

JUDD COVE PRESERVE - ORCAS ISLAND

SHORELINE RESTORATION

SURVEY NOTES:

Horizontal Datum: NAD83-91 State Plane, Washington North Zone

Vertical Datum: Mean Lower Low Water (MLLW) per NOAA station Rosario (#9449771)

Horizontal Control: Based on DGPS observation of two monuments (CGS1 and CGS2 listed below) on 4/13/2020 using a Trimble GeoHX 6000 post-processed to WSRN base station VERN.

Vertical Control: MLLW based on direct observation of high tide wrack on 4/13/2020 at compared to predicted high high tide for NOAA station Rosario (#9449771) and observed tide at NOAA station Friday Harbor (#9449880).

HTL = 9.70 FT MLLW
MHHW = 7.89 FT MLLW
NAVD88 = 0.62 FT MLLW

The Ordinary High Water Mark (OHWM) observed on 4/13/20 by Coastal Geologic Services. The observed location coincides with the computed High Tide Line using Highest Astronomical Tide (HAT) for NOAA station Rosario (#9449771).

Beach and profile topographic data obtained by Coastal Geologic Services 1/18/2020 and 4/13/2020 using Lieca TCR-1105 total station with direct rod measurements.

Additional upland topographic data obtained from 2019 LiDAR delivered by Quantum Spatial, June 14, 2019, acquisition dates 3/2/2019-2/3/2019, 3/10/2019 for the Washington Department of Natural Resources.

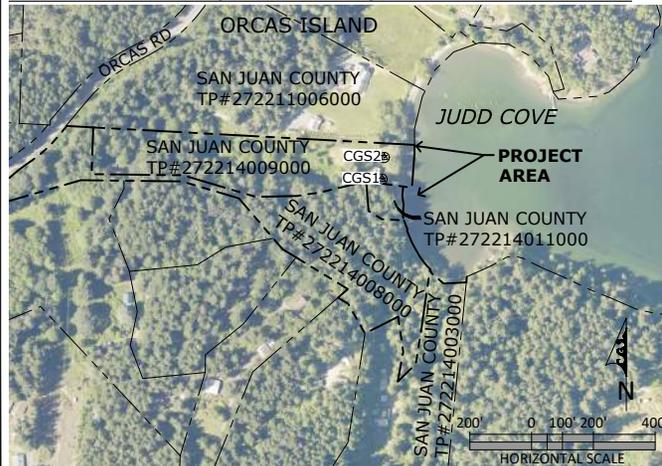
Background Aerial Photography originally dated 2022, Provided by San Juan County EagleView.

Parcel boundaries shown obtained from the 2012 Washington State Parcel Database, and used as-is here for reference only. No boundary survey was completed as part of this work.

MONUMENT LIST:

NAME	EASTING	NORTHING	ELEV.
CGS 1	1135521.3'	621428.7'	20.2'
CGS 2	1135528.5'	621498.6'	17.0'

ADJACENT PARCEL MAP / AERIAL PHOTO / MONUMENT MAP:



ADJACENT PROPERTY OWNERS

PARCEL #	NAME	ADDRESS
272214003000	Edgar Taylor Cline III	229 Indralaya Rd, Eastsound, WA 98245
272211006000	Valinor Homes LLC	550 W Plumb Ln, Ste B PMB 520 Reno, NV 89609

LOCATION AND VICINITY MAP:



SITE ADDRESS:

103 Fowler's Way
Orcas Island, WA 98245
San Juan County
Assessor Parcels #: 272214009000, 272214011000, 272214008000
Section 22, Township 37N, Range 2W

DRIVING DIRECTIONS:

From Orcas Road turn right (east) onto Fowlers Way. Access to project site will be on the left 500 ft down fowlers way.

OWNER:

San Juan County Land Bank
350 Court St NO.6
Friday Harbor, WA 98250

CONTACT INFORMATION:

Natural Systems Design +
Coastal Geologic Services
1900 N Northlake Way, Suite 211
Seattle, WA 98103
(206) 834-0175

LEGEND:

FEATURE	EXISTING	PROPOSED
CONTOURS, MAJOR	—#—	—#—
CONTOURS, MINOR	—#—	—#—
PROPERTY LINE/ROW	—#—	—#—
MEAN HIGHER HIGH WATER	---MHW---	---MHW---
HIGH TIDE LINE/ ORDINARY HIGH WATER MARK	---HTL/OHWM---	---HTL/OHWM---
BUILDING	[Symbol]	[Symbol]
SCATTERED ROCK	[Symbol]	[Symbol]
ROCK REVETMENT	[Symbol]	[Symbol]
TOPPLED BOULDERS	[Symbol]	[Symbol]
FORAGE FISH ENHANCEMENT SEDIMENT	[Symbol]	[Symbol]
PLACE EXCAVATED FILL AND REVEGETATE	[Symbol]	[Symbol]

GENERAL NOTES:

- The work consists of furnishing all construction, labor, equipment, and materials, and performing all operations in connection with the construction related to shoreline restoration detailed in the final design drawing sheets.
- Project activities shall not occur when the work area is inundated by tidal waters. The contractor shall have on the job site a current tide chart for the duration of the project activities.
- Work during holidays, weekends, and outside the normal work hours requires prior arrangements and approval.
- Contractor must obtain appropriate permissions to encroach and work within any rights-of-way.
- Location of utilities was not determined prior to project design. The contractor shall contact utility location service 48 hours prior to starting construction at 1-800-424-5555 or 811.
- The contractor shall restore all private and public property disturbed by the project immediately after construction.
- Contractor shall sweep and remove all debris tracked onto existing paved roads during all phases of construction.
- All material aggregates, and sources to be used shall be pre-approved by the project engineer prior to import and construction. Sample material and specification documentation shall be inspected and reviewed prior to large quantity shipment to the project site.
- Any discrepancies in the plans with field conditions shall be brought to the immediate attention of the engineer.
- A copy of the approved plans, specifications and permits must be on the job site whenever construction is in process. All work and work timing shall be in compliance with provisions in the approved permit(s) from the US Army Corps of Engineers, Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife and San Juan County permits.
- The contractor shall ensure that all pre-construction meetings and inspections are scheduled and attended As required by the project permits, and/or Contract.
- All construction materials shall be staged landward of OHWM.
- Disturbed areas shall be restored per specifications as soon as possible after completion of construction.
- All construction equipment shall be inspected daily for leaks and any required repairs shall be completed before using the equipment near the water.
- All refueling and maintenance of equipment shall take place a minimum of 100 feet from marine waters or landward wetlands.
- An emergency spill containment kit shall be located onsite during construction.
- All waste and debris generated by the project shall be collected and removed to a legally permitted waste disposal site.

SHEET INDEX:

- # Sheet Title
- Cover Sheet - Vicinity Map - Notes
 - Existing Conditions - Site Plan
 - Existing Conditions - Upland Site Plan
 - Proposed Conditions - Site Plan
 - Proposed Conditions - Detailed Site Plan
 - Proposed Conditions - Upland Site Plan
 - Proposed Conditions - Cross Sections

Proposed: Shoreline Restoration
In: Judd Cove County: San Juan State: WA
Application By:
San Juan County Land Bank
350 Court St NO.6
Friday Harbor, WA 98250
Location: 48.6848 Lat., -122.9234 Lon.
Assessors Parcels: 272214009000
272214011000, and 272214008000

**FINAL
DESIGN**

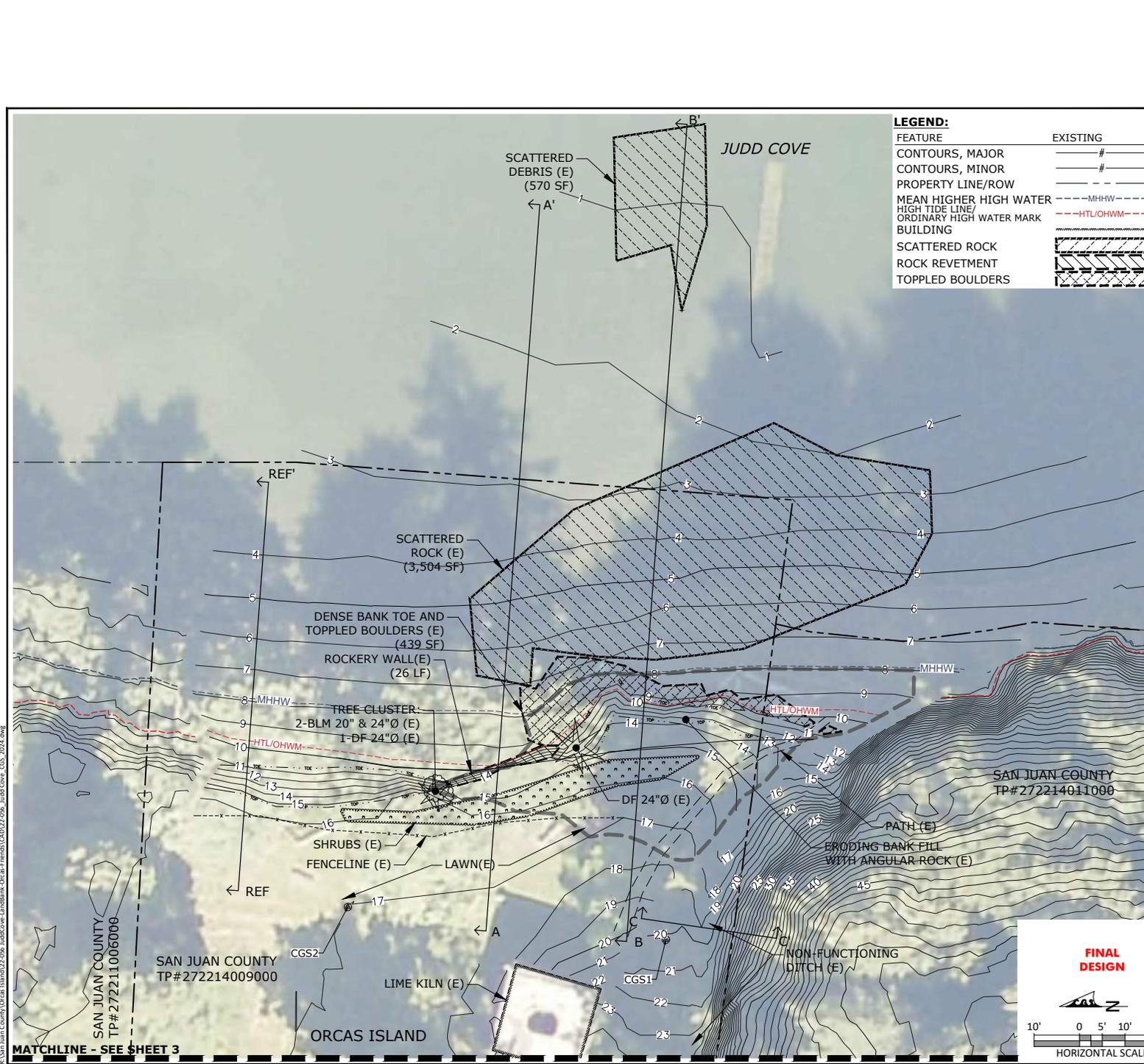


REVISIONS	DATE	BY	DESCRIPTION

JUDD COVE PRESERVE - ORCAS ISLAND
SHORELINE RESTORATION
COVER SHEET - VICINITY MAP - NOTES
SAN JUAN COUNTY LAND BANK



DATUM: MLLW = 0.0 FT ELEV. NAVD88 = 0.62 FT ELEV. MHHW = 7.89 FT ELEV. HTL/OHWM = 9.70 FT
SCALE: AS SHOWN
DATE: 2/22/2024
SHEET: 1
OF: 7



LEGEND:

FEATURE	EXISTING
CONTOURS, MAJOR	— # —
CONTOURS, MINOR	— # —
PROPERTY LINE/ROW	— # —
MEAN HIGHER HIGH WATER	--- MHHW ---
HIGH TIDE LINE/ ORDINARY HIGH WATER MARK	--- HTL/OHWM ---
BUILDING	[Hatched pattern]
SCATTERED ROCK	[Diagonal hatched pattern]
ROCK REVETMENT	[Cross-hatched pattern]
TOPPLED BOULDERS	[Stippled pattern]



Rockery wall (1/14/23)



Rockery and toppled boulders (1/14/23)



Scattered rock (4/13/20)

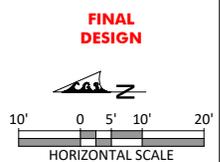


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NO.	DATE

JUDD COVE PRESERVE - ORCAS ISLAND
SHORELINE RESTORATION
 EXISTING CONDITIONS - SITE PLAN
 SAN JUAN COUNTY LAND BANK

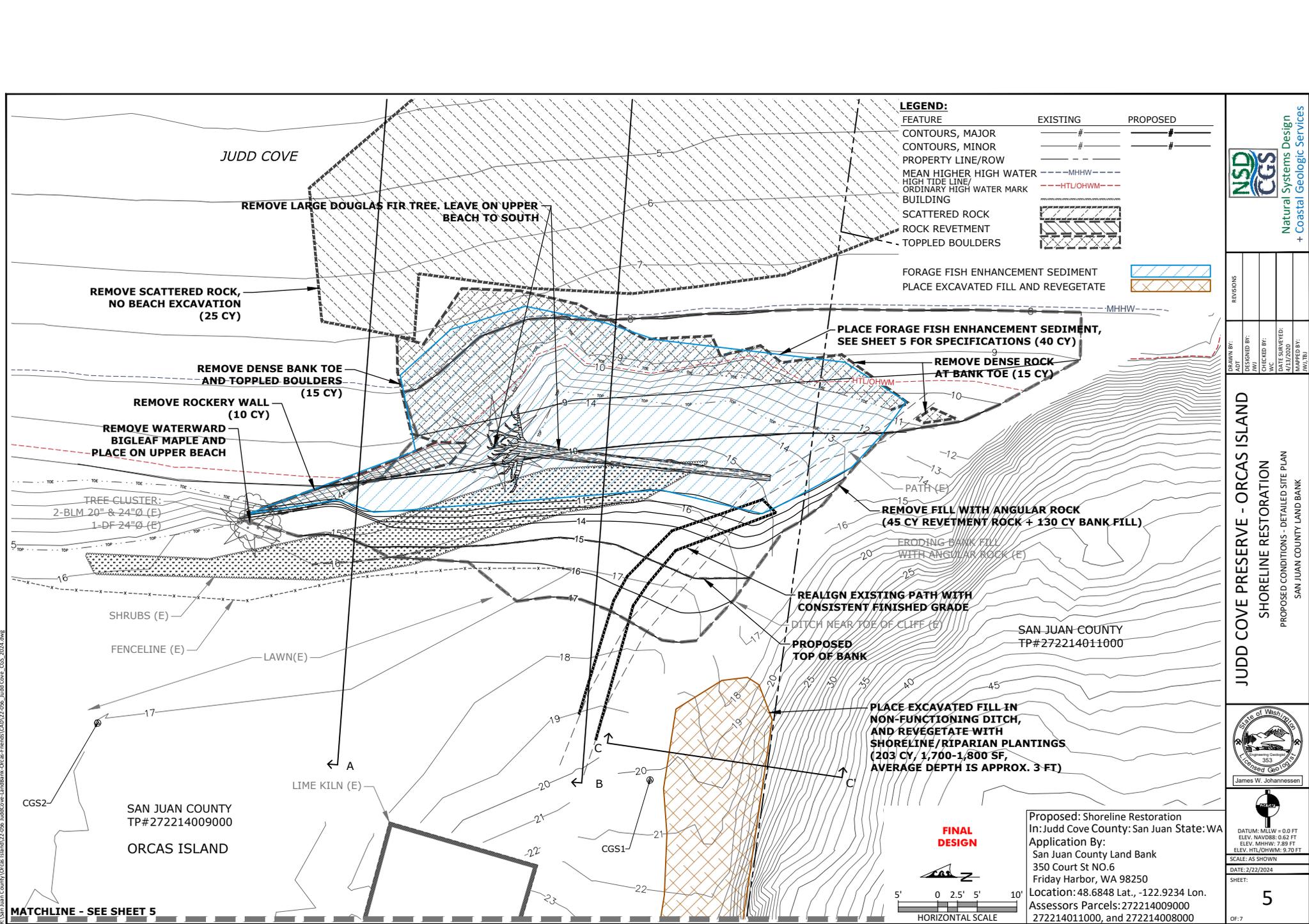


<p>Proposed: Shoreline Restoration In: Judd Cove Preserve: San Juan State: WA Application By: San Juan County Land Bank 350 Court St NO.6 Friday Harbor, WA 98250 Location: 48.6848 Lat., -122.9234 Lon. Assessors Parcels: 272214009000 272214011000, and 272214008000</p>	<p>DATUM: MLLW = 0.0 FT ELEV. NAVD88: 0.62 FT ELEV. MHHW: 7.89 FT ELEV. HTL/OHWM: 9.70 FT SCALE: AS SHOWN DATE: 2/22/2024 SHEET: 2 OF: 7</p>
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MATCHLINE - SEE SHEET 3

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LEGEND:

FEATURE	EXISTING	PROPOSED
CONTOURS, MAJOR	—#—	—#—
CONTOURS, MINOR	—#—	—#—
PROPERTY LINE/ROW	—#—	—#—
MEAN HIGHER HIGH WATER	—MHHW—	—MHHW—
HIGH TIDE LINE/ ORDINARY HIGH WATER MARK	—HTL/OHWM—	—HTL/OHWM—
BUILDING		
SCATTERED ROCK		
ROCK REVETMENT		
TOPPLED BOULDERS		
FORAGE FISH ENHANCEMENT SEDIMENT		
PLACE EXCAVATED FILL AND REVEGETATE		



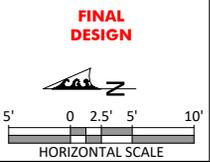
REVISIONS

NO.	DESCRIPTION	DATE	BY

JUDD COVE PRESERVE - ORCAS ISLAND
SHORELINE RESTORATION
 PROPOSED CONDITIONS - DETAILED SITE PLAN
 SAN JUAN COUNTY LAND BANK



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 Application By:
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 350 Court St NO.6
 Friday Harbor, WA 98250
 Location: 48.6848 Lat., -122.9234 Lon.
 Assessor's Parcels: 272214009000
 272214011000, and 272214008000



MATCHLINE - SEE SHEET 5

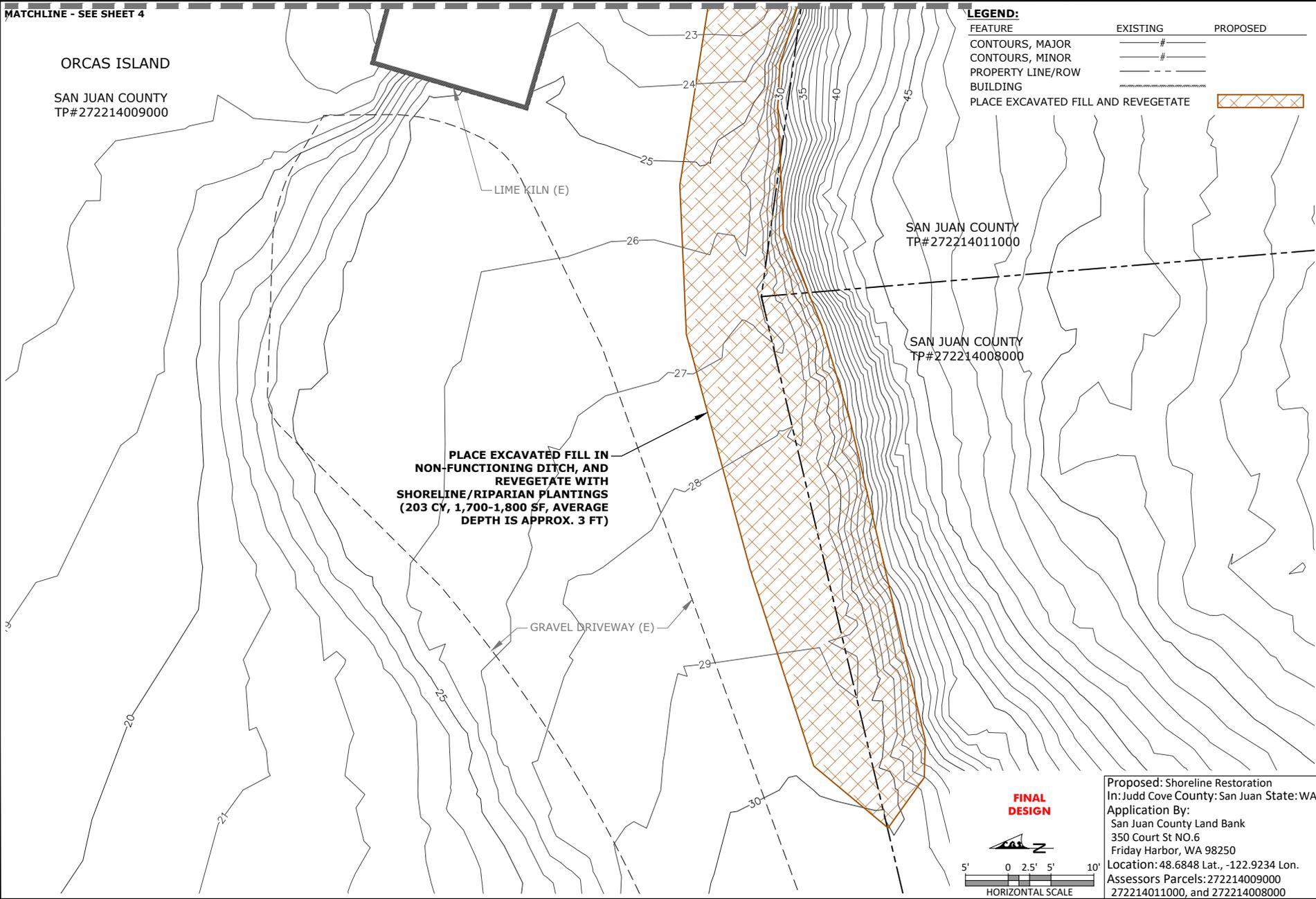
MATCHLINE - SEE SHEET 4

ORCAS ISLAND

SAN JUAN COUNTY
TP#272214009000

LEGEND:

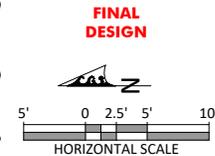
FEATURE	EXISTING	PROPOSED
CONTOURS, MAJOR	—#—	—#—
CONTOURS, MINOR	—#—	—#—
PROPERTY LINE/ROW	—#—	—#—
BUILDING	—#—	—#—
PLACE EXCAVATED FILL AND REVEGETATE		



**PLACE EXCAVATED FILL IN
NON-FUNCTIONING DITCH, AND
REVEGETATE WITH
SHORELINE/RIPARIAN PLANTINGS
(203 CY, 1,700-1,800 SF, AVERAGE
DEPTH IS APPROX. 3 FT)**

SAN JUAN COUNTY
TP#272214011000

SAN JUAN COUNTY
TP#272214008000



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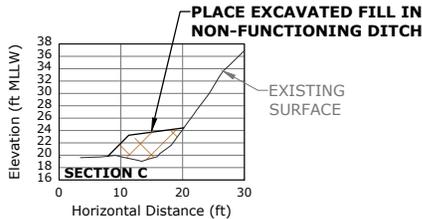
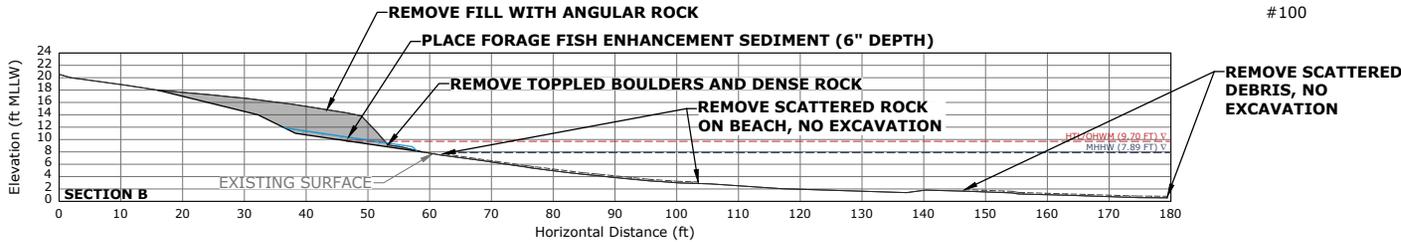
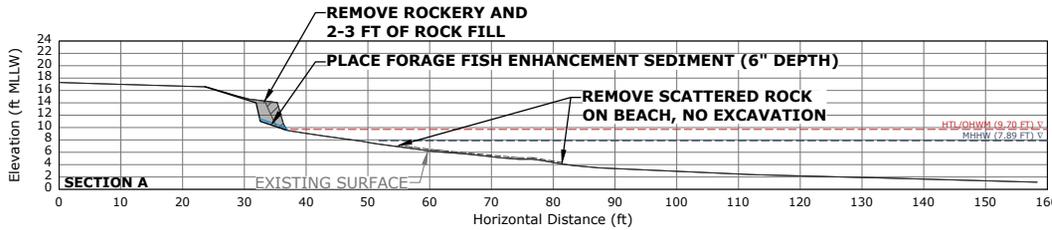
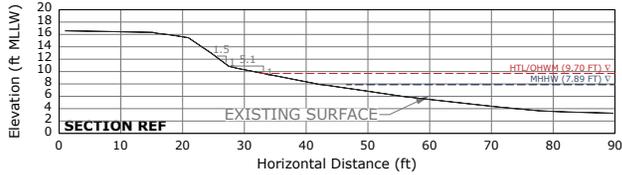
JUDD COVE PRESERVE - ORCAS ISLAND
SHORELINE RESTORATION
 PROPOSED CONDITIONS - UPLAND SITE PLAN
 SAN JUAN COUNTY LAND BANK



DATUM: MLLW = 0.0 FT
 ELEV. NAVD83: 0.62 FT
 ELEV. NHW: 7.89 FT
 ELEV. HTL/DHWM: 9.70 FT
 SCALE: AS SHOWN
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FORAGE FISH ENHANCEMENT SEDIMENT SPECIFICATION:

Forage Fish Enhancement Sediment (FFES) is to be applied in the upper beach within the polygon shown in plans after rock removal. This polygon covers a majority of the dense rock removal area. Placement of FFES will total 40 CY (60 tons) using coarse sand and gravel mix which is a potential forage fish spawning substrate. The sandy gravel would be placed at a slope matching the existing beach grade at a nominal thickness of 6 inches, grading to approximately 9 inches closer to the bank. The sandy gravel mix should provide good forage fish spawning habitat, including at least 40% by weight of 1-7 mm sized sediment. Additional specifications on sandy gravel are:

- Materials shall be free from dirt, clay, rock fines, fractured rock, and other materials not meeting the requirements of this section.
- Materials shall be naturally occurring, mostly rounded material.
- FFES gravels shall be composed of sound durable rock with less than 35% by weight having significant cleavage or fractures, or highly angular shape.
- FFES will preferably be of a tan to gray color.
- Materials shall be generally free of thin, flat, and elongated pieces (limited to less than 20% by weight)
- Materials shall not contain organic matter considered objectionable by the Licensed Engineering Geologist or Owner's Representative.
- Material samples must be submitted and approved by the Licensed Engineering Geologist or Owner's Representative prior to purchase and delivery.
- Specifications by weight for FFES material are as follows:

Screen/Sieve	Percent Passing
2"	95-100
¾"	60-80
¼" (6.35mm)	45-65
#10 (2mm)	10-25
#40 (0.42mm)	0-8
#100	0-3

FINAL DESIGN

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MAPPED BY:	

JUDD COVE PRESERVE - ORCAS ISLAND
SHORELINE RESTORATION
 PROPOSED CONDITIONS - CROSS SECTIONS
 SAN JUAN COUNTY LAND BANK



DATUM: MLLW = 0.0 FT
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 ELEV. HTL/OHWM: 9.70 FT
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