

SEAHORSE SIESTA

BULKHEAD REMOVAL

SURVEY NOTES:

Horizontal Datum: NAD83 HARN Washington State Plane North. Based on Trimble GeoHX 600 GPS observation of three temporary benchmarks on the concrete bulkhead, and post-process corrected in reference to WSRN station PFLD.

Vertical Datum: Local Mean Lower Low Water (MLLW). Based on tide observation on 12/5/2014 at 10:15 AM during low tide. Water level was corrected to the datum using the tide prediction for NOAA station Sandy Point (#9447856) and the difference of observed vs. predicted for Port Townsend (#9444900).
0 FT NAVD88 = 2.16 FT MLLW
MHHW = 11.26 FT MLLW

Topography: Topographic data obtained by Coastal Geologic Services, Inc. 12/5/2014 using Lieca TCR-1105 Total Station with direct rod measurements.

Ground features mapped by Coastal Geologic Services, Inc. 12/5/2014 using
 Lieca TCR-1105 Total Station with direct rod measurements.

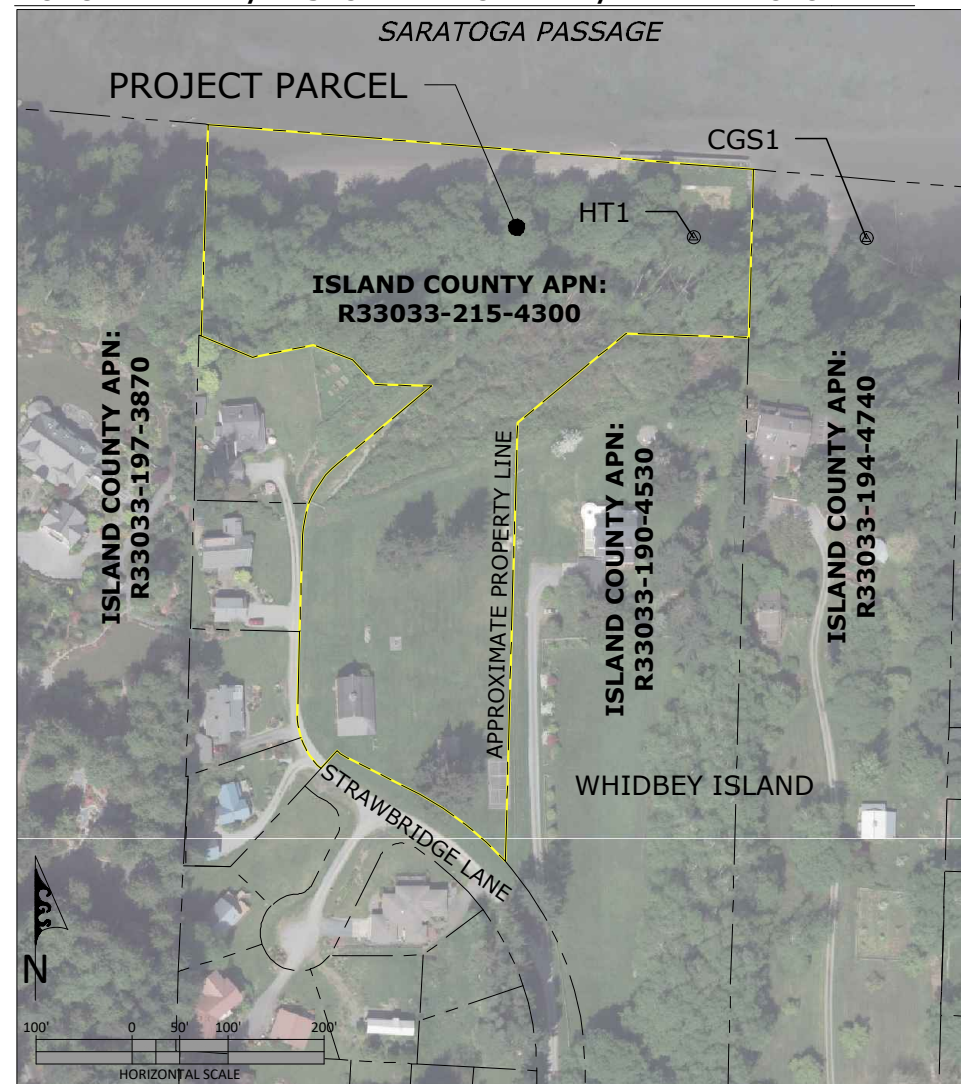
Aerial Photography provided by Island County, originally dated 2014 by Quantum Spatial, and used here as is.

Parcel lines shown are approximate and for reference only. No boundary survey was completed as part of this work.

MONUMENT LIST:

#	NAME	EASTING	NORTHING	ELEV.	TYPE
1	CGS1	1251830.20'	384624.31'	8.86'	SET ½" REBAR
2	HT1	1251650.17'	384625.59'	24.52'	SET HUB & TACK

MONUMENT MAP / ADJACENT PARCEL MAP / AREIAL PHOTO:



LOCATION AND VICINITY MAP:

**SITE ADDRESS:**

Strawbridge Lane
Langley, WA 98260
Island County APN: R33033-215-4300

DRIVING DIRECTIONS:

From A-525 N. Turn North onto Langley Rd/Langley Loop. Continue to follow Langley Loop. Continue West onto Sixth Street. Continue North onto Park Avenue. Turn West onto 3rd Street. Turn North onto De Bruyn Ave/Langley Loop. Turn West onto Saratoga Road. Turn right onto S Strawbridge Lane. Project site access is on the right before the end of the road.

ADJACENT PROPERTY OWNERS

PARCEL #	NAME	ADDRESS
R33033-197-3870	GEORGE, SUSAN E	PO BOX 1429 LANGLEY, WA 98260
R33033-194-4740	5081 SARATOGA LLC	BOX 346 MERCER ISLAND, WA 98040





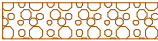
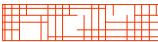




SHEET INDEX:

#	Sheet Title
1	Cover Sheet - Vicinity Map - Notes
2	Existing Conditions - Site Plan
3	Proposed Conditions - Site Grading Plan
4	Proposed Conditions - Cross Sections A, B, C, & D
5	Proposed Conditions - Detailed Cross Sections B, C, E & F - Details
6	Proposed Conditions - Cross Section G - Details

GENERAL NOTES:

1. Project activities shall not occur when the work area is inundated by tidal waters.
2. Work during holidays, weekends, and outside the normal work hours requires prior arrangements and approval.
3. Contractor must obtain appropriate permissions to encroach and work within any rights-of-way.
4. The contractor shall contact utility location service 48 hours prior to starting construction at 1-800-424-5555 or 811.
5. The contractor shall restore all private and public property disturbed by the project immediately after construction.
6. Contractor shall sweep and remove all debris tracked onto existing paved roads during all phases of construction.
7. The contractor shall keep records of deviations and forward to the project engineer.
8. Traffic control is to be maintained.
9. The contractor shall have on the job site a current tide chart for the duration of the project activities.
10. A copy of the approved plans must be on the job site whenever construction is in process.
11. Location of utilities was not determined prior to project design.
12. Locations of residential structures shown are approximate and based off 2014 vertical aerial photo.

LEGEND (APPLIES TO ALL SHEETS):

FEATURE	EXISTING	PROPOSED
CONTOURS, MAJOR	_____#_____	_____#_____
CONTOURS, MINOR	_____#_____	_____#_____
STORM DRAIN PIPE	---D---D---	
PROPERTY LINES	_____#_____	
OHWM	— — — OHWM — — —	
MHHM	— — — MHHM — — —	— — — MHHM — — —
BARGE BULKHEAD STRUCTURE		
SCATTERED ROCK		
BEACH EXCAVATION		
CLEAN BEACH SEDIMENT FILL		
BEACH NOURISHMENT GRAVEL		
ROCK DRIFT SILL		
CONCRETE BLOCK BEACH ACCESS STAIRS		
NATIVE SHORELINE PLANTINGS		
NATIVE UPLAND PLANTINGS		
VEGETATED BEACH ACCESS TRAIL		

FINAL DESIGN

Proposed: Armor removal/Beach Restoration
USACE Ref. #: _____
In: Saratoga Passage
County: Island
State: WA
Application By:
Northwest Straits Foundation
1155 N State St Ste 402
Bellingham WA 98225
Project Location:
Latitude: 48.0436 N \ Longitude: -122.4228 W
Assessors Parcel Number: R33033-215-4300



Bellingham, WA 98225
360-647-1845 - coastalgeo.com

DESIGNED BY:	ADT	DATE SURVEYED:	12/5/2014
CHECKED BY:	JWJ	SURVEYED BY:	JFW/ADT

SEAHORSE SIESTA BULKHEAD REMOVAL

COVER SHEET

NORTHWEST STRAITS FOUNDATION



MLLW = 0.00'
HHW = 11.26'

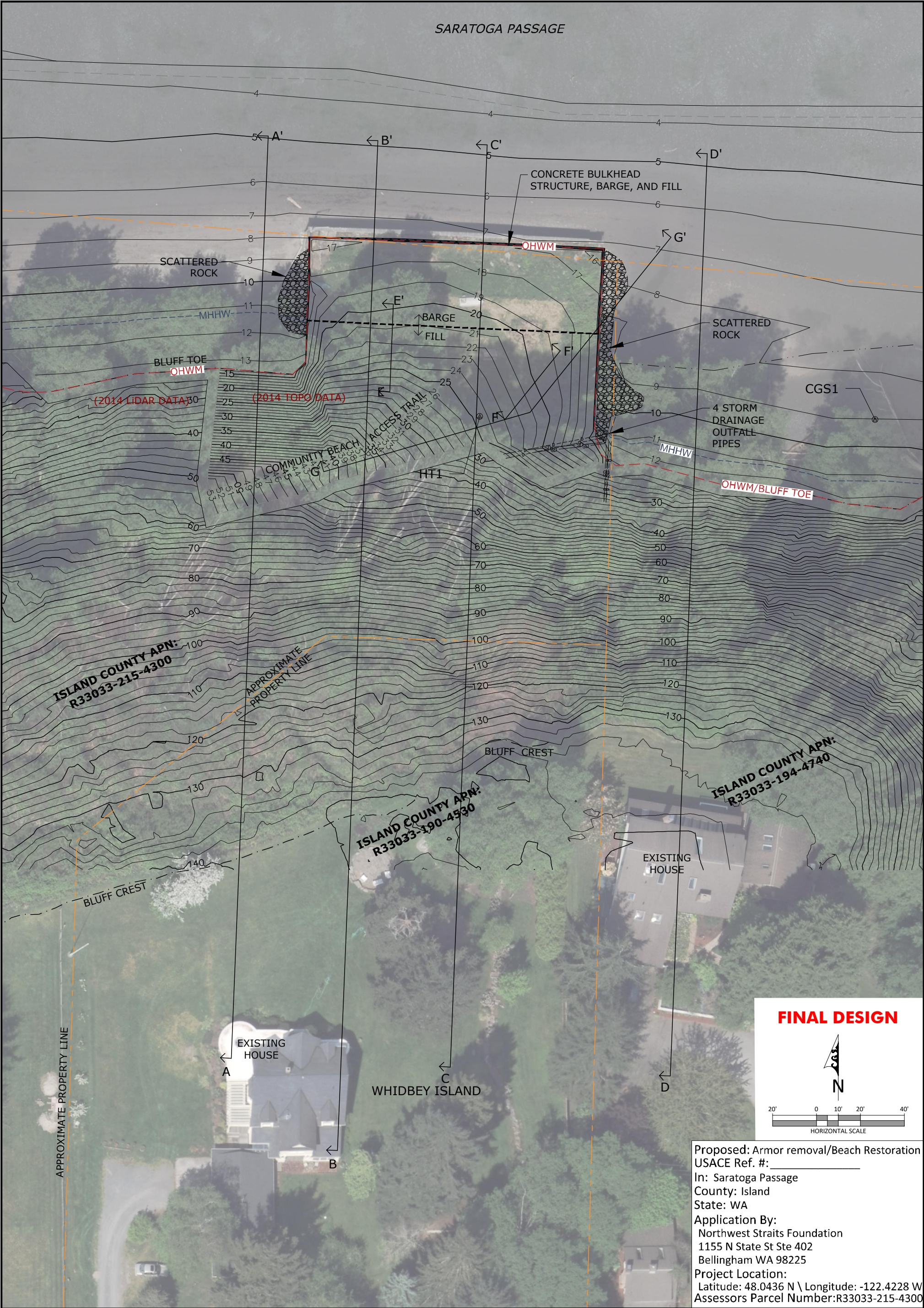
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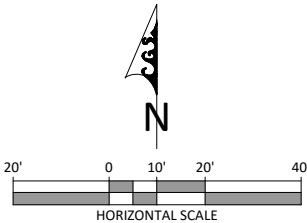
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1

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OF: 6

2

SHEET:

DATE: 6/4/2019

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MILLW = 0.00'

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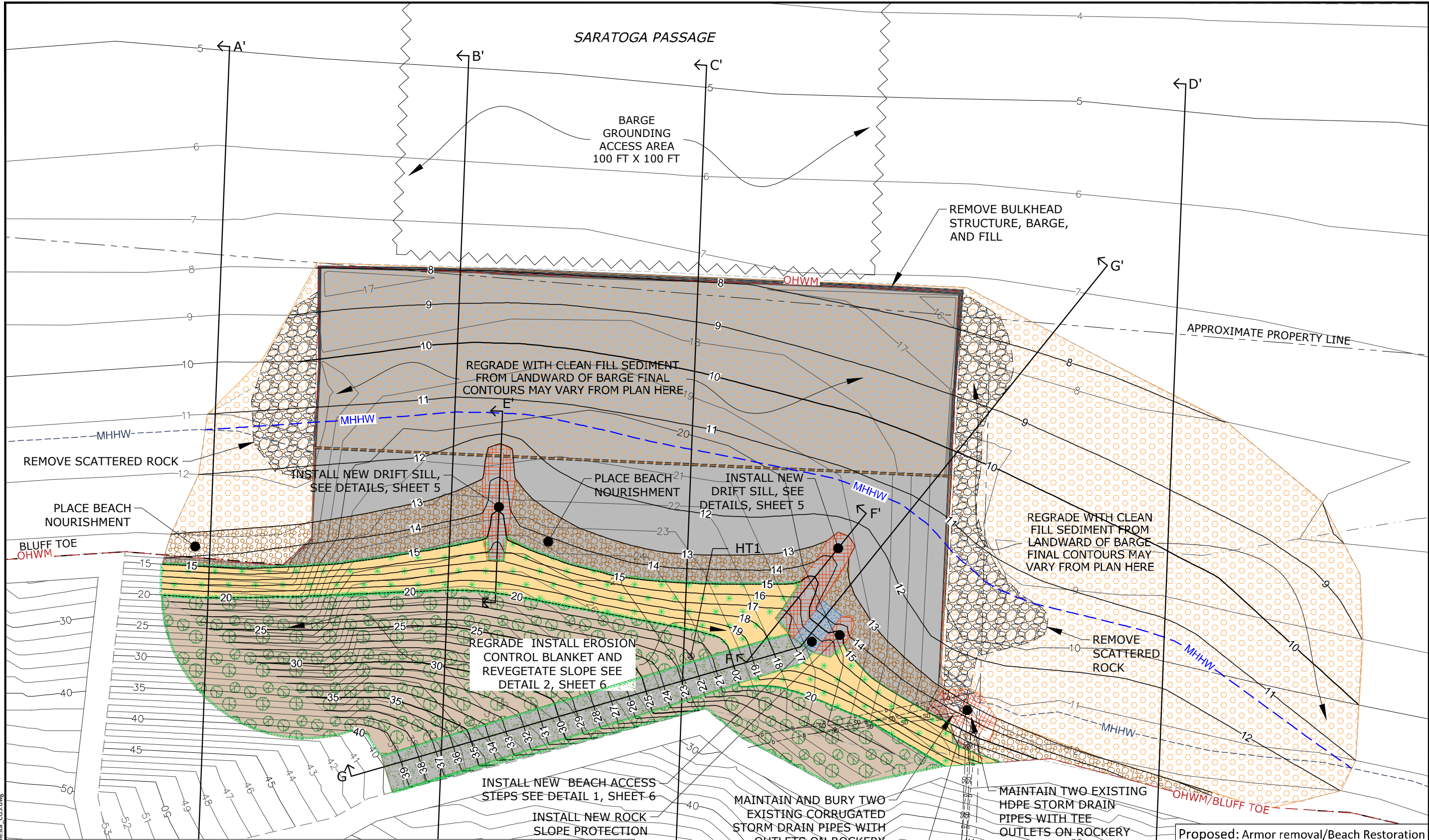
SEAHORSE SIESTA BULKHEAD REMOVAL
EXISTING CONDITIONS
SITE PLAN
NORTHWEST STRAITS FOUNDATION

DRAWN BY:	ADT
DESIGNED BY:	WC
CHECKED BY:	JWJ
DATE SURVEYED:	12/5/2014
SURVEYED BY:	JFW/ADT

REVISIONS

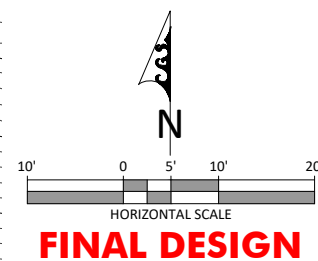
1711 Ellis St, Suite 103
Bellingham, WA 98225
360-647-1845 - coastalgeo.com

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PLANT SCHEDULE

SYMBOL	COMMON NAME	BOTANIC NAME	QUANTITY	PLANTING SIZE	NOTES
NATIVE SHORELINE PLANTING AREA BELOW EL. 20': 1800 SF (200 SY)					
	DUNEGRASS	<i>Leymus mollis</i>	60	BARE ROOT PLUG	4' O.C.
	NOOTKA ROSE	<i>Rosa nutkana</i>	60	BARE ROOT PLUG	4' O.C.
NATIVE UPLAND PLANTING AREA ABOVE EL. 20': 3600 SF (400 SY)					
	SNOWBERRY	<i>Symphoricarpos albus</i>	50	BARE ROOT PLUG	5' O.C.
	NOOTKA ROSE	<i>Rosa nutkana</i>	50	BARE ROOT PLUG	5' O.C.
	HOOKE'S WILLOW	<i>Salix hookeriana</i>	50	LIVE STAKES	5' O.C.
	BEAKED HAZELNUT	<i>Corylus cornuta</i>	30	1 GALLON POT	RANDOM



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REVISIONS	DRAWN BY:	DESIGNED BY:	CHECKED BY:	DATE SURVEYED:	SURVEYED BY:
	ADT	WC	JWJ	12/5/2014	JFW/ADT

SEAHORSE SIESTA BULKHEAD REMOVAL

PROPOSED CONDITIONS

SITE GRADING PLAN
NORTHWEST STRAITS FOUNDATION



WEI CHEN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
43641

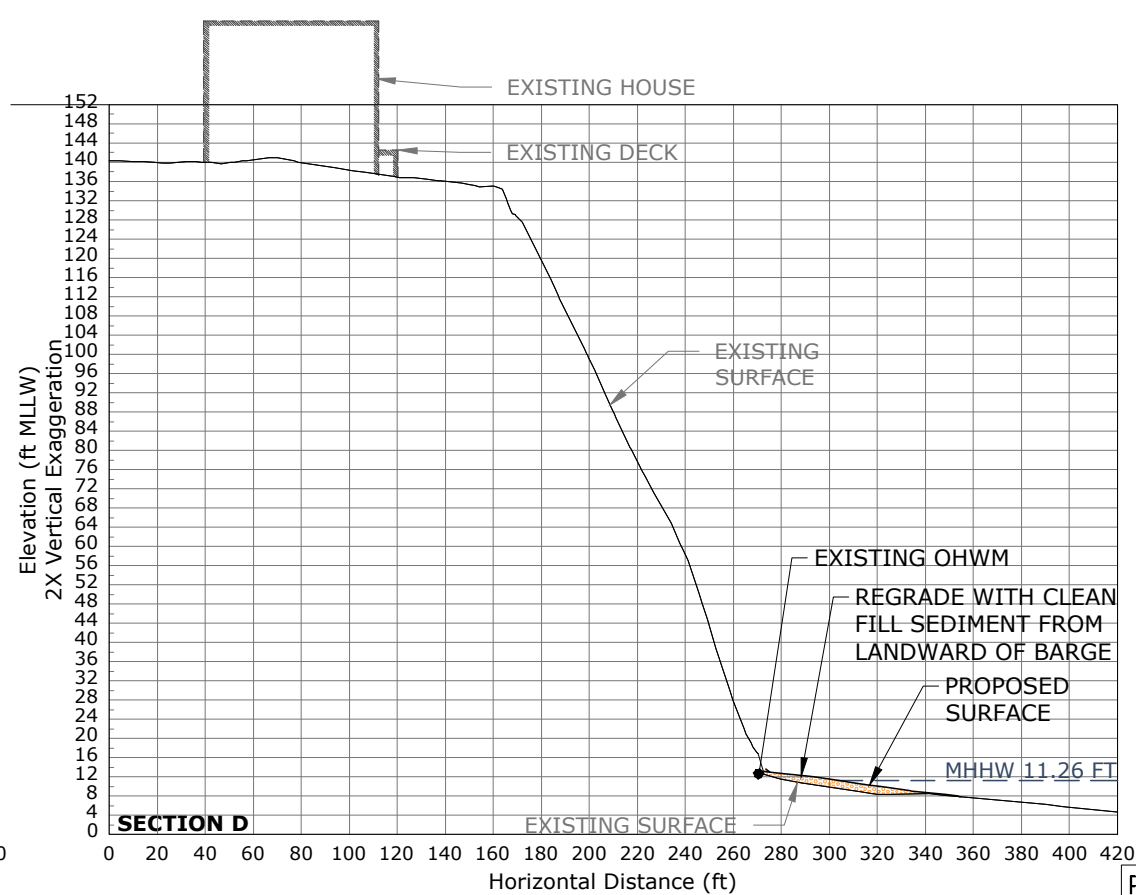
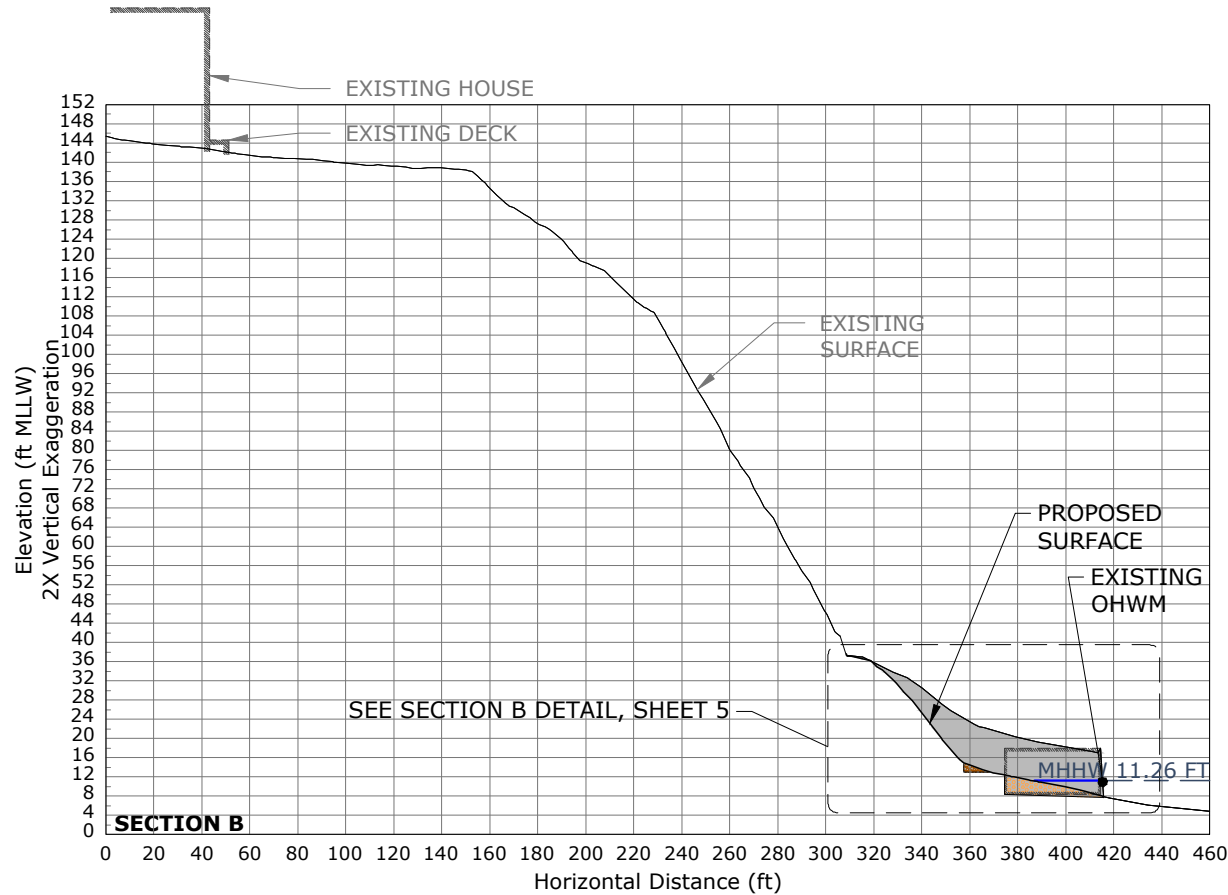
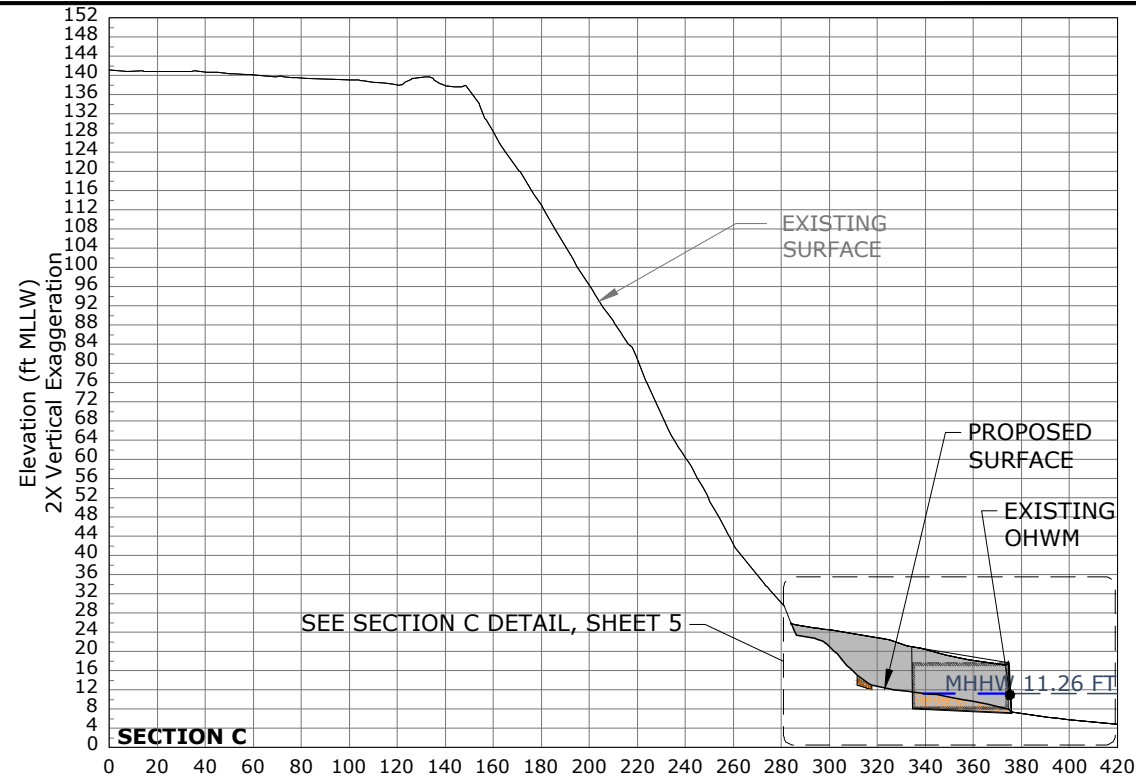
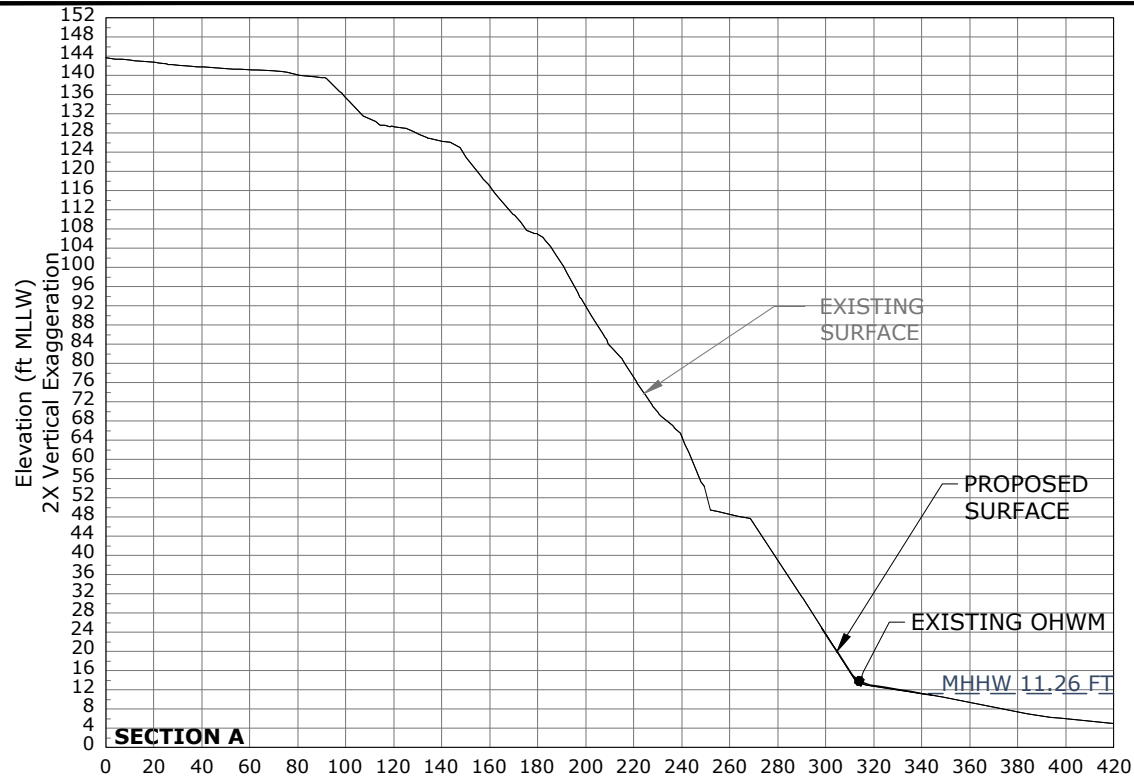


MLLW = 0.00'
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SCALE: AS SHOWN
DATE: 6/4/2019
SHEET: 3

OF: 6

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COASTAL GEOLOGIC SERVICES
1711 Ellis St, Suite 103
Bellingham, WA 98225
360-647-1845 - coastalgeo.com

REVISIONS	

DRAWN BY:	
ADT	DESIGNED BY:
WC	CHECKED BY:
JWJ	DATE SURVEYED:
12/5/2014	SURVEYED BY:
JFW/ADT	

SEAHORSE SIESTA BULKHEAD REMOVAL

PROPOSED CONDITIONS

CROSS SECTIONS A, B, C, & D

NORTHWEST STRAITS FOUNDATION



WEI CHEN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
43641

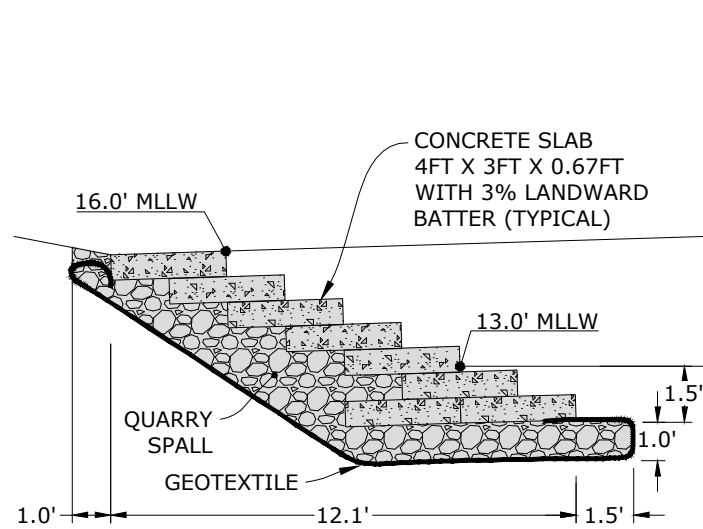
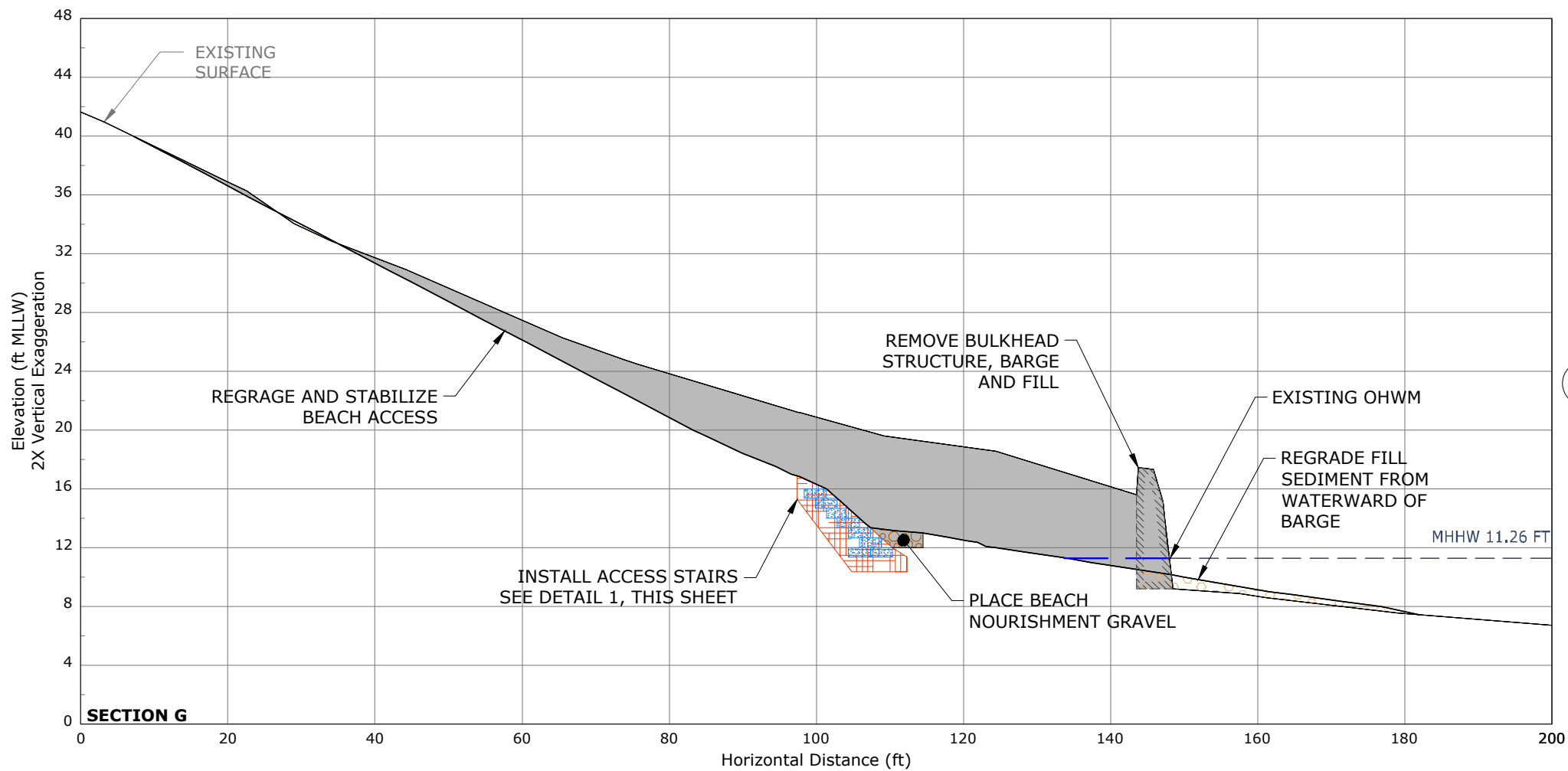


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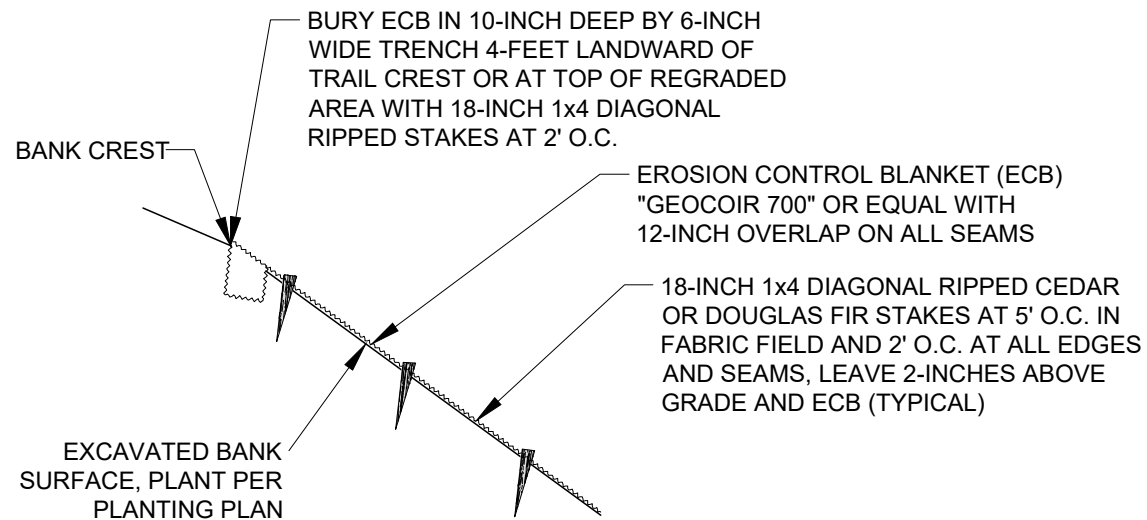
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SHEET: 4

OF: 6

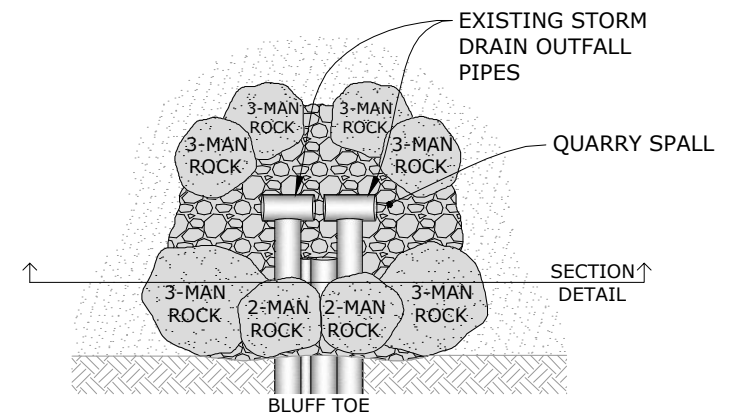
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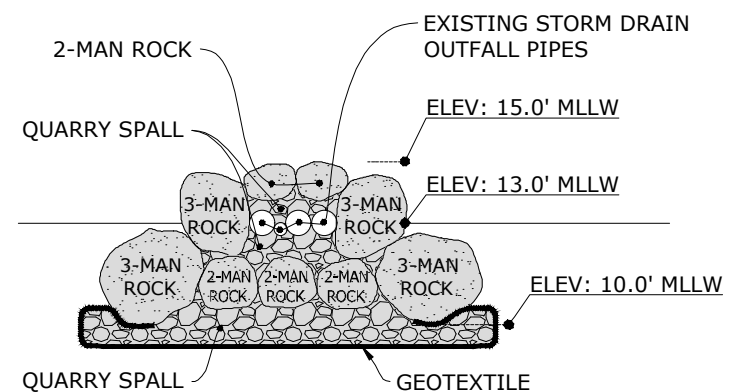
1 CONCRETE BEACH ACCESS STAIRS DETAIL
NOT TO SCALE - DIMENSIONS AND ELEVATIONS ARE APPROXIMATE



2 EROSION CONTROL BLANKET DETAIL
NOT TO SCALE - DIMENSIONS ARE APPROXIMATE



3 STORM DRAIN OUTFALL ABUTMENT DETAIL (PLAN)
NOT TO SCALE - DIMENSIONS AND ELEVATIONS ARE APPROXIMATE



4 STORM DRAIN OUTFALL ABUTMENT DETAIL (SECTION)
NOT TO SCALE - DIMENSIONS AND ELEVATIONS ARE APPROXIMATE

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PROPOSED CONDITIONS

CROSS SECTION G - DETAILS

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