

Noyo Harbor Multimodal Circulation Access Plan

Final Plan

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FOR ALLOWING USE OF THE NOYO
FISH COMPANY'S OUTDOOR DINING
AREA FOR PROJECT WORKSHOPS!

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Introduction and Study Purpose

Noyo Harbor, located at the southern edge of the City of Fort Bragg in Mendocino County, is a vibrant coastal hub that supports a mix of commercial fishing, visitor-serving businesses, dining, recreation, and maritime industry. Nestled below the Noyo Harbor Bridge on State Route 1, the Harbor is a critical economic and cultural asset for the region. The area is bustling with industrial and commercial activity and importantly, tourism. The Harbor is a busy, working harbor with commercial fishing facilities for offloading boats, packaging, storing and transporting fish products. Additionally, recreational fishers and tourists come to the Harbor to launch their boats, browse shops, eat in local restaurants, rent kayaks, and access the beach at the end of Harbor Drive. The commercial and tourism industries are intertwined, making this a unique and inviting place.

Considering the origins of the Harbor are rooted in industry, the entire circulation and mobility within the Harbor was built around freight and automobiles. There has been little consideration for a more human mobility component to the system. Noyo Harbor is limited by a single ingress and egress roadway for access as well as disorganized and undeveloped parking and pedestrian facilities. Additionally, the area lacks adequate and accessible bicycle and transit facilities. The Harbor has simply outgrown its original intent and through this study, is exploring emergency access feasibility, bicycle facilities, pedestrian facilities and transit access.

This plan, funded by a Federal Transit Administration Section 5304 (Sustainable Communities Competitive Program) grant administered by Caltrans, provides a comprehensive study of transportation access, safety, and circulation in and around Noyo Harbor. This plan explored options for emergency evacuation and examines projects that reduce motorized and non-motorized conflicts, improve safety, and support reduced reliance on single-occupancy vehicles by introducing non-vehicular and transit access. As part of the study, the project team evaluated the feasibility of installing a walkway into Noyo Harbor consisting of a sidewalk along North Harbor Drive and when the right-of-way becomes constrained, a walkway along the hillside of the harbor. The study also considered an ADA accessible split stairway under Highway 1 to allow public access from hotels on either side of the highway and connection to the coastal trail.

This final plan will serve as a roadmap for implementing multimodal improvements in Noyo Harbor and may be used by local, regional, state, or tribal agencies such as the City of Fort Bragg, Mendocino Council of Governments (MCOG), Mendocino County, Caltrans, Noyo Harbor District, Mendocino Transit Authority, and the Sherwood Valley Band of Pomo Indians to pursue future funding and project development. This plan was informed by community and tribal engagement, building on past efforts including the 2017 North Harbor Access Plan and the 2019 Noyo Harbor Community Sustainability Plan. In alignment with goals outlined in the California Transportation Plan (CTP) 2050 and the Climate Action Plan for Transportation Infrastructure (CAPTI), this plan supports state objectives for improving accessibility, equity, and climate resilience by investing in safe, multimodal transportation networks. Ultimate project implementation will depend on right-of-way availability, permitting, and interagency coordination.



Harbor Context

History of the Harbor

Location and Operations

Noyo Harbor, located on the Mendocino County coast just south of the City of Fort Bragg, serves as the region's primary all-weather port between Bodega Bay and Humboldt Bay. It supports a sizable commercial fishing fleet, sport fishermen, and recreational boaters. The Noyo Harbor District was established in 1950 and is governed by a five-member Harbor Commission, with appointments made by both the Fort Bragg City Council and the Mendocino County Board of Supervisors. The District owns and operates the 256-berth marina and related facilities on the south side of the Noyo River, including a boat launch, hoist, pier, parking and storage areas, restrooms, showers, a maintenance shop, and Grader Park, which hosts community events. On the north side of the harbor, the District oversees commercial fishing operations, fish markets, restaurants, and other businesses serving locals and tourists. The north side also has a parking lot.

Fishing and Other Uses

The north side of Noyo Harbor is home to a concentration of waterfront businesses that provide services to commercial and recreational users. Based on business interviews and employment estimates, the harbor supports approximately 409 workers during peak season and 295 during the off-season. The area also draws visitors interested in its natural beauty, fishing opportunities, and cultural heritage. Currently, the City of Fort Bragg and the Harbor District are engaged in a three-year planning effort to develop the [Noyo Harbor Blue Economy Visioning, Resiliency, and Implementation Plan](#). This Noyo Harbor Multi-Modal Circulation Plan is intended to align with the timing and goals of the Blue Economy Plan, ensuring coordinated recommendations that support both economic vitality and improved access.

Native History

The Sherwood Valley Band of Pomo Indians, a federally recognized tribe, has ancestral homelands extending from the Highway 101 corridor through the redwood forests to the coast. They have occupied and utilized these lands since time immemorial, maintaining original rights to protect the land, air, water, and food sources. The Sherwood Valley Rancheria, established in 1909, is governed under a Constitution and Bylaws approved in 1974. The Tribal Council represents individual members and strives to promote the protection of natural resources for future generations. The tribe administers various programs, including environmental protection, education, health services, and youth programs, reflecting their commitment to community well-being and cultural preservation. Their involvement in regional environmental initiatives, such as the [Kai Poma project](#), highlights their commitment to coastal stewardship, restoration efforts, and connection to the harbor.

Context within Mendocino County

As of 2020, the California Department of Finance estimated Mendocino County's population at 88,388. Of this total, 59,330 residents live in unincorporated areas, while 29,058 reside in the county's four incorporated cities: Ukiah (16,029), Fort Bragg (7,471), Willits (5,117), and Point Arena (441). Ukiah serves as the largest urban center, while Fort Bragg and the surrounding coastal region stretching south to the Navarro River form another significant population hub. Beyond these centers, much of the county remains rural, with large areas of undeveloped land and low population density. These characteristics contribute to the county's scenic, natural environment but also present challenges for transportation planning and public service delivery. The Mendocino Council of Governments (MCOG) is responsible for transportation planning within Mendocino County. Jurisdiction within Noyo Harbor falls under both the City of Fort Bragg and Mendocino County. Part of the harbor is located within the City of Fort Bragg city limits, and part is within Mendocino County, as shown on **Figure 1** below.

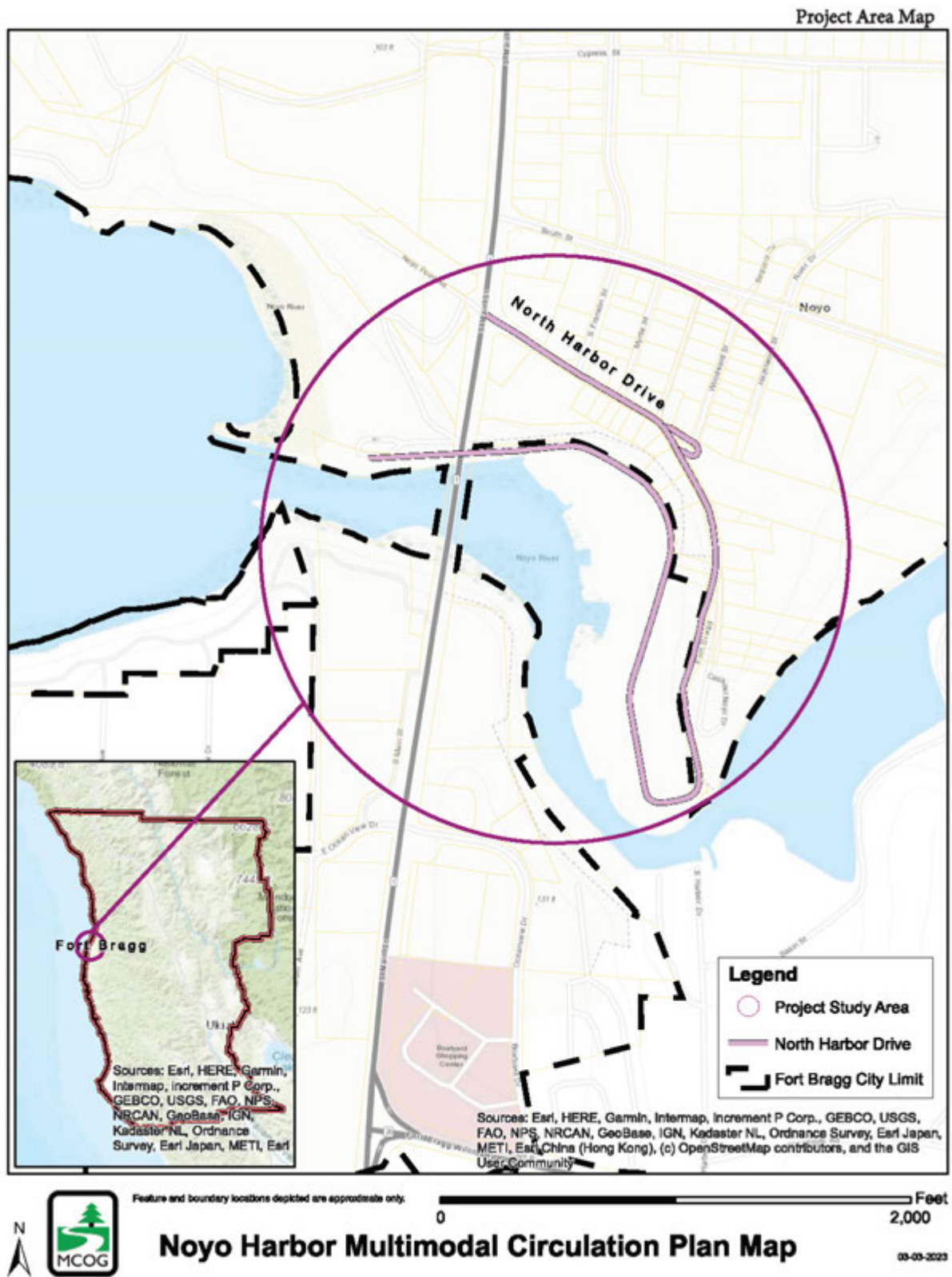


Figure 1: Noyo Harbor Multimodal Circulation Plan Map

Previous Planning Efforts

1992 Noyo Harbor Plan

The 1992 Noyo Harbor Plan provides foundational guidance for the long-term development and preservation of Noyo Harbor. It emphasizes the need to balance economic activity—particularly commercial fishing—with recreational, environmental, and public access goals. The plan identifies circulation and access challenges, particularly the lack of pedestrian infrastructure, limited parking, and constrained roadway widths, which complicate accessible and efficient movement through the harbor. While dated, the plan underscores the importance of improving multimodal access and internal circulation, enhancing pedestrian safety, and protecting the harbor’s working waterfront character.

2011 South Main Street Access and Beautification Plan

The South Main Street Plan focuses on improving transportation safety, access, and streetscape conditions along a key segment of State Route 1 in southern Fort Bragg, which connects directly to Noyo Harbor. The plan identifies a range of challenges, including high vehicle speeds, limited pedestrian crossings, narrow or missing sidewalks, and poor multimodal connectivity, which affect access to and from the harbor area. Recommendations include traffic calming, improved crosswalks, transit stop enhancements, and dedicated bicycle and pedestrian infrastructure. While not exclusively focused on Noyo Harbor, the corridor’s southern segment serves as a gateway to the harbor, making these improvements critical for supporting accessible multimodal circulation in the broader area.

2016 Caltrans Transportation Concept Report State Route 1

For each State highway, the Transportation Concept Report is a document that identifies current and projected operating conditions, establishes a 20-year planning concept, identifies facility deficiencies in relation to the concept, and identifies broad and flexible options to achieve the 20-year concept. The Transportation Concept Report for State Route 1 (SR 1 or locally called Highway 1) identifies Noyo Harbor and the surrounding Fort Bragg area as key locations for addressing multimodal access and safety along the Highway 1 corridor. The report highlights challenges such as narrow shoulders, limited pedestrian and bicycle infrastructure, and constrained rights-of-way—particularly in the Noyo Bridge and North Harbor Drive segments. It recommends enhancing active transportation connectivity, improving safety for all modes, and supporting access to key destinations like Noyo Harbor. Specifically, the report supports future improvements that align with State goals for complete streets, climate resilience, and equity, reinforcing the need for multimodal circulation projects like the Noyo Harbor access and trail improvements.

2017 City of Trails Supplemental Trail Feasibility Studies

The Supplemental Trails Report focus on planning and design concepts for trail improvements in and around Fort Bragg, including North Harbor Drive heading into Noyo Harbor. The report outlines preliminary engineering designs for a separated path along North Harbor Drive, addressing steep terrain, limited right-of-way, and existing infrastructure constraints such as guardrails and retaining

walls. The designs propose structural decking, engineered backfill, and safety features (e.g., handrails, curb walls) to maintain a consistent walkway width and elevation, ensuring accessibility and safety.¹

2019 Caltrans Climate Change Vulnerability Assessment Summary Report

The Caltrans District 1 Vulnerability Assessment Summary Report (2019) identifies the Fort Bragg area and adjacent coastal segments of Highway 1 in Mendocino County as vulnerable to climate-related hazards, including coastal bluff erosion, sea level rise, and storm surge. While Noyo Harbor is not mentioned by name, its proximity to Highway 1 and Fort Bragg suggests it may be subject to similar risks. The report underscores the importance of planning for adaptation and resilience, recommending strategies such as elevating infrastructure, rerouting, and integrating natural defenses to maintain connectivity and protect transportation assets in at-risk coastal areas. These findings support the relevance of incorporating climate resilience into future multimodal and circulation improvements serving the Noyo Harbor area.

2019 Mendocino County Pedestrian Facility Needs Inventory and Engineered Feasibility Study

The 2017–2018 MCOG Mendocino County Pedestrian Inventory and Needs Assessment identifies pedestrian safety and connectivity challenges across multiple communities, including Fort Bragg. While Noyo Harbor is not directly referenced, the assessment highlights key pedestrian gaps and needs in the Fort Bragg area—especially around coastal corridors and tourist-serving destinations—that are consistent with the context of Noyo Harbor. The report emphasizes the importance of filling sidewalk gaps, improving crossings, and addressing limited pedestrian infrastructure in areas with constrained rights-of-way. These findings reinforce the need for multimodal circulation improvements in and around Noyo Harbor to enhance safe, accessible pedestrian connections, especially in support of tourism, recreation, and local economic activity.

2019 Noyo Harbor Community Sustainability Plan

The Noyo Harbor Community Sustainability Plan (CSP) provides a comprehensive overview of the Harbor’s commercial port and waterfront activities, evaluates critical infrastructure and services, and outlines stakeholder-driven recommendations to support long-term economic, environmental, and social sustainability. The CSP was prepared by the Noyo Harbor District with funding and support from the State Coastal Conservancy. The plan aimed to promote the sustainability of the fishing community and working waterfront by providing a strategic framework to strengthen economic, community, and environmental benefits. The CSP integrates input from a diverse range of stakeholders—including commercial fishermen, charter operators, local businesses, residents, and representatives from the City of Fort Bragg and local non-governmental organizations (NGOs)—gathered through surveys, interviews, and public meetings. The plan’s recommendations are

¹ The City of Fort Bragg also provided the project team with an undated roadway alignment design that shows options for creating an additional roadway connection from the Harbor to Highway 1 at Noyo Point Road. This design predates the 2017 Noyo Harbor Access Plan. The city also provided information related to the easement behind Harbor Lite Lodge. Both documents, titled “Noyo Point Rd Old Plans” and “Harbor Lite Access Easement”, are stored in the city’s archives.

grounded in an assessment of the Harbor’s operational context and are designed to promote the resilience and continuity of Noyo Harbor’s fishing community and working waterfront.

Recommendations included circulation improvements, establishing secondary emergency access to/from the north harbor; and improving parking and access for pedestrians and bicyclists.

2019 Traffic Impact Analysis for Grocery Outlet Store

The proposed Grocery Outlet Store project consists of a 16,000 square foot store located on an approximately 1.6 acre site on the west side of Franklin Street between South Street and North Harbor Drive. Access to the site will be provided via driveways on Franklin Street and on North Harbor Drive. The Traffic Impact Analysis for the proposed store concluded that, while the project would increase vehicle trips and activity near the Noyo Harbor area, particularly at the Franklin Street and North Harbor Drive intersections, it would not significantly degrade traffic operations or safety. The project is expected to generate up to 1,818 new vehicle trips on Saturdays and 1,094 on weekdays (after accounting for pass-by trips), with most access occurring via Franklin Street. While it will add delay at the Main Street/South Street intersection, the level of service (LOS D) remains acceptable under local standards. The study also found that the project would not create significant impacts to pedestrian, bicycle, or transit facilities, and that site access and sight distances are adequate. While the TIA found individual project trips manageable, cumulative growth reinforces the need for proactive circulation planning. Cumulative growth along Highway 1 in Fort Bragg is projected at approximately 10 percent over a 20-year horizon, which will contribute to higher vehicle volumes and reinforce the importance of planning for future operational needs at the Highway 1 and North Harbor Drive intersection.

2022 Mendocino County Regional Transportation Plan & Active Transportation Plan

The 2022 Mendocino County Regional Transportation Plan & Active Transportation Plan (RTP-ATP), prepared by the Mendocino Council of Governments (MCOG), recommends improvements to enhance multimodal safety, access, and connectivity within Noyo Harbor and its immediate surroundings. Key recommendations include creating a one-way vehicle loop to reduce conflicts and improve circulation, adding a secondary emergency access route, and constructing a roundabout or similar intersection control at SR 1/North Harbor Drive/Noyo Point Road. The plan also calls for upgraded pedestrian and bicycle facilities to strengthen connections between the harbor and surrounding areas.

A Sidewalk for North Harbor Drive Presentation

The “A Sidewalk for North Harbor Drive” presentation was a community member presentation given to the Fort Bragg Planning Commission by author Stephen Heckeroth in August of 2024 to advocate for a sidewalk to be installed on North Harbor Drive. The presentation includes images of the existing conditions of North Harbor Drive and diagrams of potential options for acquiring land and installing a sidewalk on four sections of the road.

Engagement Strategy and Process

Various outreach efforts were conducted as part of the Noyo Harbor Multimodal Circulation Plan (MCP) to actively engage local stakeholders and collect meaningful community input. **Table 1** summarizes the various outreach activities carried out to ensure broad and inclusive participation throughout the planning process. These events are discussed in further detail in the Existing Conditions Workshop and Two-Day Charrette sections. See Error! Reference source not found. for more information on outreach.

These events played a key role in informing both the development and future implementation of the MCP, reflecting the community’s significant influence on project direction. All outreach materials were made available in both English and Spanish to maximize accessibility. See **Appendix B. Promotional Material** for more information on materials used to promote community events.

Table 1: Summary of Engagement Activities

	Date	Location	Attendance
Noyo Harbor Festival	September 21, 2024	Old Captain Flint’s Lot	200+ people
Existing Conditions Workshop	October 21, 2024	Noyo Fish Company	15–20 people
Two-Day Charrette	April 14 and 15 2025	Noyo Fish Company	30–40 people

Project Webpage

A dedicated project webpage was launched on the Noyo Ocean Collective site, serving as the central platform for information related to the MCP. It included project scope, planning timelines, details on public meetings, downloadable project documents, and links to surveys.

The webpage was regularly updated throughout the planning process to reflect project progress and encourage ongoing engagement. Key features such as the comment map and travel survey allowed community members to provide input in multiple formats.

The webpage is available at <https://noyooceancollective.org/multimodal-circulation-plan>.



Figure 2: Project Website

Advertisement and Media

Both digital and physical methods were utilized to promote the project at various stages. Online content including graphics, updates, and event announcements was shared in English and Spanish via the project website and stakeholder social media pages. These efforts were bolstered by following and collaborating with key local organizations to increase visibility.



Figure 3: Noyo Harbor Plan Social Media (English and Spanish)

Flyers were distributed at key community locations in the weeks leading up to events, ensuring timely notice for residents. In addition, a press list provided by the Mendocino Council of Governments was used to reach local radio and news outlets. Attendees often cited these sources (radio, flyers, and social media) as how they learned about the events, demonstrating the effectiveness of the outreach approach.



Figure 4: Noyo Circulation Plan Flyers

Survey

A concise, user-friendly survey was created to gather input on transportation needs and priorities in the Noyo Harbor District. Designed to be completed in five to ten minutes (16 questions), the survey encouraged broad participation while minimizing time demands.

The survey was hosted on SurveyMonkey, linked on the project webpage, and circulated through multiple communication channels to maximize reach. Hard copies were also made available at public events, ensuring accessibility for all participants and capturing a diverse range of community perspectives.

NOYO HARBOR MULTIMODAL CIRCULATION PLAN - COMMUNITY SURVEY
For more information about this project, please visit the project website at: <https://noyocoastcollective.org/multimodal-circulation-plan/>

1. GENERAL TRAVEL BEHAVIOR

1. Which zip code do you live in? _____

2. How often do you travel to Noyo Harbor? ☐ Daily ☐ A few times per week ☐ A few times per month ☐ A few times per year ☐ Never

3. In which ways do you travel most often to Noyo Harbor? *Select all that apply.*
☐ Personal Vehicle ☐ Bus ☐ Rideshare
☐ Bicycle ☐ Walk ☐ Other (Please specify): _____

4. What types of activities bring you to Noyo Harbor? *Select all that apply.*
☐ Job ☐ Dining ☐ Sport Fishing
☐ Outdoor Recreation ☐ Retail/Shopping ☐ Lodging
☐ Cultural Heritage ☐ Other (Please specify): _____

5. How often do you attend the events or festivals that are put on in Noyo Harbor?
☐ Regularly ☐ Occasionally ☐ Rarely ☐ Never

2. EXISTING CONDITIONS

6. What transportation challenges do you experience when traveling to Noyo Harbor? *Select all that apply.*
☐ Traffic/Congestion ☐ Lack of sidewalks or walking trails ☐ Lack of transit access (e.g. no bus stop nearby)
☐ Seeding ☐ Lack of bicycle paths or trails ☐ I do not face transportation challenges
☐ Circulation ☐ Lack of accessible parking ☐ Other (Please specify): _____

7. How often do you experience traffic congestion when accessing Noyo Harbor?
☐ Regularly ☐ Occasionally ☐ Rarely ☐ Never

8. How satisfied are you with the conditions of the sidewalks and pathways in Noyo Harbor?
☐ Very satisfied ☐ Somewhat satisfied ☐ Neutral
☐ Somewhat dissatisfied ☐ Very dissatisfied ☐ Other (Please specify): _____

ENCUESTA DEL PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO
Para obtener más información sobre este proyecto, visite el sitio web del proyecto en: <https://noyocoastcollective.org/multimodal-circulation-plan/>

1. COMPORTAMIENTO GENERAL DEL VIAJE

1. ¿En qué código postal vives? _____

2. ¿Con qué frecuencia viajas al Puerto de Noyo? ☐ Diario ☐ Pocas veces a la semana ☐ Pocas veces al mes ☐ Pocas veces al año ☐ Nunca

3. ¿Cómo viajas más frecuentemente al Puerto de Noyo? *Selecciona todas las opciones que apliquen.*
☐ Vehículo Personal ☐ Autobús ☐ Viaje Compartido
☐ Biciclista ☐ A pie ☐ Otro (por favor especifica): _____

4. ¿Qué actividades te traen al Puerto de Noyo? *Selecciona todas las opciones que apliquen.*
☐ Trabajo ☐ Gastronomía ☐ Pesca Deportiva
☐ Recreación al Aire Libre ☐ Compras ☐ Alojamiento
☐ Patrimonio Cultural ☐ Otro (por favor especifica): _____

5. ¿Con qué frecuencia asistes a los eventos o festivales en el Puerto de Noyo?
☐ Regularmente ☐ Ocasionalmente ☐ Raramente ☐ Nunca

2. CONDICIONES EXISTENTES

6. ¿Qué problemas de transporte enfrentas al viajar al Puerto de Noyo? *Selecciona todas las opciones que apliquen.*
☐ Tráfico ☐ Falta de aceras o senderos para peatones ☐ Falta de acceso al transporte público (por ejemplo, falta de paradas de autobús cercanas)
☐ Exceso de Velocidad ☐ Falta de carriles o senderos para bicicletas ☐ No enfrenta problemas de transporte
☐ Problemas de Circulación ☐ Falta de estacionamiento accesible ☐ Otro (por favor especifica): _____

7. ¿Con qué frecuencia experimentas congestión de tráfico en el Puerto de Noyo?
☐ Regularmente ☐ Ocasionalmente ☐ Raramente ☐ Nunca

Figure 5: Project Survey Printout (English and Spanish)

Technical Advisory Group

With support from MCOG, appropriate representatives were identified to serve on a Technical Advisory Group (TAG) to inform the study. The TAG included representatives from agencies such as: Noyo Harbor District, Mendocino Transit Authority, Sherwood Valley Band of Pomo, City of Fort Bragg, County of Mendocino, MCOG, Caltrans, and others as noted in Error! Reference source not found. below. The TAG met roughly once a month to offer feedback on the plan's progress and guidance on next steps. Although a formal representative from the Sherwood Valley Band of Pomo was not selected at the time of the TAG's formation, tribal members did participate in TAG discussions, and their input and suggestions are reflected in the project recommendations throughout this report.

Table 2: Technical Advisory Group Members

Agency	Representative
Caltrans Planning – District 1	Tatiana Ahlstrand
Caltrans Planning – District 1	Eric Brunton
Caltrans Planning – District 1	Joseph Caminiti
Caltrans Planning – District 1	Brett Gronemeyer
Caltrans Planning – District 1	Paul Hailey
Caltrans Planning – District 1	Alexis Kelso
Caltrans Planning – District 1	Andreas Krause
Caltrans Planning – District 1	Michael Lydon
Caltrans Planning – District 1	Cassie Nichols
Caltrans Planning – District 1	Joben Penuliar
Caltrans Planning – District 1	Colin Rice
City of Fort Bragg	Sarah McCormick*
City of Fort Bragg	Chantell O'Neal
Mendocino Council of Governments Administration	Nephele Barrett
Mendocino Council of Governments Planning	Loretta Ellard
Mendocino County Department of Transportation	Alicia Winokur
Mendocino County Department of Transportation	Jason Wise
Mendocino Transit Authority	Jacob King
Noyo Harbor District	Anna Neumann*
Noyo Fish Company	Scott Hockett
Sherwood Valley Tribe	Hazel Ramirez**
Sherwood Valley Tribe	Valerie Stanley**
Sherwood Valley Tribe	Javier Silva*
Sherwood Valley Tribe	Bernadette Rafanan **

*TAG members interviewed during stakeholder meetings.

**TAG members that did not attend meetings

Stakeholder Interviews:

City of Fort Bragg

JULY 19TH, 2024

City staff emphasized the need for renewed investment in Noyo Harbor, highlighting its importance to Fort Bragg and the growing interest in the blue economy². Staff underscored the value of collaboration and commended Anna Neumann’s leadership and success in securing funding, encouraging continued partnerships with organizations such as the Noyo Center for Marine Science and the West Development Center. Staff shared some concerns about previous planning proposals, including the one-way street concept, and expressed support for practical, community-informed projects such as the harbor walkway. Staff also noted the deteriorating condition of the stairway³, originally owned by the Mendocino Land Trust and now under City ownership, and suggested it be rebuilt to improve pedestrian safety and maintain required public access. Staff acknowledged the importance of ongoing sea level rise studies and encouraged coordination with key stakeholders, including the tribe and local property owners. Staff offered their support as an advocate for the project moving forward.

Harbor District

OCTOBER 22ND, 2024

The Harbor District provided detailed feedback during the Existing Conditions Workshop and during the interview on October 22nd. They are supportive of a Y-shaped stairway under the bridge, especially if it connects to the Cypress parking lot (located on the west side of Highway 1, down W Cypress St.) and the existing path parallel to Highway 1. While they are supportive of improved circulation, they believe any road extension should be for emergency access only, emphasizing the need for a secondary egress point near the beach due to flooding concerns. The Harbor District supports a roundabout, but only if North Harbor Drive remains two-way.

Parking and transit challenges were also key concerns. The Harbor District highlighted the limited parking options at the top of the harbor and suggested alternatives such as a water taxi operating between the south and north harbor using existing docks. They support clearing brush instead of widening North Harbor Drive and are in favor of a multi-use path connecting to and through the harbor, with appropriate crossings to improve pedestrian connectivity. They also support efforts to make better use of existing private parking areas. While recognizing sea level rise as a factor, they pointed out that land in the harbor is rising faster than the sea and recommended the project team align with city and county studies. The Harbor District noted that a drawbridge between the harbor sides is not feasible due to frequent boat traffic and Coast Guard operations.

² The blue economy encompasses both traditional ocean-based industries like fishing and shipping, as well as emerging sectors such as aquaculture, renewable energy, and marine biotechnology—all aimed at driving sustainable economic growth, supporting livelihoods, and preserving ocean health through responsible use of marine resources and data-driven innovation. <https://noyooceancollective.org/blue-economy/>

³ The stairwell was improved in June/July of 2025 in anticipation of the 4th of July Salmon BBQ but continues to suffer from poor visibility, wayfinding and accessibility.

Harbor Lite Lodge

OCTOBER 22ND, 2024

The Harbor Lite Lodge expressed strong support for improving pedestrian access into and through Noyo Harbor, particularly through enhancements to the existing stairway adjacent to the lodge. The stairs are frequently used by both locals and hotel guests, and the Lodge actively encourages guests to use them rather than walking along North Harbor Drive. The Lodge supports the idea of a “Y” stairway configuration—one leg connecting directly to the Harbor Lite Lodge and another offering public access from the road on the west side—ensuring both private guest use and easier public access. While the stairs are jointly maintained by the lodge and the city, recent maintenance was done with materials donated by the Skunk Train. The Lodge also noted existing issues with people camping under the bridge.

Regarding circulation improvements, the Lodge supports a one-way access system into the harbor and is open to a road extension, provided it remains one-

way to encourage visits to the harbor rather than bypassing it for the beach. They also support the installation of a roundabout with crosswalks to improve pedestrian safety, especially for hotel guests crossing to the nearby restaurant. The Lodge favors adding a walkway in the harbor and a multi-use path into the harbor to improve pedestrian access. They also mentioned the importance of planning around key community events like the July 4th Salmon BBQ and fireworks, which significantly affect harbor traffic and access.



Figure 6: Salmon BBQ, July 2025

Harbor Business Owner

OCTOBER 21ST, 2024

During the Existing Conditions Workshop, project staff had an informal conversation with a harbor business owner, and their input was recorded on a comment card. The business owner expressed support for low-impact improvements to enhance safety and access in Noyo Harbor. They recommended adding edge lines to better define the roadway and suggested creating an informal walkway with improved drainage rather than building formal sidewalks. They also supported the idea of a roundabout at the Highway 1/North Harbor Drive intersection and emphasized the need for defined loading zones for morning deliveries to Sea Pal Cove. For parking, they suggested formalizing layouts using temporary materials like fire hoses. Additionally, the business owner proposed using e-bikes to help people travel between the upper parking areas and the harbor.

Local Resident

SEPTEMBER 30TH, 2024

The local resident primarily walks to and through Noyo Harbor but occasionally drives in bad weather or when accompanied by family. They expressed concerns about public access through property owned by tribal members, citing issues with trespassing, loitering, and camping, especially from nearby hotel guests. While supportive of emergency services and Fish and Wildlife using these access points, they are not in favor of opening land owned by tribal members to expanded public circulation, such as bike or pedestrian pathways, particularly along the bluff.

The local resident is supportive of certain infrastructure improvements, including a potential roundabout to ease traffic congestion during peak tourist times, though they would want to review its design. They prefer enhancements that minimize infrastructure impacts, such as expanding existing gravel areas for walking rather than formal sidewalks and supports adding signage to direct people to trail access points. They support reducing vehicle trips into the harbor through options like a small, free shuttle.

Noyo Harbor Festival

The project team participated in the existing Noyo Harbor Festival on September 21, 2024, hosted by the Noyo Harbor District. Held at the old Captain Flint's Lot on North Harbor Drive, the event featured local crafts, food, and beverages. The project booth, operated by Green DOT and placed near the festival entrance, ensured high visibility.

To incentivize participation, attendees could spin a prize wheel after completing a survey or comment card. This approach proved highly



Figure 7: Noyo Harbor Festival

successful, generating over 80 responses and engaging a broad cross-section of the community. For an analysis of the survey results please see Section 3 Public Participation Data and Analysis. The event drew more than 200 attendees, including Fort Bragg residents, Harbor business owners, people from the fishing industry, and tourists. Outreach for the event included flyers, social media posts, website updates, and media promotions.

Existing Conditions Workshop

An in-person workshop was held on October 21, 2024 from 9am–3pm at the Noyo Fish Company. The goal of the workshop was to understand current conditions; reach consensus on project goals and objectives; and ideate on potential recommendations. The outdoor venue, located at the harbor entrance, was generously donated for the event. Promotion was conducted through flyering, online platforms, and local media.



Figure 8: Existing Conditions Workshop

The workshop began with an overview of the study’s purpose to develop a multimodal circulation plan that improves access to and through Noyo Harbor. The project team then explained the workshop’s goal: to hear from the community about existing conditions, transportation barriers, and potential opportunities. Approximately 15–20 people attended, including elected officials, business owners, members of the fishing industry, and other community members. The primary focus was to understand existing conditions from the community’s perspective and identify short- and long-term priorities. The event featured two guided walking tours, which allowed participants to provide real-time input on specific locations. Attendees also shared feedback through maps, exhibits, sign-in sheets, and comment cards, offering both quantitative and qualitative insights.

Key issues and concerns identified in this workshop are discussed below in the Existing Challenges section.

Promotion

In addition to the outreach described in the Engagement Strategy section, the TAG and project team were invited to participate in the workshop along with the additional stakeholders listed in **Table 3**.

Table 3: Invited Stakeholders

Noyo Harbor Stakeholders	Noyo Harbor Stakeholders
Noyo Harbor	Coast Chamber of Commerce
Noyo Harbor Commission	Visit Mendocino
Noyo Harbor Businesses	News Media
Noyo Harbor Tours	MendoVoice
All Aboard Adventures	Mendofever
Noyo Harbor Inn	Fort Bragg Advocate News
Additional Co. of Mendocino	KZYX Radio
Mendo. County CEO	KNYO Radio
Office of Emer. Services	KOZT Radio
Planning & Building Dept.	K-WINE Radio
Law Enforcement	Elected Legislative Officials
Mendocino County Sheriff	State Congressman
CHP	State Senator
Police Department	State Assemblymember
Police Department	Fort Bragg Mayor
Fire/EMS	Co. Supervisor (Ft Bragg area)
CalFire	Miscellaneous
EMS	GrassRoots Institute
Redwood Coast Fire Protection District	Blue Zones Project Mendo Co.
Coast Life Support District	Mendo Coast Rec & Park Dist.
Fort Bragg Rural Fire Dist.	Noyo Center for Marine Science
Tourism	

Existing Challenges

Emergency Access

Emergency access has been a discussion around the Harbor area for many years. Concerns are mainly tsunami risk, but floods, fire and other threats exist as well. North Harbor Drive provides the only access to the Harbor from Highway 1 at the northeast quarter of the Noyo Bridge. The roadway winds down to the Harbor and dead ends at the beach just under and west of the bridge. There is an old access road which winds up the northwest side of the bridge that is gated. This roadway is used by local law enforcement and other agencies during special events but is largely on private property. The owners were engaged in discussions with the project team regarding opening this up to public access to improve circulation through the Harbor. The Technical Advisory Group concluded that use of this roadway for emergency access and special event traffic addresses most of the concerns raised about a single way in and out of the Harbor and that relative to improvements to safety, walkability and non-auto access to the Harbor, a second fulltime roadway access was not a priority. The Technical Advisory Group for the project concluded that the study focus would be on improving circulation and mobility for vehicles and people within the Harbor and continue using the existing primary access with improvements to parking, circulation, pedestrian and bicycle infrastructure.

Pedestrian and Bicycle Mobility Constraints

There are two main challenges for bicyclists and pedestrians in the Harbor area; access to and from the Harbor and mobility and safety within the Harbor.

There are three points of access for pedestrians from Highway 1 and the Fort Bragg community. The first along North Harbor Drive provides access from Highway 1 via a steep and narrow two lane roadway with 10–11 foot lanes and no shoulder. The majority of the roadway section has a striped center line and no edge line. This leaves no room for bicyclists and pedestrians to navigate comfortably into and out of the Harbor via North Harbor Drive. During observations and supported by community input, many bicycle and pedestrian users still use North Harbor Drive for access. A previous study completed in 2017 examined the feasibility of constructing a structured pedestrian walkway along the hillside of North Harbor Drive, highlighting the long-standing recognition of this access challenge.



Figure 11. North Harbor Drive coming into the Harbor

The second point of access is walking access from Highway 1 via North Harbor Drive and Casa Del Noyo Road to the Noyo Harbor Inn. From there and through the Noyo Harbor Inn property, a staircase leads down to the main Harbor commercial area. Though this access point is convenient, it is obscure and not ADA compliant.

The third point of access is the wooden staircase coming through the Harbor Lite Lodge property. This is a dilapidated staircase leading from the northeast corner of the Highway 1 bridge immediately underneath the bridge down to North Harbor Drive. Recent repairs have been made and this staircase is still being used by some pedestrians but is difficult to find, especially from the top, is not ADA accessible, and is a liability concern for the City of Fort Bragg.

In the busy commercial area at Harbor level, there are no bicycle and pedestrian facilities for these vulnerable users. Additionally, unpredictable vehicle turning and parking movements are uncomfortable for walkers and cyclists. While we did not complete a Level of Traffic Stress analysis, the lack of existing facilities for pedestrians and bicyclists are qualitatively consistent with high level of traffic stress. The conditions do not encourage people to walk or bike in the project area, especially for people new to the area. The goal of the project is to make walking and biking to and within Noyo Harbor a comfortable and inviting experience and the projects reflected in this report will support that.

Transit

There is currently no public transit access in the Harbor area. The closest transit stop is on Cypress Street to the north of the harbor 1 mile away and served by route 5 and at Boatyard Drive 3 miles away which is served by transit routes 5, 65, and 60. These primary routes include: Route 5 (BraggAbout), a local circulator within Fort Bragg; Route 65 (CC Rider), which connects from inland via State Route 20; and Route 60 (The Coaster), which provides coastal service along State Route 1.

The current transit stop locations are an inconvenient distance from the Harbor and untenable for mobility challenged users. In addition to fixed routes, MTA operates a Dial-A-Ride service that functions on weekdays from 8:00 AM to 6:00 PM and on Saturdays from 10:00 AM to 5:00 PM, offering flexible transportation options for residents and visitors who schedule rides in advance.

The lack of transit access to the Harbor isolates certain users from accessing the Harbor amenities.

Connectivity

Existing challenges in the Harbor include a lack of adequate and protected bicycle and pedestrian access both to and through the area, which makes it difficult for residents and visitors to comfortably move without a vehicle. Sidewalks and walkways are either missing or inconsistent, creating safety risks and discouraging walking and biking. Conflicts among motorized and non-motorized transportation modes, such as large trucks, passenger vehicles, cyclists, and pedestrians, are common as they all share the same narrow roadway on North Harbor Drive with limited separation. Circulation within the Harbor is further constrained by limited roadway width, one-way circulation, and areas of informal parking.

At the intersection of Highway 1 and North Harbor Drive, the current layout creates additional circulation challenges. North Harbor Drive functions as a single point of entry and exit for all vehicles, which concentrates traffic at this intersection and limits routing options. Historically, left turns from North Harbor Drive onto Highway 1 have been restricted due to high traffic volumes and speeds on the highway. During field observations drivers were seen making left turns, often using small gaps in traffic. This behavior reflects both the constrained access and the lack of alternate routes. The intersection also lacks dedicated pedestrian facilities, leaving pedestrians to navigate across Highway 1 in an environment dominated by fast moving traffic.

During the Existing Conditions Workshop community members expressed strong interest in addressing these issues to improve multimodal access, safety, and connectivity. By far, the most frequent requests were for safe and comfortable pedestrian facilities in the Harbor and connecting to the Harbor, with attendees favoring a less formal walkway design that could evolve through community engagement. Concerns around parking confusion led to calls for formalized layouts and added off-street parking, while additional wayfinding signage, especially around the Noyo Harbor Inn, was recommended to improve navigation.

To improve connectivity, ideas arose like a water taxi service to reduce vehicle congestion during events received interest, as did a potential road extension, with stakeholder preference leaning toward emergency or non-vehicular access only. Finally, there was general community support for a roundabout, with further design refinement planned through future engagement.

Project Ideas

The Existing Conditions Workshop identified a range of project concepts to address transportation challenges in Noyo Harbor. Key themes included improving pedestrian access with walkways and crosswalks, enhancing safety and circulation through parking management and wayfinding, and expanding transportation options via water taxis and extended bus service. Participants also supported improving coastal access through a stairway and emergency access road, and voiced interest in long-term intersection improvements such as a roundabout or traffic signal at Highway 1 @ North Harbor Drive. The full detailed list of projects is discussed in the report section **Project Recommendations**.



CAITO FISHERIES

Survey Data

The Noyo Harbor survey responses (n=164) demonstrate strong community support for pedestrian and bicycle infrastructure improvements, with significant concerns about safety and accessibility. Notably, qualitative and quantitative feedback reinforce the need for multimodal improvements in the harbor area.

The quantitative data from the Noyo Harbor survey revealed that nearly all (94%) of visitors selected that they often travel by personal vehicle, suggesting a transportation system that has evolved to primarily serve one mode effectively, while disincentivizing other modes like walking (16%) and cycling (6%). Responses also show that the lack of sidewalks and walking trails (cited by 64% of respondents) and traffic and congestion (60% of respondents) are key transportation challenges of the infrastructure system, highlighting a system operating beyond its intended capacity and perpetuating uncomfortable travel conditions for pedestrians and cyclists. These challenges are consistent with respondents' priorities and desired transportation improvements, with strong support for walking and bicycling improvements to both existing gaps and the potential for safer, more accessible travel options within the Harbor, reflecting a community vision that prioritizes walkability and sustainable mobility within the harbor area.

The open-ended survey responses and written comments provide qualitative insights that complement the quantitative data, roughly divided into three categories of concern: Infrastructure Safety Concerns, Parking and Circulation Issues, and Emergency Access and Evacuation. Respondents shared similar concerns to those found in the quantitative data around pedestrian and bicycle safety and further emphasized concerns around parking and traffic flow problems, especially during tourist seasons and emergency situations. You can find more information on survey response data in **Appendix C. Summary of Survey Responses**.

Analysis

Connectivity

Currently the only mode of transportation supported by existing infrastructure is automobiles. North Harbor Drive has a 2-lane roadway from Highway 1 into the Harbor area with turn arounds at the beach parking terminus. The roadway is operationally sufficient for the vehicle traffic entering and exiting the Harbor. While roadway cross-section is often limited, in one location to just 20 feet for both directions of travel, truck circulation was observed to be adequate. Trucks are able to turn around at the roadway terminus at the beach access under the bridge and were also observed turning around within the core commercial district of the Harbor. Analysis of the available space for vehicles shows that the combination of three of the recommended projects will improve vehicle connectivity and operations. These include parking organization, pedestrian facility improvements, and wayfinding.

Additional steps can be taken beyond the roadway and pedestrian facility improvements to balance the mobility and access in and through Noyo Harbor. The project team found a number of recreational users, particularly at the public boat launching facility across the Harbor on South Harbor Drive, would more readily access restaurants and businesses within the North Harbor area if they had access across the short distance of the harbor waterway dividing the two sides. This could be accomplished with a water taxi. Analysis also showed that public transit access into the Harbor might be a valuable piece of the mobility puzzle. Supporting data also comes from ridership success during special events when users are encouraged to park on the south side of the Harbor and take a shuttle bus into the North Harbor area. Both the water taxi and regular transit service into the Harbor are recommended in the project section to be tested through pilot projects to confirm success before more permanent implementation.

In addition to these circulation considerations, an analysis of the intersection of Highway 1 and North Harbor Drive found a clear need for improvements to support pedestrians crossing the highway. Without a full road extension creating additional circulation, the need for larger scale improvement such as a roundabout or traffic signal became a lesser priority. The intersection does not have a recent collision history, and community input did not show strong support for major improvements like a roundabout or a traffic signal. The Technical Advisory Group discussions reinforced this perspective, noting that retaining a single access to the Harbor during normal operations and reimagining the improved roadway on the west side of Highway 1 as an emergency access route reduced the priority for a roundabout or signal at this location. Both the community and Technical Advisory Group consistently emphasized the importance of improving pedestrian safety. A shorter-term solution is therefore recommended that focuses on pedestrian access, including installation of a Pedestrian Hybrid Beacon to assist with crossing Highway 1 and reinstating the prohibition on left turns out of the Harbor.

Traffic Operations at Noyo Harbor Access Intersection with Highway 1

As part of the broader connectivity and circulation analysis, traffic operations analysis of the main access intersection was conducted. As noted elsewhere in this report, there was consideration to

modify the broader circulation pattern within the Harbor to include two ways in/out including a new roadway coming up from the beach access parking area to form a west leg of the subject intersection. That concept was not analyzed since it was eliminated due to other considerations.

Appendix E presents detailed traffic operations analysis calculations for the intersection of Highway 1 and North Harbor Drive. The appendix contains Synchro and SIDRA modeling outputs for existing (2024) and future (2044) scenarios during AM and PM peak periods. Both signalized and roundabout control alternatives were evaluated. While the analysis focuses on intersection performance using Level of Service (LOS) to measure delay and operational efficiency, it is important to recognize that State policy under Senate Bill 743 shifts the emphasis from delay-based metrics toward Vehicle Miles Traveled (VMT) as a measure of environmental impact and Caltrans new practices on intersection control, documented in *Intersection Safety and Operational Assessment Process* (ISOAP, September 2024), shifts performance considerations toward traffic safety.

In this context, the Highway 1 intersection with North Harbor Drive was analyzed for conditions with a new signal and roundabout (single lane and multilane). These, along with Existing Conditions with side street stop control, are presented below. The summary conclusion of this traffic operations analysis is that the signal or multilane roundabout would best meet current and 20-year traffic demand. But as noted above, traffic operations is one of several factors considered in determining appropriate traffic control and it is worth noting that the single lane roundabout would likely have the best traffic safety outcomes.

Existing Conditions

Level of service of the current unsignalized intersection with side street stop control indicates that the intersection functions with low average delays for the uncontrolled movements on Highway 1 and longer delays for the side street stop westbound left-turn from North Harbor Drive to southbound Highway 1. This movement operates with over 40 seconds of delay in the AM (LOS E) and over two minutes of delay in the PM (LOS F). Observations made during data collection note that side street left-turn movements from North Harbor Drive to southbound Highway 1 were observed accepting small gaps in traffic, which often occurs where there are longer delays.

Three options were reviewed for potential improvements:

- If left-turns eastbound and westbound out of North Harbor Drive and the driveway for the North Cliff Hotel were restricted through the installation of a median in Highway 1, traffic operations would improve to LOS B in both peak hours.
- If the intersection were signalized, LOS would improve to LOS A in both peak hours, but it is worth noting that the movements with the highest traffic flows, the through movements north and south on Highway 1, would experience more delay with a signal than under current conditions.
- If the intersection were converted to a roundabout, it would operate at LOS B and E in the AM and PM peak hours, respectively as a single lane roundabout. As a multilane roundabout, the intersection would operate at LOS A during both peak periods. As with a signal, delays for through movements on Highway 1 would increase with a roundabout.

Future Conditions

Year 2044 volumes were developed using a 10 percent growth factor and this analysis is described in **Appendix E**. If the Highway 1 at North Harbor Drive intersection remains side street stop controlled in

2044, delays for the westbound left-turn movement from North Harbor Drive to southbound Highway 1 would continue to grow substantially and intersection operations would degrade to LOS F in both peak hours. As with Existing, movements on Highway 1, with the largest demands, would experience no delay while turns from North Harbor Drive and from Highway 1 to North Harbor Drive would experience increasing levels of delay.

As with Existing, three potential improvements were considered.

- If left-turns eastbound and westbound out of North Harbor Drive and the driveway for the North Cliff Hotel were restricted, traffic operations would improve to LOS B and C in the AM and PM peak hours, respectively.
- Again, as with Existing Conditions, if the intersection were signalized, the intersection would improve to LOS A even though through movements on Highway 1 would incur increased delay.
- If the intersection were converted to a single lane roundabout it would operate at LOS B and F in the AM and PM peak hours, respectively. As a multilane roundabout, it would operate at LOS A during both peak hours.

Pedestrian and Bicycle Mobility

As we examined the current conditions for bicyclists and pedestrians in the Harbor project area and identified mitigation and improvement projects, we considered the available space for all users. This included automobiles, delivery trucks, bicyclists and pedestrians. The circulation of automobiles and delivery trucks is covered in the connectivity and vehicle circulation sections.

Walkway into Noyo Harbor

Access to and from the Harbor is inconvenient and may be uncomfortable for bicyclists and pedestrians. During traffic count observations in October 2024, 11 pedestrians were counted heading into the Harbor area during the AM count period and 9 heading in or out of the Harbor area in the PM count period. Additionally, qualitative observations and interviews revealed a relatively high number of users on North Harbor Drive, both bicyclists and pedestrians, on a regular basis. Notwithstanding developing facilities that attract new users to the Harbor area, observations and community input supported a continuous Walkway into Noyo Harbor. Due to topographic and right of way constraints, it was determined that a bike facility up and down the North Harbor Drive hill is impractical but there are opportunities on the western end of the Harbor, near the beach access parking, to tie into the Coastal Trail with connections along the oceanfront and up to the Highway 1 intersection with North Harbor Drive.

Walkway Through Noyo Harbor

Field observations, stakeholder and community input revealed busy pedestrian activity throughout each day within Noyo Harbor commercial/retail core and to the beach access at the western terminus of North Harbor Drive. There are no pedestrian facilities in this area. Discussions with business owners, stakeholders, community members and users reveal the desire for pedestrian access to the businesses throughout the Harbor area. The existing right of way widths support improvements that would accommodate vehicular traffic, parking and a pedestrian walkway. The proposed project described in the recommendations section was developed to support walking throughout the entire Harbor area. This includes existing users as well as attracting new pedestrian users to the Harbor area.

Stairway Under Highway 1

From the northeast corner of Highway 1 bridge over Noyo Harbor, a substandard, meandering wooden stairway exists. Replacement of the old staircase with a more direct, easy-to-access, ADA accessible stairwell with adjacent ramps was a high priority for the Technical Working Group as it would dramatically improve pedestrian access to the Harbor. Not only would this new connection replace the current meandering stairwell traveling through the Harbor Lite Lodge, it would also provide access to the west side of Highway 1 where the North Cliff Hotel is located and connect to the Coastal Trail.

Wayfinding

Wayfinding plays a critical role in attracting visitors and communicating information for a destination area. Noyo Harbor is significantly lacking informational, directional, and guide signs into and throughout the Harbor area. There is only one example of a wayfinding sign in the area, which is the crumbling entry sign into Noyo Harbor. Wayfinding is particularly important in the Harbor as the bend in the roadway obscures drivers' view of much of the Harbor activities and it is not clear to those unfamiliar with the area that there is a parking lot and vehicle turn around at the end of the road (at the beach access).

Bus Transit

Public transit is currently unavailable within Noyo Harbor, and the nearest transit stops are located about 1 mile away, which is roughly a 30 minute walk from most Harbor destinations including businesses, restaurants, and recreational areas. This distance limits transit as a practical option for workers, seniors, transit dependent users, and visitors without vehicles. The lack of pedestrian and bicycle facilities connecting the Harbor to these stops further reduces safe and comfortable access. One of the primary goals of this study is to improve mobility, and transit is a critical part of that foundation. As part of the study, the project team analyzed existing routes, schedules, and funding considerations to identify opportunities for improving transit access into the Harbor.



Two Day Charrette

The two-day Charrette was held at Noyo Fish Company in Noyo Harbor on April 14th and 15th, 2025. The charrette ran from 11am–6:30pm on the 14th and from 9am–7pm on the 15th. The goal of the charrette was to summarize what we have heard through stakeholder engagement and outreach; describe analysis and considerations to date; present initial information on feasibility and cost of items; and request feedback and prioritization on initial recommendations. Approximately 30–40 attendees participated over the two days, including local stakeholders, elected officials, tribal members, business owners, and residents. In addition to the outreach described in the Engagement Strategy section, the TAG and project team were invited to participate in the charrette along with the additional stakeholders listed in **Table 3**.

The two-day charrette was held in an open-house format, allowing attendees to drop in at their convenience. A published schedule focused discussion on specific project elements, allowing targeted feedback and attendance.

Schedule – April 14 th	
11-11:30am	Orientation & Overview
11:30am-12:30pm	Cantilevered Walkway along North Harbor Drive & Staircase Under Highway 1 Bridge - Consultant available to dive deep & sketch out design ideas (possible site walks)
1:30-2pm	Cantilevered Walkway along North Harbor Drive & Staircase Under Highway 1 Bridge (cont.)
2-3pm	Walkway through Harbor - Consultant available to dive deep & sketch out design ideas (possible site walks)
3-5pm	Formalize and Redesign Parking & Improved Wayfinding - Consultant available to dive deep & sketch out design ideas (possible site walks)
5-6pm	Transit (Buses & Water Taxi) - Consultant available to dive deep & sketch out design ideas (possible site walks)

Figure 12: Charrette “Run of Show” – April 14th

Draft Project List

Each day started with an orientation to the space and overview of the process to date, including the Existing Conditions Workshop. This continued throughout the day whenever a new stakeholder arrived. The charrette took attendees through each of the project ideas from the Existing Conditions Workshop in detail, including a walk to the project site to discuss challenges and opportunities in real time. Day one included a deep dive into the structured walkway along North Harbor Drive and staircase under the Highway 1 bridge, walkway through the harbor, parking redesign and wayfinding, and transit (buses and water taxis). Day two included a deep dive into the possible road extension and roundabout, a continuation of the walkway through the harbor, and an initial summary before breaking for lunch.

Similar to the Existing Conditions Workshop, the Charrette also engaged stakeholders through posters, including one assessing interest in different treatment options for the intersection of Highway 1 and North Harbor Drive. For other potential projects, real time sketching on scaled aerials gave community members a chance to provide additional input and see how solutions might be put into place.

Community Presentation and Final List of Projects

On the second day, the project team synthesized community feedback on each project component into a final presentation, which drew about 20 attendees. The presentation generated in-depth discussion on priorities and feasibility, helping to solidify community-driven recommendations for the Plan. The full detailed list of projects is discussed in the report section **Project Recommendations**.

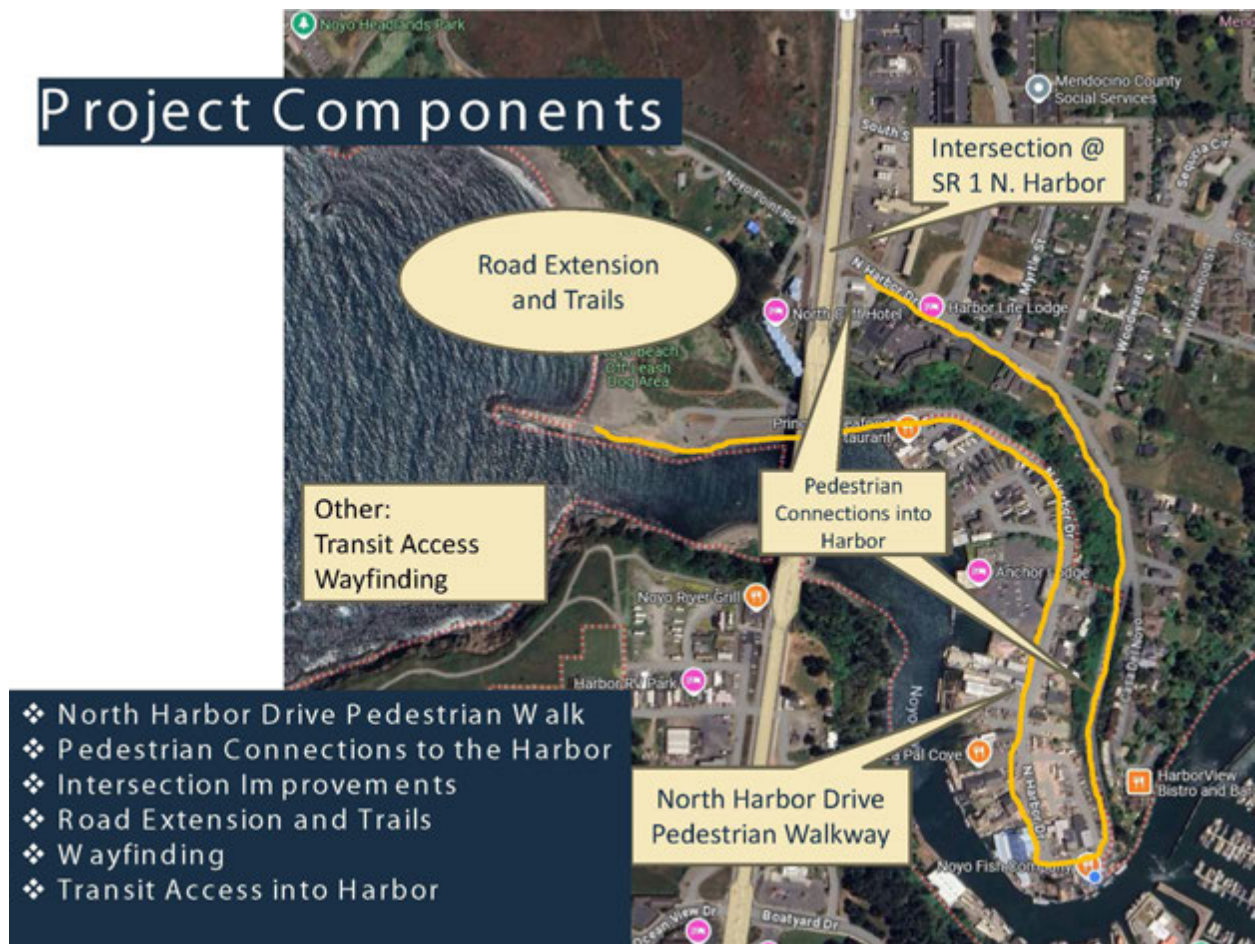


Figure 13: Charrette Final Presentation



Figure 14: Charrette Presentation Attendance

Project Recommendations

Following the Two-Day Workshop, the TAG and project team reconvened on Tuesday May 6th and Tuesday June 3rd, 2025 to review the full list of draft project recommendations generated through community input and on-site engagement. The group carefully evaluated each concept based on feasibility, alignment with community priorities, safety and access benefits, and consistency with broader planning goals. Through this collaborative process, the group provided detailed feedback, refined the language and scope of certain projects, and reached consensus on which concepts to advance. All work completed in the Harbor should also align with the recommendations outlined in the Sea Level Rise Study (Blue Economy and Climate Resilience Plan) to ensure consistency with ongoing climate adaptation and resilience planning efforts. The result is a final list of recommended projects that reflects both community vision and technical considerations, as outlined below.

List of Project Recommendations

This section outlines the list of project recommendations with implementing agencies, preliminary cost estimates, available funding sources, and implementation plan and schedule.

NOYO HARBOR MULTIMODAL CIRCULATION PLAN

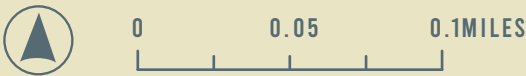


FIGURE 14: PROJECT MAP



Estimated Project Timelines

Short-term <5 years

Mid-term 5–10 years

Long-term >10 years

Opportunistic (when a funding opportunity presents itself)

*These timelines are listed in **Table 4** below.*

Table 4: Noyo Harbor Project Summary

Project Number	Project Name	Lead Agency	Funding Sources	Priority Level	Cost Estimate*
1	Wayfinding	Harbor District	Harbor District (some existing funding)	Short-term	\$30K**
2	Bus Routes	Mendocino Transit Authority / Harbor District	Federal Transit Administration 5311, Federal Transit Administration 5339b Pilot Program, Transportation Development Act (State Transit Assistance)	Short-term	\$172K**
3	Stairway under Highway 1	City of Fort Bragg (with Caltrans coordination)	Highway Safety Improvement Program, Prop 4 (Coastal Conservancy), California Transportation Commission Active Transportation Program, Evacuation funds	Mid-term	\$2.6M**
4	Water Taxis	Harbor District	FTA Section 5311 funding Private funding	Mid-term	Soft Costs: Up to \$100K Capital Costs: \$10K – \$25K

5 (A&B)	Walkway through Harbor	Harbor District	Highway Safety Improvement Program and California Transportation Commission Active Transportation Program	Mid-term	Walkway through Harbor: \$1.7M** Structured Walkway over Water: \$528K** Parking Restriping: \$173K**
***	Parking Management	Harbor District	Private funding	Short-term	\$10K – \$25K
6	Walkway into Harbor	City of Fort Bragg	Highway Safety Improvement Program, California Transportation Commission Active Transportation Program, Reconnecting Communities	Opportunistic	Walkway into Harbor: \$890** Structured Walkway on Hillside: \$938K**
7	Emergency Access Extension and Coastal Trail Connection	City of Fort Bragg	Prop 4 (Coastal Conservancy), Ocean Protection Council, Tribal Restoration (North Coast Resource Partnership)	Opportunistic / Short-term	\$1M**
8	Intersection Improvements at Highway 1 and North Harbor Drive	Caltrans	Regional Transportation Improvement Program, Highway Safety Improvement Program, State Highway Operations Protection Program	Short-term (initial), Long-term (roundabout/signal)	Short-term: \$599K** Long-term: \$3.9M (traffic signal), \$4.5M (roundabout)*

* Cost estimates are provided in 2025 dollars, however contingencies were applied based on the estimated timeline for completion, as shown in **Appendix F**.

** Projects include detailed cost estimates, located in **Appendix F**.

***Project not included in Figure 14: Project Map.

Wayfinding

Project Description

This project proposes the design and installation of a comprehensive wayfinding system throughout Noyo Harbor. The system would include destination signage to guide visitors to key locations such as hotels, restaurants, restrooms, and beach access; vehicle signage to direct drivers to the parking and turnaround point at the end of North Harbor Drive; and interpretive signage highlighting the harbor's rich history, including its indigenous heritage, fishing industry, and logging legacy. Together, these elements aim to improve navigation, visitor experience, and cultural awareness throughout the harbor.



Figure 16: Existing Wayfinding on North Harbor Drive

Vehicles

Currently, Noyo Harbor suffers from a lack of wayfinding. The area contains minimal directional signage, with only basic pedestrian safety warnings present along North Harbor Drive. Visitors and residents face significant challenges in navigating to and within the harbor area due to the absence of clear, consistent directional indicators. The existing signage is primarily focused on safety messaging rather than providing navigation assistance, leaving users without adequate guidance to locate specific destinations, services, or amenities within the harbor.

The current lack of clear vehicular directional signage creates confusion for drivers seeking parking areas or attempting to navigate the harbor. Vehicle wayfinding signage must account for the Harbor's unique physical constraints, including the dead-end configuration of North Harbor Drive and limited

turn-around space at the waterfront. Clear signage should direct drivers to available parking areas and inform them that a designated turn-around is located at the end of North Harbor Drive. In addition, emergency evacuation signage should be installed to clearly guide drivers and pedestrians toward the evacuation route that begins at the end of North Harbor Drive and ascends the hill to reconnect with Highway 1. These improvements would help reduce traffic congestion, avoid confusion, and minimize conflicts between vehicles and pedestrians while supporting emergency preparedness and harbor safety.

Interpretive Signage

Noyo Harbor possesses rich historical and cultural significance that remains largely unrecognized through interpretive signage. The area's indigenous history, logging heritage, and fishing industry traditions provide compelling content for educational signage that would enhance visitor experience while preserving local knowledge. Current interpretive elements are limited, with only scattered historical markers that fail to provide comprehensive context about the harbor's evolution and cultural importance.

A robust interpretive signage program could incorporate the Harbor's fishing industry heritage, highlighting the ongoing commercial fishing operations and their significance to the local economy. Logging history interpretation could acknowledge the area's role in the timber industry and the transformation of the landscape over time. Indigenous history interpretation could present the original inhabitants' connection to the land and waterways, providing context for contemporary visitors about the area's deeper cultural significance. Indigenous history signage would be developed in consultation with the Sherwood Valley Band of Pomo Indians, ensuring it reflects the perspectives and knowledge of the Tribe, their enduring connection to the land and waterways, and the area's deeper cultural significance.

The interpretive signage should be comprised of weather-resistant materials suitable for the marine environment, with engaging visual elements including historical photographs, maps, and illustrations. Strategic placement near key viewpoints, historical sites, and gathering areas would maximize educational impact while complementing the navigation and destination wayfinding elements. Integration of QR codes or similar technology could provide access to additional digital content, allowing for more comprehensive storytelling while maintaining clean, readable physical signage design.



Figure 17: Existing Interpretive Signage



Figure 18: Existing Interpretive Signage

Implementing Agency

The Noyo Harbor District would serve as the lead agency for this project, overseeing the design, placement, and installation of all wayfinding and interpretive signage within the harbor.

Potential Funding Sources

- The Noyo Harbor District has some existing funding available to support the design and installation of the wayfinding system. Additional funding sources may be explored as needed to expand or enhance signage elements.

Cost Estimation

\$29,900 – Includes design, labor, and materials for wayfinding and interpretive signs.

Implementation Plan and Schedule

This is a short-term project anticipated to be implemented within the next five years. With some funding already available and minimal infrastructure requirements, the project can move forward quickly to improve navigation and visitor experience throughout the harbor.

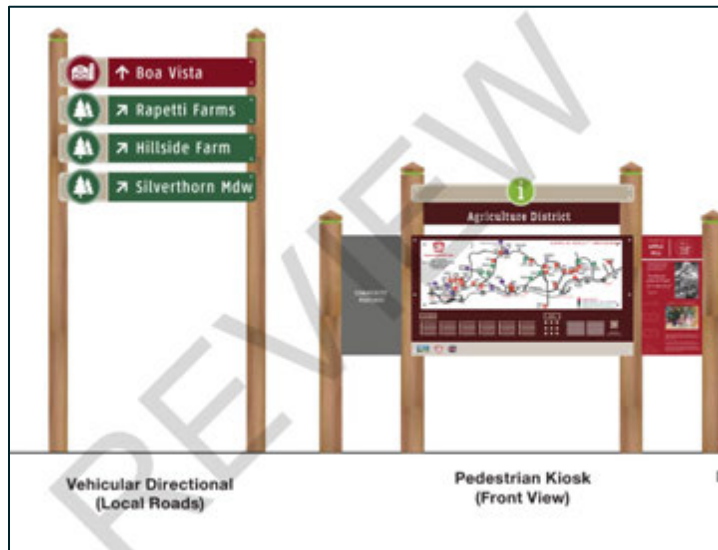


Figure 19: Example Wayfinding 1

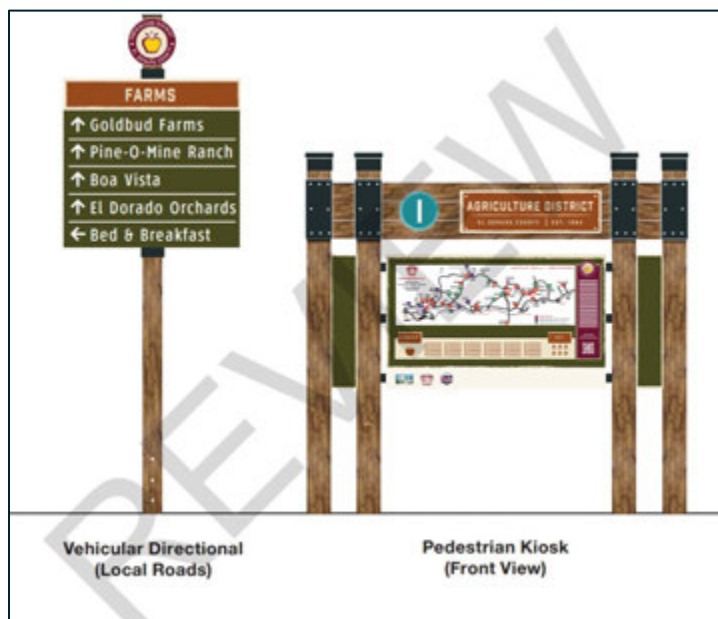


Figure 20: Example Wayfinding 2



Figure 21: Example Wayfinding 3

Bus Routes

Project Description

To address the current lack of public transit to and through the Harbor, the project proposes extending an existing bus route into Noyo Harbor to provide more direct and convenient service for workers, residents, and visitors. Potential new bus stops could be located near proposed crosswalks at the southern end of North Harbor Drive and under the Highway 1 bridge, offering closer connections to key harbor destinations such as the commercial fishing district, restaurants, and recreational facilities.

The project envisions a circulator route that would more effectively connect the harbor with Fort Bragg's downtown core and the broader MTA transit network. Enhanced connectivity would support both residents and tourists by improving access to harbor amenities without requiring personal vehicles.

However, implementing this service presents feasibility and operational challenges that will require further review and analysis. The harbor's constrained roadway network, limited parking, and narrow travel lanes may restrict bus maneuverability and the placement of accessible stops. Any proposed service expansion would require additional coordination with MTA to evaluate operational needs, ridership potential, and long-term sustainability.



Figure 22: Mendocino Transit Authority

Implementing Agency

The Mendocino Transit Authority (MTA) would lead planning for the potential bus route extension, including the placement of stops and provision of signage and amenities such as benches. The Noyo Harbor District would coordinate on-site implementation, including the installation of signage, benches, or other infrastructure located on Harbor District property. Any work within the State right-of-way may require ADA review, safety clearances, and permits from Caltrans.

Potential Funding Sources

- Federal Transit Administration 5311
- Federal Transit Administration 5339b Pilot Program

- Transportation Development Act (State Transit Assistance): May be a potential funding source, though available funds may be allocated to other projects.

Cost Estimation

\$171,865 – Includes design and installation of bus stop signage, bus stop pads and shelters, and other needed modifications.

Implementation Plan and Schedule

This is a short-term project anticipated to be implemented within the next five years, aligning with near-term transit planning cycles and infrastructure improvements to expand access and support increased harbor activity.



Figure 22 – Bus Stops

Stairway under Highway 1

Project Description

This project proposes the design and construction of a Y-shaped stairway with an ADA-accessible ramp system beneath the Highway 1 bridge, enhancing coastal access and connectivity between key destinations in Noyo Harbor. The proposed infrastructure would provide linkage to The Harbor Lite Lodge and North Cliff Hotel on either side of the highway, requiring an easement or updated easement for access, and would provide a direct connection to the coastal trail.

The stairway would consist of two access points, one on each side of Highway 1, meeting at a central landing underneath the bridge. In parallel, a meandering ramp would offer ADA-compliant access and others who require a low-slope, non-stair route. The ramp alignment would be designed to minimize grading and environmental impacts while maintaining comfortable, intuitive movement through the corridor.

The final alignment for the stairway and ramp system introduces a larger footprint and greater visual presence compared to the existing stairway and ramp configuration. To help integrate the new structure into its surroundings, the design should incorporate treatments that soften its appearance, such as planting greenery and native vegetation along and through the rampway, and using durable materials with a natural tone and texture suited to the coastal environment. These strategies would help the new structure blend more harmoniously with the landscape while enhancing the overall user experience.



Figure 24: Existing Pedestrian Facilities⁴

Implementing Agency

The City of Fort Bragg would serve as the lead agency, with coordination from Caltrans due to the facility's location under a state highway bridge. Building within the Caltrans right of way would need to be approved by the Caltrans Office of Structures Maintenance & Investigations (OSMI), the Caltrans District 1 ADA Coordinator, and the Caltrans District 1 Quality Management Assessment Process (QMAP) Coordinator. To accomplish an ADA compliant ramp system in this location, land outside of Caltrans right-of-way (ROW) would be required. The project would also require coordination with the California Coastal Commission and compliance with applicable permit requirements.

Potential Funding Sources

- Highway Safety Improvement Program (HSIP): Potential funding for the stairway as a safer alternative to at-grade crossings of Highway 1. Consider bundling with the walkway through the harbor to enhance competitiveness.
- Proposition 4 (California Coastal Conservancy): Supports projects that improve public coastal access, making this stairway a strong fit.

⁴ The stairwell was improved in June/July of 2025 in anticipation of the 4th of July Salmon BBQ but continues to suffer from poor visibility, wayfinding and accessibility.

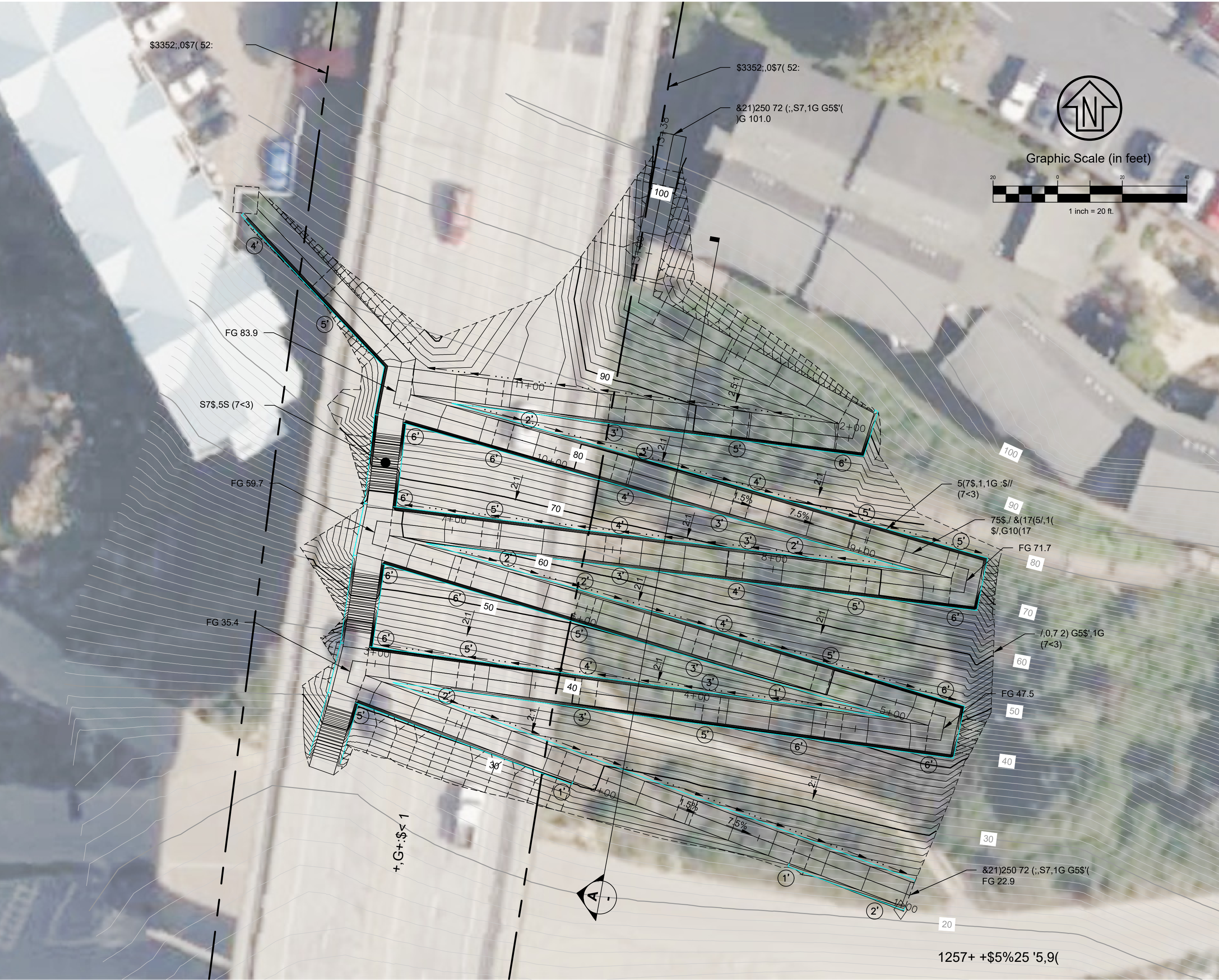
- Active Transportation Program (ATP): Potential funding for pedestrian improvements, though this program is highly competitive.
- Evacuation-related funding: The ramp and stairway could serve as a secondary evacuation route in emergencies, potentially qualifying for resilience or emergency preparedness grants.

Cost Estimation

\$2,628,694 – Includes design, land clearing, and complete construction. This assumes no cost to acquire additional land within the footprint of the stairway that is outside of Caltrans ROW.

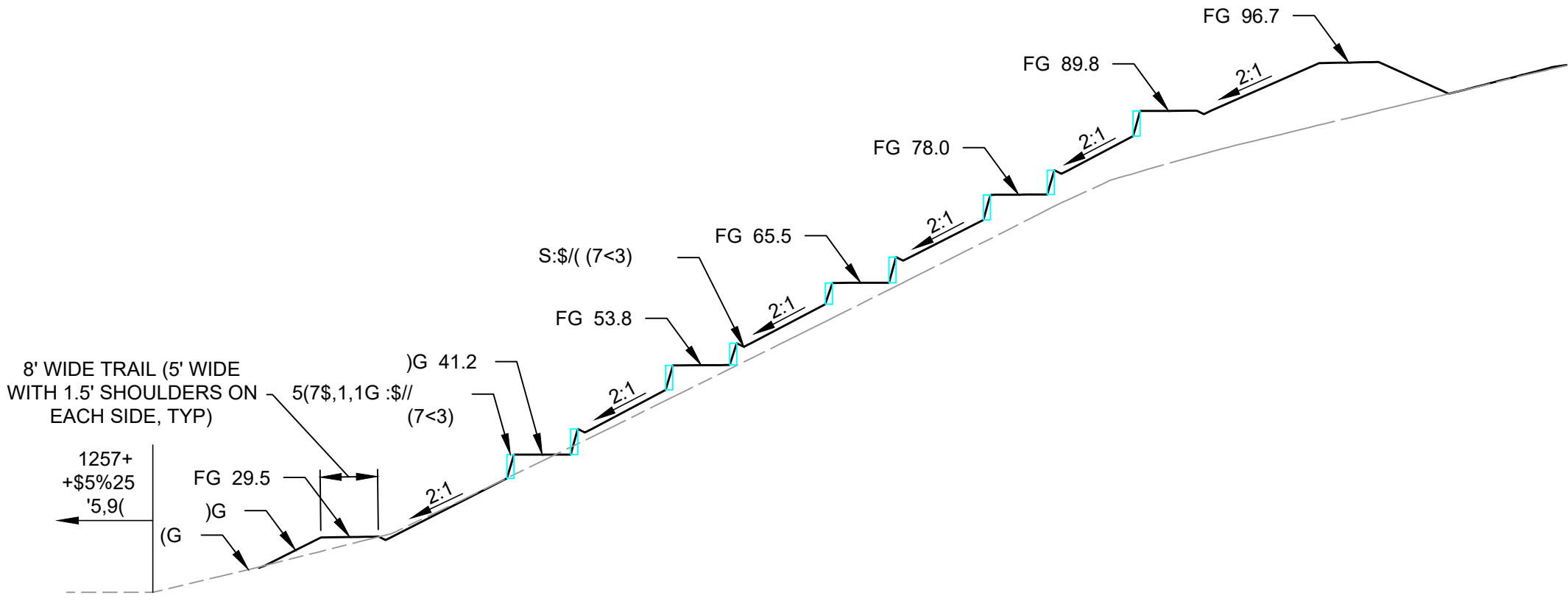
Implementation Plan and Schedule

This is a mid-term project, anticipated to be implemented within the next 5 to 10 years, depending on funding availability and coordination with Caltrans.



LEGEND

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SECTION A
SCALE: 1/8"

Figure 24: Stairway Under Highway 1

Checked	
Drawn	
Designed	
Description	
Date	
Rev	

Water Taxis

Project Description

This project explores the development of a water taxi service within Noyo Harbor to enhance transportation options, reduce vehicle dependence, and improve access to key destinations on both sides of the harbor. The harbor's protected waters and existing marine infrastructure make it well-suited for this service, which would operate between strategic public access docks and offer scenic, low-impact travel for residents and visitors. By providing an alternative to roadway travel and parking, the water taxi could ease congestion, support local businesses, and offer an environmentally sustainable transportation option that complements recreational use and enhances the harbor's appeal as a destination.

Water taxis could be operated by local fisher people utilizing existing six-pack licenses⁵, particularly during busy festival and event days when roadway congestion and parking demand peak. In addition to alleviating pressure on limited harbor roadways and parking areas, the service would support local businesses, promote sustainable tourism, and create a unique, memorable visitor experience that aligns with the harbor's working character. A more permanent option should be considered as a public transit opportunity as well as a recreational feature. This could require the purchase of a vessel and regular funding of "ferry" operators. Any permanent infrastructure would be required to be ADA compliant.



Figure 26: July 4th Salmon BBQ, Noyo Harbor

The combination of improved land-based transit and innovative water taxi services would position Noyo Harbor as a more accessible and attractive destination while supporting sustainable transportation goals for the broader Mendocino Coast region. Operating a water taxi could also serve as a supplemental income source for local fishing companies, helping diversify their revenue streams.

⁵ A six-pack license is officially known as the Operator of Uninspected Passenger Vessels (OUPV) license, issued by the USCG. It allows the license holder to carry up to six paying passengers on an uninspected vessel. This is described in the Code of Federal Regulations (46 CFR § 10.467) and is detailed in Coast Guard licensing handbooks. <https://www.uscgaux.info/content.php?category=captains-license-info&unit=054-09>



Figure 27: Fishing Boat in Noyo Harbor



Figure 28: [Fort Lauderdale Water Taxi](#)



Figure 29: [Amsterdam Water Taxi](#)

Implementing Agency

The Noyo Harbor District would serve as the lead agency for this project, overseeing coordination, implementation, and potential partnerships with local operators. The project may also require coordination with vessel operators and potential review by the U.S. Coast Guard.

Potential Funding Sources

- FTA Section 5311 (Formula Grants for Rural Areas) funding may be used to support operating costs for a public passenger ferry program
- Private funding would be needed

Cost Estimation

Capital Costs: \$10,000 to \$25,000 – Includes kiosks and signage.

Soft Costs: Up to \$100,000 – Includes start-up, coordination, and advertising.

Implementation Plan and Schedule

This is a mid-term project, anticipated to be implemented within the next 5 to 10 years, as operational models are explored and funding becomes available.



Figure 29 – Water Taxis

Walkway through Harbor

Project Description

This project proposes the construction of a pedestrian walkway through Noyo Harbor to improve safety, accessibility, and circulation for all users. The walkway would begin at the bottom of the hill on the inland side of North Harbor Drive and continue through the harbor area along the water side of the roadway, ultimately extending out to the beach. New crosswalks would be added at the southeastern and southwestern corners of the harbor. If there are additional locations where pedestrians can be channelized to a single location, additional crosswalks could be added. The intent of the walkway is to create a continuous, clearly defined route for people walking through the harbor area.

Due to space constraints immediately before the Highway 1 bridge underpass, the walkway in this section would be constructed on posts over the water. The walkway would continue under the bridge and out to the beach, consistent with the design used throughout the rest of the harbor. Design elements would prioritize durability, ease of maintenance, and visual compatibility with the working waterfront. Based on feedback from the community, the walkway would maintain the informal character of the harbor rather than introduce a traditional curb, gutter, and sidewalk system. Instead, a simple edge treatment and surface material would help define the pedestrian space while allowing flexibility for harbor operations. Materials such as pervious concrete and removable bollards are recommended to reflect the harbor's character, accommodate both routine operations and occasional large vehicle or equipment access, and allow for easy repairs or adjustments as conditions evolve.

ENHANCING HARBOR PARKING

In tandem with the walkway improvements, it is recommended to restripe the public beach parking lot and use fire hoses or other tactical urbanism interventions in the area under the Highway 1 bridge to create more clearly defined and expanded parking capacity. Because some parking along the water side of North Harbor Drive would be removed to accommodate the new walkway, opportunities to formalize on-street parking along the inland side should be explored to maintain overall parking supply. The inland side currently features informal or undefined parking areas with unclear driveway access points. Formalizing this parking would involve restriping and adding hardscape features to define driveway openings, clarify where parking is allowed, and organize the remaining on-street spaces. Together, these improvements would create a more efficient and orderly parking layout, improve circulation through the harbor, and enhance safety for all users.

Implementing Agency

The Noyo Harbor District would serve as the lead agency for implementation, with the City of Fort Bragg and the Mendocino County Department of Transportation (DOT) identified as key stakeholders given their jurisdictional roles and adjacent infrastructure responsibilities.

Potential Funding Sources

- Highway Safety Improvement Program (HSIP): Supports pedestrian safety features like crosswalks and bollards
- Active Transportation Program (ATP): Funds walkway construction and accessibility improvements

Cost Estimation

Walkway through Harbor: \$1,709,384 – Includes design, land clearing, demolition, utilities, and complete construction of walkway. Estimate also includes parking reallocation on the landside of North Harbor Drive.

Structured Walkway over Water: \$528,344 – Includes design, land clearing, demolition, and complete construction.

Parking Lot Restriping: \$172,755 – Includes design, demolition, slurry seal and striping.

Parking Reallocation on Landside of North Harbor Drive: \$307,656 – Includes design, demolition, and restriping.

Implementation Plan and Schedule

This project is anticipated to be implemented in the mid-term (5-10 years), allowing time for project development, stakeholder coordination, and securing competitive funding.

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Aug 12, 2025



MATERIALS FOR WALKWAY THROUGH HARBOR



Permeable Pavement



Example Path Delineation

LEGEND

- SIDEWALK INTO HARBOR
- STRUCTURED WALKWAY ALONG HILLSIDE
- WALKWAY THROUGH HARBOR
- STRUCTURED WALKWAY OVER WATER
- CROSSWALK

Figure 30 – Walkway into and through Harbor

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Aug 12, 2025



LEGEND



NEW PARKING SPACES

Figure 31 – Parking Restriping

Parking Management

Project Description

This project aims to improve parking efficiency within Noyo Harbor by restriping public off-street lots to clearly define parking spaces, circulation paths, and loading areas. The Harbor District owns or leases a small number of spaces used by local businesses such as the Noyo Center Field Station and Casa del Sol, while the majority of parking in the harbor is located on private property and serves adjacent businesses. The Harbor District would lead implementation of this project and work collaboratively with private property owners to encourage restriping of their lots. Improvements to private lots would be voluntary, with participation at the discretion of the property owner. This coordinated effort would promote a more organized, accessible, and consistent parking experience throughout the harbor and reduce potential conflicts among vehicles, pedestrians, and loading zones.

Implementing Agency

The Noyo Harbor District would serve as the lead agency for this project, overseeing restriping of public lots and coordinating with private property owners to encourage consistent improvements throughout the harbor.

Potential Funding Sources

- Private funding would be needed.

Cost Estimation

\$10,000 to \$25,000 – Includes restriping of off-street parking lots.

Implementation Plan and Schedule

This is a short-term project expected to be implemented within the next five years, given its relatively low cost and ease of implementation.

Walkway into Harbor

Project Description

This project proposes the installation of a continuous, connected walkway along North Harbor Drive, beginning at the intersection with Highway 1 and extending into the harbor area. The route would start as a traditional poured concrete sidewalk along the southern portion of North Harbor Drive, where sufficient right-of-way (ROW) exists. This sidewalk would provide a safe, accessible path for pedestrians traveling between Highway 1 and harbor-area destinations.

As North Harbor Drive descends into the harbor, the right-of-way becomes significantly constrained, presenting physical challenges for conventional sidewalk construction. To address this, the project recommends the installation of a structured walkway along the hillside, as described in the 2017 City of Trails Supplemental Trail Feasibility Studies.

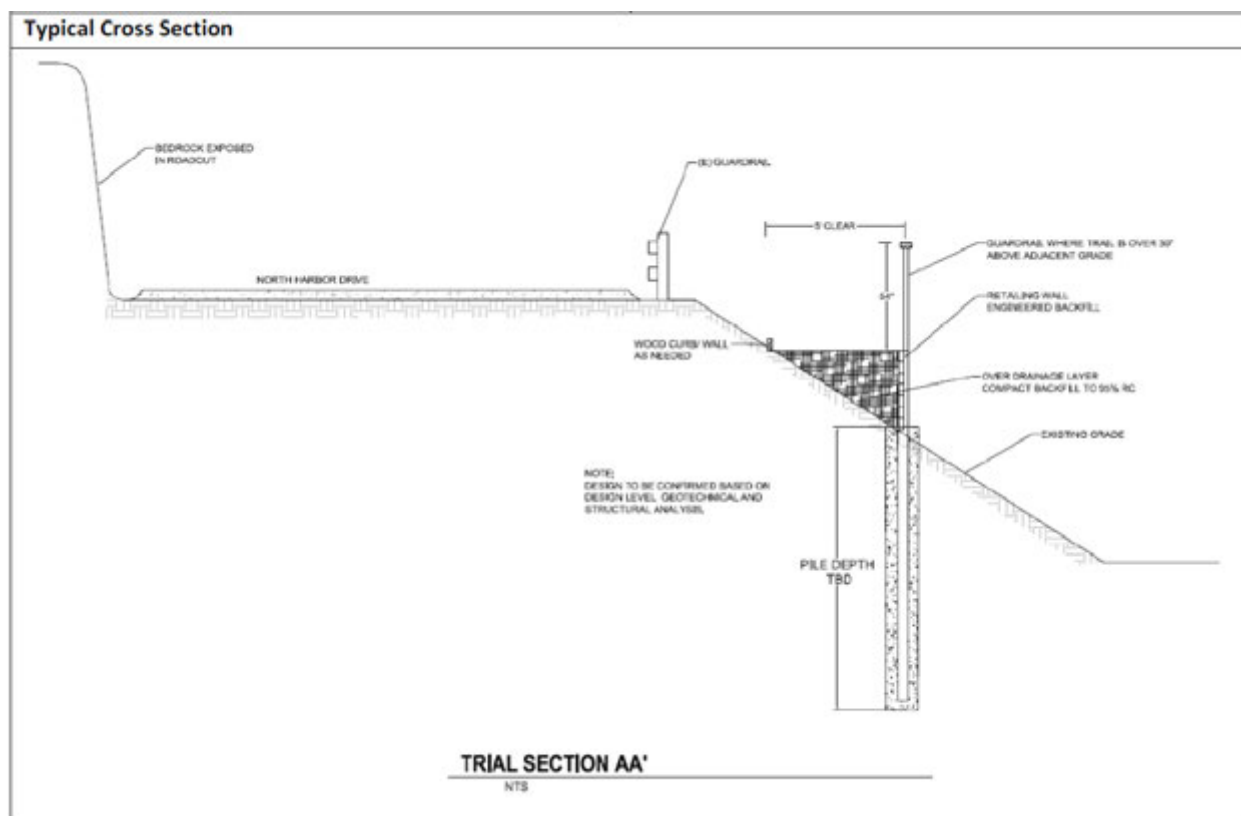


Figure 33: Typical Cross Section – City of Trails: Supplemental Trail Feasibility Studies

Given the steep terrain and history of erosion in the area, creating a maintenance and hillside stabilization plan is recommended to retain slope integrity and protect both the roadway and the new pedestrian infrastructure. This may include measures such as retaining walls, erosion control vegetation, and regular inspections. In addition, the plan recommends a program of routine vegetation management, especially where overgrowth encroaches onto the roadway and shoulder, reducing visibility and pedestrian space. Consideration should be given to permit requirements for hillside stabilization and the installation of the walkway.

Implementing Agency

The City of Fort Bragg is the lead agency for this project and would be responsible for planning, design, construction, and ongoing maintenance of the walkway infrastructure.

Potential Funding Sources

- Highway Safety Improvement Program (HSIP) – which could support the sidewalk and structured walkway elements as part of a broader effort to reduce pedestrian–vehicle conflicts and improve traffic safety along North Harbor Drive
- Active Transportation Program (ATP) – a competitive statewide grant program focused on increasing walking and biking, enhancing safety, and improving access to key destinations
- Reconnecting Communities Grant Program (RCP) – a competitive federal grant program advancing community-centered transportation connection projects, restoring community connections and access to daily needs such as jobs, food, and recreation

Cost Estimation

Walkway into Harbor: \$889,851 – Includes design, land clearing, utilities, and complete construction.

Structured Walkway on Hillside: \$937,541 – Includes design, land clearing, utilities, and complete construction.

Implementation Plan and Schedule

The implementation timeline for this project is opportunistic and will depend on the availability of funding through competitive programs such as HSIP and ATP.

Emergency Access Extension and Coastal Trail Connection

Project Description

This project proposes the formalization of a road extension at the west end of North Harbor Drive, just west of the Highway 1 bridge, to create a connection to Noyo Point Road. The extension would serve as a dedicated emergency access-only route, providing a critical secondary pathway into and out of Noyo Harbor during emergencies such as natural disasters, road blockages, or evacuation scenarios. Although informal today, the route is already used by law enforcement during high-traffic events like the 4th of July Salmon Festival, underscoring its strategic importance. Currently, North Harbor Drive is the only roadway access into the harbor, leaving the area vulnerable in the event of an emergency.

Through community conversations, there has also been strong interest in incorporating bicycle and pedestrian access along this emergency route to improve non-motorized connectivity within the harbor and to the adjacent coastal trail. Community members also emphasized the importance of providing fencing for any constructed trail in this area to protect the privacy of nearby landowners and residents. The route could function as both an emergency bypass and a low-volume path for walking and biking, offering an accessible and scenic alternative for users traveling between the harbor and the surrounding coastal network.

In tandem with the road extension, a coastal trail connection from the harbor could be created by routing a shared-use path along the perimeter of the existing dredge spoils site. This trail segment would provide a direct link to the broader coastal trail system and help activate the western edge of the harbor. Strategically, this trail connection could be integrated into the short-term dredge spoils remediation and protection project, minimizing cost by combining infrastructure improvements and reducing the need for duplicative permitting or environmental clearance processes.

Implementing Agency

The City of Fort Bragg is identified as the lead agency for this effort and would need to coordinate with regional partners, environmental resource agencies, and stakeholders to advance design and implementation.

Potential Funding Sources

- Proposition 4 (California Coastal Conservancy) – for improving public coastal access
- Ocean Protection Council (OPC) – for climate adaptation and resilience planning
- Tribal restoration and access funding via the North Coast Resource Partnership – particularly for projects with co-benefits to cultural access, habitat restoration, and emergency response

Cost Estimation

\$1,034,216 – Includes design, land clearing, fencing and complete construction.

Implementation Plan and Schedule

The implementation timeline for this project is opportunistic and will depend on the availability of funding, with construction expected to proceed once sufficient resources are secured.



Figure 33 – Emergency Access Extension & Coastal Trail Connection

Intersection Improvements at Highway 1 and North Harbor Drive

Project Description

Intersection improvements at Highway 1 and North Harbor Drive aim to enhance safety, access, and traffic operations at the primary gateway into Noyo Harbor. The intersection currently faces challenges related to turning conflicts and limited pedestrian infrastructure. Due to the fair amount of non-motorized activity in this area, including 12 pedestrians crossing one leg of the intersection during the morning peak hour and 6 in the evening peak hour of on-site traffic counts, pedestrians and bicyclists must be accommodated for proposed solutions for this section of Highway 1. A phased approach was identified, combining near-term safety measures with a long-term intersection redesign.

Short-term improvements include the following:

- Reinstating the prohibition of left turns from North Harbor Drive onto Highway 1 to minimize turning conflicts and improve traffic flow.
- Installing a raised median near the Noyo Gas Stop to eliminate cut-throughs.
- Constructing a pedestrian crosswalk at the southern leg of the intersection, equipped with a Pedestrian Hybrid Beacon to enhance safety for people walking and biking. Even with the optional extended median, shown in **Figure 35**, a southbound left turn from Highway 1 onto North Harbor Drive can be retained.

For long-term improvements, it is recommended that Caltrans, as the lead agency, evaluate intersection control alternatives at Highway 1 and North Harbor Drive using the [Intersection Safety and Operational Assessment Process](#) (ISOAP). ISOAP is a performance-based, data-driven framework developed by Caltrans to guide the selection of intersection control treatments based on safety performance, operational efficiency, and multimodal needs. This process often results in the selection of roundabouts, which have been shown to reduce the frequency and severity of crashes compared to traditional stop- or signal-controlled intersections. Should these long-term improvements be locally funded, the project sponsor would prepare an ISOAP analysis for Caltrans review. Additional detail on potential funding sources is provided in the “Potential Funding Sources” section below.

This report identifies improvements at Highway 1 and North Harbor Drive, including several control options such as a traffic signal and a range of roundabout configurations. These long-term improvements are recommended for implementation in ten or more years, allowing sufficient time for further technical review, coordination, and funding identification. While the inclusion of both single- and multi-lane roundabout concepts provides flexibility for future design, it is important that intersection control features be developed with clear discussion of existing conditions, safety warrants, and operational analysis to ensure alignment with Caltrans’ safety and performance objectives.

The TAG also discussed the roundabout option during project development. Without a full roadway circulation network (that is, with the extension limited to emergency access only) and in the absence of a recent collision history at the intersection, the need for a roundabout became less clear. This reinforced the importance of evaluating future intersection control within the broader context of circulation, safety data, and operational needs before advancing a preferred design.

The evaluation should consider a variety of configurations, including a three-leg roundabout as a space-efficient solution, as well as single-lane and multi-lane roundabouts. Although a full ISOAP evaluation has not yet been completed for this location, preliminary operational analysis conducted for this study indicates that a single-lane roundabout at Highway 1 and North Harbor Drive would likely be operationally challenged, particularly during peak travel periods. The nearby Simpson Lane roundabout, which functions effectively as a single-lane facility, provides a useful point of comparison for understanding potential performance under similar conditions. Preliminary findings suggest that a multi-lane roundabout or traffic signal would operate more favorably. A traffic signal would also address traffic flow and safety concerns at the intersection, although not as effectively as a roundabout in terms of reducing crash severity and improving multimodal circulation. There may also be potential for a turbo multi-lane roundabout, which uses channelized lanes to reduce speeds and minimize lane changing, enhancing both safety and traffic flow.

In addition, the evaluation should consider the transition from using Level of Service (LOS) to Vehicle Miles Traveled (VMT) under SB 743, which shifts the focus from delay-based metrics toward state climate and sustainability goals. Within this context, the tradeoff between traffic delay and improved safety outcomes of a single-lane roundabout should be examined, recognizing that some delay during peak hours may be acceptable in support of broader safety and multimodal objectives. While LOS is no longer used as a measure of impact under CEQA, it can still be applied as a tool for understanding local circulation conditions and assessing driver experience. See **Appendix D. Traffic Counts** and **Appendix E. Level of Service Analysis** for more information on the analysis conducted.

Community feedback during outreach events expressed some interest in both roundabouts and traffic signals, though support was not overwhelming for either option. Relative to other improvements such as the proposed walkway in the harbor and the Y-shaped stairway, changes to the intersection's traffic control were identified as a lower priority, while pedestrian crossing improvements were viewed as a higher priority. The ISOAP process provides a structured way for Caltrans to assess these options objectively, ensuring that the final intersection treatment supports state goals for safety, multimodal access, and operational effectiveness at this critical coastal location.



Figure 35: Potential Three-leg Roundabout

Implementing Agency

Caltrans would serve as the lead agency for both the planning and implementation of intersection improvements at Highway 1 and North Harbor Drive, given its jurisdiction over the state highway system.

Potential Funding Sources

- Regional Transportation Improvement Program (RTIP) – Funding could support the intersection redesign and construction as part of a broader effort to reduce pedestrian–vehicle conflicts and improve traffic safety at the Highway 1 / North Harbor Intersection. The long term installation of a roundabout or traffic signal would need to be considered a high regional priority to contend well for constrained RTIP funds. Without a recent collision history or safety nexus at this location, these funding sources may be challenging to obtain.
- Highway Safety Improvement Program (HSIP) and State Highway Operations Protection Program (SHOPP) – Similarly, funding could support the intersection redesign and construction as part of a broader effort to reduce pedestrian–vehicle conflicts and improve traffic safety at the Highway 1 / North Harbor Intersection. Without a recent collision history or safety nexus at this location, these funding sources may be challenging to obtain.

Cost Estimation

Short-term: \$599,423 – Includes design, demolition, and complete construction.

Long-term: \$3,945,711 – Includes design and construction of a traffic signal. \$4,474,932 – Includes design and construction of a multi-lane roundabout.

Implementation Plan and Schedule

Short-term improvements, including the pedestrian crossing and left-turn prohibition, are anticipated to occur within the next five years, while long-term solutions—such as a roundabout or traffic signal—are expected to be implemented over a longer horizon, likely exceeding ten years, depending on project development and funding availability.



Figure 35 – Intersection Improvements at Highway 1 and North Harbor Drive



Appendix A. Outreach Strategy

AUGUST 2024

OUTREACH STRATEGY



PREPARED BY

GREEN DOT TRANSPORTATION SOLUTIONS

STRATEGY OVERVIEW

A variety of tools will be used to comprise a comprehensive community outreach program for the Noyo Harbor Multimodal Circulation Plan. Methods will include community workshops, pop-ups, individual stakeholder communication, and many methods of comment/ input.



STAKEHOLDER ENGAGEMENT

A stakeholder list was developed by local and regional participants in the planning process and can be flexible as the project moves along. Stakeholder engagement is important to:

- Provide relative local expertise.
- Oversee plan development.
- Monitor milestones.
- Adjust as necessary.

The goal of our outreach strategy is to ensure all voices are heard and the desires of each stakeholder group is included and addressed in the Plan. We will do this in a calculated fashion through focused interviews, community meetings, pop-up presence, and in-person and media presence.

FOCUSED INTERVIEWS

Up to six focused interviews will be conducted with interested stakeholders at key project milestones. These one-on-one and small-group interviews, facilitated in collaboration with the Stakeholder Advisory Committee, will gather detailed feedback on the Plan. This approach will help uncover key concerns, mobility issues, and local priorities and will foster open and direct dialogue throughout the duration of the project.

COMMUNITY ENGAGEMENT EVENTS

A minimum of three public engagement events will be conducted to gather input for the Plan. Where possible, the project team will coordinate outreach opportunities with the Noyo Harbor Blue Economy planning effort to maximize efficiency. The project team will also present the Draft Plan to the MCOG Board at the appropriate time. Outreach events will include interactive exercises to encourage participation. Large graphics and visuals will accompany each event. The following outreach events are proposed.

POP UP AT NOYO HARBOR FESTIVAL SEPTEMBER 2024

The project team will stage a booth at the Noyo Harbor Festival during the existing conditions analysis and information gathering phase of the project. This will serve as the initial introduction of the Plan to the community and will present an opportunity for the project team to discuss existing conditions, and key concerns with stakeholders and the community. This will facilitate an opportunity to reach consensus on project goals and objectives in addition to envisioning potential recommendations.

Anticipated Meeting Location:

- Noyo Harbor

EXISTING CONDITIONS WORKSHOP OCTOBER 2024

The project team will facilitate a traditional community workshop in October to kick off the project to the public. This will include an initial presentation on current conditions and the project background, followed by an interactive discussion. This meeting will be intended to help generate discussion around issues, opportunities and potential project improvements.

Anticipated Meeting Location:

- Noyo Harbor - Exact Location TBD



COMMUNITY ENGAGEMENT EVENTS

TWO DAY CHARETTE - SPRING 2025

The charrette will span two days in the spring of 2025 and will bring together residents, key stakeholders and community members for a collaborative, multi faceted workshop. The project team will celebrate the history and significance of Noyo Harbor and will facilitate a collaborative process to envision improvements through various activities, including exhibits, interactive sessions, presentations, and site tours. Hands-on working sessions with attendees will aid the project team in identifying project concepts that address the mobility needs in and around Noyo Harbor. The charrette will feature walking excursions to offer participants a comprehensive view of the area and will help attendees visualize potential improvements.

Anticipated Meeting Location:

- Noyo Harbor - Exact Location TBD



PUBLIC ENGAGEMENT QUESTIONNAIRE

To facilitate participation, an online and printed survey will be created via SurveyMonkey. The online survey will be administered with questions that the project team agrees upon to gauge the community's needs and desires. Data will ultimately be presented in the Plan. The survey will be distributed at community meetings and pop-up events in hard-copy format as well as through an online link on the project webpage.



MEDIA STRATEGY & SCHEDULE

WEBSITE

The project team will develop maps, graphics, and language for the City of Fort Bragg website throughout the duration of the Plan development. Deliverables will include, but are not limited to;

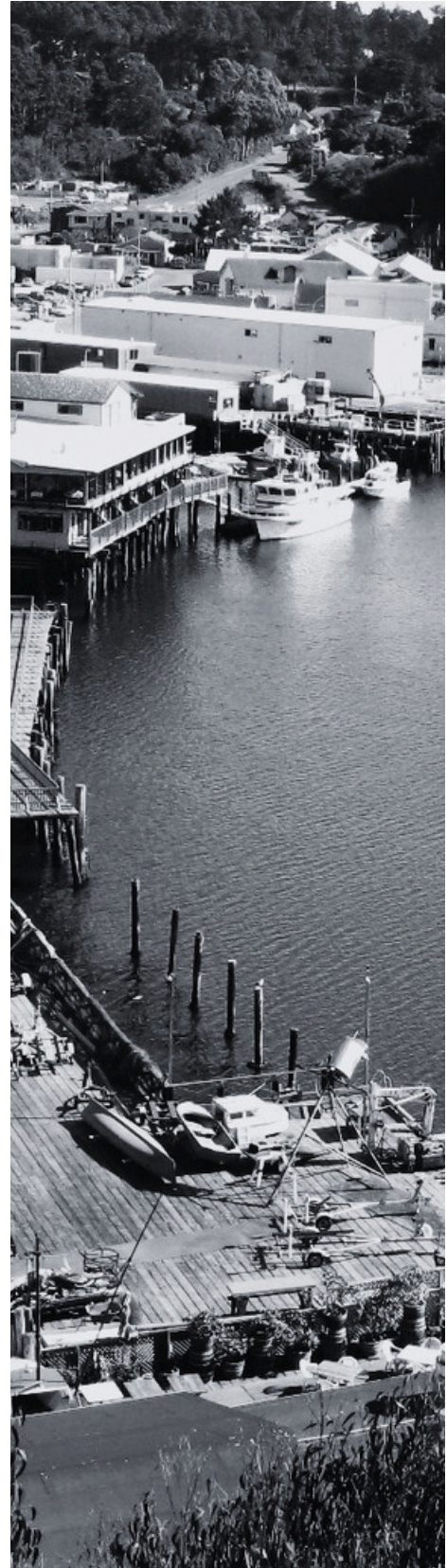
- Project Information and timeline
- Interactive Map
- Community meetings/workshop notice
- Public Meeting agendas
- Link to survey questionnaire
- Link to Draft Plan

STAKEHOLDER EMAILS

The project team will use the stakeholder list to distribute project information at key points throughout the project. Project updates, upcoming community meeting invites, stakeholder meeting invites and other project information will be distributed by email.

MEDIA AND PHYSICAL ADVERTISING

The project team will develop digital and physical flyers and graphics to promote engagement opportunities. A list of local businesses and community gathering spaces will be compiled for physical flyer distribution including local harbor businesses, fish markets, Noyo Fish Co., harbor community areas, DAC organizations, transit buses, and throughout the City of Fort Bragg.



SOCIAL MEDIA

The project team will work with the project partners to generate an online media presence on existing accounts. The primary purpose of this effort is to generate online discussion about the Plan and to notify the public about upcoming community workshops. The consultants will work with MCOG and the project team to compile a list of community groups and their social media accounts for plan information distribution. This will give exposure to the project, therefore encouraging collaboration from stakeholders and the public. Posts will include meeting announcements, project updates, survey access, links to the project website, etc.

DRAFT POSTS

- From boats to walking paths, explore the evolution of transportation in Noyo Harbor. Our 2025 plan is paving the way for a connected community.
- Introducing the Noyo Harbor 2025 Multimodal Circulation Plan, designed to enhance mobility and connectivity. Join us in shaping our community's future!
- Interested in sharing your ideas for walking, transit, and roadway safety enhancements in your community? Join us at an upcoming in-person workshop to delve into the Noyo Harbor 2025 Multimodal Circulation Plan!

Appendix B.

Promotional Material



NOYO HARBOR MULTIMODAL CIRCULATION PLAN



This planning study will position the Harbor for funding opportunities to help internal circulation for cars and trucks in the harbor as well as improve safety and access for pedestrians and bicyclists. The focus of the project is transportation, mobility, and access in Noyo Harbor that improves economic activity, daily business operations, and organizes tourist activity.

SCAN HERE
FOR ADDITIONAL
INFORMATION



NOYOOCEANCOLLECTIVE.ORG/
MULTIMODAL-CIRCULATION-
PLAN/



NOYO HARBOR MULTIMODAL CIRCULATION PLAN



This planning study will position the Harbor for funding opportunities to help internal circulation for cars and trucks in the harbor as well as improve safety and access for pedestrians and bicyclists. The focus of the project is transportation, mobility, and access in Noyo Harbor that improves economic activity, daily business operations, and organizes tourist activity.

SCAN HERE
FOR ADDITIONAL
INFORMATION



NOYOOCEANCOLLECTIVE.ORG/
MULTIMODAL-CIRCULATION-
PLAN/

TRANSPORTATION PLANNING BENEFITS EVERYONE



BENEFITS OF INVESTING IN TRANSPORTATION INFRASTRUCTURE

SAFETY

Can decrease traffic injuries, collisions, and fatalities by identifying transportation issues.

SUPPORTS LOCALS

Can increase access to local businesses, supporting the economy.

ACCESSIBILITY

Can increase harbor access to enjoy the amenities of the area.

PROMOTE HEALTHY HABITS

Can increase physical activity while reducing health issues through active transportation.

HOW DO YOU MOVE?

Let us know what transportation improvements you would like to see in Noyo Harbor!

SCAN HERE
to take our survey

<https://www.surveymonkey.com/r/NoyoHarbor>

*Español disponible en el sitio web.



QUESTIONS?
CONTACT US!

Jeff Schwein
jeff@greendottransportation.com

TRANSPORTATION PLANNING BENEFITS EVERYONE



BENEFITS OF INVESTING IN TRANSPORTATION INFRASTRUCTURE

SAFETY

Can decrease traffic injuries, collisions, and fatalities by identifying transportation issues.

SUPPORTS LOCALS

Can increase access to local businesses, supporting the economy.

ACCESSIBILITY

Can increase harbor access to enjoy the amenities of the area.

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NOYO HARBOR MULTIMODAL CIRCULATION PLAN: EXISTING CONDITIONS WORKSHOP



OPEN HOUSE

Monday, October 21st from
9 AM - 3 PM



Located at the Noyo Fish
Company @ 32440 N Harbor
Dr, Fort Bragg, CA



Walking tours at 10 AM & 2 PM



SCAN HERE
FOR ADDITIONAL
INFORMATION



NOYOOCEANCOLLECTIVE.ORG/
MULTIMODAL-CIRCULATION-
PLAN/



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to take our survey

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*Español disponible en el sitio web.



QUESTIONS?
CONTACT US!

Jeff Schwein
jeff@greendottransportation.com



PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO: TALLER DE CONDICIONES EXISTENTES



JORNADA DE PUERTAS ABIERTAS
Lunes, 21 de Octubre de
9 A.M. A 3 P.M.



Ubicación en Noyo Fish Company @
32440 N Harbor Dr, Fort Bragg, CA



¡Tours presenciales a las 10 AM y 2 PM!



**ESCANEA AQUÍ
PARA OBTENER
INFORMACIÓN
ADICIONAL**



**NOYOOCEANCOLLECTIVE.ORG/
MULTIMODAL-CIRCULATION-
PLAN/**

LA PLANIFICACIÓN DEL TRANSPORTE NOS BENEFICIA A TODOS



BENEFICIOS DE INVERTIR EN INFRAESTRUCTURA DE TRANSPORTE

SEGURIDAD

Puede disminuir las lesiones,
colisiones y accidentes mortales en la
carretera al identificar problemas de
transporte

APOYO LOCAL

Puede mejorar el acceso a
negocios locales, apoyando la
economía

ACCESIBILIDAD

Puede mejorar el acceso al puerto
para disfrutar de las comodidades
de la zona

PROMOVER HÁBITOS SALUDABLES

Puede aumentar la actividad física
y reducir problemas de salud a
través del transporte activo

¿CÓMO TE MUEVES?

¡Dínos qué mejoras en el
transporte te gustaría ver en el
Puerto de Noyo!

ESCANEA AQUÍ para
participar en nuestra
encuesta

<https://www.surveymonkey.com/r/NoyoHarbor>



*Español disponible en el sitio web.

¿ PREGUNTAS?
¡CONTÁCTANOS!

Jeff Schwein
jeff@greendottransportation.com



PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO



Este proyecto estudiará el transporte multimodal (peatonal, en bicicleta y transporte público) en el Puerto de Noyo, con el objetivo de mejorar la seguridad y reducir los viajes en vehículo.

¡DÍNOS QUÉ MEJORAS QUISIERAS VER!

PUERTAS ABIERTAS

**21 DE OCTUBRE
9AM-3PM**

**Noyo Fish Company
32440 N Harbor Dr,
Fort Bragg, CA 95437**

ESCANEA AQUÍ PARA MÁS INFO



¡TOURS PRESENCIALES A LAS 10 AM Y 2 PM!

Página web

<https://bit.ly/4eue6nc>

Encuesta

<https://bit.ly/3TU6nXB>

***Español disponible en el sitio web.**

Contact Information:

Project Manager

Kelly Bond

K.Bond@fehrrandpeers.com

FOR IMMEDIATE RELEASE**Join Us at the Noyo Harbor Multimodal Circulation Plan Charrette –
Contribute to a Collaborative Vision for Mobility, Safety, and
Accessibility**

The Project Team for the Noyo Harbor Multimodal Circulation Plan invites community members, stakeholders, and local leaders to participate in a two-day charrette; an interactive and collaborative meeting focused on shaping the future of mobility, safety, and accessibility in Noyo Harbor.

The two-day, open-house style event will be held at the **Noyo Fish Company (32440 N Harbor Dr, Fort Bragg, CA)** and is scheduled for:

- **Monday, April 14, 2025** | 11:00 AM - 6:30 PM
- **Tuesday, April 15, 2025** | 9:00 AM - 7:30 PM

Residents are welcome to visit anytime during open-house hours to learn about the project and provide feedback on transportation issues in Noyo Harbor and ideas for the future.

Community engagement is vital to this initiative, and we encourage everyone to attend, share insights, and contribute to the planning process.

For more information and to take our survey, visit:

<http://www.nyooceancollective.org/multimodal-circulation-plan/>



Información del contacto:

Gerente de proyecto

Kelly Bond

K.Bond@fehrrandpeers.com

PARA PUBLICACIÓN INMEDIATA

Únase a nosotros en la Charrette del Plan de Circulación Multimodal del Puerto de Noyo: contribuya a una visión colaborativa para la movilidad, la seguridad y la accesibilidad.

El equipo del proyecto del Plan de Circulación Multimodal del Puerto de Noyo invita a los miembros de la comunidad, las partes interesadas y los líderes locales a participar en una charrette de dos días; una reunión interactiva y colaborativa. centrado en dar forma al futuro de la movilidad, la seguridad y la accesibilidad en Noyo Harbor.

El evento de dos días, estilo jornada de puertas abiertas, se llevará a cabo en **Noyo Fish Company (32440 N Harbor Dr, Fort Bragg, CA)** y está programado para:

- **Lunes, 14 de abril de 2025** | 11:00 a. m. - 6:30 p. m.
- **Martes, 15 de abril de 2025** | 9:00 a. m. - 7:30 p. m.

Los residentes pueden visitarnos en cualquier momento durante el horario de puertas abiertas para conocer el proyecto y brindar comentarios sobre problemas de transporte en Noyo Harbor e ideas para el futuro.

La participación de la comunidad es vital para esta iniciativa y alentamos a todos a asistir, compartir ideas y contribuir al proceso de planificación.

Para obtener más información y realizar nuestra encuesta, visite:
<http://www.nyooceancollective.org/multimodal-circulation-plan/>



NOYO HARBOR MULTIMODAL CIRCULATION PLAN

Mobility-Safety-Accessibility

Join Us! Two-Day Charrette

WHAT IS A CHARRETTE?

A CHARRETTE IS A COLLABORATIVE
SET OF MEETINGS WHERE
PARTICIPANTS COME TOGETHER TO
DISCUSS IDEAS AND DEVELOP
SOLUTIONS FOR A PROJECT.

SCAN FOR PROJECT
WEBSITE & SURVEY:



www.noyooceancollective.org

WHEN:

MONDAY, APRIL 14TH

11:00 AM - 6:30 PM

TUESDAY, APRIL 15TH

9:00 AM - 7:30 PM

WHERE:

Noyo Fish Company

32440 N Harbor Dr

Fort Bragg, CA 945437



ENCUESTA DEL PLAN DE CIRCULACIÓN MULTIMODAL DEL PUERTO DE NOYO

movilidad-seguridad-accesibilidad

Únete a nosotros!
Unas Talleres de dos días!

¿QUÉ ES UN TALLER?

UN TALLER ES UN GRUPO DE REUNIONES EN QUE PARTICIPANTES VIENEN JUNTOS PARA CONVERSAR SOBRE IDEAS Y SOLICIONES POR UN PROYECTO.

ESCANEAR AQUÍ
PARA EL SITIO
WEB:



CUANDO:

El lunes, el 14 de abril
11:00 AM - 6:30 PM y
El martes, 15 de abril
9:00 AM - 7:30 PM

UBICACIÓN:

Noyo Fish Company
32440 N Harbor Dr
Fort Bragg, CA 945437

www.noyoceancollective.org



Appendix C. Summary of Survey Responses

Survey Data and Analysis

The Noyo Harbor survey responses (n=164) demonstrate strong community support for pedestrian and bicycle infrastructure improvements, with significant concerns about safety and accessibility. Notably, qualitative and quantitative feedback reinforce the need for multimodal improvements in the harbor area.

Quantitative Analysis

The quantitative data from the Noyo Harbor survey provides a robust statistical foundation for understanding current transportation patterns, user demographics, and community priorities. With 164 responses representing harbor users, the data reveals clear patterns in travel behavior, infrastructure needs, and community priorities. The data from a few key questions are discussed further in this analysis.

Current Transportation Mode Share (Question 3)

With respondents able to choose multiple frequented modes of transportation to the harbor, nearly all (94%) of visitors selected that they often travel by personal vehicle, suggesting a transportation system that has evolved to primarily serve one mode effectively. Walking (16%) and cycling (6%) remain limited, hindered by insufficient or inadequate infrastructure. The near absence of public transit users (0.6%) reflects the limitations of the regional transit systems in serving destinations such as the Harbor. These figures underscore the current in-accessibility of the harbor by alternative transportation modes.

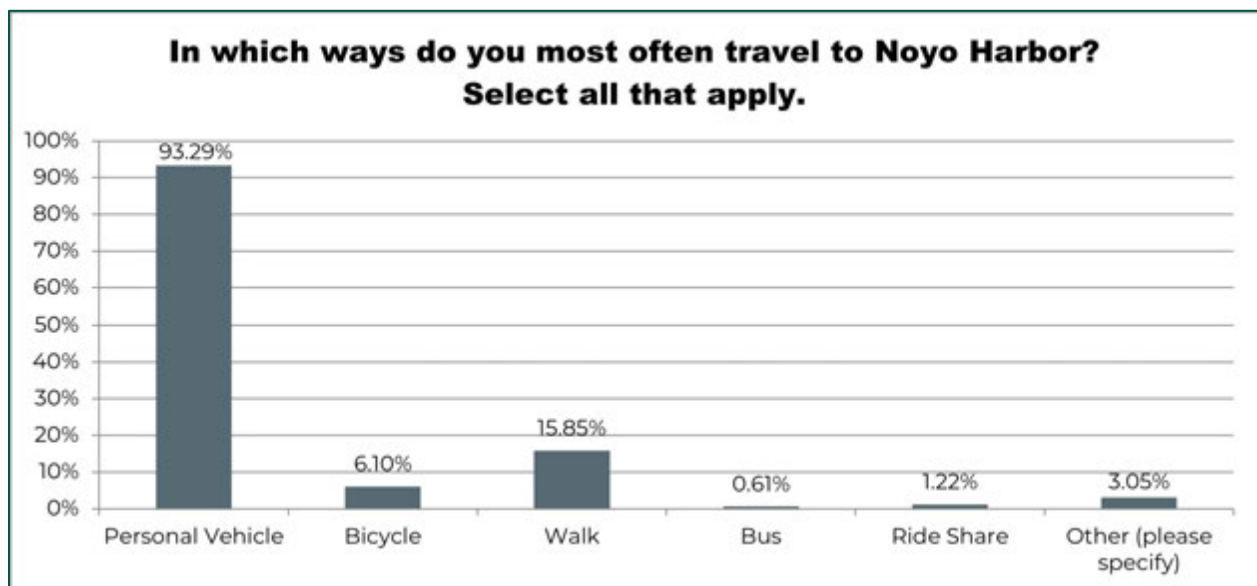


Figure D-1: Survey Question 3

Transportation Challenges (Question 6)

The transportation challenges noted by respondents portrays an infrastructure system that lacks comprehensive planning for multiple user types.

The lack of sidewalks and walking trails are cited by 64% of respondents while 34% of respondents noted bicycle path deficiency. In a location where nearly a quarter of users visit daily, the absence of adequate pedestrian and bicycle infrastructure can force people into high-exposure situations such as walking or cycling in roadways. Additionally, nearly 60% of respondents cite traffic and congestion as an issue, highlighting a system operating beyond its intended capacity.

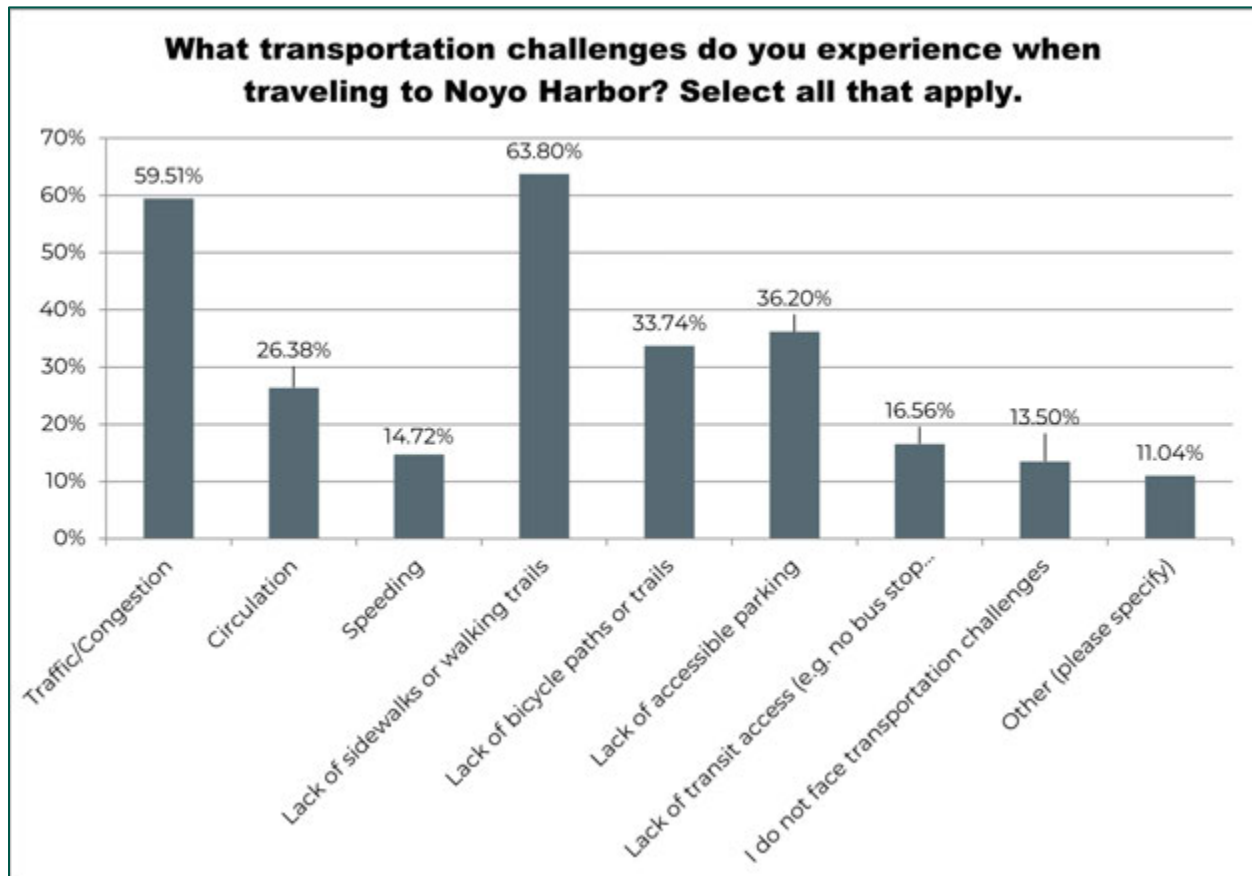


Figure D-2: Survey Question 6

Priority Rankings Analysis (Question 13)

The priority rankings highlight clear community values and expectations. Strong support for walking and bicycling improvements points to both existing gaps and the potential for safer, more accessible travel options within the Harbor. The moderate priority placed on parking suggests a willingness to balance vehicle access with more sustainable transportation choices. Many respondents also appear to recognize that improving overall circulation may be a more effective way to address transportation challenges.

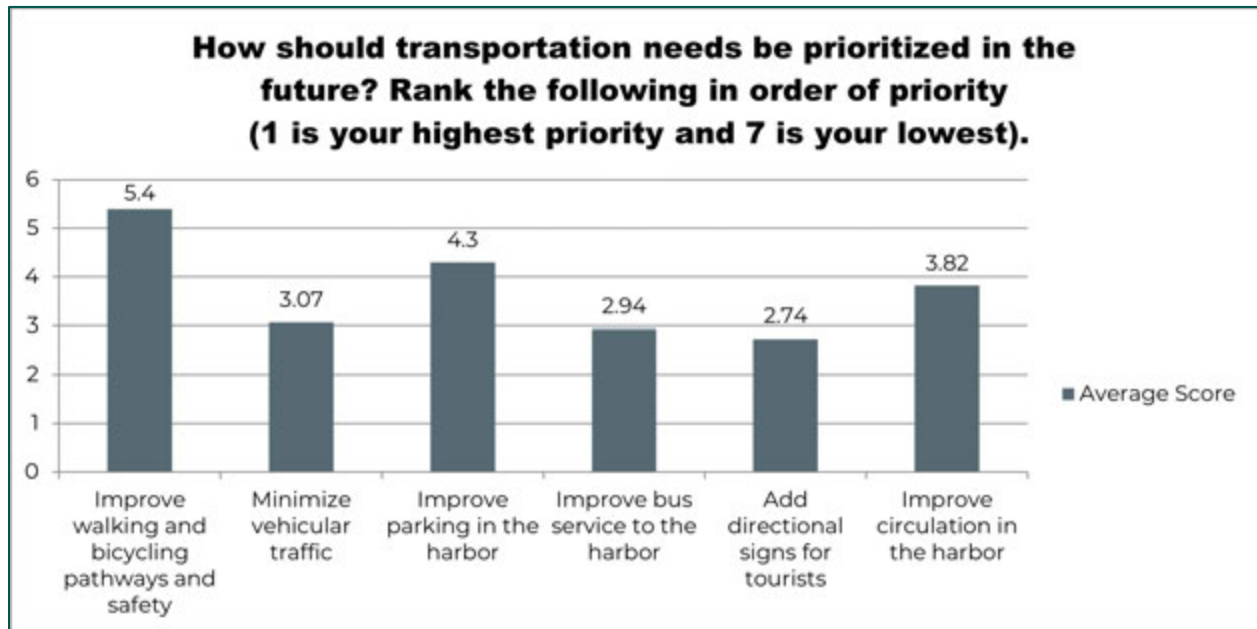


Figure D-3: Survey Question 13

Desired Transportation Improvements (Question 14)

The improvement preferences complement the responses from the priority rankings. There is overwhelming support for improved sidewalks and pathways (76%) and for bicycle infrastructure (47%) suggesting openness to solutions that might reduce car dependency while improving overall accessibility. The moderate interest in expanded parking (49%) indicates there is still a perceived need to accommodate vehicle access, especially for visitors or those traveling from longer distances. However, the stronger support for active transportation improvements reflects a community vision that prioritizes walkability and sustainable mobility within the harbor area.

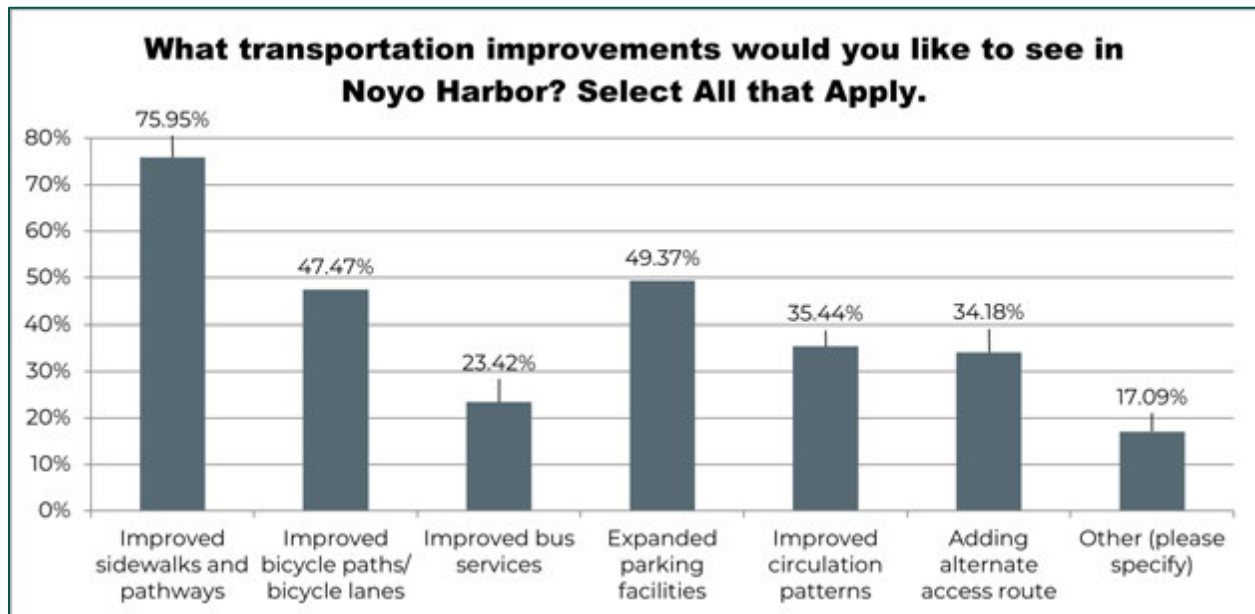


Figure D-4: Survey Question 14

Qualitative Analysis

The open-ended survey responses and written comments provide qualitative insights that complement the quantitative data. These qualitative themes emerge from 71 detailed responses to the final open-ended question, plus numerous comments throughout the survey. Common language patterns, repeated phrases, and emotional intensity in responses highlight recurring concerns, shared frustrations, and community values.

Infrastructure Safety Concerns

- Pedestrian Safety
 - Multiple references to "no sidewalks" with respondents asking, "what sidewalks?"
 - High-exposure pedestrian conditions: "pedestrians walk in the middle of the road"
 - Deteriorating staircase access: "stairs are dilapidated and some missing altogether"
 - Poison oak overgrowth blocking pedestrian routes
- Bicycle Safety Barriers
 - North Harbor Drive described as "too narrow to feel safe"
 - Lack of bike parking facilities
 - Steep terrain challenges: "big hill to get out"
 - Vehicle-bicycle conflicts due to unmarked bike access

Parking and Circulation Issues

- Parking Constraints
 - Tourist season congestion: "parking is a huge issue during tourist season"
 - Need for "expanded parking options with highly visible signage"
 - Gravel parking areas described as having "big holes"
- Traffic Flow Problems
 - Narrow road conditions requiring vehicles to cooperate
 - Need for improved circulation patterns
 - Calls for one-way traffic solutions (though some opposition exists)

Emergency Access and Evacuation

- Repeated calls for "second way to exit the harbor"
- Tsunami evacuation concerns (average concern level: 36/100 scale)
- Emergency response access limitations
- "One way in – one way out" creates vulnerability

Appendix D. Traffic Counts

Appendix D Narrative

Appendix D presents the Existing (2024), Calibrated (2024), and Forecast (2044) turning movement counts at the intersection of Highway 1 and North Harbor Drive. Each item included in this appendix is summarized below.

- **Existing Turning Movement Counts**
 - The turning movement counts were collected on October 22, 2024, from 6:15 to 9:00 AM and from 3:00 to 5:00 PM.
 - StreetLight data was incorporated to identify temporal travel patterns and to inform the calibration of the observed PM peak hour volumes. The use of big data sources such as StreetLight was limited to supporting this calibration process rather than serving as a primary data source for traffic counts.
- **Noyo Harbor Roundabout Volumes Presentation**
 - A presentation was delivered to the Technical Advisory Group (TAG) on February 18, 2025, describing the methodology used to calibrate the PM peak hour volumes and to forecast the 2044 turning movement volumes.
- **2024 Growth Factors Memorandum**
 - A Caltrans memorandum outlines District I's Growth Factor Approach to forecasting on Caltrans facilities.
 - This memorandum served as the basis for developing future-year volumes consistent with Caltrans standards.
- **Forecasted Turning Movement Counts (2044)**
 - The forecasted turning movement volumes were used to evaluate intersection operations in 2044 and were calculated using District I's Growth Factor Approach.
- **Caltrans 2022 Average Annual Daily Traffic (AADT)**
 - The AADT data provides traffic volume context for Highway 1 in Mendocino County.
 - These volumes were used to provide background on existing travel patterns and to support the understanding of current and future traffic conditions in the Noyo Harbor area.

Turning Movement Counts
Highway 1 / North Harbor Drive
Date 10/22/2024
Time of Day 6:15 - 9:00 AM / 3:00 - 5:00 PM
Collected by Fehr & Peers

Starting at	Northbound			Westbound			Southbound			Eastbound			Total Vehicles	Trucks (all approaches)	Bikes		Peds			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right			NB Thru	SB Thru	North Leg	East Leg	South Leg	West Leg
15-MINUTE COUNT																				
6:15 AM	1	40	1	2	0	1	2	45	0	0	0	0	92	0	0	0	0	0	0	0
6:30 AM	0	38	1	6	0	1	3	45	0	0	0	1	95	0	0	0	0	0	0	0
6:45 AM	0	78	3	4	0	4	6	84	0	0	0	1	180	6	0	0	0	1	0	0
7:00 AM	0	61	4	2	0	5	2	87	2	0	0	0	163	11	2	0	0	0	0	1
7:15 AM	0	92	3	4	0	3	2	93	0	1	0	0	198	10	2	0	0	2	0	0
7:30 AM	0	161	5	2	0	3	1	88	2	0	0	0	262	7	0	0	0	1	0	0
7:45 AM	0	275	1	5	0	4	6	153	0	1	0	2	447	11	0	2	0	1	0	0
8:00 AM	1	204	5	10	0	4	3	204	0	1	0	0	432	7	1	1	2	2	0	0
8:15 AM	0	188	13	5	0	4	5	187	1	0	0	1	404	15	1	0	0	0	0	0
8:30 AM	1	212	6	6	0	4	3	175	0	0	0	1	408	12	0	1	0	3	1	3
8:45 AM	0	183	3	5	0	6	4	208	0	0	0	0	409	16	1	1	0	1	0	2
Peak hour (7:45 to 8:45 AM)	2	879	25	26	0	16	17	719	1	2	0	4	1691	45	2	4	2	6	1	3
15-MINUTE COUNT																				
3:00 PM	2	249	6	3	0	14	11	234	0	1	0	1	521	14	2	4	4	1	1	0
3:15 PM	1	224	19	6	0	10	7	263	0	1	0	2	533	10	2	2	0	1	0	0
3:30 PM	0	197	15	5	0	13	11	273	0	0	0	0	514	14	1	1	0	2	0	2
3:45 PM	1	259	10	8	0	9	7	230	0	1	0	0	525	17	1	2	0	0	0	0
4:00 PM	1	247	10	9	0	13	7	262	2	0	0	0	551	17	3	4	0	1	0	0
4:15 PM	2	242	16	4	0	8	3	224	0	0	0	2	501	9	4	2	1	0	0	3
4:30 PM	0	191	12	10	0	17	10	248	3	1	0	2	494	5	3	2	0	2	0	0
4:45 PM	0	236	16	7	0	11	9	234	2	1	0	1	517	10	6	0	0	2	0	0
Peak hour (3:15 to 4:15 PM)	3	927	54	28	0	45	32	1028	2	2	0	2	2123	58	7	9	0	4	0	2

Calibrated 2024 PM Peak Volumes Using Streetlight

Starting at	Northbound			Southbound			Eastbound			Westbound			Total Vehicles	Trucks (all approaches)	Bikes		Peds			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right			NB Thru	SB Thru	North Leg	East Leg	South Leg	West Leg
3:00 PM	2.4	295.2	7.1	13.0	277.5	0.0	1.2	0.0	1.2	3.6	0.0	16.6	617.8	11.85701831	2.371404	2.371404	0	1.185702	0	0
3:15 PM	1.2	265.6	22.5	8.3	311.8	0.0	1.2	0.0	2.4	7.1	0.0	11.9	632.0	16.59982563	1.185702	1.185702	0	2.371404	0	2.371404
3:30 PM	0.0	233.6	17.8	13.0	323.7	0.0	0.0	0.0	0.0	5.9	0.0	15.4	609.5	20.15693112	1.185702	2.371404	0	0	0	0
3:45 PM	1.2	307.1	11.9	8.3	272.7	0.0	1.2	0.0	0.0	9.5	0.0	10.7	622.5	20.15693112	3.557105	4.742807	0	1.185702	0	0
Peak Hour Vehicles Total	5	1102	59	43	1186	0	4	0	4	26	0	55	2482	69	8	11	0	5	0	2
Peak Hour Truck	0.13	30.52	1.64	1.18	32.86	0.00	0.10	0.00	0.10	0.72	0.00	1.51	68.77	PM Peak Hour Fact		0.981707	PM PED Peak Hour Fa		0.375	
Peak Bike Volume		8			11									HV Percentage		0.027711				
Total Veh + Bike	5	1110	59	43	1196	0	4	0	4	26	0	55	2482							



FEHR PEERS

Project Team Meeting
February 18th, 2025

Noyo Harbor Roundabout Volumes

Count Collection

Intersection: North Harbor Drive /
Highway 1

Tuesday, October 22nd

6:15 AM – 9:00 AM

3:00 PM – 5:00 PM

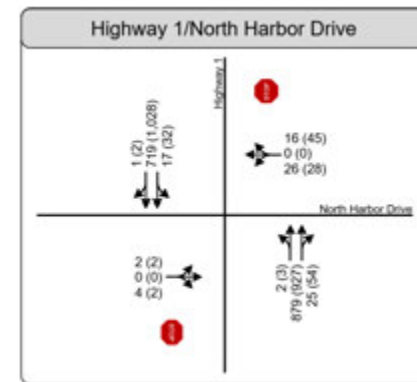


Source: Google

Peak Hour

AM Peak: 7:45 AM – 8:45 AM

PM Peak: 3:15 PM – 4:15 PM



Starting at 15-MINUTE COUNT	Northbound			Westbound			Southbound			Eastbound			Total Vehicles	Trucks (all approaches)	Bikes		Peds			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right			NB Thru	SB Thru	North Leg	East Leg	South Leg	West Leg
6:15 AM	1	40	1	2	0	1	2	45	0	0	0	0	92	0	0	0	0	0	0	0
6:30 AM	0	38	1	6	0	1	3	45	0	0	0	1	95	0	0	0	0	0	0	0
6:45 AM	0	78	3	4	0	4	6	84	0	0	0	1	180	6	0	0	0	1	0	0
7:00 AM	0	61	4	2	0	5	2	87	2	0	0	0	163	11	2	0	0	0	0	1
7:15 AM	0	92	3	4	0	3	2	93	0	1	0	0	198	10	2	0	0	2	0	0
7:30 AM	0	161	5	2	0	3	1	88	2	0	0	0	262	7	0	0	0	1	0	0
7:45 AM	0	275	1	5	0	4	6	153	0	1	0	2	447	11	0	2	0	1	0	0
8:00 AM	1	204	5	10	0	4	3	204	0	1	0	0	432	7	1	1	2	2	0	0
8:15 AM	0	188	13	5	0	4	5	187	1	0	0	1	404	15	1	0	0	0	0	0
8:30 AM	1	212	6	6	0	4	3	175	0	0	0	1	408	12	0	1	0	3	1	3
8:45 AM	0	183	3	5	0	6	4	208	0	0	0	0	409	16	1	1	0	1	0	2
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3:00 PM	2	249	6	3	0	14	11	234	0	1	0	1	521	14	2	4	4	1	1	0
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3:30 PM	0	197	15	5	0	13	11	273	0	0	0	0	514	14	1	1	0	2	0	2
3:45 PM	1	259	10	8	0	9	7	230	0	1	0	0	525	17	1	2	0	0	0	0
4:00 PM	1	247	10	9	0	13	7	262	2	0	0	0	551	17	3	4	0	1	0	0
4:15 PM	2	242	16	4	0	8	3	224	0	0	0	2	501	9	4	2	1	0	0	3
4:30 PM	0	191	12	10	0	17	10	248	3	1	0	2	494	5	3	2	0	2	0	0
4:45 PM	0	236	16	7	0	11	9	234	2	1	0	1	517	10	6	0	0	2	0	0
Peak hour (3:15 to 4:15 PM)	3	927	54	28	0	45	32	1028	2	2	0	2	2123	58	7	9	0	4	0	2

Calibration to Reflect the Seasonal Peak Using Streetlight Data

AM

Our 7:45 AM – 8:45 AM peak period counts exceeded the Streetlight metrics across various scenarios.

According to Streetlight, October 2024 Weekday AM had the highest recorded volumes, but **our actual counts were even higher**. Therefore, we **used our recorded counts for the Existing AM**.

Calibration to Reflect the Seasonal Peak Using Streetlight Data

PM

Streetlight metrics showed that Summer PM volumes exceeded October PM volumes on both weekdays and Saturdays, with Saturday having the highest PM volumes.

Within the 3-5 PM window, we identified 3:15-4:15 PM as the peak hour in both the October 2024 weekday and Summer 2024 Saturday datasets. We then calculated the percentage change between these datasets and applied it to our existing 3:15-4:15 PM counts to estimate a Summer weekend peak hour.

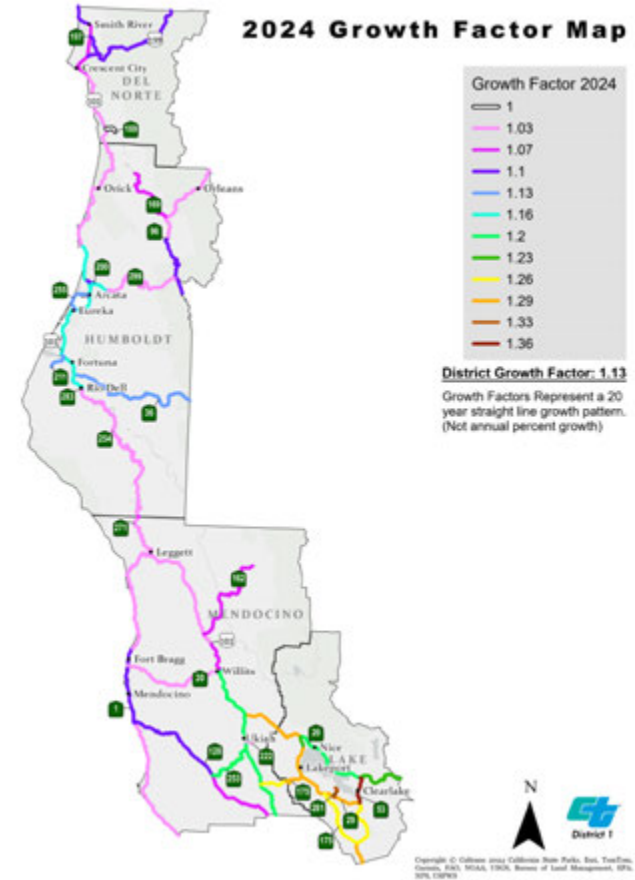
Streetlight Metric Comparisons:

- Summer Weekday and Summer Saturday > October Weekday and October Saturday
- Summer Saturday > Summer Weekday

	Total TMC
Streetlight Summer Saturday 3-4 Total Volume	1360
Streetlight October Saturday 3-4 Total Volume	1147
Multiplier	1.185702

2044 Forecasted Volumes

We used the standard Caltrans D1 Growth Factor Methodology for a 20-year forecast. We applied a growth factor of 1.1 for our intersection.



Memorandum

To: MATT BRADY
TOM FITZGERALD
RICHARD MULLEN
DERECK GOODWIN

Date: February 12, 2024

File: Growth Factors

From: BRANDON LARSEN
Deputy District Director,
Planning and Local Assistance

Subject: 2024 Growth Factors

Attached are the 2024 District 1 growth factor summary, the 2024 District Growth Factor Map, and a “Using D1 Growth Factors” tutorial.

Prior to 1984, Caltrans District 1 projected future traffic volumes based solely on historical growth. Future volumes were calculated using an annual percent increase that was derived from historical traffic volumes. We found that this method produced acceptable results in the short to mid-term, but due to compounding, long-range predictions (20 years or more) tended to be overestimated.

In 1984, in order to eliminate the long-range distortion noted above, we began calculating growth factors as a 20-year straight-line determinant. For example, a segment of highway with a growth factor of 1.4 is predicted to have a 40% increase in traffic over the next 20-years. Likewise, it is predicted to have a 20% increase over 10 years.

Historically, District staff has developed growth factors based on both projected travel trends and historical growth from two data sources—the “California Motor Vehicle Stock Travel and Fuel Forecast” (CMVSTAFF) and historical Average Vehicle Mile Traveled (AVMT) comparisons from “Traffic Volumes on the California State Highway System.” Since CMVSTAFF was not available for more recent updates, county growth factor targets were developed based on California Air Resources Board traffic growth projections and historic traffic growth data, as well as other factors such as land use/potential development.

For the 2024 Growth Factor update, since CMVSTAFF is no longer produced, we undertook an extensive analysis of historical volumes on District 1 routes (using Caltrans Traffic Volumes). We also consulted the California Statewide Travel Demand Model, as well as Department of Finance population statistics for all four counties in District 1.

BRANDON LARSEN

January 31, 2024

Page 2

Growth Factors were adjusted, primarily using growth trends from 1990-2020. The result was an overall (approximately 35% from previous) reduction in forecasted growth for District 1 routes.

Our growth factors are applied over highway segments that were determined using observed conditions; these segments vary in length, but they are not longer than fifty miles. Traffic volumes over segments are based on a calculated weighted average to reflect volumes (Annual Average Daily Traffic) for the entire segment. While actual growth at the local level can vary considerably, we are looking at overall growth over the long-term. If more specific data or information are available for a particular location (actual counts, planned development, etc.) it may be advisable to calculate a location-specific rate. However, for the purposes of facility design (20-year, or greater, design-life) our generalized segment growth factors are appropriate. It should be noted that our growth factors forecast traffic growth only for the mainline (State Routes); local streets should be examined separately.

If you have any questions regarding the growth factors, please contact District 1 System Planning Branch.

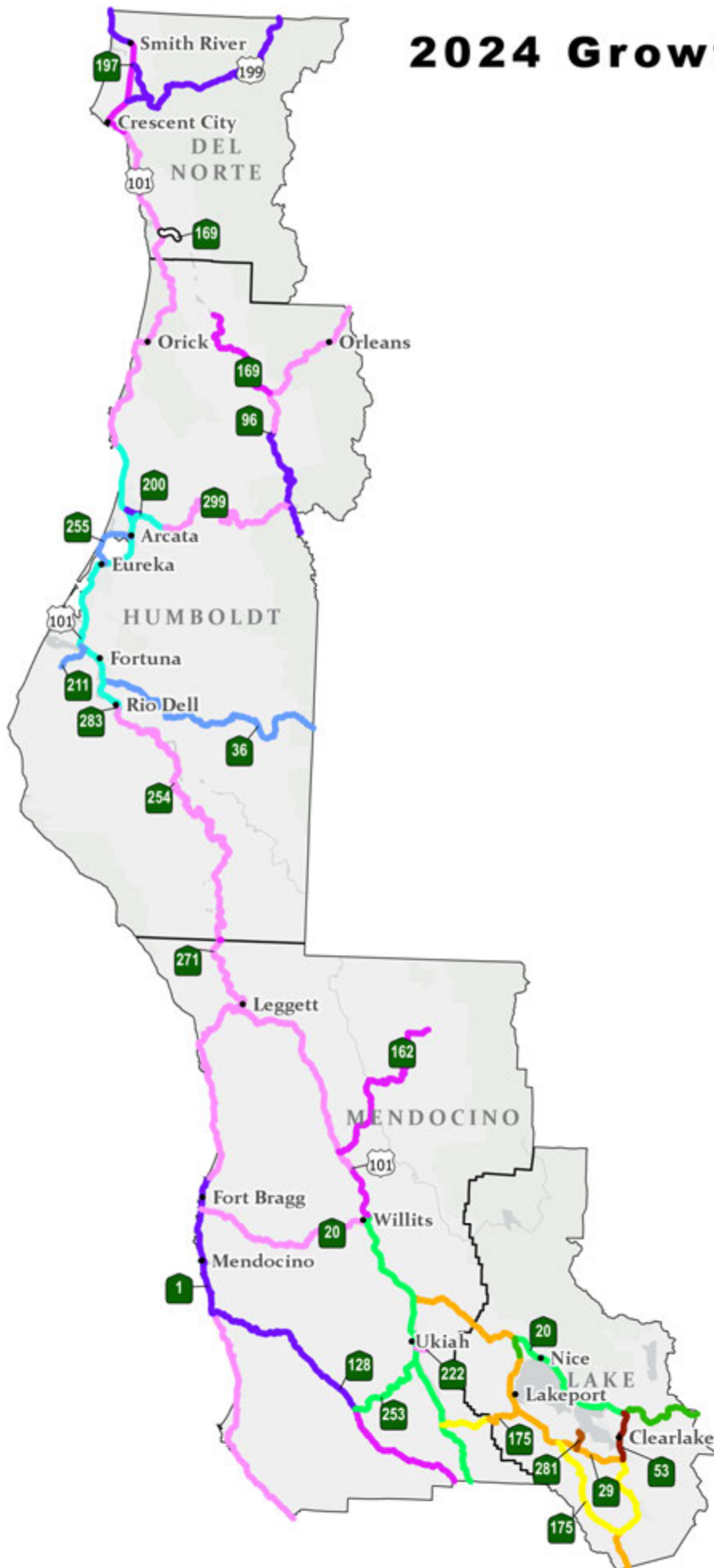
Attachments:

Using District 1 Growth Factors Tutorial
2024 Growth Factor Summary
2024 Growth Factor Map

c:

SHERI RODRIGUEZ
LISA BUGLEWICZ
BRYAN THOMAS
JESSE ROBERTSON
HQ System Planning
North Region Travel Forecasting

2024 Growth Factor Map



Growth Factor 2024



District Growth Factor: 1.13

Growth Factors Represent a 20 year straight line growth pattern.
(Not annual percent growth)



District 1 - Growth Factor Summary

20-Year Growth Factors

Segment	2024 GF
MEN-1-0.00/40.27	1.03
MEN-1-40.27/64.86	1.10
MEN-1-64.86/105.57	1.03
MEN-20-0.00/33.16	1.03
MEN-20-33.22/44.11	1.29
LAK-20-0.00/8.34	1.29
LAK-20-8.34/31.62	1.20
LAK-20-31.62/46.48	1.23
LAK-29-0.00/5.81	1.29
LAK-29-5.81/20.31	1.26
LAK-29-20.31/48.40	1.29
LAK-29-48.40/52.54	1.23
HUM-36-0.00/45.68	1.13
LAK-53-0.00/7.45	1.36
HUM-96-0.00/16.00	1.10
HUM-96-16.00/44.98	1.03
MEN-101-0.10/47.27	1.20
MEN-101-47.27/55.90	1.07
MEN-101-55.90/104.15	1.03
HUM-101-0.00/51.84	1.03
HUM-101-51.84/100.71	1.16
HUM-101-100.71/137.14	1.03
DN-101-0.00/23.85	1.03
DN-101-23.85/39.98	1.07
DN-101-39.98/46.49	1.10
MEN-128-0.00/29.58	1.10
MEN-128-29.58/50.90	1.07
MEN-162-0.00/34.05	1.07
DN-169-0.0/3.52	1.00
HUM-169-13.20/33.84	1.07
MEN-175-0.00/9.85	1.26
LAK-175-0.00/8.19	1.29
LAK-175-8.25/28.04	1.26
DN-197-0.00/7.08	1.10
DN-199-0.51/36.41	1.10
HUM-200-0.00/2.68	1.10
HUM-211-73.20/79.16	1.13
MEN-222-0.00/2.15	1.03
MEN-253-0.00/17.18	1.20
HUM-254-0.00/46.53	1.03
HUM-255-0.0/8.80	1.13
MEN-271-0.0/22.72	1.03
HUM-271-0.00/0.31	1.07
LAK-281-14.00/17.00	1.33
HUM-283-0.00/0.36	1.03
HUM-299-0.00/5.93	1.16
HUM-299-5.93/38.83	1.03
HUM-299-38.83/43.04	1.10
District Growth Factor	1.13

Using District 1 Growth Factors

- To project volumes **20 years** into the future, multiply the base year traffic volume by the growth factor (GF).

Formula: $(GF) * (\text{Base Year Volume}) = \text{Projected Volume}$

Example: The base year volume (2012) is 1500 AADT. The 20-year growth factor for that segment of highway is 1.3. What is the 2032 volume?

$(1.3) * (1500) = 1950$ The projected 2032 traffic volume (AADT) for this segment is 1950.

- To project volumes **Less than or greater than 20 years** into the future, use the following formula:

Formula: $\left[1 + \frac{(GF-1) * (\# \text{ of years into future})}{20}\right] * (\text{starting volume}) = \text{Projected Volume}$

Example: The Base year volume in 2012 is 700 AADT. The 20- year growth factor is 1.4.

A) What is the volume in 27 years?

$$\left[1 + \left(\frac{(1.4-1) * (27)}{20}\right)\right] * (700) = 1078 \quad \text{The projected volume in 2039 is 1078.}$$

B) What is the volume in 7 years?

$$\left[1 + \left(\frac{(1.4-1) * (7)}{20}\right)\right] * (700) = 798 \quad \text{The projected volume in 2019 is 798.}$$

Caltrans 2022 Average Annual Daily Traffic (AADT)

DISTRICT	ROUTE	ROUTE_SFX	COUNTY	PM_PFX	PM	PM_SFX	LOCATION DESCRIPTION	BACK_PEAK_HOUR	BACK_PEAK_MADT	BACK_AADT	AHEAD_PEAK_HOUR	AHEAD_PEAK_MADT	AHEAD_AADT
01	001		MEN		0.000		SONOMA/MENDOCINO COUNTY LINE						
01	001		MEN		1.020		NORTH LIMITS GUALALA	440	4650	4000	410	3200	2700
01	001		MEN		5.090		FISH ROCK ROAD	320	3600	3100	210	3600	3100
01	001		MEN		14.692		POINT ARENA, SOUTH CITY LIMITS	240	2600	2200	240	2850	2400
01	001		MEN		15.180		POINT ARENA, RIVERSIDE DRIVE	470	4150	1640	250	2800	2600
01	001		MEN		15.740		POINT ARENA, LAKE STREET	320	2800	2390	250	2500	2430
01	001		MEN		16.166		POINT ARENA, NORTH CITY LIMITS	250	2800	2300	250	2800	2300
01	001		MEN		19.340		MOUNTAIN VIEW ROAD, MANCHESTER, SOUTH	190	2500	2100	220	2150	1850
01	001		MEN		34.900		NORTH LIMITS ELK	220	1550	1215	160	1600	1330
01	001		MEN		40.273		JCT. RTE. 128 EAST	270	3800	3000	620	3700	2970
01	001		MEN		47.500		LITTLE RIVER, AIRPORT ROAD	480	4200	3300	650	5200	4200
01	001		MEN		50.040		COMPTCHE/UKIAH ROADS	660	6700	5390	860	8500	7300
01	001		MEN	R	50.560		MENDOCINO, JACKSON STREET	700	7500	5500	730	8200	7600
01	001		MEN	R	51.490		MENDOCINO, LANSING STREET	1000	10200	8100	1000	10200	8900
01	001		MEN	R	55.780		NORTH LIMITS CASPAR	1150	10300	8850	1250	13000	11000
01	001		MEN		57.220		GIBNEY LANE	1350	14000	11000	1400	14200	11300
01	001		MEN		59.250		SIMPSON LANE	1700	16000	13300	1900	19000	16700
01	001		MEN		59.803		JCT. RTE. 20 EAST	1900	19000	11000	1900	22000	4850
01	001		MEN		60.680		FORT BRAGG, CYPRESS AVENUE	2000	24200	21300	1500	20300	17700
01	001		MEN		61.471		FORT BRAGG, REDWOOD AVENUE	1500	20300	17700	1800	20000	17700
01	001		MEN		62.360		FORT BRAGG, NORTH CITY LIMITS	1400	14000	12100	1200	10100	8100
01	001		MEN		62.800		AIRPORT ROAD, FORT BRAGG, NORTH	1200	10100	8100	1000	8200	6300
01	001		MEN	R	64.858		MAC KERRICHER STATE PARK	880	6100	4850	340	2150	1560
01	001		MEN		77.660		WESTPORT, NORTH	180	1300	900	140	1800	1300
01	001		MEN		90.874		JCT. RTE. 211 NORTH	130	860	570	100	1100	550
01	001		MEN		105.501		LEGGETT, JCT. RTE. 271	140	1200	800	120	1100	720
01	001		MEN		105.578		LEGGETT, JCT. RTE. 101	330	1000	630			

Appendix E. Level of Service Analysis

HCM 7th TWSC

3: Highway 1 & Harbor Drive

11/20/2025

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Vol, veh/h	2	0	4	26	0	16	2	881	25	17	723	1
Future Vol, veh/h	2	0	4	26	0	16	2	881	25	17	723	1
Conflicting eds, /hr	2	0	1	1	0	2	3	0	6	6	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	0	4	27	0	17	2	927	26	18	761	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1270	1764	385	1368	1752	485	765	0	0	960	0	0
Stage 1	800	800	-	951	951	-	-	-	-	-	-	-
Stage 2	470	964	-	417	801	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	122	81	605	103	82	520	824	-	-	694	-	-
Stage 1	338	388	-	273	330	-	-	-	-	-	-	-
Stage 2	535	325	-	576	388	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	114	78	602	99	79	516	822	-	-	690	-	-
Mov Cap-2 Maneuver	114	78	-	99	79	-	-	-	-	-	-	-
Stage 1	328	377	-	271	327	-	-	-	-	-	-	-
Stage 2	516	322	-	556	377	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	19.9		41.24		0.02		0.24	
HCM LOS	C		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	822	-	-	248	143	690	-	-
HCM Lane V/C Ratio	0.003	-	-	0.025	0.31	0.026	-	-
HCM Control Delay (s/veh)	9.4	-	-	19.9	41.2	10.4	-	-
HCM Lane LOS	A	-	-	C	E	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.2	0.1	-	-

HCM 7th TWSC

3: Highway 1 & Harbor Drive

11/20/2025

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Vol, veh/h	4	0	4	26	0	55	5	1110	59	43	1196	0
Future Vol, veh/h	4	0	4	26	0	55	5	1110	59	43	1196	0
Conflicting eds, /hr	0	0	0	0	0	0	2	0	5	5	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	4	0	4	27	0	56	5	1133	60	44	1220	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1887	2518	612	1876	2488	601	1222	0	0	1198	0	0
Stage 1	1310	1310	-	1178	1178	-	-	-	-	-	-	-
Stage 2	577	1208	-	698	1310	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	42	26	429	42	28	436	550	-	-	562	-	-
Stage 1	164	221	-	198	257	-	-	-	-	-	-	-
Stage 2	462	248	-	390	221	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	33	24	428	38	25	434	549	-	-	559	-	-
Mov Cap-2 Maneuver	33	24	-	38	25	-	-	-	-	-	-	-
Stage 1	150	204	-	195	253	-	-	-	-	-	-	-
Stage 2	398	245	-	356	204	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	72.54	123.36	0.05	0.42
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	549	-	-	61	100	559	-	-
HCM Lane V/C Ratio	0.009	-	-	0.133	0.824	0.078	-	-
HCM Control Delay (s/veh)	11.6	-	-	72.5	123.4	12	-	-
HCM Lane LOS	B	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	4.6	0.3	-	-

HCM 7th TWSC

3: Highway 1 & Harbor Drive

11/21/2025

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Vol, veh/h	0	0	6	0	0	16	2	881	25	17	749	1
Future Vol, veh/h	0	0	6	0	0	16	2	881	25	17	749	1
Conflicting eds, /hr	2	0	1	1	0	2	3	0	6	6	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	0	0	6	0	0	17	2	927	26	18	788	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1298	1792	399	1382	1779	485	792	0	0	960	0	0
Stage 1	828	828	-	951	951	-	-	-	-	-	-	-
Stage 2	470	964	-	431	828	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	116	77	592	100	79	520	805	-	-	694	-	-
Stage 1	325	377	-	273	330	-	-	-	-	-	-	-
Stage 2	535	325	-	565	377	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	109	75	590	96	76	516	803	-	-	690	-	-
Mov Cap-2 Maneuver	109	75	-	96	76	-	-	-	-	-	-	-
Stage 1	316	366	-	271	327	-	-	-	-	-	-	-
Stage 2	516	322	-	544	366	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v11.17		12.21	0.02	0.23
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	803	-	-	590	516	690	-	-
HCM Lane V/C Ratio	0.003	-	-	0.011	0.033	0.026	-	-
HCM Control Delay (s/veh)	9.5	-	-	11.2	12.2	10.4	-	-
HCM Lane LOS	A	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

HCM 7th TWSC

3: Highway 1 & Harbor Drive

11/21/2025

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Vol, veh/h	0	0	8	0	0	55	5	1110	59	43	1222	0
Future Vol, veh/h	0	0	8	0	0	55	5	1110	59	43	1222	0
Conflicting eds, /hr	0	0	0	0	0	0	2	0	5	5	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	0	0	8	0	0	56	5	1133	60	44	1247	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1913	2545	625	1889	2515	601	1249	0	0	1198	0	0
Stage 1	1337	1337	-	1178	1178	-	-	-	-	-	-	-
Stage 2	577	1208	-	711	1337	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	40	25	420	41	27	436	537	-	-	562	-	-
Stage 1	157	215	-	198	257	-	-	-	-	-	-	-
Stage 2	462	248	-	383	215	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	32	23	419	37	24	434	536	-	-	559	-	-
Mov Cap-2 Maneuver	32	23	-	37	24	-	-	-	-	-	-	-
Stage 1	145	198	-	195	253	-	-	-	-	-	-	-
Stage 2	398	245	-	346	198	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v13.76		14.53	0.05	0.41
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	536	-	-	419	434	559	-	-
HCM Lane V/C Ratio	0.01	-	-	0.019	0.129	0.078	-	-
HCM Control Delay (s/veh)	11.8	-	-	13.8	14.5	12	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.3	-	-

Noyo Harbor Multimodal Circulation Plan

Highway 1 & Harbor Drive

06/23/2025

													
Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Q (v	Traffic Volume (veh/h)	2	0	4	26	0	16	2	881	25	17	723	1
	Future Volume (veh/h)	2	0	4	26	0	16	2	881	25	17	723	1
	Initial Qb), eh	0	0	0	0	0	0	0	0	0	0	0	0
	Lane Width 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
H	Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
V	Adj Flow Rate, veh/h	2	0	4	27	0	17	2	927	26	18	761	1
	Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
	Percent heavy eh,	5	5	5	5	5	5	5	5	5	5	5	5
	Cap, veh/h	100	9	59	146	0	31	598	2623	74	507	2706	4
L	Arrive On Green	0.06	0.00	0.06	0.06	0.00	0.06	0.76	0.76	0.76	0.76	0.76	0.76
	Sat Flow, veh/h	365	164	1058	888	0	559	687	3446	97	574	3555	5
	Grp olume(v), eh/h	6	0	0	44	0	0	2	467	486	18	371	391
	Grp Sat Flow(s),veh/h/ln	1587	0	0	1447	0	0	687	1735	1808	574	1735	1825
	Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.1	5.3	5.3	0.6	3.9	3.9
	Cycle Q Clear(g_c), s	0.2	0.0	0.0	1.8	0.0	0.0	4.0	5.3	5.3	5.9	3.9	3.9
	Prop In Lane	0.33		0.67	0.61		0.39	1.00		0.05	1.00		0.00
	Lane Grp Cap(c), veh/h	168	0	0	177	0	0	598	1320	1376	507	1320	1389
	V/C Ratio(X)	0.04	0.00	0.00	0.25	0.00	0.00	0.00	0.35	0.35	0.04	0.28	0.28
	Avail Cap(c_a), veh/h	527	0	0	526	0	0	598	1320	1376	507	1320	1389
	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	Uniform Delay (d), s/veh	26.9	0.0	0.0	27.6	0.0	0.0	2.8	2.3	2.3	3.3	2.2	2.2
	Incr Delay (d2), s/veh	0.1	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.7	0.1	0.5	0.5
	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	0.0	0.6	0.0	0.0	0.0	0.7	0.7	0.1	0.5	0.5
Unsig. Movement Delay, s/veh													
L	LnGrp Delay(d), s/veh	26.9	0.0	0.0	28.3	0.0	0.0	2.8	3.1	3.1	3.4	2.7	2.7
	LnGrp OS	C			C			A	A	A	A	A	A
	Approach Vol, veh/h		6			44			955			780	
	Approach Delay, s/veh		26.9			28.3			3.1			2.7	
Approach LOS			C			C			A			A	
Timer - Assigned Phs			2		4		6		8				
Phs Duration (G+Y+Rc), s			52.2		7.8		52.2		7.8				
Change Period (Y+Rc), s			6.5		4.5		6.5		4.5				
Max Green Setting (Gmax), s			31.0		18.0		31.0		18.0				
Max Q Clear Time (g_c+I1), s			7.3		2.2		7.9		3.8				
Green Ext Time (p_c), s			6.1		0.0		4.7		0.1				
Intersection Summary													
HCM 7th Control Delay, s/veh				3.6									
HCM 7th LOS				A									
Notes													
User approved pedestrian interval to be less than phase max green.													

Noyo Harbor Multimodal Circulation Plan

Highway 1 & Harbor Drive

06/23/2025

													
Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Q (v	Lane Configurations												
	Traffic Volume (veh/h)	4	0	4	26	0	55	5	1110	59	43	1196	0
	Future Volume (veh/h)	4	0	4	26	0	55	5	1110	59	43	1196	0
	Initial Qb), eh	0	0	0	0	0	0	0	0	0	0	0	0
	Lane Width 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
	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	
H	Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
	Adj Flow Rate, veh/h	4	0	4	27	0	56	5	1133	60	44	1220	0
	Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	Percent heavy eh,	5	5	5	5	5	5	5	5	5	5	5	5
	Cap, veh/h	128	22	59	110	5	73	391	2496	132	401	2584	0
	Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.74	0.74	0.74	0.74	0.74	0.00
	Sat Flow, veh/h	525	302	827	421	69	1016	446	3351	177	458	3561	0
	V	Grp olume(v), eh/h	8	0	0	83	0	0	5	586	607	44	1220
Grp Sat Flow(s),veh/h/ln		1654	0	0	1506	0	0	446	1735	1793	458	1735	0
Q Serve(g_s), s		0.0	0.0	0.0	2.7	0.0	0.0	0.3	7.8	7.8	2.5	8.3	0.0
Cycle Q Clear(g_c), s		0.3	0.0	0.0	3.2	0.0	0.0	8.6	7.8	7.8	10.3	8.3	0.0
Prop In Lane		0.50		0.50	0.33		0.67	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h		209	0	0	188	0	0	391	1292	1336	401	2584	0
V/C Ratio(X)		0.04	0.00	0.00	0.44	0.00	0.00	0.01	0.45	0.45	0.11	0.47	0.00
Avail Cap(c_a), veh/h		533	0	0	527	0	0	391	1292	1336	401	2584	0
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh		26.0	0.0	0.0	27.3	0.0	0.0	4.7	2.9	3.0	4.9	3.0	0.0
Incr Delay (d2), s/veh		0.1	0.0	0.0	1.6	0.0	0.0	0.1	1.2	1.1	0.6	0.6	0.0
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
L	%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.2	0.0	0.0	0.0	1.2	1.3	0.2	1.1	0.0
	Unsig. Movement Delay, s/veh												
	LnGrp Delay(d), s/veh	26.0	0.0	0.0	29.0	0.0	0.0	4.8	4.1	4.1	5.5	3.6	0.0
	LnGrp OS	C			C			A	A	A	A	A	
	Approach Vol, veh/h		8			83			1198			1264	
	Approach Delay, s/veh		26.0			29.0			4.1			3.7	
	Approach LOS		C			C			A			A	
	Timer - Assigned Phs												
			2		4		6		8				
	Phs Duration (G+Y+Rc), s		51.2		8.8		51.2		8.8				
Change Period (Y+Rc), s		6.5		4.5		6.5		4.5					
Max Green Setting (Gmax), s		31.0		18.0		31.0		18.0					
Max Q Clear Time (g_c+I1), s		10.6		2.3		12.3		5.2					
Green Ext Time (p_c), s		7.8		0.0		8.9		0.3					
Intersection Summary													
HCM 7th Control Delay, s/veh				4.8									
HCM 7th LOS				A									
Notes													
User approved pedestrian interval to be less than phase max green.													

HCM 6th TWSC

3: Highway 1 & Harbor Drive

11/20/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	2	0	4	29	0	18	2	969	28	19	795	1
Future Vol, veh/h	2	0	4	29	0	18	2	969	28	19	795	1
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	2	0	4	32	0	20	2	1053	30	21	864	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1458	2014	453	1566	1999	562	875	0	0	1093	0	0
Stage 1	917	917	-	1082	1082	-	-	-	-	-	-	-
Stage 2	541	1097	-	484	917	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy t/g	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy t/g	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	88	56	546	73	57	463	748	-	-	617	-	-
Stage 1	287	342	-	227	286	-	-	-	-	-	-	-
Stage 2	485	281	-	525	342	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	80	53	536	69	54	454	741	-	-	611	-	-
Mov Cap-2 Maneuver	80	53	-	69	54	-	-	-	-	-	-	-
Stage 1	284	327	-	224	282	-	-	-	-	-	-	-
Stage 2	458	277	-	498	327	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	25.2		71.4		0		0.3	
HCM LOS	D		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	741	-	-	185	102	611	-	-
HCM Lane V/C Ratio	0.003	-	-	0.035	0.501	0.034	-	-
HCM Control Delay (s/veh)	9.9	-	-	25.2	71.4	11.1	-	-
HCM Lane LOS	A	-	-	D	F	B	-	-
HCM 95th %tile Q (veh)	0	-	-	0.1	2.2	0.1	-	-

HCM 6th TWSC

3: Highway 1 & Harbor Drive

11/20/2025

Intersection													
Int Delay, s/veh	16.8												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Vol, veh/h	4	0	4	29	0	60	5	1221	65	47	1304	0	
Future Vol, veh/h	4	0	4	29	0	60	5	1221	65	47	1304	0	
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5	
Mvmt Flow	4	0	4	32	0	65	5	1327	71	51	1417	0	
Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	2213	2947	729	2204	2912	719	1427	0	0	1408	0	0	
Stage 1	1529	1529	-	1383	1383	-	-	-	-	-	-	-	
Stage 2	684	1418	-	821	1529	-	-	-	-	-	-	-	
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-	
Critical Hdwy t/g	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-	
Critical Hdwy t/g	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-	
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-	
Pot Cap-1 Maneuver	23	14	359	~ 24	15	364	458	-	-	465	-	-	
Stage 1	119	173	-	147	204	-	-	-	-	-	-	-	
Stage 2	398	196	-	328	173	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	17	12	352	~ 21	13	357	454	-	-	461	-	-	
Mov Cap-2 Maneuver	17	12	-	~ 21	13	-	-	-	-	-	-	-	
Stage 1	117	152	-	144	200	-	-	-	-	-	-	-	
Stage 2	319	192	-	285	152	-	-	-	-	-	-	-	
Approach	EB			WB			NB			SB			
HCM Control Delay, s/v	155.2			\$ 494.9			0.1			0.5			
HCM LOS	F			F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	454	-	-	32	57	461	-	-					
HCM Lane V/C Ratio	0.012	-	-	0.272	1.697	0.111	-	-					
HCM Control Delay (s/veh)	13	-	-	155.2	\$ 494.9	13.8	-	-					
HCM Lane LOS	B	-	-	F	F	B	-	-					
HCM 95th %tile Q (veh)	0	-	-	0.9	9	0.4	-	-					
Notes													
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon				

HCM 7th TWSC

3: Highway 1 & Harbor Drive

11/21/2025

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↕		↵	↕	
Traffic Vol, veh/h	0	0	6	0	0	18	2	969	28	19	824	1
Future Vol, veh/h	0	0	6	0	0	18	2	969	28	19	824	1
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	0	0	7	0	0	20	2	1053	30	21	896	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1488	2046	468	1582	2031	562	907	0	0	1094	0	0
Stage 1	948	948	-	1083	1083	-	-	-	-	-	-	-
Stage 2	541	1098	-	499	948	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy Tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Tg	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	84	53	533	71	55	463	728	-	-	617	-	-
Stage 1	275	331	-	227	285	-	-	-	-	-	-	-
Stage 2	485	281	-	514	331	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	76	51	523	66	52	454	721	-	-	611	-	-
Mov Cap-2 Maneuver	76	51	-	66	52	-	-	-	-	-	-	-
Stage 1	263	317	-	224	282	-	-	-	-	-	-	-
Stage 2	459	277	-	486	317	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.97	13.29	0.02	0.25
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	721	-	-	523	454	611	-	-
HCM Lane V/C Ratio	0.003	-	-	0.012	0.043	0.034	-	-
HCM Control Delay (s/veh)	10	-	-	12	13.3	11.1	-	-
HCM Lane LOS	B	-	-	B	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

HCM 7th TWSC

3: Highway 1 & Harbor Drive

11/21/2025

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Vol, veh/h	0	0	8	0	0	60	5	1221	65	47	1333	0
Future Vol, veh/h	0	0	8	0	0	60	5	1221	65	47	1333	0
Conflicting Peds, #/hr	10	0	10	10	0	10	10	0	10	10	0	10
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	0	0	9	0	0	65	5	1327	71	51	1449	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2246	2980	744	2220	2944	719	1459	0	0	1408	0	0
Stage 1	1561	1561	-	1383	1383	-	-	-	-	-	-	-
Stage 2	684	1419	-	837	1561	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.6	6.6	7	4.2	-	-	4.2	-	-
Critical Hdwy t/g	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy t/g	6.6	5.6	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.55	4.05	3.35	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	22	13	350	23	14	364	445	-	-	466	-	-
Stage 1	114	166	-	147	204	-	-	-	-	-	-	-
Stage 2	398	196	-	321	166	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	16	11	344	19	12	357	440	-	-	461	-	-
Mov Cap-2 Maneuver	16	11	-	19	12	-	-	-	-	-	-	-
Stage 1	100	147	-	144	199	-	-	-	-	-	-	-
Stage 2	318	192	-	276	147	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v15.75		17.31	0.05	0.47
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	440	-	-	344	357	461	-	-
HCM Lane V/C Ratio	0.012	-	-	0.025	0.183	0.111	-	-
HCM Control Delay (s/veh)	13.3	-	-	15.7	17.3	13.8	-	-
HCM Lane LOS	B	-	-	C	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0.4	-	-

Noyo Harbor Multimodal Circulation Plan

Highway 1 & Harbor Drive

06/19/2025

Movement		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Q (v	Lane Configurations												
	Traffic Volume (veh/h)	2	0	4	29	0	18	2	969	28	19	795	1
	Future Volume (veh/h)	2	0	4	29	0	18	2	969	28	19	795	1
	Initial Qb), eh	0	0	0	0	0	0	0	0	0	0	0	0
	Lane Width 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
	Ped-Bike Adj(A_pbT)	0.98		0.97	0.97		0.97	1.00		0.99	1.00		0.99
	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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
H	Adj Flow Rate, veh/h	2	0	4	32	0	20	2	1053	30	21	864	1
	Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
	Percent heavy eh,	5	5	5	5	5	5	5	5	5	5	5	5
	Cap, veh/h	106	25	102	167	20	56	509	2465	70	420	2545	3
	Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.72	0.72	0.72	0.72	0.72	0.72
V	Sat Flow, veh/h	255	249	1008	692	202	559	623	3444	98	508	3556	4
	Grp olume(v), eh/h	6	0	0	52	0	0	2	530	553	21	422	443
	Grp Sat Flow(s),veh/h/ln	1512	0	0	1453	0	0	623	1735	1807	508	1735	1825
	Q Serve(g_s), s	0.0	0.0	0.0	0.7	0.0	0.0	0.1	7.5	7.5	1.1	5.5	5.5
	Cycle Q Clear(g_c), s	0.2	0.0	0.0	1.8	0.0	0.0	5.5	7.5	7.5	8.6	5.5	5.5
	Prop In Lane	0.33		0.67	0.62		0.38	1.00		0.05	1.00		0.00
	Lane Grp Cap(c), veh/h	233	0	0	244	0	0	509	1242	1294	420	1242	1306
	V/C Ratio(X)	0.03	0.00	0.00	0.21	0.00	0.00	0.00	0.43	0.43	0.05	0.34	0.34
	Avail Cap(c_a), veh/h	615	0	0	615	0	0	509	1242	1294	420	1242	1306
	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
L	Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
	Uniform Delay (d), s/veh	24.3	0.0	0.0	25.0	0.0	0.0	4.2	3.5	3.5	5.2	3.2	3.2
	Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.1	1.0	0.2	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	0.0	0.7	0.0	0.0	0.0	1.4	1.5	0.1	1.0	1.1
	Unsig. Movement Delay, s/veh												
	LnGrp Delay(d), s/veh	24.4	0.0	0.0	25.5	0.0	0.0	4.3	4.6	4.5	5.5	3.9	3.9
	LnGrp OS	C			C			A	A	A	A	A	A
	Approach Vol, veh/h		6			52			1085			886	
	Approach Delay, s/veh		24.4			25.5			4.5			4.0	
Approach LOS		C			C			A			A		
Timer - Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Rc), s		49.4		10.6		49.4		10.6					
Change Period (Y+Rc), s		6.5		4.5		6.5		4.5					
Max Green Setting (Gmax), s		27.0		22.0		27.0		22.0					
Max Q Clear Time (g_c+11), s		9.5		2.2		10.6		3.8					
Green Ext Time (p_c), s		6.4		0.0		4.9		0.2					
Intersection Summary													
HCM 7th Control Delay, s/veh				4.9									
HCM 7th LOS				A									

Noyo Harbor Multimodal Circulation Plan

Highway 1 & Harbor Drive

11/20/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	4	29	0	60	5	1221	65	47	1304	0
Future Volume (veh/h)	4	0	4	29	0	60	5	1221	65	47	1304	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	0.98		0.97	0.97		0.97	1.00		0.99	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	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	4	0	4	32	0	65	5	1327	71	51	1417	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	155	25	90	120	17	116	303	2346	125	310	2431	0
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.70	0.70	0.70	0.70	0.70	0.00
Sat Flow, veh/h	560	216	776	348	144	999	370	3348	179	377	3561	0
Grp Volume(v), veh/h	8	0	0	97	0	0	5	686	712	51	1417	0
Grp Sat Flow(s),veh/h/ln	1552	0	0	1490	0	0	370	1735	1792	377	1735	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	0.0	0.4	11.8	11.8	4.7	12.4	0.0
Cycle Q Clear(g_c), s	0.3	0.0	0.0	3.6	0.0	0.0	12.8	11.8	11.8	16.5	12.4	0.0
Prop In Lane	0.50		0.50	0.33		0.67	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	270	0	0	253	0	0	303	1215	1256	310	2431	0
V/C Ratio(X)	0.03	0.00	0.00	0.38	0.00	0.00	0.02	0.56	0.57	0.16	0.58	0.00
Avail Cap(c_a), veh/h	525	0	0	519	0	0	303	1215	1256	310	2431	0
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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.6	0.0	0.0	25.0	0.0	0.0	7.8	4.4	4.5	8.6	4.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.0	0.1	1.9	1.9	1.1	1.0	0.0
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	0.0	1.3	0.0	0.0	0.0	2.5	2.6	0.4	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.6	0.0	0.0	25.9	0.0	0.0	7.9	6.4	6.3	9.7	5.6	0.0
LnGrp LOS	C			C			A	A	A	A	A	
Approach Vol, veh/h		8			97			1403			1468	
Approach Delay, s/veh		23.6			25.9			6.3			5.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		48.5		11.5		48.5		11.5				
Change Period (Y+Rc), s		6.5		4.5		6.5		4.5				
Max Green Setting (Gmax), s		31.0		18.0		31.0		18.0				
Max Q Clear Time (g_c+I1), s		14.8		2.3		18.5		5.6				
Green Ext Time (p_c), s		8.4		0.0		8.1		0.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			6.7									
HCM 7th LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Harbor Drive, 1-Lane (Ready) (Site Folder: Existing AM)]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh ft		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	2	2.7	2	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.0
8	T1	All MCs	931	2.7	931	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.5
18	R2	All MCs	26	2.7	26	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.3
Approach			960	2.7	960	2.7	0.801	11.9	LOS B	15.0	382.8	0.44	0.11	0.44	30.5
East: N Harbor Drive															
1	L2	All MCs	27	2.7	27	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.5
6	T1	All MCs	1	2.7	1	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.6
16	R2	All MCs	17	2.7	17	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.6
Approach			45	2.7	45	2.7	0.111	10.4	LOS B	0.4	10.0	0.69	0.69	0.69	21.5
North: Highway 1															
7	L2	All MCs	18	2.7	18	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	30.7
4	T1	All MCs	764	2.7	764	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	31.2
14	R2	All MCs	1	2.7	1	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	31.0
Approach			783	2.7	783	2.7	0.660	10.1	LOS B	7.4	189.6	0.33	0.10	0.33	31.2
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.3
2	T1	All MCs	1	2.7	1	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.4
12	R2	All MCs	4	2.7	4	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.4
Approach			7	2.7	7	2.7	0.016	7.8	LOS A	0.1	1.4	0.63	0.54	0.63	22.4
All Vehicles			1796	2.7	1796	2.7	0.801	11.0	LOS B	15.0	382.8	0.40	0.12	0.40	30.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

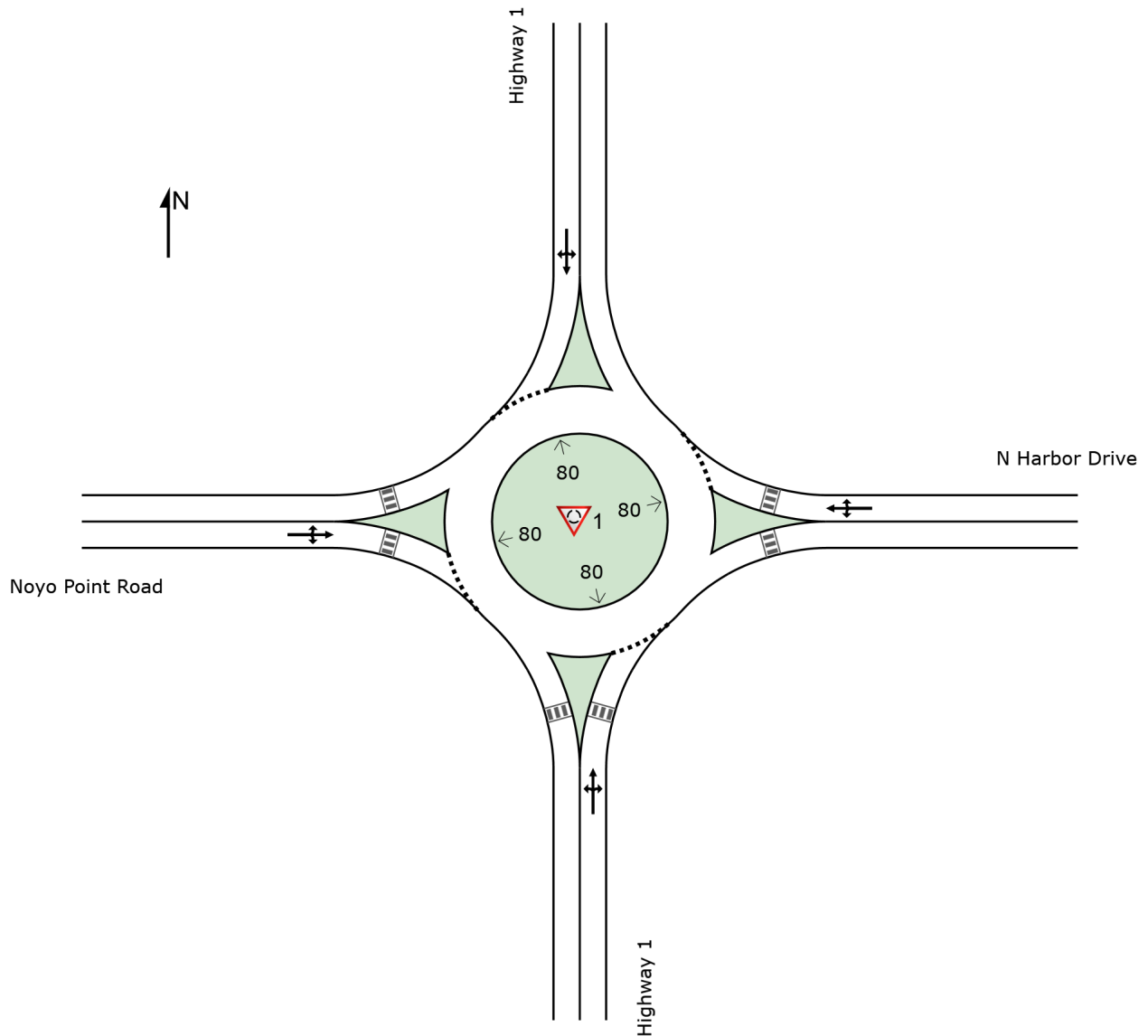
 Site: 1 [Hwy 1/North Harbor Drive, 1-Lane (Ready) (Site Folder: Existing AM)]

NA

Site Category: (None)

Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Harbor Drive, 1-Lane (Ready) (Site Folder: Existing PM (Volumes Updated for 1-Lane))]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh ft		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	1.066	40.8	LOS F	115.5	2938.2	1.00	1.31	1.49	21.6
8	T1	All MCs	1174	2.8	1174	2.8	1.066	40.8	LOS F	115.5	2938.2	1.00	1.31	1.49	21.9
18	R2	All MCs	62	2.8	62	2.8	1.066	40.8	LOS F	115.5	2938.2	1.00	1.31	1.49	21.8
Approach			1241	2.8	1241	2.8	1.066	40.8	LOS E	115.5	2938.2	1.00	1.31	1.49	21.9
East: N Harbor Drive															
1	L2	All MCs	27	2.8	27	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.6
6	T1	All MCs	1	2.8	1	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.8
16	R2	All MCs	58	2.8	58	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.7
Approach			87	2.8	87	2.8	0.259	15.6	LOS C	0.9	23.8	0.78	0.79	0.81	20.7
North: Highway 1															
7	L2	All MCs	45	2.8	45	2.8	1.109	40.9	LOS F	161.6	4104.6	1.00	1.31	1.50	21.6
4	T1	All MCs	1265	2.8	1265	2.8	1.109	40.9	LOS F	161.6	4104.6	1.00	1.31	1.50	21.9
14	R2	All MCs	1	2.8	1	2.8	1.109	40.9	LOS F	161.6	4104.6	1.00	1.31	1.50	21.8
Approach			1311	2.8	1311	2.8	1.109	40.9	LOS E	161.6	4104.6	1.00	1.31	1.50	21.8
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.1
2	T1	All MCs	1	2.8	1	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.3
12	R2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
Approach			10	2.8	10	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
All Vehicles			2649	2.8	2649	2.8	1.109	39.9	LOS E	161.6	4104.6	0.99	1.29	1.47	21.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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SITE LAYOUT

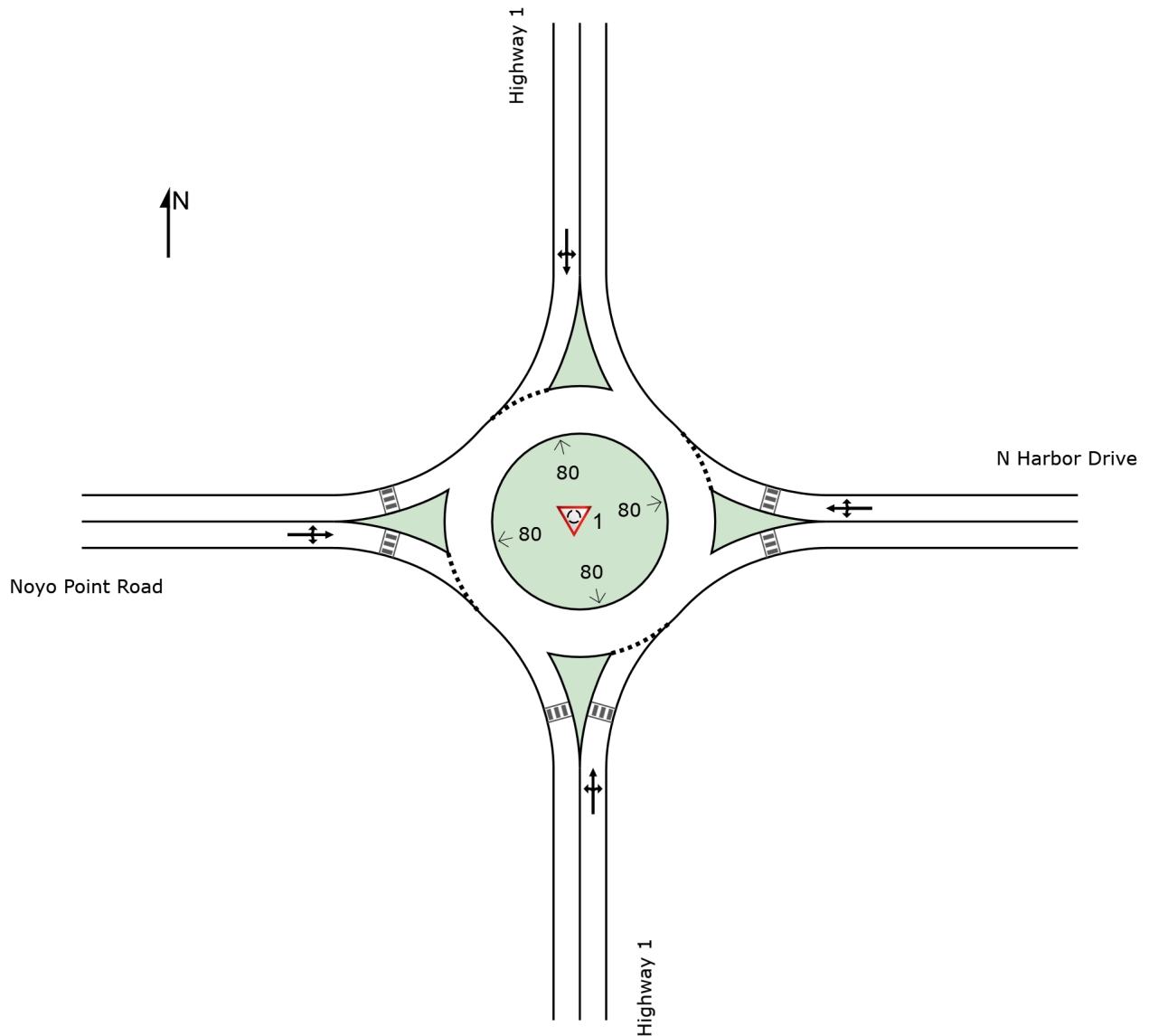
 **Site: 1 [Hwy 1/North Harbor Drive, 1-Lane (Ready) (Site Folder: Existing PM (Volumes Updated for 1-Lane))]**

NA

Site Category: (None)

Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Ready) (Site Folder: Existing AM)]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh ft		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	2	2.7	2	2.7	0.401	6.4	LOS A	2.4	60.5	0.14	0.04	0.14	32.9
8	T1	All MCs	931	2.7	931	2.7	0.401	6.2	LOS A	2.4	60.5	0.14	0.03	0.14	33.6
18	R2	All MCs	26	2.7	26	2.7	0.401	6.1	LOS A	2.3	58.6	0.13	0.03	0.13	33.4
Approach			960	2.7	960	2.7	0.401	6.2	LOS A	2.4	60.5	0.14	0.03	0.14	33.6
East: N Harbor Drive															
1	L2	All MCs	27	2.7	27	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.1
6	T1	All MCs	1	2.7	1	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.2
16	R2	All MCs	17	2.7	17	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.2
Approach			45	2.7	45	2.7	0.091	8.4	LOS A	0.3	7.5	0.62	0.62	0.62	22.1
North: Highway 1															
7	L2	All MCs	18	2.7	18	2.7	0.327	5.8	LOS A	1.7	44.4	0.16	0.05	0.16	33.0
4	T1	All MCs	764	2.7	764	2.7	0.327	5.7	LOS A	1.7	44.4	0.15	0.04	0.15	33.8
14	R2	All MCs	1	2.7	1	2.7	0.327	5.6	LOS A	1.7	42.8	0.15	0.04	0.15	33.6
Approach			783	2.7	783	2.7	0.327	5.7	LOS A	1.7	44.4	0.15	0.04	0.15	33.8
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.8
2	T1	All MCs	1	2.7	1	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.9
12	R2	All MCs	4	2.7	4	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.9
Approach			7	2.7	7	2.7	0.013	6.5	LOS A	0.0	1.1	0.56	0.47	0.56	22.9
All Vehicles			1796	2.7	1796	2.7	0.401	6.1	LOS A	2.4	60.5	0.16	0.06	0.16	33.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

SITE LAYOUT

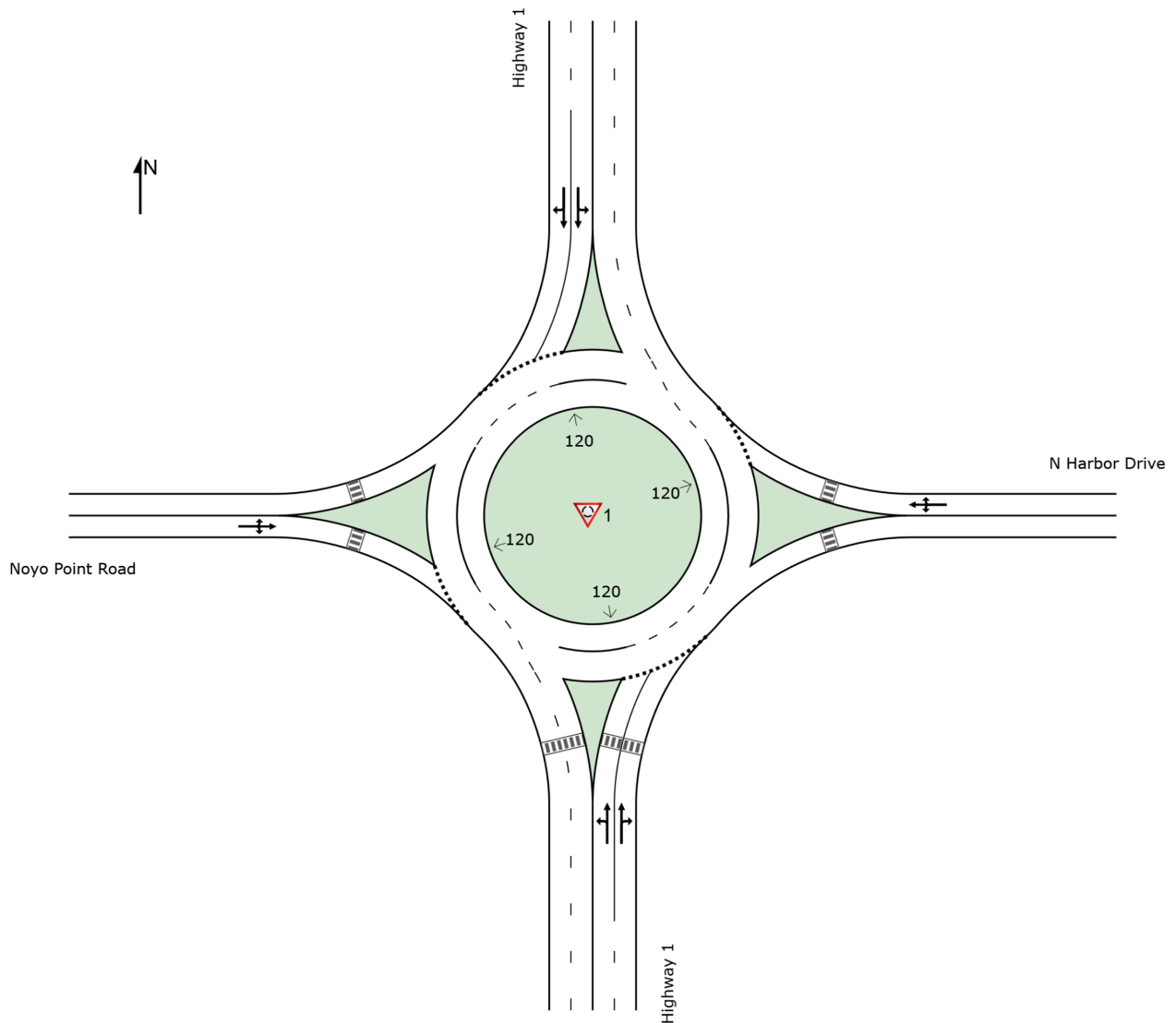
 **Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Site Folder: Existing AM)]**

NA

Site Category: (None)

Roundabout

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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Ready)]**
(Site Folder: Existing PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] ft				mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	0.532	8.7	LOS A	3.9	98.6	0.29	0.10	0.29	31.8
8	T1	All MCs	1174	2.8	1174	2.8	0.532	8.5	LOS A	3.9	98.6	0.28	0.10	0.28	32.4
18	R2	All MCs	62	2.8	62	2.8	0.532	8.4	LOS A	3.8	95.3	0.27	0.10	0.27	32.2
Approach			1241	2.8	1241	2.8	0.532	8.5	LOS A	3.9	98.6	0.28	0.10	0.28	32.4
East: N Harbor Drive															
1	L2	All MCs	27	2.8	27	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.4
6	T1	All MCs	1	2.8	1	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.5
16	R2	All MCs	58	2.8	58	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.4
Approach			87	2.8	87	2.8	0.224	13.0	LOS B	0.7	18.2	0.73	0.73	0.73	21.4
North: Highway 1															
7	L2	All MCs	45	2.8	45	2.8	0.550	8.5	LOS A	4.2	108.5	0.24	0.07	0.24	31.7
4	T1	All MCs	1265	2.8	1265	2.8	0.550	8.4	LOS A	4.2	108.5	0.23	0.07	0.23	32.4
14	R2	All MCs	1	2.8	1	2.8	0.550	8.2	LOS A	4.1	104.4	0.23	0.07	0.23	32.3
Approach			1311	2.8	1311	2.8	0.550	8.4	LOS A	4.2	108.5	0.23	0.07	0.23	32.4
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.6
2	T1	All MCs	1	2.8	1	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.7
12	R2	All MCs	4	2.8	4	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.7
Approach			10	2.8	10	2.8	0.029	11.3	LOS B	0.1	2.1	0.73	0.73	0.73	21.7
All Vehicles			2649	2.8	2649	2.8	0.550	8.6	LOS A	4.2	108.5	0.27	0.11	0.27	31.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

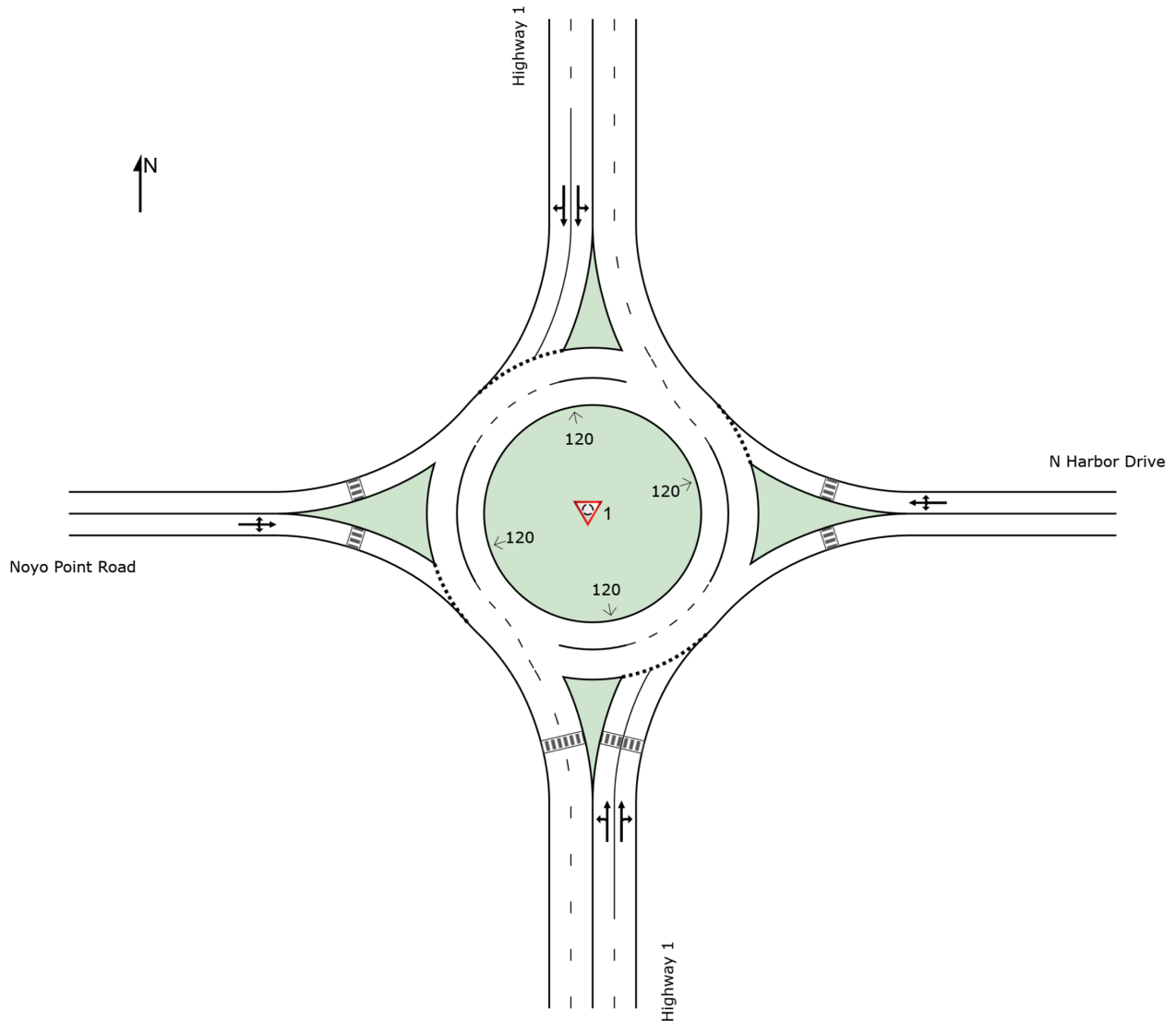
 **Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Ready) (Site Folder: Existing PM (Volumes Updated for 1-Lane))]**

NA

Site Category: (None)

Roundabout

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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Harbor Drive, 1-Lane (Ready) (Site Folder: 2044 AM (Volumes Updated for 1-Lane Roundabout))]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] ft				mph
South: Highway 1															
3	L2	All MCs	2	3.0	2	3.0	0.883	14.6	LOS B	25.8	658.0	0.72	0.19	0.72	28.9
8	T1	All MCs	1024	2.7	1024	2.7	0.883	14.6	LOS B	25.8	658.0	0.72	0.19	0.72	29.4
18	R2	All MCs	30	2.7	30	2.7	0.883	14.5	LOS B	25.8	658.0	0.72	0.19	0.72	29.2
Approach			1056	2.7	1056	2.7	0.883	14.6	LOS B	25.8	658.0	0.72	0.19	0.72	29.4
East: N Harbor Drive															
1	L2	All MCs	31	2.7	31	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.1
6	T1	All MCs	1	2.7	1	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.3
16	R2	All MCs	19	2.7	19	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.2
Approach			51	2.7	51	2.7	0.138	12.0	LOS B	0.5	12.3	0.72	0.72	0.72	21.2
North: Highway 1															
7	L2	All MCs	20	2.7	20	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.0
4	T1	All MCs	841	2.7	841	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.5
14	R2	All MCs	1	2.7	1	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.3
Approach			862	2.7	862	2.7	0.729	11.7	LOS B	10.0	253.8	0.42	0.13	0.42	30.5
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.1
2	T1	All MCs	1	2.7	1	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.3
12	R2	All MCs	4	2.7	4	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.2
Approach			7	2.7	7	2.7	0.017	8.5	LOS A	0.1	1.5	0.65	0.58	0.65	22.2
All Vehicles			1976	2.7	1976	2.7	0.883	13.2	LOS B	25.8	658.0	0.59	0.18	0.59	29.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

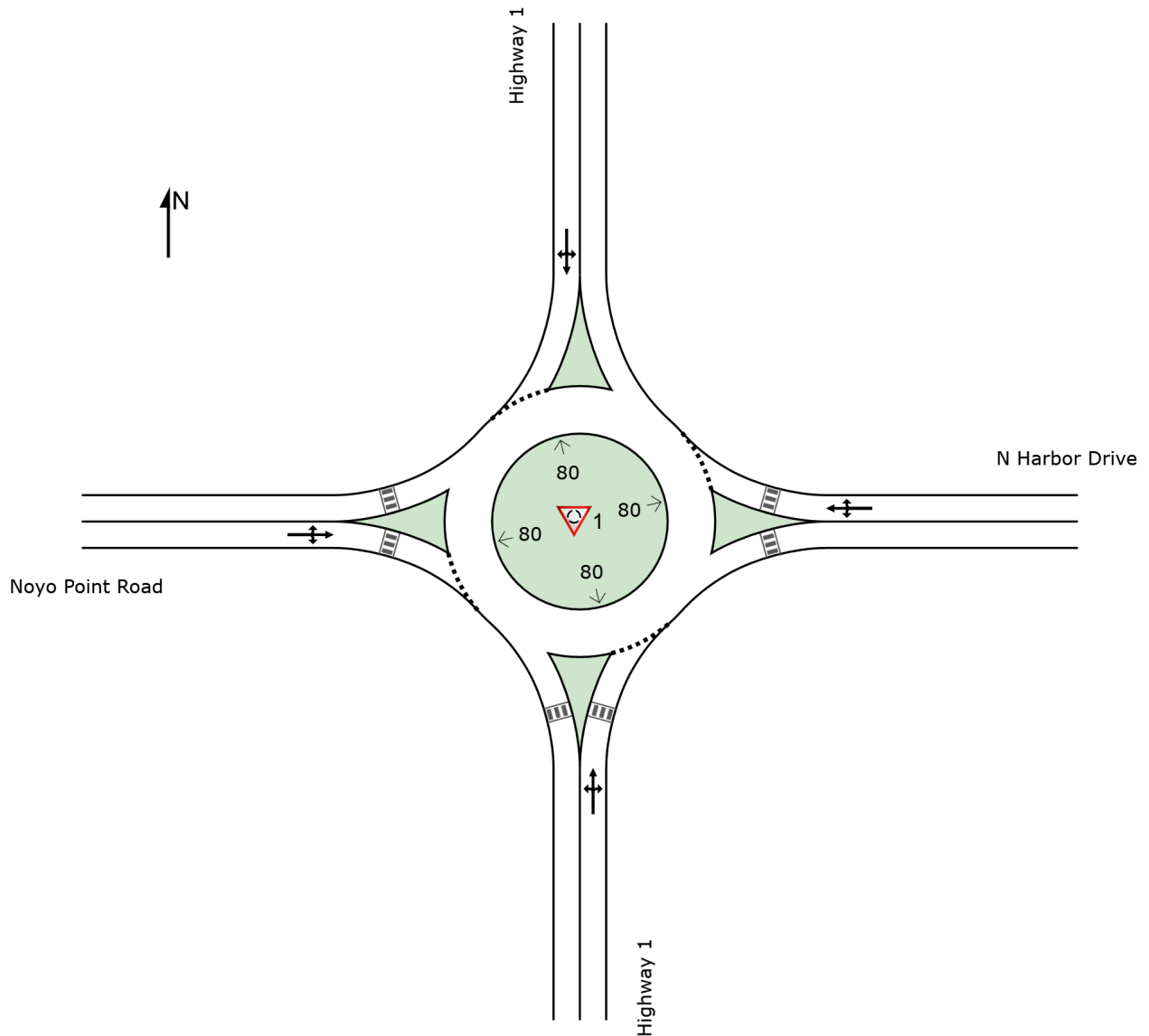
 **Site: 1 [Hwy 1/North Harbor Drive, 1-Lane (Ready) (Site Folder: 2044 AM (Volumes Updated for 1-Lane Roundabout))]**

NA

Site Category: (None)

Roundabout

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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Habor Drive, 1-Lane (Ready) (Site Folder: 2044 PM (Volumes Updated for 1-Lane))]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh ft		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	16.9
8	T1	All MCs	1291	2.8	1291	2.8	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	17.0
18	R2	All MCs	69	2.0	69	2.0	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	17.0
Approach			1365	2.7	1365	2.7	1.172	70.2	LOS F	151.8	3861.9	1.00	1.56	1.89	17.0
East: N Harbor Drive															
1	L2	All MCs	31	2.8	31	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.5
6	T1	All MCs	1	2.8	1	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.7
16	R2	All MCs	63	2.8	63	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.6
Approach			95	2.8	95	2.8	0.283	16.2	LOS C	1.0	26.6	0.78	0.81	0.84	20.6
North: Highway 1															
7	L2	All MCs	50	2.8	50	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	15.9
4	T1	All MCs	1391	2.8	1391	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	16.0
14	R2	All MCs	1	2.8	1	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	16.0
Approach			1442	2.8	1442	2.8	1.224	78.4	LOS F	193.0	4903.8	1.00	1.55	1.87	16.0
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.1
2	T1	All MCs	1	2.8	1	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.3
12	R2	All MCs	4	2.8	4	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
Approach			10	2.8	10	2.8	0.032	12.6	LOS B	0.1	2.7	0.76	0.76	0.76	21.2
All Vehicles			2912	2.8	2912	2.8	1.224	72.3	LOS F	193.0	4903.8	0.99	1.53	1.85	16.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Ready) (Site Folder: 2044 AM)]**

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] ft				mph
South: Highway 1															
3	L2	All MCs	2	3.0	2	3.0	0.442	6.9	LOS A	2.8	71.3	0.16	0.04	0.16	32.7
8	T1	All MCs	1024	2.7	1024	2.7	0.442	6.7	LOS A	2.8	71.3	0.15	0.04	0.15	33.4
18	R2	All MCs	30	2.7	30	2.7	0.442	6.6	LOS A	2.7	69.1	0.15	0.04	0.15	33.1
Approach			1056	2.7	1056	2.7	0.442	6.7	LOS A	2.8	71.3	0.15	0.04	0.15	33.4
East: N Harbor Drive															
1	L2	All MCs	31	2.7	31	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	21.9
6	T1	All MCs	1	2.7	1	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	22.0
16	R2	All MCs	19	2.7	19	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	22.0
Approach			51	2.7	51	2.7	0.112	9.5	LOS A	0.4	9.1	0.65	0.65	0.65	21.9
North: Highway 1															
7	L2	All MCs	20	2.7	20	2.7	0.361	6.2	LOS A	2.0	51.3	0.17	0.05	0.17	32.8
4	T1	All MCs	841	2.7	841	2.7	0.361	6.1	LOS A	2.0	51.3	0.17	0.05	0.17	33.6
14	R2	All MCs	1	2.7	1	2.7	0.361	6.0	LOS A	2.0	49.5	0.16	0.05	0.16	33.4
Approach			862	2.7	862	2.7	0.361	6.1	LOS A	2.0	51.3	0.17	0.05	0.17	33.6
West: Noyo Point Road															
5	L2	All MCs	2	2.7	2	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.7
2	T1	All MCs	1	2.7	1	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.8
12	R2	All MCs	4	2.7	4	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.8
Approach			7	2.7	7	2.7	0.014	7.1	LOS A	0.0	1.1	0.58	0.51	0.58	22.7
All Vehicles			1976	2.7	1976	2.7	0.442	6.5	LOS A	2.8	71.3	0.17	0.06	0.17	33.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

SITE LAYOUT

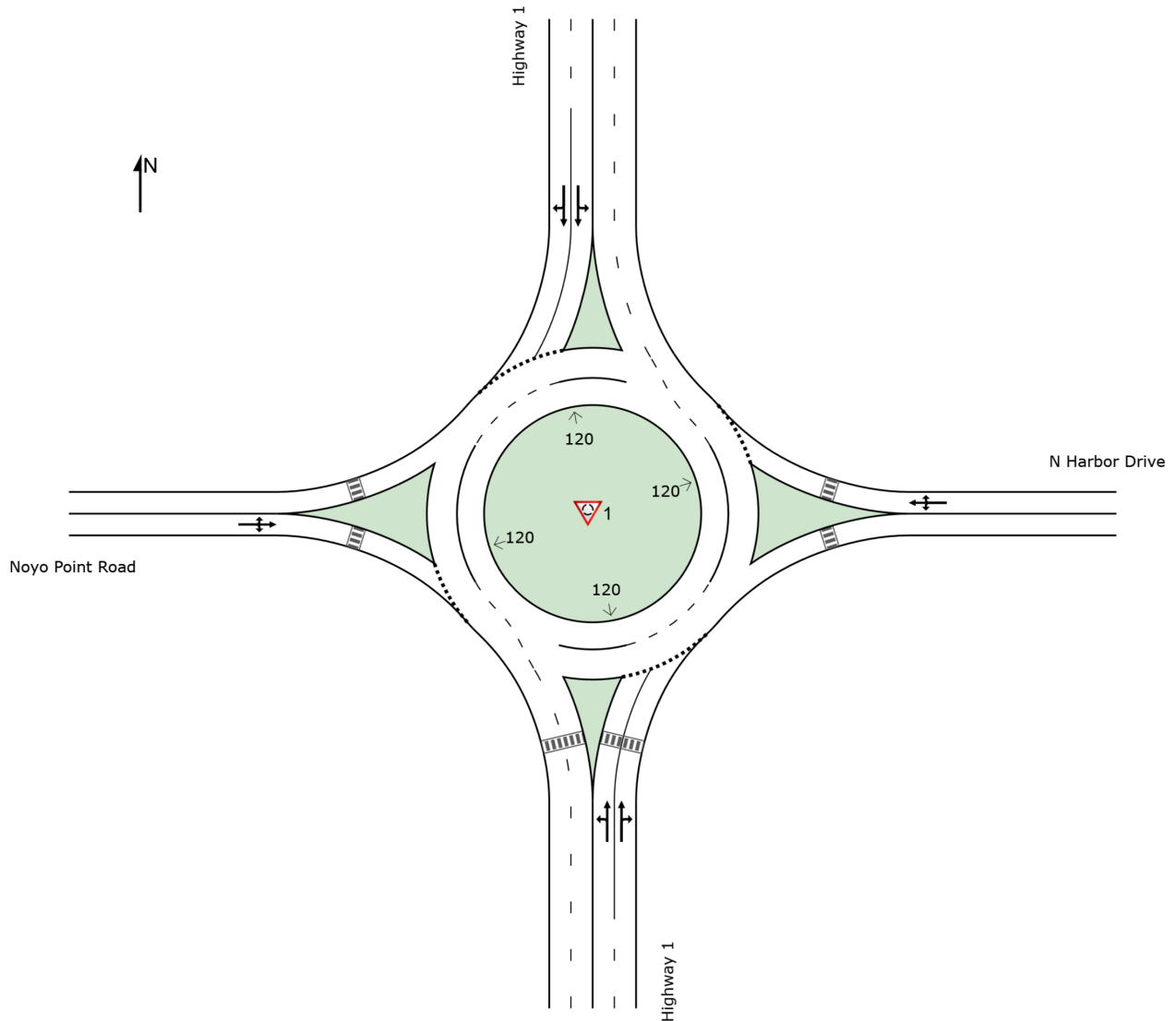
 **Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Ready) (Site Folder: 2044 AM (Volumes Updated for 1-Lane Roundabout))]**

NA

Site Category: (None)

Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

MOVEMENT SUMMARY

 **Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Ready)**
(Site Folder: 2044 PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

NA
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh ft		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Highway 1															
3	L2	All MCs	5	2.8	5	2.8	0.587	9.7	LOS A	4.7	121.1	0.34	0.12	0.34	31.4
8	T1	All MCs	1291	2.8	1291	2.8	0.587	9.5	LOS A	4.7	121.1	0.33	0.12	0.33	32.0
18	R2	All MCs	69	2.0	69	2.0	0.587	9.3	LOS A	4.6	117.1	0.32	0.12	0.32	31.8
Approach			1365	2.7	1365	2.7	0.587	9.5	LOS A	4.7	121.1	0.33	0.12	0.33	32.0
East: N Harbor Drive															
1	L2	All MCs	31	2.8	31	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.8
6	T1	All MCs	1	2.8	1	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.9
16	R2	All MCs	63	2.8	63	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.9
Approach			95	2.8	95	2.8	0.277	15.8	LOS C	0.9	23.2	0.77	0.82	0.88	20.9
North: Highway 1															
7	L2	All MCs	50	2.8	50	2.8	0.607	9.6	LOS A	5.3	135.0	0.29	0.09	0.29	31.3
4	T1	All MCs	1391	2.8	1391	2.8	0.607	9.4	LOS A	5.3	135.0	0.28	0.09	0.28	32.0
14	R2	All MCs	1	2.8	1	2.8	0.607	9.2	LOS A	5.1	130.0	0.27	0.08	0.27	31.9
Approach			1442	2.8	1442	2.8	0.607	9.4	LOS A	5.3	135.0	0.28	0.09	0.28	32.0
West: Noyo Point Road															
5	L2	All MCs	4	2.8	4	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.3
2	T1	All MCs	1	2.8	1	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.4
12	R2	All MCs	4	2.8	4	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.4
Approach			10	2.8	10	2.8	0.033	13.1	LOS B	0.1	2.4	0.76	0.76	0.76	21.3
All Vehicles			2912	2.8	2912	2.8	0.607	9.7	LOS A	5.3	135.0	0.32	0.13	0.32	31.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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SITE LAYOUT

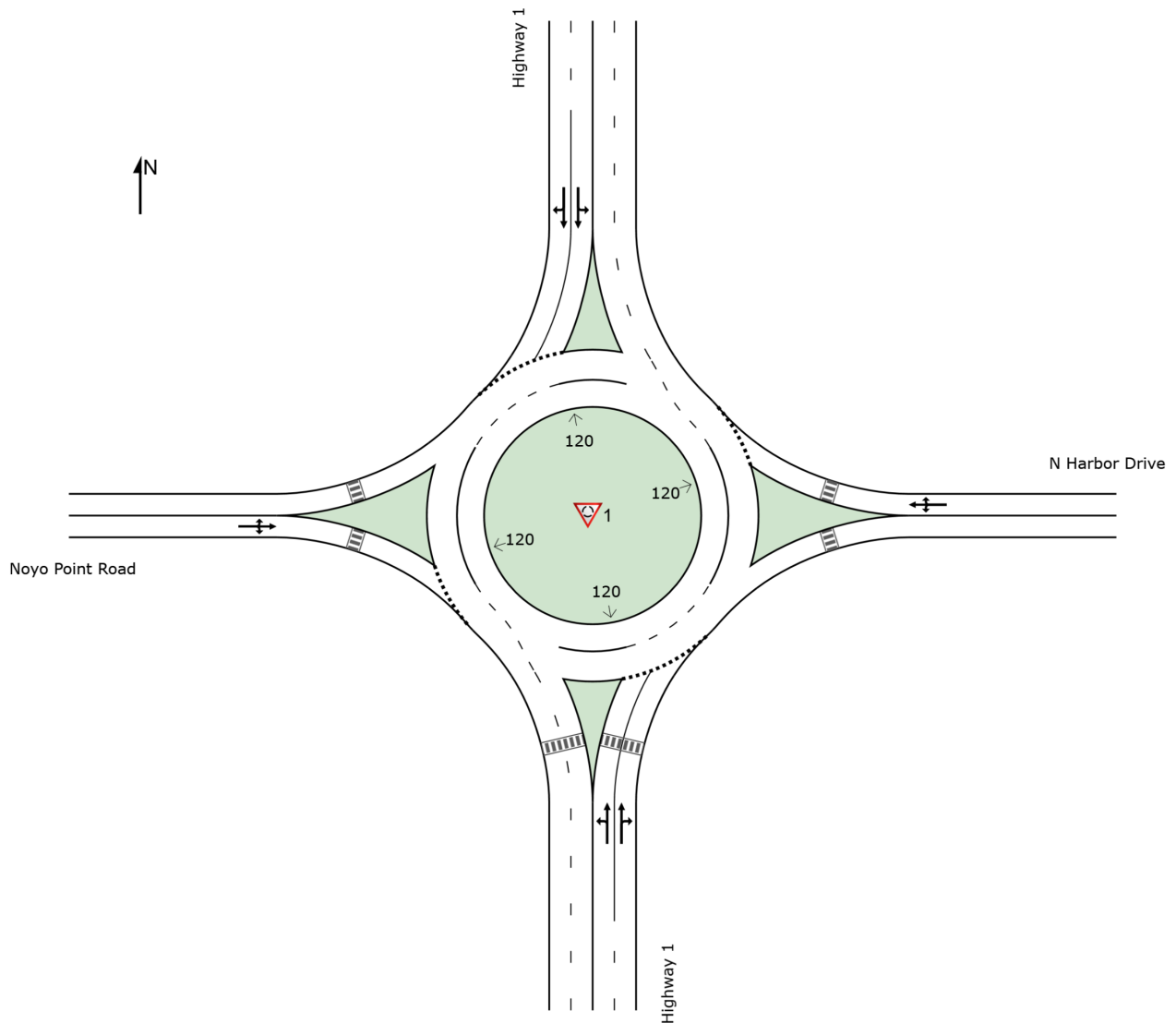
 Site: 1 [Hwy 1/North Harbor Drive, 2-Lane (Ready) (Site Folder: 2044 PM (Volumes Updated for 1-Lane))]

NA

Site Category: (None)

Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: C:\fpbox\Box\Projects\SF-Projects\2024_Projects\SF24-1368_NoyoHarborAccess\Analysis\Sidra\Noyo Harbor Roundabout Analysis.sip9

Appendix F. Cost Estimates

NOYO HARBOR - WALKWAY INTO HARBOR

PRELIMINARY COST ESTIMATE

11.05.2025



ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 80,895.50	45%	\$ 80,895.50
102	Water Pollution Control	1	LS	\$ 8,000.00	45%	\$ 11,600.00
103	Construction Layout	1	LS	\$ 10,000.00	45%	\$ 14,500.00
104	Traffic Control	1	LS	\$ 20,000.00	45%	\$ 29,000.00
				Task 100A Subtotal		\$ 135,995.50
200A	DEMOLITION					
201A	Asphalt Demolition and Disposal	1,150	SF	\$ 10.00	45%	\$ 16,675.00
202A	Portland Cement Concrete (PCC) Curb & Gutter Demolition and Disposal	70	LF	\$ 70.00	45%	\$ 7,105.00
203A	Relocate Sign	4	EA	\$ 500.00	45%	\$ 2,900.00
204A	Adjust Utilities to Grade	5	EA	\$ 2,500.00	45%	\$ 18,125.00
205A	Relocate Manhole	1	EA	\$ 10,000.00	45%	\$ 14,500.00
206A	Remove Guardrail	25	LF	\$ 20.00	45%	\$ 725.00
				Task 200A Subtotal		\$ 60,030.00
200B	DEMOLITION					
201B	Clear and Grub	2875	SF	\$ 1.00	45%	\$ 4,168.75
202B	Asphalt Demolition and Disposal	1,550	SF	\$ 10.00	45%	\$ 22,475.00
203B	Portland Cement Concrete (PCC) Flatwork Demolition and Disposal	350	SF	\$ 6.00	45%	\$ 3,045.00
204B	Portland Cement Concrete (PCC) Curb & Gutter Demolition and Disposal	75	LF	\$ 70.00	45%	\$ 7,612.50
205B	Remove Wooden Fence	80	LF	\$ 20.00	45%	\$ 2,320.00
206B	Relocate Sign	5	EA	\$ 500.00	45%	\$ 3,625.00
207B	Adjust Utilities to Grade	2	EA	\$ 2,500.00	45%	\$ 7,250.00
208B	Remove Guardrail	310	LF	\$ 20.00	45%	\$ 8,990.00
209B	Relocate Mailbox	1	EA	\$ 250.00	45%	\$ 362.50
				Task 200B Subtotal		\$ 59,848.75
300A	STREETS AND SIDEWALKS					

301A	Asphalt Paving Conform	1	TONS	\$	1,200.00	45%	\$	1,740.00
302A	Concrete Sidewalk	1,100	SF	\$	40.00	45%	\$	63,800.00
303A	Vehicular Concrete Sidewalk	130	SF	\$	50.00	45%	\$	9,425.00
304A	Aggregate Base	25	TONS	\$	45.00	45%	\$	1,631.25
305A	Concrete Curb and Gutter	230	LF	\$	80.00	45%	\$	26,680.00
306A	Pedestrian Guardrail	25	LF	\$	35.00	45%	\$	1,268.75
				Task 300A Subtotal			\$	104,545.00
300B	STREETS AND SIDEWALKS							
301B	Earthwork	110	CY	\$	50.00	45%	\$	7,975.00
302B	Concrete Sidewalk	4,100	SF	\$	40.00	45%	\$	237,800.00
303B	Vehicular Concrete Sidewalk	850	SF	\$	50.00	45%	\$	61,625.00
304B	Aggregate Base	95	TONS	\$	45.00	45%	\$	6,198.75
305B	Concrete Curb and Gutter	1,000	LF	\$	80.00	45%	\$	116,000.00
306B	Pedestrian Guardrail	310	LF	\$	35.00	45%	\$	15,732.50
307B	Retainig Wall (4' High)	275	LF	\$	200.00	45%	\$	79,750.00
				Task 300B Subtotal			\$	525,081.25
400B	UTILITIES							
401B	Streetlight - Adjust to Grade	3	EA	\$	1,000.00	45%	\$	4,350.00
				Task 400B Subtotal			\$	4,350.00
	Total Construction Cost (2025 Dollars):						\$	889,850.50

Notes:

1. Segment **(A)** consists of the proposed sidewalk in front of Harbor Lite Lodge.
2. Segment **(B)** consists of the proposed sidewalk along North Harbor Drive from Harbor Lite Lodge to Noyo Fishing Center.

NOYO HARBOR - STRUCTURED WALKWAY ON HILLSIDE

PRELIMINARY COST ESTIMATE

11.05.2025



ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 85,231.00	45%	\$ 85,231.00
102	Water Pollution Control	1	LS	\$ 5,000.00	45%	\$ 7,250.00
103	Construction Layout	1	LS	\$ 8,000.00	45%	\$ 11,600.00
104	Traffic Control	1	LS	\$ 20,000.00	45%	\$ 29,000.00
				Task 100 Subtotal		\$ 133,081.00
200	DEMOLITION					
201	Clear and Grub	4750	SF	\$ 1.00	45%	\$ 6,887.50
202	Asphalt Demolition and Disposal	100	SF	\$ 10.00	45%	\$ 1,450.00
203	Asphalt Berm Demolition and Disposal	375	LF	\$ 10.00	45%	\$ 5,437.50
204	Relocate Sign	10	EA	\$ 500.00	45%	\$ 7,250.00
205	Remove Guardrail	950	LF	\$ 20.00	45%	\$ 27,550.00
				Task 200 Subtotal		\$ 48,575.00
300	STREETS AND SIDEWALKS					
301	Earthwork	360	CY	\$ 50.00	45%	\$ 26,100.00
302	Concrete Sidewalk	4,850	SF	\$ 40.00	45%	\$ 281,300.00
303	Aggregate Base	90	TONS	\$ 45.00	45%	\$ 5,872.50
304	Concrete Curb and Gutter	1,000	LF	\$ 80.00	45%	\$ 116,000.00
305	Retainig Wall (4' High)	950	LF	\$ 200.00	45%	\$ 275,500.00
306	Pedestrian Guardrail	950	LF	\$ 35.00	45%	\$ 48,212.50
				Task 300 Subtotal		\$ 752,985.00
400	UTILITIES					
401	Streetlight - Adjust to Grade	2	EA	\$ 1,000.00	45%	\$ 2,900.00
				Task 400 Subtotal		\$ 2,900.00
	Total Construction Cost (2025 Dollars):					\$ 937,541.00

NOYO HARBOR - WALKWAY THROUGH HARBOR

PRELIMINARY COST ESTIMATE

11.05.2025



ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 155,398.53	35%	\$ 155,398.53
102	Water Pollution Control	1	LS	\$ 10,000.00	35%	\$ 13,500.00
103	Construction Layout	1	LS	\$ 10,000.00	35%	\$ 13,500.00
104	Traffic Control	1	LS	\$ 15,000.00	35%	\$ 20,250.00
				Task 100 Subtotal		\$ 202,648.53
200A	DEMOLITION					
201A	Clear and Grub	4,850	SF	\$ 1.00	25%	\$ 6,062.50
202A	Asphalt Demolition and Disposal	5,650	SF	\$ 10.00	25%	\$ 70,625.00
203A	Relocate Sign	1	EA	\$ 1,000.00	25%	\$ 1,250.00
204A	Adjust Utilities to Grade	10	EA	\$ 2,500.00	25%	\$ 31,250.00
205A	Relocate Mailbox	2	EA	\$ 250.00	25%	\$ 625.00
				Task 200A Subtotal		\$ 109,812.50
200B	DEMOLITION					
201B	Clear and Grub	3100	SF	\$ 1.00	25%	\$ 3,875.00
202B	Portland Cement Concrete (PCC) Curb Demolition and Disposal	375	LF	\$ 10.00	25%	\$ 4,687.50
				Task 200B Subtotal		\$ 8,562.50
300A	STREETS AND SIDEWALKS					
301A	Asphalt Paving Conform	15	TONS	\$ 150.00	35%	\$ 3,037.50
302A	Accessible Walking Surface (Pervious Material)	8,450	SF	\$ 45.00	35%	\$ 513,337.50
303A	Vehicular Walking Surface (Pervious Material)	1,850	SF	\$ 50.00	35%	\$ 124,875.00
304A	Aggregate Base (Concrete)	200	TONS	\$ 45.00	35%	\$ 12,150.00
305A	Aggregate Base (Asphalt)	10	TONS	\$ 45.00	35%	\$ 607.50
306A	Curb Ramp	110	SF	\$ 42.00	35%	\$ 6,237.00
307A	Removable Bollards	210	EA	\$ 500.00	35%	\$ 141,750.00
308A	Truncated Domes	40	SF	\$ 55.00	35%	\$ 2,970.00

309A	Crosswalk Striping	80	LF	\$	4.00	35%	\$	432.00
				Task 300A Subtotal			\$	805,396.50
300B	STREETS AND SIDEWALKS							
301B	Accessible Walking Surface (Pervious Material)	3,100	SF	\$	45.00	35%	\$	188,325.00
302B	Aggregate Base	60	TONS	\$	45.00	35%	\$	3,645.00
303B	Removable Bollards	60	EA	\$	500.00	35%	\$	40,500.00
				Task 300B Subtotal			\$	232,470.00
400B	STORMWATER FACILITIES							
401B	Through-Curb Drain	5	EA	\$	500.00	35%	\$	3,375.00
402B	Modify Existing Drainage Structure	1	LS	\$	5,000.00	35%	\$	6,750.00
				Task 400B Subtotal			\$	10,125.00
500A	UTILITIES							
501A	Fire Hydrant - Adjust to Grade	2	EA	\$	2,500.00	35%	\$	6,750.00
502A	Streetlight - Adjust to Grade	1	EA	\$	1,000.00	35%	\$	1,350.00
				Task 500A Subtotal			\$	8,100.00
600	PARKING REALLOCATION							
601	Clear and Grub	8,000	SF	\$	1.00	35%	\$	10,800.00
602	Sawcut	2,000	LF	\$	0.75	35%	\$	2,025.00
603	Earthwork	350	CY	\$	50.00	35%	\$	23,625.00
604	Asphalt Paving	300	TONS	\$	150.00	35%	\$	60,750.00
605	Aggregate Base	425	TONS	\$	45.00	35%	\$	25,818.75
606	Retaining Wall (4' High)	750	LF	\$	200.00	35%	\$	202,500.00
607	Striping	1	LS	\$	5,000.00	35%	\$	6,750.00
				Task 600 Subtotal			\$	332,268.75
	Total Construction Cost (2025 Dollars):						\$	1,709,383.78

Notes:

1. Segment (A) consists of the proposed walkway along North Harbor Drive from Noyo Fishing Center to Princess Seafood Restaurant.
2. Segment (B) consists of the proposed walkway along the parking lot.

NOYO HARBOR - STRUCTURED WALKWAY OVER WATER**PRELIMINARY COST ESTIMATE**

11.05.2025



ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 48,031.25	45%	\$ 48,031.25
102	Water Pollution Control	1	LS	\$ 10,000.00	45%	\$ 14,500.00
103	Construction Layout	1	LS	\$ 5,000.00	45%	\$ 7,250.00
104	Traffic Control	1	LS	\$ 15,000.00	45%	\$ 21,750.00
				Task 100 Subtotal		\$ 91,531.25
200	DEMOLITION					
201	Clear and Grub	50	SF	\$ 25.00	45%	\$ 1,812.50
				Task 200 Subtotal		\$ 1,812.50
300	STREETS AND SIDEWALKS					
301	Pedestrian Structure Over Water	1	LS	\$ 290,000.00	50%	\$ 435,000.00
				Task 300 Subtotal		\$ 435,000.00
	Total Construction Cost (2025 Dollars):					\$ 528,343.75

NOYO HARBOR - PARKING RESTRIPIING**PRELIMINARY COST ESTIMATE**

11.05.2025



ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 15,705.00	30%	\$ 15,705.00
102	Water Pollution Control	1	LS	\$ 2,000.00	30%	\$ 2,600.00
103	Construction Layout	1	LS	\$ 5,000.00	30%	\$ 6,500.00
104	Traffic Control	1	LS	\$ 2,000.00	30%	\$ 2,600.00
				Task 100 Subtotal		\$ 27,405.00
200	DEMOLITION					
201	Remove Striping	1	LS	\$ 5,000.00	25%	\$ 6,250.00
				Task 200 Subtotal		\$ 6,250.00
300	STREETS AND SIDEWALKS					
301	Slurry Seal	37,500	SF	\$ 1.00	30%	\$ 48,750.00
302	Signs and Posts	3	EA	\$ 1,500.00	30%	\$ 5,850.00
303	Striping	1	LS	\$ 15,000.00	30%	\$ 19,500.00
304	Parking Area Under Highway 1	1	LS	\$ 50,000.00	30%	\$ 65,000.00
				Task 300 Subtotal		\$ 139,100.00
	Total Construction Cost (2025 Dollars):					\$ 172,755.00

NOYO HARBOR - EMERGENCY ACCESS EXTENSION**PRELIMINARY COST ESTIMATE****11.05.2025**

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 94,019.63	35%	\$ 94,019.63
102	Water Pollution Control	1	LS	\$ 20,000.00	35%	\$ 27,000.00
103	Construction Layout	1	LS	\$ 15,000.00	35%	\$ 20,250.00
104	Traffic Control	1	LS	\$ 5,000.00	35%	\$ 6,750.00
				Task 100 Subtotal		\$ 148,019.63
200	DEMOLITION					
201	Clear and Grub	12850	SF	\$ 1.00	25%	\$ 16,062.50
202	Asphalt Demolition and Disposal	25	SF	\$ 10.00	25%	\$ 312.50
203	Remove Trees	1	LS	\$ 40,000.00	25%	\$ 50,000.00
				Task 200 Subtotal		\$ 66,375.00
300	STREETS AND SIDEWALKS					
301	Earthwork	1,000	CY	\$ 50.00	35%	\$ 67,500.00
302	Import	900	CY	\$ 60.00	35%	\$ 72,900.00
303	Asphalt Paving	325	TONS	\$ 150.00	35%	\$ 65,812.50
304	Aggregate Base	445	TONS	\$ 45.00	35%	\$ 27,033.75
305	Concrete Curb & Gutter	650	LF	\$ 80.00	35%	\$ 70,200.00
306	Retaining Wall (4' to 10' Height)	650	LF	\$ 250.00	35%	\$ 219,375.00
307	6' Chain Link Fence	1,200	LF	\$ 175.00	35%	\$ 283,500.00
308	Signs and Posts	1	LS	\$ 5,000.00	35%	\$ 6,750.00
309	Striping	1	LS	\$ 5,000.00	35%	\$ 6,750.00
				Task 300 Subtotal		\$ 819,821.25
	Total Construction Cost (2025 Dollars):					\$ 1,034,215.88

PROPOSED EMERGENCY ACCESS EXTENSION ALIGNMENT



NOYO HARBOR - SHORT-TERM INTERSECTION IMPROVEMENTS AT HIGHWAY 1 AND NORTH HARBOR DRIVE

PRELIMINARY COST ESTIMATE

11.05.2025



ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 54,493.00	30%	\$ 54,493.00
102	Water Pollution Control	1	LS	\$ 5,000.00	30%	\$ 6,500.00
103	Construction Layout	1	LS	\$ 5,000.00	30%	\$ 6,500.00
104	Traffic Control	1	LS	\$ 20,000.00	30%	\$ 26,000.00
				Task 100 Subtotal		\$ 93,493.00
200	DEMOLITION					
201	Asphalt Demolition and Disposal	1,850	SF	\$ 10.00	25%	\$ 23,125.00
202	Sawcut	400	LF	\$ 0.75	25%	\$ 375.00
				Task 200 Subtotal		\$ 23,500.00
300	STREETS AND SIDEWALKS					
301	Concrete Raised Median	1,850	SF	\$ 40.00	30%	\$ 96,200.00
302	Aggregate Base	35	TONS	\$ 45.00	30%	\$ 2,047.50
303	Concrete Curb	385	LF	\$ 65.00	30%	\$ 32,532.50
304	"No Left Turn" Sign	1	EA	\$ 500.00	30%	\$ 650.00
305	Pedestrian Hybrid Beacon (PHB)	2	EA	\$ 130,000.00	30%	\$ 338,000.00
306	Striping	1	LS	\$ 10,000.00	30%	\$ 13,000.00
				Task 300 Subtotal		\$ 482,430.00
	Total Construction Cost (2025 Dollars):					\$ 599,423.00

NOYO HARBOR - LONG-TERM INTERSECTION IMPROVEMENTS AT HIGHWAY 1 AND NORTH HARBOR DRIVE

PRELIMINARY COST ESTIMATE

11.05.2025

Alternative A - Traffic Signal



ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100A	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 358,701.00	45%	\$ 358,701.00
102	Water Pollution Control	1	LS	\$ 5,000.00	45%	\$ 7,250.00
103	Construction Layout	1	LS	\$ 5,000.00	45%	\$ 7,250.00
104	Traffic Control	1	LS	\$ 30,000.00	45%	\$ 43,500.00
				Task 100A Subtotal		\$ 416,701.00
200A	DEMOLITION					
201	Asphalt Demolition and Disposal	1,850	SF	\$ 10.00	45%	\$ 26,825.00
202	Sawcut	400	LF	\$ 0.75	45%	\$ 435.00
				Task 200A Subtotal		\$ 27,260.00
300A	STREETS AND SIDEWALKS					
301	Traffic Signal	3	EA	\$ 800,000.00	45%	\$ 3,480,000.00
302	Striping	1	LS	\$ 15,000.00	45%	\$ 21,750.00
				Task 300A Subtotal		\$ 3,501,750.00
	Alternative A Total Construction Cost (2025 Dollars):					\$ 3,945,711.00

Alternative B - Multilane Roundabout

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100B	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 406,812.00	45%	\$ 406,812.00
102	Water Pollution Control	1	LS	\$ 15,000.00	45%	\$ 21,750.00
103	Construction Layout	1	LS	\$ 15,000.00	45%	\$ 21,750.00
104	Traffic Control	1	LS	\$ 60,000.00	45%	\$ 87,000.00
				Task 100B Subtotal		\$ 537,312.00

200B	DEMOLITION					
201	Asphalt Demolition and Disposal	20,000	SF	\$ 10.00	45%	\$ 290,000.00
202	Sawcut	800	LF	\$ 0.75	45%	\$ 870.00
				Task 200B Subtotal		\$ 290,870.00
300B	STREETS AND SIDEWALKS					
301	Multilane Roundabout	1	LS	\$ 2,500,000.00	45%	\$ 3,625,000.00
302	Striping	1	LS	\$ 15,000.00	45%	\$ 21,750.00
				Task 300B Subtotal		\$ 3,646,750.00
	Alternative B Total Construction Cost (2025 Dollars):					\$ 4,474,932.00

NOYO HARBOR - STAIRWAY UNDER HIGHWAY 1**PRELIMINARY COST ESTIMATE****11.05.2025**

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 238,972.25	35%	\$ 238,972.25
102	Water Pollution Control	1	LS	\$ 20,000.00	35%	\$ 27,000.00
103	Construction Layout	1	LS	\$ 20,000.00	35%	\$ 27,000.00
104	Traffic Control	1	LS	\$ 5,000.00	35%	\$ 6,750.00
				Task 100 Subtotal		\$ 299,722.25
200	DEMOLITION					
201	Clear and Grub	38000	SF	\$ 1.00	25%	\$ 47,500.00
202	Remove Tree	1	LS	\$ 5,000.00	25%	\$ 6,250.00
				Task 200 Subtotal		\$ 53,750.00
300	STREETS AND SIDEWALKS					
301	Earthwork	4,000	CY	\$ 50.00	35%	\$ 270,000.00
302	Import	3,500	CY	\$ 60.00	35%	\$ 283,500.00
303	Fine Grading	10,000	SF	\$ 1.00	35%	\$ 13,500.00
304	Aggregate Base	280	Tons	\$ 45.00	35%	\$ 17,010.00
305	Resilient Surfacing (Assume 3" AC)	185	Tons	\$ 150.00	35%	\$ 37,462.50
306	Concrete Stairs	80	CY	\$ 9,000.00	35%	\$ 972,000.00
307	Retaining Wall (2' to 8' Height)	2,000	LF	\$ 250.00	35%	\$ 675,000.00
308	Signs and Posts	1	LS	\$ 5,000.00	35%	\$ 6,750.00
				Task 300 Subtotal		\$ 2,275,222.50
Total Construction Cost (2025 Dollars):						\$ 2,628,694.75

NOYO HARBOR - WAYFINDING**PRELIMINARY COST ESTIMATE****11.05.2025**

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	STREETS AND SIDEWALKS					
101	Wayfinding Sign Design Fee	1	LS	\$ 5,000.00	30%	\$ 6,500.00
102	Wayfinding Sign (Includes Labor and Materials)	10	EA	\$ 800.00	30%	\$ 10,400.00
103	Interpretive Sign Design Fee	1	LS	\$ 10,000.00	30%	\$ 13,000.00
104	Interpretive Sign (Includes Labor and Materials)	2	EA	\$ 2,000.00	30%	\$ 5,200.00
				Task 100 Subtotal		\$ 29,900.00
	Total Construction Cost (2025 Dollars):					\$ 29,900.00

NOYO HARBOR - BUS STOP IMPROVEMENTS**PRELIMINARY COST ESTIMATE****11.05.2025**

ITEM	DESCRIPTION	QTY.	UNIT	UNIT COST	CONT.	AMOUNT
100	GENERAL CONDITIONS					
101	Mobilization/ Demobilization	1	LS	\$ 15,624.16	30%	\$ 15,624.16
102	Water Pollution Control	1	LS	\$ 3,000.00	30%	\$ 3,900.00
103	Construction Layout	1	LS	\$ 3,000.00	30%	\$ 3,900.00
104	Traffic Control	1	LS	\$ 5,000.00	30%	\$ 6,500.00
				Task 100 Subtotal		\$ 29,924.16
200	DEMOLITION					
201	Clear and Grub	200	SF	\$ 1.00	25%	\$ 250.00
202	Asphalt Demolition and Disposal	150	SF	\$ 10.00	25%	\$ 1,875.00
203	Sawcut	175	LF	\$ 0.75	25%	\$ 164.06
				Task 200 Subtotal		\$ 2,289.06
300	STREETS AND SIDEWALKS					
301	Asphalt Paving	325	TONS	\$ 150.00	30%	\$ 63,375.00
302	Aggregate Base	15	TONS	\$ 45.00	30%	\$ 877.50
303	Concrete Bus Pad (20' x 8') (3 Pads)	500	SF	\$ 50.00	30%	\$ 32,500.00
304	Bus Stop Shelter	3	EA	\$ 10,000.00	30%	\$ 39,000.00
305	Signs and Posts	1	LS	\$ 2,000.00	30%	\$ 2,600.00
306	Striping	1	LS	\$ 1,000.00	30%	\$ 1,300.00
				Task 300 Subtotal		\$ 139,652.50
	Total Construction Cost (2025 Dollars):					\$ 171,865.72

