US Army Corps of Engineers
Alaska District

ANCHORAGE
Regulatory Division (1145)
CEPOA-RD
Post Office Box 6898
JBER, Alaska 99506-0898

Public Notice of Application for Permit

PUBLIC NOTICE DATE:	**February 28, 2025**
EXPIRATION DATE:	**March 31, 2025**
REFERENCE NUMBER:	**POA-2024-00092**
WATERWAY:	**Tongass Narrows**

Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States as described below and shown on the enclosed project drawings.

All comments regarding this public notice should be sent to the address noted above. If you desire to submit your comments by email, you should send it to the project manager's email as listed below or to regpagemaster@usace.army.mil. All comments should include the public notice reference number listed above.

All comments should reach this office no later than the expiration date of this public notice to become part of the record and be considered in the decision. Please contact Hayley Farrer at (907) 753-2778, toll free from within Alaska at (800) 478-2712, or by email at Hayley.M.Farrer@usace.army.mil if further information is desired concerning this public notice.

APPLICANT: Wayne Sharp, Elden Loop Development, LLC.; (206) 931-7745; wayne.sharp@jw-residential.com; 10831 100th Street NE Lake Stevens, WA 98258

AGENT: Zach T. Huff, ABR, Inc. – Environmental Research & Services; (907) 764- 4941; zhuff@abrince.com; 1225 E. International Airport Road, Suite 110 Anchorage, AK 99518

LOCATION: The project site is located at Sections 31 and 6, T. 75 and 76 S., R. 91 E., Copper River Meridian; Latitude 55.31766º N., Longitude 131.65222º W.; south end of Gravina Island Highway near Ketchikan, Alaska.

PURPOSE: The applicant's stated purpose is to construct the infrastructure necessary to build a housing subdivision with new single-family residential home sites in the Ketchikan area. The

proposed development would be composed of eleven (11) single family homes with associated access roads, utilities, and a new boat launch and dock for the homeowners.

PROPOSED WORK: The applicant proposes to discharge 25,074 cubic yards of shot rock and gravel material into 2.60 acres of waters of the U.S. in order to construct eleven (11) new gravel house pads, two access roads, a community boat launch parking lot, and associated utilities for the Elden Loop Subdivision. The applicant also proposes to construct a boat launch ramp, a fixed dock, and three breakwaters in and above the mean high-water mark of the Tongass Narrows.

Specifically, the proposed project would discharge 14,181 cubic yards of shot rock and gravel material into 1.26 acres of wetlands for the construction of access roads. One 24-foot-wide by 1,980-foot-long gravel access road would extend north from the existing Gravina Highway. The roadway would be 12-foot-wide by 800-foot-long for use as a utility access trail. A turnaround area and gate would be constructed where the utility trail would start. The utility access trail would include a single 24-foot-wide by 60-foot-long bridge spanning an unnamed anadromous stream. Another 24-foot-wide by 860-foot-long gravel access road would serve the subdivision road. Two (2) 36-inch by 24-foot-long culverts would be placed and two 24-foot-wide by 60-foot-long bridges would be constructed to cross an unnamed anadromous stream. The bridges and supporting embankments would be constructed outside the stream channel and above the ordinary high-water mark (OHWM).

The house gravel pads would require placing 10,373 cubic yards of shot rock and gravel material in 1.20 acres of palustrine forested and scrub-shrub wetlands. Ten (10) new 60-foot by 60-foot gravel pads would be constructed for single family residences, including driveways and space required to install associated on-site utilities. Each gravel driveway would include a 36-inch culvert. Block 1, lot 4 would include a 24-foot by 40-foot single-span bridge crossing the unnamed stream. No fill material would be discharged below the OHWM for the single-span bridge. Block 1, lot 6 has a pre-existing single residence structure installed on pilings. A 30-foot by 50-foot driveway and 30-foot by 40-foot utility pad would be constructed to access the existing house.

A boat ramp, associated turnaround, and parking lot would be constructed near the southeast corner of the project area. For the boat launch and ramp apron 197 cubic yards of shot rock and concrete planks would be discharged into 0.068-acre of wetlands. A 39-foot-long by 29-foot-wide shot rock boat ramp apron would be constructed to transition the boat ramp to the parking lot. A 170-foot-long by 26-foot-long concrete boat ramp extending from the apron into the Tongass Narrows (-6.5 feet mean lower low water (MLLW)) would be constructed. The boat ramp would be constructed with 85 pre-cast concrete planks, each measuring at 26-feet-long by 2-feet-wide by 1-foot-deep. Site preparation to place the pre-cast planks would involve using a tracked excavator at low tide. Also, 323 cubic yards of riprap (wave attenuation boulders) would be placed into 225-feet by 16-feet area below the high tide line (0.015-acre of the Tongass Narrows (+15 MLLW to -4 feet MLLW)) parallel to the boat launch.

Six (6) existing 16-inch steel piles would be removed using a barge mounted crane with a vibratory hammer. The existing steel piles would be reused to support construction of the new

proposed floating dock facilities. A total of twelve (12) 16-inch piles would be used to support the boat launch, walkway, and dock. Piles would be installed from a construction barge using a crane-mounted vibratory hammer. Some piles would require rock sockets, which would be drilled using a large-diameter rock drill from the construction barge. A 260-foot-long by 12-foot-wide floating boat launch would be constructed parallel to the boat ramp and connect to the boat dock. A 12-foot-wide by 200-foot-long floating boat dock would be placed perpendicular to the boat launce with seven (7) designated parking bays, holding up to fourteen (14) boats total. Additional boat and seaplane parking would be available on the north side of the dock.

A 3-foot by 130-foot steel pipe double tube floating breakwater would be installed parallel to the floating boat launch. The double tube float would be anchored in placed with three (3) 25,000-pound concrete blocks. Two (2) 3-foot by 130-foot steel pipe float tube breakwaters would be installed parallel to the dock. The two (2) breakwaters would be connected with 7-feet by 12-inch diameter galvanized steel tubes. The single tube floats would be anchored using three (3) 25,000-pound concrete blocks. All three breakwaters would be used to reduce wave action and turbulence.

Construction for the subdivision would begin in April-May 2025 and anticipated to be completed in June 2025. All in water work is anticipated to begin in April 2025 and end in July 2025. Pile installation would be completed May 2025. All work would be performed in accordance with the enclosed plan (sheets 1-21), dated February 24, 2025.

APPLICANT PROPOSED MITIGATION: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material.

a. Avoidance: The applicant states that given the nature of southeast Alaska and the temperate rainforest of Ketchikan, Alaska, it would be difficult to completely avoid impacting wetlands. The applicant had a wetland delineation completed in 2023, which was used to help inform engineering design. The applicant states that only 4.8 acres of the 19.0 acres delineated in the study area was comprised of uplands and complete avoidance of wetlands is not possible.

b. Minimization: The applicant states efforts were made to mitigate impacts to wetlands and waters by providing only the necessary fill to construct the access road, subdivision road, residential driveways, residential home sites, and boat launch facilities. Specific minimization measures include:

- The access road was narrowed at its second intersection with Elden Loop, as this portion of the roadway is only required to support utility construction access.
- Gravel house pads have been designed to be in uplands, when feasible.
- The gravel house pads and driveways were designed to accommodate the anticipated home footprints and utilities each home site would require (e.g. septic system).
- The proposed project would install four (4) prefabricated bridges for each of the crossings of the unnamed anadromous stream. The bridges would be installed

without piers or piles placed below the OHWM to ensure fish passage is maintained while minimizing the stream crossing's footprint.
- The proposed breakwater would be constructed by placing individual large riprap (boulders) (versus constructing a solid linear feature).
- The proposed proposes including three (3) tubular floating breakwaters to help with wave attenuation at the dock and boat launch (versus constructing additional breakwater from riprap)

c. Compensatory Mitigation: The applicant does not proposed compensation for the unavoidable impacts to wetlands. The applicant states that Ketchikan is noted for lacking available housing that is creating undo pressures on the local community and this project would expand available housing for the community. Additionally, the applicant states that the wetlands found in the project area are quite common within the watershed and efforts have been made to minimize impacts to them.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRS) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There are cultural resources within the vicinity of the permit area. The permit area has been determined to be the footprint of the proposed project including immediate upland locations where construction equipment would be staged. Consultation of the AHRS constitutes the extent of cultural resource investigations by the Corps of Engineers (Corps) at this time. This application is being coordinated with the State Historic Preservation Office (SHPO), federally recognized tribes, and other consulting parties. Any comments SHPO, federally recognized tribes, and other consulting parties may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work. The Corps is requesting the SHPO's comments regarding potential effects to historic resources within the vicinity of the permit area.

ENDANGERED SPECIES: The project area is within the known or historic range of the fin whale (*Balaenoptera physalus*), the Mexico Distinct Population Segment (DPS) humpback whale (*Megaptera novaeangliae),* and the sunflower sea star (*Pycnopodia helianthoides*).

We have determined the described activity may affect but is not likely to adversely affect the endangered fin whale, the threatened Mexico DPS humpback, and the proposed to be listed as threatened sunflower sea star. We will initiate the appropriate consultation procedures under section 7 of the Endangered Species Act with the National Marine Fisheries Service (NMFS). Any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

The project area is within mapped EFH for pink salmon (O*ncorhynchus gorbuscha*), Chinook salmon (*O. tshawytscha*), sockeye salmon (*O. nerka*), chum salmon (*O. keta*), and coho salmon (*O. kisutch*).

We are currently gathering information regarding these species and have yet to make a determination of effect. Should we find that the described activity may adversely affect EFH for the species listed above, we will follow the appropriate course of action under Section 305(b)(2) of the Magnuson-Stevens Act. Any comments the NMFS may have concerning EFH will be considered in our final assessment of the described work.

TRIBAL CONSULTATION: The Corps fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Corps, Alaska District, on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This public notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal rights or resources. Consultation may be initiated by the affected Tribe upon written request to the District Commander. This application is being coordinated with federally recognized tribes and other consulting parties. Any comments federal recognized tribes and other consulting parties may have concerning presently unknown archeological or historic data that may be lost or destroyed by the work under the requested permit will be considered in the Corps final assessment of the described work.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation,

shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

AUTHORITY: This permit will be issued or denied under the following authorities:

(X) Perform work in or affecting navigable waters of the United States – Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

Project drawings are enclosed with this public notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures

¹ The Alaska Department of Fish and Game's (ADFG) Anadromous water bodies data depict the known anadromous fish bearing lakes and streams within Alaska (from the mouth to the known upper extent of species usage). Sources include: USGS Digital Line Graph (DLG) and National Hydrography Dataset (NHD) hydrography data; Alaska Department of Natural Resources hydrography layer; and ADFG shape files for the "Atlas" and "Catalog". ADFG updates the Anadromous Streams data regularly. Data accessed May 2024 at https://www.adfg.alaska.gov/sf/SARR/AWC/
Background Image from GE01, acquired May 17, 2023 at 0.46m spatial resolution. Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community.

Study Area

Anadromous Stream¹

0 500 1,000 1,500 2,000 Feet

0 250 500 750 Meters

N W E S

Map 1, POA-2024-00092, Tongass Narrows Location and Vicinity Map, Elden Loop Subdivision.

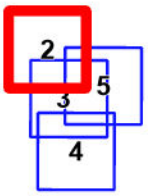
map prepared by:
— Environmental Research & Services

Map1_GravinaIsland_SA_Corps_23-129.mxd; 27 January 2025

POA-2024-00092
Sheet 1 of 21
February 24, 2025

NWI Code[1]	NWI Description
Waters	
E1UBL	Estuarine Subtidal Unconsolidated Bottom
E2RSN	Estuarine Intertidal Regularly Flooded Rocky Shore
R3UBH	Riverine Upper Perennial Permanently Flooded Unconsolidated Bottom
Wetlands	
PSS4/EM1D	Palustrine Continuously Saturated Needle-leaved Evergreen Shrub/Persistent Emergent Scrub
PFO4B	Palustrine Seasonally Saturated Needle-leaved Evergreen Forest
Uplands	
U	Upland
Us	Upland (fill)

[1] National Wetland Inventory (NWI) nomenclature based on FGDC 2013.



Stream

Wetland

Upland

Elden Loop Development

0 50 100 150 Feet

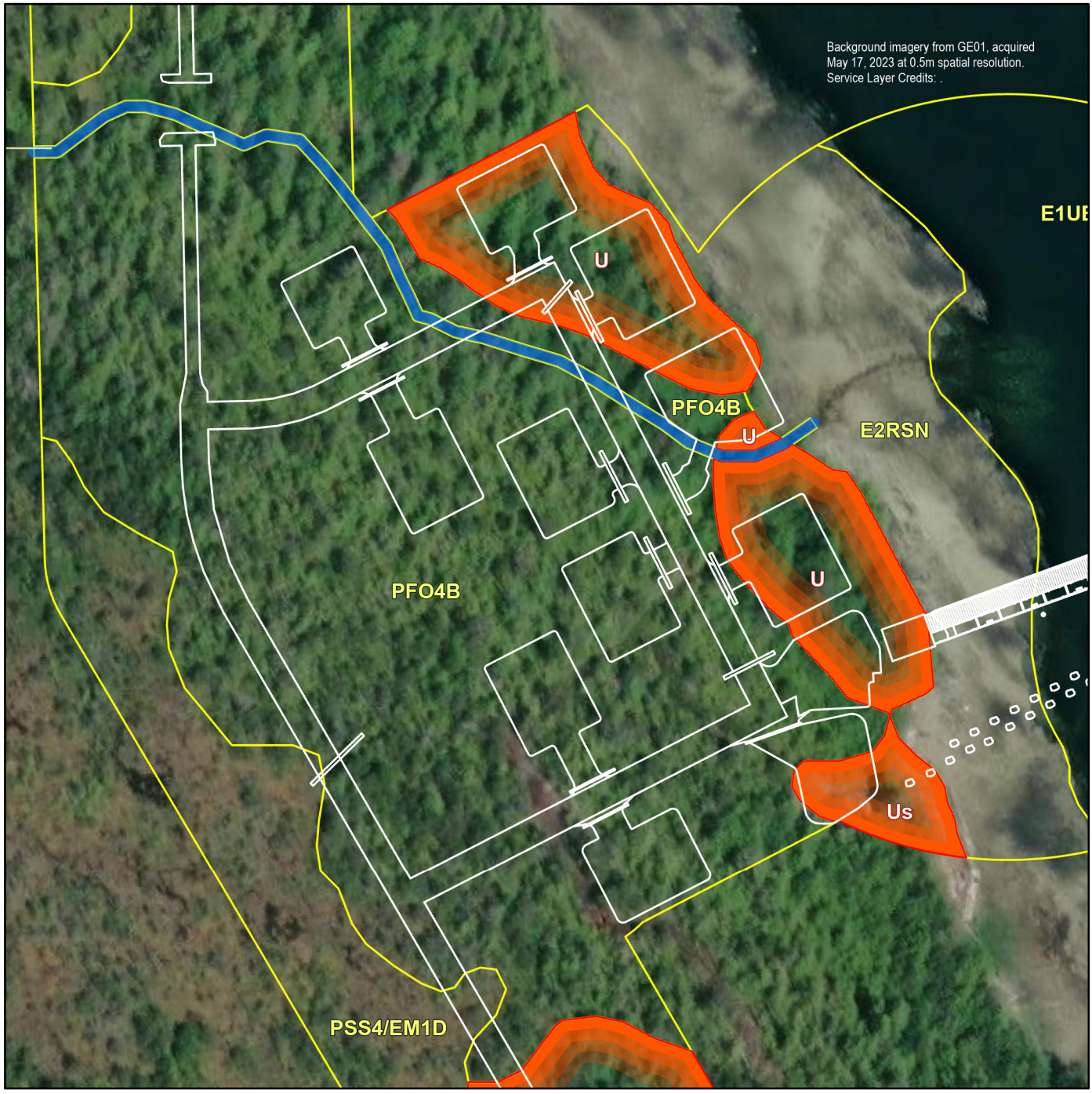
0 10 20 30 40 50 Meters

N W E S

Map 2
POA-2024-00092
Tongass Narrows
Wetlands and Waters Impacts
Elden Loop Subdivision.

map prepared by:
— Environmental Research & Services

Maps2-5_Gravina_Island_Wetlands_Corps_23-129.mxd; 27 January 2025



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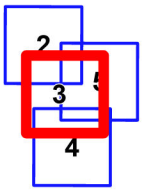


Stream

Wetland

Upland

Elden Loop Development

0 50 100 150 Feet

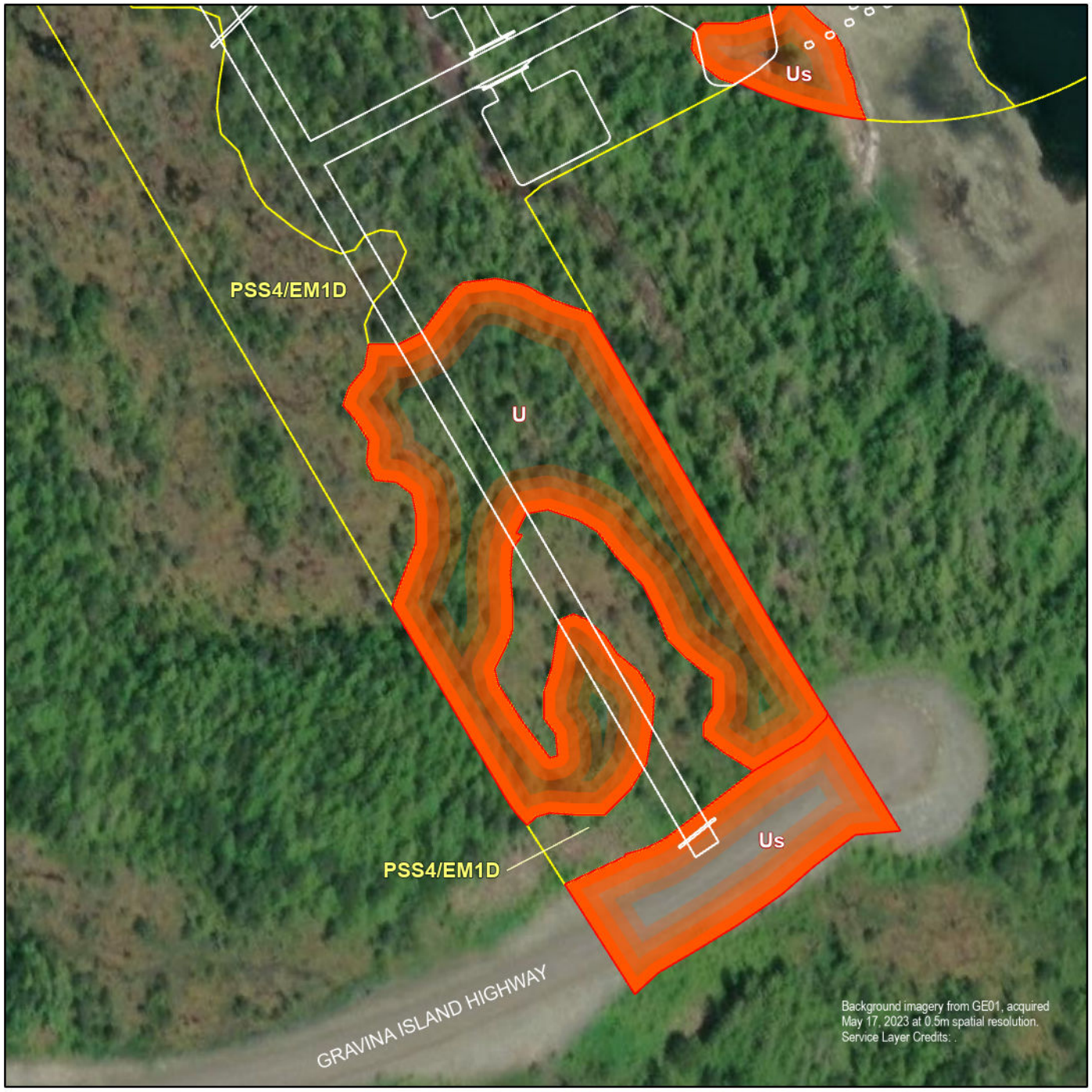
0 10 20 30 40 50 Meters

N W E S

Map 3
POA-2024-00092
Tongass Narrows
Wetlands and Waters Impacts
Elden Loop Subdivision.

map prepared by:
— Environmental Research & Services

Maps2-5_Gravina_Island_Wetlands_Corps_23-129.mxd; 14 February 2025



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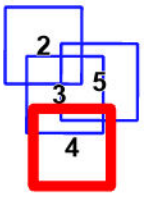

Stream
Wetland
Upland
Elden Loop Development

0 50 100 150 Feet
0 10 20 30 40 50 Meters

N
W E
S

Map 4
POA-2024-00092
Tongass Narrows
Wetlands and Waters Impacts
Elden Loop Subdivision.

map prepared by:
— Environmental Research & Services

Maps2-5_Gravina_Island_Wetlands_Corps_23-129.mxd; 27 January 2025

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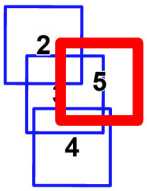


Stream
Wetland
Upland
Elden Loop Development

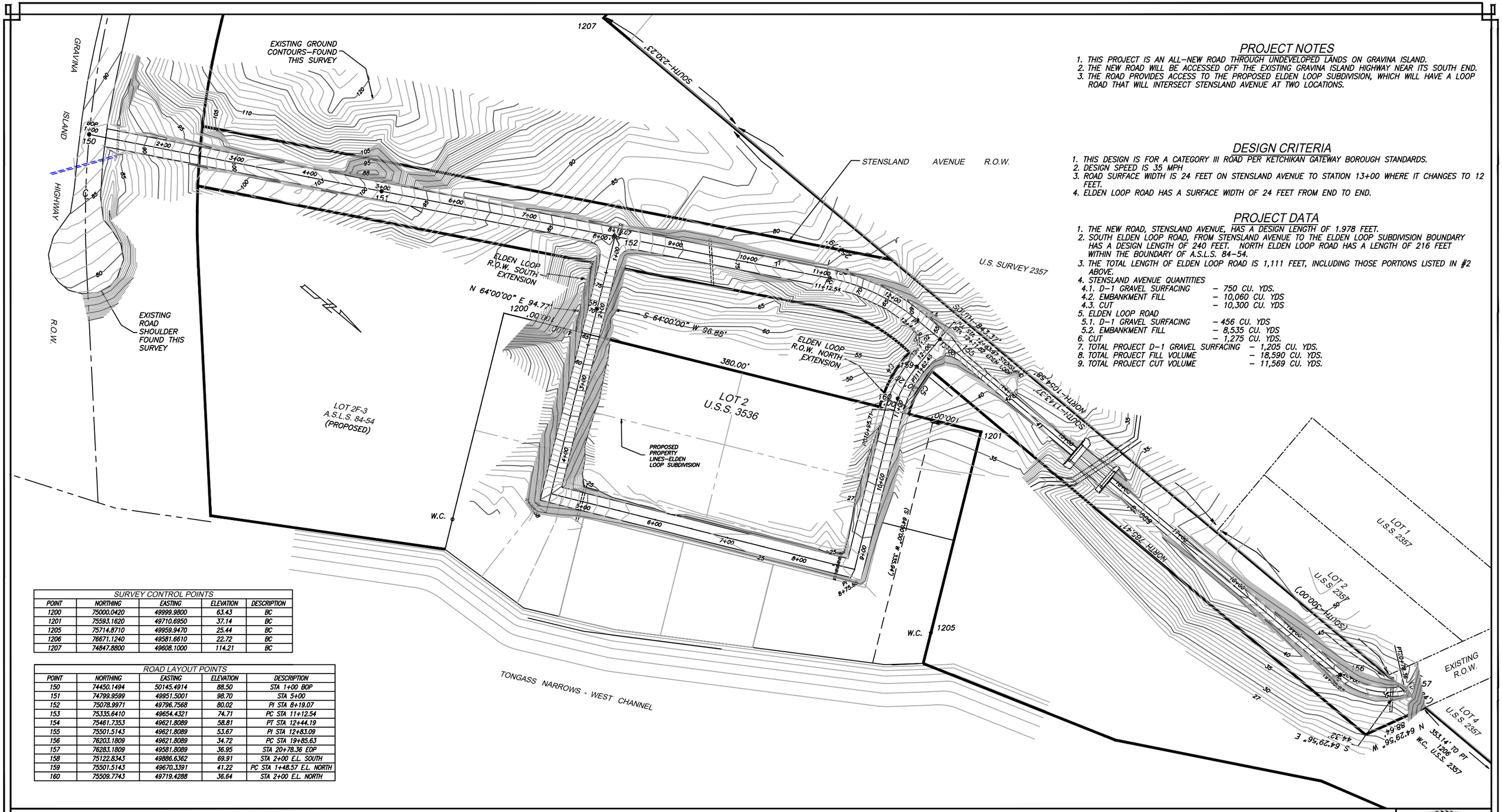
0 50 100 150 Feet
0 10 20 30 40 50 Meters

N
W E
S

Map 5
POA-2024-00092
Tongass Narrows
Wetlands and Waters Impacts
Elden Loop Subdivision.

map prepared by:
— Environmental Research & Services

Maps2-5_Gravina_Island_Wetlands_Corps_23-129.mxd; 14 February 2025



PROJECT NOTES

1. THIS PROJECT IS AN ALL–NEW ROAD THROUGH UNDEVELOPED LANDS ON GRAVINA ISLAND.
2. THE NEW ROAD WILL BE ACCESSED OFF THE EXISTING GRAVINA ISLAND HIGHWAY NEAR ITS SOUTH END.
3. THE ROAD PROVIDES ACCESS TO THE PROPOSED ELDEN LOOP SUBDIVISION, WHICH WILL HAVE A LOOP ROAD THAT WILL INTERSECT STENSLAND AVENUE AT TWO LOCATIONS.

DESIGN CRITERIA

1. THIS DESIGN IS FOR A CATEGORY III ROAD PER KETCHIKAN GATEWAY BOROUGH STANDARDS.
2. DESIGN SPEED IS 35 MPH
3. ROAD SURFACE WIDTH IS 24 FEET ON STENSLAND AVENUE TO STATION 13+00 WHERE IT CHANGES TO 12 FEET.
4. ELDEN LOOP ROAD HAS A SURFACE WIDTH OF 24 FEET FROM END TO END.

PROJECT DATA

1. THE NEW ROAD, STENSLAND AVENUE, HAS A DESIGN LENGTH OF 1.978 FEET.
2. SOUTH ELDEN LOOP ROAD, FROM STENSLAND AVENUE TO THE ELDEN LOOP SUBDIVISION BOUNDARY HAS A DESIGN LENGTH OF 240 FEET. NORTH ELDEN LOOP ROAD HAS A LENGTH OF 216 FEET WITHIN THE BOUNDARY OF A.S.L.S. 84–54.
3. THE TOTAL LENGTH OF ELDEN LOOP ROAD IS 1,111 FEET, INCLUDING THOSE PORTIONS LISTED IN #2 ABOVE.
4. STENSLAND AVENUE QUANTITIES
   - 4.1. D–1 GRAVEL SURFACING – 750 CU. YDS.
   - 4.2. EMBANKMENT FILL – 10,060 CU. YDS
   - 4.3. CUT – 10,300 CU. YDS
5. ELDEN LOOP ROAD
   - 5.1. D–1 GRAVEL SURFACING – 456 CU. YDS
   - 5.2. EMBANKMENT FILL – 8,535 CU. YDS
6. CUT – 1,275 CU. YDS.
7. TOTAL PROJECT D–1 GRAVEL SURFACING – 1,205 CU. YDS.
8. TOTAL PROJECT FILL VOLUME – 18,590 CU. YDS.
9. TOTAL PROJECT CUT VOLUME – 11,569 CU. YDS.

SURVEY CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1200	75000.0420	49999.9800	63.43	BC
1201	75593.1620	49710.6950	37.14	BC
1205	75714.8710	49959.9470	25.44	BC
1206	76671.1240	49581.6610	22.72	BC
1207	74847.8800	49608.1000	114.21	BC

ROAD LAYOUT POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
150	74450.1494	50145.4914	88.50	STA 1+00 BOP
151	74799.9599	49951.5001	98.70	STA 5+00
152	75078.9971	49796.7568	80.02	PI STA 8+19.07
153	75335.6410	49654.4321	74.71	PC STA 11+12.54
154	75461.7353	49621.8089	58.81	PT STA 12+44.19
155	75501.5143	49621.8089	53.67	PI STA 12+83.09
156	76203.1809	49621.8089	34.72	PC STA 19+85.63
157	76283.1809	49581.8089	36.95	STA 20+78.36 EOP
158	75122.8343	49886.6362	69.91	STA 2+00 E.L. SOUTH
159	75501.5143	49670.3391	41.22	PC STA 1+48.57 E.L. NORTH
160	75509.7743	49719.4288	36.64	STA 2+00 E.L. NORTH

GRAPHIC SCALE
SCALE IN FEET
30 0 60 120

MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)–220–9424
FAX: (907)–220–9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

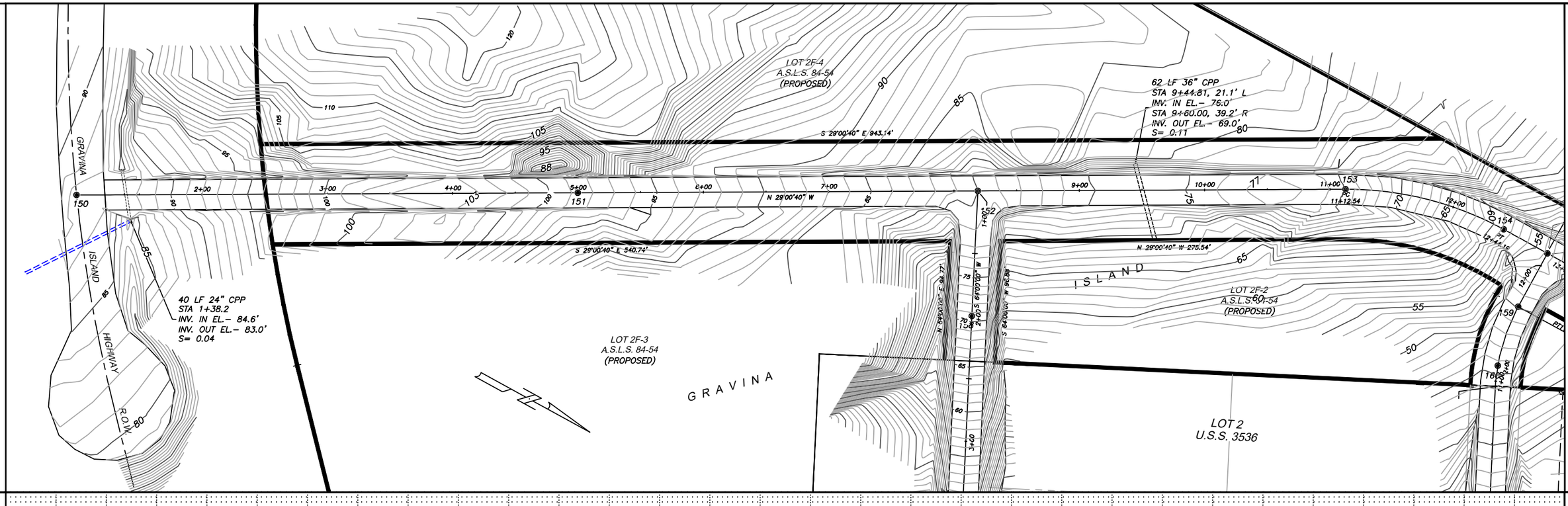
SHEET DESCRIPTION: COVER SHEET, OVERALL ROAD PLAN

DATE	NO.	DESCRIPTION REVISIONS	BY

DESIGNED: SAM | APPROVED: SAM
DRAWN: SAM | SCALE: 1" = 60' | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

SHEET NO. 1.0

STATE OF ALASKA 49 TH
Scot A. Menzies
No. CE 8088
2/1/24
REGISTERED PROFESSIONAL ENGINEER



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EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

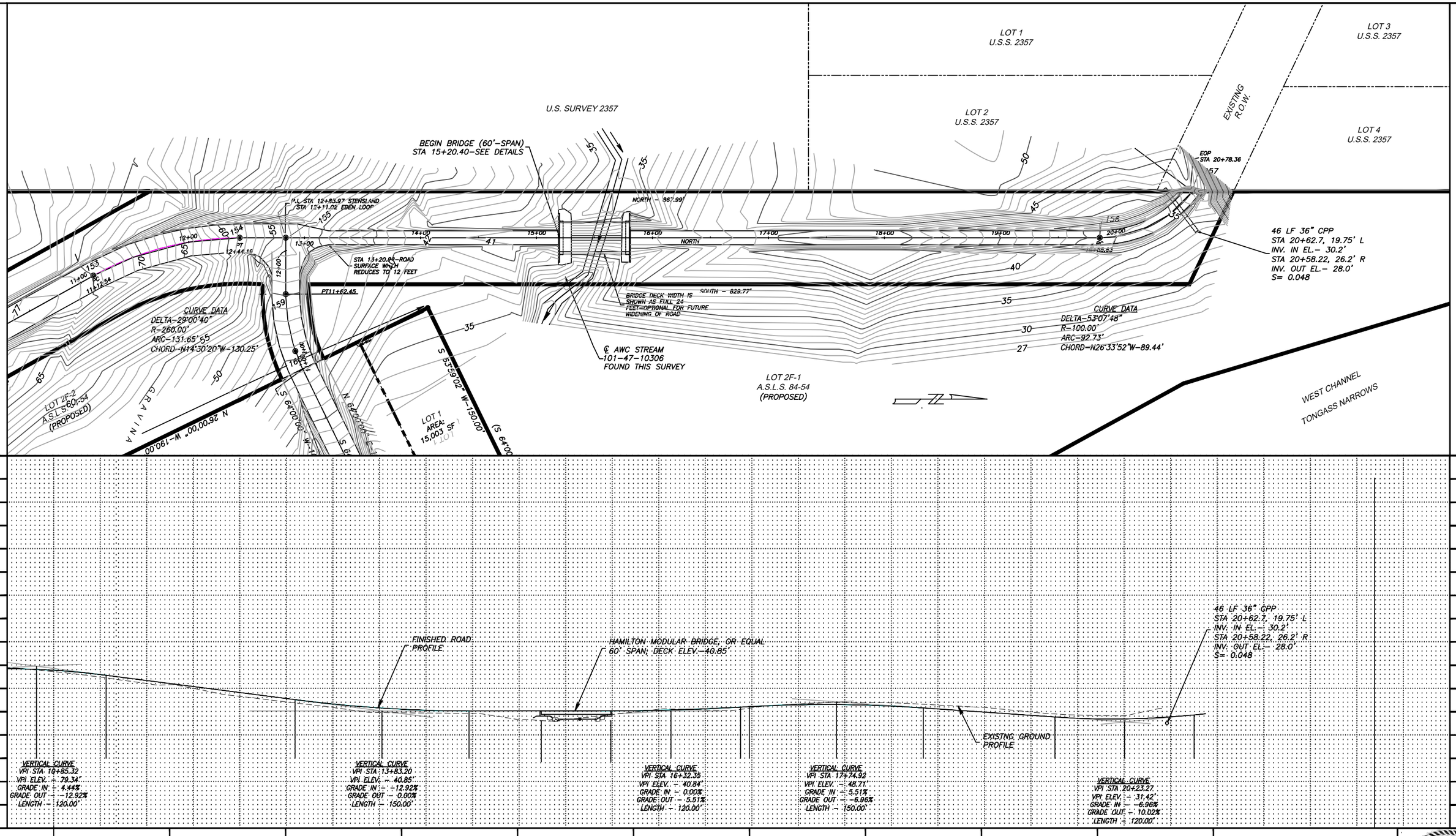
SHEET DESCRIPTION:
ROAD PLAN AND PROFILE
STA 1+00 - X+XX

DATE	NO.	DESCRIPTION REVISIONS	BY

DESIGNED: SAM | APPROVED: SAM
DRAWN: SAM | SCALE: 1" = 40' | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

SHEET NO. 2.0

STATE OF ALASKA 49 TH
Scot A. Menzies
No. CE 8068
REGISTERED PROFESSIONAL ENGINEER



MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)-220-9424
FAX: (907)-220-9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

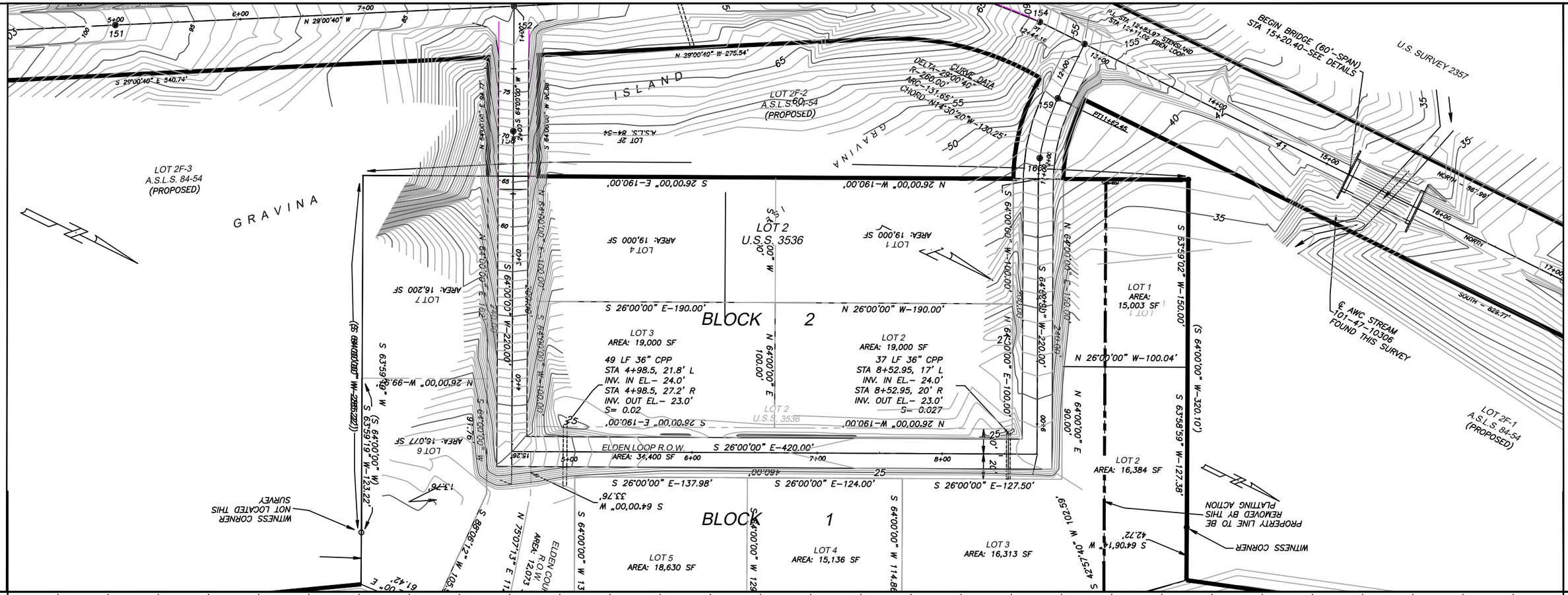
SHEET DESCRIPTION:
ROAD PLAN AND PROFILE
STA 1+00 - X+XX

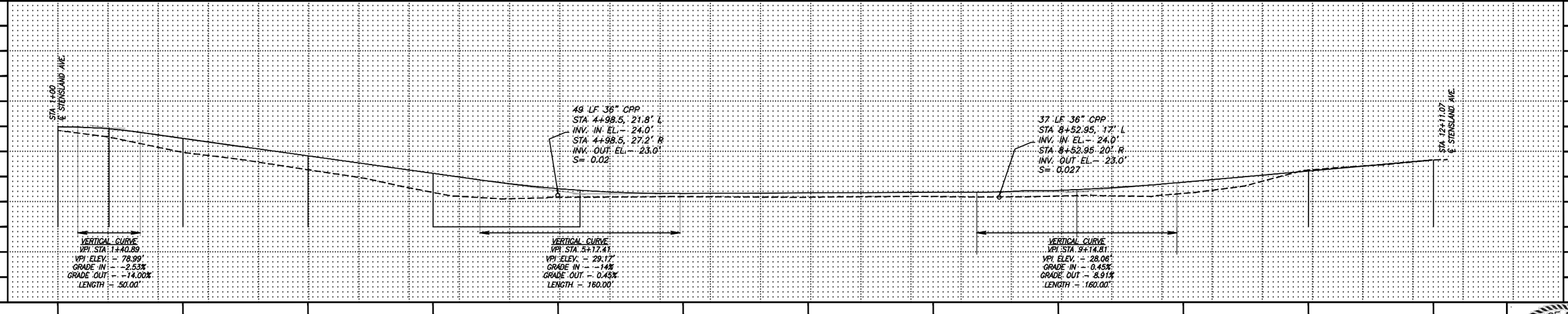
DATE	NO.	DESCRIPTION REVISIONS	BY

DESIGNED: SAM | APPROVED: SAM
DRAWN: SAM | SCALE: 1" = 40' | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

SHEET NO. 3.0

STATE OF ALASKA 49TH
Scot A. Menzies
No. CE 8068
REGISTERED PROFESSIONAL ENGINEER





MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)-220-9424
FAX: (907)-220-9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

PROJECT: ELDEN LOOP ROAD DESIGN
KETCHIKAN, ALASKA

SHEET DESCRIPTION:
ROAD PLAN AND PROFILE
STA 1+00 - 12+15

DATE	NO.	DESCRIPTION REVISIONS	BY

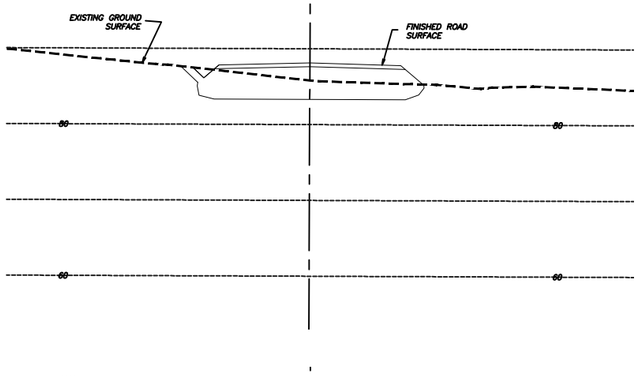
DESIGNED: SAM | APPROVED: SAM
DRAWN: SAM | SCALE: 1" = 40' | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

SHEET NO. 3.5

STATE OF ALASKA
49 TH
Scot A. Menzies
No. CE 8068
REGISTERED PROFESSIONAL ENGINEER

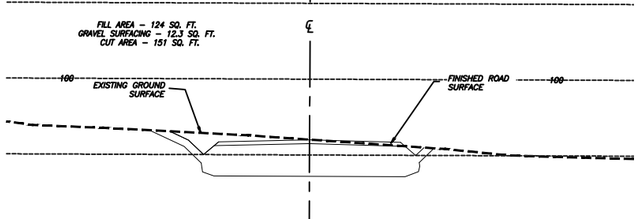
STA 1+50

FILL AREA = 119 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 68 SQ. FT.



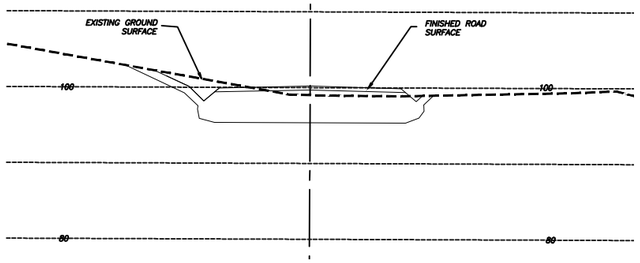
STA 2+00

FILL AREA = 124 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 151 SQ. FT.



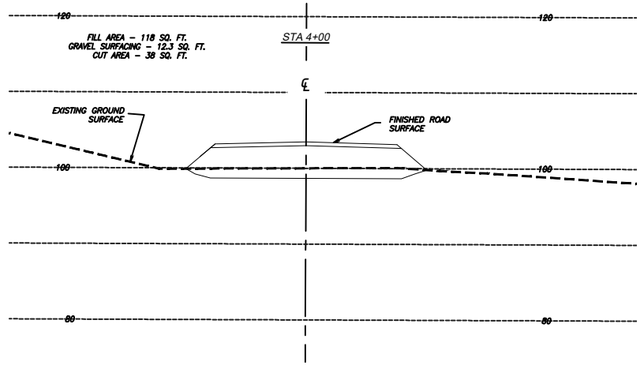
STA 3+00

FILL AREA = 128 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 134 SQ. FT.



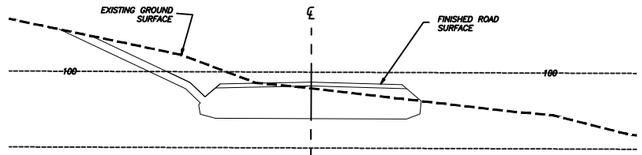
STA 4+00

FILL AREA = 118 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 38 SQ. FT.



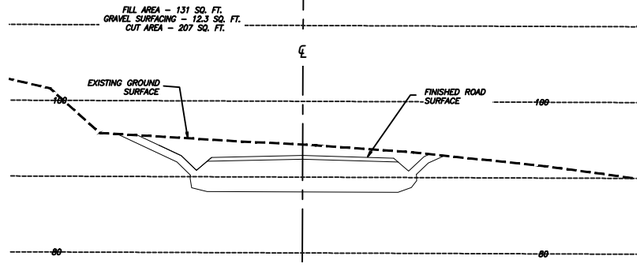
STA 5+00

FILL AREA = 135 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 166 SQ. FT.



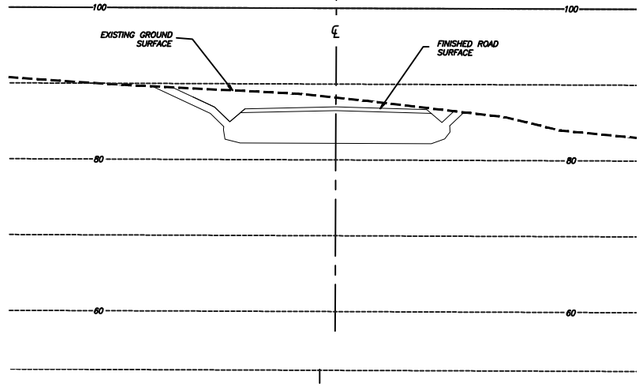
STA 6+00

FILL AREA = 131 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 207 SQ. FT.



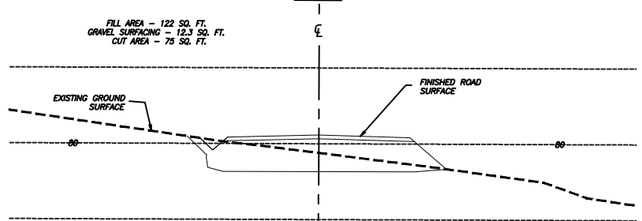
STA 7+00

FILL AREA = 129 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 196 SQ. FT.



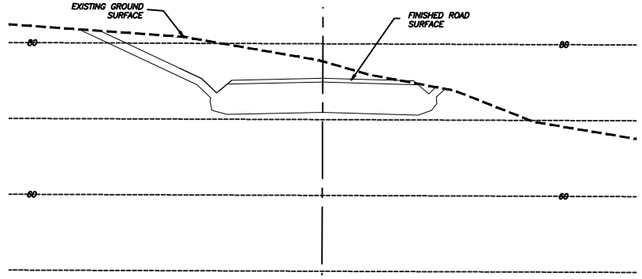
STA 8+00

FILL AREA = 122 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 75 SQ. FT.



STA 9+00

FILL AREA = 137 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 260 SQ. FT.



GRAPHIC SCALE
SCALE IN FEET
5 0 10

MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)-220-9424
FAX: (907)-220-9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

SHEET DESCRIPTION: STENSLAND AVENUE SECTIONS STA 1+25 - 9+00

DATE	NO.	DESCRIPTION REVISIONS	BY

DESIGNED: SAM | APPROVED: SAM
DRAWN: SAM | SCALE: 1" = 10' | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

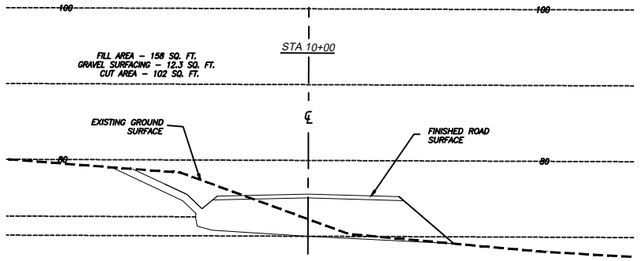
SHEET NO. 4.0

STATE OF ALASKA 49 TH
Scot A. Menzies
No. CE 8068
2/14/24
REGISTERED PROFESSIONAL ENGINEER

POA-2024-00092
Sheet 10 of 21
February 24, 2025

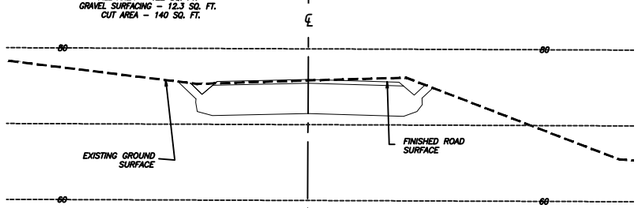
STA 10+00

FILL AREA = 158 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 102 SQ. FT.



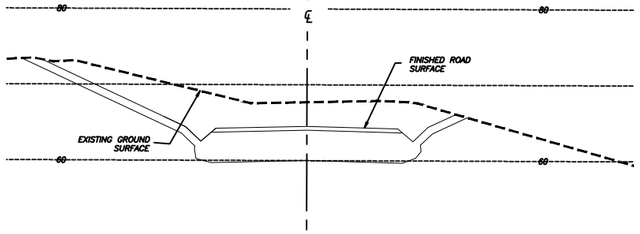
STA 11+00

FILL AREA = 122 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 140 SQ. FT.



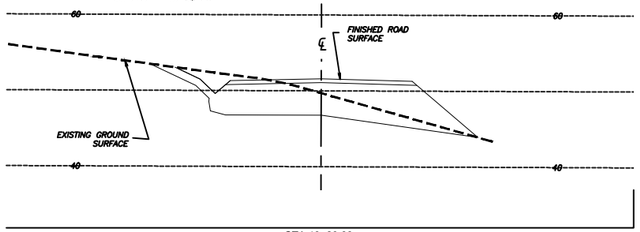
STA 12+00

FILL AREA = 149 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 344 SQ. FT.



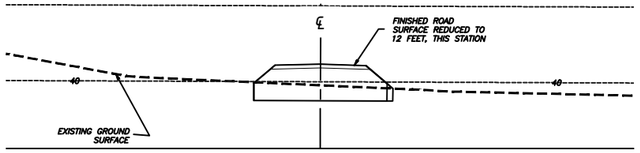
STA 13+00

FILL AREA = 153 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 107 SQ. FT.



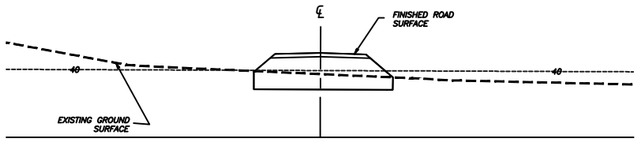
STA 13+20.88

FILL AREA = 119 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 61 SQ. FT.



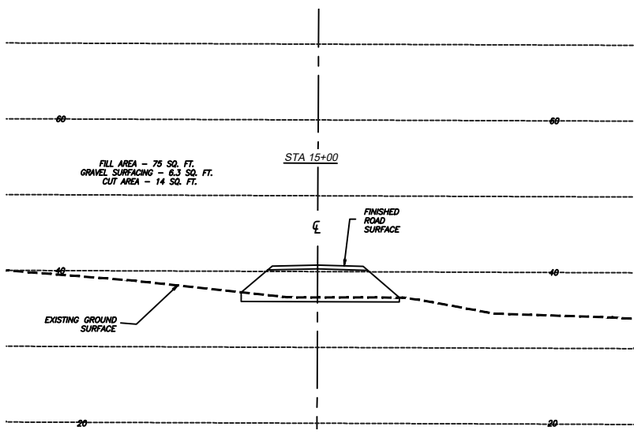
STA 14+00

FILL AREA = 119 SQ. FT.
GRAVEL SURFACING = 12.3 SQ. FT.
CUT AREA = 36 SQ. FT.



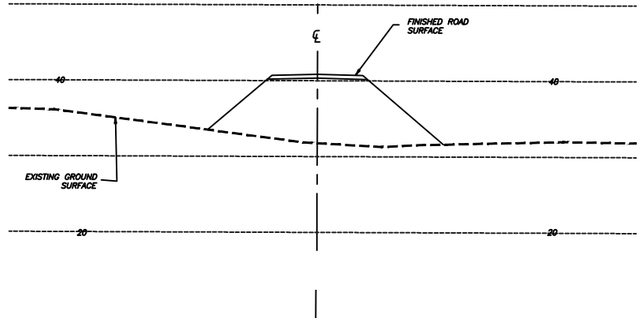
STA 15+00

FILL AREA = 75 SQ. FT.
GRAVEL SURFACING = 6.3 SQ. FT.
CUT AREA = 14 SQ. FT.



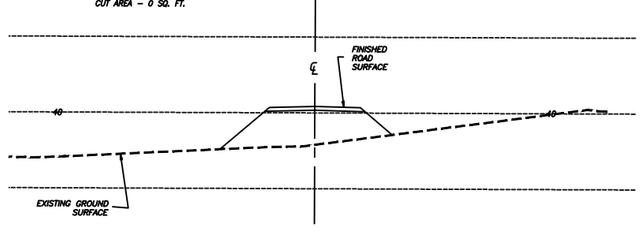
STA 15+40.40 - BRIDGE SITE

FILL AREA = 186 SQ. FT.
GRAVEL SURFACING = 6.3 SQ. FT.
CUT AREA = 0 SQ. FT.



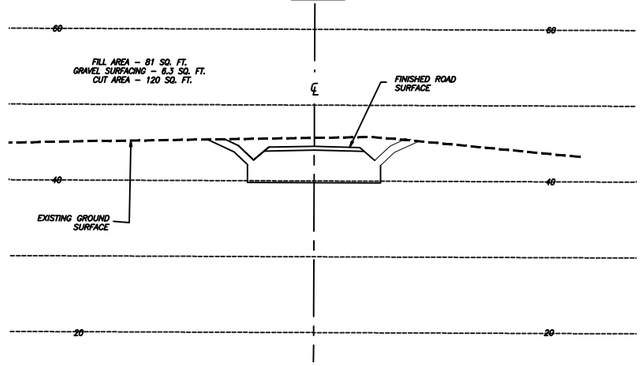
STA 16+00

FILL AREA = 78 SQ. FT.
GRAVEL SURFACING = 6.3 SQ. FT.
CUT AREA = 0 SQ. FT.



STA 17+00

FILL AREA = 81 SQ. FT.
GRAVEL SURFACING = 6.3 SQ. FT.
CUT AREA = 120 SQ. FT.



GRAPHIC SCALE
SCALE IN FEET
5 0 10

MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)-220-9424
FAX: (907)-220-9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

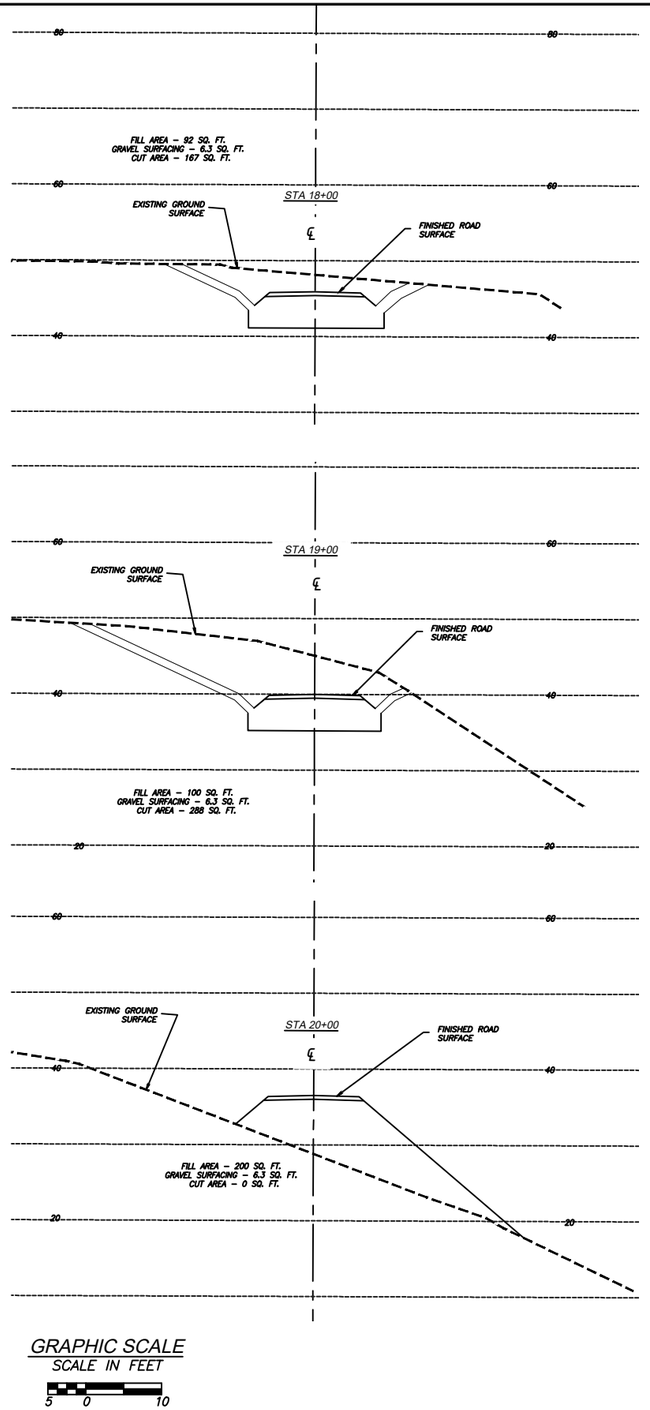
PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

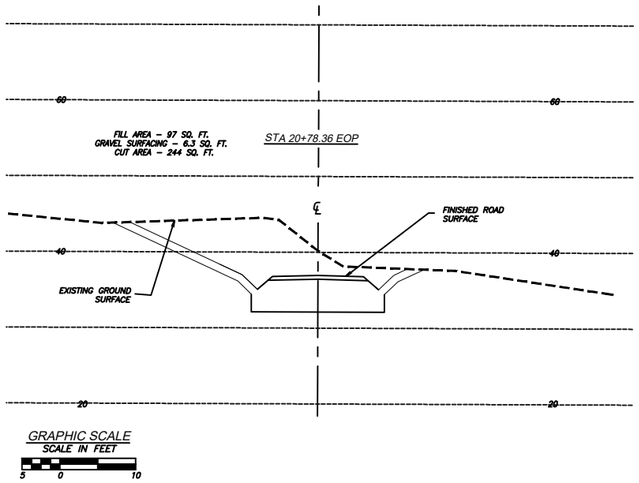
SHEET DESCRIPTION: STENSLAND AVENUE SECTIONS STA 10+00 - 17+00

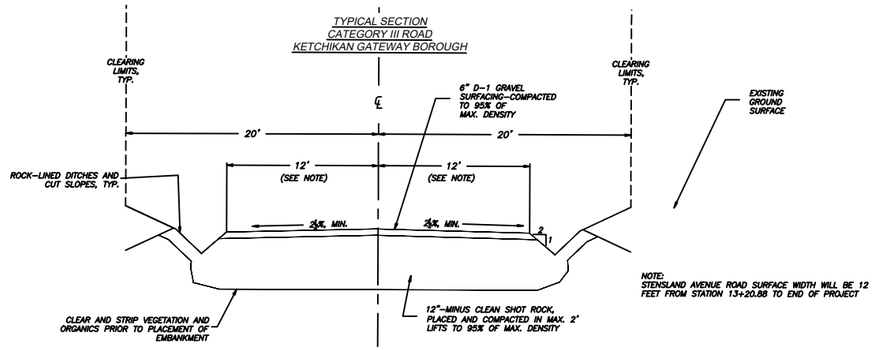
DATE	NO.	REVISIONS	BY

DESIGNED: SAM | APPROVED: SAM | SHEET NO. 5.0
DRAWN: SAM | SCALE: 1" = 10' | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

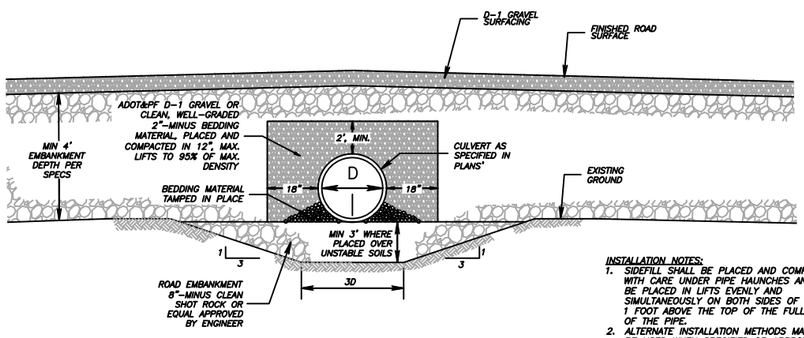
STATE OF ALASKA
49 TH
Scot A. Menzies
No. CE 8088
2/1/24
REGISTERED PROFESSIONAL ENGINEER







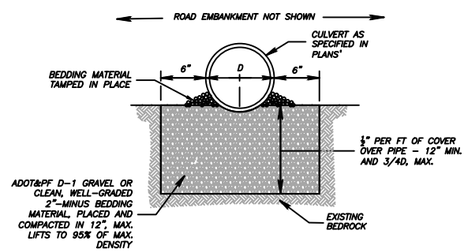
TYPICAL ROAD SECTION



INSTALLATION NOTES:
1. SIDEFILL SHALL BE PLACED AND COMPACTED WITH CARE UNDER PIPE HAUNCHES AND SHALL BE PLACED IN LIFTS EVENLY AND SIMULTANEOUSLY ON BOTH SIDES OF PIPE TO 1 FOOT ABOVE THE TOP OF THE FULL LENGTH OF THE PIPE.
2. ALTERNATE INSTALLATION METHODS MAY ONLY BE USED WHEN SPECIFIED OR APPROVED BY THE ENGINEER.

CULVERT FOUNDATION STABILIZATION IN UNSTABLE AREAS

NOT TO SCALE



CULVERT FOUNDATION STABILIZATION IN UNYIELDING MATERIAL

NOT TO SCALE

MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)-220-9424
FAX: (907)-220-9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

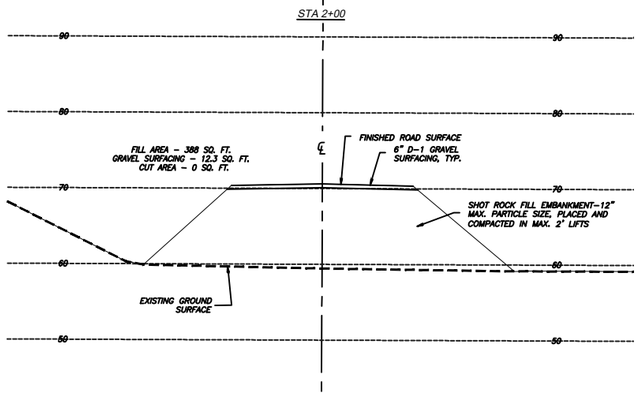
SHEET DESCRIPTION: STENSLAND AVENUE SECTIONS STA 18+00 - 20+78.36 EOP

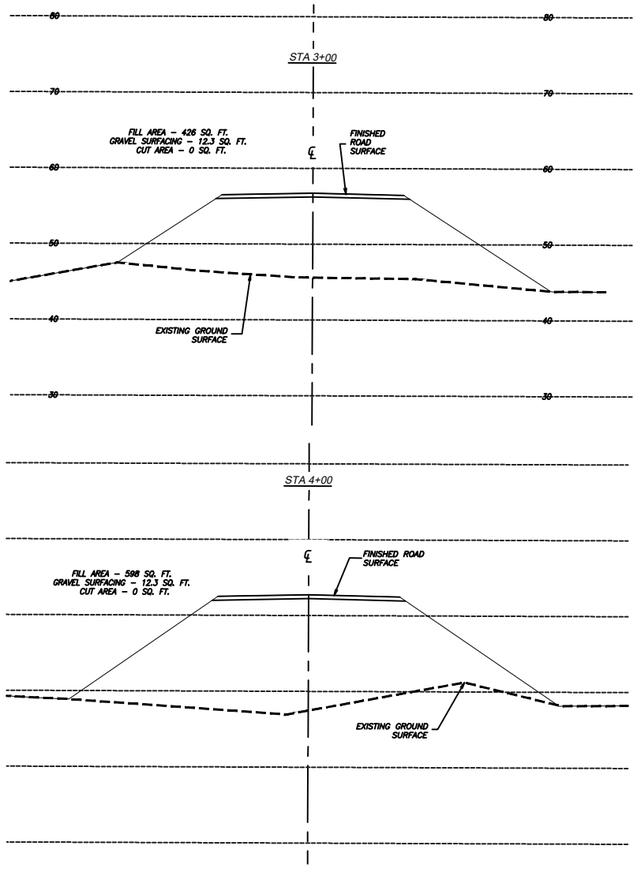
DATE	NO.	DESCRIPTION REVISIONS	BY

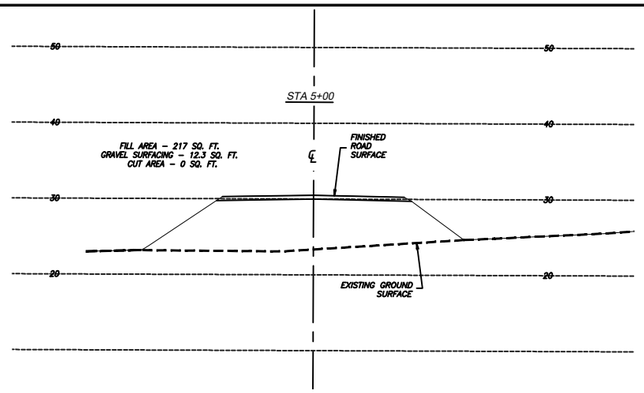
DESIGNED: SAM | APPROVED: SAM
DRAWN: SAM | SCALE: AS NOTED | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

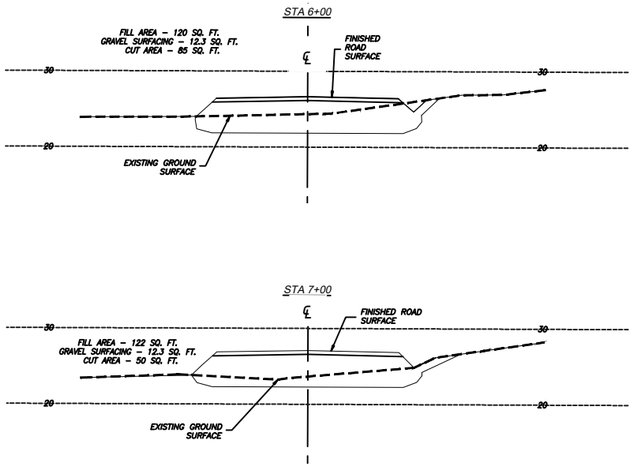
SHEET NO. 6.0

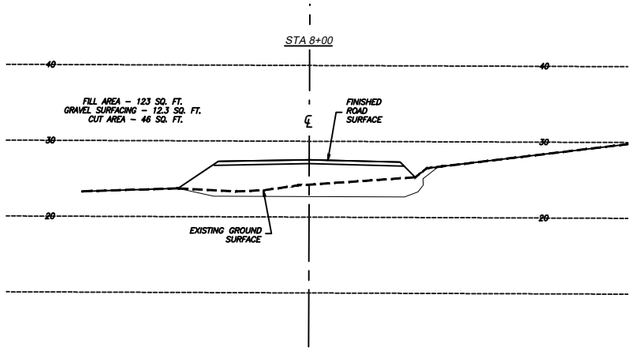
STATE OF ALASKA 49TH
Scot A. Menzies
No. CE 8068
REGISTERED PROFESSIONAL ENGINEER
2/2/24

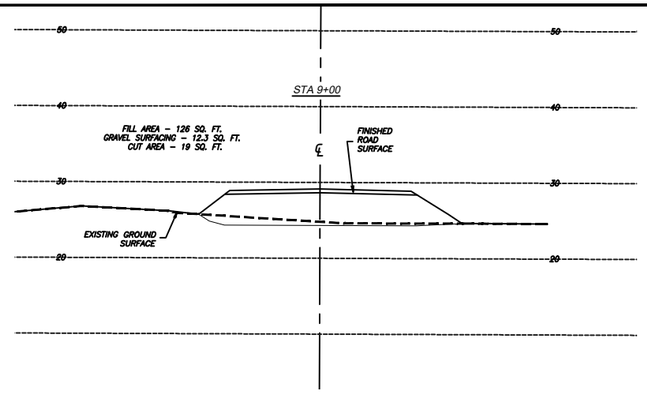


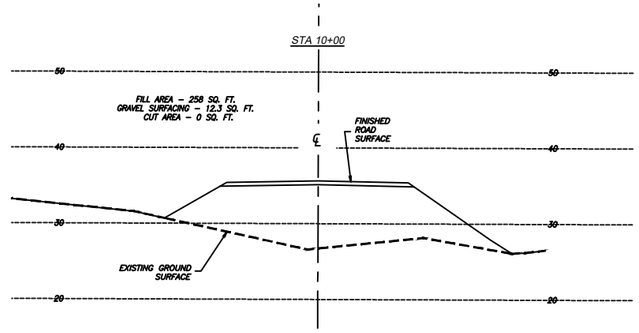


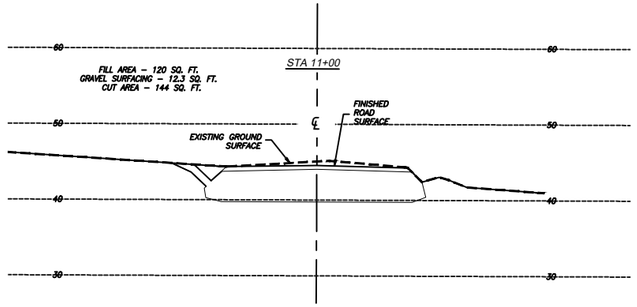












GRAPHIC SCALE
SCALE IN FEET
5 0 10

MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)-220-9424
FAX: (907)-220-9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

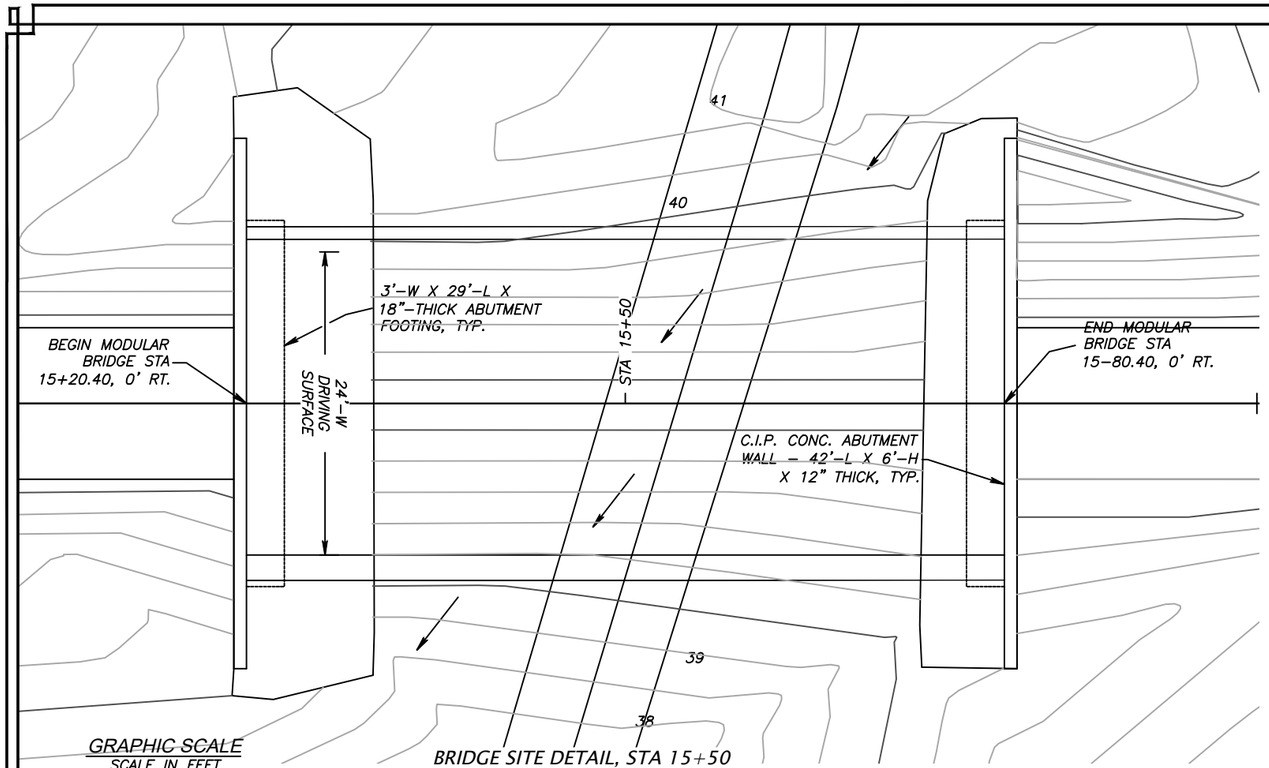
PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

SHEET DESCRIPTION: ELDEN LOOP ROAD SECTIONS STA 2+00 - 12+00

DATE	NO.	DESCRIPTION REVISIONS	BY

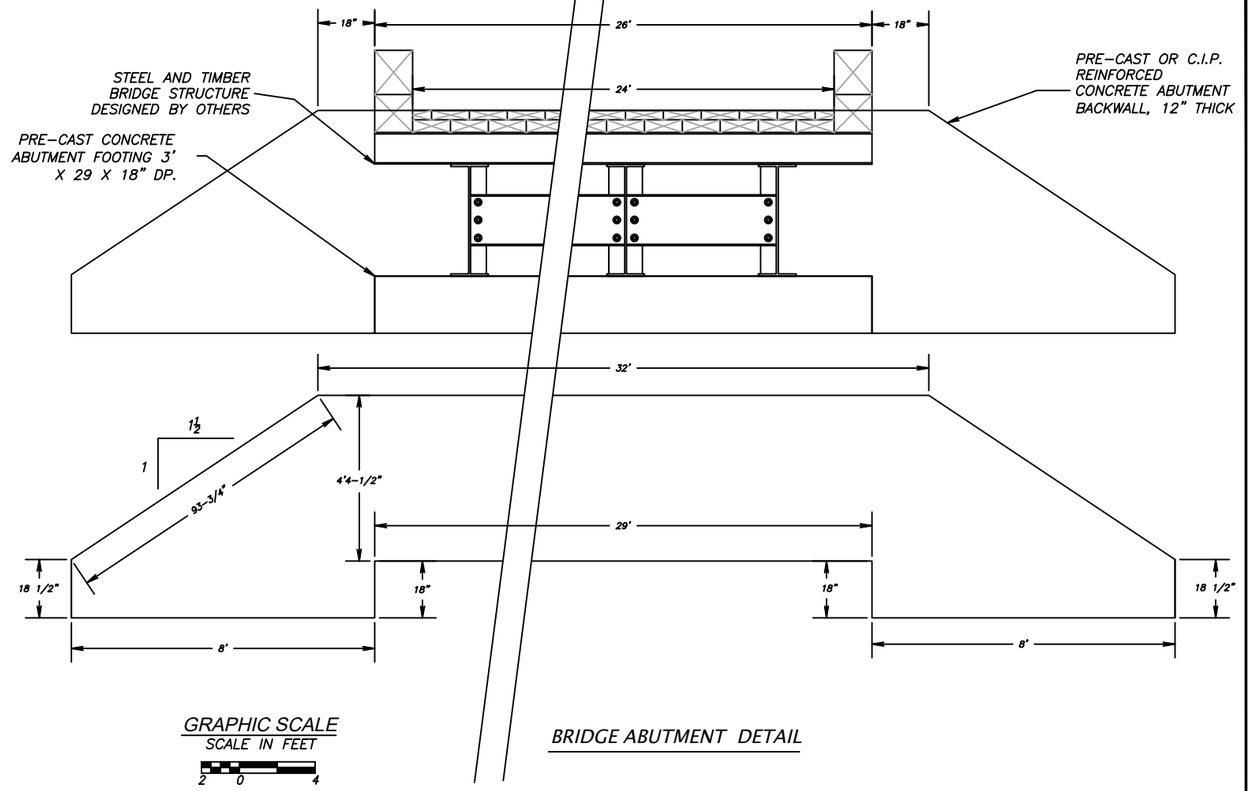
DESIGNED: SAM | APPROVED: SAM | SHEET NO. 7.0
DRAWN: SAM | SCALE: 1" = 10' | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

STATE OF ALASKA 49 TH
Scot A. Menzies
No. CE 8088
2/6/24
REGISTERED PROFESSIONAL ENGINEER



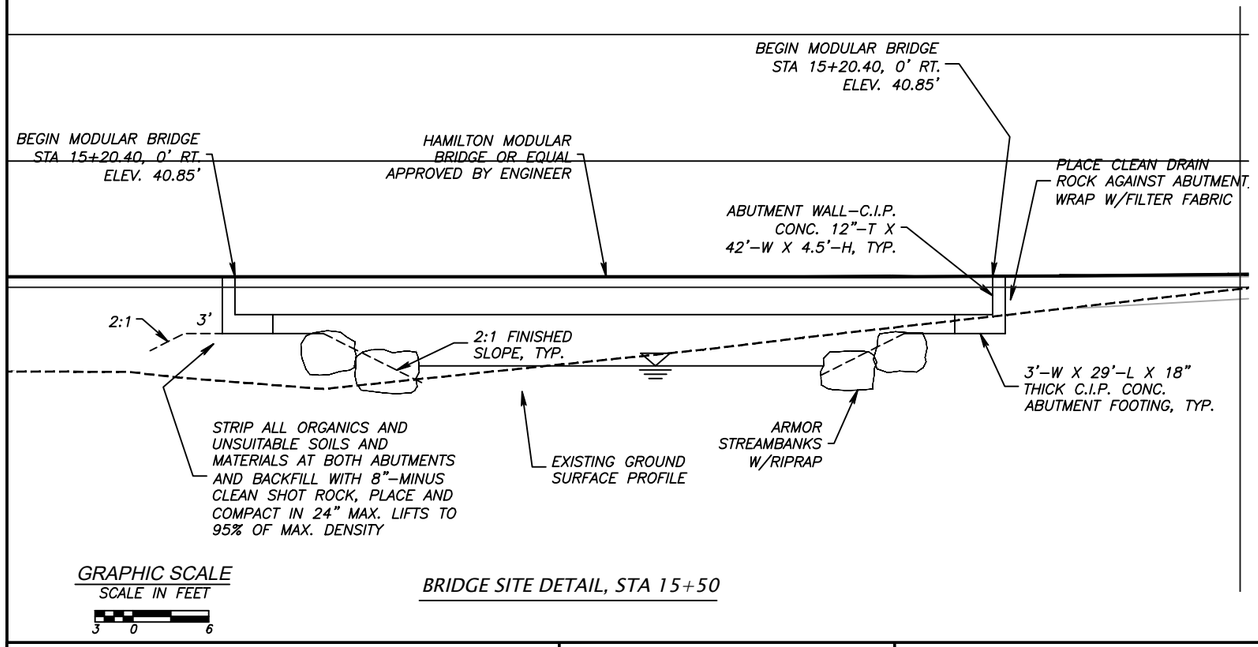
GRAPHIC SCALE
SCALE IN FEET
3 0 6

BRIDGE SITE DETAIL, STA 15+50



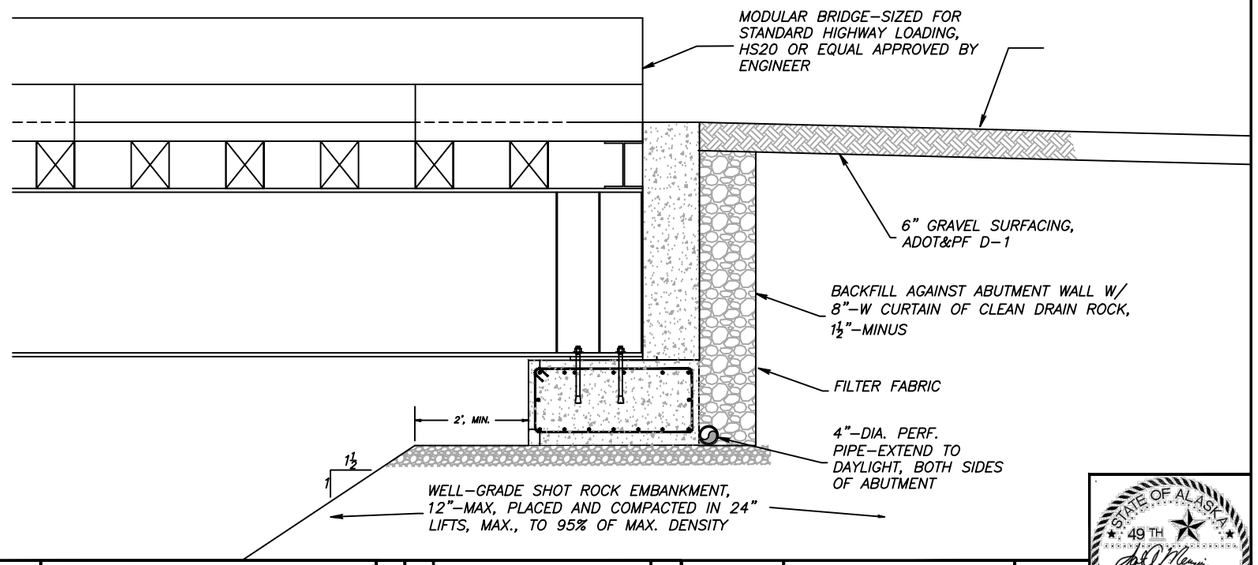
GRAPHIC SCALE
SCALE IN FEET
2 0 4

BRIDGE ABUTMENT DETAIL



GRAPHIC SCALE
SCALE IN FEET
3 0 6

BRIDGE SITE DETAIL, STA 15+50



MENZIES ENGINEERING GROUP, INC.
9737 MUD BAY ROAD, SUITE 301
KETCHIKAN, ALASKA 99901
PH: (907)–220–9424
FAX: (907)–220–9425
EMAIL: SCOT@MEGALASKA.COM

CLIENT: CLAM COVE HOLDINGS, LLC

PROJECT: STENSLAND AVENUE DESIGN
KETCHIKAN, ALASKA

SHEET DESCRIPTION: STENSLAND AVENUE BRIDGE DETAILS

DATE	NO.	DESCRIPTION REVISIONS	BY

DESIGNED: SAM | APPROVED: SAM
DRAWN: SAM | SCALE: AS NOTED | DATE: 2/2/2024
CHECKED: SAM | PROJECT NO. 23701

SHEET NO. 8.0

STATE OF ALASKA 49 TH
Scot A. Menzies
No. CE 8068
2/2/24
REGISTERED PROFESSIONAL ENGINEER

TYPICAL HOUSE FOOTPRINT, 40' X 40'

TYPICAL SHOT ROCK EMBANKMENT BUILDING PAD, 60' X 60'

BLOCK 2

LOT 4
AREA: 19,000 SF

LOT 1
AREA: 19,000 SF

APPROX. STREAMBANKS OF EXISTING ANADROMOUS FISH STREAM

LOT 7
AREA: 16,200 SF

LOT 3
AREA: 19,000 SF

LOT 2
AREA: 19,000 SF

LOT 1
AREA: 15,003 SF

LOT 1 U.S.S. 3536

LOT 6
AREA: 16,077 SF

ELDEN LOOP R.O.W.
AREA: 34,400 SF

EXISTING HOUSE UNDER CONSTRUCTION LOCATED THIS SURVEY

ELDEN COURT R.O.W.
AREA: 12,073 SF

BLOCK 1

40' X 40' FOUR-BEDROOM SINGLE-FAMILY RESIDENCE

LOT 5
AREA: 18,630 SF

LOT 4
AREA: 15,136 SF

LOT 3
AREA: 16,313 SF

LOT 2
AREA: 16,384 SF

ALTERNATE METHODS SHOWN FOR PROVIDING FISH PASSAGE AT CROSSINGS OF EXISTING STREAM, MODULAR BRIDGE SUPPORTED BY CONCRETE ABUTMENTS OR CULVERT SIZED AND DESIGNED FOR STREAM HYDRAULICS AND FISH PASSAGE

SCALE IN FEET
25 0 50

LOT DEVELOPMENT SITE PLAN
ELDEN LOOP SUBDIVISION
A SUBIVISION & REPLAT OF
LOTS 1 & 2, U.S.S. 3536
GRAVINA ISLAND, in KETCHIKAN, ALASKA

CLIENT: CLAM COVE HOLDINGS, LLC
PO BOX 153
MOUNTLAKE TERRACE, WA 98043

PROJECT NO.: **23701** SCALE: **1" = 50'** DRAWN BY: **S.A.M.** CKD BY: **S.A.M.** DATE: **7/19/24** SHEET **1** OF **3**

MENZIES ENGINEERING GROUP, INC. | 9737 MUD BAY ROAD, SUITE 301 | KETCHIKAN, ALASKA 99901
PH: (907)-220-9424 MOBILE: (907)-821-1561 EMAIL: scot@megalaska.com WEB: megalaska.com

600 SQ. FT. DRAINFIELD

40' X 40' FOUR–BEDROOM SINGLE–FAMILY RESIDENCE

LOT 1
AREA:
19,000 SF

ELDEN LOOP ROAD

BLOCK 2

TOP OF CUTBANK, TYP.

EDGE OF SHOT ROCK EMBANKMENT BUILDING PAD

SET DRAINFIELD MIN. 3' FROM BUILDING FOUNDATION

40'

15'

DRAINFIELD FOR TREATED EFFLUENT DISPOSAL–SIZED BY SOIL TYPE @ 1 SQ. FT PER 1 GALLON PER DAY OF EFFLUENT DISCHARGED – 600 SQUARE FEET; 15'–W X 40'–L SHOWN. IN MOST CASES THEY ARE BUILT TO 20'–W X 30'–L

SECONDARY–AERATED WASTEWATER TREATMENT PLANT, 600 GA//DAY TREATMENT CAPACITY; APPROX. SIZE 5'–W X 9'–L BY 6'–DP

24'

TYPICAL 40' X 40' FOUR–BEDROOM SINGLE–FAMILY RESIDENCE

LOT 1
AREA:
15,003 SF

MIN. 10' SEPARATION

MIN. 10' OUTSIDE OF BUILDING FOOTPRINT, MIN. FOR STRUCTURAL SUPPORT

EMBANKMENT FILL FOOTPRINT SHOWN IS 65'–W X 85'–L OVERALL

TOE OF FILL EMBANKMENT, TYP.

5,000–GAL (MIN.) ABOVEGROUND RAIN CATCHMENT CISTERN APPROX. 8.5'–DIA. X 9'–H., TYP. SET 3' TO 4' FROM HOUSE AND SHOULDER OF EMBANKMENT; FILLED BY GRAVITY FLOW FROM HOUSE RAINGUTTERS

BLOCK 1

ALTERNATE METHODS SHOWN FOR PROVIDING FISH PASSAGE AT CROSSINGS OF EXISTING STREAM, MODULAR BRIDGE SUPPORTED BY CONCRETE ABUTMENTS OR CULVERT SIZED AND DESIGNED FOR STREAM HYDRAULICS AND FISH PASSAGE

APPROX. STREAMBANKS OF EXISTING ANADROMOUS FISH STREAM

LOT 2
AREA:
19,000 SF

40' X 40' FOUR–BEDROOM SINGLE–FAMILY RESIDENCE

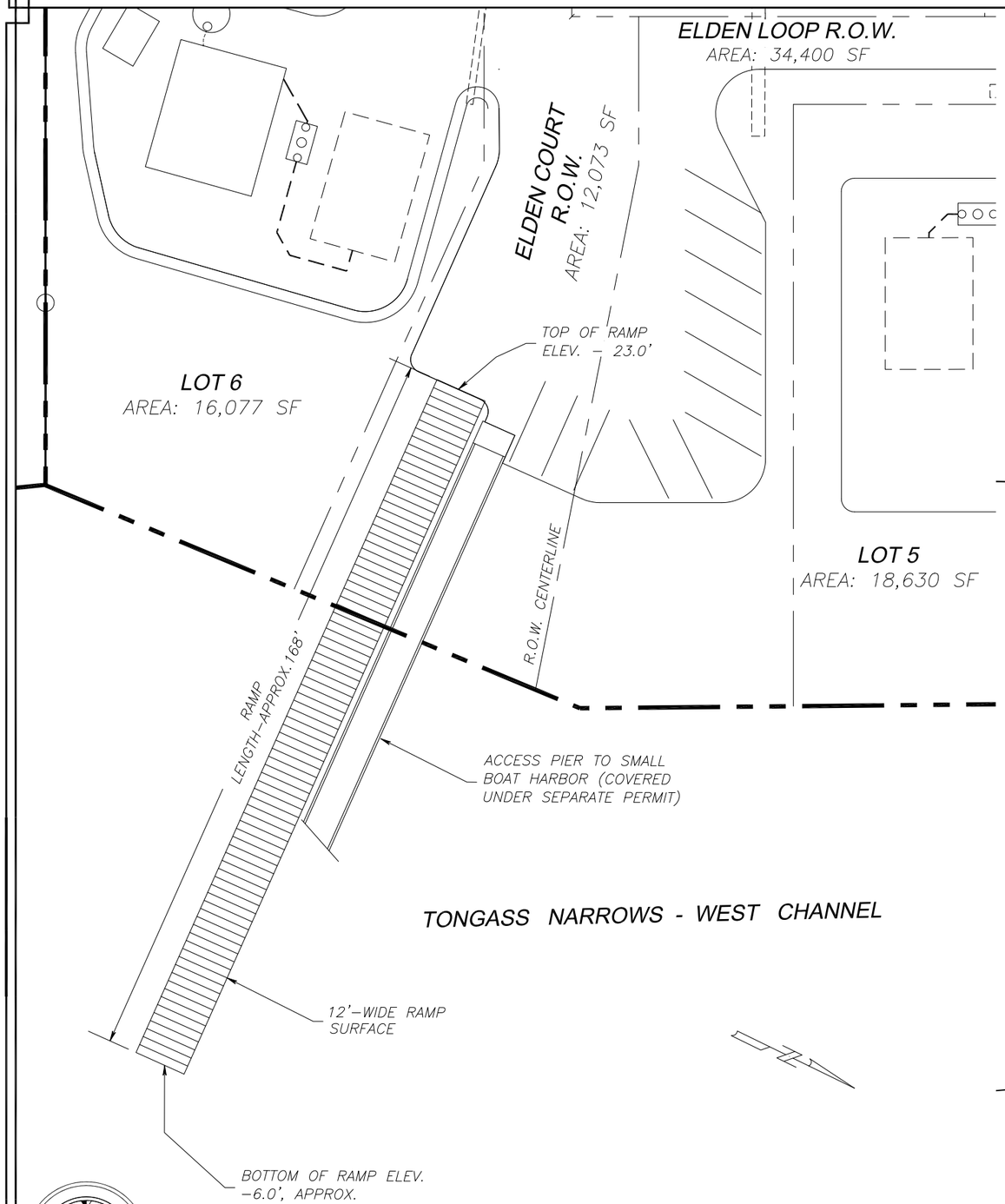
LOT DEVELOPMENT SITE PLAN DETAIL
ELDEN LOOP SUBDIVISION
A SUBIVISION & REPLAT OF
LOTS 1 & 2, U.S.S. 3536
GRAVINA ISLAND, in KETCHIKAN, ALASKA

SCALE IN FEET
10 0 20

CLIENT: CLAM COVE HOLDINGS, LLC
PO BOX 153
MOUNTLAKE TERRACE, WA 98043

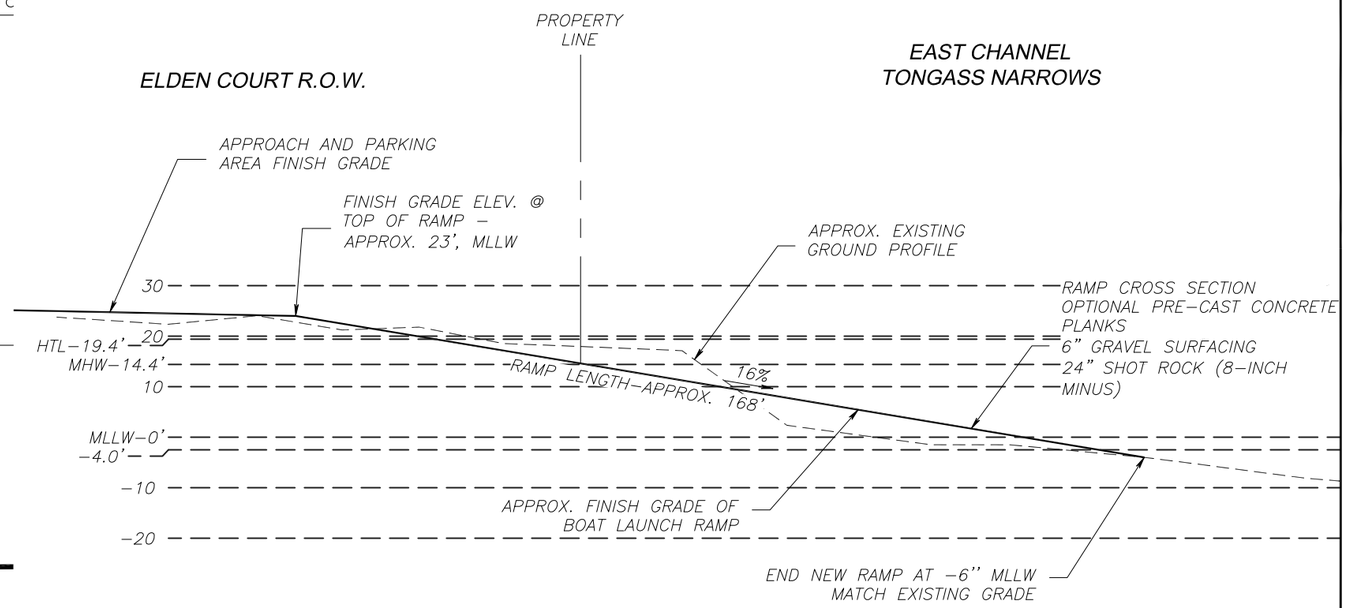
PROJECT NO.: **23701** SCALE: **1" = 20'** DRAWN BY: **S.A.M.** CKD BY: **S.A.M.** DATE: **7/19/24** SHEET **2** OF **3**

MENZIES ENGINEERING GROUP, INC. | 9737 MUD BAY ROAD, SUITE 301 | KETCHIKAN, ALASKA 99901
PH: (907)–220–9424 MOBILE: (907)–821–1561 EMAIL: scot@megalaska.com WEB: megalaska.com

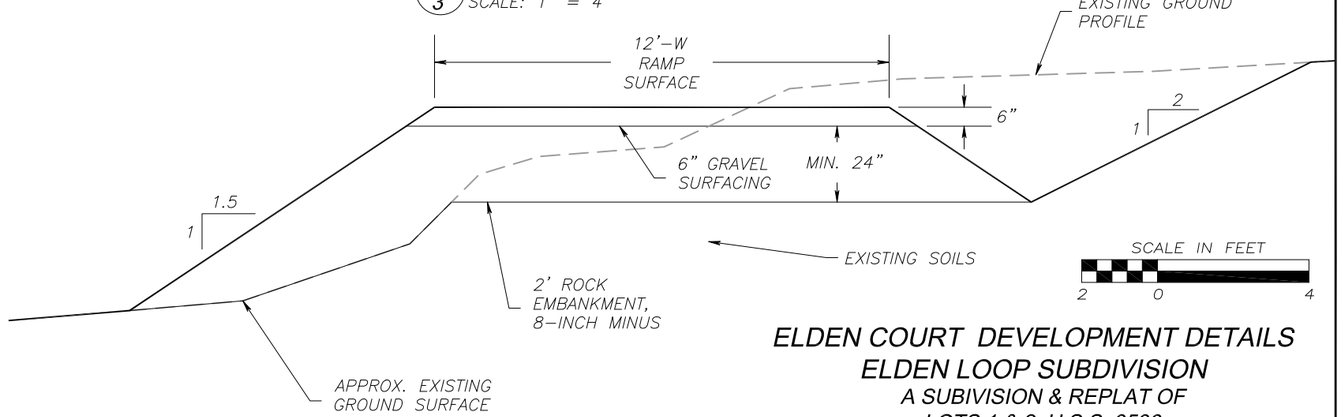


ELDEN COURT MARINE ACCESS AREA
1/3 BOAT LAUNCH RAMP PLAN
SCALE: 1" = 30'

SCALE IN FEET
15 0 30



ELDEN COURT MARINE ACCESS AREA
3/3 BOAT LAUNCH RAMP TYPICAL SECTION
SCALE: 1" = 4'



SCALE IN FEET
2 0 4

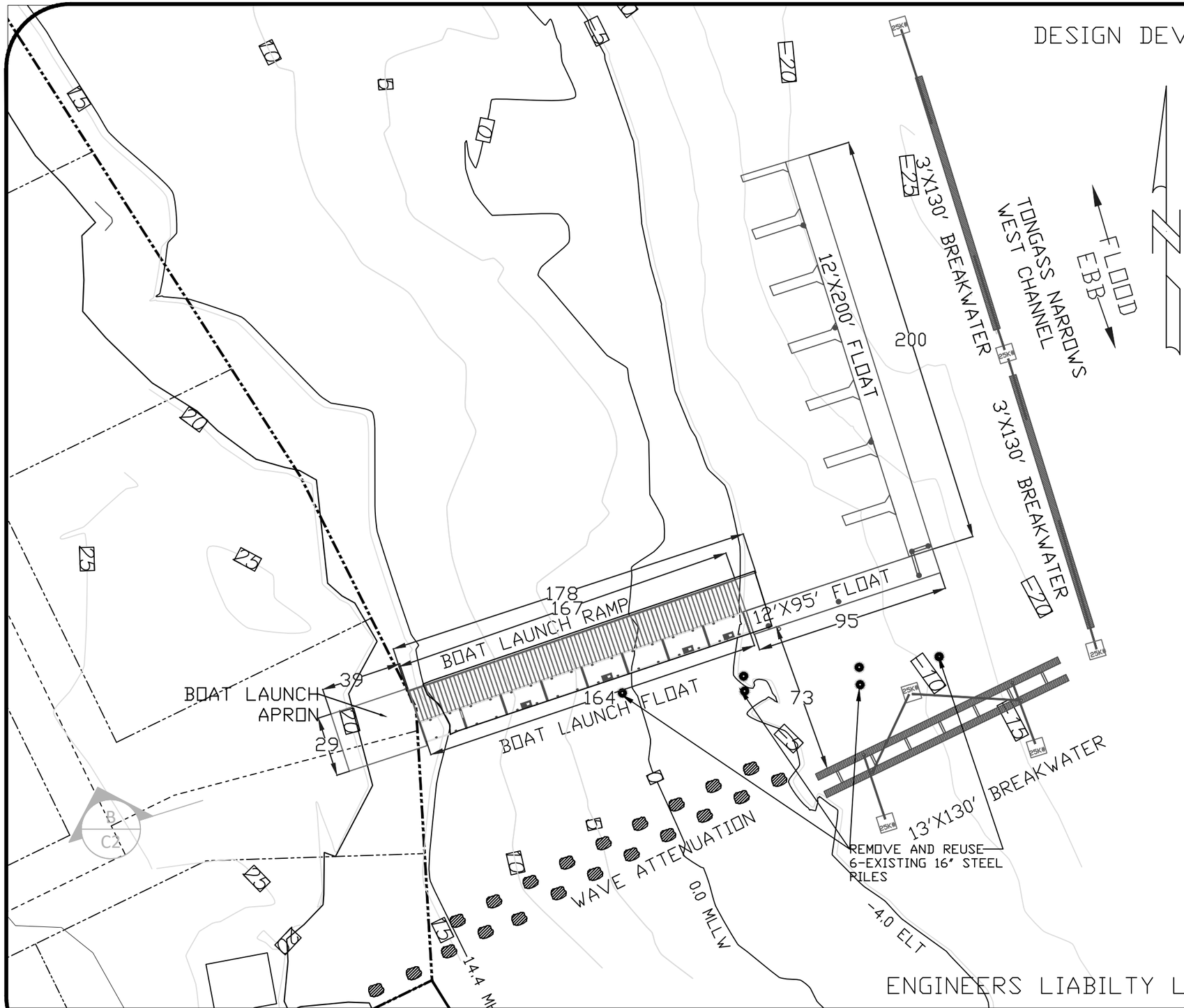
ELDEN COURT DEVELOPMENT DETAILS
ELDEN LOOP SUBDIVISION
A SUBIVISION & REPLAT OF
LOTS 1 & 2, U.S.S. 3536
GRAVINA ISLAND, in KETCHIKAN, ALASKA

CLIENT: CLAM COVE HOLDINGS, LLC
PO BOX 153
MOUNTLAKE TERRACE, WA 98043

PROJECT NO.: **23701** SCALE: **AS NOTED** DRAWN BY: **S.A.M.** CKD BY: **S.A.M.** DATE: **7/19/24** SHEET **3** OF **3**

MENZIES ENGINEERING GROUP, INC. | 9737 MUD BAY ROAD, SUITE 301 | KETCHIKAN, ALASKA 99901
PH: (907)–220–9424 MOBILE: (907)–821–1561 EMAIL: scot@megalaska.com WEB: megalaska.com

DESIGN DEVELOPMENT DRAWING



ENGINEERS LIABILTY LIMITED TO HIS FEE

PROPOSED BOAT LAUNCH, RAMP AND FLOATS OVERVIEW

SCALE 1"=50'

FLOAT & BREAKWATER PLANS
ELDEN LOOP DEVELOPMENT LLC
LOT 1 & 2 USS 3536
LAUNCH RAMP, FLOAT & BREAKWATER PLAN

NO.	REVISION / ISSUE	DATE

PREPARED BY:

MONREAN ENGINEERING
& ASSOCIATES INC.
PO BOX. 9343
KETCHIKAN, ALASKA 99901
PHONE 907 247-5920
CELL 907 254-8640
fmonrean@kpunet.net

PREPARED FOR:

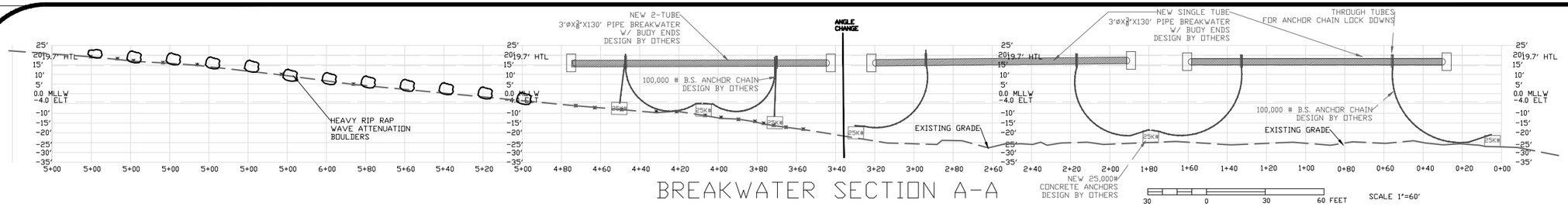
JEFFERY MILLER
WAYNE SHARP
PO BOX 153
MOUNTLAKE TERRACE, WA 98043

PROJECT:

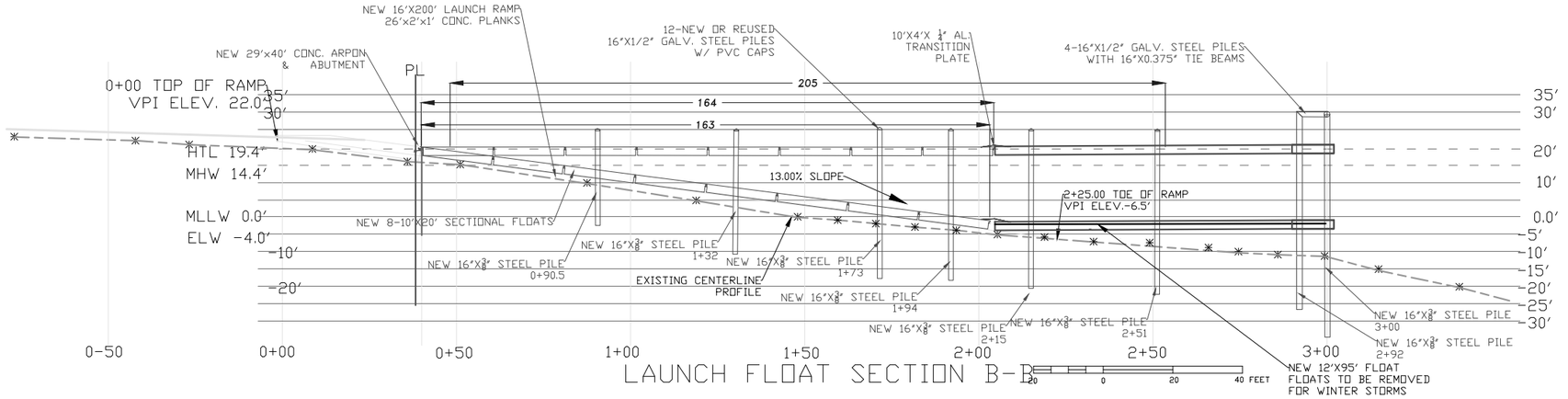
DATE:
FEB. 7, 2025

SCALE:
AS SHOWN

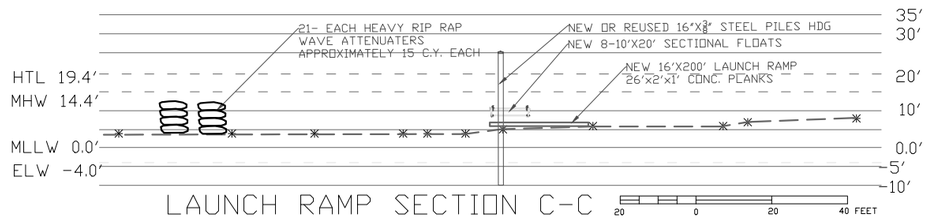
C1 / C4



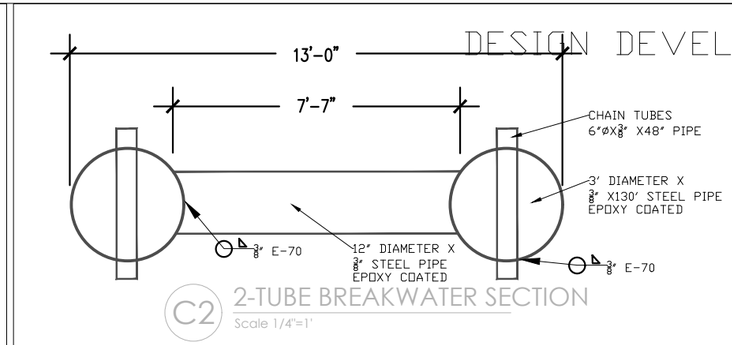
BREAKWATER SECTION A-A



LAUNCH FLOAT SECTION B-B

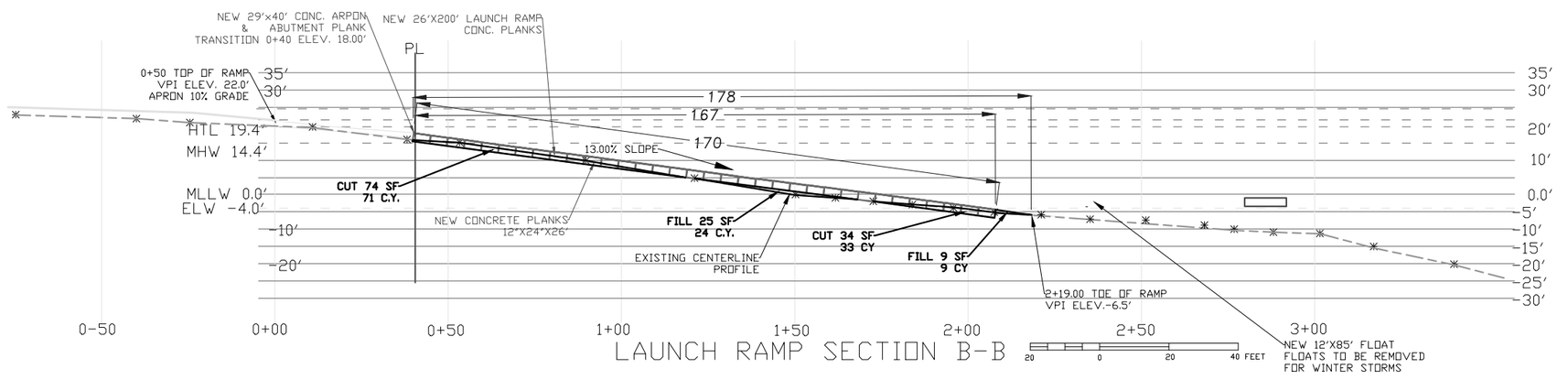


LAUNCH RAMP SECTION C-C



C2 2-TUBE BREAKWATER SECTION
Scale 1/4"=1'

DESIGN DEVELOPMENT DRAWING



LAUNCH RAMP SECTION B-B

STATE OF ALASKA 49th
FRED D. MONREAN
CE - 4851
REGISTERED PROFESSIONAL ENGINEER

SECTIONS

ELDEN LOOP DEVELOPMENT LLC
LOT 1 & 2 USS 3536
LAUNCH RAMP, FLOAT & BREAKWATER PLAN

NO.	REVISION / ISSUE	DATE

PREPARED BY:
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& ASSOCIATES INC.
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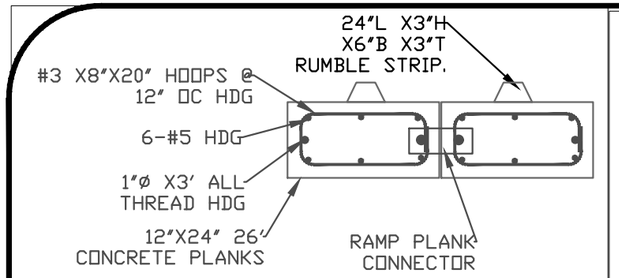
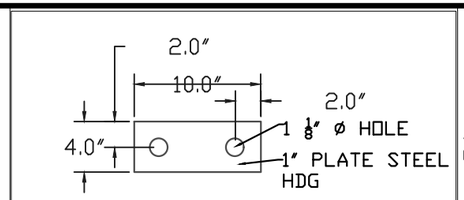
fmonrean@kpunet.net

PREPARED FOR:
JEFFERY MILLER
WAYNE SHARP
PO BOX 153
MOUNTLAKE TERRACE, WA 98043

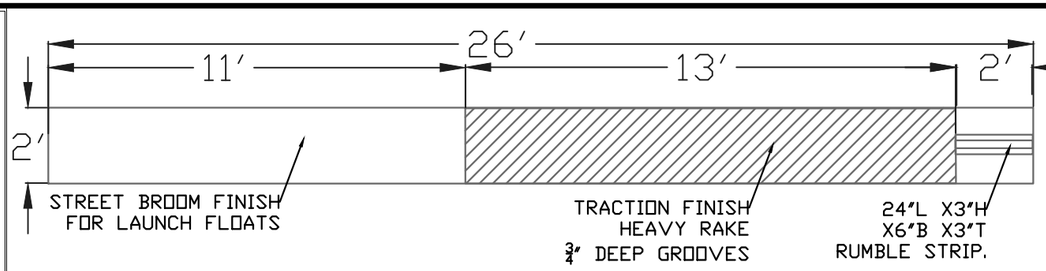
PROJECT:	C2 / C4
DATE: FEB. 25, 2025	
SCALE: AS SHOWN	



A RAMP PLANK SECTION
Scale 1/2"=1'



A RAMP PLANK CONECTOR
Scale 1"=1'



C RAMP PLANK PLAN
Scale 1/4"=1'

DESIGN DEVELOPMENT DRAWING

3'X130' STEEL
PIPE FLOAT

TONGASS NARROWS
WEST CHANNEL

FLOOD
EBB

NEW 12'X200' FLOAT
FLOATS TO BE REMOVED
FOR WINTER STORMS

3'X130' STEEL
PIPE FLOAT

3-16"X1/2" HDG STEEL
PILES WITH 16" PIPE
TOP BEAMS

25K # CONCRETE
ANCHOR TYPICAL

NEW 12'X95' FLOAT
FLOATS TO BE REMOVED
FOR WINTER STORMS

12-NEW OR REUSED
16"X1/2" GALV. STEEL PILES
W/ PVC CAPS

5'x25' FINGER

RAMP FILL AREA 4571 S.F.
CUT 104 C.Y. FILL 33 C.Y.

BOAT LAUNCH RAMP 13.4% 170'x26'

BOAT LAUNCH FLOAT 10'x164'

HEAVY RIP RAP

60
50
266
178
167
164
73
61

DETAIL SHEET

ELDEN LOOP DEVELOPMENT LLC

LOT 1 & 2 USS 3536

LAUNCH RAMP, FLOAT & BREAKWATER PLAN

NO.	REVISION / ISSUE	DATE

PREPARED BY:

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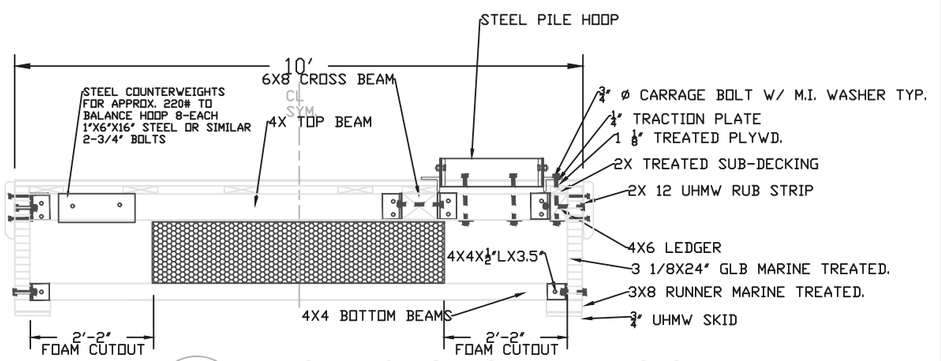
PREPARED FOR:

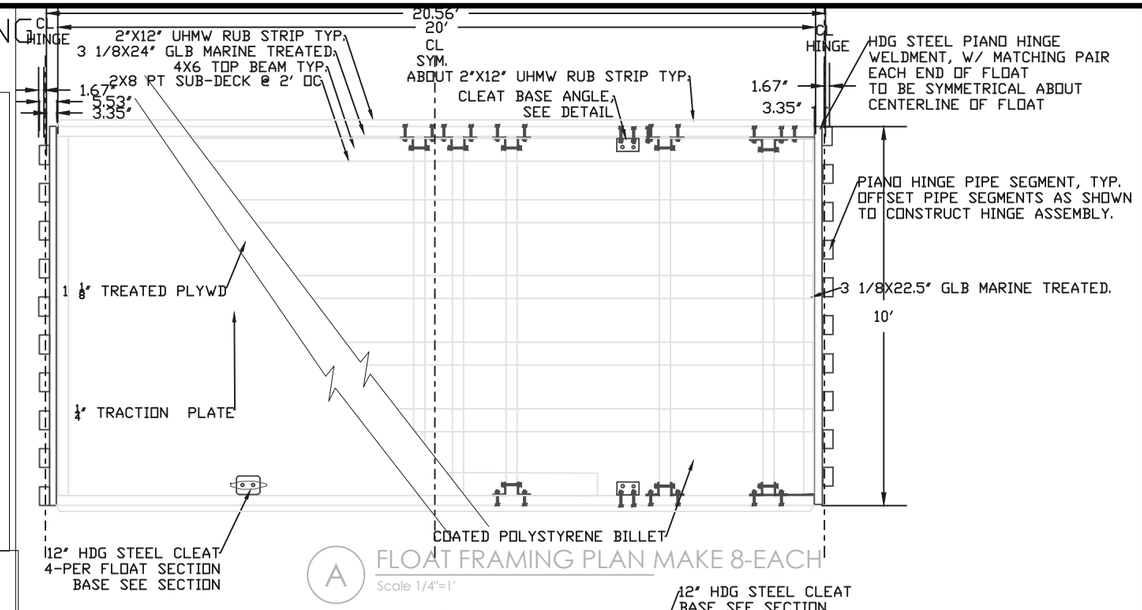
JEFFERY MILLER
WAYNE SHARP
PO BOX 153
MOUNTLAKE TERRACE, WA 98043

PROJECT:	C3 / C4
DATE: JAN. 15, 2024	
SCALE: AS SHOWN	

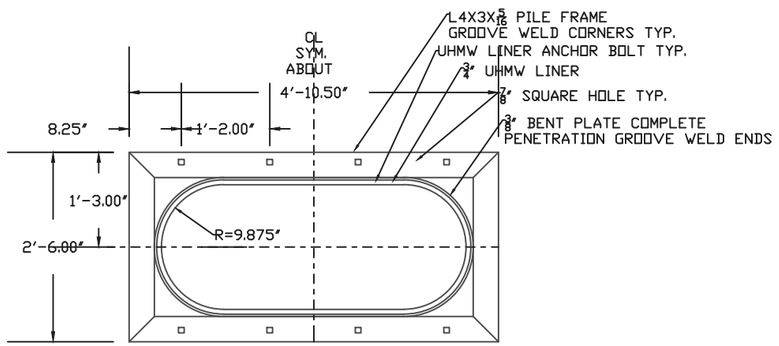
DESIGN DEVELOPMENT DRAWING



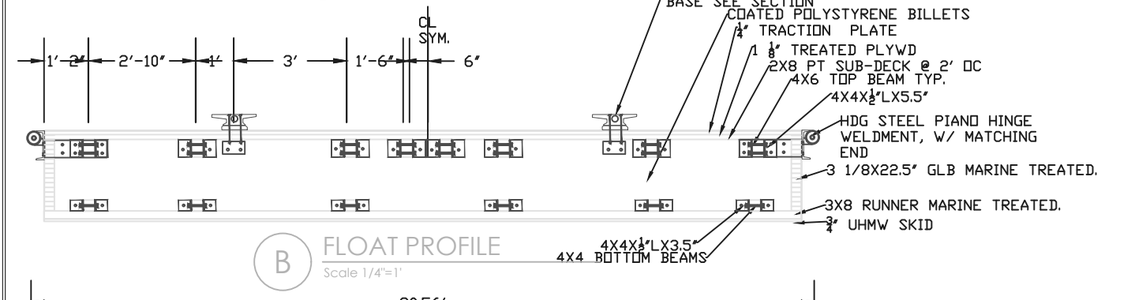
A FLOAT SECTION AT HOOP
Scale 1/4"=1'



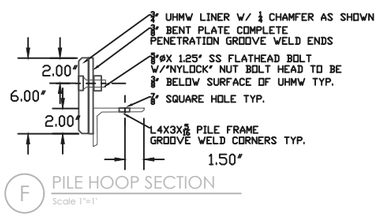
A FLOAT FRAMING PLAN MAKE 8-EACH
Scale 1/4"=1'



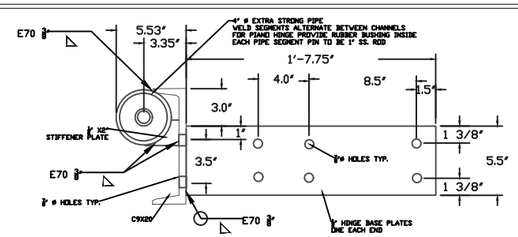
D PILE HOOP PLAN
Scale 1/2"=1'



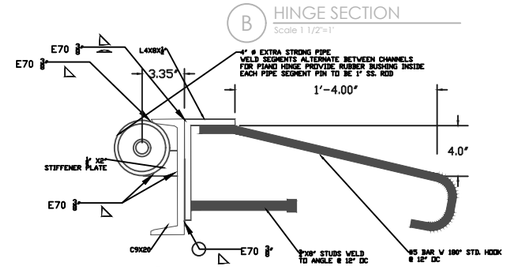
B FLOAT PROFILE
Scale 1/4"=1'



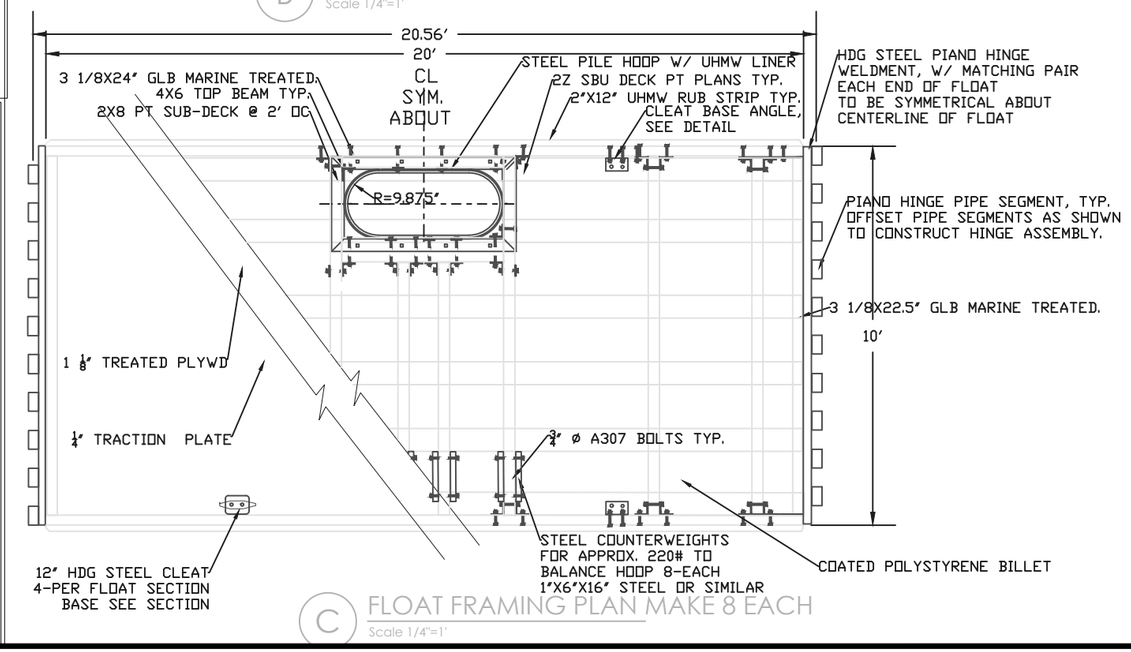
F PILE HOOP SECTION
Scale 1"=1'



B HINGE SECTION
Scale 1 1/2"=1'



C ABUTMENT CONNECTION DETAIL
Scale 1 1/2"=1'



C FLOAT FRAMING PLAN MAKE 8 EACH
Scale 1/4"=1'

DETAIL SHEET
ELDEN LOOP DEVELOPMENT LLC
LOT 1 & 2 USS 3536
LAUNCH RAMP, FLOAT & BREAKWATER PLAN

NO.	REVISION / ISSUE	DATE

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fmonrean@kpunet.net

PREPARED FOR:
JEFFERY MILLER
WAYNE SHARP
PO BOX 153
MOUNTLAKE TERRACE, WA 98043

PROJECT:	C4 / C4
DATE: JAN. 15, 2024	
SCALE: AS SHOWN	