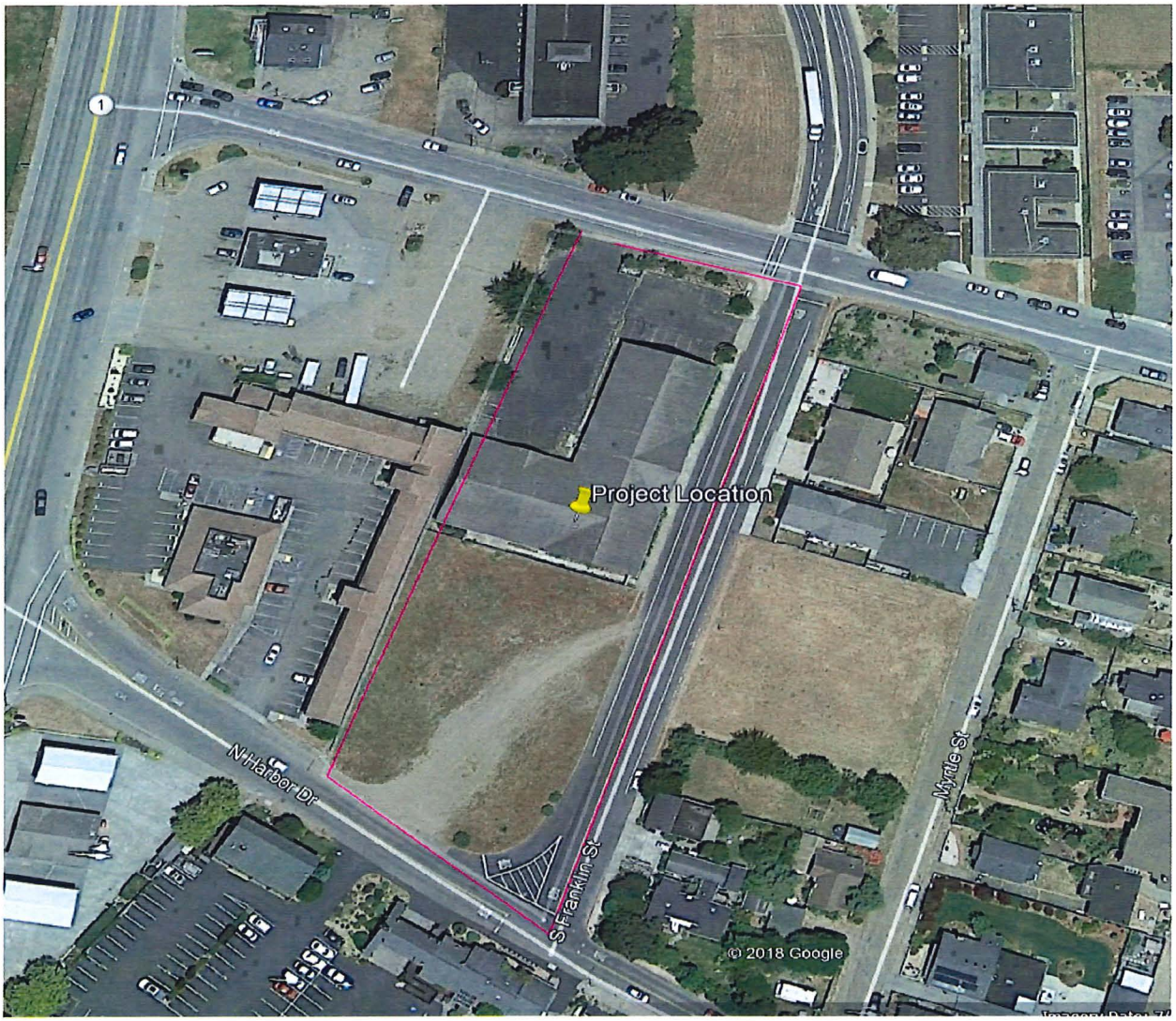
- Planned growth and compact development forms are essential to conserving environmental resources, farmland and open spaces.
- Direct new commercial and residential growth to cities and community areas where development can be supported by existing or panned infrastructure and public services and environmental impacts can be minimized.

Results

Description of site:

The project area is bordered on the south by North Harbor Drive which serves a motel complex. South Franklin Street borders the area on the east side with a small lot subdivision situated on the east side of that street. To the north is South Street with a vacant lot beyond. To the west is a motel complex and parking areas. As mentioned in the introduction, the southern-most lot is vacant and supporting short annual grasses, forbs and scattered shrubs. The center lot is completely occupied by a two-story abandoned structure and the north lot contains a paved parking lot with shrubbery planted along the edges between the lot and South Street and South Franklin Street. Figure 2 is a closeup view of the site showing the features of the area.

Figure 2.



Soils:

According to the Natural Resource Conservation Service web soil survey, there is one soil type found on the project site, classified as "Urban" land. This soil is described as found on marine terraces consisting of fluviomarine deposits derived from sedimentary rock, with a hydric soil rating: "yes." A "yes" indicates the soil is hydric and capable of supporting hydrophytic vegetation. Figure 2 is the NRCS soil map for the project area.

Figure 2



Source: Soil Survey data Mendocino County, version 10, September 12, 2018

Vegetation:

As seen in Figure 2 on the previous page, the majority of the vegetation is limited to the southern-most parcel. Even here, vegetation is sparse and limited to approximately two-thirds of the property as across the middle of the area is bare soil. Plant species identified in this area are listed in Table 1 below.

Table 1. Plant species identified on the south parcel.

Common name	Scientific name	Dominant
Wild radish	*Raphanus sativa*	yes
Slender oats	*Avena barbata*	yes
California poppy	*Eschschoizia californica*	no
Blue grass	*Poa bulbosa*	yes
Perennial rye grass	*Lolium multiflorum*	no
vetch	*Vicia villosa*	no
Brome grass	*Bromus madritensis rubens*	no
Quaking grass	*Briza minor*	no
Dandelion	*Taraxacum officinale*	no
Queen Anne's lace	*Caucus carota*	no
Himalayan blackberry	*Rubus discolor*	no
Velvet grass	*Holcus lanatus*	yes
Hairgrass	*Aira caryophyllea*	no
Cypress	*Cupressaceac spp.*	no
Pampas grass	*Cortaderia selloana*	no

All the above plant species are associated with non-hydric soil conditions.

The north parcel is well over 98% covered by a paved parking lot and portions of the abandoned building. There is a row of planted shrubbery along the north side of the parking area that includes butterfly bushes, California rose, Himalayan blackberry, pampas grass and four unidentified ornamental trees.

Hydrology and wetland features

There are no streams, wet swales or other wetland features on the project area. Storm water that falls on the site either seeps into the soil or sheet flows to roadside culverts and subsequent storm drains. Though the soil type is hydric, there is no evidence of wetland related plant species on the site.

Wildlife Evidence

Sightings and other evidence of wildlife was very limited at the site. Gopher mounds were evident in the southern parcel and two crows were seen perched on the abandoned building and then flew south off-site within a minute after the surveyor's arrival. No other wildlife was seen during the survey. There were no scat, nests, burrows, whitewash or trails of any kind found on the site

Query of the California Natural Diversity Data Base

A query of the CNDDB for the Fort Bragg quadrangle was made to see if any special status plant or animal could be on the property given the current habitat conditions. Within the Fort Brag Quadrangle the data base lists 25 animal species and 48 plant species. A listing of all 73 species may be found in the appendix. With the limited grass habitat and general surrounding urban conditions, there is no suitable habitat for any of the data base listed species on the three parcels and none were observed.

Sensitive Species:

No sensitive species were detected on the site during the field visit.

Final Observations

No species of listed plants or animals were found within the project site area and there are no wetland features within or around the immediate the area. There may be some rodent activity associated with the abandoned building (mice, rats) but none was detected. No wildlife activity was observed occupying the site other than gopher mounding and the crow flyover.

While not a popular rodent, pocket gophers (*Thomomys sp.*) are present (mounds) and do play an important role in the ecology of a landscape. Their mounds form a cultivated micro site for air born seeds and their underground excavations loosen compacted soils. However, there population numbers are not endangered and nor will they be by the loss of this habitat to the proposed project.

Recommendations:

There is a remote possibility that bats may be present in the abandoned building, as several members of the species are known to use similar structures for diurnal roosting. Due to the untimely thunderstorm that occurred during the original survey, bat utilization of the site could not be determined. A follow-up survey to address that question is advisable. If bats are found to be utilizing the site, then consultation with CDFW is advised. If bats are not found there will be little loss of biological or ecological resources if the site is developed.

For further information or questions, please contact:

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References cited:

Mayer and Laudenslayer, Jr. 1988. In "A Guide to Wildlife Habitats of California." USDA Forest Service, Pacific Southwest Forest and Range Experiment Station, California Department of Fish and Game, Pacific Gas and Electric Company, USDA Forest Service Region 5.

Mendocino County Soil Survey. 2018. United States Department of Agriculture Soil Conservation Service and Forest Service. On line soil survey.

Appendix

CNDDB Quad Species List73 records.

Element Type	Scientific Name	Common Name	Element Code	Federal Status	State Status	CDFW Status	CA Rare Plant Rank	Quad Code	Quad Name	Data Status	Taxonomic Sort
Animals - Amphibians	Ascaphus truei	Pacific tailed frog	AAABA01010	None	None	SSC	-	3912347	Fort Bragg	Mapped	Animals - Amphibians - Ascaphidae - Ascaphus truei

Animals - Amphibians	Dicamptodon ensatus	California giant salamander	AAAAH01020	None	None	SSC	-	3912347	Fort Bragg	Unprocessed	Animals - Amphibians - Dicamptodontidae - Dicamptodon ensatus
Animals - Amphibians	Rana aurora	northern red-legged frog	AAABH01021	None	None	SSC	-	3912347	Fort Bragg	Mapped and Unprocessed	Animals - Amphibians - Ranidae - Rana aurora
Animals - Amphibians	Rana boylii	foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	SSC	-	3912347	Fort Bragg	Mapped	Animals - Amphibians - Ranidae - Rana boylii
Animals - Amphibians	Rhyacotriton variegatus	southern torrent salamander	AAAAJ01020	None	None	SSC	-	3912347	Fort Bragg	Mapped	Animals - Amphibians - Rhyacotritonidae - Rhyacotriton variegatus
Animals - Amphibians	Taricha rivularis	red-bellied newt	AAAAF02020	None	None	SSC	-	3912347	Fort Bragg	Unprocessed	Animals - Amphibians - Salamandridae - Taricha rivularis
Animals - Birds	Circus hudsonius	northern harrier	ABNKC11011	None	None	SSC	-	3912347	Fort Bragg	Unprocessed	Animals - Birds - Accipitridae - Circus hudsonius

Animals - Birds	Elanus leucurus	white-tailed kite	ABNKC06010	None	None	FP	-	3912347	Fort Bragg	Unprocessed	Animals - Birds - Accipitridae - Elanus leucurus
Animals - Birds	Ardea herodias	great blue heron	ABNGA04010	None	None	-	-	3912347	Fort Bragg	Unprocessed	Animals - Birds - Ardeidae - Ardea herodias
Animals - Birds	Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	Threatened	None	SSC	-	3912347	Fort Bragg	Mapped	Animals - Birds - Charadriidae - Charadrius alexandrinus nivosus
Animals - Birds	Agelaius tricolor	tricolored blackbird	ABPBXB0020	None	Threatened	SSC	-	3912347	Fort Bragg	Unprocessed	Animals - Birds - Icteridae - Agelaius tricolor
Animals - Birds	Pandion haliaetus	osprey	ABNKC01010	None	None	WL	-	3912347	Fort Bragg	Unprocessed	Animals - Birds - Pandionidae - Pandion haliaetus
Animals - Birds	Pelecanus occidentalis californicus	California brown pelican	ABNFC01021	Delisted	Delisted	FP	-	3912347	Fort Bragg	Unprocessed	Animals - Birds - Pelecanidae - Pelecanus occidentalis californicus

Animals - Fish	Eucyclogobius newberryi	tidewater goby	AFCQN04010	Endangered	None	SSC	-	3912347	Fort Bragg	Mapped and Unprocessed	Animals - Fish - Gobiidae - Eucyclogobius newberryi
Animals - Fish	Entosphenus tridentatus	Pacific lamprey	AFBAA02100	None	None	SSC	-	3912347	Fort Bragg	Unprocessed	Animals - Fish - Petromyzontidae - Entosphenus tridentatus
Animals - Fish	Oncorhynchus gorbuscha	pink salmon	AFCHA02010	None	None	-	-	3912347	Fort Bragg	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus gorbuscha
Animals - Fish	Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	AFCHA02034	Endangered	Endangered	-	-	3912347	Fort Bragg	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus kisutch pop. 4
Animals - Fish	Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	AFCHA0209Q	Threatened	None	-	-	3912347	Fort Bragg	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus mykiss irideus pop. 16

Animals - Fish	Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	AFCHA0205S	Threatened	None	-	-	3912347	Fort Bragg	Unprocessed	Animals - Fish - Salmonidae - Oncorhynchus tshawytscha pop. 17
Animals - Insects	Bombus caliginosus	obscure bumble bee	IIHYM24380	None	None	-	-	3912347	Fort Bragg	Mapped	Animals - Insects - Apidae - Bombus caliginosus
Animals - Insects	Bombus occidentalis	western bumble bee	IIHYM24250	None	None	-	-	3912347	Fort Bragg	Mapped	Animals - Insects - Apidae - Bombus occidentalis
Animals - Insects	Coelus globosus	globose dune beetle	IICOL4A010	None	None	-	-	3912347	Fort Bragg	Mapped	Animals - Insects - Tenebrionidae - Coelus globosus
Animals - Mammals	Arborimus pomo	Sonoma tree vole	AMAFF23030	None	None	SSC	-	3912347	Fort Bragg	Unprocessed	Animals - Mammals - Muridae - Arborimus pomo
Animals - Mollusks	Noyo intersessa	Ten Mile shoulder band	IMGASC5070	None	None	-	-	3912347	Fort Bragg	Mapped	Animals - Mollusks - Helminthoglyptidae - Noyo intersessa

Animals - Reptiles	Emys marmorata	western pond turtle	ARAAD02030	None	None	SSC	-	3912347	Fort Bragg	Mapped and Unprocessed	Animals - Reptiles - Emydidae - Emys marmorata
Community - Terrestrial	Mendocino Pygmy Cypress Forest	Mendocino Pygmy Cypress Forest	CTT831611CA	None	None	-	-	3912347	Fort Bragg	Mapped	Community - Terrestrial - Mendocino Pygmy Cypress Forest
Community - Terrestrial	Sphagnum Bog	Sphagnum Bog	CTT511110CA	None	None	-	-	3912347	Fort Bragg	Mapped	Community - Terrestrial - Sphagnum Bog
Plants - Bryophytes	Triquetrella californica	coastal triquetrella	NBMUS7S010	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Bryophytes - Pottiaceae - Triquetrella californica
Plants - Lichens	Ramalina thrausta	angel's hair lichen	NLLEC3S340	None	None	-	2B.1	3912347	Fort Bragg	Mapped	Plants - Lichens - Ramalinaceae - Ramalina thrausta
Plants - Vascular	Angelica lucida	sea-watch	PDAPI070G0	None	None	-	4.2	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Apiaceae - Angelica lucida

Plants - Vascular	Glehnia littoralis ssp. leiocarpa	American glehnia	PDAPI13011	None	None	-	4.2	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Apiaceae - Glehnia littoralis ssp. leiocarpa
Plants - Vascular	Blennosperma nanum var. robustum	Point Reyes blennosperma	PDAST1A022	None	Rare	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Asteraceae - Blennosperma nanum var. robustum
Plants - Vascular	Hesperevax sparsiflora var. brevifolia	short-leaved evax	PDASTE5011	None	None	-	1B.2	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Asteraceae - Hesperevax sparsiflora var. brevifolia
Plants - Vascular	Lasthenia californica ssp. bakeri	Baker's goldfields	PDAST5L0C4	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Asteraceae - Lasthenia californica ssp. bakeri
Plants - Vascular	Lasthenia californica ssp. macrantha	perennial goldfields	PDAST5L0C5	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Asteraceae - Lasthenia californica ssp. macrantha

Plants - Vascular	Packera bolanderi var. bolanderi	seacoast ragwort	PDAST8H0H1	None	None	-	2B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Asteraceae - Packera bolanderi var. bolanderi
Plants - Vascular	Erysimum concinnum	bluff wallflower	PDBRA160E3	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Brassicaceae - Erysimum concinnum
Plants - Vascular	Erysimum menziesii	Menzies' wallflower	PDBRA160R0	Endangered	Endangered	-	1B.1	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Brassicaceae - Erysimum menziesii
Plants - Vascular	Campanula californica	swamp harebell	PDCAM02060	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Campanulaceae - Campanula californica
Plants - Vascular	Calystegia purpurata ssp. saxicola	coastal bluff morning-glory	PDCON040D2	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Convolvulaceae - Calystegia purpurata ssp. saxicola

Plants - Vascular	Cuscuta pacifica var. papillata	Mendocino dodder	PDCUS011A2	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Convolvulaceae - Cuscuta pacifica var. papillata
Plants - Vascular	Cornus canadensis	bunchberry	PDCOR01040	None	None	-	2B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Cornaceae - Cornus canadensis
Plants - Vascular	Hesperocyparis pygmaea	pygmy cypress	PGCUP04032	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Cupressaceae - Hesperocyparis pygmaea
Plants - Vascular	Carex californica	California sedge	PMCYP032D0	None	None	-	2B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Cyperaceae - Carex californica
Plants - Vascular	Carex saliniformis	deceiving sedge	PMCYP03BY0	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Cyperaceae - Carex saliniformis
Plants - Vascular	Rhynchospora alba	white beaked-rush	PMCYP0N010	None	None	-	2B.2	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Cyperaceae - Rhynchospora alba

Plants - Vascular	Arctostaphylos nummularia ssp. mendocinoensis	pygmy manzanita	PDERI04280	None	None	-	1B.2	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Ericaceae - Arctostaphylos nummularia ssp. mendocinoensis
Plants - Vascular	Hosackia gracilis	harlequin lotus	PDFAB2A0D0	None	None	-	4.2	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Fabaceae - Hosackia gracilis
Plants - Vascular	Phacelia insularis var. continentis	North Coast phacelia	PDHYD0C2B1	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Hydrophyllaceae - Phacelia insularis var. continentis
Plants - Vascular	Juncus supiniformis	hair-leaved rush	PMJUN012R0	None	None	-	2B.2	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Juncaceae - Juncus supiniformis
Plants - Vascular	Lilium maritimum	coast lily	PMLIL1A0C0	None	None	-	1B.1	3912347	Fort Bragg	Mapped	Plants - Vascular - Liliaceae - Lilium maritimum
Plants - Vascular	Sidalcea malachroides	maple-leaved checkerbloom	PDMAL110E0	None	None	-	4.2	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Malvaceae - Sidalcea malachroides

Plants - Vascular	Sidalcea malviflora ssp. purpurea	purple-stemmed checkerbloom	PDMAL110FL	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Malvaceae - Sidalcea malviflora ssp. purpurea
Plants - Vascular	Veratrum fimbriatum	fringed false-hellebore	PMLIL25030	None	None	-	4.3	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Melanthiaceae - Veratrum fimbriatum
Plants - Vascular	Abronia umbellata var. breviflora	pink sand-verbena	PDNYC010N4	None	None	-	1B.1	3912347	Fort Bragg	Mapped	Plants - Vascular - Nyctaginaceae - Abronia umbellata var. breviflora
Plants - Vascular	Clarkia amoena ssp. whitneyi	Whitney's farewell-to-spring	PDONA05025	None	None	-	1B.1	3912347	Fort Bragg	Mapped	Plants - Vascular - Onagraceae - Clarkia amoena ssp. whitneyi
Plants - Vascular	Castilleja ambigua var. ambigua	johnny-nip	PDSCR0D401	None	None	-	4.2	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja ambigua var. ambigua

Plants - Vascular	Castilleja litoralis	Oregon coast paintbrush	PDSCR0D012	None	None	-	2B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Orobanchaceae - Castilleja litoralis
Plants - Vascular	Castilleja mendocinensis	Mendocino Coast paintbrush	PDSCR0D3N0	None	None	-	1B.2	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Orobanchaceae - Castilleja mendocinensis
Plants - Vascular	Pinus contorta ssp. bolanderi	Bolander's beach pine	PGPIN04081	None	None	-	1B.2	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Pinaceae - Pinus contorta ssp. bolanderi
Plants - Vascular	Collinsia corymbosa	round-headed Chinese-houses	PDSCR0H060	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Plantaginaceae - Collinsia corymbosa
Plants - Vascular	Agrostis blasdalei	Blasdale's bent grass	PMPOA04060	None	None	-	1B.2	3912347	Fort Bragg	Mapped and Unprocessed	Plants - Vascular - Poaceae - Agrostis blasdalei
Plants - Vascular	Calamagrostis bolanderi	Bolander's reed grass	PMPOA17010	None	None	-	4.2	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Poaceae - Calamagrostis bolanderi

Plants - Vascular	Puccinellia pumila	dwarf alkali grass	PMPOA531L0	None	None	-	2B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Poaceae - Puccinellia pumila
Plants - Vascular	Gilia capitata ssp. pacifica	Pacific gilia	PDPLM040B6	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Polemoniaceae - Gilia capitata ssp. pacifica
Plants - Vascular	Gilia millefoliata	dark-eyed gilia	PDPLM04130	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Polemoniaceae - Gilia millefoliata
Plants - Vascular	Chorizanthe howellii	Howell's spineflower	PDPGN040C0	Endangered	Threatened	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Polygonaceae - Chorizanthe howellii
Plants - Vascular	Ceanothus gloriosus var. exaltatus	glory brush	PDRHA040F4	None	None	-	4.3	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus gloriosus var. exaltatus
Plants - Vascular	Ceanothus gloriosus var. gloriosus	Point Reyes ceanothus	PDRHA040F5	None	None	-	4.3	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Rhamnaceae - Ceanothus gloriosus var. gloriosus

Plants - Vascular	Horkelia marinensis	Point Reyes horkelia	PDROS0W0B0	None	None	-	1B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Rosaceae - Horkelia marinensis
Plants - Vascular	Sanguisorba officinalis	great burnet	PDROS1L060	None	None	-	2B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Rosaceae - Sanguisorba officinalis
Plants - Vascular	Mitellastra caulescens	leafy-stemmed mitrewort	PDSAX0N020	None	None	-	4.2	3912347	Fort Bragg	Unprocessed	Plants - Vascular - Saxifragaceae - Mitellastra caulescens
Plants - Vascular	Viola palustris	alpine marsh violet	PDVIO041G0	None	None	-	2B.2	3912347	Fort Bragg	Mapped	Plants - Vascular - Violaceae - Viola palustris

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Fort Bragg (3912347) OR Mendocino (3912337) OR Mathison Peak (3912336) OR Noyo Hill (3912346) OR Dutchmans Knoll (3912356) OR Inglenook (3912357))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alpine marsh violet *Viola palustris*	PDVIO041G0	None	None	G5	S1S2	2B.2
angel's hair lichen *Ramalina thrausta*	NLLEC3S340	None	None	G5?	S2S3	2B.1
ashy storm-petrel *Hydrobates homochroa*	ABNDC04030	None	None	G2	S2	SSC
Baker's goldfields *Lasthenia californica ssp. bakeri*	PDAST5L0C4	None	None	G3T1	S1	1B.2
Behren's silverspot butterfly *Speyeria zerene behrensii*	IILEPJ6088	Endangered	None	G5T1	S1	
Blasdale's bent grass *Agrostis blasdalei*	PMPOA04060	None	None	G2	S2	1B.2
bluff wallflower *Erysimum concinnum*	PDBRA160E3	None	None	G3	S2	1B.2
Bolander's beach pine *Pinus contorta ssp. bolanderi*	PGPIN04081	None	None	G5T2	S2	1B.2
bunchberry *Cornus canadensis*	PDCOR01040	None	None	G5	S2	2B.2
California sedge *Carex californica*	PMCYP032D0	None	None	G5	S2	2B.2
coast lily *Lilium maritimum*	PMLIL1A0C0	None	None	G2	S2	1B.1
coastal bluff morning-glory *Calystegia purpurata ssp. saxicola*	PDCON040D2	None	None	G4T2T3	S2S3	1B.2
coastal triquetrella *Triquetrella californica*	NBMUS7S010	None	None	G2	S2	1B.2
coho salmon - central California coast ESU *Oncorhynchus kisutch pop. 4*	AFCHA02034	Endangered	Endangered	G5T2T3Q	S2	
congested-headed hayfield tarplant *Hemizonia congesta ssp. congesta*	PDAST4R065	None	None	G5T2	S2	1B.2
dark-eyed gilia *Gilia millefoliata*	PDPLM04130	None	None	G2	S2	1B.2
deceiving sedge *Carex saliniformis*	PMCYP03BY0	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
dwarf alkali grass *Puccinellia pumila*	PMPOA531L0	None	None	G4?	SH	2B.2
foothill yellow-legged frog *Rana boylii*	AAABH01050	None	Endangered	G3	S3	SSC
globose dune beetle *Coelus globosus*	IICOL4A010	None	None	G1G2	S1S2	
great blue heron *Ardea herodias*	ABNGA04010	None	None	G5	S4	
great burnet *Sanguisorba officinalis*	PDROS1L060	None	None	G5?	S2	2B.2
green yellow sedge *Carex viridula ssp. viridula*	PMCYP03EM5	None	None	G5T5	S2	2B.3
hair-leaved rush *Juncus supiniformis*	PMJUN012R0	None	None	G5	S1	2B.2
hoary bat *Lasiurus cinereus*	AMACC05030	None	None	G3G4	S4	
Howell's spineflower *Chorizanthe howellii*	PDPGN040C0	Endangered	Threatened	G1	S1	1B.2
Humboldt Bay owl's-clover *Castilleja ambigua var. humboldtiensis*	PDSCR0D402	None	None	G4T2	S2	1B.2
Humboldt County milk-vetch *Astragalus agnicidus*	PDFAB0F080	None	Endangered	G2	S2	1B.1
lagoon sedge *Carex lenticularis var. limnophila*	PMCYP037A7	None	None	G5T5	S1	2B.2
leafy-stemmed mitrewort *Mitellastra caulescens*	PDSAX0N020	None	None	G5	S4	4.2
livid sedge *Carex livida*	PMCYP037L0	None	None	G5	SH	2A
lotis blue butterfly *Plebejus anna lotis*	IILEPG5013	Endangered	None	G5TH	SH	
Lyngbye's sedge *Carex lyngbyei*	PMCYP037Y0	None	None	G5	S3	2B.2
maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0	None	None	G3	S3	4.2
marbled murrelet *Brachyramphus marmoratus*	ABNNN06010	Threatened	Endangered	G3	S2	
marsh pea *Lathyrus palustris*	PDFAB250P0	None	None	G5	S2	2B.2
Mendocino Coast paintbrush *Castilleja mendocinensis*	PDSCR0D3N0	None	None	G2	S2	1B.2
Mendocino dodder *Cuscuta pacifica var. papillata*	PDCUS011A2	None	None	G5T1	S1	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Mendocino leptonetid spider *Calileptoneta wapiti*	ILARAU6040	None	None	G1	S1	
Menzies' wallflower *Erysimum menziesii*	PDBRA160R0	Endangered	Endangered	G1	S1	1B.1
Methuselah's beard lichen *Usnea longissima*	NLLEC5P420	None	None	G4	S4	4.2
Monterey clover *Trifolium trichocalyx*	PDFAB402J0	Endangered	Endangered	G1	S1	1B.1
North American porcupine *Erethizon dorsatum*	AMAFJ01010	None	None	G5	S3	
North Coast phacelia *Phacelia insularis var. continentis*	PDHYD0C2B1	None	None	G2T2	S2	1B.2
northern goshawk *Accipiter gentilis*	ABNKC12060	None	None	G5	S3	SSC
northern microseris *Microseris borealis*	PDAST6E030	None	None	G5	S1	2B.1
northern red-legged frog *Rana aurora*	AAABH01021	None	None	G4	S3	SSC
obscure bumble bee *Bombus caliginosus*	IIHYM24380	None	None	G4?	S1S2	
Oregon coast paintbrush *Castilleja litoralis*	PDSCR0D012	None	None	G3	S3	2B.2
Oregon goldthread *Coptis laciniata*	PDRAN0A020	None	None	G4?	S3?	4.2
osprey *Pandion haliaetus*	ABNKC01010	None	None	G5	S4	WL
Pacific gilia *Gilia capitata ssp. pacifica*	PDPLM040B6	None	None	G5T3	S2	1B.2
Pacific lamprey *Entosphenus tridentatus*	AFBAA02100	None	None	G4	S3	SSC
Pacific tailed frog *Ascaphus truei*	AAABA01010	None	None	G4	S3S4	SSC
perennial goldfields *Lasthenia californica ssp. macrantha*	PDAST5L0C5	None	None	G3T2	S2	1B.2
pink sand-verbena *Abronia umbellata var. breviflora*	PDNYC010N4	None	None	G4G5T2	S2	1B.1
Point Reyes blennosperma *Blennosperma nanum var. robustum*	PDAST1A022	None	Rare	G4T2	S2	1B.2
Point Reyes horkelia *Horkelia marinensis*	PDROS0W0B0	None	None	G2	S2	1B.2
purple martin *Progne subis*	ABPAU01010	None	None	G5	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
purple-stemmed checkerbloom *Sidalcea malviflora ssp. purpurea*	PDMAL110FL	None	None	G5T1	S1	1B.2
pygmy cypress *Hesperocyparis pygmaea*	PGCUP04032	None	None	G1	S1	1B.2
pygmy manzanita *Arctostaphylos nummularia ssp. mendocinoensis*	PDERI04280	None	None	G3?T1	S1	1B.2
red-bellied newt *Taricha rivularis*	AAAAF02020	None	None	G2	S2	SSC
round-headed Chinese-houses *Collinsia corymbosa*	PDSCR0H060	None	None	G1	S1	1B.2
running-pine *Lycopodium clavatum*	PPLYC01080	None	None	G5	S3	4.1
seacoast ragwort *Packera bolanderi var. bolanderi*	PDAST8H0H1	None	None	G4T4	S2S3	2B.2
short-leaved evax *Hesperevax sparsiflora var. brevifolia*	PDASTE5011	None	None	G4T3	S3	1B.2
Sonoma tree vole *Arborimus pomo*	AMAFF23030	None	None	G3	S3	SSC
southern torrent salamander *Rhyacotriton variegatus*	AAAAJ01020	None	None	G3G4	S2S3	SSC
steelhead - northern California DPS *Oncorhynchus mykiss irideus pop. 16*	AFCHA0209Q	Threatened	None	G5T2T3Q	S2S3	
supple daisy *Erigeron supplex*	PDAST3M3Z0	None	None	G2	S2	1B.2
swamp harebell *Campanula californica*	PDCAM02060	None	None	G3	S3	1B.2
Ten Mile shoulderband *Noyo intersessa*	IMGASC5070	None	None	G2	S2	
Thurber's reed grass *Calamagrostis crassiglumis*	PMPOA17070	None	None	G3Q	S2	2B.1
tidewater goby *Eucyclogobius newberryi*	AFCQN04010	Endangered	None	G3	S3	
Townsend's big-eared bat *Corynorhinus townsendii*	AMACC08010	None	None	G4	S2	SSC
tufted puffin *Fratercula cirrhata*	ABNNN12010	None	None	G5	S1S2	SSC
western bumble bee *Bombus occidentalis*	IIHYM24250	None	None	G2G3	S1	
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western snowy plover *Charadrius nivosus nivosus*	ABNNB03031	Threatened	None	G3T3	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
white beaked-rush	PMCYP0N010	None	None	G5	S2	2B.2
Rhynchospora alba						
white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
Piperia candida						
Whitney's farewell-to-spring	PDONA05025	None	None	G5T1	S1	1B.1
Clarkia amoena ssp. whitneyi						
Wolf's evening-primrose	PDONA0C1K0	None	None	G2	S1	1B.1
Oenothera wolfii						

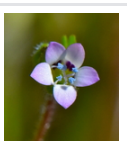
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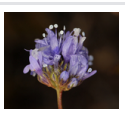
Search Results

51 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [**1A:1B:2A:2B**] , Quad is one of [**3912347:3912337:3912336:3912346:3912356:3912357**]

SCIENTIFIC NAME	▲ COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Viola palustris	alpine marsh violet	Violaceae	perennial rhizomatous herb	Mar-Aug	None	None	G5	S1S2	2B.2	 ©2021 Scot Loring
Ramalina thrausta	angel's hair lichen	Ramalinaceae	fruticose lichen (epiphytic)		None	None	G5?	S2S3	2B.1	 © 2013 Scot Loring
Lasthenia californica ssp. *bakeri*	Baker's goldfields	Asteraceae	perennial herb	Apr-Oct	None	None	G3T1	S1	1B.2	 ©2015 Asa Spade
Agrostis blasdalei	Blasdale's bent grass	Poaceae	perennial rhizomatous herb	May-Jul	None	None	G2	S2	1B.2	 © 2001 Doreen L. Smith
Erysimum concinnum	bluff wallflower	Brassicaceae	annual/perennial herb	Feb-Jul	None	None	G3	S2	1B.2	No Photo Available
Pinus contorta ssp. *bolanderi*	Bolander's beach pine	Pinaceae	perennial evergreen tree		None	None	G5T2	S2	1B.2	No Photo Available
Cornus canadensis	bunchberry	Cornaceae	perennial rhizomatous herb	May-Jul	None	None	G5	S2	2B.2	 © 2021 Scot Loring
Carex californica	California sedge	Cyperaceae	perennial rhizomatous herb	May-Aug	None	None	G5	S2	2B.2	No Photo Available
Lilium maritimum	coast lily	Liliaceae	perennial bulbiferous herb	May-Aug	None	None	G2	S2	1B.1	 © 2020 Aaron

										Schusteff
Calystegia purpurata ssp. *saxicola*	coastal bluff morning-glory	Convolvulaceae	perennial herb	(Mar)Apr-Sep	None	None	G4T2T3	S2S3	1B.2	No Photo Available
Triquetrella californica	coastal triquetrella	Pottiaceae	moss		None	None	G2	S2	1B.2	No Photo Available
Hemizonia congesta ssp. *congesta*	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	None	None	G5T2	S2	1B.2	 © 2015 Vernon Smith
Gilia millefoliata	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	 © 2017 John Doyen
Carex saliniformis	deceiving sedge	Cyperaceae	perennial rhizomatous herb	Jun(Jul)	None	None	G2	S2	1B.2	No Photo Available
Puccinellia pumila	dwarf alkali grass	Poaceae	perennial herb	Jul	None	None	G4?	SH	2B.2	No Photo Available
Sanguisorba officinalis	great burnet	Rosaceae	perennial rhizomatous herb	Jul-Oct	None	None	G5?	S2	2B.2	No Photo Available
Carex viridula ssp. *viridula*	green yellow sedge	Cyperaceae	perennial herb	(Jun)Jul-Sep(Nov)	None	None	G5T5	S2	2B.3	 © 2015 Dana York
Juncus supiniformis	hair-leaved rush	Juncaceae	perennial rhizomatous herb	Apr-May(Jun-Jul)	None	None	G5	S1	2B.2	 © 2013 Asa Spade
Chorizanthe howellii	Howell's spineflower	Polygonaceae	annual herb	May-Jul	FE	CT	G1	S1	1B.2	No Photo Available
Castilleja ambigua var. *humboldtiensis*	Humboldt Bay owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	Apr-Aug	None	None	G4T2	S2	1B.2	No Photo Available
Astragalus agnicidus	Humboldt County milk-vetch	Fabaceae	perennial herb	Apr-Sep	None	CE	G2	S2	1B.1	No Photo Available
Carex lenticularis var. *limnophila*	lagoon sedge	Cyperaceae	perennial herb	Jun-Aug	None	None	G5T5	S1	2B.2	No Photo Available
Carex livida	livid sedge	Cyperaceae	perennial rhizomatous herb	Jun	None	None	G5	SH	2A	No Photo

			rhizomatous herb							No Photo Available
Carex lyngbyei	Lyngbye's sedge	Cyperaceae	perennial rhizomatous herb	Apr-Aug	None	None	G5	S3	2B.2	No Photo Available
Lathyrus palustris	marsh pea	Fabaceae	perennial herb	Mar-Aug	None	None	G5	S2	2B.2	 © 2016 Keir Morse
Castilleja mendocinensis	Mendocino Coast paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Aug	None	None	G2	S2	1B.2	No Photo Available
Cuscuta pacifica var. *papillata*	Mendocino dodder	Convolvulaceae	annual vine (parasitic)	(Jun)Jul-Oct	None	None	G5T1	S1	1B.2	No Photo Available
Erysimum menziesii	Menzies' wallflower	Brassicaceae	perennial herb	Mar-Sep	FE	CE	G1	S1	1B.1	No Photo Available
Trifolium trichocalyx	Monterey clover	Fabaceae	annual herb	Apr-Jun	FE	CE	G1	S1	1B.1	No Photo Available
Phacelia insularis var. *continentis*	North Coast phacelia	Hydrophyllaceae	annual herb	Mar-May	None	None	G2T2	S2	1B.2	No Photo Available
Microseris borealis	northern microseris	Asteraceae	perennial herb	Jun-Sep	None	None	G5	S1	2B.1	No Photo Available
Castilleja litoralis	Oregon coast paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Jun	None	None	G3	S3	2B.2	No Photo Available
Gilia capitata ssp. *pacifica*	Pacific gilia	Polemoniaceae	annual herb	Apr-Aug	None	None	G5T3	S2	1B.2	 © 2016 Steve Matson
Lasthenia californica ssp. *macrantha*	perennial goldfields	Asteraceae	perennial herb	Jan-Nov	None	None	G3T2	S2	1B.2	 © 2013 John Doyen
Abronia umbellata var. *breviflora*	pink sand-verbena	Nyctaginaceae	perennial herb	Jun-Oct	None	None	G4G5T2	S2	1B.1	 ©2021 Scot Loring
Blennosperma nanum var. *robustum*	Point Reyes blennosperma	Asteraceae	annual herb	Feb-Apr	None	CR	G4T2	S2	1B.2	No Photo Available

Horkelia marinensis	Point Reyes horkelia	Rosaceae	perennial herb	May-Sep	None	None	G2	S2	1B.2	 © 2017 John Doyen
Sidalcea malviflora ssp. *purpurea*	purple-stemmed checkerbloom	Malvaceae	perennial rhizomatous herb	May-Jun	None	None	G5T1	S1	1B.2	No Photo Available
Hesperocyparis pygmaea	pygmy cypress	Cupressaceae	perennial evergreen tree		None	None	G1	S1	1B.2	 © 2009 Neal Kramer
Arctostaphylos nummularia ssp. *mendocinoensis*	pygmy manzanita	Ericaceae	perennial evergreen shrub	Jan	None	None	G3?T1	S1	1B.2	No Photo Available
Rhynchospora globularis	round-headed beaked-rush	Cyperaceae	perennial rhizomatous herb	Jul-Aug	None	None	G4	S1	2B.1	No Photo Available
Collinsia corymbosa	round-headed Chinese-houses	Plantaginaceae	annual herb	Apr-Jun	None	None	G1	S1	1B.2	No Photo Available
Packera bolanderi var. *bolanderi*	seacoast ragwort	Asteraceae	perennial rhizomatous herb	(Jan-Apr)May-Jul(Aug)	None	None	G4T4	S2S3	2B.2	 © 2021 Scot Loring
Hesperevax sparsiflora var. *brevifolia*	short-leaved evax	Asteraceae	annual herb	Mar-Jun	None	None	G4T3	S3	1B.2	 © 2006 Doreen L. Smith
Erigeron supplex	supple daisy	Asteraceae	perennial herb	May-Jul	None	None	G2	S2	1B.2	No Photo Available
Campanula californica	swamp harebell	Campanulaceae	perennial rhizomatous herb	Jun-Oct	None	None	G3	S3	1B.2	No Photo Available
Calamagrostis crassiglumis	Thurber's reed grass	Poaceae	perennial rhizomatous herb	May-Aug	None	None	G3Q	S2	2B.1	No Photo Available
Rhynchospora alba	white beaked-rush	Cyperaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S2	2B.2	 © 2021 Scot Loring
Piperia candida	white-flowered rein orchid	Orchidaceae	perennial herb	(Mar)May-Sep	None	None	G3	S3	1B.2	

										©2016 Barry Rice
Clarkia amoena ssp. *whitneyi*	Whitney's farewell-to-spring	Onagraceae	annual herb	Jun-Aug	None	None	G5T1	S1	1B.1	No Photo Available
Oenothera wolfii	Wolf's evening-primrose	Onagraceae	perennial herb	May-Oct	None	None	G2	S1	1B.1	No Photo Available

Showing 1 to 51 of 51 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0). Website https://www.rareplants.cnps.org [accessed 3 February 2022].

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To:
Project Code: 2022-0003212
Project Name: Fort Bragg Grocery Outlet

February 03, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

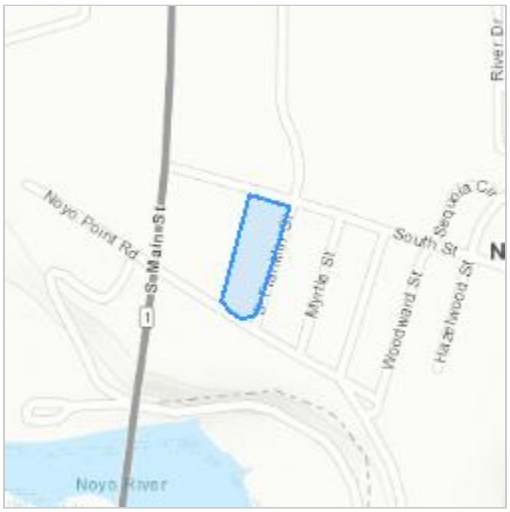
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
(707) 822-7201

Project Summary

Project Code: 2022-0003212
Event Code: None
Project Name: Fort Bragg Grocery Outlet
Project Type: New Construction
Project Description: The Project site is located at 825, 845, and 851 S. Franklin Street in the City of Fort Bragg, Mendocino County, California. The 1.63-acre site is located on the north side of N. Harbor Drive, the west side of S. Franklin Street, and the south side of South Street. The proposed Project includes demolition of the existing 16,436-sf vacant former office building and parking area and subsequent development and operation of a 16,157-sf Grocery Outlet (retail grocery store) with associated improvements on the Project site. Associated improvements include a parking lot, loading dock and trash enclosure, circulation and access improvements, and utility infrastructure.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.4297895,-123.80505587732367,14z



Counties: Mendocino County, California

Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Pacific Marten, Coastal Distinct Population Segment *Martes caurina* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/9081	Threatened

Birds

NAME	STATUS
Marbled Murrelet *Brachyramphus marmoratus* Population: U.S.A. (CA, OR, WA) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle *Chelonia mydas* Population: East Pacific DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Leatherback Sea Turtle *Dermochelys coriacea* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Tidewater Goby *Eucyclogobius newberryi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
Behren's Silverspot Butterfly *Speyeria zerene behrensii*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/900	
Lotis Blue Butterfly *Lycaeides argyrognomon lotis*	Endangered
There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5174	

Flowering Plants

NAME	STATUS
Burke's Goldfields *Lasthenia burkei*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4338	
Contra Costa Goldfields *Lasthenia conjugens*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7058	
Menzies' Wallflower *Erysimum menziesii*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2935	
Showy Indian Clover *Trifolium amoenum*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6459	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird *Selasphorus sasin* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Black Oystercatcher *Haematopus bachmani* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9591	Breeds Apr 15 to Oct 31
Black Turnstone *Arenaria melanocephala* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere

NAME	BREEDING SEASON
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Rufous Hummingbird *selasphorus rufus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds Jun 1 to Aug 10
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit *Chamaea fasciata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see

below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

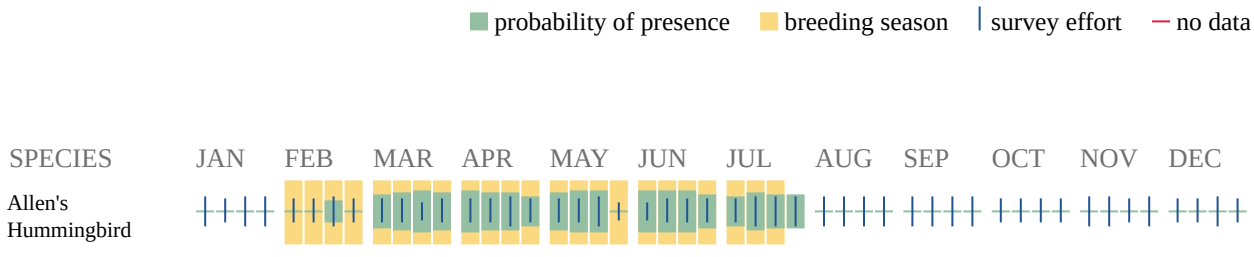
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your

project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no

data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

APPENDIX D

Wetland Report

Fort Bragg Wetland Report

Prepared for:

Best Development Group, Sacramento, California

Prepared by:

WILDLAND RESOURCE MANAGERS

P.O. Box 102 • Round Mountain, CA 96084

March 2021

Introduction

In 2019 the Best Development Group (BDG) contracted with Wildland Resource Managers (WRM) to conduct a Biological Review for a parcel of land within the town of Fort Bragg, California. This BR (WRM 2019) was prepared to meet the Mendocino County's planning requirements pursuant to the California Environmental Quality Act (CEQA). The BR noted that the Natural Resource Conservation Service (NRCS) web soil survey identified one soil type on the parcel classified as "Urban." According to NRCS, this soil is described as found on marine terraces consisting of fluviomarine deposits derived from sedimentary rock with a hydric soil rating: "yes". A "yes" indicates the soil is hydric and capable of supporting hydrophytic vegetation. In response to this finding, BDG received notification that "the applicant shall additionally submit a delineation of all wetland areas on the project site" (email to T. Johnson from LACO and Associates). This wetland report addresses that requirement for a wetland delineation of the parcel.

The parcel property consists of three lots located on the west side of South Franklin Street in the south-central part of Fort Bragg. The legal location includes portions of the Northwest ¼ of Section 18, Township 18 North, Range 17 West (Figure 1). The northern most parcel is a paved parking lot with the center parcel covered with a large building. The southern parcel is vacant and therefore the subject area of this report.

Figure 1



Methods

The parcel was visited on the afternoon of March 15, 2021 by WRM's principal biologist for the purpose of determining if wetlands, of any type, are present at the site. On that date, the weather was clear with a strong north wind blowing. Initial inspection of the parcel noted that there was no evidence of any wetland features but rather the site's vegetation consisted of annual grasses and forbs, lacking shrubs and or trees (see photo sections). To be certain that no wetland indicators were present, a systematic survey of the parcel was made following the Army Corp of Engineers (USACE) wetland determination data collection methodology and the definition of wetland boundaries contained in Section 13577 (b) of the California Code of Regulations (see Appendix). To do this, four test locations were selected to represent the general character of the parcel. As depicted on Figure 2 on the following page, one test location was placed within each quadrant of the parcel (northeast, northwest, southwest and southeast). At each location data was collected within a 1-meter square sample plot. At each plot the dominant vegetation was identified, soil structure and type were determined and evidence of hydrology was looked for. Soil structure was determined by excavating an 18+ inch deep hole and noting the soil profile description and any presence or absence of hydric soil indicators. Data was recorded on the USACE "Wetland Determination Data Form – Arid West Region." Data forms for each test location may be found in the appendix.

Results

No indicators of any type of wetland, stream course, vernal pools or vernal swales were found on the site. There were a limited number of wetland plants found but their frequency of presence was insufficient to constitute a wetland site. There was no evidence of hydric soil nor any wetland hydrology found. No part of this parcel may be considered a wetland area. Table 1 summarizes the data collected at each test plot location.

Table 1

Test plot #	Dominant vegetation	Soils	Hydrology
1	60% hydrophytic	Non-hydric dark sandy loam	none
2	47% upland 48% Fac upland	Non-hydric sandy loam	none
3	85% upland	Non-hydric sand with cobbles	none
4	81% upland	Non-hydric sand with cobbles	none


Pt. 2
Pt. 1
Pt. 3
Pt. 4
N Harbor Dr
S Franklin St
Myrtle St
© 2021 Google
Imagery Date: 7/2/2018

Additional information

On the northern two parcels there are additional shrubs and trees that were planted at some time as part of a landscaping effort. Table 2 lists these species, none of which are wetland species and none were found on the southern parcel.

Table 2

Plant species identified on the northern two parcels

Common name	*Scientific name*
Monterey Cypress	Cupressus macrocarpa
Macartney rose	Rosa bracteate
Butterfly bush	Buddleja davidii
Mugo pine	Pinus mugo
Japanese quince	Chaenomeles japonica
Shaggy dwarf morning glory	Evolvulus nuttallianus
Common boxwood	Buxus sempervirens
Common myrtle	Myrtus communis
Pacific rhododendron	Rhododendron macrophyllum
Chinese silver grass	Miscanthus sinensis

For further information regarding this report, please contact:

Steven J. Kerns, Principal and Certified Wildlife Biologist

Wildland Resource Managers
P.O. Box 102
Round Mountain, California 96084
Phone 530 472-3437
Email: skerns7118@aol.com

Appendix

1. References cited

Army Corp of Engineers reference and guidance letter used to conduct this study:

. The 1987 Corps of Engineers Wetlands Delineation Manual
. The Army Corp of Engineers field guide to the identification of the ordinary high-water mark in the arid west region of the western United States (2008),
. Regulatory Guidance Letter (RGL) 05-05, Ordinary High-Water Mark Identification (12/2005)
. The Army Corp of Engineers Jurisdictional Determination Form instructional guidebook
. The Army Corp of Engineers minimum standards for acceptance of aquatic resources delineation reports
. The Army Corps of Engineers, State of California 2016 wetland plant list
. The Army Corp of Engineers final map and drawing standards for the South Pacific Division regulatory program.

Turner, Byron E. LACO Associates 2021. Email to Terry Johnson, subject: Fort Bragg City Code, Wetland Delineation Report for Wetland ESHA.

Wildland Resource Managers. 2019. Grocery Outlet Fort Bragg, California Property Biological Review. Unpub. report for Best Development Group, Sacramento, California.

2. Photo page and data sheets for each test location follow this page:

Photo section



Photo 1 looks north across the southern parcel with South Franklin Street on the right. The building in the center is on the middle parcel. Annual grasses and forbs dominate the south parcel as seen in the photo, no wetlands are evident.



Photo 2 is taken at Sample Plot 4 looking north west across the southern parcel. The fence in the distance is the western edge of the parcel. No wetlands are evident.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ft. Bragg City/County: Ft. Bragg Sampling Date: 3/15/2021

Applicant/Owner: T. Johnson State: CA Sampling Point: 1

Investigator(s): S. Kerns Section, Township, Range: NW¼ Sec 18 T18N, R17W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): _____

Subregion (LRR): Cv Lat: 39.429614 Long: -123.804985 Datum: _____

Soil Map Unit Name: Urban NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes V No _____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	0		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	0		
Herb Stratum			
1. Plantago lanceolata	5	yes	FAC
2. Trifolium subterraneum	40	Yes	UP
3. Eschscholzia californica	5	yes	UP
4. Rumex acetosella	5	Yes	Obl
5. Danthonia californica	40	Yes	FAC
6. Scorzonerioides autumnalis	1	No	FACU
7. Oxalis pes-caprae	1	No	UP
8. Anthoxanthum odoratum	1	No	FACU
Total Cover:	98		
Woody Vine Stratum			
1.			
2.			
Total Cover:	0		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 5	x 1 = 5
FACW species 0	x 2 = 0
FAC species 45	x 3 = 135
FACU species 2	x 4 = 8
UPL species 45	x 5 = 225
Column Totals: 97 (A)	373 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

- ✓ Dominance Test is >50%
- N Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks: Hydrophytic plants are present but not sufficient To qualify as a wetland dominants

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-18"	10R3-1	100	—				Sand/loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ft. Bragg City/County: Ft. Bragg Sampling Date: 3/15/2021
Applicant/Owner: T. Johnson / Best Development Group State: CA Sampling Point: 2
Investigator(s): S. Kerns Section, Township, Range: NW 1/4 Sec 18 T18N R17W
Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 0
Subregion (LRR): Cr Lat: 39.429677 Long: -123.805275 Datum:
Soil Map Unit Name: Urban NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Raphanus raphanistrum	12	No	UP
2. Bromus diandrus	40	Yes	UPL
3. Daucus carota	3	No	FACU
4. Rumex acetosella	15	Yes	FACU
5. Medicago polymorpha	20	Yes	FACU
6. Anthoxanthum odoratum	10	Yes	FACU
7. Oxalis pes-caprae	5	Yes	UP
8.			
Total Cover: 95			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	48	x 4 =	192
UPL species	47	x 5 =	253
Column Totals:	95 (A)		427 (B)

Prevalence Index = B/A = 4.49

Hydrophytic Vegetation Indicators:
N Dominance Test is >50%
N Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
1/8	10YR3-1	100					Sand/Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ft. Bragg City/County: Ft. Bragg Sampling Date: 3/15/2021

Applicant/Owner: T. Johnson State: CA Sampling Point: 3

Investigator(s): S. Horne Section, Township, Range: NW 1/4 Sec 18 T 18N R 17W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): Cr Lat: 39.429339 Long: -123.805447 Datum: .

Soil Map Unit Name: Urban NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	0		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	0		
Herb Stratum			
1. Plantago lanceolata	10	Yes	FAC
2. Elymus glaucus	45	Yes	up
3. Arctotheca calendula	20	Yes	up
4. Trifolium subterraneum	20	Yes	up
5. Anthoxanthum odoratum	5	No	FACU
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:	0		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	85	x 5 =	425
Column Totals:	100 (A)		475 (B)

Prevalence Index = B/A = 4.75

Hydrophytic Vegetation Indicators:

N Dominance Test is >50%

N Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR3/1	100					Sandy	
6-15							Sandy @ small stone	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Ft. Bragg City/County: Ft. Bragg Sampling Date: 3/15/2021

Applicant/Owner: J. Johnson / Best Development Groups State: CA Sampling Point: 4

Investigator(s): S. Kerns Section, Township, Range: NW 1/4 Sec 18N R17W

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): CR Lat: 39.429177 Long: -123.805113 Datum:

Soil Map Unit Name: Urban NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	0		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	0		
Herb Stratum			
1. Holcus lanatus	50	yes	up
2. Panicum virgatum	30	yes	up
3. Leontodon saxatilis	10	yes	FACU
4. Vinca major	1	No	up
5.			
6.			
7.			
8.			
Total Cover:	91		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 10	x 4 = 40
UPL species 81	x 5 = 405
Column Totals: 91 (A)	445 (B)

Prevalence Index = B/A = 4.89

Hydrophytic Vegetation Indicators:

N Dominance Test is >50%

N Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR3-1	100					Sand	
6-15	10YR3-1	100					Sand	@ small cobbles

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX E

Environmental Noise Assessment

Environmental Noise Assessment

Fort Bragg Grocery Outlet

City of Fort Bragg, California

August 25, 2022

Project #220102

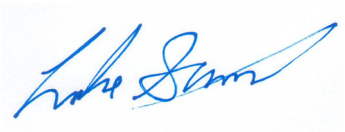
Prepared for:

DE NOVO PLANNING GROUP

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Prepared by:

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This section provides a general description of the existing noise sources in the Project vicinity, a discussion of the regulatory setting, and identifies potential noise impacts associated with the proposed Project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for significant noise-related impacts.

There were no Notice of Preparation comments received regarding this topic. As discussed in the Initial Study (see Appendix A), the proposed Project is not located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The closest airport is the Fort Bragg Airport, which is privately owned and located approximately three miles north of the Project site. An airport land use plan for this airport has not been adopted. As such, there is ***no impact*** related to this topic. As such, this California Environmental Quality Act (CEQA) topic is not relevant to the proposed Project and will not be addressed further.

3.6.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
$L_{(n)}$	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L_{50} is the sound level exceeded 50 percent of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
SEL	Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn}, but includes

a +5 dB penalty for evening noise. Table 3.6-1 lists several examples of the noise levels associated with common situations.

TABLE 3.6-1: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	*NOISE LEVEL (DBA)*	*COMMON INDOOR ACTIVITIES*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1 dBA change cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;

- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Existing and Surrounding Land Uses

The Project site is located within the City of Fort Bragg, California. The Project site is within the Fort Bragg Coastal Region. The site contains an existing but unused commercial structure. The Project site is located at the southwest corner of the intersection of South Street and South Franklin Street.

The Project site is located immediately adjacent to commercial developments to the north, south, and west, and approximately 500 feet north of the Noyo River. Current businesses adjacent to the western site boundary include Super 8, Mountain Mike's Pizza, and Chevron. The Seabird Lodge is across South Street to the north of the Project site, and the Harbor Lite Lodge is located across North Harbor Drive to the south of the Project site. To the east of the site across S. Franklin Street are five single-family residences, one multi-family residential building, and two vacant lots.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the Project vicinity, one continuous (24-hour) noise level measurement was conducted near receptors adjacent to the Project site from January 10th to January 11th, 2022. A short-term noise level measurement was conducted at one location to the southeast of the project on January 10th, 2022. The noise measurement locations are shown on Figure 3.6-1. The noise level measurement survey results are provided in Table 3.6-2. Appendix B of Appendix E shows the complete results of the continuous noise monitoring at sites LT-1 and ST-1.

TABLE 3.6-2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

			AVERAGE MEASURED HOURLY NOISE LEVELS, DB					
			DAYTIME (7AM-10PM)			*NIGHTTIME (10PM-7AM)*		
SITE	*LOCATION*	L_{DN}	L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
CONTINUOUS (24-HOUR) NOISE LEVEL MEASUREMENTS								
LT-1	Eastern Project Boundary	60	58	53	80	52	46	72
SHORT-TERM NOISE LEVEL MEASUREMENTS								
ST-1	East of Project Boundary	N/A	56	52	70	N/A	N/A	N/A

SOURCE: SAXELBY ACOUSTICS, 2022.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

Larson Davis Laboratories (LDL) Model 820 and 831 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

To predict existing and cumulative noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the proposed Project (KD Anderson & Associates, 2019). Truck percentages and vehicle speeds on the local area roadways were estimated from field observations.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Where traffic noise barriers are predominately along a roadway segment, a -5 offset was added to the noise prediction model to account for various noise barrier heights. A -5 to dB offset was also applied where outdoor activity areas are shielded by intervening buildings. In some locations, sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the Project-area roadway segments analyzed in this report.

Table 3.11-3 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of Appendix E.

TABLE 3.11-3: EXISTING TRAFFIC NOISE LEVELS

ROADWAY	*SEGMENT*	*EXTERIOR TRAFFIC NOISE LEVEL, DB L_{DN}*
Cypress St.	East of Main St.	59.7
Cypress St.	East of Franklin St.	59.3
Main St.	South of Cypress St.	66.6
Main St.	South of South St.	64.2
Main St.	South of North Harbor Dr.	67.5
Franklin St.	South of Cypress St.	61.3
Franklin St.	South of South St.	56.3
Franklin St.	North of North Harbor Dr.	57.2
South St.	East of Main St.	56.9
South St.	East of Franklin St.	59.8
N Harbor Dr.	East of Franklin St.	61.0

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KD ANDERSON & ASSOCIATES AND SAXELBY ACOUSTICS. 2022.

3.6.2 REGULATORY SETTING

FEDERAL

There are no federal regulations related to noise that apply to the proposed Project.

STATE

California Environmental Quality Act

CEQA Guidelines, Appendix G, includes questions that indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or causes a substantial permanent or temporary increase in ambient noise levels. CEQA case law also addresses noise impacts. (See, e.g., *King & Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814, 883-894.) CEQA standards are discussed more below under the Thresholds of Significance section.

LOCAL

The Project site is located within the Coastal Region of the City of Fort Bragg. The City addresses noise in the Noise Element of the Fort Bragg Coastal General Plan and in the Municipal Code.

Fort Bragg Coastal General Plan

The Noise Element of the Fort Bragg Coastal General Plan establishes standards to provide compatible noise environments for new development or redevelopment projects and to control excessive noise exposure of existing developments. Goals, policies, actions, and standards provided in the Noise Element provide the basis for decision-making on determining land use compatibility with noise sources associated with the proposed Project, as well as mitigation requirements.

Table N-4 of the Noise Element shows a summary of different land uses in the City and their associated acceptable and unacceptable noise levels. These guidelines state that environments with noise levels ranging up to 60 dBA L_{dn} are considered “normally acceptable” for new residential land

use development; environments with ambient noise levels greater than 60 dBA and up to 75 dBA L_{dn} are considered "conditionally acceptable" for new residential development and new construction should only be undertaken after a detailed analysis of noise reduction requirements are made and needed noise insulation features are included in the design.

Policy N-1.4 of the City of Fort Bragg Coastal Region General Plan establishes a standard of 45 Ldn for indoor noise levels for all new residential development including hotels and motels and a standard of 60 Ldn for outdoor noise at residences. These limits shall be reduced by 5 dB for senior housing and residential care facilities.

For non-transportation noise sources, the General Plan establishes the standards for sensitive uses. See Table 3.6-4 for the non-transportation noise standards.

TABLE 3.6-4: CITY OF FORT BRAGG GENERAL PLAN NON-TRANSPORTATION NOISE STANDARDS

NOISE LEVEL DESCRIPTOR	*OUTDOOR ACTIVITY AREA DAYTIME (7 A.M. TO 10 P.M.)*	*OUTDOOR ACTIVITY AREAS NIGHTTIME (10 P.M. TO 7 A.M.)*
Hourly equivalent sound level (L_{eq}), dB	55	45
Maximum sound level (L_{max}), dB	75	65

NOTE: THESE NOISE LEVELS APPLY TO THE RESIDENTIAL PROPERTY LINE NEAREST THE PROJECT. EACH OF THE NOISE LEVELS SHALL BE LOWERED BY FIVE DB FOR SIMPLE TONE NOISES, NOISES CONSISTING PRIMARY OF SPEECH OR MUSIC, OR FOR RECURRING IMPULSIVE NOISES. THESE NOISE LEVEL STANDARDS DO NOT APPLY TO RESIDENTIAL UNITS ESTABLISHED IN CONJUNCTION WITH INDUSTRIAL OR COMMERCIAL USES (E.G., CARETAKER DWELLINGS). CITY OF FORT BRAGG COASTAL REGION GENERAL PLAN NOISE ELEMENT TABLE N-5.

City of Fort Bragg Municipal Code

Section 9.44.020 of the City of Fort Bragg Municipal Code limits the hours construction-generated noise may occur. Between the hours of 10:00 p.m. and 7:00 a.m., it is unlawful for any person within a residential zone, or within a radius of 500 feet therefrom, to generate noise. This includes the operation of equipment or performance of any outside construction or repair work on buildings, structures, or projects or operation of construction-type devices.

3.6.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines and CEQA case law, the Project will have a significant impact related to noise if it will result in:

- Generation of a temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of ambient conditions; and/or
- Generation of excessive groundborne vibration or groundborne noise levels.

Determination of a Significant Increase in Noise Levels

TEMPORARY CONSTRUCTION NOISE IMPACTS

With temporary noise impacts (construction), identification of "substantial increases" depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. Per the City of Fort Bragg Municipal Code, construction activities operating between 10 p.m. and 7 a.m. which create a noise disturbance at the property boundary of a residence are prohibited and would be considered a significant impact.

For short-term noise associated with Project construction, Saxelby Acoustics recommends use of the Caltrans increase criteria of 12 dBA (Caltrans Traffic Noise Protocol, 2020).

OPERATIONAL IMPACTS

The noise standards applicable to the proposed Project include the relevant portions of the City of Fort Bragg General Plan and Municipal Code described in the Regulatory Setting section above (Section 3.6.2), and the following standards. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. The City of Fort Bragg General Plan Noise Element provides specific standards to be used in the determination of a significant impact. These criteria are reproduced below:

> Program N-1.2.2: Consider requiring an acoustical study and mitigation measures for projects that would cause a "substantial increase" in noise as defined by the following criteria or would generate unusual noise which could cause significant adverse community response:
>
> a) cause the L_{dn} in existing residential areas to increase by 3 dB or more;
>
> b) cause the L_{dn} in existing residential areas to increase by 2 dB or more if the L_{dn} would exceed 70 dB; or
>
> c) cause the L_{dn} resulting exclusively from project-generated traffic to exceed an L_{dn} of 60 dB at any existing residence.

VIBRATION STANDARDS

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards

pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City of Fort Bragg does not have specific policies pertaining to vibration levels. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.6-5 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 3.6-5: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

P.P.V.		HUMAN REACTION	EFFECT ON BUILDINGS
MM/SEC.	IN./SEC.		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: The proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)

TRAFFIC NOISE ENVIRONMENT AT OFF-SITE RECEPTORS WITH AND WITHOUT THE PROJECT

Implementation of the proposed Project would result in an increase in daily traffic volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables 3.6-8 and 3.6-9 show the predicted traffic noise level increases on the local roadway network for Existing, Existing Plus Project, Cumulative No Project, and Cumulative Plus

Project conditions. Appendix C of Appendix E provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE 3.6-8: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS					
			EXIST.	PROJECT ONLY	EXIST. + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Cypress St.	East of Main St.	40	59.7	44.7	59.8	0.1	+ 3 dB	No
Cypress St.	East of Franklin St.	35	59.3	37.8	59.3	0.0	+ 3 dB	No
Main St.	South of Cypress St.	85	66.6	49.8	66.7	0.1	+ 3 dB	No
Main St.	South of South St.	125	64.2	44.5	64.2	0.0	+ 3 dB	No
Main St.	South of North Harbor Dr.	75	67.5	50.8	67.6	0.1	+ 3 dB	No
Franklin St.	South of Cypress St.	30	61.3	49.6	61.6	0.3	+ 3 dB	No
Franklin St.	South of South St.	35	56.3	54.8	58.6	2.3	+ 3 dB	No
Franklin St.	North of North Harbor Dr.	35	57.2	41.8	57.4	0.2	+ 3 dB	No
South St.	East of Main St.	40	56.9	52.4	58.3	1.4	+ 3 dB	No
South St.	East of Franklin St.	30	59.8	38.8	59.8	0.0	+ 3 dB	No
N Harbor Dr.	East of Franklin St.	30	61.0	0.0	61.0	0.0	+ 3 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KD ANDERSON & ASSOCIATES AND SAXELBY ACOUSTICS, 2022.

TABLE 3.6-9: CUMULATIVE AND CUMULATIVE PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS					
			CUMU.	PROJECT ONLY	CUMU. + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
Cypress St.	East of Main St.	40	60.4	44.7	60.5	0.1	+ 3 dB	No
Cypress St.	East of Franklin St.	35	60.1	37.8	60.1	0.0	+ 3 dB	No
Main St.	South of Cypress St.	85	67.3	49.8	67.3	0.0	+ 3 dB	No
Main St.	South of South St.	125	64.8	44.5	64.9	0.1	+ 3 dB	No
Main St.	South of North Harbor Dr.	75	68.1	50.8	68.2	0.1	+ 3 dB	No
Franklin St.	South of Cypress St.	30	62.0	49.6	62.3	0.3	+ 3 dB	No
Franklin St.	South of South St.	35	57.2	54.8	59.1	1.9	+ 3 dB	No
Franklin St.	North of North Harbor Dr.	35	57.9	41.8	58.0	0.1	+ 3 dB	No
South St.	East of Main St.	40	57.8	52.4	58.9	1.1	+ 3 dB	No
South St.	East of Franklin St.	30	60.8	38.8	60.8	0.0	+ 3 dB	No
N Harbor Dr.	East of Franklin St.	30	61.7	0.0	61.7	0.0	+ 3 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KD ANDERSON & ASSOCIATES AND SAXELBY ACOUSTICS, 2022.

PROJECT-GENERATED NON-TRANSPORTATION NOISE ENVIRONMENT AT OFF-SITE RECEPTORS

The primary non-transportation noise sources associated with the proposed Project are the proposed loading docks, on-site parking lot circulation, and HVAC equipment. In order to evaluate these noise sources at the nearest sensitive receptors, Saxelby Acoustics used the SoundPLAN noise prediction model to generate noise level predictions according to the assumptions outlined below.

The SoundPLAN noise prediction model was used to plot noise contours and to calculate noise levels at the sensitive receptors located around the Project site. Inputs to the SoundPLAN model included ground topography and ground type, noise source locations and heights, receiver locations, and sound power level data. These predictions are made in accordance with International Organization

for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors).

It should be noted that sound power is a measure of the total acoustic energy emitted by a noise source and is irrespective of distance from the source. Sound power is input into the SoundPLAN model as a representation of the total acoustic energy emitted by a specific noise source. Sound power levels in this report are A-weighted decibel levels, noted as "dBA, PWL" per industry standards. The model then corrects for the many factors (i.e., distance, terrain shielding, atmospheric absorption, etc.) which affect sound propagation from the noise source to the receiver location.

Loading Dock Noise Generation: To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a Wal-Mart loading dock was utilized. This data is conservative considering that the Walmart loading dock supports a much larger store than the proposed Grocery Outlet. As such, the noise analysis completed for the loading dock noise is considered a worst-case scenario.

The noise level measurements were conducted at a distance of 100 feet from the center of the two-bay loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the worst-case loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA Leq at a distance of 100 feet from the center of the loading dock truck maneuvering lanes. This analysis assumes that the proposed loading docks would operate at this level of activity in a busy hour during either daytime (7:00 a.m. to 10:00 p.m.) or nighttime (10:00 p.m. to 7:00 a.m.).

Parking Lot Circulation: Based upon the Traffic Impact Analysis prepared for the Project, the peak hour trips for the proposed Project would be 165 vehicles. It was assumed that in the peak hour, two of these vehicles could be truck deliveries. Based upon noise measurements conducted of vehicle movements in parking lots, the SEL for a single passenger vehicle is 71 dBA at a distance of 50 feet while the SEL of a tractor-trailer is 85 dBA at the same distance. It was assumed that truck deliveries could occur during nighttime (10:00 p.m. to 7:00 a.m.) hours. It was also assumed that the store would not be open to the public during nighttime hours.

Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors. Input data included the loading dock and parking lot noise generation, as discussed above. Figures 3.6-2 and 3.6-3 show the results of this analysis for the site layout in terms of the daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) peak hour average (L_{eq}). Daytime (7:00 a.m. to 10:00 p.m.) noise levels are expected to be similar to the nighttime scenario. Figures 3.6-4 and 3.6-5 show the results of this analysis in terms of the peak hour maximum noise levels (L_{max}) for daytime and nighttime hours.

HVAC Equipment: Saxelby Acoustics assumed that the proposed Project could utilize a packaged HVAC unit rated up to 50 tons. Saxelby Acoustics utilized manufacturer's data for a Lennox 50-ton LGH packaged rooftop unit to predict mechanical noise levels. The unit is reported to have a sound power level of 91 dBA. It was also assumed that up to five 4.0-ton multi-split condensing units could be utilized on the project rooftop. These units would have a sound power level of approximately 64 dBA. It was assumed that the HVAC units could operate continuously during daytime (7:00 a.m. to 10:00 p.m.) hours at full capacity and 50 percent of the time during nighttime (10:00 p.m. to 7:00 a.m.) hours.

CONSTRUCTION NOISE ENVIRONMENT

The Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM) was used to predict noise levels for standard construction equipment used for roadway improvement projects. The assessment of potential significant noise effects due to construction is based on the standards and procedures described in the Federal Transit Authority (FTA) guidance manual and FHWA's RCNM.

The RCNM is a Windows-based noise prediction model that enables the prediction of construction noise levels for a variety of construction equipment based on a compilation of empirical data and the application of acoustical propagation formulas. It enables the calculation of construction noise levels in more detail than the manual methods, which eliminates the need to collect extensive amounts of project-specific input data. RCNM allows for the modeling of multiple pieces of construction equipment working either independently or simultaneously, the character of noise emission, and the usage factors for each piece of equipment.

Construction noise varies depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week), and the duration of the construction work.

Noise sources in the RCNM database include actual noise levels and equipment usage percentages. This source data was used in this construction noise analysis. Table 3.6-10 shows predicted construction noise levels for each of the project construction phases.

TABLE 3.6-10: CONSTRUCTION EQUIPMENT NOISE LEVELS FOR PRIMARY CONSTRUCTION PHASES

EQUIPMENT	*QUANTITY*	*USAGE (%)*	*MAXIMUM, LMAX (DBA AT 50 FEET)*	*HOURLY AVERAGE, LEQ (DBA AT 50 FEET)*
DEMOLITION – BUILDING DEMOLITION				
Excavator	1	40	81	77
Dump Truck	3	40	76	77
			Total:	**80**
DEMOLITION – FOUNDATION				
Concrete Saw	1	40	85	81
Dump Truck	3	40	82	78
Excavator	1	40	84	80
			Total:	**85**
SITE PREPARATION				
Grader	1	40	85	81

Dozer	1	40	82	78
Tractor/Loader/Backhoe	1	40	84	80
			Total:	**85**
GRADING				
Grader	1	40	85	81
Dozer	1	40	82	78
Tractor/Loader/Backhoe	2	40	84	83
			Total:	**86**
BUILDING CONSTRUCTION				
Crane	1	16	81	73
Fork Lift	1	40	83	79
Generator	1	50	81	78
Tractor/Loader/Backhoe	1	40	84	80
Welder / Torch	3	40	74	75
			Total:	**85**
PAVING				
Concrete Mixer Truck	1	40	79	75
Paver	1	50	77	74
Paving Equipment	1	50	77	74
Roller	1	20	80	73
Tractor/Loader/Backhoe	1	40	84	80
			Total:	**83**
ARCHITECTURAL COATING				
Air Compressors	1	40	79	75
			Total:	**75**

SOURCE: FHWA, ROADWAY CONSTRUCTION NOISE MODEL (RCNM), JANUARY 2006; SAXELBY ACOUSTICS, 2022.

Based upon the Table 3.6-10 data, the loudest phase of demolition, with an average noise exposure of 85 dBA Leq at 50 feet, would occur during foundation demolition activities. The complete demolition and haul off of all the debris will take five days. There will be one concrete saw, one excavator with a clam shell and three trucks that will haul off the debris. The procedure is that the excavator clam shell will dismantle the building and place the material directly into the trucks. The debris will be trucked to Willits as the closest receiving station. The building demolition will take 2 days. The concrete foundation will require the concrete saw for just one day, and the debris will also be trucked to Willits and will take three days because the weight of the concrete is greater than the building debris.

The loudest phase of construction would be grading at 86 dBA Leq at 50 feet. Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors in terms of the City's daytime (Leq) noise level criterion. The results of the construction noise analysis are shown graphically on Figure 3.6-6 (demolition) and Figure 3.6-7 (grading). A summary of the noise prediction results for each phase of construction are shown in Table 3.6-11. Receptor locations are shown on Figure 3.6-6. The construction noise modeling includes an 8-foot-tall temporary sound barrier around the construction area.

TABLE 3.6-11: PREDICTED CONSTRUCTION NOISE LEVELS PHASE

RECEIVER (USE)	*MEASURED DAYTIME NOISE LEVEL, LEQ[1]*	*PREDICTED CONSTRUCTION NOISE LEVEL, LEQ*	*TOTAL NOISE LEVEL (AMBIENT + CONSTRUCTION)*	*CHANGE*
DEMOLITION - BUILDING				
R1 (Residential)	56.0 dBA	59.9	61.4	5.4
R2 (Residential)	56.0 dBA	61.0	62.2	6.2
R3 (Residential)	56.0 dBA	62.6	63.5	7.5
R4 (Residential)	56.0 dBA	59.4	61.0	5.0
R5 (Residential)	56.0 dBA	57.7	59.9	3.9
DEMOLITION - FOUNDATION				
R1 (Residential)	56.0 dBA	64.9	65.4	9.4
R2 (Residential)	56.0 dBA	66.0	66.4	10.4
R3 (Residential)	56.0 dBA	67.6	67.9	11.9
R4 (Residential)	56.0 dBA	64.4	65.0	9.0
R5 (Residential)	56.0 dBA	62.7	63.5	7.5
SITE PREPARATION				
R1 (Residential)	56.0 dBA	64.5	65.1	9.1
R2 (Residential)	56.0 dBA	65.2	65.7	9.7
R3 (Residential)	56.0 dBA	66.4	66.8	10.8
R4 (Residential)	56.0 dBA	65.4	65.9	9.9
R5 (Residential)	56.0 dBA	64.3	64.9	8.9
GRADING				
R1 (Residential)	56.0 dBA	65.5	66.0	10.0
R2 (Residential)	56.0 dBA	66.2	66.6	10.6
R3 (Residential)	56.0 dBA	67.4	67.7	11.7
R4 (Residential)	56.0 dBA	66.4	66.8	10.8
R5 (Residential)	56.0 dBA	65.3	65.8	9.8
BUILDING CONSTRUCTION				
R1 (Residential)	56.0 dBA	64.5	65.1	9.1
R2 (Residential)	56.0 dBA	65.2	65.7	9.7
R3 (Residential)	56.0 dBA	66.4	66.8	10.8
R4 (Residential)	56.0 dBA	65.4	65.9	9.9
R5 (Residential)	56.0 dBA	64.3	64.9	8.9
PAVING				
R1 (Residential)	56.0 dBA	62.5	63.4	7.4
R2 (Residential)	56.0 dBA	63.2	64.0	8.0
R3 (Residential)	56.0 dBA	64.4	65.0	9.0
R4 (Residential)	56.0 dBA	63.4	64.1	8.1
R5 (Residential)	56.0 dBA	62.3	63.2	7.2
ARCHITECTURAL COATING				
R1 (Residential)	56.0 dBA	54.5	58.3	2.3
R2 (Residential)	56.0 dBA	55.2	58.6	2.6
R3 (Residential)	56.0 dBA	56.4	59.2	3.2
R4 (Residential)	56.0 dBA	55.4	58.7	2.7
R5 (Residential)	56.0 dBA	54.3	58.2	2.2

[1] *AS MEASURED AT SITE ST-1.*

SOURCE: FHWA, ROADWAY CONSTRUCTION NOISE MODEL (RCNM), JANUARY 2006; SAXELBY ACOUSTICS, 2022.

CONCLUSIONS

Increased Traffic Noise Levels at Existing Receptors: The Noise Element of the Fort Bragg Coastal General Plan specifies criteria to determine the significance of traffic noise impacts. An increase of 3 dB L_{dn} or more at noise sensitive uses will be considered significant. Additionally, if the L_{dn} would exceed 70 dB at a sensitive use, a 2 dB increase will be considered significant. A significant impact would also occur if project traffic exclusively would generate levels of 60 dB or more at sensitive uses.

As shown in Tables 3.6-8 and 3.6-9, noise levels are not predicted to exceed 70 dB L_{dn} in the vicinity of the project. Traffic noise level increases are not expected to be greater than 2.3 dBA L_{dn}. The maximum noise level at a sensitive receptor caused by project traffic alone would be 54.8 dBA.

Therefore, impacts resulting at existing receptors from increased traffic noise would be considered ***less-than-significant***.

Operational Noise Levels at Existing Receptors: Operational noise levels at the existing receptors to in the vicinity of the site resulting from the proposed Project are quantified and shown in Figures 3.6-2 to 3.6-5. Figures 3.6-2 and 3.6-3 show the average (L_{eq}) Project noise contours for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours, respectively, and Figures 3.6-4 and 3.6-5 show the maximum (L_{max}) Project noise contours for daytime and nighttime hours.

Based upon Figures 3.6-2 and 3.6-3, the proposed Project would generate peak hour average noise levels of up to 46 dBA L_{eq} during daytime hours and 44 dBA L_{eq} during nighttime hours at the outdoor activity areas of adjacent residential uses to the east. The predicted noise levels would comply with the City of Fort Bragg 55 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime noise level standards.

Based upon Figures 3.6-4 and 3.6-5, the proposed Project would generate peak hour maximum noise levels of up to 66 dBA L_{max} during daytime hours and 64 dBA L_{max} during nighttime hours at the outdoor activity areas of adjacent residential uses. The predicted noise levels would comply with the City of Fort Bragg 75 dBA L_{max} daytime and 65 dBA L_{max} nighttime noise level standards.

Therefore, the Project would comply with the City's stationary noise level standards and this would be considered a ***less-than-significant*** impact.

Construction Noise: During the demolition and construction phases of the proposed Project, noise from construction activities would add to the noise environment in the immediate Project vicinity. Based upon the Table 3.6-11 data, the proposed Project is predicted to generate construction noise levels of up to 67.6 dBA Leq. This would equal an approximate noise increase of up to 11.9 dBA over ambient noise conditions at the closest sensitive receptor.

Compliance with the City's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices (both outlined in Mitigation Measure 3.6-1), would help to ensure that noise levels stay below the 12 dBA threshold.

Based upon the Table 3.6-11 data, construction noise levels are not predicted to exceed the 12 dBA test of significance. Therefore, with implementation of Mitigation Measure 3.6-1, temporary construction noise impacts would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-1: *To reduce potential construction noise impacts during Project construction, the following multi-part mitigation measure shall be implemented for the Project:*

- *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.*
- *Quiet construction equipment, particularly air compressors, shall be selected whenever possible.*
- *All stationary noise-generating construction equipment such as generators or air compressors shall be located as far as is practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.*
- *Exterior construction activities shall be limited to 7:00 a.m. to 8:00 p.m., and interior construction activities shall be limited to 7:00 a.m. to 10:00 p.m.*
- *Staging areas on the Project site shall be located in areas that maximize, to the extent feasible, the distance between staging activity and sensitive receptors.*
- *An 8-foot-tall temporary construction sound wall shall be constructed along the east and south sides of the project site, as shown on Figures 3.6-6 and 3.6-7. The sound barrier fencing should consist of ½" plywood or minimum STC 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier should be free from gaps, openings, or penetrations to ensure maximum performance.*

Impact 3.6-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels. (Less than Significant with Mitigation)

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural damage. The primary vibration-generating activities would be grading, utilities placement, and parking lot construction. Table 3.6-13 shows the typical vibration levels produced by construction equipment.

With the exception of vibratory compactors, Table 3.6-13 data indicates that construction vibration levels anticipated for the proposed Project are less than the 0.2 in/sec threshold at a distance of 25 feet. Use of vibratory compactors within 26 feet of the adjacent buildings could cause vibrations in

excess of 0.2 in/sec. Structures which could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are located less than 26 feet from the Project site. Therefore, this is a potentially significant impact and mitigation measures would be required.

TABLE 3.6-13: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	*P.P.V. AT 25 FEET (INCHES/SECOND)*	*P.P.V. AT 50 FEET (INCHES/SECOND)*	*P.P.V. AT 100 FEET (INCHES/SECOND)*
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES. FEDERAL TRANSIT ADMINISTRATION. MAY 2006.

Mitigation Measure 3.6-2 requires that any compaction less than 26 feet from an adjacent residential structure be accomplished using static drum rollers. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring could be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. With this mitigation measure. This impact would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-2: *To reduce potential vibration impacts during Project construction, the following mitigation measure shall be implemented for the Project:*

- *Any compaction required less than 26 feet from the adjacent residential structures to the south shall be accomplished by using static drum rollers which use weight instead of vibrations to achieve soil compaction. As an alternative to this requirement, pre-construction crack documentation and construction vibration monitoring should be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. Any such documented damage would be required to be repaired by the applicant.*

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-1

Noise Measurement Sites

Legend

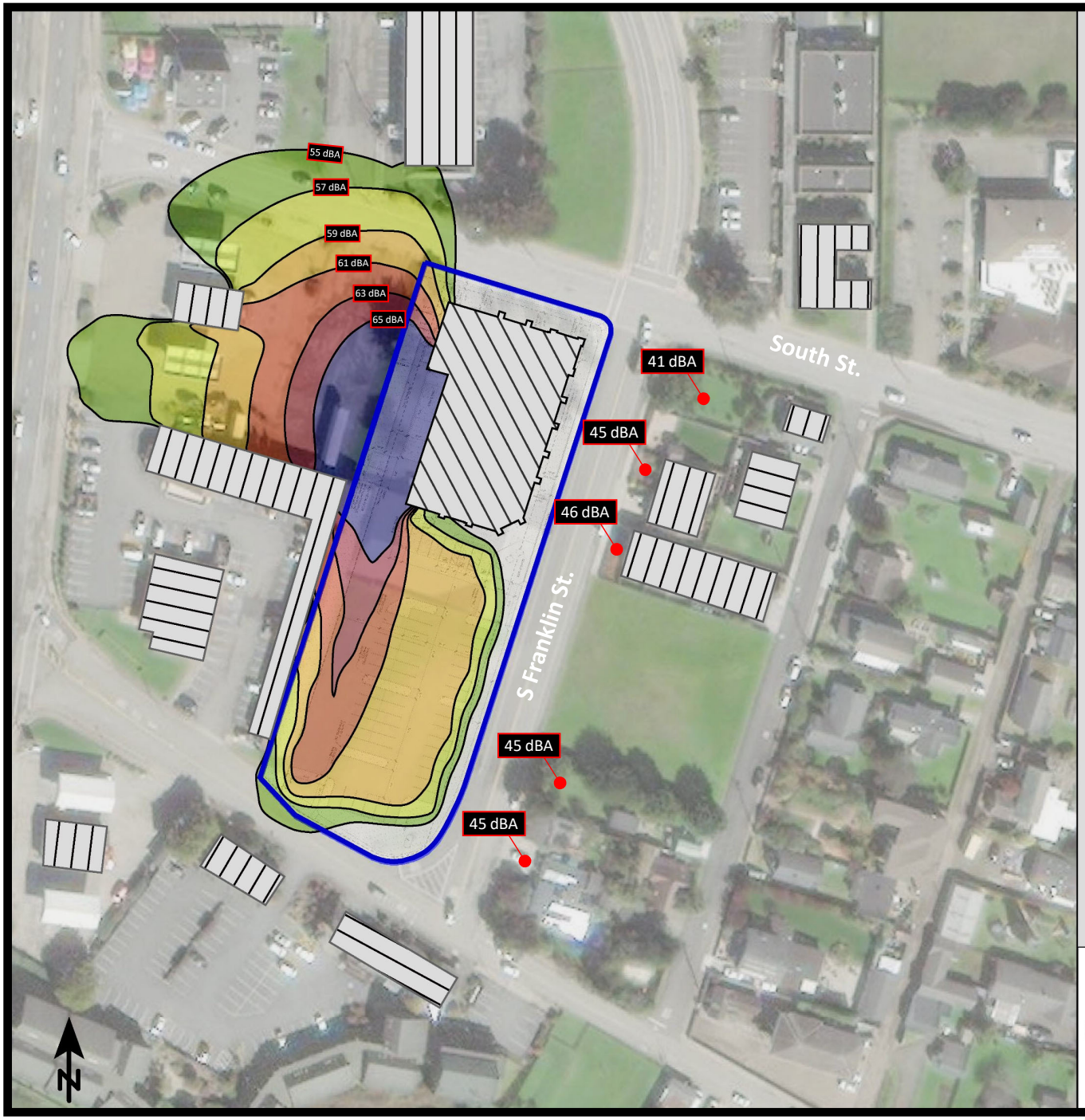
- Project Site
- Noise Measurement - Long Term
- Noise Measurement - Short Term

0 ft 50 ft 100 ft 150 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 01/19/2022

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-2

Daytime (7:00 a.m. to 10:00 p.m.)
Project Noise Contours (dBA L_{eq})

Signs and symbols

- Project Boundary
- Proposed Building
- Existing Building

Levels in dB(A)

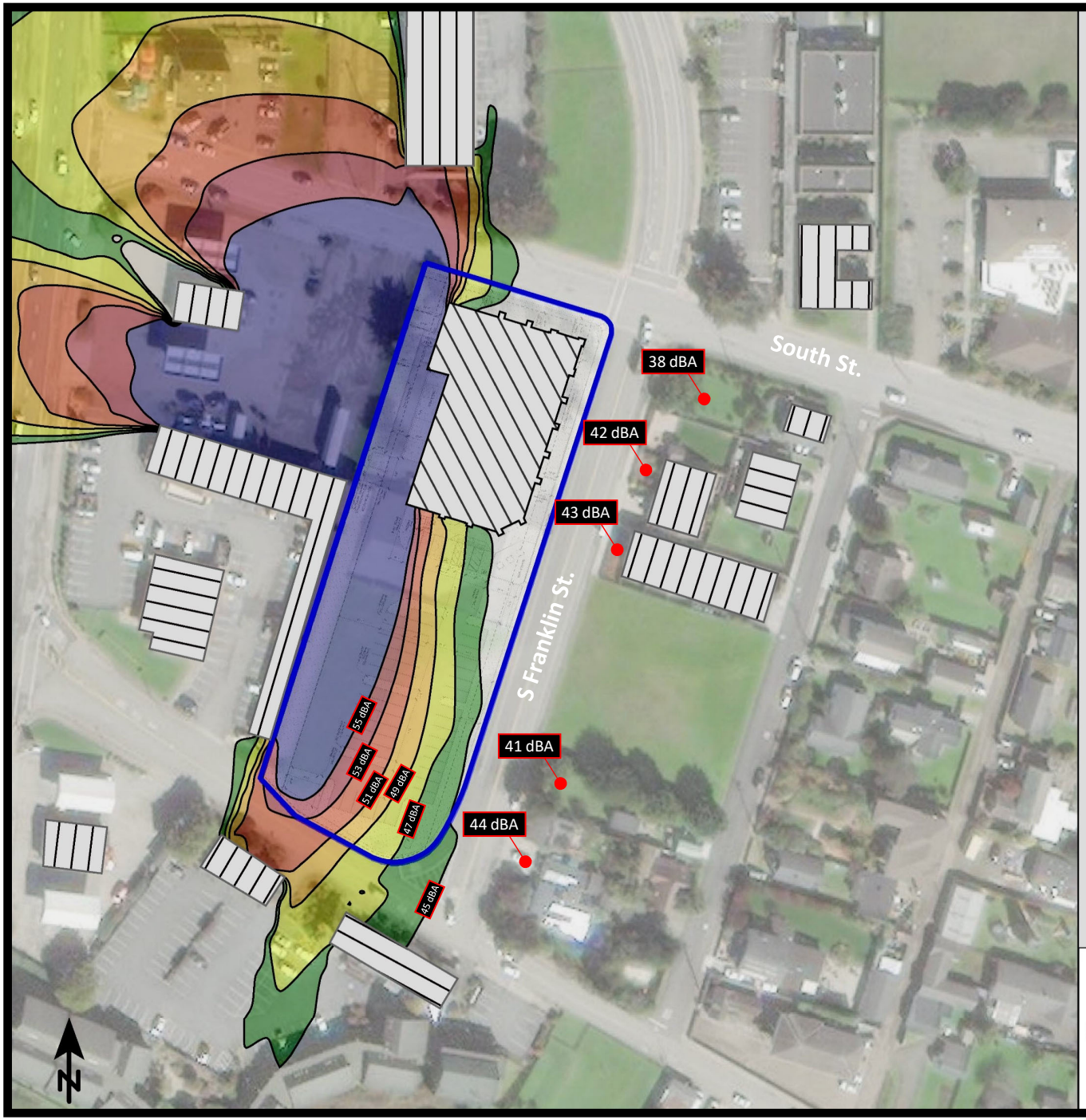
<= 55
55 - 57
57 - 59
59 - 61
61 - 63
63 - 65
> 65

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-3

Nighttime (10:00 p.m. to 7:00 a.m.)
Project Noise Contours (dBA L_{eq})

Signs and symbols

- Project Boundary
- Proposed Building
- Exising Building

Levels in dB(A)

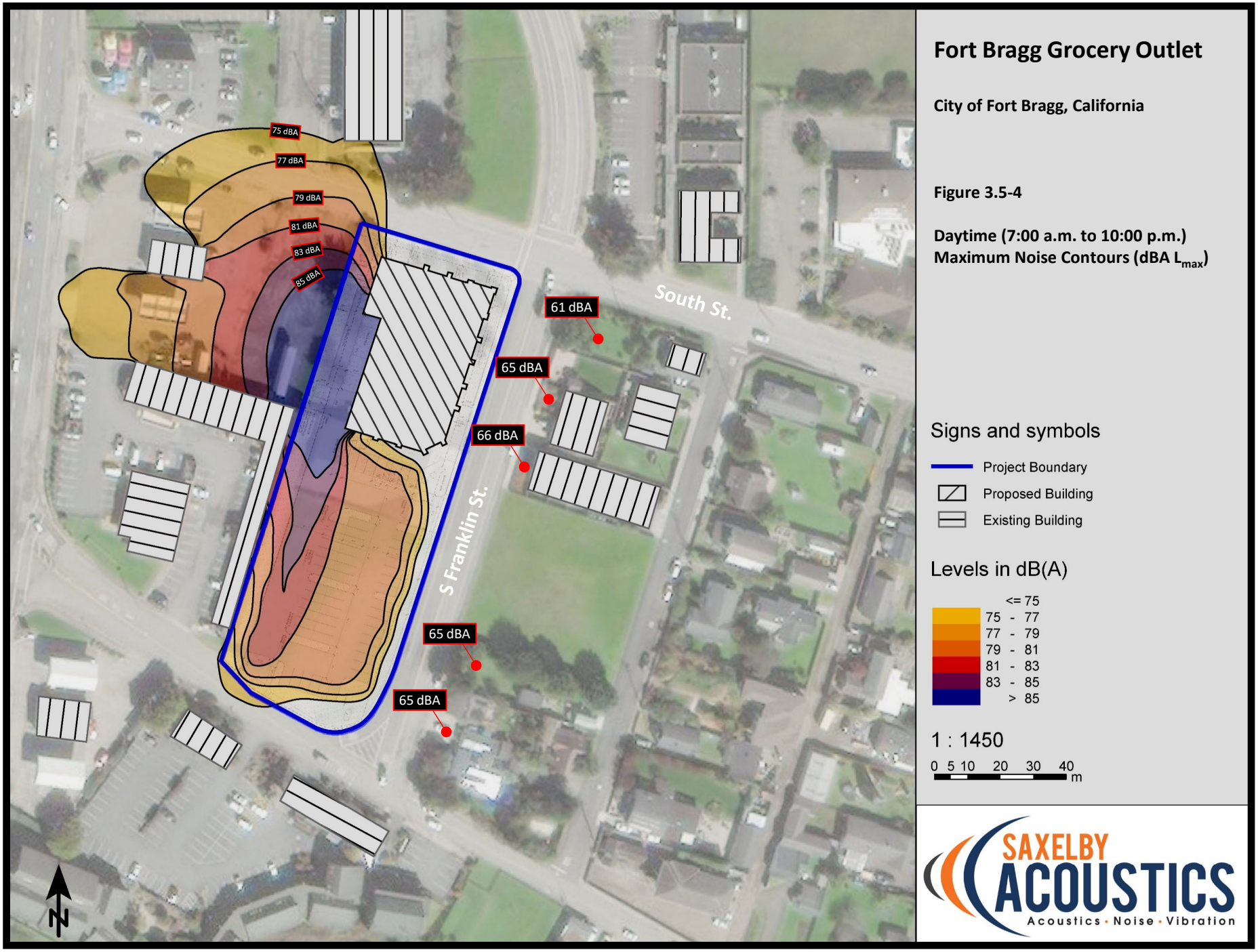
<= 45
45 - 47
47 - 49
49 - 51
51 - 53
53 - 55
> 55

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-4

Daytime (7:00 a.m. to 10:00 p.m.)
Maximum Noise Contours (dBA L_{max})

Signs and symbols

- Project Boundary
- Proposed Building
- Existing Building

Levels in dB(A)

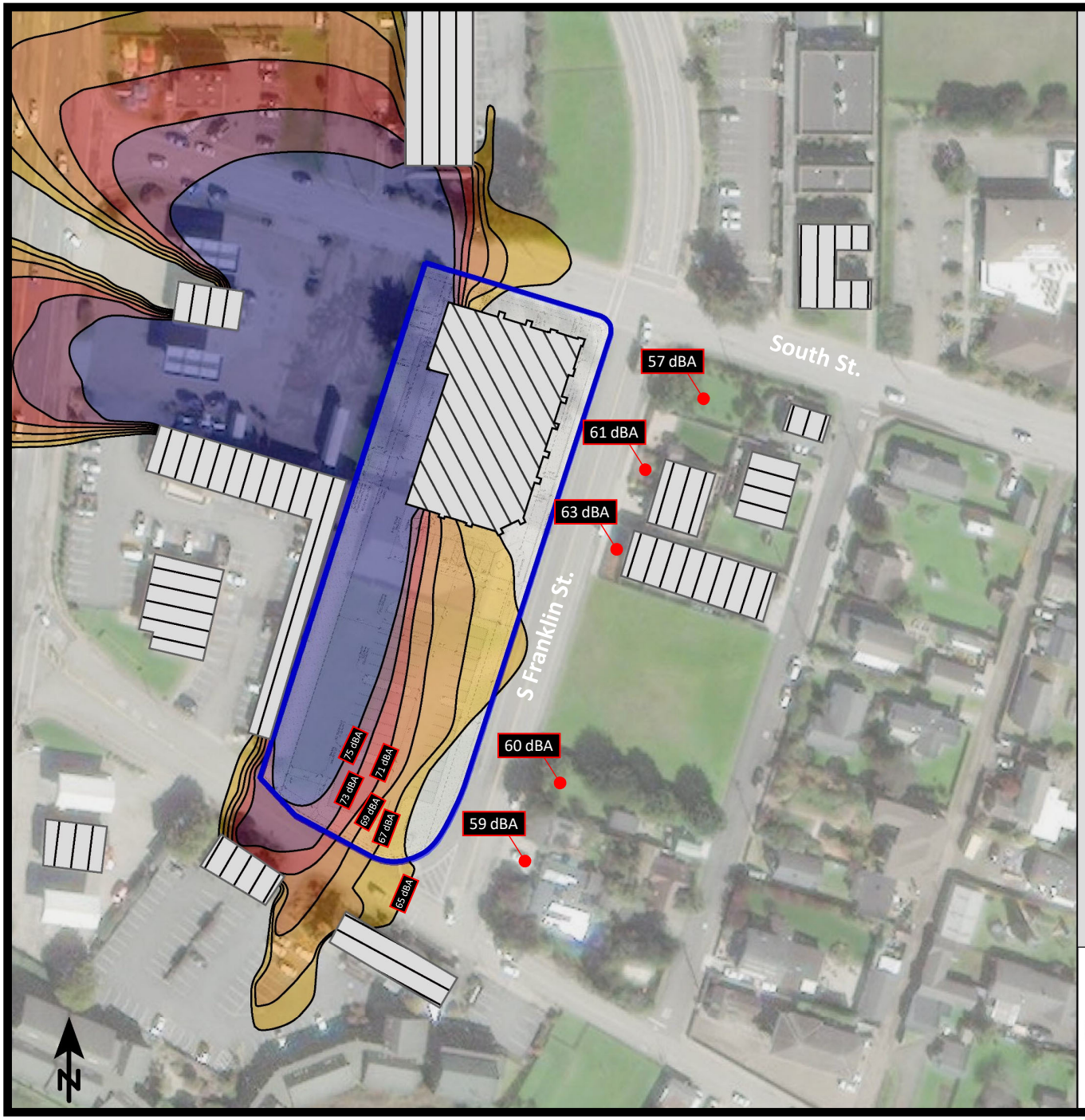
- <= 75
- 75 - 77
- 77 - 79
- 79 - 81
- 81 - 83
- 83 - 85
- > 85

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-5

Nighttime (10:00 p.m. to 7:00 a.m.)
Maximum Noise Contours (dBA L_{max})

Signs and symbols

- Project Boundary
- Proposed Building
- Existing Building

Levels in dB(A)

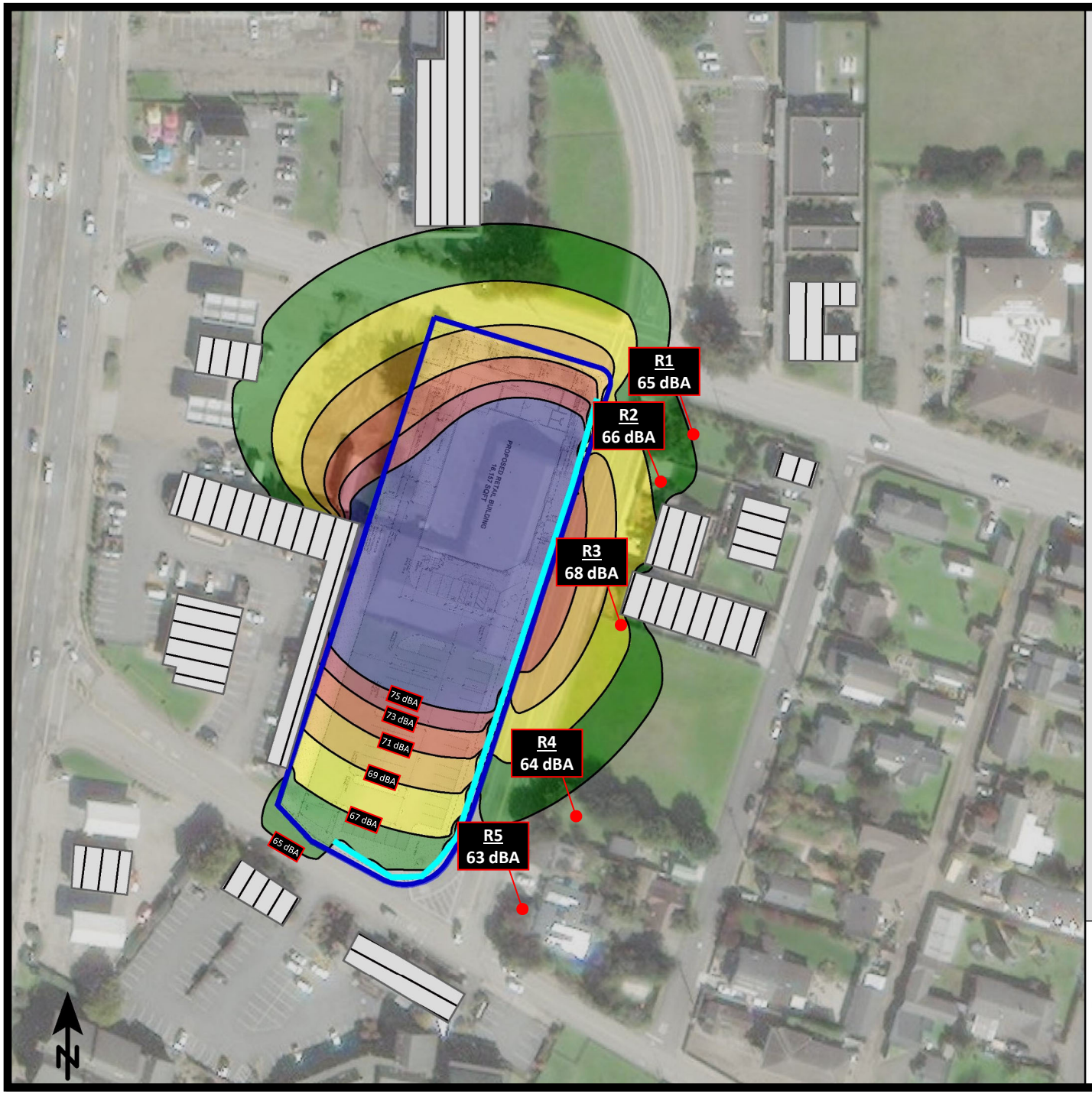
- <= 65
- 65 - 67
- 67 - 69
- 69 - 71
- 71 - 73
- 73 - 75
- > 75

1 : 1450

0 5 10 20 30 40 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-6

Predicted Demolition Noise Levels (dBA, Leq)

Signs and symbols

- Project Boundary
- 8' Sound Wall

Levels in dB(A)

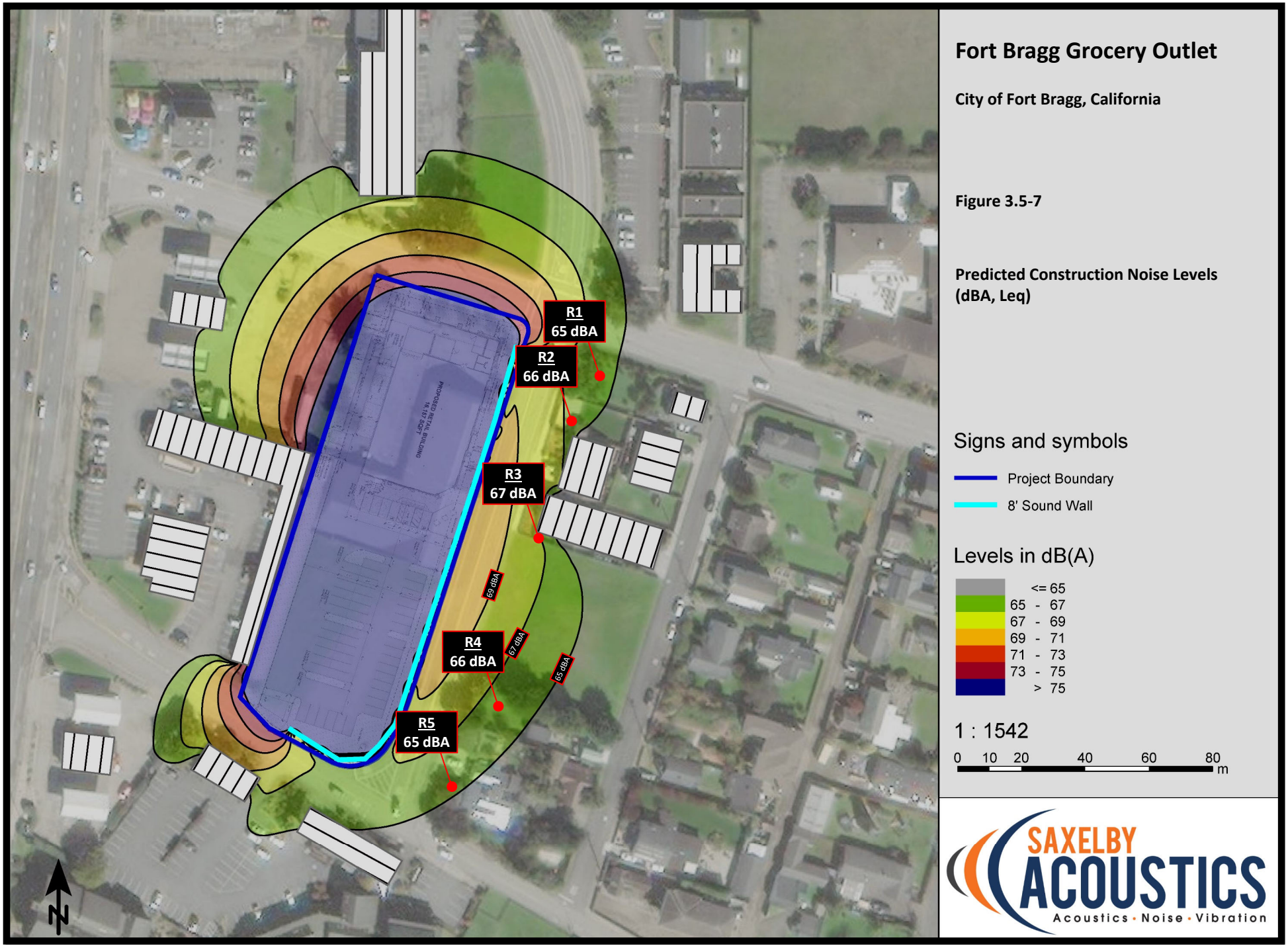
<= 65
65 - 67
67 - 69
69 - 71
71 - 73
73 - 75
> 75

1 : 1542

0 10 20 40 60 80 m

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Fort Bragg Grocery Outlet

City of Fort Bragg, California

Figure 3.5-7

Predicted Construction Noise Levels (dBA, Leq)

Signs and symbols

- Project Boundary
- 8' Sound Wall

Levels in dB(A)

<= 65
65 - 67
67 - 69
69 - 71
71 - 73
73 - 75
> 75

1 : 1542

0 10 20 40 60 80 m

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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix B: Continuous and Short-Term Ambient Noise Measurement Results



Appendix C: Traffic Noise Calculation Inputs and Results



Appendix C-1
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220102
Description: Fort Bragg Grocery Outlet - Existing Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Cypress Street	East of Main Street	3,740	80	0	20	1.0%	1.0%	25	40	0	38	18	8	59.7
2	Cypress Street	East of Franklin Street	2,820	80	0	20	1.0%	1.0%	25	35	0	31	15	7	59.3
3	Main Street	South of Cypress Street	22,660	80	0	20	1.0%	1.0%	40	85	0	235	109	51	66.6
4	Main Street	South of South Street	23,040	80	0	20	1.0%	1.0%	40	125	0	238	110	51	64.2
5	Main Street	South of North Harbor Drive	22,700	80	0	20	1.0%	1.0%	40	75	0	236	109	51	67.5
6	Franklin Street	South of Cypress Street	3,570	80	0	20	1.0%	1.0%	25	30	0	37	17	8	61.3
7	Franklin Street	South of South Street	1,400	80	0	20	1.0%	1.0%	25	35	0	20	9	4	56.3
8	Franklin Street	North of North Harbor Drive	1,750	80	0	20	1.0%	1.0%	25	35	0	23	11	5	57.2
9	South Street	East of Main Street	2,000	80	0	20	1.0%	1.0%	25	40	0	25	12	5	56.9
10	South Street	East of Franklin Street	2,510	80	0	20	1.0%	1.0%	25	30	0	29	14	6	59.8
11	N Harbor Drive	East of Franklin Street	3,340	80	0	20	1.0%	1.0%	25	30	0	35	16	8	61.0

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Appendix C-2
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220102
Description: Fort Bragg Grocery Outlet - Existing Plus Project Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Cypress Street	East of Main Street	3,860	80	0	20	1.0%	1.0%	25	40	0	39	18	8	59.8
2	Cypress Street	East of Franklin Street	2,840	80	0	20	1.0%	1.0%	25	35	0	32	15	7	59.3
3	Main Street	South of Cypress Street	23,130	80	0	20	1.0%	1.0%	40	85	0	239	111	51	66.7
4	Main Street	South of South Street	23,290	80	0	20	1.0%	1.0%	40	125	0	240	111	52	64.2
5	Main Street	South of North Harbor Drive	23,190	80	0	20	1.0%	1.0%	40	75	0	239	111	51	67.6
6	Franklin Street	South of Cypress Street	3,810	80	0	20	1.0%	1.0%	25	30	0	38	18	8	61.6
7	Franklin Street	South of South Street	2,390	80	0	20	1.0%	1.0%	25	35	0	28	13	6	58.6
8	Franklin Street	North of North Harbor Drive	1,800	80	0	20	1.0%	1.0%	25	35	0	23	11	5	57.4
9	South Street	East of Main Street	2,710	80	0	20	1.0%	1.0%	25	40	0	31	14	7	58.3
10	South Street	East of Franklin Street	2,530	80	0	20	1.0%	1.0%	25	30	0	29	14	6	59.8
11	N Harbor Drive	East of Franklin Street	3,340	80	0	20	1.0%	1.0%	25	30	0	35	16	8	61.0

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Appendix C-3
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220102
Description: Fort Bragg Grocery Outlet - Project Only Traffic
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Cypress Street	East of Main Street	120	80	0	20	1.0%	1.0%	25	40	0	4	2	1	44.7
2	Cypress Street	East of Franklin Street	20	80	0	20	1.0%	1.0%	25	35	0	1	1	0	37.8
3	Main Street	South of Cypress Street	470	80	0	20	1.0%	1.0%	40	85	0	18	8	4	49.8
4	Main Street	South of South Street	250	80	0	20	1.0%	1.0%	40	125	0	12	5	3	44.5
5	Main Street	South of North Harbor Drive	490	80	0	20	1.0%	1.0%	40	75	0	18	8	4	50.8
6	Franklin Street	South of Cypress Street	240	80	0	20	1.0%	1.0%	25	30	0	6	3	1	49.6
7	Franklin Street	South of South Street	990	80	0	20	1.0%	1.0%	25	35	0	16	7	3	54.8
8	Franklin Street	North of North Harbor Drive	50	80	0	20	1.0%	1.0%	25	35	0	2	1	0	41.8
9	South Street	East of Main Street	710	80	0	20	1.0%	1.0%	25	40	0	13	6	3	52.4
10	South Street	East of Franklin Street	20	80	0	20	1.0%	1.0%	25	30	0	1	1	0	38.8
11	N Harbor Drive	East of Franklin Street	0	80	0		1.0%	1.0%	25	30	0				0.0

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Appendix C-4
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220102
Description: Fort Bragg Grocery Outlet - Cumulative
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Cypress Street	East of Main Street	4,450	80	0	20	1.0%	1.0%	25	40	0	43	20	9	60.4
2	Cypress Street	East of Franklin Street	3,400	80	0	20	1.0%	1.0%	25	35	0	36	17	8	60.1
3	Main Street	South of Cypress Street	26,250	80	0	20	1.0%	1.0%	40	85	0	260	120	56	67.3
4	Main Street	South of South Street	26,600	80	0	20	1.0%	1.0%	40	125	0	262	122	56	64.8
5	Main Street	South of North Harbor Drive	26,200	80	0	20	1.0%	1.0%	40	75	0	259	120	56	68.1
6	Franklin Street	South of Cypress Street	4,200	80	0	20	1.0%	1.0%	25	30	0	41	19	9	62.0
7	Franklin Street	South of South Street	1,740	80	0	20	1.0%	1.0%	25	35	0	23	11	5	57.2
8	Franklin Street	North of North Harbor Drive	2,050	80	0	20	1.0%	1.0%	25	35	0	25	12	5	57.9
9	South Street	East of Main Street	2,450	80	0	20	1.0%	1.0%	25	40	0	29	13	6	57.8
10	South Street	East of Franklin Street	3,140	80	0	20	1.0%	1.0%	25	30	0	34	16	7	60.8
11	N Harbor Drive	East of Franklin Street	3,900	80	0	20	1.0%	1.0%	25	30	0	39	18	8	61.7

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Appendix C-5
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220102
Description: Fort Bragg Grocery Outlet - Cumulative Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	Cypress Street	East of Main Street	4,570	80	0	20	1.0%	1.0%	25	40	0	43	20	9	60.5
2	Cypress Street	East of Franklin Street	3,420	80	0	20	1.0%	1.0%	25	35	0	36	17	8	60.1
3	Main Street	South of Cypress Street	26,680	80	0	20	1.0%	1.0%	40	85	0	262	122	57	67.3
4	Main Street	South of South Street	26,850	80	0	20	1.0%	1.0%	40	125	0	264	122	57	64.9
5	Main Street	South of North Harbor Drive	26,690	80	0	20	1.0%	1.0%	40	75	0	262	122	57	68.2
6	Franklin Street	South of Cypress Street	4,440	80	0	20	1.0%	1.0%	25	30	0	43	20	9	62.3
7	Franklin Street	South of South Street	2,700	80	0	20	1.0%	1.0%	25	35	0	31	14	7	59.1
8	Franklin Street	North of North Harbor Drive	2,100	80	0	20	1.0%	1.0%	25	35	0	26	12	6	58.0
9	South Street	East of Main Street	3,160	80	0	20	1.0%	1.0%	25	40	0	34	16	7	58.9
10	South Street	East of Franklin Street	3,160	80	0	20	1.0%	1.0%	25	30	0	34	16	7	60.8
11	N Harbor Drive	East of Franklin Street	3,900	80	0	20	1.0%	1.0%	25	30	0	39	18	8	61.7

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APPENDIX F

Traffic Impact Analysis

TRAFFIC IMPACT ANALYSIS

FOR

GROCERY OUTLET STORE

Fort Bragg, California

Prepared For:

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October 22, 2019

Job No. 0951-11

TRAFFIC IMPACT ANALYSIS FOR
GROCERY OUTLET STORE
Fort Bragg, California

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KDA

TRAFFIC IMPACT ANALYSIS FOR
GROCERY OUTLET STORE
Fort Bragg, California

INTRODUCTION

This report documents **KD Anderson & Associates'** analysis of the traffic impacts associated with developing a Grocery Outlet Store in the Mendocino County community of Fort Bragg, California. This assessment of traffic impacts has been required by City of Fort Bragg to confirm that the project will not result in conditions in excess of adopted General Plan minimum Level of Service standards. The analysis identifies both current and future background conditions at key intersections in the vicinity of the site. To assess traffic impacts, the characteristics of the proposed project have been determined, including estimated trip generation and the directional distribution / assignment of project generated traffic. The significance of project impacts has been determined with regard to Existing Plus Project and Cumulative Plus Project conditions. The extent of off-site impacts has been determined, and the adequacy of site access has been evaluated.

Project Description

The proposed project consists of a 16.0 ksf Grocery Outlet Store located on an approximately 1.6 acre site on the west side of Franklin Street between South Street and N. Harbor Drive, as noted in Figure 1. Access to the site will be provided via driveways on Franklin Street and on N. Harbor Drive, as shown in Figure 2. The Franklin Street driveway is about 270 feet from the South Street / Franklin Street intersection (measured centerline to centerline), and the N. Harbor Drive driveway is about 355 feet to the east of SR 1. Today the northern half of the project site is occupied by a vacant commercial building that will be demolished. Sidewalk exists along the site's South Street and northern Franklin Street frontage, and proposed frontage improvements will provide sidewalk along the balance of the site. The project site plan identifies 54 parking spaces. The project's truck loading is located on the west side of the building, and trucks would enter from Franklin Street and exit onto N. Harbor Drive or Franklin Street.

Scope of Analysis

The impact analysis conforms to the Caltrans traffic study guidelines and City of Fort Bragg requirements.

Existing Setting. Current roadway and intersection capacities and operating Levels of Service have been quantified. New 24-hour traffic counts were conducted over a three-day period to define the weekday and Saturday peak hours to be included in this study. New traffic count data will then be collected, and a weekday p.m. peak hour and Saturday midday peak hour traffic volume base was established for study area intersections.

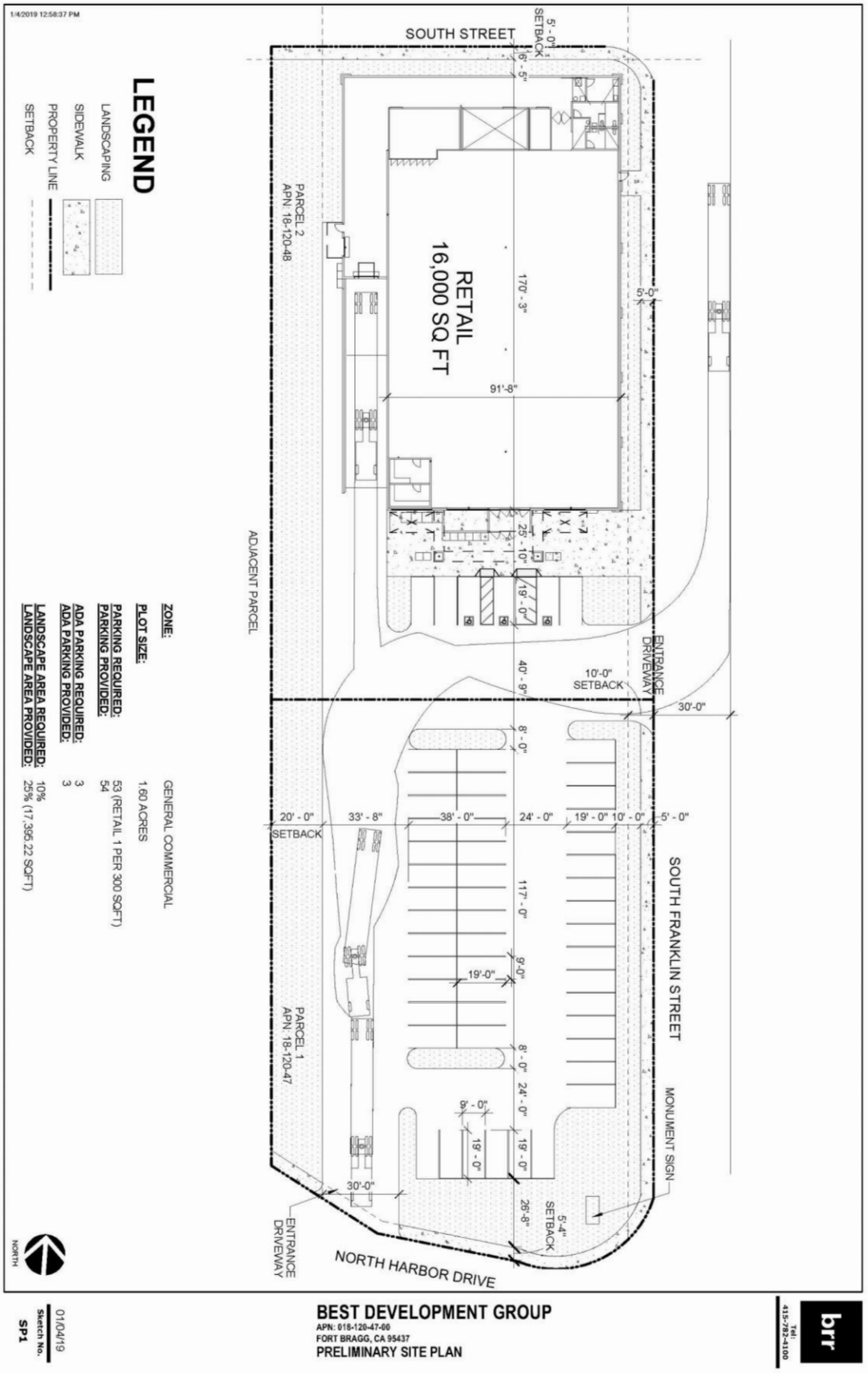


VICINITY MAP

KD Anderson & Associates, Inc.
Transportation Engineers

0951-10 RA 10/22/2019

figure 1


1/4/2019 12:58:37 PM
LEGEND
LANDSCAPING
SIDEWALK
PROPERTY LINE
SETBACK
SOUTH STREET
5' - 0" SETBACK
16' - 5"
PARCEL 2
APN: 18-120-48
RETAIL
16,000 SQ FT
170' - 3"
91'-8"
5'-0"
25' - 10"
19' - 0"
ADJACENT PARCEL
40' - 9"
10'-0" SETBACK
ENTRANCE DRIVEWAY
30'-0"
8' - 0"
20' - 0" SETBACK
33' - 8"
38' - 0"
24' - 0"
19' - 0"
10' - 0"
5' - 0"
SOUTH FRANKLIN STREET
117' - 0"
9'-0"
19'-0"
PARCEL 1
APN: 18-120-47
8' - 0"
24' - 0"
9' - 0"
19' - 0"
19' - 0"
MONUMENT SIGN
30'-0"
26'-8"
5'-4" SETBACK
ENTRANCE DRIVEWAY
NORTH HARBOR DRIVE
NORTH
ZONE: GENERAL COMMERCIAL
PLOT SIZE: 1.60 ACRES
PARKING REQUIRED: 53 (RETAIL 1 PER 300 SQFT)
PARKING PROVIDED: 54
ADA PARKING REQUIRED: 3
ADA PARKING PROVIDED: 3
LANDSCAPE AREA REQUIRED: 10%
LANDSCAPE AREA PROVIDED: 25% (17,395.22 SQFT)
BEST DEVELOPMENT GROUP
APN: 018-120-47-00
FORT BRAGG, CA 95437
PRELIMINARY SITE PLAN
01/04/19
Sketch No.
SP1
brr
Tel: 415-782-4100

SITE PLAN

Multiple 24 hr traffic counts were made on key roadway segments on a summer Thursday, Friday and Saturday to define the periods of intersection analysis. The counts were made at these locations:

- Cypress Street between Main Street and Franklin Street
- South Street between Main Street and Franklin Street
- Harbor Drive between Main Street and Franklin Street
- Franklin Street between Cypress Street and South Street
- Franklin Street between South Street and North Harbor Drive

New intersection turning movement counts (motor vehicles, pedestrians, bicycles) were then made on a weekday and on Saturday during the two-hour peak periods at these locations:

1. Main Street / Cypress Street
2. Main Street / South Street
3. Main Street / North Harbor Drive
4. Franklin Street / Cypress Street
5. Franklin Street / South Street
6. Franklin Street / Harbor Drive

Operating Levels of Service and roadway system performance were analyzed using methodologies that are acceptable to the City and Caltrans based on Highway Capacity Manual, 6th Edition methodologies using Synchro 10.0 software to calculate intersection Level of Service and identify turn lane queue lengths. MUTCD traffic signal warrants were assessed at unsignalized intersections. The existing setting was also described with regards to pedestrian, bicycle and transit facilities.

Project Impacts The extent to which the development of the project, by itself, impacts the area street system was determined. The number of automobile trips that may be generated by the Grocery Outlet Store was estimated through application of published trip generation rates available from the Institute of Transportation Engineers (ITE Trip Generation Manual 10th Edition). Appropriate "pass-by" trip rate assumptions were developed from the ITE Trip Generation Handbook, and the directional distribution of primary project trips was determined based on the location of residences within the project's probable market area.

Traffic operating conditions were re-calculated under "Existing Plus Project Alone" conditions. Peak Hour Levels of Service were identified, the extent to which project development results in conditions in excess of adopted minimum Level of Service standards was determined, and the extent to which the project exacerbates current queuing deficiencies was evaluated. The adequacy of site access was evaluated with regard to truck turning requirements and driveway throat depth, etc. Impacts to alternative transportation modes were also evaluated.

Cumulative Conditions. Long Term Year 2040 conditions were assessed based on Caltrans local area growth rates and information available from the City of Fort Bragg regarding other approved projects in this area of the community. Resulting future twenty year "No Project" and "Plus Project" traffic volumes were created. Cumulative intersection Levels of Service and 95th percentile queue lengths, as applicable, were calculated and the significance of the project's cumulative impacts was determined based on adopted significance criteria.

Vehicle Miles Traveled (VMT). The project's relative effect on regional Vehicle Miles Traveled (VMT) has been discussed.

EXISTING SETTING

This report section describes the facilities that are available today serving vehicular, pedestrian and bicycle traffic and transit users in Fort Bragg, as well as policies that guide consideration of traffic impacts.

Study Area Circulation System - Roads

The text which follows provides information regarding the streets included in the study area.

Main Street (SR 1). State Route 1 runs north-south along the California coast and is a primary access to Mendocino County. Through Fort Bragg the route is Main Street and is designated an Arterial Street in the Circulation Element of the Fort Bragg Coastal General Plan. In the area of the project Main Street is a four-lane conventional highway with a center Two-Way Left-Turn (TWLT) lane. Paved shoulder exists on both sides of the road, and sidewalk is available on the east side of the highway. The posted speed limit is 40 mph. The most recent traffic volume data available for the California Department of Transportation (Caltrans) indicates that SR 1 carries an *Annual Average Daily Traffic (AADT)* volume of 21,200 vehicles per day (vpd) south of Cypress Street, with the daily volume rising to 24,200 vpd in the peak month. Trucks comprise about 3% of the daily traffic in this area.

Franklin Street. Franklin Street is a north-south route that lies about 450 feet east of Main Street. Franklin Street extends from an intersection on N. Harbor Drive for about 1½ miles to its northern terminus near Pudding Creek. The Circulation Element designates Franklin Street as a Major Collector. In the area of the project, Franklin Street is a two-lane roadway with paved shoulders, and sidewalk exists on both sides of the street in the area near the South Street intersection. A prima facie 25 mph speed limit is in effect. As noted in Table 1, Franklin Street was observed to carry 1,928 to 2,194 vpd in the area of the project and 2,394 to 3,540 vpd north of South Street.

TABLE 1
DAILY TRAFFIC VOLUMES ON FORT BRAGG STREETS

Street	Location	Daily Traffic (vpd)		
		Thursday 7/18/2019	Friday 7/19/2019	Saturday 7/20/2019
Franklin Street	Cypress Street to South Street	3,540	3,497	2,394
	South Street to N. Harbor Drive	1,936	2,194	1,928
Cypress Street	Main Street to Franklin Street	5,078	5,214	3,529
South Street	Main Street to Franklin Street	2,449	2,345	1,665
N. Harbor Drive	Main Street to Franklin Street	2,488	2,949	3,200

Cypress Street. Cypress Street is an east-west street that extends east from Main Street for about ½ mile. The Circulation Element identifies Cypress Street as a Minor Collector. In the area immediately east of SR 1 Cypress Street is a two-lane street with a center TWLT lane. Sidewalk exists on both sides of the street, and the posted speed limit is 25 mph. Recent 24-hr traffic counts indicated that Cypress Street carried 3,529 to 5,214 vpd near Main Street.

South Street. South Street is an east-west street that extends easterly from Main Street for about ½ mile along the north boundary of the project site. The Circulation Element identifies South Street as a Minor Collector street. In the area of the project South Street is a two-lane street with paved shoulders and sidewalks. The posted speed limit is 25 mph. The traffic counts conducted for this study indicated that South Street carried 1,665 to 2,449 vpd.

North Harbor Drive. North Harbor Drive is a street that extends east from an intersection on Main Street to the city's Noyo River harbor area. This two-lane road is designated a local street in the Circulation Element. Sidewalk exists near Main Street but not at locations east of the project site. The posted speed limit is 25 mph. The daily traffic counts conducted for this analysis indicated that North Harbor Drive carried 2,488 to 3,200 vpd.

Study Area Intersections

The quality of traffic flow is often governed by the operation of key intersections. The following intersections have been identified for evaluation in this study in consultation with City of Fort Bragg staff.

The **SR 1 (Main Street) / Cypress Street intersection** is a four-way intersection controlled by traffic signal. The west leg of the intersection opposite Cypress Street is the access to the Georgia Pacific Mill site. Each approach has a separate left turn lane with protected left turn phasing. Crosswalks are striped on each leg of the intersection, and pedestrian indications and push buttons are present. Street lights exist on each corner.

The **Cypress Street / Franklin Street intersection** is a four-way intersection controlled by an all-way stop. Separate left turn lanes are provided on Cypress Street, but the Franklin Street approaches are single lanes. Crosswalks are striped across each leg of the intersection, and there is a street light on the southeast corner.

The **SR 1 (Main Street) / South Street intersection** is a "tee" controlled by a stop sign on the South Street approach. A continuous TWLT lane is present on SR 1. The westbound South Street approach is a single travel lane, and a crosswalk is striped across the South Street approach. Street lights are available on each corner.

The **South Street / Franklin Street intersection** is a four-way intersection controlled by a stop sign on northbound and southbound Franklin Street approaches. Each approach has a single travel lane. A crosswalk is striped across the north Franklin Street leg, and there is a streetlight on the northeast corner.

The **SR 1 (Main Street) / North Harbor Drive intersection** is a four-way intersection controlled by stop signs on the eastbound and westbound approaches. The west leg of the intersection is Noyo Point Road. Both eastbound and westbound approaches are signed RIGHT TURN ONLY, and a painted median on the westbound approach aligns motorists towards right turns. A crosswalk is striped across North Harbor Drive, and streetlights exist at the intersection.

The **North Harbor Drive / Franklin Street intersection** is a "tee" controlled by an all-way stop. The North Harbor Drive approaches are single travel lanes, but the Franklin Street approach has as separate right turn lane. There are no crosswalks striped at the intersection, and a streetlight is present on the southeast corner.

Standards of Significance: Levels of Service - Methodology

To assess the quality of existing traffic conditions, Levels of Service were calculated at study area intersections. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening traffic operating conditions, is assigned to an intersection or roadway segment. Table 2 presents the characteristics associated with each LOS grade. As shown in Table 2, LOS "A", "B" and "C" are considered acceptable to most motorists, while LOS "D" is marginally acceptable. LOS "E" and "F" are associated with severe congestion and delay and are unacceptable to most motorists.

Minimum Standards. Local agencies and Caltrans adopt minimum Level of Service standards for their facilities.

Coastal General Plan. The City's Coastal General Plan identifies acceptable Levels of Service for regular non-summer conditions based on location and traffic control, as noted in Table 3. As noted, LOS D is the minimum on SR 1 at intersections controlled by a traffic signal or all-way stop, while LOS C is the minimum at other City street intersections with similar controls. Minimum Level of Service at intersections controlled by side street stops is based on the delay experienced by motorists on the side street approaches and is similarly LOS D on state highways and LOS C at intersections on city streets. However, allowance is made for low volume approaches which do not carry volumes that do not satisfy traffic signal warrants.

The Circulation Element acknowledges the effects of peak summer weekend traffic along SR 1. The maximum allowable LOS standards for Main Street identified above apply to the p.m. peak hour weekdays during the summer and to the p.m. peak hour on weekdays and weekends during the remainder of the year. During the peak hours on summer weekends and holidays, Main Street can operate at LOS F.

SR 1 Transportation Concept Report. The Caltrans SR 1 Transportation Concept Report (SR 1 TCR) indicates that agencies expectations for the performance of the state highway. The SR 1 TCR is currently unavailable on the Caltrans website as that source undergoes accessibility updates.

Methods. Levels of Service were calculated for different intersection control types using the respective methods presented in the Highway Capacity Manual, 6th Edition (HCM 6 Ed). Intersection Levels of Service were calculated using SYNCHRO 10.0 software. For intersections controlled by side street stop signs, the reported Level of Service reflects the "worst case" movement, which is typically those motorists waiting to enter the major street.

TABLE 2
LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Ave Delay ≤ 10 seconds per vehicle	Little or no delay. Ave Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10 sec/veh and ≤ 20 sec/veh	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay >20 sec/veh and <35 sec/veh	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35 sec/veh and < 55 sec/veh	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay >55 sec and ≤ 80 sec/veh	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80 sec/veh	Intersection often blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Sources: Highway Capacity Manual, 6th Edition, and Transportation Research Board (TRB) Special Report 209.

TABLE 3[1] CITY OF FORT BRAGG MINIMUM LEVEL OF SERVICE STANDARDS	
Location	**Minimum Standard**
Signalized and All-Way Stop Intersection along SR 1	LOS D
Side Street Stop Controlled Intersections on SR 1 (side street approach)	LOS D, or LOS F IF there are less than 15 vehicles per hour (vph) left turns and through movements from the side street AND the intersection volumes do not exceed Caltrans rural peak hour signal warrant criteria levels
Signalized and All-way Stop intersections not on SR 1	LOS C
Side Street Stop controlled Intersections not along SR 1 (side street approach)	LOS C, or LOS IF there are less than 15 vehicles per hour (vph) left turns and through movements from the side street AND the intersection volumes do not exceed Caltrans rural peak hour signal warrant criteria levels
[1]Source: City of Fort Bragg Coastal General Plan Circulation Element Goal C-1.1	

Traffic Signal Warrants. The extent to which a traffic signal may be justified is determined based on many factors. From the standpoint of traffic impact analysis, signal warrant criteria contained in the *California Manual of Uniform Traffic Control Devices (CA MUTCD)* are employed in order to assess the relative impact of the additional traffic accompanying a development proposal. For this analysis, Warrant 3 (Peak Hour Traffic) has been employed, and based on the speed limit on SR 1 (40 mph) and Circulation Element policy, rural criteria have been employed.

Vehicle Queues. The extent to which traffic operations at intersections result in vehicle queues that exceed available storage has been assessed. Statistically, the 95th percentile queue has been evaluated. This represents the queue length that would only be exceeded 5% of the time during the peak period. The 95th percentile queues are a byproduct of HCM LOS analysis.

Existing Traffic Volumes / Levels of Service

Traffic Volume Counts. The periods for intersection analysis were selected based on review of the hourly results from daily traffic volume counts. For this study during the weekday p.m. peak hour (4:00 to 6:00 pm) and Saturday midday peak hour (noon to 2:00 pm) were the highest volume periods. The highest hourly traffic volume period within each two hour window was identified as the peak hour and used for this analysis.

Figure 3 illustrates the intersection turning movement count data for study intersections. This figure also notes the geometric layout of each intersection and the location of traffic controls. This data has been used to determine the operating Level of Service (LOS) at each intersection.

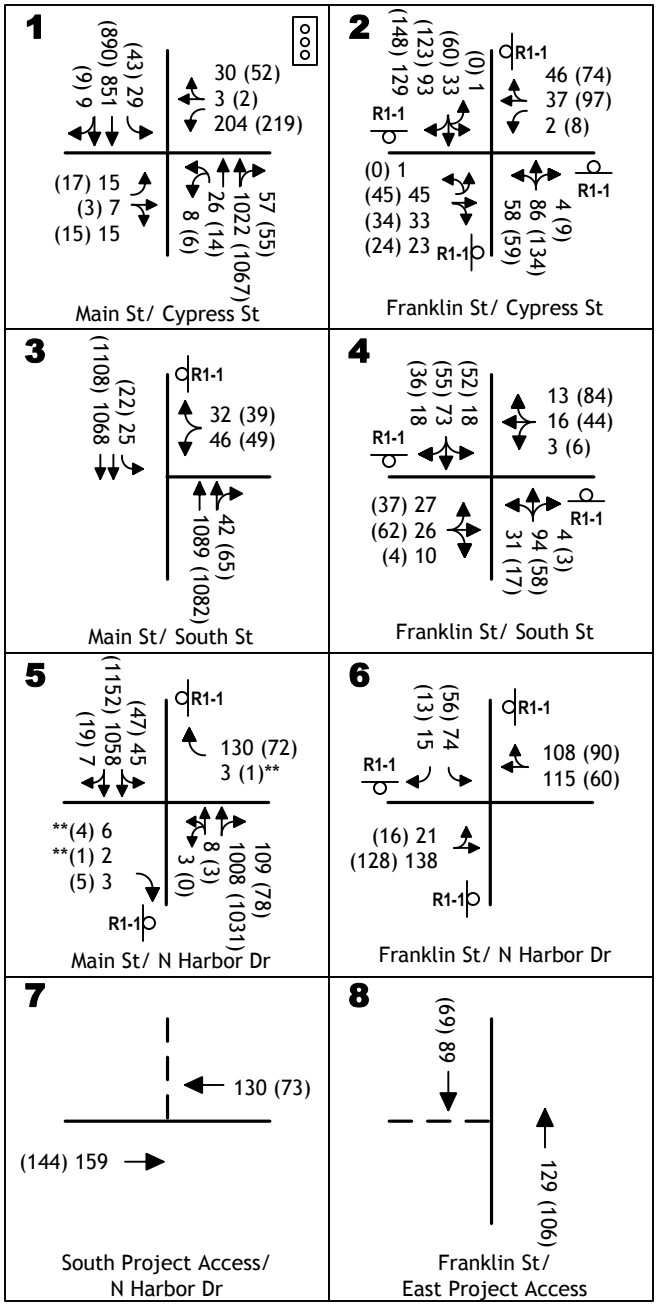
As indicated in Table 4, each intersection delivers a peak hour Level of Service that satisfies minimum City of Fort Bragg requirements. It is worthwhile to note that at the SR 1 / North Harbor Drive intersection a few left turns and through traffic movements were made contrary to posted turn prohibitions. These movements were excluded from the LOS calculations.

TABLE 4
EXISTING INTERSECTION LEVEL OF SERVICE

Intersection	Control	Weekday PM Peak Hour			Saturday Peak Hour		
			Observed			Observed	
		Min	LOS	Average Delay (sec/veh)	Min	LOS	Average Delay (sec/veh)
SR 1 - Main Street / Cypress Street	Signal	D	B	14	D[1]	B	13
Cypress Street / Franklin Street	AWS	C	B	12	C	A	9
SR 1 – Main Street / South Street							
Southbound left turn	WB Stop	D	B	11	D[1]	B	11
Westbound approach			C	23		C	22
South Street / Franklin Street							
Westbound left turn			A	7		A	7
Eastbound left turn	NB/SB Stop	C	A	8	C	A	7
Northbound approach			B	12		B	11
Southbound approach			B	12		B	11
SR 1 – Main Street / No Harbor Drive							
Northbound left turn			B	11		B	11
Southbound left turn	WB Stop	D	B	11	D[1]	B	11
Eastbound approach[2]			C	17		B	13
Westbound approach[2]			B	14		C	16
No Harbor Drive / Franklin Street	AWS	C	A	8	C	A	9

[1] LOS F accepted on Saturday summer peak hour
[2] existing left turn and through traffic contrary to posted traffic controls is not included in LOS calculation
Bold indicates conditions in excess of adopted standard





EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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Peak Period Queues

Table 5 identifies the 95th percentile queue lengths occurring at the signaled SR 1 (Main Street) / Cypress Street intersection during the weekday p.m. peak hour and Saturday peak hour. As noted, the westbound queue length exceeds the length of the striped left turn lane on that approach. In this case the queue extends back into the 40-foot long transition area between the westbound lane at the SR 1 intersection and the TWLT lane that continues towards the Cypress Street / Franklin Street intersection. The 95th percentile queue would not block access to the existing driveway served by the TWLT lane.

TABLE 5
EXISTING INTERSECTION QUEUES

Intersection	Movement	Storage (feet)	Weekday PM Peak Hour		Saturday Peak Hour	
			Volume (vph)	95th % Queue (feet)	Volume (vph)	95th % Queue (feet)
SR 1 - Main Street / Cypress Street	NB left	120	20	35	34	50
	SB left	130	43	55	29	45
	EB left	80	17	<25	15	<25
	WB left	100	219	140	204	130
Cypress Street / Franklin Street	EB left	75	45	<25	46	<25
	WB left	55	8	<25	2	<25

Highlighted values exceed available storage

Traffic Signal Warrants

The volume of traffic occurring at unsignalized intersections was compared to peak hour traffic warrants, and the results are noted in Table 6. As shown, the current volume at the SR 1 (Main Street) / South Street intersection is close to satisfying warrants, but the volumes at this location remain below the minimum requirements for the side street approach (i.e., 100 vph). On Saturday, the peak hour volumes at the SR 1 (Main Street) / North Harbor Drive intersection reach the level that satisfy peak hour warrants, but because the approach is limited to right-turns-only, a traffic signal is not justified.

TABLE 6 CURRENT TRAFFIC SIGNAL WARRANTS						
	Weekday PM Peak Hour			Saturday Peak Hour		
	Volume (vph)			Volume (vph)		
Intersection	Major	Minor	Warrant Met?[1]	Major	Minor	Warrant Met?[1]
Cypress Street / Franklin Street	533	179	No	404	102	No
SR 1 – Main Street / South Street	2,277	88	No	2,224	78	No
South Street / Franklin Street	237	143	No	238	63	No
SR 1 – Main Street / No. Harbor Drive	2,330	72	No	2,338	130	**Yes**
No Harbor Drive / Franklin Street	299	69	No	382	89	No
[1]based on Rural Peak Hour volume warrant only						

Alternative Transportation Modes

Pedestrian Facilities. There are sidewalks in many locations on the street surrounding the project. Sidewalk is present at these locations:

- both sides of Franklin Street from a point about 250 feet south of South Street northerly to Cypress Street
- east side of Franklin Street for 100 feet north of North Harbor Drive
- both sides of Cypress Street
- both sides of South Street
- north side of North Harbor Drive from SR 1 to the project site (230 feet)
- south side of North Harbor Drive from SR 1 to 160 feet east
- east side of Main Street (SR 1)

Crosswalks are striped at intersections as noted earlier, and ADA ramps have been provided at most locations.

Bicycle Facilities. The SR 1 along the Pacific coast is a popular area for recreational cyclists. The *City of Fort Bragg 2009 Bicycle Master Plan (2009)* outlines the location and nature of existing bicycle facilities in the community. Bicycle facilities are categorized within three classifications:

Class I Bikeway: trails or paths that are separated from automobile traffic,
Class II Bikeway: bicycle lanes that are on street but delineated by striping, and
Class III Bikeway: bicycle routes where bicycles and automobiles share the road.

There are currently Class II striped bicycle lanes on the east and west side of Franklin Street north of South Street to the Oak Street intersection.

Main Street (SR 1) is designated a Class III bike route through Fort Bragg.

The plan suggests that South Street and North Harbor Drive south of Woodward Street should be developed as Class II bike routes.

Transit Facilities. The Mendocino Transit Authority (MTA) provides transit service to the Mendocino and Sonoma county areas. Two routes pass the project site. Route 5 (Braggabout) and Route 60 (The Coaster) traverse the community and have a stop near the County Social Services building at the South Street / Franklin Street intersection. Route 5 provides service on one hour headways from 7:00 to 6:00 p.m. Monday thru Friday, with service extending to 8:30 on Saturdays. Route 60 runs four circuits on weekdays at 7:30 a.m., 11:57 a.m., 2:57 p.m. and 3:57 p.m., and this route also extends later on Saturdays.

PROJECT CHARACTERISTICS

The relative impacts of developing the Grocery Outlet Store and the adequacy of site access is dependent on the physical characteristics of the adjoining street system, as well as the amount of traffic generated by the proposed project. The amount of additional traffic on a particular section of the street network is dependent upon two factors:

I. Trip Generation, the number of new trips generated by the project, and
II. Trip Distribution and Assignment, the specific routes that the new traffic takes.

Trip Generation

Trip Generation Rates. This analysis considered trip generation rates derived from several sources. The Institute of Transportation Engineers (ITE) publication *"Trip Generation, 10th Edition"* provides information on the characteristics of various retail uses. The use most similar to a Grocery Outlet Store is "Supermarket" (Code 850). Table 7 identifies the average trip generation rates reported by ITE.

TABLE 7
TRIP GENERATION RATES

Land Use / Source	Unit	Saturday Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Supermarket (code 850)	ksf	51%	49%	10.34	51%	49%	9.24
Grocery Outlet	16 ksf	84	81	165	75	73	148
Pass-by Trips	36%	<30>	<30>	<60>	<27>	<26>	<53>
Net Primary Trips		54	51	105	48	47	95

Source: ITE Trip Generation, 10th Edition

Trip Generation Forecasts. Table 7 displays the Saturday midday and p.m. peak hour trip generation forecasts for the project. As indicated, the project would generate 165 Saturday and 148 p.m. peak hour trips at its driveways. A portion of the traffic drawn to these stores would be drawn from the stream of traffic already passing the site. The ITE *Trip Generation Handbook, 3rd Edition* notes that 36% of the weekday trips generated by supermarkets are typically "pass-by", and this rate has been used for both study time periods.

As noted in Table 7, the project is expected to generate 105 "primary" trips during the Saturday peak hour, and 95 during the p.m. peak hour.

ITE data is also available for daily traffic volumes. On a daily basis, a 16,000 sf Grocery Outlet Store could generate 1,709 weekday daily trips, with 2,842 trips on Saturday. After discounting for "pass-by trips", the proposed project may generate 1,094 new daily trips (½ inbound and ½ outbound) on a weekday and 1,818 on a Saturday.

Vehicle Trip Distribution

The distribution of project traffic was determined based on consideration of the demographic distribution of residences and competing stores in this area of Mendocino County, on the typical trade area characteristics of Grocery Outlet Stores, and on assumptions made for other retail projects in previous Fort Bragg traffic studies. Grocery Outlet Stores in rural communities can attract customers from a relatively broad area that extends beyond the limits of the community, particularly on weekends. Based on assumptions made for other traffic studies, we assumed that 50% of the trips specifically made to visit the Grocery Outlet Store (i.e., primary trips) will have origins / destination south of the Noyo River and use SR 1 and SR 20 to reach the site. The balance will be oriented to the north and to areas of the community east of Franklin Street. Table 8 summarizes the assumed distribution of new trips.

TABLE 8
DIRECTIONAL TRIP DISTRIBUTION (PRIMARY TRIPS)

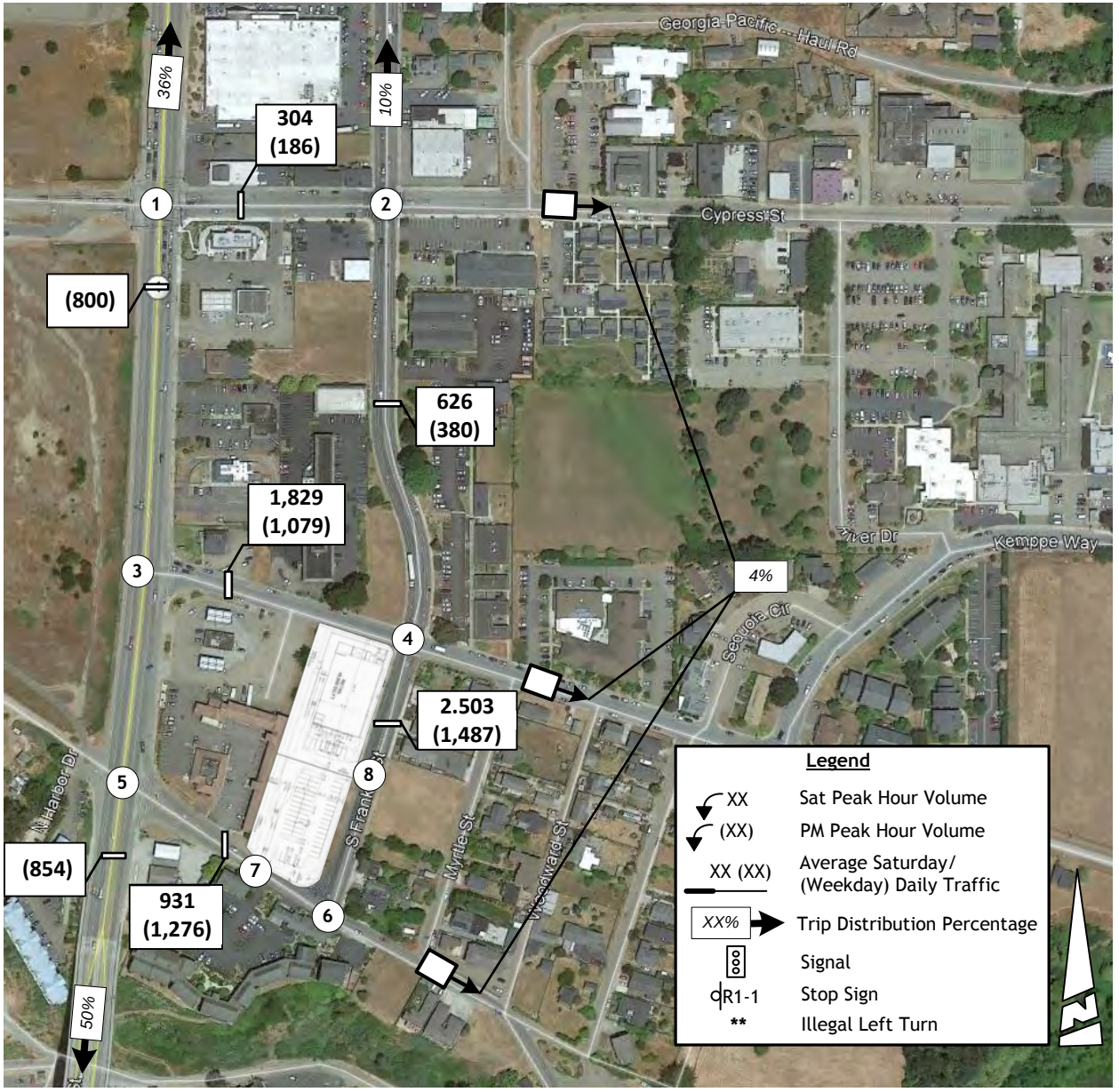
Direction	Route	Percentage of New Trips
North	SR 1 beyond Cypress Street	36%
	Franklin Street north of Cypress Street	10%
East	Harbor Drive, South Street and Cypress Street east of Franklin Street	4%
South	SR 1 beyond Noyo River	50%
Total		100%

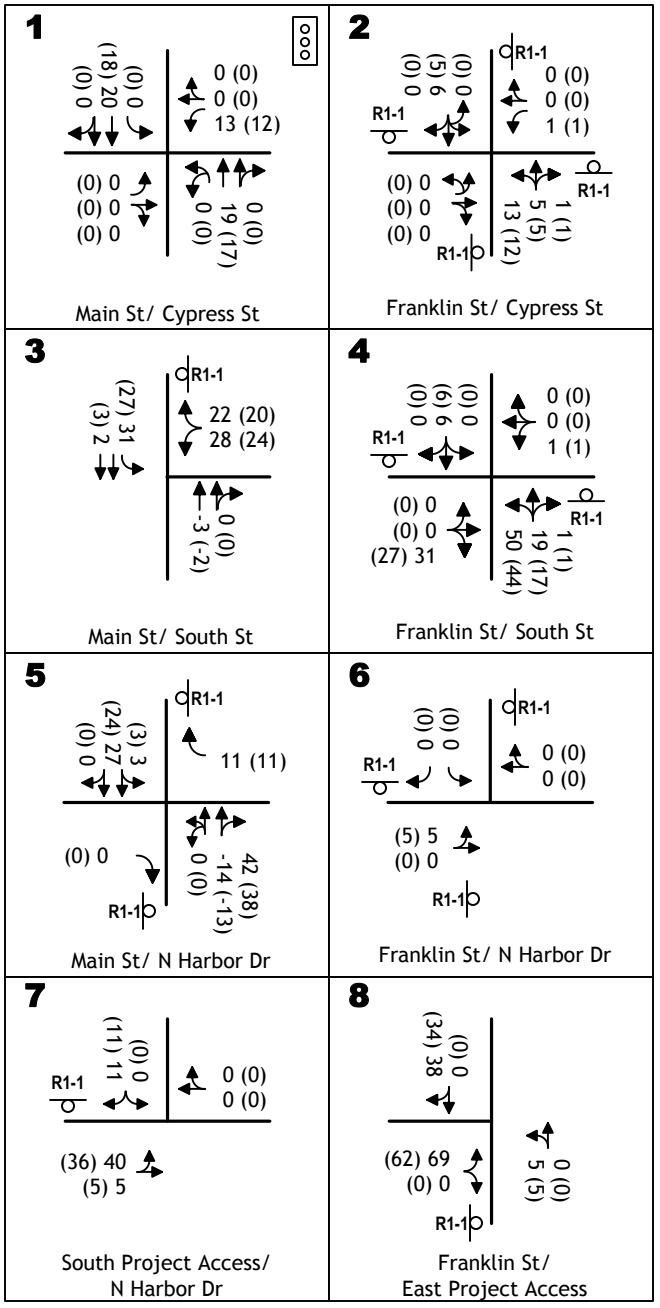
Pass-by trips will be drawn from traffic already passing the site as part of anther trips. In this case, because the volume of traffic on Main Street (SR 1) is much greater than that occurring on Franklin Street or North Harbor Drive adjoining the site, it has been assumed that pass-by traffic will mainly be diverted from the state highway. Because the volume of peak hour traffic headed northbound and southbound on SR 1 is relatively even, pass-by trips have been assumed to be diverted equally from each direction.

Trip Assignment

Using the trip generation and distribution assumptions described above, the trips generated by the proposed project were assigned to the study area street system. In this case consideration was given to the relative travel time along alternative routes to the same destination. This

consideration particularly involved traffic leaving the project to headed south on SR 1 and reflect the left turn prohibition at the North Harbor Drive intersection, the stop controls at the South Street intersection and the availability of signaled access to southbound SR 1 at the Cypress Street intersection. City staff report that on peak weekend many drivers elect to drive north past South Street to Cypress and turn onto SR 1 at that location. This analysis assumes this maneuver will be attractive, and 1/3 of the exiting project traffic headed south of SR 1 has been assigned along that route. Figure 4 presents resulting peak hour volumes accompanying the Grocery Outlet project. As indicated, based on the layout of the site and these assumptions we anticipate that the Franklin Street driveway will be the primary access to the site, and 70% of the project's total traffic in and out is shown to use that driveway.





PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 4

PROJECT TRAFFIC IMPACTS

Existing Plus Project Traffic Conditions and Levels of Service

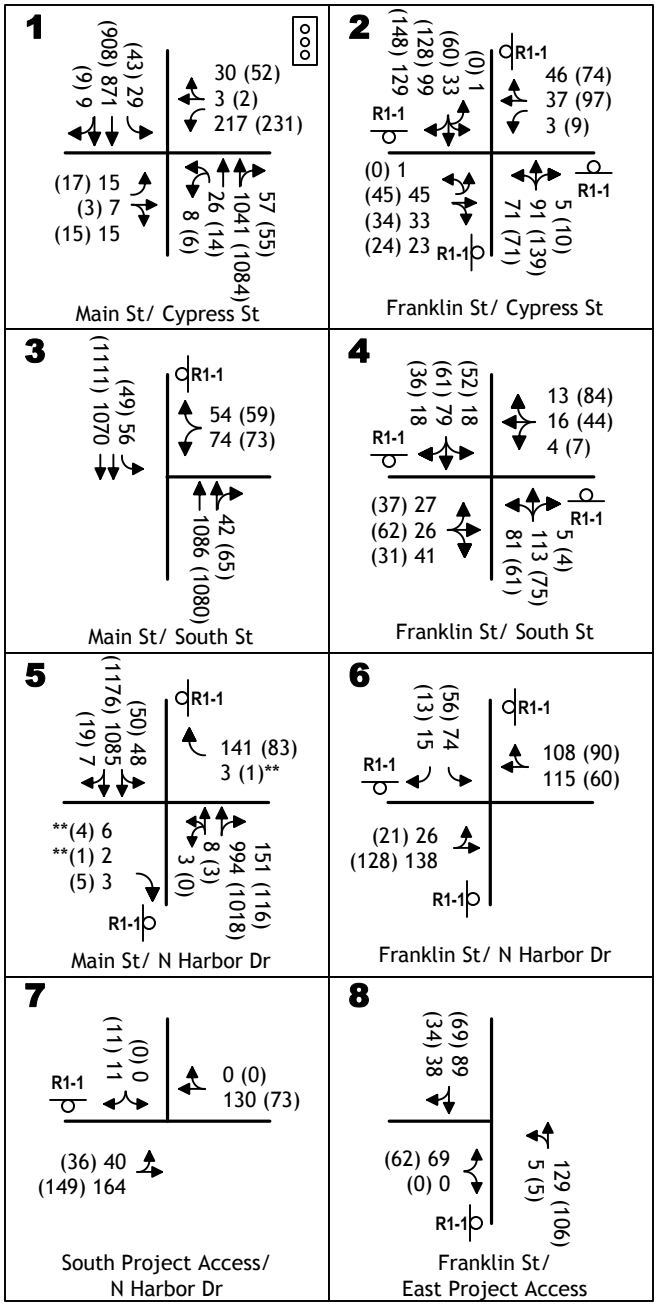
Figure 5 superimposes project trips onto the current background traffic volumes to create the "Existing plus Project" condition. Subsequent tables compare the "Existing" and "Existing plus Project" Levels of Service.

Project Traffic Impacts to Level of Service at Intersections. As shown in Table 9, the addition of project traffic would not appreciably increase the length of delays already occurring at most study intersections, but the project does change the Level of Service at one location. At the Main Street / South Street intersection the addition of project trips will result in LOS D conditions on the westbound approach. However, LOS D is considered acceptable on approaches to the state highway, and as a result the project's impact is not significant.

Project Impacts based on Peak Period Queue Lengths. As noted in Table 10, the project will add traffic at some locations where turn lane queues are a consideration. At the Main Street / Cypress Street intersection the project will add westbound left turns, and the 95th percentile queue may increase by about 10 feet during peak periods. As noted in the discussion of existing conditions, the queue will continue to extend into the transition area between the left turn lane and the adjoining TWLT lane but will not spillover into the adjoining through lane. Because the through travel lane is not affected, the project's impact is not significant

Traffic Signal Warrants. The volume of traffic occurring at each intersection with development of the project was again compared to the CA MUTCD peak hour signal warrant thresholds, as noted in Table 11. With the project peak hour traffic signal warrants are met at the SR 1 (Main Street) / South Street intersection during the weekday p.m. and Saturday peak period. However, under General Plan policy this is not a significant impact because the approach Level of Service is acceptable (i.e., LOS D). The SR 1 (Main Street) / North Harbor Drive intersection would continue to carry volumes that satisfy peak hour warrants on Saturday, but because the Level of Service remains acceptable, the project's impact is not significant.





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EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

figure 5

TABLE 9
EXISTING PLUS GROCERY OUTLET STORE INTERSECTION LEVEL OF SERVICE

Intersection	Control	Weekday PM Peak Hour					Saturday Peak Hour				
			Existing		Ex Plus Project			Existing		Ex Plus Project	
		Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
SR 1 - Main Street / Cypress Street	Signal	D	B	14	B	14	D[1]	B	13	B	13
Cypress Street / Franklin Street	AWS	C	B	12	B	12	C	A	9	B	10
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Westbound approach			C	23	D	29		C	22	D	29
South Street / Franklin Street											
Westbound left turn			A	7	A	7		A	7	A	7
Eastbound left turn	NB/SB Stop	C	A	8	A	8	C	A	7	A	7
Northbound approach			B	12	B	14		B	11	B	12
Southbound approach			B	12	B	13		B	11	B	11
SR 1 – Main Street / No Harbor Drive											
Northbound left turn			B	11	B	11		B	11	B	11
Southbound left turn	WB Stop	D	B	11	B	12	D[1]	B	11	B	12
Eastbound approach[2]			B	13	B	13		B	13	B	13
Westbound approach[2]			B	14	B	15		C	16	C	17
No Harbor Drive / Franklin Street	AWS	C	A	8	A	8	C	A	9	A	9

[1]LOS F accepted on Saturday summer peak hour
[2] existing left turn and through traffic contrary to posted traffic controls is not included in LOS calculation
Bold indicates conditions in excess of adopted standard. **Highlighted** values are a significant impact

TABLE 10
EXISTING PLUS GROCERY OUTLET STORE INTERSECTION QUEUES

Intersection	Movement	Storage (feet)	Weekday PM Peak Hour					Saturday Peak Hour				
			Existing		Existing Plus Project			Existing		Existing Plus Project		
			Volume (vph)	95th % Queue (feet)	Volume (vph) Project only	Volume (vph) Total	95th % Queue (feet)	Volume (vph)	95th Queue (feet)	Volume (vph) Project only	Volume (vph) Total	95th % Queue (feet)
SR 1 - Main Street / Cypress Street	NB left	120	20	35	0	20	35	34	50	0	34	50
	SB left	130	43	55	0	43	55	29	45	0	29	45
	EB left	80	17	<25	0	0	<25	15	<25	0	15	<25
	WB left	100	219	140	12	231	150	204	130	13	217	140
Cypress Street / Franklin Street	EB left	75	45	<25	0	45	<25	46	<25	0	46	<25
	WB left	55	8	<25	0	9	<25	2	<25	0	2	<25

Highlighted values exceed available storage

TABLE 11 EXISTING PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL WARRANTS						
	Weekday PM Peak Hour			Saturday Peak Hour		
	Volume (vph)		Warrant Met?[1]	Volume (vph)		Warrant Met?[1]
Intersection	Major	Minor		Major	Minor	
Cypress Street / Franklin Street	556	180	No	429	102	No
SR 1 – Main Street / South Street	2,305	132	**Yes**	2,254	128	**Yes**
South Street / Franklin Street	289	135	No	314	94	No
SR 1 – Main Street / No Harbor Drive	2,382	83	No	2,296	141	**Yes**
No Harbor Drive / Franklin Street	299	69	No	387	89	No
[1]based on Rural Peak Hour volume warrant only						

Project Impacts to Alternative Transportation Modes

Development of the proposed Grocery Outlet may incrementally contribute to the demand for facilities to serve pedestrians, cyclists and transit riders in this area of Mendocino County, but this demand is expected to be relatively minor.

Pedestrian Impacts. It is possible employees or customers of this project will elect to walk in appreciable numbers to and from the site, as there is residential or commercial development near the site. However, sidewalk exists on the streets adjoining the site, and with frontage improvements sidewalks will generally provide a complete path of travel to and from the site. There are two locations where gaps in the pedestrian system may remain, including:

- The south side of South Street from Franklin Street easterly to Myrtle Street (150 feet)
- The north side of North Harbor Drive between Franklin Street and Myrtle Street (100 feet)

The gaps exist at locations where it appears that residences were constructed prior to the City of Fort Bragg requiring frontage improvements. Privately maintained landscaping exists near the road. The availability of right of way to construct improvements is unknown.

While it is not the responsibility of the project proponents to install sidewalks along these areas it would be appropriate for the City of Fort Bragg to considered installing NO PARKING signs in the area to preserve the edge of roadway for pedestrians.

Bicycle Impacts. The use of bicycles may be an option for employees or customers to the site. Typically, grocery stores do not attract large numbers of cyclists due to the need to carry goods purchased, however it is likely that current bicycle activity by visitors to the Mendocino coast leads to greater use of that mode in the community. The number of cyclists associated with this project is not likely to create any appreciable safety impacts on adjoining streets, as Class II bike lanes exist on Franklin Street north of the site, and Franklin Street along the project frontage is wide enough to accommodate shared bicycle and automobile activity. While the project's off-site impact is not significant, applicable short-term bicycle storage facilities should be installed on site, as required by the City of Fort Bragg.

Transit Impacts. Project employees or customers will be able to use MTA service as it already passes the project site and stops near the corner of South Street and Franklin Street. The project's impact is not significant, and mitigation is not required.

Site Access

Throat Depth. Access to the site is proposed via driveways on Franklin Street and on North Harbor Drive. The Franklin Street driveway is 30 feet wide, and the main parking aisle is separated from the street by about 40 feet of throat. Two waiting vehicles can queue in this area prior to blocking inbound access to those parking spaces. Because the background traffic volume on Franklin Street is low, HCM Level of Service calculations completed for the access indicate that the 95th percentile queue at the exit will be one (1) vehicle or less during peak periods, and this queue can be accommodated. Thus, the access is adequate from this standpoint.

The North Harbor Drive driveway is also 30 feet wide, and has a 50 foot throat. Based on HCM calculations, the peak queue is also less than one (1) vehicle, and queuing is not an issue at this location.

Sight Distance. The adequacy of sight distance at each driveway was reviewed from the standpoint of the minimum requirements of the Caltrans Highway Design Manual (HDM). HDM Table 201.1 notes that for a 25 mph design speed a minimum of 150 feet of sight distance is needed. Review of the proposed driveway locations reveals that the view in both directions from each location is unobstructed, and that the minimum require will clearly be satisfied.

CUMULATIVE IMPACTS

The impacts of the Grocery Outlet Store project have also been considered within the context of future traffic conditions in this area of Fort Bragg. Long term traffic conditions have been forecast and evaluated based on growth assumptions made in other recent traffic studies and based on understanding of other approved projects in this area.

Year 2040 Long Term Background Cumulative Conditions

Approach to Developing Traffic Volume Forecasts. Future traffic volumes were created based on long term future traffic volumes growth rates provide by Caltrans. *Caltrans 2014 Growth Factors (2014)* have been employed for recent Fort Bragg traffic studies and have been used herein. These 20-year growth factors were developed from California Air Resources Board traffic growth projections and historic traffic growth data. A growth factor of 1.15 has been employed, which is equivalent to roughly 0.7% annual growth.

The extent to which other approved projects should be considered in future forecasts in addition to the growth rate was considered. City of Fort Bragg staff reported that one approved project exists in the area of the Grocery Outlet Store that would be expected to result in traffic volume increases beyond that already addressed by the assumed background growth rate. *The Plateau Housing Project* is located on the east end of South Street south of Kempee Way.

This project totals 68 residences, divided between 20 units of permanent supportive housing, 25 units of affordable senior housing and 23 units of workforce / family housing. Based on ITE rates for Detached Senior Residences (code 215) and Multiple Family Residences (code 220) the project could generate 432 weekday and 418 Saturday daily trips, with 32 trips in the weekday p.m. peak hour and 36 trips in the Saturday midday peak. These trips were assigned to the study area street system based on current travel patterns, and subsequently superimposed onto the cumulative background forecast.

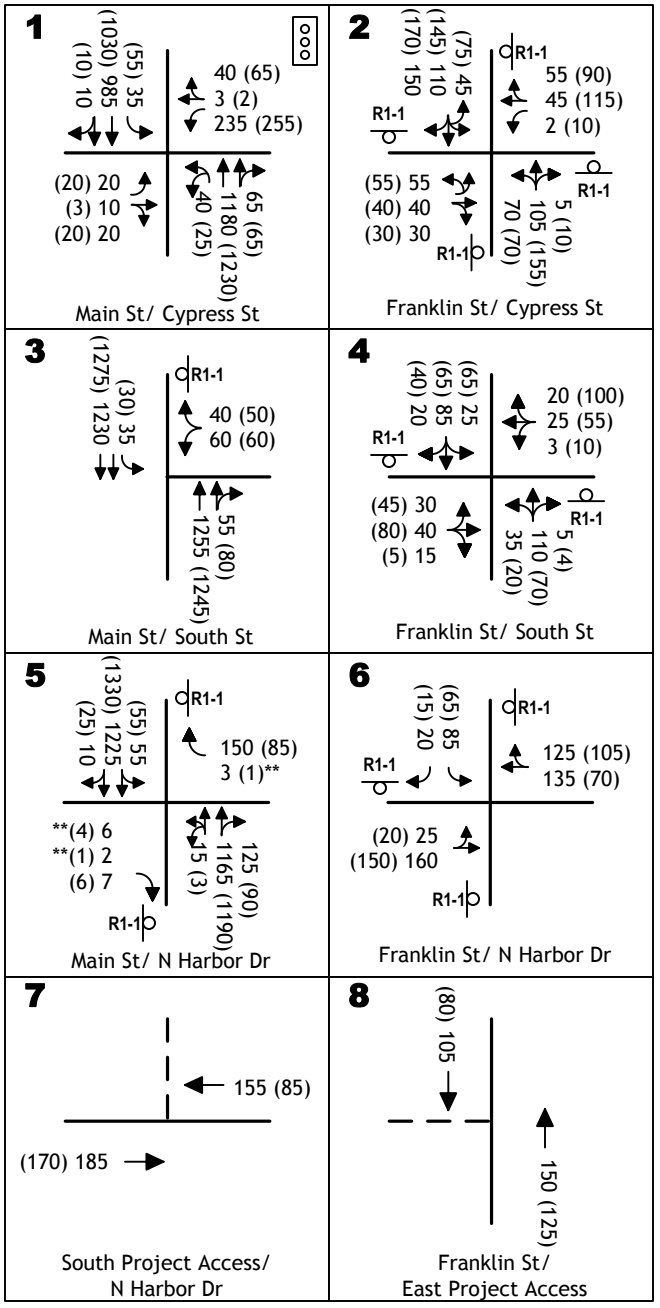
Traffic Volume Forecasts. Figure 6 identifies "No Project" background Year 2040 traffic volumes created by applying the identified growth rate to observed traffic volumes and adding trips from the approved project. Peak hour data was rounded to the nearest five (5) vehicles. Figure 7 identifies Year 2040 volumes with Grocery Outlet Store that were created by superimposing project traffic onto the No Project background condition.

No Project Conditions. Future conditions without the project were reviewed as noted in the text which follows.

Levels of Service. Peak hour intersection Levels of Service were recalculated for the future background condition assuming no change to current intersection geometries. As shown in Table 12, without the project all study intersections will continue to operate with Levels of Service that satisfy minimum LOS D standard at intersections on SR 1 and LOS C at other locations.

Peak Queues. As noted in Table 13, background traffic growth will result in longer queues at the intersections on Cypress Street. At the Main Street / Cypress Street intersection the 95th percentile queue in the westbound left turn lane may increase to 165 feet during peak periods. However as noted in the discussion of existing conditions, the queue will continue to extend into the transition area between the left turn lane and the adjoining TWLT lane but will not spillover into the adjoining through lane. Because the through travel lane is not affected, background conditions would be acceptable.

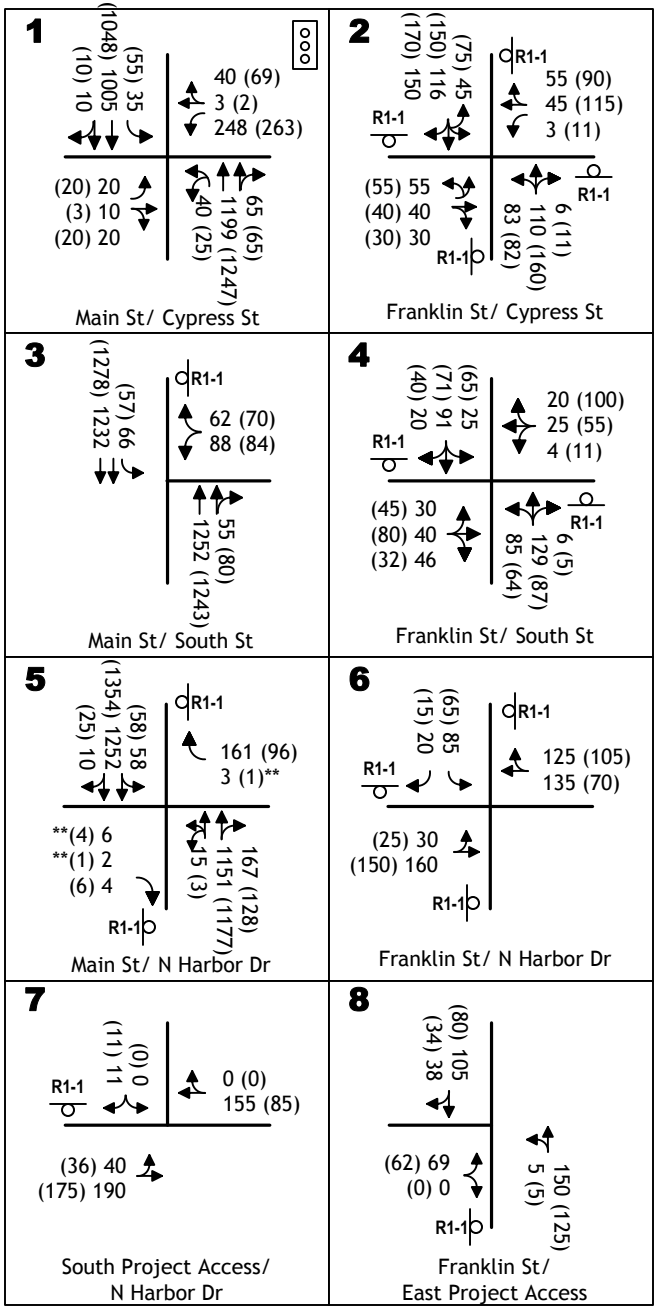




CUMULATIVE 2040 BASE TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

0951-10 RA 10/22/2019

figure 7

TABLE 12
YEAR 2040 PLUS GROCERY OUTLET STORE INTERSECTION LEVEL OF SERVICE

Intersection	Control	Weekday PM Peak Hour					Saturday Peak Hour				
			Year 2040 Base		Base Plus Project			Year 2040 Base		Base Plus Project	
		Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
SR 1 - Main Street / Cypress Street	Signal	D	B	19	B	20	D[1]	B	16	B	17
Cypress Street / Franklin Street	AWS	C	B	15	B	15	C	B	11	B	11
SR 1 – Main Street / South Street											
Southbound left turn	WB Stop	D	B	13	B	13	D[1]	B	13	B	13
Westbound approach			D	32	**E**	**47**		D	32	**E**	**48**
WB right turn only[2]					C	20					
All-way stop					**F**	**176**					
Roundabout					A	9					
Traffic Signal					A	10					
South Street / Franklin Street											
Westbound left turn	NB/SB Stop	C	A	7	A	8	C	A	7	A	7
Eastbound left turn			A	8	A	8		A	7	A	7
Northbound approach			B	14	B	16		B	12	B	13
Southbound approach			B	14	B	15		B	11	B	12
SR 1 – Main Street / No Harbor Drive											
Northbound left turn	WB Stop	D	B	12	B	13	D[1]	B	12	B	12
Southbound left turn			B	13	B	13		B	13	B	13
Eastbound approach[3]			C	15	B	15		B	14	B	14
Westbound approach[3]			C	16	B	17		C	19	C	20
No Harbor Drive / Franklin Street	AWS	C	A	9	A	9	C	A	9	A	9

[1]LOS F accepted on Saturday summer peak hour
[2] the SR 1 / Cypress Street intersection will operate at LOS C with 21.0 seconds of delay
[3] existing left turn and through traffic contrary to posted traffic controls is not included in LOS calculation
Bold indicates conditions in excess of adopted standard. **Highlighted** values are a significant impact

TABLE 13
YEAR 2040 PLUS GROCERY OUTLET STORE INTERSECTION QUEUES

Intersection	Movement	Storage (feet)	Weekday PM Peak Hour					Saturday Peak Hour				
			Year 2040 Base		Existing Plus Project			Existing		Existing Plus Project		
			Volume (vph)	95th % Queue (feet)	Volume (vph)		95th % Queue (feet)	Volume (vph)	95th Queue (feet)	Volume (vph)		95th % Queue (feet)
					Project only	Total				Project only	Total	
SR 1 - Main Street / Cypress Street	NB left	120	25	40	0	25	40	40	55	0	40	55
	SB left	130	55	70	0	55	70	35	50	0	35	50
	EB left	80	20	<25	0	20	<25	20	<25	0	20	<25
	WB left	100	255	165	12	267	170	235	150	13	248	160
Cypress Street / Franklin Street	EB left	75	55	<25	0	55	<25	55	<25	0	55	<25
	WB left	55	10	<25	0	10	<25	2	<25	0	2	<25

Highlighted values exceed available storage

Traffic Signal Warrants. Table 14 notes Year 2040 background traffic volumes and identifies the status of resulting peak hour traffic signal warrants. As indicated, the SR 1 (Main Street) / South Street intersection carries volumes that satisfy warrants in the weekday p.m. peak hour, while the SR 1 (Main Street) / North Harbor Drive intersection satisfies peak hour warrants in the Saturday peak hour.

TABLE 14
YEAR 2040 BASE TRAFFIC SIGNAL WARRANTS

Intersection	Weekday PM Peak Hour			Saturday Peak Hour		
	Volume (vph)		Warrant Met?[1]	Volume (vph)		Warrant Met?[1]
	Major	Minor		Major	Minor	
Cypress Street / Franklin Street	615	205	No	465	120	No
SR 1 – Main Street / South Street	2,620	100	**Yes**	2,565	90	No
South Street / Franklin Street	271	165	No	275	70	No
SR 1 – Main Street / No Harbor Dr	2,678	85	No	2,575	150	**Yes**
No Harbor Drive / Franklin Street	345	80	No	445	105	No

[1]based on Rural Peak Hour volume warrant only

Plus Project Conditions. Year 2040 conditions with the addition of Grocery Outlet Store were evaluated and the significance of project impacts was determined.

Level of Service. As noted in Table 12, the addition of project trips increases delays somewhat and at one intersection the operating Level of Service will be in excess of the LOS D minimum. At the SR 1 (Main Street) / South Street intersection the Level of Service on the westbound approach will drop to LOS E in the weekday p.m. peak hour and in the peak Saturday hour. LOS E exceeds the weekday p.m. peak hour standard of LOS D, but is accepted under the General Plan policy for peak summer conditions.

Peak Queues. As noted in Table 13, the project will add westbound left turns at the SR 1 (Main Street) / Cypress Street intersection, and the 95th percentile queue may increase by about 10 feet during peak periods. However as noted in the discussion of existing plus project impacts, the queue will continue to extend into the transition area between the left turn lane and the adjoining TWLT lane but will not spillover into the adjoining through lane. Because the through travel lane is not affected, the project's impact is not significant.

Traffic Signal Warrants. Table 15 notes Year 2040 Plus Project traffic volumes and identifies the status of resulting peak hour traffic signal warrants. As indicated, peak hour traffic signal warrants would be satisfied at the same intersections identified under the background Year 2040 conditions. The SR 1 (Main Street) / South Street intersection would carry volumes that

satisfy warrants in both the weekday p.m. peak hour and Saturday peak hour, while the SR 1 (Main Street) / North Harbor Drive intersection satisfies peak hour warrants in the Saturday peak hour.

TABLE 15
YEAR 2040 PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL WARRANTS

Intersection	Weekday PM Peak Hour			Saturday Peak Hour		
	Volume (vph)		Warrant Met?[1]	Volume (vph)		Warrant Met?[1]
	Major	Minor		Major	Minor	
Cypress Street / Franklin Street	638	206	No	490	120	No
SR 1 – Main Street / South Street	2,648	144	**Yes**	2,595		**Yes**
South Street / Franklin Street	321	152	No	351	101	No
SR 1 – Main Street / No Harbor Dr	2,730	96	No	2,633	161	**Yes**
No Harbor Drive / Franklin Street	350	65	No	450	85	No

[1]based on Rural Peak Hour volume warrant only

Project Impacts / Mitigation Options. Based on General Plan policy, the project's cumulative impact is significant at the SR 1 (Main Street) / South Street intersection since the project will cause the intersection to operate at LOS E, which exceeds the LOS D minimum, and peak hour traffic signal warrants are met. The project's impact is significant, and mitigation is required based on Level of Service.

To address future conditions at this location it would be necessary to consider alternatives such as:

- **Prohibit westbound left turns**, as is the case at the SR 1 (Main Street) / North Harbor Drive intersection.
- Install traffic controls that stop the flow of traffic on SR 1 in order to allow side street traffic to enter, such as an **all-way stop,** a **traffic signal** or a **roundabout.**

Table 12 also presents the Levels of Service occurring during the weekday p.m. peak hour with the Grocery Outlet Store as these treatments are pursued. As indicated, prohibiting left turns would result in LOS C at the intersection. While traffic diverted will likely make a right turn before making a u-turn at Cypress Street, the SR 1 (Main Street) / Cypress Street intersection would still operate at LOS C with this additional traffic. The cost to sign and stripe the intersection for these new controls would be minimal. Either a traffic signal or roundabout would yield LOS A, a Level of Service that satisfies the City's minimum standard, but the feasibility of either option at an intersection that is only 700 feet from the Cypress Street traffic signal will need to be confirmed. The cost of a traffic signal on the state highway would likely be about $500,000, depending on the extent of ancillary intersection improvements required under

Caltrans standards. The cost to retrofit an existing intersection to a two-lane roundabout would likely be in the range of $1.5 to $2.5 million.

Because any improvements within the state right of way require Caltrans approval, it is important to consider the steps needed to gain approval for any mitigation. Caltrans policy regarding applicable traffic controls has recently been expanded based on ***Traffic Operations Policy Directive 13-02.*** This directive requires that Caltrans consider the relative merits of alternative traffic controls when it becomes necessary to stop traffic on state highways. Roundabouts are the default intersection control, but all-way stops and traffic signals are to be considered. The policy directive requires preparation of an ***Intersection Control Evaluation (ICE)*** to determine the preferred traffic control. A preliminary ICE report would consider issues such as comparative traffic operations, right of way requirements, effects on adjoining access, etc. City of Fort Bragg preferences amongst feasible alternatives can also be considered. After an applicable solution is identified and funded, work would be completed in the Caltrans right of way under an encroachment permit from Caltrans.

Mitigations. The Grocery Outlet Store project proponents should contribute their fair share to the cost of regional circulation improvements by paying adopted fees and making frontage improvements. In addition, the project should contribute its fair share to the cost of cumulatively needed improvements to the SR 1 (Main Street) / South Street intersection.

Table 16 notes the Grocery Outlet Store project's relative contribution to future traffic volumes at each study intersection based on the method recommended in Caltrans traffic study guidelines. As shown, project trips represent 16.1% of the future new traffic at the SR 1 / South Street intersection. Assuming a $500,000 traffic signal, the project's contribution could be $84,500.

TABLE 16
FAIR SHARE CALCULATION

	Weekday PM Peak Hour Traffic (vph)					
		Year 2040		Project Only	Net Future Growth	Fair Share
	Existing	No Project	Plus Project			
Location	A	B	C	C-B	C-A	(C-B)/(C-A
SR 1 / Cypress St	2,392	2,780	2,827	47	435	10.8%
Cypress St / Franklin St	815	965	989	24	175	13.7%
SR 1 / South St	2,365	2,740	2,812	72	447	16.1%
South St / Franklin St	458	559	655	96	197	48.7%
SR 1 / No Harbor Dr	2,413	2,788	2,851	63	438	14.4%
No Harbor Dr / Franklin St	363	425	430	5	67	7.5%

VEHICLE MILES TRAVELED (VMT)

Background

Starting in July 2020 SB 743 requires agencies to move from a Level of Service based impacts analysis under CEQA to analysis based on regional Vehicle Miles Traveled (VMT). Current direction regarding methods to identify VMT and comply with state requirements is provide by the California Governor's Office of Planning and Research (OPR)' December 2018 publication, *Technical Advisory on Evaluating Transportation Impacts in CEQA*.

This advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. Again, OPR provides this Technical Advisory as a resource for the public to use at their discretion. OPR is not enforcing or attempting to enforce any part of the recommendations contained herein. (Gov. Code, § 65035 ["It is not the intent of the Legislature to vest in the Office of Planning and Research any direct operating or regulatory powers over land use, public works, or other state, regional, or local projects or programs."].)

OPR provides this direction for retail projects:

> ***Retail Projects.*** *Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.*

Project Impacts

The project is a discount grocery store located near the center of the population center of Fort Bragg, which is expected to provide a majority of its customer base. The most comparable retail outlets are located:

South of Noyo River
- Harvest Market

North of Noyo River
- Safeway
- Purity Market

Based on the location of competing stores, the most likely effect on regional travel associated with the development of the project is to slightly reduce the length of trips from areas south of the river off of SR 20 or SR 1 that are today made northbound, and to offer another option for shopping trips made by residents of areas to the north. As the proposed project is relatively close to other stores, the regional effect on VMT is likely to be small, but generally will be reduced by offering a closer option for northbound traffic.

SUMMARY AND CONCLUSIONS

This report documents **KD Anderson & Associates'** analysis of the traffic impacts associated with developing a Grocery Outlet Store in Fort Bragg, California. The analysis addresses both current and future background conditions at key intersections in the vicinity of the site. To assess traffic impacts, the characteristics of the proposed project have been determined, including estimated trip generation and the directional distribution / assignment of project generated traffic. That traffic was added to current and future background traffic levels, and project impacts have been evaluated using the methods and significance criteria adopted by the City of Fort Bragg and Caltrans.

Project Description. The proposed project consists of a 16.0 ksf Grocery Outlet Store located on a site on the west side of Franklin Street between South Street and North Harbor Drive. The project will include development of 54 parking spaces, and access to the site will be provided via new driveways on Franklin Street and North Harbor Drive. The northern half of the site frontage has sidewalks, and planned frontage improvements will be completed on the balance of the site.

Trip Generation. The project is expected to generate a total of 1,709 weekday daily trips and 2,842 daily trips on a Saturday. Roughly 6% (165 trips) of the Saturday traffic occurs in the midday peak hour and 9% (148 trips) of the weekday trips occur during the weekday p.m. peak hour. After discounting for pass-by trips already occurring on SR 1 (Main Street) near the site, the project is projected to generate 105 new primary trips in the Saturday midday peak hours, and 95 new primary trips in the weekday p.m. peak hours.

Existing Conditions. The traffic study considered three adjoining intersections on SR 1 (Main Street) and three intersections on Franklin Street. Current Levels of Service at study intersections satisfy the City of Fort Bragg Coast General Plan minimum Level of Service D standard for SR 1 and LOS C elsewhere. Peak hour traffic signal warrants are met at one intersection on SR 1, but because the side street approach is limited to right turns only, Level of Service is acceptable and a traffic signal is not justified.

Existing Plus Project Traffic Conditions. Development of the project alone does not result in a significant impact to traffic based on the Level of Service criteria adopted by the City of Fort Bragg. Projected volumes would satisfy peak hour traffic signal warrants at the SR 1 (Main Street) / South Street intersection, but because Level of Service meets the minimum LOS D standard, the project's impact is not significant.

The project may result in pedestrians in two short locations near the project where sidewalks do not exist. The City of Fort Bragg should consider installing NO PARKING signs in these areas.

Long Term Cumulative Traffic Impacts. Without the Grocery Outlet Store the study intersections are projected to operate with Level of Service that satisfy the minimum LOS D standard in the future with the existing traffic controls. With the addition of the project's traffic the westbound approach to the SR 1 (Main Street) / South Street intersection will operate at LOS E during the weekday p.m. peak hour and during the Saturday peak hour. Peak hour traffic

signal warrants will be satisfied at this location. While the City of Fort Bragg Costal General Plan accepts LOS E conditions on peak summer weekends, exceeding LOS D on weekdays is a significant impact when traffic signal warrants are met, and mitigation is required.

Cumulative Mitigations. Alternative mitigation measures were considered, and three possibilities exist (i.e., left turn prohibition, traffic signal or roundabout). Any improvements within the state right of way require Caltrans approval. Under ***Traffic Operations Policy Directive 13-02.*** Caltrans will consider the relative merits of alternative traffic controls when it becomes necessary to stop traffic on state highways. The policy directive requires preparation of an ***Intersection Control Evaluation (ICE)*** to determine the preferred traffic control.

The Grocery Outlet Store project proponents should contribute their fair share to the cost of regional circulation improvements by paying adopted fees and making frontage improvements. In addition, the project should contribute its fair share to the cost of cumulatively needed improvements to the SR 1 (Main Street) / South Street intersection. Based on the method recommended in Caltrans traffic study guidelines, project trips represent 16.9% of the future new traffic at the SR 1 / South Street intersection. Assuming a $500,000 traffic signal, the project's contribution could be $84,500.

Vehicle Miles Traveled (VMT). Based on the location of competing stores, the most likely effect on regional travel associated with the development of the project is to slightly reduce the length of trips from areas south of the Noyo River off of SR 20 or SR 1 that are today made northbound, and to offer another option for shopping trips made by residents of areas to the north. As the proposed project is relatively close to other stores, the regional effect on VMT is likely to be small, but generally will be reduced by offering a closer option for northbound traffic.

APPENDIX

(Traffic Counts, LOS Calculations)

Prepared by National Data & Surveying Services

Main St/South St & Cypress St

Peak Hour Turning Movement Count

ID: 19-08388-001
City: Fort Bragg

Day: Thursday
Date: 07/18/2019

Main St/South St — SOUTHBOUND

PEAK HOURS								COUNT PERIODS
NONE	AM	0	0	0	0	0	AM	NONE
NONE	NOON	0	0	0	0	0	NOON	NONE
04:00 PM - 05:00 PM	PM	9	890	43	0	1136	PM	04:00 PM - 06:15 PM

EASTBOUND (Cypress St)

AM	NOON	PM		
0	0	25	⇦	
0	0	0	↶	0
0	0	17	↱	0
0	0	3	→	0
0	0	15	↴	0
AM	NOON	PM		

WESTBOUND (Cypress St)

PM	NOON	AM		
52	0	0	↰	0
2	0	0	←	0
219	0	0	↰	0
0	0	0	↶	0
101	0	0	⇨	
PM	NOON	AM		

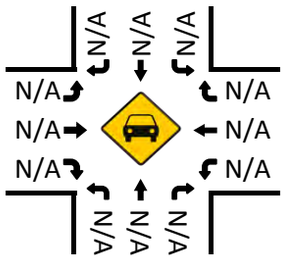
CONTROL: 0

	AM	NOON	PM
TEV	0	0	2392
PHF			0.97

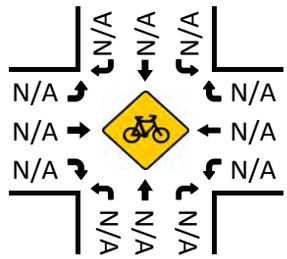
NORTHBOUND — Main St/South St

PM	1130	6	14	1067	55	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

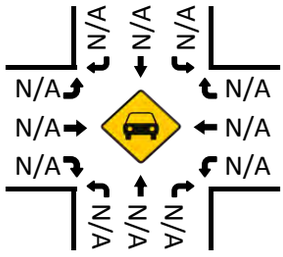
Total Vehicles (AM)



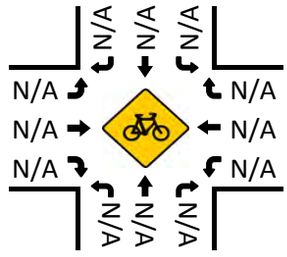
Bikes (AM)



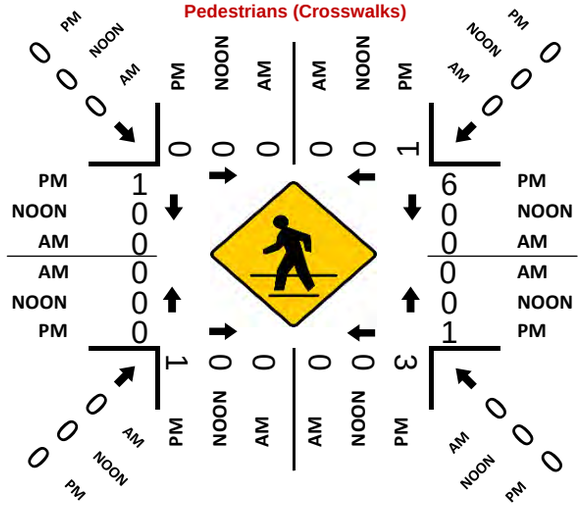
Total Vehicles (Noon)



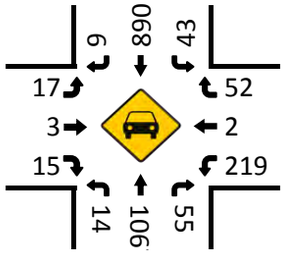
Bikes (NOON)



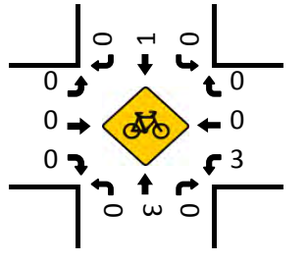
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St/South St & Cypress St
City: Fort Bragg
Control:

Project ID: 19-08388-001
Date: 2019-07-18

Total

NS/EW Streets:	Main St/South St				Main St/South St				Cypress St				Cypress St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	266	22	1	10	218	3	0	6	0	6	0	57	1	21	0	613
4:15 PM	2	272	12	3	11	232	2	0	3	0	4	0	47	0	12	0	600
4:30 PM	3	265	9	0	9	244	3	0	3	1	3	0	65	0	13	0	618
4:45 PM	7	264	12	2	13	196	1	0	5	2	2	0	50	1	6	0	561
5:00 PM	3	210	7	1	10	233	2	0	6	2	5	0	69	2	20	0	570
5:15 PM	7	239	14	1	14	244	3	0	1	2	7	0	56	1	11	0	600
5:30 PM	6	220	8	0	9	211	5	0	1	1	6	0	75	2	16	0	560
5:45 PM	1	213	10	0	6	180	3	0	2	0	4	0	50	1	12	0	482
6:00 PM	5	167	8	0	10	167	3	0	3	4	4	0	49	2	8	0	430
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	36	2116	102	8	92	1925	25	0	30	12	41	0	518	10	119	0	5034
APPROACH %'s :	1.59%	93.55%	4.51%	0.35%	4.51%	94.27%	1.22%	0.00%	36.14%	14.46%	49.40%	0.00%	80.06%	1.55%	18.39%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	14	1067	55	6	43	890	9	0	17	3	15	0	219	2	52	0	2392
PEAK HR FACTOR :	0.500	0.981	0.625	0.500	0.827	0.912	0.750	0.000	0.708	0.375	0.625	0.000	0.842	0.500	0.619	0.000	0.968
		0.981				0.920				0.729				0.864			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St/South St & Cypress St
City: Fort Bragg
Control: 0

Project ID: 19-08388-001
Date: 2019-07-18

Bikes

NS/EW Streets:	Main St/South St				Main St/South St				Cypress St				Cypress St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	3	1	0	0	3	0	0	0	2	0	0	3	2	0	0	15
APPROACH %'s :	20.00%	60.00%	20.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	60.00%	40.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	3	0	0	0	1	0	0	0	0	0	0	3	0	0	0	7
PEAK HR FACTOR :	0.00	0.375	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.438
		0.375				0.250								0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St/South St & Cypress St
City: Fort Bragg

Project ID: 19-08388-001
Date: 2019-07-18

Pedestrians (Crosswalks)

NS/EW Streets:	Main St/South St		Main St/South St		Cypress St		Cypress St		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	1	5	0	0	6
4:30 PM	0	1	1	3	0	0	0	1	6
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	3	0	0	4
5:30 PM	0	0	1	3	0	0	0	0	4
5:45 PM	0	0	0	0	1	1	1	0	3
6:00 PM	0	3	0	2	2	0	0	0	7
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	4	2	8	5	10	1	1	31
APPROACH %'s :	0.00%	100.00%	20.00%	80.00%	33.33%	66.67%	50.00%	50.00%	
PEAK HR :	**04:00 PM - 05:00 PM**								TOTAL
PEAK HR VOL :	0	1	1	3	1	6	0	1	13
PEAK HR FACTOR :		0.250	0.250	0.250	0.250	0.300		0.250	0.542
	0.250		0.250		0.292		0.250		

Prepared by National Data & Surveying Services

Franklin St & Cypress St

Peak Hour Turning Movement Count

ID: 19-08388-002
City: Fort Bragg

Day: Thursday
Date: 07/18/2019

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	04:00 PM - 06:15 PM

Franklin St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	148	123	60	0	253	PM

EASTBOUND (Cypress St)

AM	NOON	PM	
0	0	304	⇦
0	0	0	↶ 0
0	0	45	↱ 0
0	0	34	→ 0
0	0	24	↴ 0
AM	NOON	PM	

WESTBOUND (Cypress St)

PM	NOON	AM	
74	0	0	0 ↰
97	0	0	0 ←
8	0	0	0 ↰
0	0	0	0 ↴
103	0	0	⇨
PM	NOON	AM	

CONTROL

0

	AM	NOON	PM
TEV	0	0	815
PHF			0.91

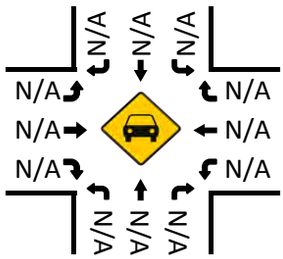
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NORTHBOUND — Franklin St

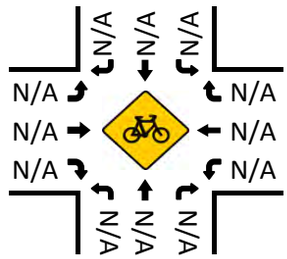
PM	155	0	59	134	9	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

0 0 0 0 (entering)

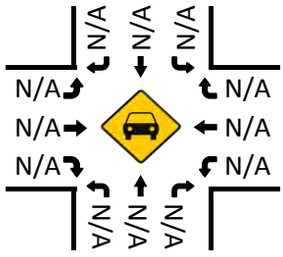
Total Vehicles (AM)



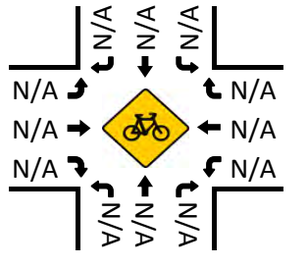
Bikes (AM)



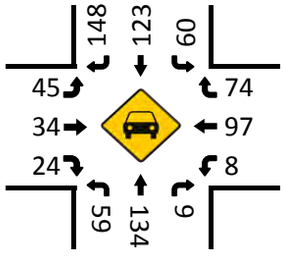
Total Vehicles (Noon)



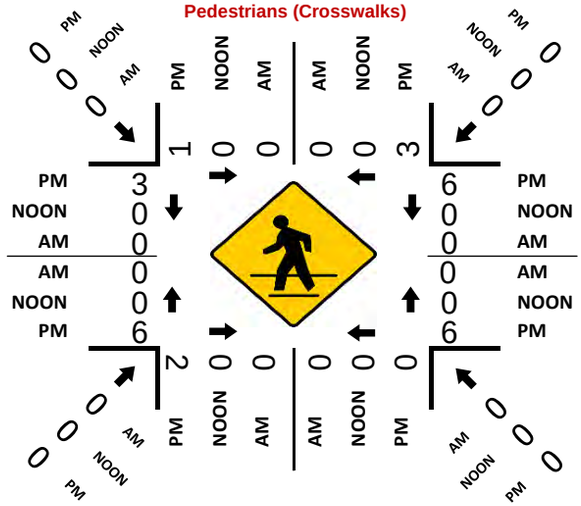
Bikes (NOON)



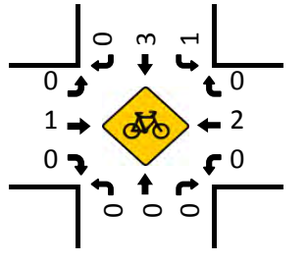
Total Vehicles (PM)



Pedestrians (Crosswalks)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Cypress St
City: Fort Bragg
Control:

Project ID: 19-08388-002
Date: 2019-07-18

Total

NS/EW Streets:	Franklin St				Franklin St				Cypress St				Cypress St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	15	19	4	0	10	26	33	0	21	9	8	0	1	29	19	0	194
4:15 PM	14	24	3	0	10	38	27	0	15	9	4	0	3	17	24	0	188
4:30 PM	8	36	3	0	11	28	42	0	5	12	2	0	4	23	18	0	192
4:45 PM	16	19	4	0	12	29	31	0	7	12	6	0	1	17	17	0	171
5:00 PM	18	50	3	0	11	22	32	0	16	8	5	0	3	29	26	0	223
5:15 PM	11	38	0	0	19	36	39	0	14	10	8	0	3	25	18	0	221
5:30 PM	14	27	2	0	18	36	46	0	8	4	5	0	1	26	13	0	200
5:45 PM	19	23	0	0	12	16	26	0	9	7	1	0	1	16	10	0	140
6:00 PM	16	32	1	0	5	13	22	0	12	10	3	1	1	21	9	0	146
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	131	268	20	0	108	244	298	0	107	81	42	1	18	203	154	0	1675
APPROACH %'s :	31.26%	63.96%	4.77%	0.00%	16.62%	37.54%	45.85%	0.00%	46.32%	35.06%	18.18%	0.43%	4.80%	54.13%	41.07%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	59	134	9	0	60	123	148	0	45	34	24	0	8	97	74	0	815
PEAK HR FACTOR :	0.819	0.670	0.563	0.000	0.789	0.854	0.804	0.000	0.703	0.708	0.750	0.000	0.667	0.836	0.712	0.000	0.914
	0.711				0.828				0.805				0.772				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Cypress St
City: Fort Bragg
Control: 0

Project ID: 19-08388-002
Date: 2019-07-18

Bikes

NS/EW Streets:	Franklin St				Franklin St				Cypress St				Cypress St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0	4
4:15 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	1	0	0	4
4:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:00 PM	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	2	0	1	7	0	0	0	3	0	0	0	3	2	0	22
APPROACH %'s :	0.00%	66.67%	33.33%	0.00%	12.50%	87.50%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	60.00%	40.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	3	0	0	0	1	0	0	0	2	0	0	7
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.583
						0.333				0.250				0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Cypress St
City: Fort Bragg

Project ID: 19-08388-002
Date: 2019-07-18

Pedestrians (Crosswalks)

NS/EW Streets:	Franklin St		Franklin St		Cypress St		Cypress St		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	1	1	0	0	2	1	2	1	8
4:15 PM	1	2	0	0	0	0	2	3	8
4:30 PM	1	1	0	1	0	1	3	7	14
4:45 PM	1	0	0	0	0	2	0	0	3
5:00 PM	0	0	0	0	1	0	4	0	5
5:15 PM	0	3	0	0	5	4	0	1	13
5:30 PM	0	0	2	0	0	0	2	2	6
5:45 PM	1	1	0	1	0	0	0	2	5
6:00 PM	0	3	0	0	2	0	0	0	5
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	5	11	2	2	10	8	13	16	67
APPROACH %'s :	31.25%	68.75%	50.00%	50.00%	55.56%	44.44%	44.83%	55.17%	
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	1	3	2	0	6	6	6	3	27
PEAK HR FACTOR :	0.250	0.250	0.250		0.300	0.375	0.375	0.375	0.519
	0.333		0.250		0.333		0.563		

Prepared by National Data & Surveying Services

Main St & South St

Peak Hour Turning Movement Count

ID: 19-08388-003
City: Fort Bragg

Day: Thursday
Date: 07/18/2019

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:00 PM - 05:00 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 04:00 PM - 06:15 PM

Main St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	1108	22	0	1121	PM

EASTBOUND (South St)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (South St)

PM	NOON	AM	
39	0	0	0
0	0	0	0
49	0	0	0
0	0	0	0
87	0	0	
PM	NOON	AM	

CONTROL

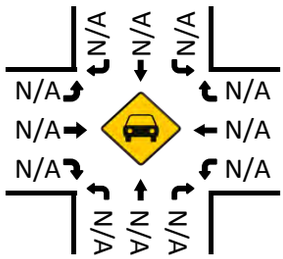
0

	AM	NOON	PM
TEV	0	0	2365
PHF			0.97

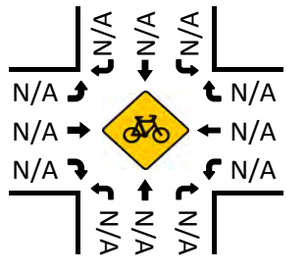
Main St — NORTHBOUND

PM	1157	0	0	1082	65	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

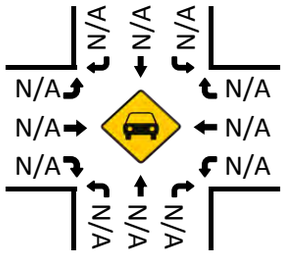
Total Vehicles (AM)



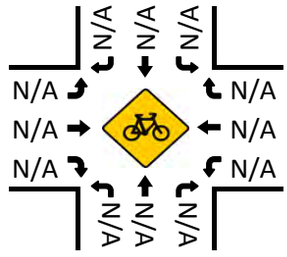
Bikes (AM)



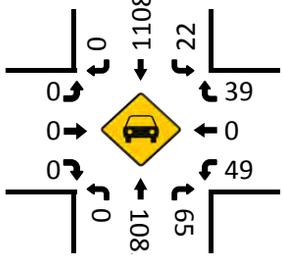
Total Vehicles (Noon)



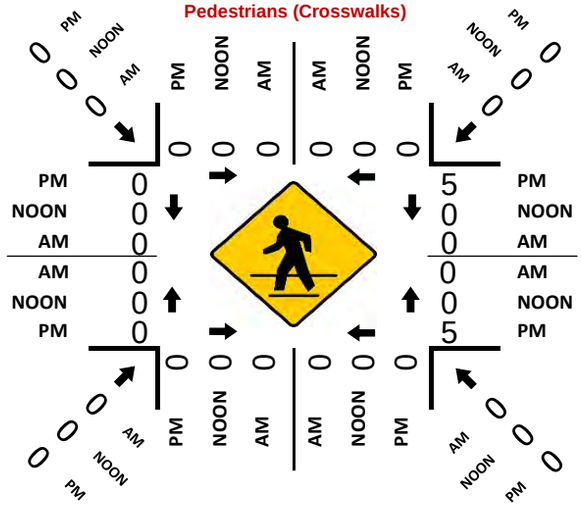
Bikes (NOON)



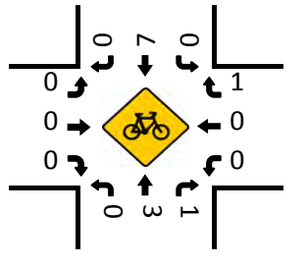
Total Vehicles (PM)



Pedestrians (Crosswalks)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & South St
City: Fort Bragg
Control:

Project ID: 19-08388-003
Date: 2019-07-18

Total

NS/EW Streets:	Main St				Main St				South St				South St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	277	16	0	6	283	0	0	0	0	0	0	14	0	11	0	607
4:15 PM	0	258	12	0	3	269	0	0	0	0	0	0	10	0	10	0	562
4:30 PM	0	265	17	0	9	300	0	0	0	0	0	0	6	0	11	0	608
4:45 PM	0	282	20	0	4	256	0	0	0	0	0	0	19	0	7	0	588
5:00 PM	0	236	14	0	8	310	0	0	0	0	0	0	8	0	7	0	583
5:15 PM	0	249	12	1	5	294	0	0	0	0	0	0	12	0	12	0	585
5:30 PM	0	233	9	0	4	279	0	0	0	0	0	0	13	0	11	0	549
5:45 PM	0	212	10	0	3	244	0	0	0	0	0	0	9	0	6	0	484
6:00 PM	0	181	4	0	3	219	0	0	0	0	0	0	14	0	9	0	430
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2193	114	1	45	2454	0	0	0	0	0	0	105	0	84	0	4996
APPROACH %'s :	0.00%	95.02%	4.94%	0.04%	1.80%	98.20%	0.00%	0.00%					55.56%	0.00%	44.44%	0.00%	
PEAK HR :	**04:00 PM - 05:00 PM**																TOTAL
PEAK HR VOL :	0	1082	65	0	22	1108	0	0	0	0	0	0	49	0	39	0	2365
PEAK HR FACTOR :	0.000	0.959	0.813	0.000	0.611	0.923	0.000	0.000	0.000	0.000	0.000	0.000	0.645	0.000	0.886	0.000	0.972
		0.950				0.914								0.846			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & South St
City: Fort Bragg
Control: 0

Project ID: 19-08388-003
Date: 2019-07-18

Bikes

NS/EW Streets:	Main St				Main St				South St				South St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	4
4:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	6	1	0	1	9	0	0	0	0	0	0	1	0	1	0	19
APPROACH %'s :	0.00%	85.71%	14.29%	0.00%	10.00%	90.00%	0.00%	0.00%					50.00%	0.00%	50.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	3	1	0	0	7	0	0	0	0	0	0	0	0	1	0	12
PEAK HR FACTOR :	0.00	0.375	0.250	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.750
		0.333				0.583								0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & South St
City: Fort Bragg

Project ID: 19-08388-003
Date: 2019-07-18

Pedestrians (Crosswalks)

NS/EW Streets:	Main St		Main St		South St		South St		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	1	0	0	0	1
4:15 PM	0	0	0	0	1	1	0	0	2
4:30 PM	0	0	0	0	3	2	0	0	5
4:45 PM	0	0	0	0	0	2	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	4	2	0	0	6
5:30 PM	0	0	0	0	1	3	0	0	4
5:45 PM	0	0	0	0	1	1	0	0	2
6:00 PM	0	0	0	0	2	4	0	0	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	13	15	0	0	28
APPROACH %'s :					46.43%	53.57%			
PEAK HR :	**04:00 PM - 05:00 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	5	5	0	0	10
PEAK HR FACTOR :					0.417	0.625			0.500
					0.500				

Prepared by National Data & Surveying Services

Franklin St & South St

Peak Hour Turning Movement Count

ID: 19-08388-004
City: Fort Bragg

Day: Thursday
Date: 07/18/2019

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	04:00 PM - 06:15 PM

Franklin St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	36	55	52	0	179	PM

EASTBOUND (South St)

AM	NOON	PM	
0	0	97	⇦
0	0	0	↶ 0
0	0	37	↱ 0
0	0	62	→ 0
0	0	4	↴ 0
AM	NOON	PM	

WESTBOUND (South St)

PM	NOON	AM	
84	0	0	0 ↰
44	0	0	0 ←
6	0	0	0 ↰
0	0	0	0 ↴
117	0	0	⇨
PM	NOON	AM	

CONTROL

0

	AM	NOON	PM
TEV	0	0	458
PHF			0.91

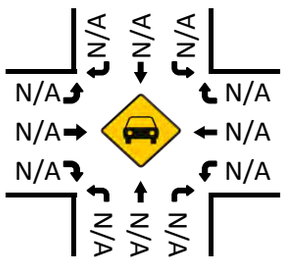
0 0 0 0 ⇧

Franklin St — NORTHBOUND

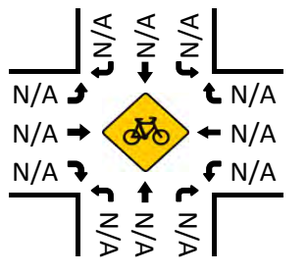
PM	65	0	17	58	3	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

0 0 0 0 ⇩

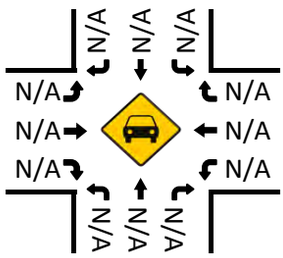
Total Vehicles (AM)



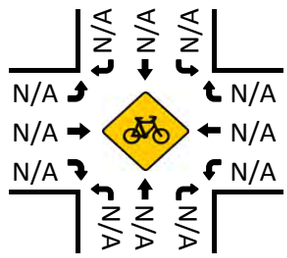
Bikes (AM)



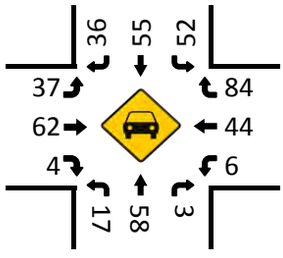
Total Vehicles (Noon)



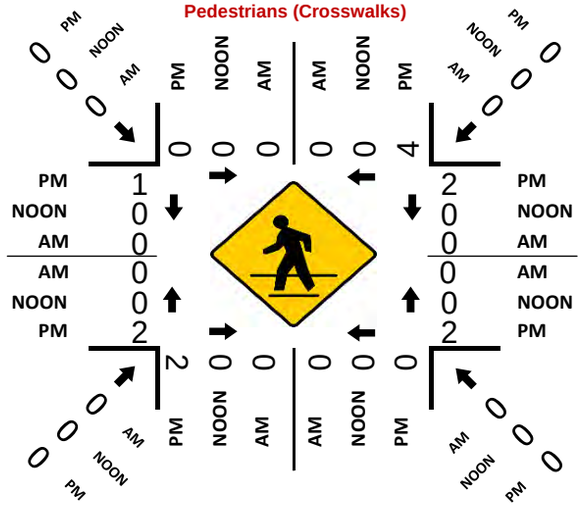
Bikes (NOON)



Total Vehicles (PM)



Pedestrians (Crosswalks)


PM
NOON
AM
0
1
0
0
0
2
0
0
0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & South St
City: Fort Bragg
Control:

Project ID: 19-08388-004
Date: 2019-07-18

Total

NS/EW Streets:	Franklin St				Franklin St				South St				South St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	9	4	0	12	15	9	0	5	16	3	0	1	9	19	0	109
4:15 PM	8	19	1	0	18	16	10	0	7	11	1	0	1	7	13	0	112
4:30 PM	2	12	0	0	10	15	8	0	12	14	0	0	1	10	23	0	107
4:45 PM	8	10	3	0	15	11	9	0	7	16	1	0	0	11	17	0	108
5:00 PM	2	17	0	0	12	11	9	0	10	21	3	0	2	9	30	0	126
5:15 PM	5	19	0	0	15	18	10	0	8	11	0	0	3	14	14	0	117
5:30 PM	9	21	0	0	10	26	9	0	4	4	3	0	0	8	13	0	107
5:45 PM	3	16	2	0	4	9	6	0	8	11	0	0	2	6	14	0	81
6:00 PM	8	24	0	0	4	10	4	0	7	2	1	0	1	11	17	0	89
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	52	147	10	0	100	131	74	0	68	106	12	0	11	85	160	0	956
APPROACH %'s :	24.88%	70.33%	4.78%	0.00%	32.79%	42.95%	24.26%	0.00%	36.56%	56.99%	6.45%	0.00%	4.30%	33.20%	62.50%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	17	58	3	0	52	55	36	0	37	62	4	0	6	44	84	0	458
PEAK HR FACTOR :	0.531	0.763	0.250	0.000	0.867	0.764	0.900	0.000	0.771	0.738	0.333	0.000	0.500	0.786	0.700	0.000	0.909
	0.813				0.831				0.757				0.817				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & South St
City: Fort Bragg
Control: 0

Project ID: 19-08388-004
Date: 2019-07-18

Bikes

NS/EW Streets:	Franklin St				Franklin St				South St				South St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	1	0	0	0	0	1	0	0	0	2	0	0	0	1	0	5
4:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	5	0	0	3	2	2	0	0	0	2	0	0	0	3	0	18
APPROACH %'s :	16.67%	83.33%	0.00%	0.00%	42.86%	28.57%	28.57%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	1	0	0	0	3	1	1	0	0	0	0	0	0	0	2	0	8
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.375	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.500
		0.250				0.417								0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & South St
City: Fort Bragg

Project ID: 19-08388-004
Date: 2019-07-18

Pedestrians (Crosswalks)

NS/EW Streets:	Franklin St		Franklin St		South St		South St		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	1	0	0	0	5	2	1	9
4:15 PM	2	0	0	0	1	0	2	0	5
4:30 PM	0	0	0	0	0	1	0	1	2
4:45 PM	0	0	0	0	0	1	2	0	3
5:00 PM	0	0	0	0	2	0	0	0	2
5:15 PM	0	4	2	0	0	0	0	0	6
5:30 PM	0	1	0	0	0	0	0	1	2
5:45 PM	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	7	2	0	3	7	6	3	30
APPROACH %'s :	22.22%	77.78%	100.00%	0.00%	30.00%	70.00%	66.67%	33.33%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	0	4	2	0	2	2	2	1	13
PEAK HR FACTOR :		0.250	0.250		0.250	0.500	0.250	0.250	0.542
	0.250		0.250		0.500		0.375		

Prepared by National Data & Surveying Services

Main St & Harbor Dr

Peak Hour Turning Movement Count

ID: 19-08388-005
City: Fort Bragg

Day: Thursday
Date: 07/18/2019

PEAK HOURS

AM: NONE
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: NONE
NOON: NONE
PM: 04:00 PM - 06:15 PM

Main St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	19	1152	47	0	1107	PM

Harbor Dr — EASTBOUND

AM	NOON	PM	
0	0	22	⇦
0	0	0	↶ 0
0	0	4	↱ 0
0	0	1	→ 0
0	0	5	↷ 0
AM	NOON	PM	

WESTBOUND — Harbor Dr

PM	NOON	AM	
72	0	0	↶ 0
0	0	0	← 0
1	0	0	↰ 0
0	0	0	↷ 0
126	0	0	⇨
PM	NOON	AM	

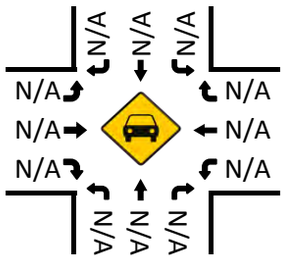
CONTROL: 0

	AM	NOON	PM
TEV	0	0	2413
PHF			0.98

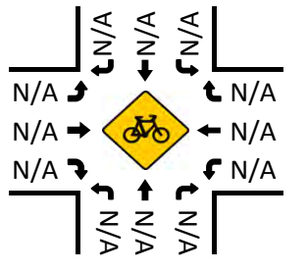
Main St — NORTHBOUND

PM	1158	0	3	1031	78	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

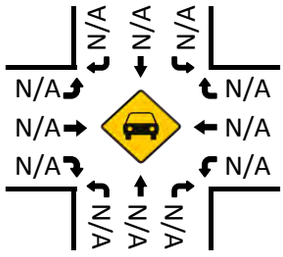
Total Vehicles (AM)



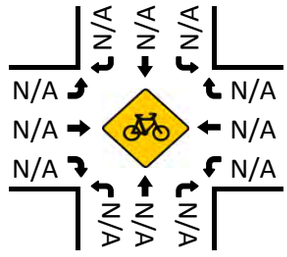
Bikes (AM)



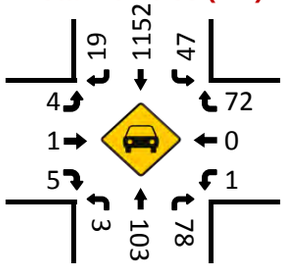
Total Vehicles (Noon)



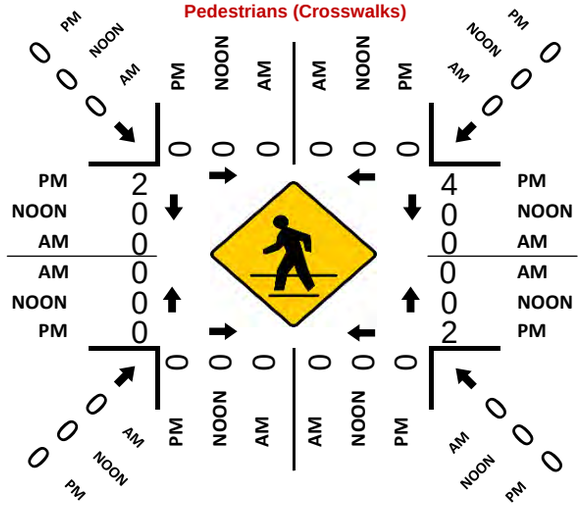
Bikes (NOON)



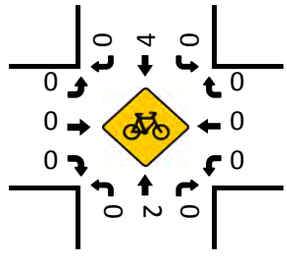
Total Vehicles (PM)



Pedestrians (Crosswalks)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & Harbor Dr
City: Fort Bragg
Control:

Project ID: 19-08388-005
Date: 2019-07-18

Total

NS/EW Streets:	Main St				Main St				Harbor Dr				Harbor Dr				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	274	17	0	12	284	0	0	1	0	1	0	0	0	14	0	604
4:15 PM	1	260	17	0	10	267	1	0	0	0	0	0	0	0	12	0	568
4:30 PM	2	269	20	0	9	296	6	0	1	0	1	0	0	0	14	0	618
4:45 PM	0	282	16	0	13	258	4	0	1	0	2	0	1	0	25	0	602
5:00 PM	0	239	22	0	12	300	7	0	1	1	1	0	0	0	10	0	593
5:15 PM	1	241	20	0	13	298	2	0	1	0	1	0	0	0	23	0	600
5:30 PM	0	226	16	0	13	273	3	0	1	1	0	0	0	0	16	0	549
5:45 PM	2	201	22	0	11	239	1	0	0	0	0	0	0	0	15	0	491
6:00 PM	0	168	22	0	22	208	2	0	1	0	5	0	0	0	15	0	443
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	2160	172	0	115	2423	26	0	7	2	11	0	1	0	144	0	5068
APPROACH %'s :	0.30%	92.35%	7.35%	0.00%	4.49%	94.50%	1.01%	0.00%	35.00%	10.00%	55.00%	0.00%	0.69%	0.00%	99.31%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	3	1031	78	0	47	1152	19	0	4	1	5	0	1	0	72	0	2413
PEAK HR FACTOR :	0.375	0.914	0.886	0.000	0.904	0.960	0.679	0.000	1.000	0.250	0.625	0.000	0.250	0.000	0.720	0.000	0.976
	0.933				0.955				0.833				0.702				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & Harbor Dr
City: Fort Bragg
Control: 0

Project ID: 19-08388-005
Date: 2019-07-18

Bikes

NS/EW Streets:	Main St				Main St				Harbor Dr				Harbor Dr				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	2	0	0	0	1	0	0	0	0	0	4	0	0	0	0	7
5:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	5	1	0	0	9	0	0	0	1	0	4	0	0	0	0	20
APPROACH %'s :	0.00%	83.33%	16.67%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	20.00%	0.00%	80.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	2	0	0	0	4	0	0	0	0	0	4	0	0	0	0	10
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.357
		0.250				0.500				0.250							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & Harbor Dr
City: Fort Bragg

Project ID: 19-08388-005
Date: 2019-07-18

Pedestrians (Crosswalks)

NS/EW Streets:	Main St		Main St		Harbor Dr		Harbor Dr		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	1	1	0	0	2
4:15 PM	0	0	0	0	1	1	1	0	3
4:30 PM	0	0	0	0	1	0	0	1	2
4:45 PM	0	0	0	0	0	2	0	0	2
5:00 PM	0	0	0	0	0	0	0	1	1
5:15 PM	0	0	0	0	1	2	0	0	3
5:30 PM	0	1	0	0	1	0	0	1	3
5:45 PM	0	0	0	0	1	1	0	0	2
6:00 PM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	0	6	8	1	3	19
APPROACH %'s :	0.00%	100.00%			42.86%	57.14%	25.00%	75.00%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	2	4	0	2	8
PEAK HR FACTOR :					0.500	0.500		0.500	0.667
					0.500		0.500		

Prepared by National Data & Surveying Services

Franklin St & Harbor Dr

Peak Hour Turning Movement Count

ID: 19-08388-006
City: Fort Bragg

Day: Thursday
Date: 07/18/2019

PEAK HOURS

AM	NONE
NOON	NONE
PM	05:15 PM - 06:15 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	04:00 PM - 06:15 PM

Franklin St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	13	0	56	0	106	PM

EASTBOUND — Harbor Dr

AM	NOON	PM	
0	0	73	⇦
0	0	0	↶ 0
0	0	16	↱ 0
0	0	128	→ 0
0	0	0	↷ 0
AM	NOON	PM	

WESTBOUND — Harbor Dr

PM	NOON	AM	
90	0	0	↰ 0
60	0	0	← 0
0	0	0	↰ 0
0	0	0	↶ 0
184	0	0	⇨
PM	NOON	AM	

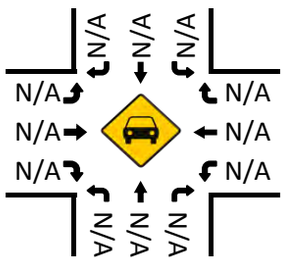
CONTROL: 0

	AM	NOON	PM
TEV	0	0	363
PHF			0.94

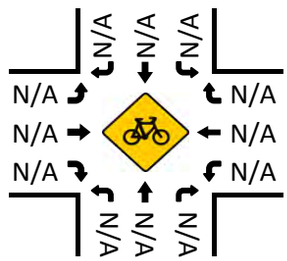
Franklin St — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

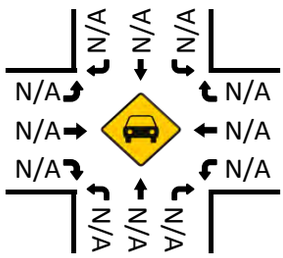
Total Vehicles (AM)



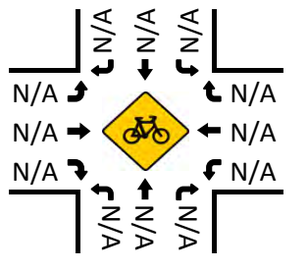
Bikes (AM)



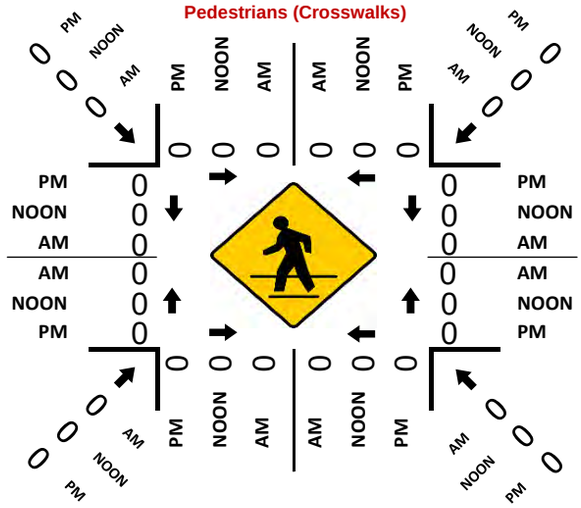
Total Vehicles (Noon)



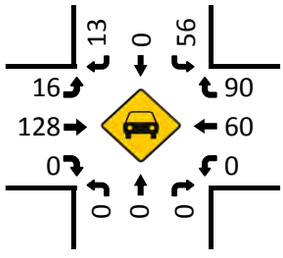
Bikes (NOON)



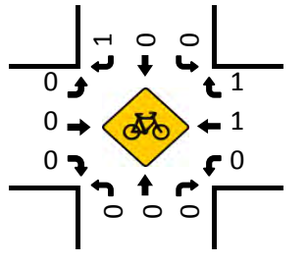
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Harbor Dr
City: Fort Bragg
Control:

Project ID: 19-08388-006
Date: 2019-07-18

Total

NS/EW Streets:	Franklin St				Franklin St				Harbor Dr				Harbor Dr				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	15	0	2	0	2	22	0	1	0	10	16	0	68
4:15 PM	0	0	0	0	13	0	3	0	7	20	0	0	0	14	19	0	76
4:30 PM	0	0	0	0	14	0	2	0	4	25	0	0	0	12	10	0	67
4:45 PM	0	0	0	0	11	0	1	0	6	22	0	0	0	23	15	0	78
5:00 PM	0	0	0	0	15	0	0	0	6	27	0	0	0	12	14	0	74
5:15 PM	0	0	0	0	13	0	7	0	3	29	0	0	0	16	20	0	88
5:30 PM	0	0	0	0	21	0	4	0	6	30	0	0	0	14	22	0	97
5:45 PM	0	0	0	0	11	0	2	0	1	31	0	0	0	16	20	0	81
6:00 PM	0	0	0	0	11	0	0	0	6	38	0	0	0	14	28	0	97
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	124	0	21	0	41	244	0	1	0	131	164	0	726
APPROACH %'s :					85.52%	0.00%	14.48%	0.00%	14.34%	85.31%	0.00%	0.35%	0.00%	44.41%	55.59%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	56	0	13	0	16	128	0	0	0	60	90	0	363
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.667	0.000	0.464	0.000	0.667	0.842	0.000	0.000	0.000	0.938	0.804	0.000	0.936
					0.690				0.818				0.893				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Harbor Dr
City: Fort Bragg
Control: 0

Project ID: 19-08388-006
Date: 2019-07-18

Bikes

NS/EW Streets:	Franklin St				Franklin St				Harbor Dr				Harbor Dr				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	3	0	2	0	0	0	0	1	2	0	8
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%	
PEAK HR :	**05:15 PM - 06:15 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	3
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.750
							0.250								0.500		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Harbor Dr

Project ID: 19-08388-006

City: Fort Bragg

Date: 2019-07-18

Pedestrians (Crosswalks)

NS/EW Streets:	Franklin St		Franklin St		Harbor Dr		Harbor Dr		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	1	3	0	0	4
4:15 PM	0	0	0	0	0	0	2	0	2
4:30 PM	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	1	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	4	2	0	8
APPROACH %'s :					33.33%	66.67%	100.00%	0.00%	
PEAK HR :	**05:15 PM - 06:15 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Main St/South St & Cypress St

Peak Hour Turning Movement Count

ID: 19-08388-001
City: Fort Bragg

Day: Saturday
Date: 07/20/2019

Main St/South St — SOUTHBOUND

PEAK HOURS								COUNT PERIODS
NONE	AM	0	0	0	0	0	AM	NONE
01:00 PM - 02:00 PM	NOON	9	851	29	0	1067	NOON	01:00 PM - 03:00 PM
NONE	PM	0	0	0	0	0	PM	NONE

EASTBOUND (Cypress St)

AM	NOON	PM	
0	38	0	
0	0	0	0
0	15	0	0
0	7	0	0
0	15	0	0
AM	NOON	PM	

WESTBOUND (Cypress St)

PM	NOON	AM	
0	30	0	0
0	3	0	0
0	204	0	0
0	0	0	0
0	93	0	
PM	NOON	AM	

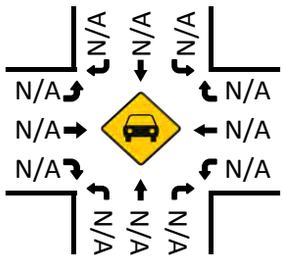
CONTROL: 0

	AM	NOON	PM
TEV	0	2276	0
PHF		0.94	

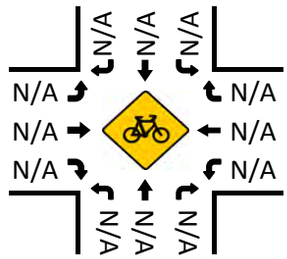
NORTHBOUND — Main St/South St

PM	0	0	0	0	0	PM
NOON	1078	8	26	1022	57	NOON
AM	0	0	0	0	0	AM

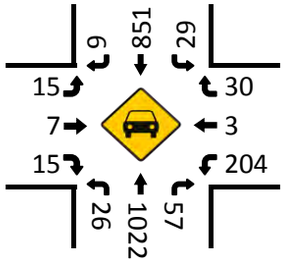
Total Vehicles (AM)



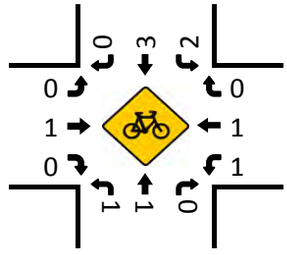
Bikes (AM)



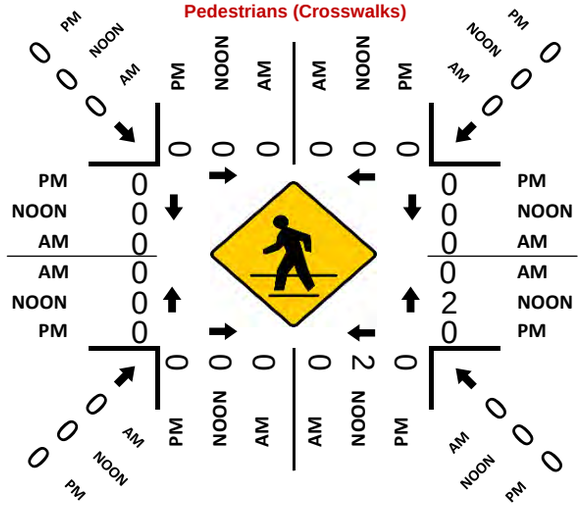
Total Vehicles (Noon)



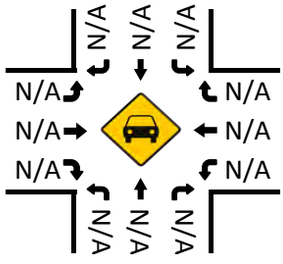
Bikes (NOON)



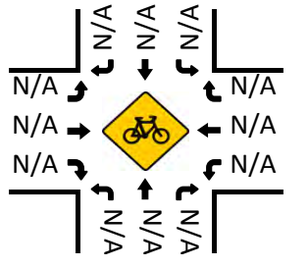
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St/South St & Cypress St
City: Fort Bragg
Control:

Project ID: 19-08388-001
Date: 7/20/2019

Total

NS/EW Streets:	Main St/South St				Main St/South St				Cypress St				Cypress St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	2	263	15	4	8	239	1	0	3	2	4	0	58	0	7	0	606
1:15 PM	5	234	18	3	9	216	4	0	2	2	2	0	60	1	7	0	563
1:30 PM	5	252	15	0	8	206	1	0	2	3	4	0	43	1	9	0	549
1:45 PM	14	273	9	1	4	190	3	0	8	0	5	0	43	1	7	0	558
2:00 PM	6	239	11	2	7	218	0	0	4	2	5	0	46	0	5	0	545
2:15 PM	4	242	7	1	8	202	7	0	2	0	4	0	46	1	4	0	528
2:30 PM	3	228	22	3	9	190	8	0	4	0	3	0	41	0	11	0	522
2:45 PM	11	257	17	0	5	209	4	0	7	1	8	0	38	2	8	0	567
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	50	1988	114	14	58	1670	28	0	32	10	35	0	375	6	58	0	4438
APPROACH %'s :	2.31%	91.78%	5.26%	0.65%	3.30%	95.10%	1.59%	0.00%	41.56%	12.99%	45.45%	0.00%	85.42%	1.37%	13.21%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	26	1022	57	8	29	851	9	0	15	7	15	0	204	3	30	0	2276
PEAK HR FACTOR :	0.464	0.936	0.792	0.500	0.806	0.890	0.563	0.000	0.469	0.583	0.750	0.000	0.850	0.750	0.833	0.000	0.939
	0.937				0.896				0.712				0.871				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St/South St & Cypress St
City: Fort Bragg
Control: 0

Project ID: 19-08388-001
Date: 7/20/2019

Bikes

NS/EW Streets:	Main St/South St				Main St/South St				Cypress St				Cypress St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	1	1	0	0	5
1:45 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4
2:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	2	2	0	2	4	0	0	0	1	0	0	1	3	2	0	18
APPROACH %'s :	20.00%	40.00%	40.00%	0.00%	33.33%	66.67%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	16.67%	50.00%	33.33%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	1	1	0	0	2	3	0	0	0	1	0	0	1	1	0	0	10
PEAK HR FACTOR :	0.25	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.500
		0.250				0.417				0.250				0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St/South St & Cypress St
City: Fort Bragg

Project ID: 19-08388-001
Date: 7/20/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Main St/South St		Main St/South St		Cypress St		Cypress St		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	1	0	0	0	1
1:45 PM	0	0	0	2	1	0	0	0	3
2:00 PM	2	0	0	0	0	5	0	0	7
2:15 PM	0	0	0	0	2	1	0	0	3
2:30 PM	0	0	0	1	4	1	0	0	6
2:45 PM	0	0	0	0	1	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	0	0	3	9	7	0	0	21
APPROACH %'s :	100.00%	0.00%	0.00%	100.00%	56.25%	43.75%			
PEAK HR :	**01:00 PM - 02:00 PM**								TOTAL
PEAK HR VOL :	0	0	0	2	2	0	0	0	4
PEAK HR FACTOR :			0.250	0.250	0.500	0.500			0.333

Prepared by National Data & Surveying Services

Franklin St & Cypress St

Peak Hour Turning Movement Count

ID: 19-08388-002
City: Fort Bragg

Day: Saturday
Date: 07/20/2019

Franklin St — SOUTHBOUND

PEAK HOURS						COUNT PERIODS
NONE	AM	0	0	0	0	0	AM	NONE
01:15 PM - 02:15 PM	NOON	129	93	33	1	178	NOON	01:00 PM - 03:00 PM
NONE	PM	0	0	0	0	0	PM	NONE

Cypress St — EASTBOUND

AM	NOON	PM	
0	225	0	⇦
0	1	0	↶ 0
0	45	0	↱ 0
0	33	0	→ 0
0	23	0	↷ 0
AM	NOON	PM	

WESTBOUND — Cypress St

PM	NOON	AM	
0	46	0	0 ↷
0	37	0	0 ←
0	2	0	0 ↰
0	0	0	0 ↶
0	70	0	⇨
PM	NOON	AM	

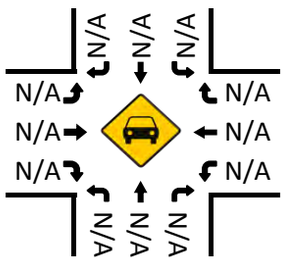
CONTROL: 0

	AM	NOON	PM
TEV	0	591	0
PHF		0.87	

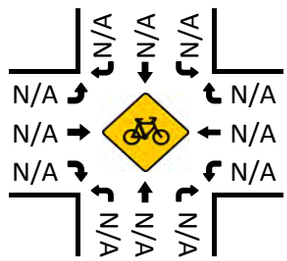
NORTHBOUND — Franklin St

		0	0	0	0	⇩		
		↶	↰	↑	↱			
PM	0	0	0	0	0	PM
NOON	118	0	58	86	4	NOON
AM	0	0	0	0	0	AM

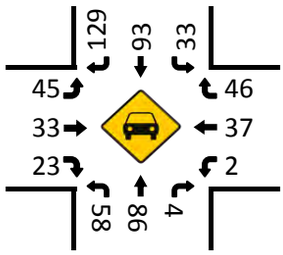
Total Vehicles (AM)



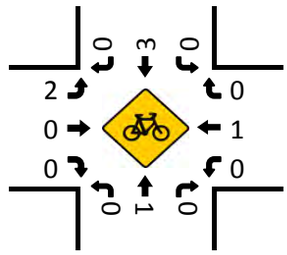
Bikes (AM)



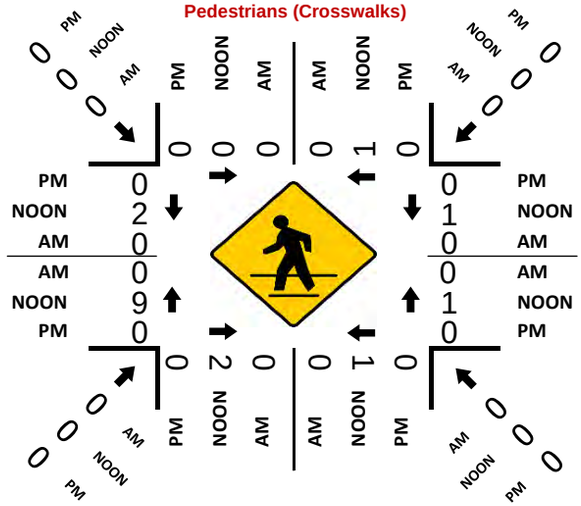
Total Vehicles (Noon)



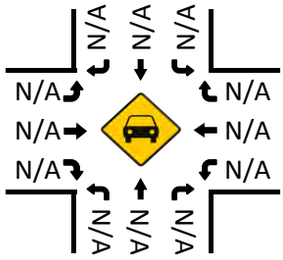
Bikes (NOON)



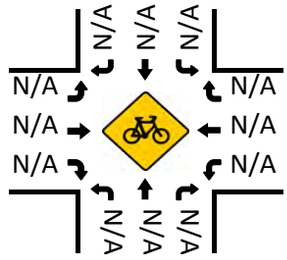
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Cypress St
City: Fort Bragg
Control:

Project ID: 19-08388-002
Date: 7/20/2019

Total

NS/EW Streets:	Franklin St				Franklin St				Cypress St				Cypress St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	19	16	2	0	7	24	31	0	10	10	3	0	1	6	4	0	133
1:15 PM	17	24	1	0	5	29	37	0	12	11	4	1	1	10	18	0	170
1:30 PM	18	18	2	0	13	21	29	0	13	9	6	0	1	7	10	0	147
1:45 PM	10	20	0	0	8	26	27	1	8	7	3	0	0	13	8	0	131
2:00 PM	13	24	1	0	7	17	36	0	12	6	10	0	0	7	10	0	143
2:15 PM	7	15	0	0	7	7	34	0	5	5	4	0	0	4	5	0	93
2:30 PM	12	22	1	0	11	18	34	0	20	12	4	0	2	4	9	0	149
2:45 PM	11	19	2	0	8	16	33	0	11	9	3	0	0	7	3	0	122
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	107	158	9	0	66	158	261	1	91	69	37	1	5	58	67	0	1088
APPROACH %'s :	39.05%	57.66%	3.28%	0.00%	13.58%	32.51%	53.70%	0.21%	45.96%	34.85%	18.69%	0.51%	3.85%	44.62%	51.54%	0.00%	
PEAK HR :	01:15 PM - 02:15 PM																TOTAL
PEAK HR VOL :	58	86	4	0	33	93	129	1	45	33	23	1	2	37	46	0	591
PEAK HR FACTOR :	0.806	0.896	0.500	0.000	0.635	0.802	0.872	0.250	0.865	0.750	0.575	0.250	0.500	0.712	0.639	0.000	0.869
	0.881				0.901				0.911				0.733				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Cypress St
City: Fort Bragg
Control: 0

Project ID: 19-08388-002
Date: 7/20/2019

Bikes

NS/EW Streets:	Franklin St				Franklin St				Cypress St				Cypress St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
1:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
1:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
2:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
2:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	1	4	1	0	3	0	0	0	0	1	0	0	14
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	16.67%	66.67%	16.67%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	01:15 PM - 02:15 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	3	0	0	2	0	0	0	0	1	0	0	7
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.750	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.875
		0.250				0.750				0.250				0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Cypress St
City: Fort Bragg

Project ID: 19-08388-002
Date: 7/20/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Franklin St		Franklin St		Cypress St		Cypress St		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
1:00 PM	1	0	1	0	0	2	1	7	12
1:15 PM	0	1	1	0	0	1	2	2	7
1:30 PM	0	0	0	0	0	0	7	0	7
1:45 PM	0	0	0	1	1	0	0	0	2
2:00 PM	0	0	1	0	0	0	0	0	1
2:15 PM	1	0	0	0	1	0	0	1	3
2:30 PM	0	0	0	0	0	1	0	1	2
2:45 PM	0	0	0	1	2	2	0	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	1	3	2	4	6	10	12	40
APPROACH %'s :	66.67%	33.33%	60.00%	40.00%	40.00%	60.00%	45.45%	54.55%	
PEAK HR :	**01:15 PM - 02:15 PM**								TOTAL
PEAK HR VOL :	0	1	2	1	1	1	9	2	17
PEAK HR FACTOR :		0.250	0.500	0.250	0.250	0.250	0.321	0.250	0.607
	0.250		0.750		0.500		0.393		

Prepared by National Data & Surveying Services

Main St & South St

Peak Hour Turning Movement Count

ID: 19-08388-003
City: Fort Bragg

Day: Saturday
Date: 07/20/2019

PEAK HOURS

AM	NONE
NOON	01:00 PM - 02:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	01:00 PM - 03:00 PM
PM	NONE

Main St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	1068	25	0	1121	NOON
PM	0	0	0	0	0	PM

EASTBOUND (South St)

AM	NOON	PM
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

AM NOON PM

WESTBOUND (South St)

PM	NOON	AM
0	32	0
0	0	0
0	46	0
0	0	0
0	67	0

PM NOON AM

CONTROL

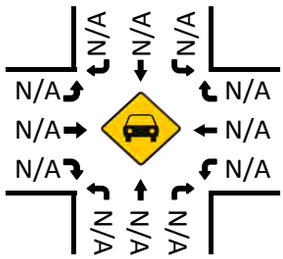
0

	AM	NOON	PM
TEV	0	2302	0
PHF		0.97	

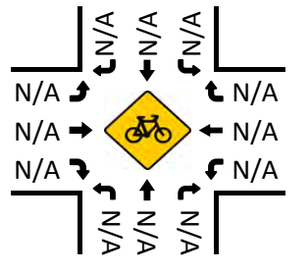
Main St — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	1114	0	0	1089	42	NOON
AM	0	0	0	0	0	AM

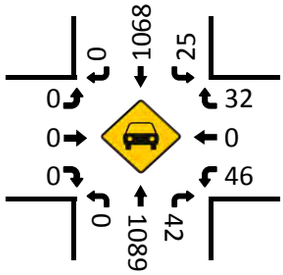
Total Vehicles (AM)



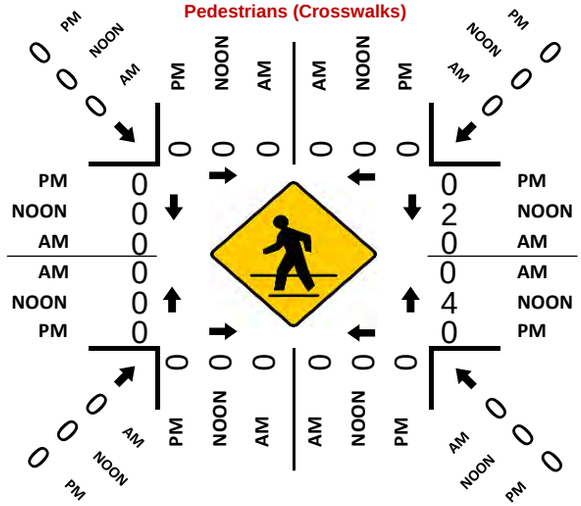
Bikes (AM)



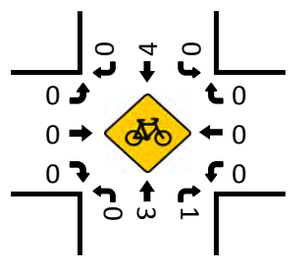
Total Vehicles (Noon)



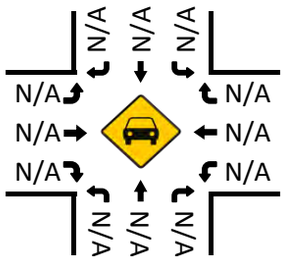
Pedestrians (Crosswalks)



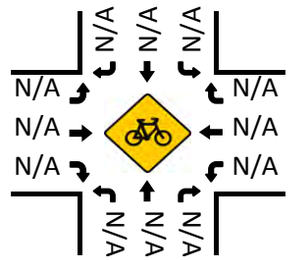
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & South St
City: Fort Bragg
Control:

Project ID: 19-08388-003
Date: 7/20/2019

Total

NS/EW Streets:	Main St				Main St				South St				South St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	269	13	0	4	292	0	0	0	0	0	0	10	0	7	0	595
1:15 PM	0	259	14	0	9	280	0	0	0	0	0	0	13	0	7	0	582
1:30 PM	0	265	7	0	5	249	0	0	0	0	0	0	9	0	7	0	542
1:45 PM	0	296	8	0	7	247	0	0	0	0	0	0	14	0	11	0	583
2:00 PM	0	252	7	0	3	259	0	0	0	0	0	0	16	0	9	0	546
2:15 PM	0	244	5	0	3	252	0	0	0	0	0	0	12	0	9	0	525
2:30 PM	0	256	6	0	3	247	0	0	0	0	0	0	8	0	6	0	526
2:45 PM	0	282	7	0	7	253	0	0	0	0	0	0	10	0	5	0	564
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2123	67	0	41	2079	0	0	0	0	0	0	92	0	61	0	4463
APPROACH %'s :	0.00%	96.94%	3.06%	0.00%	1.93%	98.07%	0.00%	0.00%					60.13%	0.00%	39.87%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	1089	42	0	25	1068	0	0	0	0	0	0	46	0	32	0	2302
PEAK HR FACTOR :	0.000	0.920	0.750	0.000	0.694	0.914	0.000	0.000	0.000	0.000	0.000	0.000	0.821	0.000	0.727	0.000	0.967
	0.930				0.923								0.780				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & South St
City: Fort Bragg
Control: 0

Project ID: 19-08388-003
Date: 7/20/2019

Bikes

NS/EW Streets:	Main St				Main St				South St				South St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
1:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	6	1	0	0	5	0	0	0	0	0	0	0	0	0	0	12
APPROACH %'s :	0.00%	85.71%	14.29%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	8
PEAK HR FACTOR :	0.00	0.750	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
		0.500				0.250											

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & South St
City: Fort Bragg

Project ID: 19-08388-003
Date: 7/20/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Main St		Main St		South St		South St		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
1:00 PM	0	0	0	0	1	1	0	0	2
1:15 PM	0	0	0	0	0	1	0	0	1
1:30 PM	0	0	0	0	1	0	0	0	1
1:45 PM	0	0	0	0	2	0	0	0	2
2:00 PM	0	0	0	0	0	4	0	0	4
2:15 PM	0	0	0	0	3	0	0	0	3
2:30 PM	0	0	0	0	3	1	0	0	4
2:45 PM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	10	8	0	0	18
APPROACH %'s :					55.56%	44.44%			
PEAK HR :	01:00 PM - 02:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	4	2	0	0	6
PEAK HR FACTOR :					0.500	0.500			0.750
					0.750				

Prepared by National Data & Surveying Services

Franklin St & South St

Peak Hour Turning Movement Count

ID: 19-08388-004
City: Fort Bragg

Day: Saturday
Date: 07/20/2019

PEAK HOURS

AM	NONE
NOON	01:00 PM - 02:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	01:00 PM - 03:00 PM
PM	NONE

Franklin St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	18	73	18	0	134	NOON
PM	0	0	0	0	0	PM

EASTBOUND — South St

AM	NOON	PM
0	65	0
0	0	0
0	27	0
0	26	0
0	10	0

WESTBOUND — South St

PM	NOON	AM
0	13	0
0	16	0
0	3	0
0	0	0
0	48	0

CONTROL

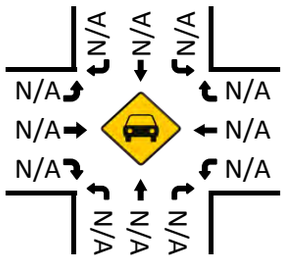
0

	AM	NOON	PM
TEV	0	333	0
PHF		0.90	

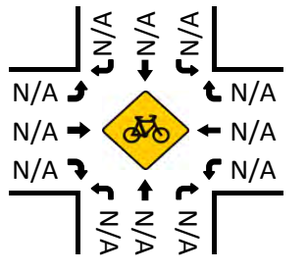
Franklin St — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	86	0	31	94	4	NOON
AM	0	0	0	0	0	AM

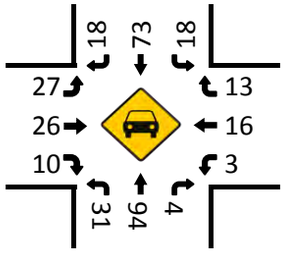
Total Vehicles (AM)



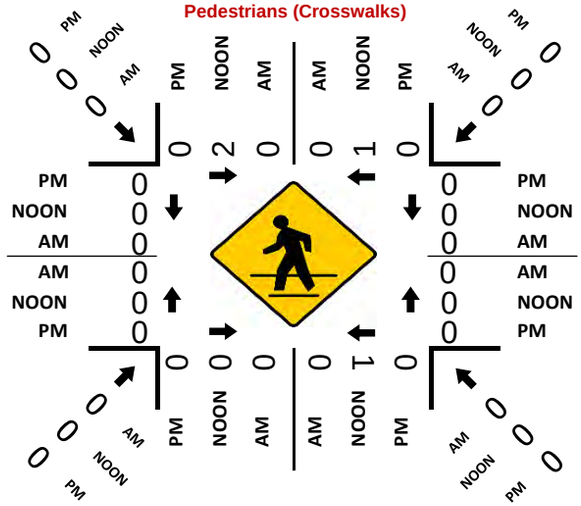
Bikes (AM)



Total Vehicles (Noon)



Pedestrians (Crosswalks)


PM
NOON
AM
0
2
0
1
0
0
0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & South St
City: Fort Bragg
Control:

Project ID: 19-08388-004
Date: 7/20/2019

Total

NS/EW Streets:	Franklin St				Franklin St				South St				South St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	8	23	0	0	1	21	1	0	6	12	0	0	1	0	5	0	78
1:15 PM	5	31	2	0	5	21	6	0	4	5	5	0	0	5	4	0	93
1:30 PM	8	21	1	0	7	13	4	0	10	5	2	0	1	6	4	0	82
1:45 PM	10	19	1	0	5	18	7	0	7	4	3	0	1	5	0	0	80
2:00 PM	9	23	1	0	2	16	5	0	6	5	0	0	1	4	6	0	78
2:15 PM	7	19	2	0	1	7	2	0	2	1	0	0	1	4	1	0	47
2:30 PM	4	25	0	0	2	17	3	1	2	5	2	0	1	4	5	0	71
2:45 PM	2	20	1	0	7	8	3	0	4	6	0	0	0	3	5	0	59
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	53	181	8	0	30	121	31	1	41	43	12	0	6	31	30	0	588
APPROACH %'s :	21.90%	74.79%	3.31%	0.00%	16.39%	66.12%	16.94%	0.55%	42.71%	44.79%	12.50%	0.00%	8.96%	46.27%	44.78%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	31	94	4	0	18	73	18	0	27	26	10	0	3	16	13	0	333
PEAK HR FACTOR :	0.775	0.758	0.500	0.000	0.643	0.869	0.643	0.000	0.675	0.542	0.500	0.000	0.750	0.667	0.650	0.000	0.895
	0.849				0.852				0.875				0.727				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & South St
City: Fort Bragg
Control: 0

Project ID: 19-08388-004
Date: 7/20/2019

Bikes

NS/EW Streets:	Franklin St				Franklin St				South St				South St				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	3
1:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	0	2	0	0	0	1	0	1	0	0	0	7
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	2	0	0	0	1	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.333
		0.250				0.250				0.250							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & South St
City: Fort Bragg

Project ID: 19-08388-004
Date: 7/20/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Franklin St		Franklin St		South St		South St		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	2	0	0	0	0	0	0	0	2
1:30 PM	0	1	0	0	0	0	0	0	1
1:45 PM	0	0	0	1	0	0	0	0	1
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	1	1
2:45 PM	0	0	0	0	0	0	0	1	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	1	0	1	0	0	0	2	6
APPROACH %'s :	66.67%	33.33%	0.00%	100.00%			0.00%	100.00%	
PEAK HR :	**01:00 PM - 02:00 PM**								TOTAL
PEAK HR VOL :	2	1	0	1	0	0	0	0	4
PEAK HR FACTOR :	0.250	0.250		0.250					0.500
	0.375		0.250						

Prepared by National Data & Surveying Services

Main St & Harbor Dr

Peak Hour Turning Movement Count

ID: 19-08388-005
City: Fort Bragg

Day: Saturday
Date: 07/20/2019

PEAK HOURS

AM	NONE
NOON	01:00 PM - 02:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	01:00 PM - 03:00 PM
PM	NONE

Main St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	7	1058	45	0	1144	NOON
PM	0	0	0	0	0	PM

Harbor Dr — EASTBOUND

AM	NOON	PM	
0	15	0	⇦
0	0	0	↰ 0
0	6	0	↑ 0
0	2	0	→ 0
0	3	0	↱ 0
AM	NOON	PM	

Harbor Dr — WESTBOUND

PM	NOON	AM	
0	130	0	0 ↱
0	0	0	0 ←
0	3	0	0 ↰
0	0	0	0 ↲
0	156	0	⇨
PM	NOON	AM	

CONTROL

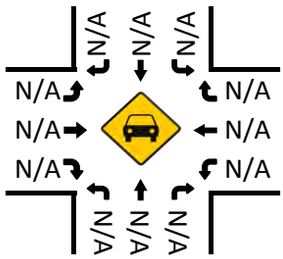
0

	AM	NOON	PM
TEV	0	2382	0
PHF		0.96	

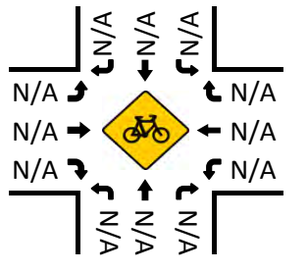
Main St — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	1067	3	8	1008	109	NOON
AM	0	0	0	0	0	AM

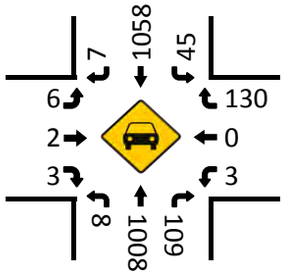
Total Vehicles (AM)



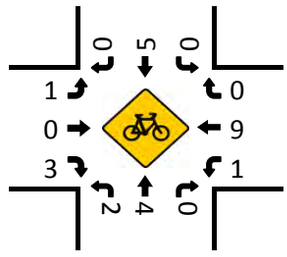
Bikes (AM)



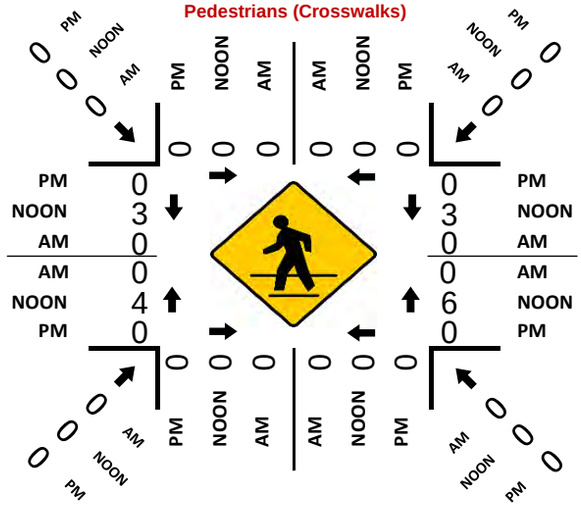
Total Vehicles (Noon)



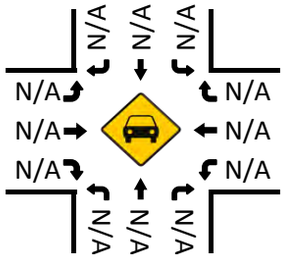
Bikes (NOON)



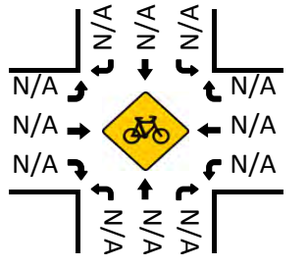
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & Harbor Dr
City: Fort Bragg
Control:

Project ID: 19-08388-005
Date: 7/20/2019

Total

NS/EW Streets:	Main St				Main St				Harbor Dr				Harbor Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	1	255	19	0	16	286	2	0	2	1	1	0	1	0	34	0	618
1:15 PM	2	239	32	1	6	288	1	0	1	0	0	0	1	0	41	0	612
1:30 PM	3	245	29	1	11	242	3	0	2	1	1	0	0	0	22	0	560
1:45 PM	2	269	29	1	12	242	1	0	1	0	1	0	1	0	33	0	592
2:00 PM	2	236	24	2	9	264	5	0	5	0	3	0	0	0	25	0	575
2:15 PM	2	227	25	0	23	235	1	0	1	0	2	0	0	0	28	0	544
2:30 PM	1	228	20	0	16	238	2	0	0	0	1	0	2	0	35	0	543
2:45 PM	0	253	23	0	14	246	0	1	1	1	2	0	2	0	37	0	580
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	13	1952	201	5	107	2041	15	1	13	3	11	0	7	0	255	0	4624
APPROACH %'s :	0.60%	89.91%	9.26%	0.23%	4.94%	94.32%	0.69%	0.05%	48.15%	11.11%	40.74%	0.00%	2.67%	0.00%	97.33%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	8	1008	109	3	45	1058	7	0	6	2	3	0	3	0	130	0	2382
PEAK HR FACTOR :	0.667	0.937	0.852	0.750	0.703	0.918	0.583	0.000	0.750	0.500	0.750	0.000	0.750	0.000	0.793	0.000	0.964
	0.937				0.913				0.688				0.792				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & Harbor Dr
City: Fort Bragg
Control: 0

Project ID: 19-08388-005
Date: 7/20/2019

Bikes

NS/EW Streets:	Main St				Main St				Harbor Dr				Harbor Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	2	0	0	0	0	0	0	1	0	3	0	0	0	0	0	6
1:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
1:30 PM	2	0	0	0	0	5	0	0	0	0	0	0	0	9	0	0	16
1:45 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
2:00 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	2	0	0	0	0	1	0	0	0	2	1	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	5	1	0	0	6	0	0	1	2	5	1	1	9	0	0	36
APPROACH %'s :	45.45%	45.45%	9.09%	0.00%	0.00%	100.00%	0.00%	0.00%	11.11%	22.22%	55.56%	11.11%	10.00%	90.00%	0.00%	0.00%	
PEAK HR :	**01:00 PM - 02:00 PM**																TOTAL
PEAK HR VOL :	2	4	0	0	0	5	0	0	1	0	3	1	1	9	0	0	26
PEAK HR FACTOR :	0.25	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.250	0.250	0.250	0.000	0.000	0.406
		0.750				0.250				0.313				0.278			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & Harbor Dr
City: Fort Bragg

Project ID: 19-08388-005
Date: 7/20/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Main St		Main St		Harbor Dr		Harbor Dr		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
1:00 PM	0	0	0	0	1	1	2	3	7
1:15 PM	0	0	0	0	4	1	2	0	7
1:30 PM	0	0	0	0	1	0	0	0	1
1:45 PM	0	0	0	0	0	1	0	0	1
2:00 PM	0	0	0	0	1	0	0	2	3
2:15 PM	0	0	0	0	2	0	0	0	2
2:30 PM	0	0	0	0	4	0	0	0	4
2:45 PM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	13	4	4	5	26
APPROACH %'s :					76.47%	23.53%	44.44%	55.56%	
PEAK HR :	**01:00 PM - 02:00 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	6	3	4	3	16
PEAK HR FACTOR :					0.375	0.750	0.500	0.250	0.571
					0.450		0.350		

Prepared by National Data & Surveying Services

Franklin St & Harbor Dr

Peak Hour Turning Movement Count

ID: 19-08388-006
City: Fort Bragg

Day: Saturday
Date: 07/20/2019

PEAK HOURS

AM	NONE
NOON	01:00 PM - 02:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	01:00 PM - 03:00 PM
PM	NONE

Franklin St — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	15	0	74	0	129	NOON
PM	0	0	0	0	0	PM

Harbor Dr — EASTBOUND

AM	NOON	PM	
0	130	0	⇦
0	0	0	↶ 0
0	21	0	↱ 0
0	138	0	→ 0
0	0	0	↷ 0
AM	NOON	PM	

Harbor Dr — WESTBOUND

PM	NOON	AM	
0	108	0	0 ↳
0	115	0	0 ←
0	0	0	0 ↰
0	0	0	0 ↲
0	212	0	⇨
PM	NOON	AM	

CONTROL: 0

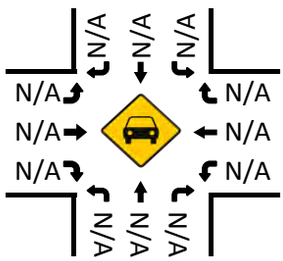
	AM	NOON	PM
TEV	0	471	0
PHF		0.86	

Franklin St — NORTHBOUND

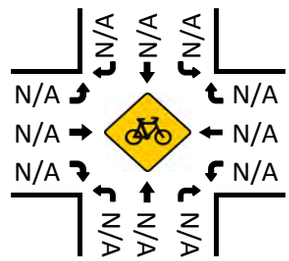
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

0 0 0 0 ↶ ↰ ↑ ↱

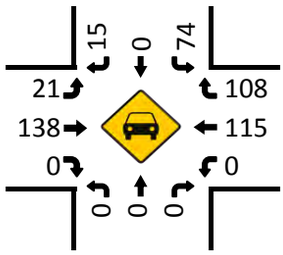
Total Vehicles (AM)



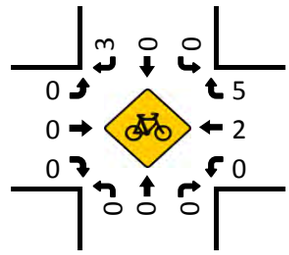
Bikes (AM)



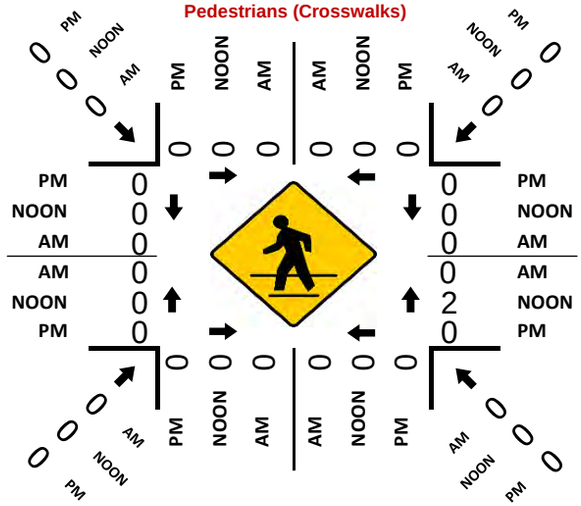
Total Vehicles (Noon)



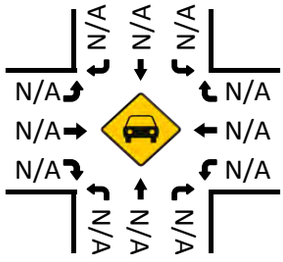
Bikes (NOON)



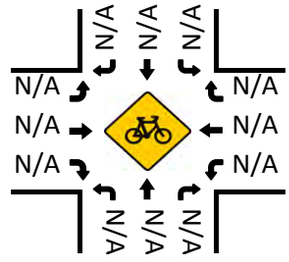
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Harbor Dr
City: Fort Bragg
Control:

Project ID: 19-08388-006
Date: 7/20/2019

Total

NS/EW Streets:	Franklin St				Franklin St				Harbor Dr				Harbor Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	0	0	0	19	0	4	0	6	35	0	0	0	30	23	0	117
1:15 PM	0	0	0	0	23	0	3	0	5	33	0	0	0	39	34	0	137
1:30 PM	0	0	0	0	14	0	3	0	5	33	0	0	0	20	24	0	99
1:45 PM	0	0	0	0	18	0	5	0	5	37	0	0	0	26	27	0	118
2:00 PM	0	0	0	0	11	0	3	0	5	27	0	0	0	29	26	0	101
2:15 PM	0	0	0	0	8	0	2	0	6	39	0	0	0	31	21	0	107
2:30 PM	0	0	0	0	16	0	4	0	8	32	0	0	0	33	21	0	114
2:45 PM	0	0	0	0	5	0	3	0	3	35	0	0	0	37	20	0	103
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	114	0	27	0	43	271	0	0	0	245	196	0	896
APPROACH %'s :					80.85%	0.00%	19.15%	0.00%	13.69%	86.31%	0.00%	0.00%	0.00%	55.56%	44.44%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	74	0	15	0	21	138	0	0	0	115	108	0	471
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.804	0.000	0.750	0.000	0.875	0.932	0.000	0.000	0.000	0.737	0.794	0.000	0.859
					0.856				0.946				0.764				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Harbor Dr
City: Fort Bragg
Control: 0

Project ID: 19-08388-006
Date: 7/20/2019

Bikes

NS/EW Streets:	Franklin St				Franklin St				Harbor Dr				Harbor Dr				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	2	5	0	8
1:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
2:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	4	0	2	2	0	0	0	2	5	0	15
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	28.57%	71.43%	0.00%	
PEAK HR :	**01:00 PM - 02:00 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	3	0	0	0	0	0	0	2	5	0	10
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.313
							0.375								0.250		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Franklin St & Harbor Dr
City: Fort Bragg

Project ID: 19-08388-006
Date: 7/20/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Franklin St		Franklin St		Harbor Dr		Harbor Dr		
NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
1:00 PM	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	2	0	0	0	2
1:30 PM	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	1	0	1
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	1	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	1	1	0	4
APPROACH %'s :					66.67%	33.33%	100.00%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	2	0	0	0	2
PEAK HR FACTOR :					0.250				0.250
						0.250			

Prepared by National Data & Surveying Services

VOLUME

Cypress St Bet. Main St & Franklin St

Day: Thursday
Date: 7/18/2019

City: Fort Bragg
Project #: CA19_8387_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,701	3,377	5,078

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		2		3		12:00			37		85		122	
00:15			1		3		4		12:15			34		90		124	
00:30			0		0		0		12:30			42		97		139	
00:45			0	2	1	6	1	8	12:45			44	157	74	346	118	503
01:00			0		0		0		13:00			53		85		138	
01:15			0		0		0		13:15			44		78		122	
01:30			0		0		0		13:30			55		64		119	
01:45			1	1	4	4	5	5	13:45			52	204	80	307	132	511
02:00			1		3		4		14:00			41		84		125	
02:15			0		1		1		14:15			40		70		110	
02:30			0		2		2		14:30			30		74		104	
02:45			0	1	0	6	0	7	14:45			34	145	68	296	102	441
03:00			0		2		2		15:00			27		75		102	
03:15			0		0		0		15:15			34		70		104	
03:30			1		0		1		15:30			28		63		91	
03:45			0	1	5	7	5	8	15:45			25	114	80	288	105	402
04:00			0		0		0		16:00			33		81		114	
04:15			5		2		7		16:15			23		64		87	
04:30			2		2		4		16:30			21		72		93	
04:45			5	12	3	7	8	19	16:45			29	106	57	274	86	380
05:00			4		2		6		17:00			21		98		119	
05:15			8		1		9		17:15			35		80		115	
05:30			8		2		10		17:30			18		73		91	
05:45			3	23	5	10	8	33	17:45			16	90	57	308	73	398
06:00			6		5		11		18:00			22		65		87	
06:15			6		3		9		18:15			20		48		68	
06:30			13		16		29		18:30			17		42		59	
06:45			15	40	9	33	24	73	18:45			19	78	44	199	63	277
07:00			7		13		20		19:00			10		43		53	
07:15			17		21		38		19:15			15		47		62	
07:30			22		20		42		19:30			12		37		49	
07:45			24	70	29	83	53	153	19:45			16	53	38	165	54	218
08:00			20		29		49		20:00			11		33		44	
08:15			37		33		70		20:15			9		36		45	
08:30			31		34		65		20:30			6		17		23	
08:45			36	124	38	134	74	258	20:45			17	43	19	105	36	148
09:00			30		44		74		21:00			12		20		32	
09:15			34		50		84		21:15			8		15		23	
09:30			35		61		96		21:30			9		10		19	
09:45			38	137	56	211	94	348	21:45			4	33	9	54	13	87
10:00			24		46		70		22:00			6		3		9	
10:15			25		49		74		22:15			3		8		11	
10:30			24		49		73		22:30			0		10		10	
10:45			41	114	71	215	112	329	22:45			1	10	2	23	3	33
11:00			37		74		111		23:00			2		3		5	
11:15			30		57		87		23:15			3		0		3	
11:30			27		86		113		23:30			1		0		1	
11:45			42	136	76	293	118	429	23:45			1	7	0	3	1	10
TOTALS				661		1009		1670	TOTALS				1040		2368		3408
SPLIT %				39.6%		60.4%		32.9%	SPLIT %				30.5%		69.5%		67.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,701	3,377	5,078

AM Peak Hour				11:45	11:45	11:45		PM Peak Hour				13:00	12:00	12:15
AM Pk Volume				155	348	503		PM Pk Volume				204	346	519
Pk Hr Factor				0.923	0.897	0.905		Pk Hr Factor				0.927	0.892	0.933
7 - 9 Volume	0	0		194	217	411		4 - 6 Volume	0	0		196	582	778
7 - 9 Peak Hour				08:00	08:00	08:00		4 - 6 Peak Hour				16:00	16:45	16:30
7 - 9 Pk Volume	0	0		124	134	258		4 - 6 Pk Volume	0	0		106	308	413
Pk Hr Factor	0.000	0.000		0.838	0.882	0.872		Pk Hr Factor	0.000	0.000		0.803	0.786	0.868

Prepared by National Data & Surveying Services

VOLUME

Cypress St Bet. Main St & Franklin St

Day: Friday
Date: 7/19/2019

City: Fort Bragg
Project #: CA19_8387_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,683	3,531	5,214

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		3		5		12:00			31		66		97	
00:15			1		3		4		12:15			22		50		72	
00:30			0		0		0		12:30			35		73		108	
00:45			0	3	0	6	0	9	12:45			46	134	86	275	132	409
01:00			0		1		1		13:00			41		78		119	
01:15			0		0		0		13:15			36		77		113	
01:30			0		0		0		13:30			41		70		111	
01:45			0		0	1	0	1	13:45			40	158	68	293	108	451
02:00			0		2		2		14:00			37		81		118	
02:15			1		1		2		14:15			44		78		122	
02:30			1		0		1		14:30			31		77		108	
02:45			0	2	1	4	1	6	14:45			43	155	89	325	132	480
03:00			0		0		0		15:00			30		80		110	
03:15			0		0		0		15:15			38		77		115	
03:30			0		6		6		15:30			30		78		108	
03:45			2	2	3	9	5	11	15:45			24	122	81	316	105	438
04:00			6		0		6		16:00			34		73		107	
04:15			1		2		3		16:15			37		80		117	
04:30			2		1		3		16:30			21		86		107	
04:45			8	17	5	8	13	25	16:45			25	117	77	316	102	433
05:00			5		1		6		17:00			30		74		104	
05:15			14		4		18		17:15			20		64		84	
05:30			9		11		20		17:30			26		76		102	
05:45			6	34	10	26	16	60	17:45			21	97	80	294	101	391
06:00			6		4		10		18:00			21		60		81	
06:15			8		16		24		18:15			22		57		79	
06:30			5		15		20		18:30			9		38		47	
06:45			20	39	13	48	33	87	18:45			13	65	55	210	68	275
07:00			18		15		33		19:00			20		58		78	
07:15			16		20		36		19:15			16		36		52	
07:30			22		22		44		19:30			15		26		41	
07:45			22	78	34	91	56	169	19:45			11	62	40	160	51	222
08:00			31		36		67		20:00			5		23		28	
08:15			32		26		58		20:15			6		28		34	
08:30			28		50		78		20:30			8		25		33	
08:45			35	126	34	146	69	272	20:45			9	28	19	95	28	123
09:00			36		54		90		21:00			11		24		35	
09:15			22		60		82		21:15			9		12		21	
09:30			32		53		85		21:30			4		14		18	
09:45			37	127	61	228	98	355	21:45			1	25	8	58	9	83
10:00			34		47		81		22:00			10		7		17	
10:15			20		53		73		22:15			8		9		17	
10:30			34		78		112		22:30			4		4		8	
10:45			27	115	72	250	99	365	22:45			5	27	9	29	14	56
11:00			42		77		119		23:00			3		4		7	
11:15			33		72		105		23:15			2		6		8	
11:30			29		73		102		23:30			5		2		7	
11:45			34	138	107	329	141	467	23:45			2	12	2	14	4	26
TOTALS				681		1146		1827	TOTALS				1002		2385		3387
SPLIT %				37.3%		62.7%		35.0%	SPLIT %				29.6%		70.4%		65.0%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,683	3,531	5,214

AM Peak Hour				11:00	11:00	11:00		PM Peak Hour				12:45	14:00	14:00
AM Pk Volume				138	329	467		PM Pk Volume				164	325	480
Pk Hr Factor				0.821	0.769	0.828		Pk Hr Factor				0.891	0.913	0.909
7 - 9 Volume	0	0		204	237	441		4 - 6 Volume	0	0		214	610	824
7 - 9 Peak Hour				08:00	07:45	08:00		4 - 6 Peak Hour				16:00	16:15	16:00
7 - 9 Pk Volume	0	0		126	146	272		4 - 6 Pk Volume	0	0		117	317	433
Pk Hr Factor	0.000	0.000		0.900	0.730	0.872		Pk Hr Factor	0.000	0.000		0.791	0.922	0.925

Prepared by National Data & Surveying Services

VOLUME

Cypress St Bet. Main St & Franklin St

Day: Saturday
Date: 7/20/2019

City: Fort Bragg
Project #: CA19_8387_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,072	2,457	3,529

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			6		5		11		12:00			16		62		78	
00:15			1		2		3		12:15			28		48		76	
00:30			1		6		7		12:30			24		46		70	
00:45			1	9	1	14	2	23	12:45			20	88	74	230	94	318
01:00			0		0		0		13:00			24		57		81	
01:15			0		1		1		13:15			29		70		99	
01:30			1		0		1		13:30			27		57		84	
01:45			0	1	1	2	1	3	13:45			14	94	49	233	63	327
02:00			0		0		0		14:00			22		51		73	
02:15			0		2		2		14:15			12		47		59	
02:30			0		0		0		14:30			33		55		88	
02:45			0		0	2	0	2	14:45			21	88	58	211	79	299
03:00			0		4		4		15:00			31		70		101	
03:15			0		0		0		15:15			36		53		89	
03:30			0		0		0		15:30			22		46		68	
03:45			2	2	1	5	3	7	15:45			21	110	40	209	61	319
04:00			0		1		1		16:00			21		55		76	
04:15			0		1		1		16:15			22		48		70	
04:30			1		1		2		16:30			15		49		64	
04:45			2	3	3	6	5	9	16:45			22	80	51	203	73	283
05:00			0		2		2		17:00			21		43		64	
05:15			0		1		1		17:15			14		54		68	
05:30			1		4		5		17:30			18		41		59	
05:45			1	2	4	11	5	13	17:45			22	75	30	168	52	243
06:00			0		4		4		18:00			12		47		59	
06:15			0		1		1		18:15			15		29		44	
06:30			3		7		10		18:30			15		43		58	
06:45			5	8	3	15	8	23	18:45			15	57	26	145	41	202
07:00			7		6		13		19:00			10		26		36	
07:15			11		14		25		19:15			14		23		37	
07:30			4		19		23		19:30			13		15		28	
07:45			11	33	10	49	21	82	19:45			8	45	30	94	38	139
08:00			5		17		22		20:00			9		27		36	
08:15			5		28		33		20:15			12		23		35	
08:30			14		27		41		20:30			6		23		29	
08:45			21	45	28	100	49	145	20:45			5	32	23	96	28	128
09:00			12		34		46		21:00			18		13		31	
09:15			15		39		54		21:15			15		6		21	
09:30			16		30		46		21:30			5		14		19	
09:45			15	58	26	129	41	187	21:45			5	43	12	45	17	88
10:00			19		49		68		22:00			7		21		28	
10:15			17		58		75		22:15			4		8		12	
10:30			20		55		75		22:30			2		11		13	
10:45			30	86	56	218	86	304	22:45			5	18	9	49	14	67
11:00			19		43		62		23:00			4		6		10	
11:15			17		51		68		23:15			3		6		9	
11:30			22		61		83		23:30			1		2		3	
11:45			27	85	48	203	75	288	23:45			2	10	6	20	8	30
TOTALS				332		754		1086	TOTALS				740		1703		2443
SPLIT %				30.6%		69.4%		30.8%	SPLIT %				30.3%		69.7%		69.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,072	2,457	3,529

AM Peak Hour				11:45	11:15	11:30	PM Peak Hour				14:30	12:45	12:45
AM Pk Volume				95	222	312	PM Pk Volume				121	258	358
Pk Hr Factor				0.848	0.895	0.940	Pk Hr Factor				0.840	0.872	0.904
7 - 9 Volume	0	0		78	149	227	4 - 6 Volume	0	0		155	371	526
7 - 9 Peak Hour				08:00	08:00	08:00	4 - 6 Peak Hour				16:00	16:00	16:00
7 - 9 Pk Volume	0	0		45	100	145	4 - 6 Pk Volume	0	0		80	203	283
Pk Hr Factor	0.000	0.000		0.536	0.893	0.740	Pk Hr Factor	0.000	0.000		0.909	0.923	0.931

0951-10

Prepared by National Data & Surveying Services

VOLUME

Franklin St Bet. Cypress St & S St

Day: Thursday
Date: 7/18/2019

City: Fort Bragg
Project #: CA19_8387_002

DAILY TOTALS	NB	SB	EB	WB	Total
	1,920	1,620	0	0	3,540

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	1		3						4		**12:00**	55		35						90	
00:15	1		2						3		**12:15**	37		30						67	
00:30	0		1						1		**12:30**	48		39						87	
00:45	0	2	0	6					0	8	**12:45**	51	191	40	144					91	335
01:00	0		0						0		**13:00**	56		42						98	
01:15	0		0						0		**13:15**	40		40						80	
01:30	1		0						1		**13:30**	45		47						92	
01:45	0	1	2	2					2	3	**13:45**	55	196	48	177					103	373
02:00	2		1						3		**14:00**	37		23						60	
02:15	0		1						1		**14:15**	56		38						94	
02:30	0		0						0		**14:30**	34		34						68	
02:45	0	2	1	3					1	5	**14:45**	39	166	36	131					75	297
03:00	0		2						2		**15:00**	58		17						75	
03:15	0		0						0		**15:15**	40		42						82	
03:30	1		0						1		**15:30**	35		32						67	
03:45	0	1	0	2					0	3	**15:45**	45	178	28	119					73	297
04:00	0		0						0		**16:00**	34		37						71	
04:15	0		0						0		**16:15**	40		44						84	
04:30	1		0						1		**16:30**	49		34						83	
04:45	0	1	0						0	1	**16:45**	33	156	37	152					70	308
05:00	2		0						2		**17:00**	59		32						91	
05:15	0		0						0		**17:15**	39		43						82	
05:30	3		3						6		**17:30**	38		47						85	
05:45	3	8	3	6					6	14	**17:45**	40	176	21	143					61	319
06:00	0		2						2		**18:00**	49		19						68	
06:15	4		7						11		**18:15**	29		27						56	
06:30	3		8						11		**18:30**	33		20						53	
06:45	8	15	7	24					15	39	**18:45**	32	143	15	81					47	224
07:00	5		11						16		**19:00**	24		17						41	
07:15	11		20						31		**19:15**	27		17						44	
07:30	12		9						21		**19:30**	21		10						31	
07:45	14	42	22	62					36	104	**19:45**	15	87	12	56					27	143
08:00	18		31						49		**20:00**	15		18						33	
08:15	15		32						47		**20:15**	12		4						16	
08:30	17		19						36		**20:30**	18		9						27	
08:45	22	72	20	102					42	174	**20:45**	10	55	9	40					19	95
09:00	35		24						59		**21:00**	11		11						22	
09:15	23		22						45		**21:15**	8		10						18	
09:30	16		17						33		**21:30**	8		10						18	
09:45	24	98	17	80					41	178	**21:45**	6	33	9	40					15	73
10:00	26		20						46		**22:00**	10		6						16	
10:15	20		20						40		**22:15**	13		7						20	
10:30	34		26						60		**22:30**	7		4						11	
10:45	34	114	32	98					66	212	**22:45**	2	32	2	19					4	51
11:00	37		28						65		**23:00**	5		2						7	
11:15	30		32						62		**23:15**	1		1						2	
11:30	28		33						61		**23:30**	1		2						3	
11:45	49	144	32	125					81	269	**23:45**	0	7	3	8					3	15
TOTALS		500		510						**1010**	**TOTALS**		1420		1110						**2530**
SPLIT %		49.5%		50.5%						**28.5%**	**SPLIT %**		56.1%		43.9%						**71.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,920	1,620	0	0	3,540

AM Peak Hour	11:45		11:45						**11:45**		**PM Peak Hour**	13:00		13:00						**13:00**	
AM Pk Volume	189		136						**325**		**PM Pk Volume**	196		177						**373**	
Pk Hr Factor	0.859		0.872						**0.903**		**Pk Hr Factor**	0.875		0.922						**0.905**	
7 - 9 Volume	114		164		0		0		**278**		**4 - 6 Volume**	332		295		0		0		**627**	
7 - 9 Peak Hour	08:00		07:45						**08:00**		**4 - 6 Peak Hour**	16:15		16:45						**16:15**	
7 - 9 Pk Volume	72		104		0		0		**174**		**4 - 6 Pk Volume**	181		159		0		0		**328**	
Pk Hr Factor	0.818		0.813		0.000		0.000		**0.888**		**Pk Hr Factor**	0.767		0.846		0.000		0.000		**0.901**	

Prepared by National Data & Surveying Services

VOLUME

Franklin St Bet. Cypress St & S St

Day: Friday
Date: 7/19/2019

City: Fort Bragg
Project #: CA19_8387_002

DAILY TOTALS	NB	SB	EB	WB	Total
	1,942	1,555	0	0	3,497

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		1				4		**12:00**	42		35				77	
00:15	0		1				1		**12:15**	38		35				73	
00:30	1		0				1		**12:30**	39		36				75	
00:45	1	5	0	2			1	7	**12:45**	51	170	44	150			95	320
01:00	0		0				0		**13:00**	52		29				81	
01:15	0		0				0		**13:15**	49		30				79	
01:30	0		1				1		**13:30**	51		35				86	
01:45	1	1	0	1			1	2	**13:45**	50	202	40	134			90	336
02:00	0		1				1		**14:00**	58		29				87	
02:15	1		0				1		**14:15**	53		24				77	
02:30	0		1				1		**14:30**	41		25				66	
02:45	2	3	3	5			5	8	**14:45**	37	189	39	117			76	306
03:00	0		1				1		**15:00**	52		26				78	
03:15	0		0				0		**15:15**	42		32				74	
03:30	1		1				2		**15:30**	38		35				73	
03:45	0	1	1	3			1	4	**15:45**	36	168	30	123			66	291
04:00	0		0				0		**16:00**	51		33				84	
04:15	0		0				0		**16:15**	39		22				61	
04:30	0		0				0		**16:30**	54		28				82	
04:45	0		1	1			1	1	**16:45**	31	175	31	114			62	289
05:00	0		2				2		**17:00**	40		25				65	
05:15	0		0				0		**17:15**	41		26				67	
05:30	1		2				3		**17:30**	39		23				62	
05:45	4	5	2	6			6	11	**17:45**	28	148	41	115			69	263
06:00	5		6				11		**18:00**	29		24				53	
06:15	2		2				4		**18:15**	27		24				51	
06:30	3		4				7		**18:30**	35		24				59	
06:45	10	20	6	18			16	38	**18:45**	20	111	20	92			40	203
07:00	4		7				11		**19:00**	20		23				43	
07:15	8		14				22		**19:15**	30		20				50	
07:30	8		13				21		**19:30**	17		27				44	
07:45	17	37	23	57			40	94	**19:45**	17	84	22	92			39	176
08:00	17		29				46		**20:00**	12		17				29	
08:15	13		27				40		**20:15**	18		15				33	
08:30	17		23				40		**20:30**	10		12				22	
08:45	25	72	18	97			43	169	**20:45**	9	49	8	52			17	101
09:00	27		20				47		**21:00**	16		10				26	
09:15	25		20				45		**21:15**	14		9				23	
09:30	33		26				59		**21:30**	6		3				9	
09:45	30	115	19	85			49	200	**21:45**	8	44	4	26			12	70
10:00	34		23				57		**22:00**	3		8				11	
10:15	27		24				51		**22:15**	19		10				29	
10:30	45		18				63		**22:30**	13		4				17	
10:45	26	132	37	102			63	234	**22:45**	7	42	5	27			12	69
11:00	40		28				68		**23:00**	6		1				7	
11:15	27		34				61		**23:15**	10		3				13	
11:30	33		34				67		**23:30**	3		6				9	
11:45	48	148	28	124			76	272	**23:45**	2	21	2	12			4	33
TOTALS		539		501				**1040**	**TOTALS**		1403		1054				**2457**
SPLIT %		51.8%		48.2%				**29.7%**	**SPLIT %**		57.1%		42.9%				**70.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,942	1,555	0	0	3,497

AM Peak Hour	11:45		11:45					**11:45**	**PM Peak Hour**	13:30		12:00					**13:15**
AM Pk Volume	167		134					**301**	**PM Pk Volume**	212		150					**342**
Pk Hr Factor	0.870		0.931					**0.977**	**Pk Hr Factor**	0.914		0.852					**0.950**
7 - 9 Volume	109		154		0		0	**263**	**4 - 6 Volume**	323		229		0		0	**552**
7 - 9 Peak Hour	08:00		07:45					**08:00**	**4 - 6 Peak Hour**	16:00		17:00					**16:00**
7 - 9 Pk Volume	72		102		0		0	**169**	**4 - 6 Pk Volume**	175		115		0		0	**289**
Pk Hr Factor	0.720		0.879		0.000		0.000	**0.918**	**Pk Hr Factor**	0.810		0.701		0.000		0.000	**0.860**

Prepared by National Data & Surveying Services

VOLUME

Franklin St Bet. Cypress St & S St

Day: Saturday
Date: 7/20/2019

City: Fort Bragg
Project #: CA19_8387_002

DAILY TOTALS	NB	SB	EB	WB	Total
	1,279	1,115	0	0	2,394

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	5		4				9		**12:00**	18		31				49	
00:15	1		4				5		**12:15**	29		40				69	
00:30	1		0				1		**12:30**	32		24				56	
00:45	0	7	2	10			2	17	**12:45**	40	119	30	125			70	244
01:00	0		1				1		**13:00**	35		23				58	
01:15	0		0				0		**13:15**	39		33				72	
01:30	2		0				2		**13:30**	33		23				56	
01:45	1	3	0	1			1	4	**13:45**	29	136	30	109			59	245
02:00	0		1				1		**14:00**	35		23				58	
02:15	0		1				1		**14:15**	22		10				32	
02:30	1		1				2		**14:30**	34		23				57	
02:45	0	1	1	4			1	5	**14:45**	28	119	18	74			46	193
03:00	0		0				0		**15:00**	33		14				47	
03:15	1		0				1		**15:15**	30		30				60	
03:30	0		0				0		**15:30**	31		21				52	
03:45	0	1	0				0	1	**15:45**	16	110	18	83			34	193
04:00	0		0				0		**16:00**	26		18				44	
04:15	0		0				0		**16:15**	27		25				52	
04:30	1		1				2		**16:30**	27		23				50	
04:45	0	1	0	1			0	2	**16:45**	30	110	20	86			50	196
05:00	0		1				1		**17:00**	20		15				35	
05:15	0		0				0		**17:15**	33		20				53	
05:30	0		1				1		**17:30**	14		19				33	
05:45	0		4	6			4	6	**17:45**	19	86	21	75			40	161
06:00	2		3				5		**18:00**	16		20				36	
06:15	0		0				0		**18:15**	22		20				42	
06:30	3		2				5		**18:30**	19		17				36	
06:45	6	11	9	14			15	25	**18:45**	17	74	11	68			28	142
07:00	7		4				11		**19:00**	15		10				25	
07:15	2		10				12		**19:15**	12		15				27	
07:30	1		5				6		**19:30**	15		9				24	
07:45	7	17	12	31			19	48	**19:45**	16	58	10	44			26	102
08:00	12		11				23		**20:00**	15		13				28	
08:15	8		6				14		**20:15**	10		15				25	
08:30	9		7				16		**20:30**	20		11				31	
08:45	6	35	13	37			19	72	**20:45**	14	59	10	49			24	108
09:00	17		19				36		**21:00**	7		10				17	
09:15	20		11				31		**21:15**	13		10				23	
09:30	16		16				32		**21:30**	6		8				14	
09:45	13	66	14	60			27	126	**21:45**	13	39	7	35			20	74
10:00	21		26				47		**22:00**	13		8				21	
10:15	28		22				50		**22:15**	6		2				8	
10:30	17		15				32		**22:30**	7		5				12	
10:45	24	90	28	91			52	181	**22:45**	5	31	2	17			7	48
11:00	21		16				37		**23:00**	7		4				11	
11:15	27		19				46		**23:15**	3		3				6	
11:30	23		26				49		**23:30**	1		3				4	
11:45	21	92	23	84			44	176	**23:45**	3	14	1	11			4	25
TOTALS		324		339				**663**	**TOTALS**		955		776				**1731**
SPLIT %		48.9%		51.1%				**27.7%**	**SPLIT %**		55.2%		44.8%				**72.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,279	1,115	0	0	2,394

AM Peak Hour	11:45		11:30					**11:45**	**PM Peak Hour**	12:45		12:00					**12:30**
AM Pk Volume	100		120					**218**	**PM Pk Volume**	147		125					**256**
Pk Hr Factor	0.781		0.750					**0.790**	**Pk Hr Factor**	0.919		0.781					**0.889**
7 - 9 Volume	52		68		0	0		**120**	**4 - 6 Volume**	196		161		0	0		**357**
7 - 9 Peak Hour	07:45		07:15					**07:45**	**4 - 6 Peak Hour**	16:00		16:00					**16:00**
7 - 9 Pk Volume	36		38		0	0		**72**	**4 - 6 Pk Volume**	110		86		0	0		**196**
Pk Hr Factor	0.750		0.792		0.000	0.000		**0.783**	**Pk Hr Factor**	0.917		0.860		0.000	0.000		**0.942**

Prepared by National Data & Surveying Services

VOLUME

S St Bet. Main St & Franklin St

Day: Thursday
Date: 7/18/2019

City: Fort Bragg
Project #: CA19_8387_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,236	1,213	2,449

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		3		6		12:00			19		31		50	
00:15			1		1		2		12:15			22		26		48	
00:30			0		1		1		12:30			28		31		59	
00:45			0	4	1	6	1	10	12:45			37	106	25	113	62	219
01:00			0		2		2		13:00			39		29		68	
01:15			0		0		0		13:15			31		23		54	
01:30			1		0		1		13:30			40		21		61	
01:45			0	1	1	3	1	4	13:45			31	141	25	98	56	239
02:00			0		0		0		14:00			18		19		37	
02:15			0		2		2		14:15			24		23		47	
02:30			0		1		1		14:30			18		25		43	
02:45			0		0	3	0	3	14:45			25	85	22	89	47	174
03:00			0		1		1		15:00			27		15		42	
03:15			1		0		1		15:15			24		24		48	
03:30			1		2		3		15:30			17		18		35	
03:45			0	2	1	4	1	6	15:45			33	101	19	76	52	177
04:00			0		0		0		16:00			22		25		47	
04:15			0		1		1		16:15			17		23		40	
04:30			3		1		4		16:30			26		21		47	
04:45			2	5	1	3	3	8	16:45			28	93	30	99	58	192
05:00			1		3		4		17:00			32		20		52	
05:15			2		1		3		17:15			15		28		43	
05:30			7		4		11		17:30			13		26		39	
05:45			2	12	1	9	3	21	17:45			23	83	17	91	40	174
06:00			5		5		10		18:00			7		23		30	
06:15			7		4		11		18:15			6		19		25	
06:30			6		9		15		18:30			7		19		26	
06:45			19	37	8	26	27	63	18:45			7	27	15	76	22	103
07:00			9		14		23		19:00			7		13		20	
07:15			7		18		25		19:15			7		12		19	
07:30			16		5		21		19:30			8		19		27	
07:45			28	60	21	58	49	118	19:45			6	28	14	58	20	86
08:00			33		18		51		20:00			7		9		16	
08:15			27		14		41		20:15			6		13		19	
08:30			36		19		55		20:30			7		12		19	
08:45			18	114	18	69	36	183	20:45			9	29	14	48	23	77
09:00			22		20		42		21:00			5		15		20	
09:15			16		16		32		21:15			11		9		20	
09:30			23		17		40		21:30			9		8		17	
09:45			32	93	14	67	46	160	21:45			6	31	8	40	14	71
10:00			20		19		39		22:00			2		2		4	
10:15			13		17		30		22:15			6		7		13	
10:30			18		25		43		22:30			6		2		8	
10:45			20	71	21	82	41	153	22:45			3	17	3	14	6	31
11:00			14		12		26		23:00			2		2		4	
11:15			22		15		37		23:15			1		3		4	
11:30			27		21		48		23:30			2		1		3	
11:45			24	87	26	74	50	161	23:45			4	9	1	7	5	16
TOTALS				486		404		890	TOTALS				750		809		1559
SPLIT %				54.6%		45.4%		36.3%	SPLIT %				48.1%		51.9%		63.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,236	1,213	2,449

AM Peak Hour				07:45	11:45	11:45	PM Peak Hour				12:45	12:00	12:45
AM Pk Volume				124	114	207	PM Pk Volume				147	113	245
Pk Hr Factor				0.861	0.919	0.877	Pk Hr Factor				0.919	0.911	0.901
7 - 9 Volume	0	0		174	127	301	4 - 6 Volume	0	0		176	190	366
7 - 9 Peak Hour				07:45	07:45	07:45	4 - 6 Peak Hour				16:15	16:45	16:30
7 - 9 Pk Volume	0	0		124	72	196	4 - 6 Pk Volume	0	0		103	104	200
Pk Hr Factor	0.000	0.000		0.861	0.857	0.891	Pk Hr Factor	0.000	0.000		0.805	0.867	0.862

Prepared by National Data & Surveying Services

VOLUME

S St Bet. Main St & Franklin St

Day: Friday
Date: 7/19/2019

City: Fort Bragg
Project #: CA19_8387_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,131	1,214	2,345

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		7		9		12:00			16		30		46	
00:15			3		0		3		12:15			19		24		43	
00:30			2		5		7		12:30			26		30		56	
00:45			1	8	0	12	1	20	12:45			26	87	20	104	46	191
01:00			0		0		0		13:00			22		16		38	
01:15			0		0		0		13:15			27		26		53	
01:30			0		0		0		13:30			29		22		51	
01:45			1	1	0		1	1	13:45			32	110	22	86	54	196
02:00			0		1		1		14:00			16		23		39	
02:15			3		1		4		14:15			29		31		60	
02:30			1		0		1		14:30			17		20		37	
02:45			1	5	0	2	1	7	14:45			19	81	23	97	42	178
03:00			0		0		0		15:00			17		28		45	
03:15			1		1		2		15:15			18		37		55	
03:30			0		1		1		15:30			15		23		38	
03:45			0	1	1	3	1	4	15:45			24	74	22	110	46	184
04:00			0		0		0		16:00			21		18		39	
04:15			0		1		1		16:15			20		19		39	
04:30			1		0		1		16:30			18		21		39	
04:45			1	2	3	4	4	6	16:45			18	77	23	81	41	158
05:00			1		5		6		17:00			17		21		38	
05:15			2		1		3		17:15			13		23		36	
05:30			2		3		5		17:30			14		26		40	
05:45			6	11	5	14	11	25	17:45			14	58	34	104	48	162
06:00			4		1		5		18:00			10		17		27	
06:15			6		8		14		18:15			13		22		35	
06:30			7		6		13		18:30			13		15		28	
06:45			12	29	6	21	18	50	18:45			7	43	13	67	20	110
07:00			11		11		22		19:00			13		20		33	
07:15			14		10		24		19:15			10		14		24	
07:30			16		9		25		19:30			10		11		21	
07:45			23	64	20	50	43	114	19:45			9	42	16	61	25	103
08:00			16		15		31		20:00			12		9		21	
08:15			28		8		36		20:15			6		10		16	
08:30			29		24		53		20:30			10		11		21	
08:45			18	91	16	63	34	154	20:45			15	43	12	42	27	85
09:00			26		16		42		21:00			2		11		13	
09:15			20		16		36		21:15			7		8		15	
09:30			14		13		27		21:30			5		10		15	
09:45			35	95	23	68	58	163	21:45			4	18	5	34	9	52
10:00			16		23		39		22:00			2		10		12	
10:15			21		19		40		22:15			6		6		12	
10:30			24		16		40		22:30			5		7		12	
10:45			19	80	25	83	44	163	22:45			2	15	6	29	8	44
11:00			23		17		40		23:00			4		1		5	
11:15			13		20		33		23:15			1		3		4	
11:30			24		19		43		23:30			1		2		3	
11:45			27	87	14	70	41	157	23:45			3	9	3	9	6	18
TOTALS				474		390		864	TOTALS				657		824		1481
SPLIT %				54.9%		45.1%		36.8%	SPLIT %				44.4%		55.6%		63.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,131	1,214	2,345

AM Peak Hour				08:15	11:45	11:45		PM Peak Hour				13:00	14:45	13:30
AM Pk Volume				101	98	186		PM Pk Volume				110	111	204
Pk Hr Factor				0.871	0.817	0.830		Pk Hr Factor				0.859	0.750	0.850
7 - 9 Volume	0	0		155	113	268		4 - 6 Volume	0	0		135	185	320
7 - 9 Peak Hour				07:45	07:45	07:45		4 - 6 Peak Hour				16:00	17:00	17:00
7 - 9 Pk Volume	0	0		96	67	163		4 - 6 Pk Volume	0	0		77	104	162
Pk Hr Factor	0.000	0.000		0.828	0.698	0.769		Pk Hr Factor	0.000	0.000		0.917	0.765	0.844

Prepared by National Data & Surveying Services

VOLUME

S St Bet. Main St & Franklin St

Day: Saturday
Date: 7/20/2019

City: Fort Bragg
Project #: CA19_8387_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	755	910	1,665

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			5		4		9		12:00			17		13		30	
00:15			1		0		1		12:15			12		15		27	
00:30			2		1		3		12:30			14		9		23	
00:45			0	8	0	5	0	13	12:45			16	59	12	49	28	108
01:00			2		3		5		13:00			20		9		29	
01:15			0		0		0		13:15			14		17		31	
01:30			1		3		4		13:30			12		17		29	
01:45			1	4	1	7	2	11	13:45			15	61	23	66	38	127
02:00			2		2		4		14:00			11		19		30	
02:15			1		0		1		14:15			6		12		18	
02:30			1		0		1		14:30			9		12		21	
02:45			0	4	1	3	1	7	14:45			14	40	8	51	22	91
03:00			2		0		2		15:00			10		14		24	
03:15			0		0		0		15:15			14		20		34	
03:30			0		0		0		15:30			16		10		26	
03:45			1	3	0		1	3	15:45			21	61	20	64	41	125
04:00			1		1		2		16:00			20		13		33	
04:15			0		1		1		16:15			16		20		36	
04:30			1		1		2		16:30			6		14		20	
04:45			0	2	1	4	1	6	16:45			13	55	10	57	23	112
05:00			0		0		0		17:00			10		17		27	
05:15			0		0		0		17:15			9		16		25	
05:30			0		2		2		17:30			13		22		35	
05:45			0		2	4	2	4	17:45			12	44	18	73	30	117
06:00			4		6		10		18:00			11		18		29	
06:15			6		5		11		18:15			11		12		23	
06:30			3		6		9		18:30			15		20		35	
06:45			8	21	8	25	16	46	18:45			9	46	14	64	23	110
07:00			4		8		12		19:00			9		11		20	
07:15			2		13		15		19:15			11		18		29	
07:30			9		6		15		19:30			9		8		17	
07:45			6	21	10	37	16	58	19:45			6	35	12	49	18	84
08:00			10		8		18		20:00			6		9		15	
08:15			3		6		9		20:15			19		13		32	
08:30			12		8		20		20:30			4		13		17	
08:45			7	32	9	31	16	63	20:45			11	40	9	44	20	84
09:00			5		19		24		21:00			9		8		17	
09:15			17		12		29		21:15			6		6		12	
09:30			8		18		26		21:30			8		10		18	
09:45			9	39	11	60	20	99	21:45			8	31	7	31	15	62
10:00			18		10		28		22:00			8		7		15	
10:15			19		15		34		22:15			4		6		10	
10:30			8		10		18		22:30			8		4		12	
10:45			14	59	18	53	32	112	22:45			3	23	6	23	9	46
11:00			8		23		31		23:00			4		0		4	
11:15			18		22		40		23:15			1		10		11	
11:30			15		24		39		23:30			3		5		8	
11:45			16	57	25	94	41	151	23:45			2	10	1	16	3	26
TOTALS			250		323		573		TOTALS			505		587		1092	
SPLIT %			43.6%		56.4%		34.4%		SPLIT %			46.2%		53.8%		65.6%	

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	755	910	1,665

AM Peak Hour			11:15	11:00	11:00				PM Peak Hour			15:30	13:15	15:30			
AM Pk Volume			66	94	151				PM Pk Volume			73	76	136			
Pk Hr Factor			0.917	0.940	0.921				Pk Hr Factor			0.869	0.826	0.829			
7 - 9 Volume	0	0	53	68	121				4 - 6 Volume	0	0	99	130	229			
7 - 9 Peak Hour			08:00	07:00	07:15				4 - 6 Peak Hour			16:00	17:00	17:00			
7 - 9 Pk Volume	0	0	32	37	64				4 - 6 Pk Volume	0	0	55	73	117			
Pk Hr Factor	0.000	0.000	0.667	0.712	0.889				Pk Hr Factor	0.000	0.000	0.688	0.830	0.836			

0951-10

Prepared by National Data & Surveying Services

VOLUME

Franklin St Bet. S St & Harbor Dr

Day: Thursday
Date: 7/18/2019

City: Fort Bragg
Project #: CA19_8387_004

DAILY TOTALS	NB	SB	EB	WB	Total
	1,204	732	0	0	1,936

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	5		0						5		**12:00**	25		18						43	
00:15	0		1						1		**12:15**	17		14						31	
00:30	2		0						2		**12:30**	19		17						36	
00:45	0	7	0	1					0	8	**12:45**	31	92	22	71					53	163
01:00	1		1						2		**13:00**	39		18						57	
01:15	1		0						1		**13:15**	34		15						49	
01:30	2		0						2		**13:30**	21		22						43	
01:45	0	4	1	2					1	6	**13:45**	44	138	15	70					59	208
02:00	1		0						1		**14:00**	29		15						44	
02:15	1		0						1		**14:15**	34		17						51	
02:30	0		0						0		**14:30**	26		6						32	
02:45	0	2	0						0	2	**14:45**	24	113	11	49					35	162
03:00	0		0						0		**15:00**	37		19						56	
03:15	0		0						0		**15:15**	23		13						36	
03:30	0		0						0		**15:30**	23		18						41	
03:45	0		0						0		**15:45**	21	104	15	65					36	169
04:00	0		0						0		**16:00**	19		16						35	
04:15	1		0						1		**16:15**	25		20						45	
04:30	1		0						1		**16:30**	19		13						32	
04:45	0	2	1	1					1	3	**16:45**	18	81	13	62					31	143
05:00	0		0						0		**17:00**	20		15						35	
05:15	0		1						1		**17:15**	27		15						42	
05:30	0		0						0		**17:30**	26		19						45	
05:45	1	1	2	3					3	4	**17:45**	22	95	21	70					43	165
06:00	3		1						4		**18:00**	33		17						50	
06:15	3		5						8		**18:15**	13		17						30	
06:30	3		2						5		**18:30**	27		8						35	
06:45	2	11	4	12					6	23	**18:45**	25	98	8	50					33	148
07:00	5		0						5		**19:00**	23		10						33	
07:15	5		3						8		**19:15**	20		14						34	
07:30	7		7						14		**19:30**	15		6						21	
07:45	15	32	7	17					22	49	**19:45**	19	77	8	38					27	115
08:00	8		6						14		**20:00**	19		10						29	
08:15	8		6						14		**20:15**	13		13						26	
08:30	8		7						15		**20:30**	15		5						20	
08:45	15	39	6	25					21	64	**20:45**	11	58	5	33					16	91
09:00	21		5						26		**21:00**	13		6						19	
09:15	16		7						23		**21:15**	12		4						16	
09:30	9		8						17		**21:30**	9		4						13	
09:45	6	52	9	29					15	81	**21:45**	12	46	1	15					13	61
10:00	12		10						22		**22:00**	7		2						9	
10:15	15		15						30		**22:15**	9		1						10	
10:30	12		12						24		**22:30**	11		3						14	
10:45	17	56	15	52					32	108	**22:45**	4	31	4	10					8	41
11:00	11		10						21		**23:00**	4		2						6	
11:15	10		15						25		**23:15**	0		2						2	
11:30	19		11						30		**23:30**	3		0						3	
11:45	17	57	17	53					34	110	**23:45**	1	8	0	4					1	12
TOTALS		263		195						**458**	**TOTALS**		941		537						**1478**
SPLIT %		57.4%		42.6%						**23.7%**	**SPLIT %**		63.7%		36.3%						**76.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,204	732	0	0	1,936

AM Peak Hour	11:30	11:45			**11:45**	**PM Peak Hour**	13:00	12:45			**13:00**
AM Pk Volume	78	66			**144**	**PM Pk Volume**	138	77			**208**
Pk Hr Factor	0.780	0.917			**0.837**	**Pk Hr Factor**	0.784	0.875			**0.881**
7 - 9 Volume	71	42	0	0	**113**	**4 - 6 Volume**	176	132	0	0	**308**
7 - 9 Peak Hour	07:45	07:30			**07:45**	**4 - 6 Peak Hour**	17:00	17:00			**17:00**
7 - 9 Pk Volume	39	26	0	0	**65**	**4 - 6 Pk Volume**	95	70	0	0	**165**
Pk Hr Factor	0.650	0.929	0.000	0.000	**0.739**	**Pk Hr Factor**	0.880	0.833	0.000	0.000	**0.917**

Prepared by National Data & Surveying Services

VOLUME

Franklin St Bet. S St & Harbor Dr

Day: Friday
Date: 7/19/2019

City: Fort Bragg
Project #: CA19_8387_004

DAILY TOTALS	NB	SB	EB	WB	Total
	1,398	796	0	0	2,194

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	4		2						6		**12:00**	33		25						58	
00:15	0		0						0		**12:15**	24		17						41	
00:30	1		0						1		**12:30**	28		20						48	
00:45	0	5	0	2					0	7	**12:45**	36	121	21	83					57	204
01:00	0		1						1		**13:00**	35		16						51	
01:15	0		0						0		**13:15**	42		16						58	
01:30	0		0						0		**13:30**	41		18						59	
01:45	0		0	1					0	1	**13:45**	47	165	21	71					68	236
02:00	0		0						0		**14:00**	45		12						57	
02:15	1		0						1		**14:15**	43		15						58	
02:30	0		0						0		**14:30**	24		13						37	
02:45	4	5	2	2					6	7	**14:45**	27	139	20	60					47	199
03:00	0		1						1		**15:00**	42		13						55	
03:15	0		0						0		**15:15**	34		17						51	
03:30	1		0						1		**15:30**	26		17						43	
03:45	0	1	1	2					1	3	**15:45**	34	136	17	64					51	200
04:00	0		1						1		**16:00**	27		20						47	
04:15	0		0						0		**16:15**	30		14						44	
04:30	0		0						0		**16:30**	36		19						55	
04:45	0		0	1					0	1	**16:45**	23	116	16	69					39	185
05:00	1		2						3		**17:00**	23		19						42	
05:15	0		2						2		**17:15**	19		17						36	
05:30	5		4						9		**17:30**	30		10						40	
05:45	2	8	0	8					2	16	**17:45**	22	94	20	66					42	160
06:00	4		5						9		**18:00**	27		11						38	
06:15	1		2						3		**18:15**	21		16						37	
06:30	1		2						3		**18:30**	20		14						34	
06:45	9	15	1	10					10	25	**18:45**	26	94	11	52					37	146
07:00	5		3						8		**19:00**	25		10						35	
07:15	2		3						5		**19:15**	26		12						38	
07:30	9		2						11		**19:30**	18		13						31	
07:45	4	20	12	20					16	40	**19:45**	20	89	10	45					30	134
08:00	6		6						12		**20:00**	17		7						24	
08:15	8		7						15		**20:15**	18		3						21	
08:30	9		8						17		**20:30**	16		12						28	
08:45	24	47	13	34					37	81	**20:45**	13	64	4	26					17	90
09:00	14		9						23		**21:00**	12		8						20	
09:15	9		7						16		**21:15**	14		5						19	
09:30	16		6						22		**21:30**	9		5						14	
09:45	16	55	9	31					25	86	**21:45**	9	44	3	21					12	65
10:00	24		11						35		**22:00**	11		5						16	
10:15	17		9						26		**22:15**	2		3						5	
10:30	18		8						26		**22:30**	12		6						18	
10:45	14	73	11	39					25	112	**22:45**	9	34	2	16					11	50
11:00	13		19						32		**23:00**	4		2						6	
11:15	10		17						27		**23:15**	6		2						8	
11:30	18		20						38		**23:30**	2		0						2	
11:45	20	61	13	69					33	130	**23:45**	0	12	0	4					0	16
TOTALS		290		219						**509**	**TOTALS**		1108		577						**1685**
SPLIT %		57.0%		43.0%						**23.2%**	**SPLIT %**		65.8%		34.2%						**76.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,398	796	0	0	2,194

AM Peak Hour	11:45	11:15			**11:45**	**PM Peak Hour**	13:30	12:00			**13:15**
AM Pk Volume	105	75			**180**	**PM Pk Volume**	176	83			**242**
Pk Hr Factor	0.795	0.750			**0.776**	**Pk Hr Factor**	0.936	0.830			**0.890**
7 - 9 Volume	67	54	0	0	**121**	**4 - 6 Volume**	210	135	0	0	**345**
7 - 9 Peak Hour	08:00	08:00			**08:00**	**4 - 6 Peak Hour**	16:00	16:30			**16:00**
7 - 9 Pk Volume	47	34	0	0	**81**	**4 - 6 Pk Volume**	116	71	0	0	**185**
Pk Hr Factor	0.490	0.654	0.000	0.000	**0.547**	**Pk Hr Factor**	0.806	0.934	0.000	0.000	**0.841**

Prepared by National Data & Surveying Services

VOLUME

Franklin St Bet. S St & Harbor Dr

Day: Saturday
Date: 7/20/2019

City: Fort Bragg
Project #: CA19_8387_004

DAILY TOTALS	NB	SB	EB	WB	Total
	1,165	763	0	0	1,928

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		2				5		**12:00**	15		25				40	
00:15	1		3				4		**12:15**	24		30				54	
00:30	0		0				0		**12:30**	23		21				44	
00:45	0	4	1	6			1	10	**12:45**	28	90	24	100			52	190
01:00	0		0				0		**13:00**	30		21				51	
01:15	0		0				0		**13:15**	40		27				67	
01:30	1		0				1		**13:30**	29		16				45	
01:45	0	1	0				0	1	**13:45**	30	129	22	86			52	215
02:00	0		0				0		**14:00**	33		17				50	
02:15	0		0				0		**14:15**	28		9				37	
02:30	0		0				0		**14:30**	29		20				49	
02:45	0		0				0		**14:45**	23	113	8	54			31	167
03:00	0		0				0		**15:00**	29		11				40	
03:15	0		0				0		**15:15**	26		19				45	
03:30	0		0				0		**15:30**	22		15				37	
03:45	0		0				0		**15:45**	17	94	18	63			35	157
04:00	0		0				0		**16:00**	26		16				42	
04:15	1		0				1		**16:15**	26		14				40	
04:30	0		0				0		**16:30**	27		14				41	
04:45	1	2	0				1	2	**16:45**	18	97	14	58			32	155
05:00	0		1				1		**17:00**	19		7				26	
05:15	0		0				0		**17:15**	37		14				51	
05:30	0		1				1		**17:30**	18		9				27	
05:45	1	1	3	5			4	6	**17:45**	21	95	13	43			34	138
06:00	2		3				5		**18:00**	22		20				42	
06:15	0		4				4		**18:15**	12		14				26	
06:30	4		1				5		**18:30**	21		12				33	
06:45	6	12	3	11			9	23	**18:45**	16	71	9	55			25	126
07:00	5		1				6		**19:00**	18		12				30	
07:15	6		5				11		**19:15**	18		8				26	
07:30	2		2				4		**19:30**	19		6				25	
07:45	7	20	10	18			17	38	**19:45**	19	74	8	34			27	108
08:00	10		7				17		**20:00**	11		5				16	
08:15	7		4				11		**20:15**	12		9				21	
08:30	6		5				11		**20:30**	25		6				31	
08:45	3	26	9	25			12	51	**20:45**	14	62	6	26			20	88
09:00	14		9				23		**21:00**	9		8				17	
09:15	11		6				17		**21:15**	12		7				19	
09:30	13		8				21		**21:30**	6		2				8	
09:45	8	46	6	29			14	75	**21:45**	12	39	7	24			19	63
10:00	14		16				30		**22:00**	9		4				13	
10:15	17		18				35		**22:15**	5		0				5	
10:30	13		9				22		**22:30**	5		4				9	
10:45	14	58	15	58			29	116	**22:45**	7	26	0	8			7	34
11:00	17		9				26		**23:00**	5		1				6	
11:15	22		9				31		**23:15**	9		2				11	
11:30	19		17				36		**23:30**	6		2				8	
11:45	24	82	19	54			43	136	**23:45**	3	23	1	6			4	29
TOTALS		252		206				**458**	**TOTALS**		913		557				**1470**
SPLIT %		55.0%		45.0%				**23.8%**	**SPLIT %**		62.1%		37.9%				**76.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,165	763	0	0	1,928

AM Peak Hour	11:45		11:45					**11:45**	**PM Peak Hour**	13:15		12:00					**12:45**
AM Pk Volume	86		95					**181**	**PM Pk Volume**	132		100					**215**
Pk Hr Factor	0.896		0.792					**0.838**	**Pk Hr Factor**	0.825		0.833					**0.802**
7 - 9 Volume	46		43		0	0		**89**	**4 - 6 Volume**	192		101		0	0		**293**
7 - 9 Peak Hour	07:45		07:45					**07:45**	**4 - 6 Peak Hour**	16:30		16:00					**16:00**
7 - 9 Pk Volume	30		26		0	0		**56**	**4 - 6 Pk Volume**	101		58		0	0		**155**
Pk Hr Factor	0.750		0.650		0.000	0.000		**0.824**	**Pk Hr Factor**	0.682		0.906		0.000	0.000		**0.923**

Prepared by National Data & Surveying Services

VOLUME

Harbor Dr Bet. Main St & Franklin St

Day: Thursday
Date: 7/18/2019

City: Fort Bragg
Project #: CA19_8387_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,486	1,002	2,488

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		0		3		12:00			35		16		51	
00:15			1		2		3		12:15			35		14		49	
00:30			0		0		0		12:30			31		12		43	
00:45			1	5	0	2	1	7	12:45			44	145	23	65	67	210
01:00			0		1		1		13:00			27		20		47	
01:15			0		0		0		13:15			32		25		57	
01:30			0		1		1		13:30			38		16		54	
01:45			0		0	2	0	2	13:45			46	143	21	82	67	225
02:00			1		0		1		14:00			25		16		41	
02:15			0		0		0		14:15			31		25		56	
02:30			0		2		2		14:30			35		18		53	
02:45			3	4	0	2	3	6	14:45			33	124	24	83	57	207
03:00			0		0		0		15:00			19		23		42	
03:15			0		1		1		15:15			30		26		56	
03:30			0		1		1		15:30			31		25		56	
03:45			0		0	2	0	2	15:45			26	106	28	102	54	208
04:00			1		0		1		16:00			30		15		45	
04:15			0		1		1		16:15			27		13		40	
04:30			2		0		2		16:30			29		12		41	
04:45			0	3	0	1	0	4	16:45			28	114	23	63	51	177
05:00			3		0		3		17:00			35		10		45	
05:15			5		2		7		17:15			34		25		59	
05:30			7		1		8		17:30			30		15		45	
05:45			9	24	0	3	9	27	17:45			33	132	15	65	48	197
06:00			4		3		7		18:00			44		15		59	
06:15			14		4		18		18:15			30		23		53	
06:30			7		5		12		18:30			26		26		52	
06:45			8	33	4	16	12	49	18:45			28	128	19	83	47	211
07:00			5		7		12		19:00			26		19		45	
07:15			4		3		7		19:15			31		16		47	
07:30			11		8		19		19:30			22		24		46	
07:45			20	40	4	22	24	62	19:45			16	95	20	79	36	174
08:00			11		8		19		20:00			18		18		36	
08:15			10		4		14		20:15			11		19		30	
08:30			8		12		20		20:30			10		13		23	
08:45			8	37	6	30	14	67	20:45			16	55	13	63	29	118
09:00			22		15		37		21:00			18		14		32	
09:15			16		11		27		21:15			6		17		23	
09:30			12		5		17		21:30			11		14		25	
09:45			19	69	18	49	37	118	21:45			6	41	8	53	14	94
10:00			22		14		36		22:00			6		7		13	
10:15			12		8		20		22:15			4		8		12	
10:30			17		13		30		22:30			3		2		5	
10:45			19	70	13	48	32	118	22:45			2	15	3	20	5	35
11:00			18		16		34		23:00			2		3		5	
11:15			18		15		33		23:15			1		3		4	
11:30			29		12		41		23:30			5		0		5	
11:45			29	94	17	60	46	154	23:45			1	9	1	7	2	16
TOTALS				379		237		616	TOTALS				1107		765		1872
SPLIT %				61.5%		38.5%		24.8%	SPLIT %				59.1%		40.9%		75.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,486	1,002	2,488

AM Peak Hour				11:45	11:00	11:45		PM Peak Hour				12:00	15:00	12:45
AM Pk Volume				130	60	189		PM Pk Volume				145	102	225
Pk Hr Factor				0.929	0.882	0.926		Pk Hr Factor				0.824	0.911	0.840
7 - 9 Volume	0	0		77	52	129		4 - 6 Volume	0	0		246	128	374
7 - 9 Peak Hour				07:30	08:00	07:45		4 - 6 Peak Hour				17:00	16:45	16:45
7 - 9 Pk Volume	0	0		52	30	77		4 - 6 Pk Volume	0	0		132	73	200
Pk Hr Factor	0.000	0.000		0.650	0.625	0.802		Pk Hr Factor	0.000	0.000		0.943	0.730	0.847

Prepared by National Data & Surveying Services

VOLUME

Harbor Dr Bet. Main St & Franklin St

Day: Friday
Date: 7/19/2019

City: Fort Bragg
Project #: CA19_8387_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,720	1,229	2,949

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		1		3		12:00			34		18		52	
00:15			1		1		2		12:15			32		16		48	
00:30			0		0		0		12:30			33		19		52	
00:45			0	3	0	2	0	5	12:45			45	144	16	69	61	213
01:00			1		2		3		13:00			36		24		60	
01:15			0		0		0		13:15			48		37		85	
01:30			1		0		1		13:30			28		27		55	
01:45			0	2	0	2	0	4	13:45			39	151	31	119	70	270
02:00			0		0		0		14:00			32		31		63	
02:15			0		2		2		14:15			39		26		65	
02:30			0		0		0		14:30			45		33		78	
02:45			0		0	2	0	2	14:45			19	135	24	114	43	249
03:00			1		1		2		15:00			43		29		72	
03:15			1		0		1		15:15			27		33		60	
03:30			0		1		1		15:30			51		21		72	
03:45			1	3	0	2	1	5	15:45			33	154	28	111	61	265
04:00			1		1		2		16:00			28		20		48	
04:15			2		0		2		16:15			27		29		56	
04:30			0		0		0		16:30			35		22		57	
04:45			2	5	0	1	2	6	16:45			30	120	19	90	49	210
05:00			1		0		1		17:00			47		32		79	
05:15			4		0		4		17:15			37		20		57	
05:30			2		2		4		17:30			51		22		73	
05:45			11	18	1	3	12	21	17:45			36	171	31	105	67	276
06:00			9		4		13		18:00			38		22		60	
06:15			7		2		9		18:15			46		17		63	
06:30			12		3		15		18:30			32		20		52	
06:45			11	39	6	15	17	54	18:45			31	147	22	81	53	228
07:00			8		2		10		19:00			25		20		45	
07:15			11		10		21		19:15			35		26		61	
07:30			2		9		11		19:30			23		12		35	
07:45			20	41	9	30	29	71	19:45			26	109	16	74	42	183
08:00			11		6		17		20:00			30		24		54	
08:15			5		14		19		20:15			20		24		44	
08:30			9		12		21		20:30			10		20		30	
08:45			18	43	14	46	32	89	20:45			9	69	21	89	30	158
09:00			11		18		29		21:00			14		17		31	
09:15			15		12		27		21:15			15		12		27	
09:30			18		13		31		21:30			10		21		31	
09:45			17	61	13	56	30	117	21:45			5	44	8	58	13	102
10:00			22		17		39		22:00			8		13		21	
10:15			15		18		33		22:15			6		3		9	
10:30			12		11		23		22:30			7		6		13	
10:45			22	71	16	62	38	133	22:45			5	26	4	26	9	52
11:00			25		16		41		23:00			3		5		8	
11:15			36		15		51		23:15			3		1		4	
11:30			39		19		58		23:30			1		0		1	
11:45			57	157	15	65	72	222	23:45			0	7	1	7	1	14
TOTALS				443		286		729	TOTALS				1277		943		2220
SPLIT %				60.8%		39.2%		24.7%	SPLIT %				57.5%		42.5%		75.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,720	1,229	2,949

AM Peak Hour				11:15	11:30	11:15	PM Peak Hour				17:00	13:15	13:45
AM Pk Volume				166	68	233	PM Pk Volume				171	126	276
Pk Hr Factor				0.728	0.895	0.809	Pk Hr Factor				0.838	0.851	0.885
7 - 9 Volume	0	0		84	76	160	4 - 6 Volume	0	0		291	195	486
7 - 9 Peak Hour				07:45	08:00	08:00	4 - 6 Peak Hour				17:00	17:00	17:00
7 - 9 Pk Volume	0	0		45	46	89	4 - 6 Pk Volume	0	0		171	105	276
Pk Hr Factor	0.000	0.000		0.563	0.821	0.695	Pk Hr Factor	0.000	0.000		0.838	0.820	0.873

Prepared by National Data & Surveying Services

VOLUME

Harbor Dr Bet. Main St & Franklin St

Day: Saturday
Date: 7/20/2019

City: Fort Bragg
Project #: CA19_8387_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,812	1,388	3,200

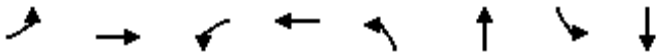
AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		1		3		12:00			40		21		61	
00:15			3		4		7		12:15			46		21		67	
00:30			0		1		1		12:30			43		24		67	
00:45			3	8	1	7	4	15	12:45			48	177	24	90	72	267
01:00			1		0		1		13:00			37		38		75	
01:15			2		1		3		13:15			39		42		81	
01:30			0		1		1		13:30			41		23		64	
01:45			0	3	0	2	0	5	13:45			42	159	33	136	75	295
02:00			0		1		1		14:00			32		36		68	
02:15			0		0		0		14:15			46		31		77	
02:30			0		0		0		14:30			38		35		73	
02:45			0		0	1	0	1	14:45			37	153	41	143	78	296
03:00			0		1		1		15:00			38		39		77	
03:15			0		1		1		15:15			42		31		73	
03:30			0		0		0		15:30			27		34		61	
03:45			0		0	2	0	2	15:45			32	139	15	119	47	258
04:00			1		1		2		16:00			34		34		68	
04:15			0		0		0		16:15			40		28		68	
04:30			1		0		1		16:30			38		18		56	
04:45			2	4	0	1	2	5	16:45			34	146	23	103	57	249
05:00			3		3		6		17:00			39		19		58	
05:15			4		0		4		17:15			51		32		83	
05:30			3		3		6		17:30			41		29		70	
05:45			5	15	1	7	6	22	17:45			49	180	23	103	72	283
06:00			11		2		13		18:00			37		16		53	
06:15			17		2		19		18:15			42		33		75	
06:30			16		7		23		18:30			36		24		60	
06:45			3	47	4	15	7	62	18:45			44	159	29	102	73	261
07:00			6		1		7		19:00			27		37		64	
07:15			7		8		15		19:15			24		22		46	
07:30			2		7		9		19:30			28		34		62	
07:45			10	25	1	17	11	42	19:45			31	110	27	120	58	230
08:00			14		5		19		20:00			30		19		49	
08:15			11		4		15		20:15			10		26		36	
08:30			5		9		14		20:30			16		23		39	
08:45			14	44	11	29	25	73	20:45			15	71	24	92	39	163
09:00			23		13		36		21:00			14		23		37	
09:15			9		19		28		21:15			12		17		29	
09:30			12		10		22		21:30			6		12		18	
09:45			19	63	7	49	26	112	21:45			11	43	18	70	29	113
10:00			25		17		42		22:00			7		18		25	
10:15			24		20		44		22:15			3		9		12	
10:30			20		14		34		22:30			2		3		5	
10:45			19	88	14	65	33	153	22:45			4	16	8	38	12	54
11:00			36		12		48		23:00			5		3		8	
11:15			47		22		69		23:15			7		4		11	
11:30			31		21		52		23:30			3		1		4	
11:45			31	145	13	68	44	213	23:45			2	17	1	9	3	26
TOTALS				442		263		705	TOTALS				1370		1125		2495
SPLIT %				62.7%		37.3%		22.0%	SPLIT %				54.9%		45.1%		78.0%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,812	1,388	3,200

AM Peak Hour				11:45	11:45	11:45		PM Peak Hour				17:00	14:15	14:15
AM Pk Volume				160	79	239		PM Pk Volume				180	146	305
Pk Hr Factor				0.870	0.823	0.892		Pk Hr Factor				0.882	0.890	0.978
7 - 9 Volume	0	0		69	46	115		4 - 6 Volume	0	0		326	206	532
7 - 9 Peak Hour				08:00	08:00	08:00		4 - 6 Peak Hour				17:00	16:00	17:00
7 - 9 Pk Volume	0	0		44	29	73		4 - 6 Pk Volume	0	0		180	103	283
Pk Hr Factor	0.000	0.000		0.786	0.659	0.730		Pk Hr Factor	0.000	0.000		0.882	0.757	0.852

LOS Calculations

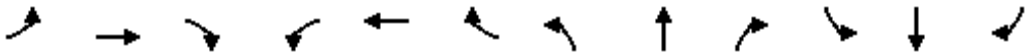
KDA



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	22	210	34	35	1113	30	886
v/c Ratio	0.04	0.04	0.48	0.06	0.15	0.58	0.13	0.46
Control Delay	15.5	10.0	20.6	7.3	31.3	16.0	31.3	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	10.0	20.6	7.3	31.3	16.0	31.3	13.9
Queue Length 50th (ft)	3	1	45	1	8	97	7	71
Queue Length 95th (ft)	16	16	130	18	48	#422	43	282
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	583	721	590	703	236	2101	236	2109
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.36	0.05	0.15	0.53	0.13	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	7	15	204	3	30	34	1022	57	29	851	9
Future Volume (veh/h)	15	7	15	204	3	30	34	1022	57	29	851	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	15	7	15	210	3	31	35	1054	59	30	877	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	415	107	229	427	29	296	70	1440	81	62	1500	15
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.04	0.42	0.42	0.03	0.42	0.42
Sat Flow, veh/h	1375	530	1136	1390	142	1465	1781	3394	190	1781	3575	37
Grp Volume(v), veh/h	15	0	22	210	0	34	35	547	566	30	432	454
Grp Sat Flow(s),veh/h/ln	1375	0	1666	1390	0	1607	1781	1763	1821	1781	1763	1849
Q Serve(g_s), s	0.4	0.0	0.5	6.4	0.0	0.8	0.9	11.5	11.5	0.7	8.4	8.4
Cycle Q Clear(g_c), s	1.2	0.0	0.5	6.9	0.0	0.8	0.9	11.5	11.5	0.7	8.4	8.4
Prop In Lane	1.00		0.68	1.00		0.91	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	415	0	336	427	0	324	70	748	773	62	740	776
V/C Ratio(X)	0.04	0.00	0.07	0.49	0.00	0.10	0.50	0.73	0.73	0.48	0.58	0.58
Avail Cap(c_a), veh/h	583	0	539	596	0	520	204	1006	1039	204	1006	1055
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	14.4	17.2	0.0	14.5	20.9	10.7	10.7	21.1	9.9	9.9
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.9	0.0	0.1	5.4	1.8	1.8	5.7	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	1.9	0.0	0.3	0.4	3.4	3.5	0.4	2.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	14.5	18.0	0.0	14.6	26.3	12.5	12.5	26.8	10.7	10.6
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		37			244			1148			916	
Approach Delay, s/veh		14.7			17.6			12.9			11.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	24.3		13.6	6.9	24.1		13.6				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	2.7	13.5		3.2	2.9	10.4		8.9				
Green Ext Time (p_c), s	0.0	5.3		0.1	0.0	4.6		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		12.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	33	23	2	37	46	58	86	4	34	93	129
Future Vol, veh/h	46	33	23	2	37	46	58	86	4	34	93	129
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	36	25	2	41	51	64	95	4	37	102	142
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.1	8.9	9.3	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	39%	100%	0%	100%	0%	13%
Vol Thru, %	58%	0%	59%	0%	45%	36%
Vol Right, %	3%	0%	41%	0%	55%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	148	46	56	2	83	256
LT Vol	58	46	0	2	0	34
Through Vol	86	0	33	0	37	93
RT Vol	4	0	23	0	46	129
Lane Flow Rate	163	51	62	2	91	281
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.22	0.087	0.092	0.004	0.134	0.344
Departure Headway (Hd)	4.86	6.165	5.369	6.201	5.302	4.404
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	735	578	662	573	670	813
Service Time	2.915	3.94	3.143	3.978	3.078	2.452
HCM Lane V/C Ratio	0.222	0.088	0.094	0.003	0.136	0.346
HCM Control Delay	9.3	9.5	8.7	9	8.9	9.8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.3	0	0.5	1.5

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	32	1089	42	25	1068
Future Vol, veh/h	46	32	1089	42	25	1068
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	47	33	1123	43	26	1101

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1748	583	0	0	1166	0
Stage 1	1145	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	77	456	-	-	595	-
Stage 1	265	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	74	456	-	-	595	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	487	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.4	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	287	595	-
HCM Lane V/C Ratio	-	-	0.28	0.043	-
HCM Control Delay (s)	-	-	22.4	11.3	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.1	0.1	-

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	26	10	3	16	13	31	94	4	18	73	18
Future Vol, veh/h	27	26	10	3	16	13	31	94	4	18	73	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	29	11	3	18	14	34	103	4	20	80	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	40	0	0	176	133	35	179	131	25
Stage 1	-	-	-	-	-	-	95	95	-	31	31	-
Stage 2	-	-	-	-	-	-	81	38	-	148	100	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1570	-	-	786	758	1038	783	760	1051
Stage 1	-	-	-	-	-	-	912	816	-	986	869	-
Stage 2	-	-	-	-	-	-	927	863	-	855	812	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1570	-	-	696	742	1038	686	744	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	696	742	-	686	744	-
Stage 1	-	-	-	-	-	-	895	800	-	967	867	-
Stage 2	-	-	-	-	-	-	824	861	-	727	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0.7	11	10.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	737	1580	-	-	1570	-	-	770
HCM Lane V/C Ratio	0.192	0.019	-	-	0.002	-	-	0.156
HCM Control Delay (s)	11	7.3	0	-	7.3	0	-	10.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	0	0	130	11	1008	109	47	1152	19
Future Vol, veh/h	0	0	11	0	0	130	11	1008	109	47	1152	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	0	0	11	0	0	133	11	1029	111	48	1176	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1819	2444	598	-	-	570	1195	0	0	1140	0	0
Stage 1	1282	1282	-	-	-	-	-	-	-	-	-	-
Stage 2	537	1162	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	48	31	445	0	0	465	580	-	-	609	-	-
Stage 1	175	234	-	0	0	-	-	-	-	-	-	-
Stage 2	496	267	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	32	28	445	-	-	465	580	-	-	609	-	-
Mov Cap-2 Maneuver	113	111	-	-	-	-	-	-	-	-	-	-
Stage 1	172	216	-	-	-	-	-	-	-	-	-	-
Stage 2	348	262	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	15.8	0.1	0.4
HCM LOS	B	C		

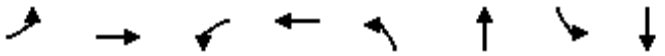
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	580	-	-	445	465	609	-	-
HCM Lane V/C Ratio	0.019	-	-	0.025	0.285	0.079	-	-
HCM Control Delay (s)	11.3	-	-	13.3	15.8	11.4	-	-
HCM Lane LOS	B	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	1.2	0.3	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	138	115	108	74	15
Future Vol, veh/h	21	138	115	108	74	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	147	122	115	79	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.7	8.6	9.2
HCM LOS	A	A	A

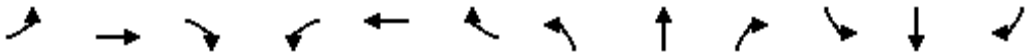
Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	13%	0%	100%	0%
Vol Thru, %	87%	52%	0%	0%
Vol Right, %	0%	48%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	159	223	74	15
LT Vol	21	0	74	0
Through Vol	138	115	0	0
RT Vol	0	108	0	15
Lane Flow Rate	169	237	79	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.21	0.27	0.129	0.021
Departure Headway (Hd)	4.471	4.101	5.907	4.698
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	805	878	607	761
Service Time	2.49	2.118	3.641	2.432
HCM Lane V/C Ratio	0.21	0.27	0.13	0.021
HCM Control Delay	8.7	8.6	9.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1.1	0.4	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	18	18	226	56	21	1157	44	927
v/c Ratio	0.05	0.04	0.56	0.11	0.11	0.75	0.23	0.56
Control Delay	15.6	9.1	23.0	6.0	31.9	19.3	32.9	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	9.1	23.0	6.0	31.9	19.3	32.9	13.7
Queue Length 50th (ft)	4	1	52	0	5	108	11	79
Queue Length 95th (ft)	18	13	140	21	33	#450	56	299
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	474	586	491	598	190	1906	190	2031
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.46	0.09	0.11	0.61	0.23	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	3	15	219	2	52	20	1067	55	43	890	9
Future Volume (veh/h)	17	3	15	219	2	52	20	1067	55	43	890	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	18	3	15	226	2	54	21	1100	57	44	918	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	397	57	286	434	12	324	45	1447	75	83	1592	16
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.03	0.42	0.42	0.05	0.45	0.45
Sat Flow, veh/h	1348	271	1355	1395	57	1537	1781	3410	177	1781	3577	35
Grp Volume(v), veh/h	18	0	18	226	0	56	21	568	589	44	452	475
Grp Sat Flow(s),veh/h/ln	1348	0	1626	1395	0	1594	1781	1763	1824	1781	1763	1849
Q Serve(g_s), s	0.5	0.0	0.4	7.3	0.0	1.4	0.6	13.0	13.0	1.1	9.1	9.1
Cycle Q Clear(g_c), s	1.9	0.0	0.4	7.7	0.0	1.4	0.6	13.0	13.0	1.1	9.1	9.1
Prop In Lane	1.00		0.83	1.00		0.96	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	397	0	343	434	0	336	45	748	774	83	785	823
V/C Ratio(X)	0.05	0.00	0.05	0.52	0.00	0.17	0.46	0.76	0.76	0.53	0.58	0.58
Avail Cap(c_a), veh/h	522	0	494	563	0	484	191	944	976	191	944	990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	14.9	18.0	0.0	15.3	22.8	11.6	11.6	22.1	9.8	9.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.0	0.0	0.2	7.2	2.8	2.7	5.2	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	2.2	0.0	0.5	0.3	4.2	4.3	0.5	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	15.0	19.0	0.0	15.5	30.0	14.4	14.3	27.4	10.5	10.5
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		36			282			1178			971	
Approach Delay, s/veh		15.6			18.3			14.6			11.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	25.5		14.6	6.3	26.5		14.6				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.1	15.0		3.9	2.6	11.1		9.7				
Green Ext Time (p_c), s	0.0	5.1		0.1	0.0	4.8		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		13.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	34	24	8	97	74	59	134	9	60	123	148
Future Vol, veh/h	45	34	24	8	97	74	59	134	9	60	123	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	37	26	9	107	81	65	147	10	66	135	163
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.9	11.3	11.2	13
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	100%	0%	100%	0%	18%
Vol Thru, %	66%	0%	59%	0%	57%	37%
Vol Right, %	4%	0%	41%	0%	43%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	202	45	58	8	171	331
LT Vol	59	45	0	8	0	60
Through Vol	134	0	34	0	97	123
RT Vol	9	0	24	0	74	148
Lane Flow Rate	222	49	64	9	188	364
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.336	0.095	0.108	0.017	0.311	0.504
Departure Headway (Hd)	5.443	6.928	6.122	6.782	5.964	4.991
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	659	516	584	527	601	720
Service Time	3.484	4.68	3.874	4.527	3.709	3.027
HCM Lane V/C Ratio	0.337	0.095	0.11	0.017	0.313	0.506
HCM Control Delay	11.2	10.4	9.6	9.6	11.4	13
HCM Lane LOS	B	B	A	A	B	B
HCM 95th-tile Q	1.5	0.3	0.4	0.1	1.3	2.9

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	49	39	1082	65	22	1108
Future Vol, veh/h	49	39	1082	65	22	1108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	51	40	1115	67	23	1142

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1766	591	0	0	1182	0
Stage 1	1149	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	75	450	-	-	587	-
Stage 1	264	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	72	450	-	-	587	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	264	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.9	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	291	587	-
HCM Lane V/C Ratio	-	-	0.312	0.039	-
HCM Control Delay (s)	-	-	22.9	11.4	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.3	0.1	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	37	62	4	6	44	84	17	58	3	52	55	36
Future Vol, veh/h	37	62	4	6	44	84	17	58	3	52	55	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	68	4	7	48	92	19	64	3	57	60	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	140	0	0	72	0	0	310	306	70	294	262	94
Stage 1	-	-	-	-	-	-	152	152	-	108	108	-
Stage 2	-	-	-	-	-	-	158	154	-	186	154	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1443	-	-	1528	-	-	642	608	993	658	643	963
Stage 1	-	-	-	-	-	-	850	772	-	897	806	-
Stage 2	-	-	-	-	-	-	844	770	-	816	770	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1443	-	-	1528	-	-	555	587	993	586	620	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	555	587	-	586	620	-
Stage 1	-	-	-	-	-	-	825	749	-	870	802	-
Stage 2	-	-	-	-	-	-	745	766	-	722	747	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0.3	12.2	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	589	1443	-	-	1528	-	-	666
HCM Lane V/C Ratio	0.146	0.028	-	-	0.004	-	-	0.236
HCM Control Delay (s)	12.2	7.6	0	-	7.4	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	NWL	NWR
Lane Configurations										
Traffic Vol, veh/h	0	0	3	1031	78	47	1152	19	0	72
Future Vol, veh/h	0	0	3	1031	78	47	1152	19	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	-	-	None	-	-	None	-	None
Storage Length	-	0	120	-	-	120	-	-	-	0
Veh in Median Storage, #	1	-	-	0	-	-	0	-	1	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	2	3	2	2	2
Mvmt Flow	0	0	3	1052	80	48	1176	19	0	73

Major/Minor	Minor2		Major1			Major2			Minor1	
Conflicting Flow All	-	598	1195	0	0	1132	0	0	-	566
Stage 1	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	4.14	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	2.22	-	-	-	3.32
Pot Cap-1 Maneuver	0	445	580	-	-	613	-	-	0	467
Stage 1	0	-	-	-	-	-	-	-	0	-
Stage 2	0	-	-	-	-	-	-	-	0	-
Platoon blocked, %				-	-		-	-		
Mov Cap-1 Maneuver	-	445	580	-	-	613	-	-	-	467
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-

Approach	EB	NB	SB	NW
HCM Control Delay, s	13.3	0	0.4	14.1
HCM LOS	B			B

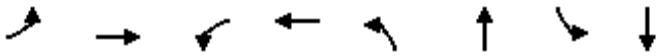
Minor Lane/Major Mvmt	NBL	NBT	NBR	NWLn1	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	580	-	-	467	445	613	-	-
HCM Lane V/C Ratio	0.005	-	-	0.157	0.023	0.078	-	-
HCM Control Delay (s)	11.2	-	-	14.1	13.3	11.4	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0.3	-	-

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	WBR	SBL	SBR	SEL
Lane Configurations				
Traffic Vol, veh/h	60	56	13	128
Future Vol, veh/h	60	56	13	128
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	64	60	14	136
Number of Lanes	1	1	1	1

Approach	WB	SB
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		WB
Conflicting Lanes Left	0	1
Conflicting Approach Right	SB	SE
Conflicting Lanes Right	2	1
HCM Control Delay	7.7	8.7
HCM LOS	A	A

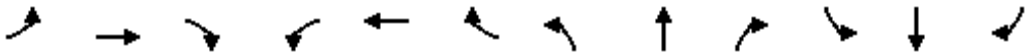
Lane	WBLn1	SELn1	SBLn1	SBLn2
Vol Left, %	0%	100%	100%	0%
Vol Thru, %	0%	0%	0%	0%
Vol Right, %	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	144	56	13
LT Vol	0	144	56	0
Through Vol	0	0	0	0
RT Vol	150	0	0	13
Lane Flow Rate	160	153	60	14
Geometry Grp	2	2	7	7
Degree of Util (X)	0.173	0.198	0.095	0.017
Departure Headway (Hd)	3.898	4.649	5.718	4.511
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	922	774	628	794
Service Time	1.913	2.669	3.442	2.235
HCM Lane V/C Ratio	0.174	0.198	0.096	0.018
HCM Control Delay	7.7	8.8	9	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.7	0.3	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	15	22	224	34	35	1132	30	907
v/c Ratio	0.04	0.04	0.55	0.07	0.18	0.75	0.15	0.60
Control Delay	15.5	10.0	22.6	7.4	32.1	19.2	32.0	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	10.0	22.6	7.4	32.1	19.2	32.0	15.7
Queue Length 50th (ft)	3	1	49	1	9	104	7	77
Queue Length 95th (ft)	16	16	139	18	48	#435	43	291
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	492	611	498	598	194	1942	194	1951
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.04	0.45	0.06	0.18	0.58	0.15	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	7	15	217	3	30	34	1041	57	29	871	9
Future Volume (veh/h)	15	7	15	217	3	30	34	1041	57	29	871	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	15	7	15	224	3	31	35	1073	59	30	898	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	424	112	240	436	30	309	70	1442	79	62	1501	15
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.04	0.42	0.42	0.03	0.42	0.42
Sat Flow, veh/h	1375	530	1136	1390	142	1465	1781	3398	187	1781	3576	36
Grp Volume(v), veh/h	15	0	22	224	0	34	35	557	575	30	443	464
Grp Sat Flow(s),veh/h/ln	1375	0	1666	1390	0	1607	1781	1763	1822	1781	1763	1849
Q Serve(g_s), s	0.4	0.0	0.5	7.0	0.0	0.8	0.9	12.2	12.2	0.8	8.9	8.9
Cycle Q Clear(g_c), s	1.2	0.0	0.5	7.5	0.0	0.8	0.9	12.2	12.2	0.8	8.9	8.9
Prop In Lane	1.00		0.68	1.00		0.91	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	424	0	352	436	0	339	70	748	773	62	740	776
V/C Ratio(X)	0.04	0.00	0.06	0.51	0.00	0.10	0.50	0.74	0.74	0.49	0.60	0.60
Avail Cap(c_a), veh/h	566	0	524	580	0	506	198	978	1011	198	978	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	14.4	17.4	0.0	14.6	21.5	11.1	11.1	21.7	10.3	10.3
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.9	0.0	0.1	5.4	2.2	2.2	5.8	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	2.1	0.0	0.3	0.4	3.7	3.8	0.4	2.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	0.0	14.5	18.4	0.0	14.7	27.0	13.3	13.2	27.5	11.1	11.0
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		37			258			1167			937	
Approach Delay, s/veh		14.7			17.9			13.7			11.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	24.8		14.3	6.9	24.6		14.3				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	2.8	14.2		3.2	2.9	10.9		9.5				
Green Ext Time (p_c), s	0.0	5.3		0.1	0.0	4.7		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		13.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	33	23	3	37	46	71	91	5	34	99	129
Future Vol, veh/h	46	33	23	3	37	46	71	91	5	34	99	129
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	36	25	3	41	51	78	100	5	37	109	142
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.2	9	9.6	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	43%	100%	0%	100%	0%	13%
Vol Thru, %	54%	0%	59%	0%	45%	38%
Vol Right, %	3%	0%	41%	0%	55%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	167	46	56	3	83	262
LT Vol	71	46	0	3	0	34
Through Vol	91	0	33	0	37	99
RT Vol	5	0	23	0	46	129
Lane Flow Rate	184	51	62	3	91	288
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.249	0.088	0.093	0.006	0.136	0.355
Departure Headway (Hd)	4.879	6.235	5.438	6.27	5.371	4.443
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	730	571	653	566	661	803
Service Time	2.943	4.019	3.221	4.056	3.156	2.498
HCM Lane V/C Ratio	0.252	0.089	0.095	0.005	0.138	0.359
HCM Control Delay	9.6	9.6	8.8	9.1	9	10
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	1	0.3	0.3	0	0.5	1.6

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	54	1086	42	56	1070
Future Vol, veh/h	74	54	1086	42	56	1070
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	76	56	1120	43	58	1103

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1810	582	0	0	1163	0
Stage 1	1142	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 70	456	-	-	596	-
Stage 1	266	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 63	456	-	-	596	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	266	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.7	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	281	596	-
HCM Lane V/C Ratio	-	-	0.47	0.097	-
HCM Control Delay (s)	-	-	28.7	11.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	2.4	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	26	41	4	16	13	81	113	5	18	79	18
Future Vol, veh/h	27	26	41	4	16	13	81	113	5	18	79	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	29	45	4	18	14	89	124	5	20	87	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	74	0	0	199	152	52	209	167	25
Stage 1	-	-	-	-	-	-	112	112	-	33	33	-
Stage 2	-	-	-	-	-	-	87	40	-	176	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1580	-	-	1526	-	-	760	740	1016	748	726	1051
Stage 1	-	-	-	-	-	-	893	803	-	983	868	-
Stage 2	-	-	-	-	-	-	921	862	-	826	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1580	-	-	1526	-	-	664	723	1016	635	709	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	664	723	-	635	709	-
Stage 1	-	-	-	-	-	-	875	787	-	963	865	-
Stage 2	-	-	-	-	-	-	811	859	-	678	769	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0.9	12.4	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	703	1580	-	-	1526	-	-	733
HCM Lane V/C Ratio	0.311	0.019	-	-	0.003	-	-	0.172
HCM Control Delay (s)	12.4	7.3	0	-	7.4	0	-	10.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.3	0.1	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	11	0	0	141	11	994	151	48	1085	7
Future Vol, veh/h	0	0	11	0	0	141	11	994	151	48	1085	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	0	0	11	0	0	144	11	1014	154	49	1107	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1738	2399	557	-	-	584	1114	0	0	1168	0	0
Stage 1	1209	1209	-	-	-	-	-	-	-	-	-	-
Stage 2	529	1190	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	56	33	474	0	0	455	623	-	-	594	-	-
Stage 1	194	254	-	0	0	-	-	-	-	-	-	-
Stage 2	501	259	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	35	30	474	-	-	455	623	-	-	594	-	-
Mov Cap-2 Maneuver	120	113	-	-	-	-	-	-	-	-	-	-
Stage 1	191	233	-	-	-	-	-	-	-	-	-	-
Stage 2	337	254	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	16.5	0.1	0.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	623	-	-	474	455	594	-	-
HCM Lane V/C Ratio	0.018	-	-	0.024	0.316	0.082	-	-
HCM Control Delay (s)	10.9	-	-	12.8	16.5	11.6	-	-
HCM Lane LOS	B	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	1.3	0.3	-	-

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	138	115	108	74	15
Future Vol, veh/h	26	138	115	108	74	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	147	122	115	79	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.7	8.6	9.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	16%	0%	100%	0%
Vol Thru, %	84%	52%	0%	0%
Vol Right, %	0%	48%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	223	74	15
LT Vol	26	0	74	0
Through Vol	138	115	0	0
RT Vol	0	108	0	15
Lane Flow Rate	174	237	79	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.217	0.271	0.129	0.021
Departure Headway (Hd)	4.477	4.107	5.921	4.712
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	803	875	605	759
Service Time	2.497	2.124	3.656	2.446
HCM Lane V/C Ratio	0.217	0.271	0.131	0.021
HCM Control Delay	8.7	8.6	9.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1.1	0.4	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	164	130	0	0	11
Future Vol, veh/h	40	164	130	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	178	141	0	0	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	141	0	-	0	405	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	264	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1442	-	-	-	602	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1442	-	-	-	582	907
Mov Cap-2 Maneuver	-	-	-	-	582	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	780	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1442	-	-	-	907
HCM Lane V/C Ratio	0.03	-	-	-	0.013
HCM Control Delay (s)	7.6	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

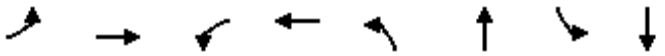
Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	0	5	1229	89	38
Future Vol, veh/h	69	0	5	1229	89	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	0	5	1336	97	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1464	118	138	0	-	0
Stage 1	118	-	-	-	-	-
Stage 2	1346	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	141	934	1446	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	242	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	139	934	1446	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	242	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	57.8	0	0
HCM LOS	F		

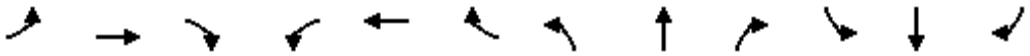
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1446	-	139	-	-
HCM Lane V/C Ratio	0.004	-	0.54	-	-
HCM Control Delay (s)	7.5	0	57.8	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0	-	2.6	-	-



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	18	18	238	56	21	1175	44	945
v/c Ratio	0.05	0.04	0.58	0.11	0.11	0.76	0.24	0.57
Control Delay	15.6	9.1	23.7	6.0	32.1	19.8	33.2	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	9.1	23.7	6.0	32.1	19.8	33.2	14.0
Queue Length 50th (ft)	4	1	56	0	6	115	12	84
Queue Length 95th (ft)	18	13	148	21	33	#462	56	306
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	466	576	483	588	187	1869	187	1995
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.49	0.10	0.11	0.63	0.24	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	3	15	231	2	52	20	1084	55	43	908	9
Future Volume (veh/h)	17	3	15	231	2	52	20	1084	55	43	908	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	18	3	15	238	2	54	21	1118	57	44	936	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	404	59	296	441	12	336	45	1449	74	82	1593	15
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.03	0.42	0.42	0.05	0.45	0.45
Sat Flow, veh/h	1348	271	1355	1395	57	1537	1781	3413	174	1781	3578	34
Grp Volume(v), veh/h	18	0	18	238	0	56	21	577	598	44	461	484
Grp Sat Flow(s),veh/h/ln	1348	0	1626	1395	0	1594	1781	1763	1824	1781	1763	1849
Q Serve(g_s), s	0.5	0.0	0.4	7.9	0.0	1.4	0.6	13.6	13.6	1.2	9.5	9.5
Cycle Q Clear(g_c), s	1.9	0.0	0.4	8.3	0.0	1.4	0.6	13.6	13.6	1.2	9.5	9.5
Prop In Lane	1.00		0.83	1.00		0.96	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	404	0	355	441	0	348	45	748	774	82	785	823
V/C Ratio(X)	0.04	0.00	0.05	0.54	0.00	0.16	0.46	0.77	0.77	0.54	0.59	0.59
Avail Cap(c_a), veh/h	510	0	482	550	0	473	187	922	954	187	922	968
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	15.0	18.3	0.0	15.4	23.3	12.0	12.0	22.6	10.1	10.1
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.0	0.0	0.2	7.2	3.3	3.2	5.3	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	2.4	0.0	0.5	0.3	4.5	4.6	0.6	2.7	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	15.1	19.3	0.0	15.6	30.6	15.2	15.1	28.0	10.8	10.8
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		36			294			1196			989	
Approach Delay, s/veh		15.6			18.6			15.4			11.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	26.0		15.2	6.3	27.0		15.2				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.2	15.6		3.9	2.6	11.5		10.3				
Green Ext Time (p_c), s	0.0	5.0		0.1	0.0	4.8		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		14.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	34	24	9	97	74	71	139	10	60	128	148
Future Vol, veh/h	45	34	24	9	97	74	71	139	10	60	128	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	37	26	10	107	81	78	153	11	66	141	163
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10	11.5	11.7	13.4
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	32%	100%	0%	100%	0%	18%
Vol Thru, %	63%	0%	59%	0%	57%	38%
Vol Right, %	5%	0%	41%	0%	43%	44%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	220	45	58	9	171	336
LT Vol	71	45	0	9	0	60
Through Vol	139	0	34	0	97	128
RT Vol	10	0	24	0	74	148
Lane Flow Rate	242	49	64	10	188	369
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.368	0.096	0.11	0.019	0.316	0.517
Departure Headway (Hd)	5.475	7.017	6.21	6.863	6.045	5.041
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	655	509	576	521	594	713
Service Time	3.523	4.775	3.968	4.612	3.794	3.085
HCM Lane V/C Ratio	0.369	0.096	0.111	0.019	0.316	0.518
HCM Control Delay	11.7	10.5	9.7	9.7	11.6	13.4
HCM Lane LOS	B	B	A	A	B	B
HCM 95th-tile Q	1.7	0.3	0.4	0.1	1.3	3

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	73	59	1080	65	49	1111
Future Vol, veh/h	73	59	1080	65	49	1111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	75	61	1113	67	51	1145

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1822	590	0	0	1180	0
Stage 1	1147	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 69	451	-	-	588	-
Stage 1	265	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 63	451	-	-	588	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	426	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.7	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	285	588	-
HCM Lane V/C Ratio	-	-	0.477	0.086	-
HCM Control Delay (s)	-	-	28.7	11.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	2.4	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	37	62	31	7	44	84	61	75	4	52	61	36
Future Vol, veh/h	37	62	31	7	44	84	61	75	4	52	61	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	68	34	8	48	92	67	82	4	57	67	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	140	0	0	102	0	0	331	323	85	320	294	94
Stage 1	-	-	-	-	-	-	167	167	-	110	110	-
Stage 2	-	-	-	-	-	-	164	156	-	210	184	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1443	-	-	1490	-	-	622	595	974	633	617	963
Stage 1	-	-	-	-	-	-	835	760	-	895	804	-
Stage 2	-	-	-	-	-	-	838	769	-	792	747	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1443	-	-	1490	-	-	531	574	974	546	595	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	531	574	-	546	595	-
Stage 1	-	-	-	-	-	-	810	737	-	868	799	-
Stage 2	-	-	-	-	-	-	732	764	-	679	725	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.4	13.8	12.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	561	1443	-	-	1490	-	-	634
HCM Lane V/C Ratio	0.274	0.028	-	-	0.005	-	-	0.258
HCM Control Delay (s)	13.8	7.6	0	-	7.4	0	-	12.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	0	0	83	3	1018	116	50	1176	19
Future Vol, veh/h	0	0	10	0	0	83	3	1018	116	50	1176	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	0	0	10	0	0	85	3	1039	118	51	1200	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1838	2475	610	-	-	579	1219	0	0	1157	0	0
Stage 1	1312	1312	-	-	-	-	-	-	-	-	-	-
Stage 2	526	1163	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	47	29	437	0	0	458	568	-	-	600	-	-
Stage 1	167	227	-	0	0	-	-	-	-	-	-	-
Stage 2	503	267	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	36	26	437	-	-	458	568	-	-	600	-	-
Mov Cap-2 Maneuver	117	108	-	-	-	-	-	-	-	-	-	-
Stage 1	166	208	-	-	-	-	-	-	-	-	-	-
Stage 2	408	266	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	14.6	0	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	568	-	-	437	458	600	-	-
HCM Lane V/C Ratio	0.005	-	-	0.023	0.185	0.085	-	-
HCM Control Delay (s)	11.4	-	-	13.4	14.6	11.6	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0.3	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	128	60	90	56	13
Future Vol, veh/h	21	128	60	90	56	13
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	136	64	96	60	14
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.3	7.8	8.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	0%	100%	0%
Vol Thru, %	86%	40%	0%	0%
Vol Right, %	0%	60%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	150	56	13
LT Vol	21	0	56	0
Through Vol	128	60	0	0
RT Vol	0	90	0	13
Lane Flow Rate	159	160	60	14
Geometry Grp	2	2	7	7
Degree of Util (X)	0.19	0.175	0.094	0.017
Departure Headway (Hd)	4.321	3.945	5.71	4.504
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	834	913	629	796
Service Time	2.33	1.954	3.431	2.224
HCM Lane V/C Ratio	0.191	0.175	0.095	0.018
HCM Control Delay	8.3	7.8	9	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.6	0.3	0.1

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	149	73	0	0	11
Future Vol, veh/h	36	149	73	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	162	79	0	0	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	79	0	-	0	319	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	240	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1519	-	-	-	674	981
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1519	-	-	-	655	981
Mov Cap-2 Maneuver	-	-	-	-	655	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	800	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1519	-	-	-	981
HCM Lane V/C Ratio	0.026	-	-	-	0.012
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

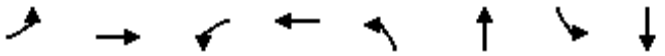
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	62	0	5	106	69	34
Future Vol, veh/h	62	0	5	106	69	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	0	5	115	75	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	219	94	112	0	-	0
Stage 1	94	-	-	-	-	-
Stage 2	125	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	769	963	1478	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	901	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	766	963	1478	-	-	-
Mov Cap-2 Maneuver	766	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	901	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.3	0
HCM LOS	B		

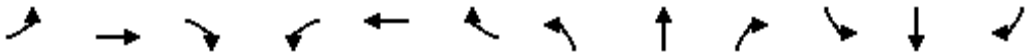
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1478	-	766	-	-
HCM Lane V/C Ratio	0.004	-	0.088	-	-
HCM Control Delay (s)	7.4	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	31	242	44	41	1283	36	1025
v/c Ratio	0.05	0.06	0.61	0.09	0.23	0.81	0.20	0.64
Control Delay	15.8	9.5	25.1	6.7	33.5	21.3	33.1	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	9.5	25.1	6.7	33.5	21.3	33.1	16.8
Queue Length 50th (ft)	4	2	60	1	11	135	10	97
Queue Length 95th (ft)	20	19	151	20	53	#528	49	#353
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	449	569	455	558	177	1770	177	1778
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.53	0.08	0.23	0.72	0.20	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	20	235	3	40	40	1180	65	35	985	10
Future Volume (veh/h)	20	10	20	235	3	40	40	1180	65	35	985	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	21	10	21	242	3	41	41	1216	67	36	1015	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	419	121	255	432	25	337	77	1492	82	70	1557	15
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.44	0.44	0.04	0.44	0.44
Sat Flow, veh/h	1362	538	1129	1378	109	1493	1781	3398	187	1781	3577	35
Grp Volume(v), veh/h	21	0	31	242	0	44	41	630	653	36	500	525
Grp Sat Flow(s),veh/h/ln	1362	0	1667	1378	0	1602	1781	1763	1822	1781	1763	1849
Q Serve(g_s), s	0.6	0.0	0.7	8.6	0.0	1.1	1.2	15.9	16.0	1.0	11.4	11.4
Cycle Q Clear(g_c), s	1.8	0.0	0.7	9.3	0.0	1.1	1.2	15.9	16.0	1.0	11.4	11.4
Prop In Lane	1.00		0.68	1.00		0.93	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	419	0	377	432	0	362	77	774	800	70	767	805
V/C Ratio(X)	0.05	0.00	0.08	0.56	0.00	0.12	0.53	0.81	0.82	0.52	0.65	0.65
Avail Cap(c_a), veh/h	495	0	470	510	0	452	178	877	906	178	877	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	15.6	19.3	0.0	15.7	23.9	12.5	12.5	24.1	11.4	11.4
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.1	0.0	0.1	5.6	5.4	5.3	5.8	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	2.6	0.0	0.4	0.5	5.7	5.9	0.5	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	0.0	15.7	20.4	0.0	15.9	29.5	17.8	17.8	29.9	12.8	12.7
LnGrp LOS	B	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		52			286			1324			1061	
Approach Delay, s/veh		16.0			19.7			18.2			13.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	27.8		16.1	7.3	27.6		16.1				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.0	18.0		3.8	3.2	13.4		11.3				
Green Ext Time (p_c), s	0.0	4.4		0.1	0.0	4.9		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		16.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	2	45	55	70	105	5	45	110	150
Future Vol, veh/h	55	40	30	2	45	55	70	105	5	45	110	150
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	2	49	60	77	115	5	49	121	165
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.7	9.6	10.2	11.2
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	39%	100%	0%	100%	0%	15%
Vol Thru, %	58%	0%	57%	0%	45%	36%
Vol Right, %	3%	0%	43%	0%	55%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	55	70	2	100	305
LT Vol	70	55	0	2	0	45
Through Vol	105	0	40	0	45	110
RT Vol	5	0	30	0	55	150
Lane Flow Rate	198	60	77	2	110	335
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.285	0.11	0.123	0.004	0.174	0.429
Departure Headway (Hd)	5.183	6.552	5.739	6.604	5.705	4.605
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	698	549	627	544	631	771
Service Time	3.183	4.267	3.454	4.32	3.421	2.701
HCM Lane V/C Ratio	0.284	0.109	0.123	0.004	0.174	0.435
HCM Control Delay	10.2	10.1	9.3	9.3	9.6	11.2
HCM Lane LOS	B	B	A	A	A	B
HCM 95th-tile Q	1.2	0.4	0.4	0	0.6	2.2

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	40	1255	55	35	1230
Future Vol, veh/h	60	40	1255	55	35	1230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	62	41	1294	57	36	1268

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2029	676	0	0	1351	0
Stage 1	1323	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 50	396	-	-	505	-
Stage 1	213	-	-	-	-	-
Stage 2	450	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 46	396	-	-	505	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.2	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	233	505	-
HCM Lane V/C Ratio	-	-	0.442	0.071	-
HCM Control Delay (s)	-	-	32.2	12.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	2.1	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	30	40	15	3	25	20	35	110	5	25	85	20
Future Vol, veh/h	30	40	15	3	25	20	35	110	5	25	85	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	44	16	3	27	22	38	121	5	27	93	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	60	0	0	220	173	52	225	170	38
Stage 1	-	-	-	-	-	-	118	118	-	44	44	-
Stage 2	-	-	-	-	-	-	102	55	-	181	126	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1558	-	-	1544	-	-	736	720	1016	730	723	1034
Stage 1	-	-	-	-	-	-	887	798	-	970	858	-
Stage 2	-	-	-	-	-	-	904	849	-	821	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1544	-	-	636	703	1016	619	706	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	636	703	-	619	706	-
Stage 1	-	-	-	-	-	-	867	780	-	949	856	-
Stage 2	-	-	-	-	-	-	787	847	-	675	775	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0.5	11.8	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	693	1558	-	-	1544	-	-	722
HCM Lane V/C Ratio	0.238	0.021	-	-	0.002	-	-	0.198
HCM Control Delay (s)	11.8	7.4	0	-	7.3	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	0	0	150	15	1165	125	55	1225	10
Future Vol, veh/h	0	0	15	0	0	150	15	1165	125	55	1225	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	0	0	15	0	0	153	15	1189	128	56	1250	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1992	2714	630	-	-	659	1260	0	0	1317	0	0
Stage 1	1367	1367	-	-	-	-	-	-	-	-	-	-
Stage 2	625	1347	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	36	21	424	0	0	406	548	-	-	521	-	-
Stage 1	155	213	-	0	0	-	-	-	-	-	-	-
Stage 2	439	218	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	20	18	424	-	-	406	548	-	-	521	-	-
Mov Cap-2 Maneuver	89	86	-	-	-	-	-	-	-	-	-	-
Stage 1	151	190	-	-	-	-	-	-	-	-	-	-
Stage 2	266	212	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	19.1	0.1	0.5
HCM LOS	B	C		

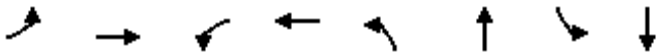
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	548	-	-	424	406	521	-	-
HCM Lane V/C Ratio	0.028	-	-	0.036	0.377	0.108	-	-
HCM Control Delay (s)	11.8	-	-	13.8	19.1	12.7	-	-
HCM Lane LOS	B	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	1.7	0.4	-	-

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	160	135	125	85	20
Future Vol, veh/h	25	160	135	125	85	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	170	144	133	90	21
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	9.1	9.2	9.5
HCM LOS	A	A	A

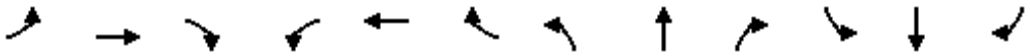
Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	0%	100%	0%
Vol Thru, %	86%	52%	0%	0%
Vol Right, %	0%	48%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	185	260	85	20
LT Vol	25	0	85	0
Through Vol	160	135	0	0
RT Vol	0	125	0	20
Lane Flow Rate	197	277	90	21
Geometry Grp	2	2	7	7
Degree of Util (X)	0.25	0.322	0.152	0.029
Departure Headway (Hd)	4.571	4.193	6.058	4.848
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	857	591	736
Service Time	2.599	2.216	3.806	2.596
HCM Lane V/C Ratio	0.251	0.323	0.152	0.029
HCM Control Delay	9.1	9.2	9.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.4	0.5	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	24	263	69	26	1335	57	1072
v/c Ratio	0.06	0.05	0.67	0.14	0.16	0.87	0.35	0.64
Control Delay	16.7	8.4	28.7	5.7	33.8	25.5	37.8	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	8.4	28.7	5.7	33.8	25.5	37.8	17.0
Queue Length 50th (ft)	6	1	89	1	9	224	20	103
Queue Length 95th (ft)	20	15	165	24	39	#561	#78	#398
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	414	520	431	542	165	1651	165	1776
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.61	0.13	0.16	0.81	0.35	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	3	20	255	2	65	25	1230	65	55	1030	10
Future Volume (veh/h)	20	3	20	255	2	65	25	1230	65	55	1030	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	21	3	21	263	2	67	26	1268	67	57	1062	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	398	47	331	441	11	362	53	1482	78	95	1641	15
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.44	0.44	0.05	0.46	0.46
Sat Flow, veh/h	1332	202	1414	1387	46	1546	1781	3406	180	1781	3579	34
Grp Volume(v), veh/h	21	0	24	263	0	69	26	655	680	57	523	549
Grp Sat Flow(s),veh/h/ln	1332	0	1616	1387	0	1592	1781	1763	1823	1781	1763	1849
Q Serve(g_s), s	0.7	0.0	0.6	9.9	0.0	1.9	0.8	18.2	18.3	1.7	12.4	12.4
Cycle Q Clear(g_c), s	2.6	0.0	0.6	10.5	0.0	1.9	0.8	18.2	18.3	1.7	12.4	12.4
Prop In Lane	1.00		0.88	1.00		0.97	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	398	0	378	441	0	373	53	767	793	95	808	848
V/C Ratio(X)	0.05	0.00	0.06	0.60	0.00	0.19	0.49	0.85	0.86	0.60	0.65	0.65
Avail Cap(c_a), veh/h	439	0	428	484	0	422	167	823	852	167	823	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	16.2	20.3	0.0	16.7	26.0	13.8	13.8	25.2	11.3	11.3
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.7	0.0	0.2	6.8	8.3	8.2	6.0	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	3.2	0.0	0.7	0.4	7.2	7.4	0.8	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	16.3	22.0	0.0	16.9	32.8	22.1	22.0	31.2	13.1	13.0
LnGrp LOS	B	A	B	C	A	B	C	C	C	C	B	B
Approach Vol, veh/h		45			332			1361			1129	
Approach Delay, s/veh		17.0			20.9			22.3			14.0	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	29.1		17.3	6.7	30.3		17.3				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.7	20.3		4.6	2.8	14.4		12.5				
Green Ext Time (p_c), s	0.0	3.4		0.1	0.0	4.9		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		18.8	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	10	115	90	70	155	10	75	145	170
Future Vol, veh/h	55	40	30	10	115	90	70	155	10	75	145	170
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	11	126	99	77	170	11	82	159	187
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	10.9	13.3	13.2	17.5
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	30%	100%	0%	100%	0%	19%
Vol Thru, %	66%	0%	57%	0%	56%	37%
Vol Right, %	4%	0%	43%	0%	44%	44%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	55	70	10	205	390
LT Vol	70	55	0	10	0	75
Through Vol	155	0	40	0	115	145
RT Vol	10	0	30	0	90	170
Lane Flow Rate	258	60	77	11	225	429
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.421	0.125	0.141	0.022	0.4	0.638
Departure Headway (Hd)	5.875	7.431	6.611	7.222	6.396	5.359
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	607	479	538	493	559	669
Service Time	3.96	5.231	4.409	5.007	4.18	3.431
HCM Lane V/C Ratio	0.425	0.125	0.143	0.022	0.403	0.641
HCM Control Delay	13.2	11.3	10.5	10.2	13.4	17.5
HCM Lane LOS	B	B	B	B	B	C
HCM 95th-tile Q	2.1	0.4	0.5	0.1	1.9	4.6

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	50	1245	80	30	1275
Future Vol, veh/h	60	50	1245	80	30	1275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	62	52	1284	82	31	1314

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2044	683	0	0	1366	0
Stage 1	1325	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 49	392	-	-	499	-
Stage 1	213	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 46	392	-	-	499	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	416	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.3	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	242	499	-
HCM Lane V/C Ratio	-	-	0.469	0.062	-
HCM Control Delay (s)	-	-	32.3	12.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	2.3	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	45	80	5	10	55	100	20	70	4	65	65	40
Future Vol, veh/h	45	80	5	10	55	100	20	70	4	65	65	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	88	5	11	60	110	22	77	4	71	71	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	93	0	0	384	381	91	366	328	115
Stage 1	-	-	-	-	-	-	189	189	-	137	137	-
Stage 2	-	-	-	-	-	-	195	192	-	229	191	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1501	-	-	574	552	967	590	591	937
Stage 1	-	-	-	-	-	-	813	744	-	866	783	-
Stage 2	-	-	-	-	-	-	807	742	-	774	742	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1407	-	-	1501	-	-	478	527	967	504	564	937
Mov Cap-2 Maneuver	-	-	-	-	-	-	478	527	-	504	564	-
Stage 1	-	-	-	-	-	-	783	716	-	834	777	-
Stage 2	-	-	-	-	-	-	693	736	-	662	715	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0.4	13.5	13.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	526	1407	-	-	1501	-	-	593
HCM Lane V/C Ratio	0.196	0.035	-	-	0.007	-	-	0.315
HCM Control Delay (s)	13.5	7.7	0	-	7.4	0	-	13.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	1.3

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	0	0	85	3	1190	90	55	1330	25
Future Vol, veh/h	0	0	10	0	0	85	3	1190	90	55	1330	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	0	0	10	0	0	87	3	1214	92	56	1357	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2095	2794	692	-	-	653	1383	0	0	1306	0	0
Stage 1	1482	1482	-	-	-	-	-	-	-	-	-	-
Stage 2	613	1312	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	30	18	386	0	0	410	491	-	-	526	-	-
Stage 1	131	187	-	0	0	-	-	-	-	-	-	-
Stage 2	446	227	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	22	16	386	-	-	410	491	-	-	526	-	-
Mov Cap-2 Maneuver	91	84	-	-	-	-	-	-	-	-	-	-
Stage 1	130	167	-	-	-	-	-	-	-	-	-	-
Stage 2	350	226	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	16.1	0	0.5
HCM LOS	B	C		

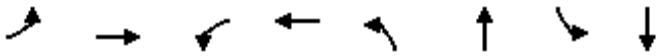
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	491	-	-	386	410	526	-	-
HCM Lane V/C Ratio	0.006	-	-	0.026	0.212	0.107	-	-
HCM Control Delay (s)	12.4	-	-	14.6	16.1	12.7	-	-
HCM Lane LOS	B	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.8	0.4	-	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	150	70	105	65	15
Future Vol, veh/h	20	150	70	105	65	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	160	74	112	69	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.6	8.1	8.9
HCM LOS	A	A	A

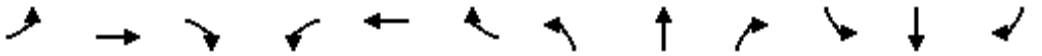
Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	0%	100%	0%
Vol Thru, %	88%	40%	0%	0%
Vol Right, %	0%	60%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	175	65	15
LT Vol	20	0	65	0
Through Vol	150	70	0	0
RT Vol	0	105	0	15
Lane Flow Rate	181	186	69	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.22	0.207	0.112	0.02
Departure Headway (Hd)	4.382	4.009	5.817	4.609
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	897	617	777
Service Time	2.395	2.021	3.544	2.336
HCM Lane V/C Ratio	0.22	0.207	0.112	0.021
HCM Control Delay	8.6	8.1	9.3	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.8	0.4	0.1



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	31	256	44	41	1303	36	1046
v/c Ratio	0.05	0.06	0.64	0.09	0.24	0.82	0.21	0.65
Control Delay	15.8	9.5	26.0	6.7	33.6	21.9	33.2	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	9.5	26.0	6.7	33.6	21.9	33.2	17.2
Queue Length 50th (ft)	4	2	64	1	11	138	10	100
Queue Length 95th (ft)	20	19	161	20	53	#541	49	#382
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	441	559	447	549	173	1734	173	1741
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.06	0.57	0.08	0.24	0.75	0.21	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	20	248	3	40	40	1199	65	35	1005	10
Future Volume (veh/h)	20	10	20	248	3	40	40	1199	65	35	1005	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	21	10	21	256	3	41	41	1236	67	36	1036	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	427	126	264	440	26	350	76	1490	81	69	1553	15
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.44	0.44	0.04	0.43	0.43
Sat Flow, veh/h	1362	538	1129	1378	109	1493	1781	3401	184	1781	3578	35
Grp Volume(v), veh/h	21	0	31	256	0	44	41	640	663	36	510	536
Grp Sat Flow(s),veh/h/ln	1362	0	1667	1378	0	1602	1781	1763	1822	1781	1763	1849
Q Serve(g_s), s	0.6	0.0	0.8	9.3	0.0	1.1	1.2	16.7	16.8	1.0	12.1	12.1
Cycle Q Clear(g_c), s	1.8	0.0	0.8	10.1	0.0	1.1	1.2	16.7	16.8	1.0	12.1	12.1
Prop In Lane	1.00		0.68	1.00		0.93	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	427	0	390	440	0	375	76	772	798	69	765	803
V/C Ratio(X)	0.05	0.00	0.08	0.58	0.00	0.12	0.54	0.83	0.83	0.52	0.67	0.67
Avail Cap(c_a), veh/h	483	0	459	497	0	441	174	856	885	174	856	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	15.6	19.6	0.0	15.8	24.5	13.0	13.0	24.7	11.8	11.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.3	0.0	0.1	5.7	6.3	6.2	5.9	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	2.9	0.0	0.4	0.6	6.2	6.4	0.5	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	0.0	15.7	20.9	0.0	15.9	30.2	19.3	19.2	30.5	13.5	13.4
LnGrp LOS	B	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		52			300			1344			1082	
Approach Delay, s/veh		16.0			20.2			19.5			14.0	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	28.3		16.8	7.3	28.1		16.8				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.0	18.8		3.8	3.2	14.1		12.1				
Green Ext Time (p_c), s	0.0	4.1		0.1	0.0	4.8		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		17.4	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	3	45	55	83	110	6	45	116	150
Future Vol, veh/h	55	40	30	3	45	55	83	110	6	45	116	150
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	3	49	60	91	121	7	49	127	165
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	9.8	9.7	10.6	11.4
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	42%	100%	0%	100%	0%	14%
Vol Thru, %	55%	0%	57%	0%	45%	37%
Vol Right, %	3%	0%	43%	0%	55%	48%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	55	70	3	100	311
LT Vol	83	55	0	3	0	45
Through Vol	110	0	40	0	45	116
RT Vol	6	0	30	0	55	150
Lane Flow Rate	219	60	77	3	110	342
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.317	0.111	0.124	0.006	0.177	0.441
Departure Headway (Hd)	5.213	6.637	5.823	6.688	5.788	4.753
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	693	542	618	537	622	762
Service Time	3.213	4.354	3.541	4.406	3.505	2.753
HCM Lane V/C Ratio	0.316	0.111	0.125	0.006	0.177	0.449
HCM Control Delay	10.6	10.2	9.4	9.4	9.7	11.4
HCM Lane LOS	B	B	A	A	A	B
HCM 95th-tile Q	1.4	0.4	0.4	0	0.6	2.3

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	62	1252	55	66	1232
Future Vol, veh/h	88	62	1252	55	66	1232
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	91	64	1291	57	68	1270

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2091	674	0	0	1348	0
Stage 1	1320	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 45	397	-	-	507	-
Stage 1	214	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 39	397	-	-	507	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	214	-	-	-	-	-
Stage 2	361	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	48.2	0	0.7
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	229	507	-
HCM Lane V/C Ratio	-	-	0.675	0.134	-
HCM Control Delay (s)	-	-	48.2	13.2	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	4.3	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	9.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	30	30	46	4	25	20	85	129	6	25	91	20
Future Vol, veh/h	30	30	46	4	25	20	85	129	6	25	91	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	33	51	4	27	22	93	142	7	27	100	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	49	0	0	84	0	0	232	182	59	245	196	38
Stage 1	-	-	-	-	-	-	125	125	-	46	46	-
Stage 2	-	-	-	-	-	-	107	57	-	199	150	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1558	-	-	1513	-	-	723	712	1007	709	699	1034
Stage 1	-	-	-	-	-	-	879	792	-	968	857	-
Stage 2	-	-	-	-	-	-	898	847	-	803	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1558	-	-	1513	-	-	617	694	1007	583	682	1034
Mov Cap-2 Maneuver	-	-	-	-	-	-	617	694	-	583	682	-
Stage 1	-	-	-	-	-	-	860	775	-	947	854	-
Stage 2	-	-	-	-	-	-	774	844	-	637	756	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0.6	13.4	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	667	1558	-	-	1513	-	-	695
HCM Lane V/C Ratio	0.362	0.021	-	-	0.003	-	-	0.215
HCM Control Delay (s)	13.4	7.4	0	-	7.4	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.7	0.1	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	0	0	161	15	1151	167	58	1252	10
Future Vol, veh/h	0	0	15	0	0	161	15	1151	167	58	1252	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	0	0	15	0	0	164	15	1174	170	59	1278	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2018	2775	644	-	-	672	1288	0	0	1344	0	0
Stage 1	1401	1401	-	-	-	-	-	-	-	-	-	-
Stage 2	617	1374	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	34	19	416	0	0	398	534	-	-	509	-	-
Stage 1	147	205	-	0	0	-	-	-	-	-	-	-
Stage 2	444	211	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	18	16	416	-	-	398	534	-	-	509	-	-
Mov Cap-2 Maneuver	83	81	-	-	-	-	-	-	-	-	-	-
Stage 1	143	181	-	-	-	-	-	-	-	-	-	-
Stage 2	253	205	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	20.3	0.1	0.6
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	534	-	-	416	398	509	-	-
HCM Lane V/C Ratio	0.029	-	-	0.037	0.413	0.116	-	-
HCM Control Delay (s)	11.9	-	-	14	20.3	13	-	-
HCM Lane LOS	B	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	2	0.4	-	-

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	160	135	125	85	20
Future Vol, veh/h	30	160	135	125	85	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	170	144	133	90	21
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	9.2	9.2	9.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	16%	0%	100%	0%
Vol Thru, %	84%	52%	0%	0%
Vol Right, %	0%	48%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	260	85	20
LT Vol	30	0	85	0
Through Vol	160	135	0	0
RT Vol	0	125	0	20
Lane Flow Rate	202	277	90	21
Geometry Grp	2	2	7	7
Degree of Util (X)	0.257	0.323	0.152	0.029
Departure Headway (Hd)	4.576	4.198	6.071	4.86
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	784	857	590	734
Service Time	2.605	2.223	3.82	2.609
HCM Lane V/C Ratio	0.258	0.323	0.153	0.029
HCM Control Delay	9.2	9.2	9.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.4	0.5	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	190	155	0	0	11
Future Vol, veh/h	40	190	155	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	207	168	0	0	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	168	0	-	0	461	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	293	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1410	-	-	-	559	876
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	757	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1410	-	-	-	540	876
Mov Cap-2 Maneuver	-	-	-	-	540	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	757	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1410	-	-	-	876
HCM Lane V/C Ratio	0.031	-	-	-	0.014
HCM Control Delay (s)	7.6	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	2.1

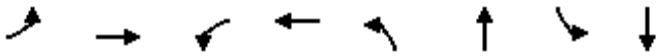
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	0	5	150	105	38
Future Vol, veh/h	69	0	5	150	105	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	0	5	163	114	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	308	135	155	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	684	914	1425	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	681	914	1425	-	-	-
Mov Cap-2 Maneuver	681	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	857	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1425	-	681	-	-
HCM Lane V/C Ratio	0.004	-	0.11	-	-
HCM Control Delay (s)	7.5	0	10.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

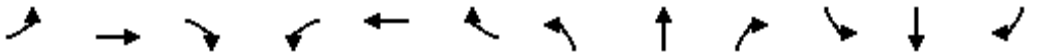
1: S MAIN ST & CYPRESS ST



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	24	271	73	26	1353	57	1090
v/c Ratio	0.06	0.05	0.68	0.14	0.16	0.88	0.35	0.66
Control Delay	16.7	8.4	29.3	5.6	33.8	26.5	38.0	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	8.4	29.3	5.6	33.8	26.5	38.0	17.3
Queue Length 50th (ft)	6	1	93	1	9	229	20	106
Queue Length 95th (ft)	20	15	171	25	39	#572	#78	#410
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	408	514	426	540	163	1633	163	1756
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.64	0.14	0.16	0.83	0.35	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	3	20	263	2	69	25	1247	65	55	1048	10
Future Volume (veh/h)	20	3	20	263	2	69	25	1247	65	55	1048	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	21	3	21	271	2	71	26	1286	67	57	1080	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	398	48	337	445	10	369	53	1483	77	94	1639	15
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.03	0.43	0.43	0.05	0.46	0.46
Sat Flow, veh/h	1327	202	1414	1387	44	1548	1781	3409	177	1781	3579	33
Grp Volume(v), veh/h	21	0	24	271	0	73	26	664	689	57	532	558
Grp Sat Flow(s),veh/h/ln	1327	0	1616	1387	0	1592	1781	1763	1824	1781	1763	1850
Q Serve(g_s), s	0.7	0.0	0.6	10.4	0.0	2.0	0.8	18.8	18.9	1.7	12.9	12.9
Cycle Q Clear(g_c), s	2.7	0.0	0.6	11.0	0.0	2.0	0.8	18.8	18.9	1.7	12.9	12.9
Prop In Lane	1.00		0.88	1.00		0.97	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	398	0	385	445	0	380	53	767	793	94	807	847
V/C Ratio(X)	0.05	0.00	0.06	0.61	0.00	0.19	0.49	0.87	0.87	0.61	0.66	0.66
Avail Cap(c_a), veh/h	428	0	422	477	0	416	165	812	840	165	812	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	16.2	20.5	0.0	16.8	26.3	14.1	14.2	25.6	11.6	11.6
Incr Delay (d2), s/veh	0.1	0.0	0.1	2.0	0.0	0.2	6.8	9.4	9.3	6.1	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	3.3	0.0	0.7	0.4	7.7	7.9	0.8	4.2	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	0.0	16.3	22.5	0.0	17.0	33.2	23.5	23.5	31.7	13.6	13.5
LnGrp LOS	B	A	B	C	A	B	C	C	C	C	B	B
Approach Vol, veh/h		45			344			1379			1147	
Approach Delay, s/veh		17.0			21.3			23.7			14.4	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	29.4		17.8	6.7	30.7		17.8				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.7	20.9		4.7	2.8	14.9		13.0				
Green Ext Time (p_c), s	0.0	3.1		0.1	0.0	4.8		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		19.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	40	30	11	115	90	82	160	11	75	150	170
Future Vol, veh/h	55	40	30	11	115	90	82	160	11	75	150	170
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	44	33	12	126	99	90	176	12	82	165	187
Number of Lanes	1	1	0	1	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	11.1	13.5	14	18.3
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	32%	100%	0%	100%	0%	19%
Vol Thru, %	63%	0%	57%	0%	56%	38%
Vol Right, %	4%	0%	43%	0%	44%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	253	55	70	11	205	395
LT Vol	82	55	0	11	0	75
Through Vol	160	0	40	0	115	150
RT Vol	11	0	30	0	90	170
Lane Flow Rate	278	60	77	12	225	434
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.457	0.128	0.146	0.025	0.406	0.653
Departure Headway (Hd)	5.916	7.641	6.818	7.31	6.483	5.419
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	472	529	486	550	660
Service Time	4.016	5.341	4.518	5.108	4.281	3.508
HCM Lane V/C Ratio	0.461	0.127	0.146	0.025	0.409	0.658
HCM Control Delay	14	11.5	10.7	10.3	13.7	18.3
HCM Lane LOS	B	B	B	B	B	C
HCM 95th-tile Q	2.4	0.4	0.5	0.1	2	4.8

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	84	70	1243	80	57	1278
Future Vol, veh/h	84	70	1243	80	57	1278
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	87	72	1281	82	59	1318

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2099	682	0	0	1363	0
Stage 1	1322	-	-	-	-	-
Stage 2	777	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 45	392	-	-	500	-
Stage 1	213	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 40	392	-	-	500	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	365	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	46.8	0	0.6
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	236	500	-
HCM Lane V/C Ratio	-	-	0.673	0.118	-
HCM Control Delay (s)	-	-	46.8	13.2	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	4.3	0.4	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	80	32	11	55	100	64	87	5	65	71	40
Future Vol, veh/h	45	80	32	11	55	100	64	87	5	65	71	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	88	35	12	60	110	70	96	5	71	78	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	123	0	0	404	398	106	393	360	115
Stage 1	-	-	-	-	-	-	204	204	-	139	139	-
Stage 2	-	-	-	-	-	-	200	194	-	254	221	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1464	-	-	557	540	948	566	567	937
Stage 1	-	-	-	-	-	-	798	733	-	864	782	-
Stage 2	-	-	-	-	-	-	802	740	-	750	720	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1407	-	-	1464	-	-	456	515	948	466	540	937
Mov Cap-2 Maneuver	-	-	-	-	-	-	456	515	-	466	540	-
Stage 1	-	-	-	-	-	-	768	705	-	831	775	-
Stage 2	-	-	-	-	-	-	681	733	-	620	693	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.5	16	14.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	496	1407	-	-	1464	-	-	561
HCM Lane V/C Ratio	0.346	0.035	-	-	0.008	-	-	0.345
HCM Control Delay (s)	16	7.7	0	-	7.5	0	-	14.8
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	1.5

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	10	0	0	96	3	1177	128	58	1354	25
Future Vol, veh/h	0	0	10	0	0	96	3	1177	128	58	1354	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	120	-	-	120	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	3	2	2	3	2
Mvmt Flow	0	0	10	0	0	98	3	1201	131	59	1382	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2120	2851	704	-	-	666	1408	0	0	1332	0	0
Stage 1	1513	1513	-	-	-	-	-	-	-	-	-	-
Stage 2	607	1338	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	-	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	-	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	29	17	379	0	0	402	481	-	-	514	-	-
Stage 1	125	181	-	0	0	-	-	-	-	-	-	-
Stage 2	450	220	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	20	15	379	-	-	402	481	-	-	514	-	-
Mov Cap-2 Maneuver	86	80	-	-	-	-	-	-	-	-	-	-
Stage 1	124	160	-	-	-	-	-	-	-	-	-	-
Stage 2	338	219	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	16.8	0	0.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	481	-	-	379	402	514	-	-
HCM Lane V/C Ratio	0.006	-	-	0.027	0.244	0.115	-	-
HCM Control Delay (s)	12.5	-	-	14.8	16.8	12.9	-	-
HCM Lane LOS	B	-	-	B	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0.4	-	-

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	150	70	105	65	15
Future Vol, veh/h	25	150	70	105	65	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	160	74	112	69	16
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.7	8.1	8.9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	14%	0%	100%	0%
Vol Thru, %	86%	40%	0%	0%
Vol Right, %	0%	60%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	175	175	65	15
LT Vol	25	0	65	0
Through Vol	150	70	0	0
RT Vol	0	105	0	15
Lane Flow Rate	186	186	69	16
Geometry Grp	2	2	7	7
Degree of Util (X)	0.227	0.208	0.112	0.02
Departure Headway (Hd)	4.388	4.015	5.832	4.624
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	897	615	774
Service Time	2.401	2.028	3.559	2.351
HCM Lane V/C Ratio	0.227	0.207	0.112	0.021
HCM Control Delay	8.7	8.1	9.3	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.8	0.4	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	175	85	0	0	11
Future Vol, veh/h	36	175	85	0	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	190	92	0	0	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	92	0	-	0	360	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	268	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1503	-	-	-	639	965
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1503	-	-	-	620	965
Mov Cap-2 Maneuver	-	-	-	-	620	-
Stage 1	-	-	-	-	905	-
Stage 2	-	-	-	-	777	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1503	-	-	-	965
HCM Lane V/C Ratio	0.026	-	-	-	0.012
HCM Control Delay (s)	7.5	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	62	0	5	125	80	34
Future Vol, veh/h	62	0	5	125	80	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	0	5	136	87	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	252	106	124	0	-	0
Stage 1	106	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	737	948	1463	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	734	948	1463	-	-	-
Mov Cap-2 Maneuver	734	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.3	0
HCM LOS	B		

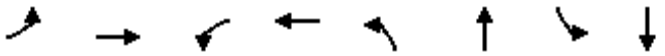
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1463	-	734	-	-
HCM Lane V/C Ratio	0.004	-	0.092	-	-
HCM Control Delay (s)	7.5	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Intersection Delay, s/veh	176
Intersection LOS	F

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	84	70	1243	80	57	1278
Future Vol, veh/h	84	70	1243	80	57	1278
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	87	72	1281	82	59	1318
Number of Lanes	1	0	2	0	1	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	1	0
HCM Control Delay	19.5	274.5	96.5
HCM LOS	C	F	F

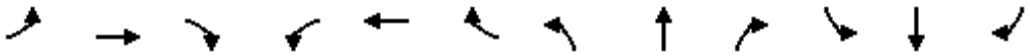
Lane	NBLn1	NBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	55%	100%	0%	0%
Vol Thru, %	100%	84%	0%	0%	100%	100%
Vol Right, %	0%	16%	45%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	829	494	154	57	639	639
LT Vol	0	0	84	57	0	0
Through Vol	829	414	0	0	639	639
RT Vol	0	80	70	0	0	0
Lane Flow Rate	854	510	159	59	659	659
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	1.8	1.055	0.391	0.12	1.255	0.934
Departure Headway (Hd)	7.913	7.78	10.318	8.143	7.651	5.869
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	470	469	351	443	481	626
Service Time	5.613	5.48	8.018	5.843	5.351	3.569
HCM Lane V/C Ratio	1.817	1.087	0.453	0.133	1.37	1.053
HCM Control Delay	387.6	84.9	19.5	12	155	45.6
HCM Lane LOS	F	F	C	B	F	E
HCM 95th-tile Q	51.5	15.2	1.8	0.4	24.2	12.3



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	21	24	271	73	112	1353	57	1090
v/c Ratio	0.06	0.05	0.70	0.15	0.71	0.86	0.36	0.75
Control Delay	16.7	8.3	30.7	5.6	59.1	25.1	38.7	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	8.3	30.7	5.6	59.1	25.1	38.7	21.5
Queue Length 50th (ft)	6	1	93	1	41	229	20	165
Queue Length 95th (ft)	20	15	171	25	#167	#572	#78	#410
Internal Link Dist (ft)		1618		348		639		2369
Turn Bay Length (ft)	80		100		150		400	
Base Capacity (vph)	398	502	416	528	158	1672	158	1588
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.65	0.14	0.71	0.81	0.36	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	3	20	263	2	69	109	1247	65	55	1048	10
Future Volume (veh/h)	20	3	20	263	2	69	109	1247	65	55	1048	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1856	1856	1870	1856	1856
Adj Flow Rate, veh/h	21	3	21	271	2	71	112	1286	67	57	1080	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	3	2	3	3
Cap, veh/h	398	48	337	445	10	369	143	1483	77	94	1458	13
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.08	0.43	0.43	0.05	0.41	0.41
Sat Flow, veh/h	1327	202	1414	1387	44	1548	1781	3409	177	1781	3579	33
Grp Volume(v), veh/h	21	0	24	271	0	73	112	664	689	57	532	558
Grp Sat Flow(s),veh/h/ln	1327	0	1616	1387	0	1592	1781	1763	1824	1781	1763	1850
Q Serve(g_s), s	0.7	0.0	0.6	10.4	0.0	2.0	3.4	18.8	18.9	1.7	14.1	14.1
Cycle Q Clear(g_c), s	2.7	0.0	0.6	11.0	0.0	2.0	3.4	18.8	18.9	1.7	14.1	14.1
Prop In Lane	1.00		0.88	1.00		0.97	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	398	0	385	445	0	380	143	767	793	94	718	753
V/C Ratio(X)	0.05	0.00	0.06	0.61	0.00	0.19	0.78	0.87	0.87	0.61	0.74	0.74
Avail Cap(c_a), veh/h	428	0	422	477	0	416	165	812	840	165	812	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	16.2	20.5	0.0	16.8	24.9	14.1	14.2	25.6	13.9	13.9
Incr Delay (d2), s/veh	0.1	0.0	0.1	2.0	0.0	0.2	18.9	9.4	9.3	6.1	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	3.3	0.0	0.7	2.0	7.7	7.9	0.8	5.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	0.0	16.3	22.5	0.0	17.0	43.8	23.5	23.5	31.7	17.1	16.9
LnGrp LOS	B	A	B	C	A	B	D	C	C	C	B	B
Approach Vol, veh/h		45			344			1465			1147	
Approach Delay, s/veh		17.0			21.3			25.0			17.7	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	29.4		17.8	9.5	27.9		17.8				
Change Period (Y+Rc), s	5.1	5.4		4.6	5.1	5.4		4.6				
Max Green Setting (Gmax), s	5.1	25.4		14.4	5.1	25.4		14.4				
Max Q Clear Time (g_c+I1), s	3.7	20.9		4.7	5.4	16.1		13.0				
Green Ext Time (p_c), s	0.0	3.1		0.1	0.0	4.4		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		21.7
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	154	1243	80	57	1362
Future Vol, veh/h	0	154	1243	80	57	1362
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	3	2	2	3
Mvmt Flow	0	159	1281	82	59	1404

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2142	682	0	0	1363	0
Stage 1	1322	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	42	392	-	-	500	-
Stage 1	213	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	37	392	-	-	500	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	347	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	392	500	-
HCM Lane V/C Ratio	-	-	0.405	0.118	-
HCM Control Delay (s)	-	-	20.3	13.2	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.9	0.4	-



Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	159	1363	59	1318
v/c Ratio	0.37	0.69	0.31	0.56
Control Delay	13.7	18.4	34.3	10.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.7	18.4	34.3	10.5
Queue Length 50th (ft)	27	184	18	96
Queue Length 95th (ft)	63	#588	#78	393
Internal Link Dist (ft)	481	521		639
Turn Bay Length (ft)			100	
Base Capacity (vph)	1223	1978	189	2511
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.69	0.31	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	84	70	1243	80	57	1278
Future Volume (veh/h)	84	70	1243	80	57	1278
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1900	1856	1856	1870	1856
Adj Flow Rate, veh/h	87	72	1281	82	59	1318
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	3	3	2	3
Cap, veh/h	116	96	1634	104	103	2309
Arrive On Green	0.13	0.13	0.49	0.49	0.06	0.65
Sat Flow, veh/h	918	759	3457	215	1781	3618
Grp Volume(v), veh/h	160	0	670	693	59	1318
Grp Sat Flow(s),veh/h/ln	1688	0	1763	1817	1781	1763
Q Serve(g_s), s	4.2	0.0	14.4	14.5	1.5	9.4
Cycle Q Clear(g_c), s	4.2	0.0	14.4	14.5	1.5	9.4
Prop In Lane	0.54	0.45		0.12	1.00	
Lane Grp Cap(c), veh/h	213	0	856	882	103	2309
V/C Ratio(X)	0.75	0.00	0.78	0.79	0.57	0.57
Avail Cap(c_a), veh/h	1292	0	979	1009	199	2309
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	9.8	9.8	21.0	4.3
Incr Delay (d2), s/veh	5.2	0.0	3.7	3.7	5.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	4.8	5.0	0.7	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.5	0.0	13.4	13.4	26.0	4.7
LnGrp LOS	C	A	B	B	C	A
Approach Vol, veh/h	160		1363			1377
Approach Delay, s/veh	24.5		13.4			5.6
Approach LOS	C		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.7	27.6			35.3	10.4
Change Period (Y+Rc), s	5.1	5.4			5.4	4.6
Max Green Setting (Gmax), s	5.1	25.4			25.4	35.0
Max Q Clear Time (g_c+I1), s	3.5	16.5			11.4	6.2
Green Ext Time (p_c), s	0.0	5.7			8.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX G

Addendum to the Traffic Impact Analysis

June 3, 2021

Mr. Terry Johnson
BEST DEVELOPMENT GROUP
2580 Sierra Boulevard, Suite E
Sacramento, CA 95825

RE: ADDENDUM TO TRAFFIC IMPACT ANALYSIS FOR GROCERY OUTLET STORE, FORT BRAGG, CA

Dear Mr. Johnson:

As requested, KD Anderson & Associates has prepared this addendum to our October 22, 2019 Traffic Impact Analysis (TIA) for a Grocery Outlet Store in Fort Bragg, California. While both Caltrans and the City of Fort Bragg have reviewed and concurred with the findings of the TIA, this addendum is intended to address questions raised by commissioners at the May 26, 2021 Planning Commission Meeting and summarize information in the TIA addressing these questions, including:

1. What are the traffic effects of the Grocery Outlet Store project at locations on Franklin Street and the relative need for improvements to local streets in Fort Brag to ensure safety for motorists, bicyclists and pedestrians?

2. What are the Grocery Outlet Store project's impact to regional VMT and the significance of that impact under the California Environmental Quality Act, and is additional analysis needed?

Grocery Outlet Store Project's Effects on City Streets

Traffic Study Area. The TIA investigated background traffic conditions and project impacts across a broad area selected in consultation with City staff and Caltrans. In addition to Main Street (SR 1) the TIA also looked at:

- Cypress Street
- N. Harbor Drive
- South Street
- Franklin Street

Traffic volume count data was collected over a three day period in the summer of 2019 before COVID-19 travel restrictions, and peak hour intersection traffic counts were conducted during the weekday evening peak traffic hour and the peak hour of Saturday at these locations off of SR 1:

1. Franklin Street / Cypress Street
2. Franklin Street / South Street
3. Franklin Street / Harbor Drive

Analysis Methods. As directed by Fort Bragg's General Plan and Caltrans guidelines the adequacy of the circulation system is measured at intersections, although daily traffic count data was also provided in the report for roadways between intersections. Intersection operations and impacts were evaluated based on capacity calculations / operating Level of Service and MUTCD requirements for traffic control devises (i.e., stop signs and signals). We also considered pedestrian and bicyclist safety based on factors such as conflicting traffic volumes and sight distance.

Current Conditions on City Streets. ***Franklin Street (Major Collector), South Street (Minor Collector)*** and ***North Harbor Drive (Local Street)*** are all two-lane roadways, with 25 mph speed limits. Table 1 presents current daily traffic volumes on these streets.

TABLE 1
DAILY TRAFFIC VOLUMES ON FORT BRAGG STREETS

Street	Location	Daily Traffic (vpd)		
		Thursday 7/18/2019	Friday 7/19/2019	Saturday 7/20/2019
Franklin Street (Major Collector)	Cypress Street to South Street	3,540	3,500	2,400
	South Street to N. Harbor Drive	1,940	2,200	1,930
South Street (Minor Collector)	Main Street to Franklin Street	2,450	2,350	1,670
N. Harbor Drive (Local Street)	Main Street to Franklin Street	2,490	2,950	3,200

City Street Intersections Near Grocery Outlet. The ***South Street / Franklin Street intersection*** is a four-way intersection controlled by a stop sign on northbound and southbound Franklin Street approaches. Each approach has a single travel lane. A crosswalk is striped across the north Franklin Street leg, and there is a streetlight on the northeast corner.

The ***North Harbor Drive / Franklin Street intersection*** is a "tee" controlled by an all-way stop. The North Harbor Drive approaches are single travel lanes, but the Franklin Street approach has as separate right turn lane. There are no crosswalks striped at the intersection, and a streetlight is present on the southeast corner.

Pedestrian Facilities. Pedestrians were included in the intersection traffic counts. There are sidewalks in many locations on the streets surrounding the project. Sidewalk is present at these locations:

- both sides of Franklin Street from a point about 250 feet south of South Street northerly to Cypress Street
- east side of Franklin Street for 100 feet north of North Harbor Drive
- both sides of Cypress Street
- both sides of South Street

- north side of North Harbor Drive from SR 1 to the project site (230 feet)
- south side of North Harbor Drive from SR 1 to 160 feet east
- east side of Main Street (SR 1)

Crosswalks are striped at intersections as noted earlier, and ADA ramps have been provided at most locations.

Bicycle Facilities. Bicyclists were included in intersection traffic counts. The SR 1 along the Pacific coast is a popular area for recreational cyclists. The *City of Fort Bragg 2009 Bicycle Master Plan (2009)* outlines the location and nature of existing bicycle facilities in the community. Bicycle facilities are categorized within three classifications:

Class I Bikeway: trails or paths that are separated from automobile traffic,
Class II Bikeway: bicycle lanes that are on street but delineated by striping, and
Class III Bikeway: bicycle routes where bicycles and automobiles share the road.

There are currently Class II striped bicycle lanes on the east and west side of Franklin Street north of South Street to the Oak Street intersection.

Main Street (SR 1) is designated a Class III bike route through Fort Bragg.

The plan suggests that South Street and North Harbor Drive south of Woodward Street should be developed as Class II bike routes.

Transit Facilities. The Mendocino Transit Authority (MTA) provides transit service to the Mendocino and Sonoma county areas. Two routes pass the project site. Route 5 (Braggabout) and Route 60 (The Coaster) traverse the community and have a stop near the County Social Services building at the South Street / Franklin Street intersection. Route 5 provides service on one-hour headways from 7:00 to 6:00 p.m. Monday thru Friday, with service extending to 8:30 on Saturdays. Route 60 runs four circuits on weekdays at 7:30 a.m., 11:57 a.m., 2:57 p.m. and 3:57 p.m., and this route also extends later on Saturdays.

Grocery Outlet Store Effects on City Streets. Table 1 presents the effects of the Grocery Outlet Store at City street intersections around the project. As shown, the addition of project traffic would not appreciably increase the length of delays already occurring at City street intersections, and the resulting Levels of Service meet the City's minimum requirements (i.e., LOS C or better). There is no need for capacity related improvements.

Need for Traffic Controls. Decisions regarding the installation of all traffic control devices in Fort Bragg, such as traffic signals and all-way stops are made by the City based on the requirements of the Manual of Uniform Traffic Control Devices (MUTCD) and engineering judgement. As noted in Table 2, the addition of Grocery Outlet Store trips does not result in traffic volumes that reach the level that would warrant a traffic signal at any intersection on City streets.

The need for an all-way stop at the Franklin Street / South Street intersection was raised at Planning Commission Meeting, and the projected traffic, pedestrian and bicycle volumes were reviewed based on MUTCD requirements for an all-way stop. In July 2019 a total of 13 and 4 pedestrians crossed the intersection during the weekday p.m. and Saturday peak hour, respectively, while a total of 8 p.m. and 4 Saturday peak hour bicyclist were counted. These counts could conceivably double with the project. While the intersection would operate safely with current controls, the projected peak hour automobile, bicycle and pedestrian volumes indicate that the intersection may reach the level that satisfies MUTCD warrant requirements for an all-way stop, but analysis of MUTCD requirements over an 8 hour period would be required for confirmation.

Since the intersection is projected to operate acceptably with current traffic controls, an all-way stop is not required due to an impact created by the Grocery Outlet Store, but the City of Fort Bragg could elect to install an all-way stop at their discretion.

TABLE 1
EXISTING PLUS GROCERY OUTLET STORE INTERSECTION LEVEL OF SERVICE ON CITY STREETS

Intersection	Control	Weekday PM Peak Hour					Saturday Peak Hour				
			Existing		Ex Plus Project			Existing		Ex Plus Project	
		Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	Min	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)
Cypress Street / Franklin Street	AWS	C	B	12	B	12	C	A	9	B	10
South Street / Franklin Street											
Westbound left turn			A	7	A	7		A	7	A	7
Eastbound left turn	NB/SB Stop	C	A	8	A	8	C	A	7	A	7
Northbound approach			B	12	B	14		B	11	B	12
Southbound approach			B	12	B	13		B	11	B	11
No Harbor Drive / Franklin Street	AWS	C	A	8	A	8	C	A	9	A	9

AWS is All-Way Stop. NB/SB Stop indicated stop signs on the northbound and southbound approaches only

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TABLE 2
EXISTING PLUS GROCERY OUTLET STORE TRAFFIC SIGNAL AND ALL WAY STOP WARRANTS

Intersection	Weekday PM Peak Hour				Saturday Peak Hour			
	Volume (vph)		MUTCD Warrant Met?		Volume (vph)		MUTCD Warrant Met?	
	Major Street	Minor Street	All-Way Stop[1]	Traffic Signal[2]	Major Street	Minor Street	All-Way Stop[1]	Traffic Signal[2]
Cypress Street / Franklin Street	556	180	Existing	No	429	102	Existing	No
South Street / Franklin Street	289	135	Yes[2]	No	314	94	No	No
North Harbor Drive / Franklin Street	299	69	Existing	No	387	89	Existing	No

[1] Section 2B.07 Multi-Way Stop Applications
[2] further analysis of conditions over 8-hrs is required under MUTCD

Pedestrian Impacts. Some Grocery Outlet Store employees or customers will elect to walk to and from the site, as there is residential or commercial development near the site. However, sidewalk exists on the streets adjoining the site, and with frontage improvements installed by Grocery Outlet Store, sidewalks will generally provide a complete path of travel to and from the site. There are two locations where gaps in the pedestrian system may remain, including:

- The south side of South Street from Franklin Street easterly to Myrtle Street (150 feet)
- The north side of North Harbor Drive between Franklin Street and Myrtle Street (100 feet)

The gaps exist at locations where it appears that residences were constructed prior to the City of Fort Bragg requiring frontage improvements. Privately maintained landscaping exists near the road. The availability of right of way to construct improvements is unknown.

While it is not the responsibility of the project proponents to install sidewalks along these areas it would be appropriate for the City of Fort Bragg to considered installing NO PARKING signs in the area to preserve the edge of roadway for pedestrians.

Bicycle Impacts. The use of bicycles may be an option for employees or customers to the site. Typically, grocery stores do not attract large numbers of cyclists due to the need to carry goods purchased, however it is likely that current bicycle activity by visitors to the Mendocino coast leads to greater use of that mode in the community. The number of cyclists associated with this project is not likely to create any appreciable safety impacts on adjoining streets, as Class II bike lanes exist on Franklin Street north of the site, and Franklin Street along the project frontage is wide enough to accommodate shared bicycle and automobile activity. While the project's off-site impact is not significant, applicable short-term bicycle storage facilities should be installed on site, as required by the City of Fort Bragg.

Transit Impacts. Project employees or customers will be able to use MTA service as it already passes the project site and stops near the corner of South Street and Franklin Street. The project's impact is not significant, and mitigation is not required.

Vehicle Miles Traveled (VMT) Impacts

Background. Starting in July 2020 SB 743 required agencies to move from a Level of Service based impacts analysis under CEQA to analysis based on regional Vehicle Miles Traveled (VMT). Current direction regarding methods to identify VMT and comply with state requirements is provided by the California Governor's Office of Planning and Research (OPR)' December 2018 publication, *Technical Advisory on Evaluating Transportation Impacts in CEQA*. In addition, in June 2020 the Mendocino Council of Governments (MCG) published its *Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study*. Which provided perspective in support of OPR guidance.

The OPR advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. Again, OPR provides this Technical Advisory as a resource for the public to use at their discretion. OPR is not enforcing or attempting to enforce any part of the recommendations contained herein. (Gov. Code, § 65035 ["It is not the intent of the

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Legislature to vest in the Office of Planning and Research any direct operating or regulatory powers over land use, public works, or other state, regional, or local projects or programs."].)

OPR provides this direction for retail projects:

> ***Retail Projects.*** *Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.*

OPR also provides guidance regarding ***Screening Thresholds*** that would allow agencies to quickly identify when a project should be expected to cause a less-than significant impact without conducting as detailed study. OPR states:

> By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.
>
> Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-specific information, such as market studies or economic impacts analyses that might bear on customers' travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local-serving. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

The traffic study indicated that based on the location of competing stores, the Grocery Outlet Store's most likely effect on regional travel is to slightly reduce the length of trips from areas south of the river off of SR 20 or SR 1 that are today made northbound, and to offer another option for shopping trips made by residents of areas to the north. The regional effect on VMT is likely to be small, but generally will be reduced by offering a closer option for northbound traffic. This conclusion is consistent with the OPR presumption that the VMT effects of locally serving retail uses of 50,000 sf or less may be considered to be less than significant.

Testimony offered at the Planning Commission supported the conclusion that the Fort Bragg Grocery Outlet Store would reduce regional VMT. Many speakers described driving to the existing Grocery Outlet Store in Willets and stated that they would patronize the new store in Fort Bragg. This redistribution of current traffic to a closer Grocery Outlet Store is consistent with OPR guidance.

Similarly, the Grocery Outlet Store representative also provided supporting testimony. Based on their experience, the entry of Grocery Outlet Store into any community does not increase the amount that people eat. What it does do is redistribute the current shopping pattern, but based on Bureau of Labor Statistics analytics, community grocery consumption remains the same regardless of the number of grocers servicing the area. That dynamic supports the notion that the entry of Grocery Outlet actually lowers VMT and traffic congestion as consumers travel choices tend to favor convenience. Thus. the entry of any new grocer will tend to reduce travel as consumers located near the new location will gravitate to that new location making shorter trips. While traffic studies may conservatively describe trips to the Grocery Outlet Store as "new", there is an offsetting reduction in trips to the pre-existing grocery providers.

Thank you again for your review of these materials. Please feel free to contact me at (916) 660-1555 if you have any questions or need additional information.

Sincerely Yours,

KD Anderson & Associates, Inc.



Kenneth D. Anderson, P.E.
President

Fort Bragg Grocery Outlet Addendum.ltr

APPENDIX H

CEQA VMT Analysis

FEHR PEERS

Final Memorandum

Date: June 29, 2022

To: Heather Gurewitz, City of Fort Bragg

From: Ian Barnes, Mackenzie Watten, and Bruno Lertora, Fehr & Peers

Subject: Fort Bragg Grocery Outlet Project – CEQA VMT Analysis

WC22-3884.00

This memorandum summarizes the CEQA VMT assessment for the Grocery Outlet Project (Project) in Fort Bragg, California. This memorandum includes the analysis of the Project's effect on subregional vehicle-miles traveled (VMT) as analyzed in the Mendocino Council of Governments (MCOG) travel demand model.

Project Description

The Project site is located at 825 South Franklin Street in the City of Fort Bragg. The Project, as proposed, includes the construction of a 16,157 square-foot grocery store building which would replace the vacant former office development located at the site. Because the office development is currently vacant, it is assumed that no credit for existing uses would be taken in the VMT analysis.

VMT Analysis Methodology

This section describes Fehr & Peers' approach, methods, and CEQA significance thresholds for the VMT analysis.

CEQA Guidelines Appendix G: Transportation Checklist

The California Environmental Quality Act (CEQA) Guidelines were updated in December 2018 per Senate Bill (SB) 743 (Stats. 2013, Ch. 386, § 5). SB 743 created Public Resources Code section 21099, which directed the Governor's Office of Planning and Research (OPR) and the Secretary of the Natural Resources Agency to establish criteria for determining the significance of transportation impacts of projects within transit priority areas, with the option of creating new statewide criteria. In developing the new criteria, OPR and the Secretary were to recommend potential metrics that included, but were not limited to, vehicle miles traveled (VMT), vehicle miles traveled per capita,

automobile trip generation rates, or automobile trips generated. Section 21099 further provided that, once the CEQA Guidelines had been updated as required by the statute, "automobile delay, as described solely by level of service [LOS] or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any." Consistent with these directives, the Natural Resources Agency promulgated CEQA Guidelines section 15064.3, which became effective in late 2018. It provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts," with VMT referring to "the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel." Rather than limit its scope only to transit priority areas, the section changed the approach to assessing transportation impacts under CEQA all over the State. By its own terms, however, the section did not require agencies to begin using VMT as a new metric until July 1, 2020. LOS had ceased to be a valid significance criterion as of late 2018, however. (See Citizens for Positive Growth & Preservation v. City of Sacramento (2019) 43 Cal.App.5th 609, 625-626.) CEQA Guidelines §15064.3 changes the focus of transportation impact analysis in CEQA from measuring *impacts to drivers* to measuring the *environmental impact of driving*.

The relevant CEQA Guidelines Appendix G checklist questions for CEQA Transportation impact evaluation are shown below.

Would the project:

> *Criterion B:* Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Criteria A, C, and D in the CEQA Transportation checklist are related to consistency with adopted plans and policies related to the multimodal circulation system, circulation system hazards, and emergency vehicle access. Analysis related to these checklist criteria are provided in a separate transportation impact analysis completed by another firm.

CEQA Checklist Criterion B: Vehicle-Miles Traveled (VMT)

Criterion B is the formal implementation of the CEQA Guidelines §15064.3 requirement to analyze VMT as part of the CEQA Transportation section. Under CEQA Guidelines §15064.3, congestion related project effects (such as those measured by LOS or similar metrics) are deemed to be not a suitable basis on which to determine a significant environmental effect. Relevant subsections of CEQA Guidelines §15064.3(b) for the project read as follows:

(1) **Land Use Projects.** Vehicle-miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle-miles

traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(4) **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

The State Office of Planning and Research (OPR), in their Technical Advisory on the Evaluation of Transportation Impacts in CEQA (December 2018), has provided non-binding guidance on thresholds that could be used in the analysis of CEQA transportation impacts, using VMT as the quantified metric for evaluation. The basis of these OPR-recommended thresholds includes state climate planning documents and legislation.

CEQA Guidelines §15064.3(a) notes that, for the purposes of §15064.3 and CEQA Transportation analysis, VMT "refers to the amount and distance of automobile travel attributable to a project." This statement has been interpreted by OPR to mean automobile and light-duty truck travel (e.g., pickup trucks). For many retail land uses, the amount and distance of automobile travel is the overwhelming component of weekday daily VMT. OPR notes that heavy-duty truck VMT could be included for convenience and ease of calculation, if a lead agency so chooses, but are not required to be included in the calculations.

In the *Technical Advisory*, OPR has recommended thresholds and calculation approaches for three project types: residential, office and retail. The thresholds and calculation approaches noted in the *Technical Advisory* are in part based on the legislative intent of SB 743, which include promoting (1) a diversity of land uses, (2) the development of multimodal transportation networks, and (3) the reduction of greenhouse gas emissions. In essence, the switch to VMT as the CEQA Transportation metric measures the efficiency of land use patterns and streamlines development that enhance a diversity of land uses and access to common goods and commercial/public services.

In its discretion as lead agency, the City of Fort Bragg may choose to adopt its own thresholds of significance based on substantial evidence, or to rely on substantial evidence developed by other agencies (e.g. OPR). OPR, in its review of the legislative intent of SB 743 and its development of substantial evidence to support their published thresholds, has noted that retail projects should be analyzed on the basis of net change in total VMT because "retail projects typically re-route travel from other retail destinations." Furthermore, OPR's *Technical Advisory* suggests that:

> "By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant."

The Mendocino Council of Governments (MCOG) has provided non-binding guidance to its member agencies to aid in addressing the switch to VMT as the CEQA Transportation metric as a result of SB 743. MCOG's *SB 743 VMT Regional Baseline Study* (Fehr & Peers, 2020) outlines VMT metrics that agencies may adopt. The two main metrics for potential adoption are a VMT per service population metric and a net-change in VMT metric. To date, no agency in Mendocino County has formally adopted the VMT per service population metric for land use projects and agencies are actively assessing other VMT metrics for projects.

Based on the guidance presented in the *Technical Advisory* and the MCOG report, Fehr and Peers recommends that the City of Fort Bragg use the following VMT-based threshold to be applied to assess the CEQA significance of the project's effect on VMT:

- The project would result in a significant impact related to VMT if the project would result in a net increase in VMT.

The threshold noted above is consistent with OPR's recommended threshold; projects that are redistributive in nature (e.g., educational facility, retail, etc.) and result in an increase in VMT are not in-line with the portion of the legislative intent of SB 743 related to promoting the reduction of greenhouse gas emissions.

VMT Analysis Methodology

The VMT analysis prepared for the CEQA transportation section is performed based on the total VMT metric, with a net-increase threshold being used to identify a significant CEQA impact. Typically, a travel demand model is used to assess changes in VMT resulting from a project, given their predictive power in terms of trip generation, trip distribution and trip assignment. The local travel demand model – the MCOG Travel Demand Forecasting Model (MCOG model) – was used to estimate VMT for the proposed project. The MCOG model includes a base year of 2009 and a future horizon year of 2030. The VMT analysis in this report is performed for both the 2009 and 2030 scenarios, with the delta between "no project" and "plus project" VMT for these two horizon years being interpolated to arrive at a delta reflecting a project baseline year of 2022. A boundary defined by the retail influence area of the Project was chosen as the extents of the VMT calculation. This boundary covers approximately 20 miles to the north and to the south of the

Project, from the Town of Westport to the unincorporated community of Whitesboro, respectively, as well as the City of Willits and State Route 20 between Fort Bragg and Willits.

CEQA Transportation VMT Impact Evaluation

The following subsections outline the results of the CEQA Transportation VMT impact evaluation.

Modeled VMT Results

The relevant applicable analysis scenarios were analyzed using the methodologies described above, and the VMT analysis results are summarized in **Table 1** below.

Table 1: Project Effect on VMT After Initial Modeling

Analysis Horizon Year	Scenario	Scenario VMT
Model Base Year 2009	No Project	659,672
	Plus Project	658,755
	Year 2009 Delta	***-917***
Model Future Year 2030	No Project	763,620
	Plus Project	764,610
	Year 2030 Delta	***+990***
Interpolated Baseline Year 2022 Delta		***+263***

Source: Fehr & Peers, June 2022.

The results in **Table 1** indicates that the Project would result in a net increase in VMT over baseline conditions. The model considers a very limited amount of re-routing of Fort Bragg residents that currently go to the Grocery Outlet store located in Willits for grocery shopping. According to information provided by Grocery Outlet, over the last 12 months around 9% of the people that visit their Willits store come from Fort Bragg. Considering that the length of a one-way trip from Fort Bragg to the Willits Grocery Outlet store is approximately 35 miles, and 1 mile from Fort Bragg to the Project, 990 VMT is equivalent to the re-routing of 30 one-way trips or 15 round trips from the Willits Grocery Outlet store to the Project store. Per the Institute of Transportation Engineers *Trip Generation Manual, 11th Edition*, a grocery store such as the one in Willits generates approximately 3,500 daily one-way trips. Therefore, the re-routing of less of 1% of these trips would result in a net decrease in VMT for both baseline (2022) and future year (2030) conditions. **Table 2** shows the adjusted VMT results accounting for a trip redistribution from the Willits Grocery Outlet to the Fort Bragg Grocery Outlet of 1% and 9%.

Table 2: Project Effect on VMT Accounting for Trip Redistribution from Willits Grocery Outlet to Fort Bragg Grocery Outlet

Analysis Horizon Year	Scenario	Scenario VMT (1% redistribution)	Scenario VMT (9% redistribution)
Model Base Year 2009	No Project	659,672	659,672
	Plus Project	657,565	648,045
	Year 2009 Delta	**-2,107**	**-11,627**
Model Future Year 2030	No Project	763,620	763,620
	Plus Project	763,420	753,900
	Year 2030 Delta	**-200**	**-9,720**
Interpolated Baseline Year 2022 Delta		**-927**	**-10,447**

Source: Fehr & Peers, June 2022.

Thus, per the significance criteria, the modeled VMT results, and the adjustments based on market information presented previously, the Project results in a ***less-than-significant impact.***

This concludes our assessment. Please contact Bruno Lertora at b.lertora@fehrandpeers.com if you have questions or comments.