

C:\Jobs\080007-01_Whatcom_Waterway\Maps\2012_10\EDR_Site_Map.mxd nikoche 3/13/2015 1:36:30 PM

NOTES:
 1. Site units are shown based on those in Figure 2-3 Cleanup Action Plan, Whatcom Waterway Site, September 2007. Unit 9 boundary updated based on PRDI findings.
 2. Horizontal datum: Washington State Plane North, NAD 83 Feet.
 3. Vertical datum: Mean Lower Low Water (MLLW).
 4. Unit 2B was established in the Cleanup Action Plan based on the anticipated marina access channel location. This location will be adjusted during final design.
 5. Remedial Action Unit (RAU) boundaries were defined in the Final Cleanup Action Plan for the GP West Pulp and Tissue Remedial Action Unit (Aspect 2014).

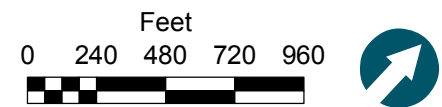
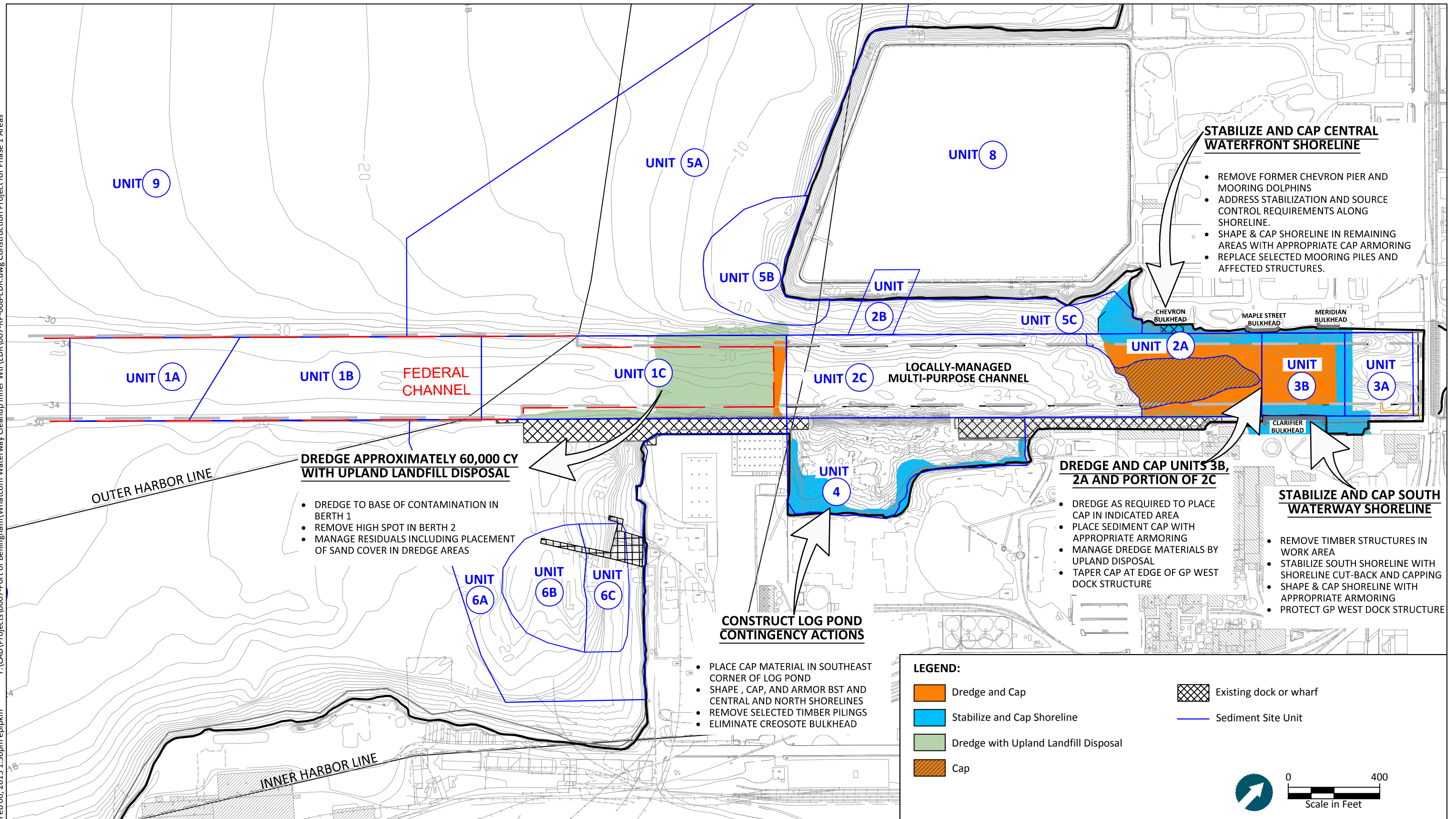


Figure 1
 Site Vicinity Map
 Final Engineering Design Report
 Whatcom Waterway Cleanup in Phase 1 Site Areas

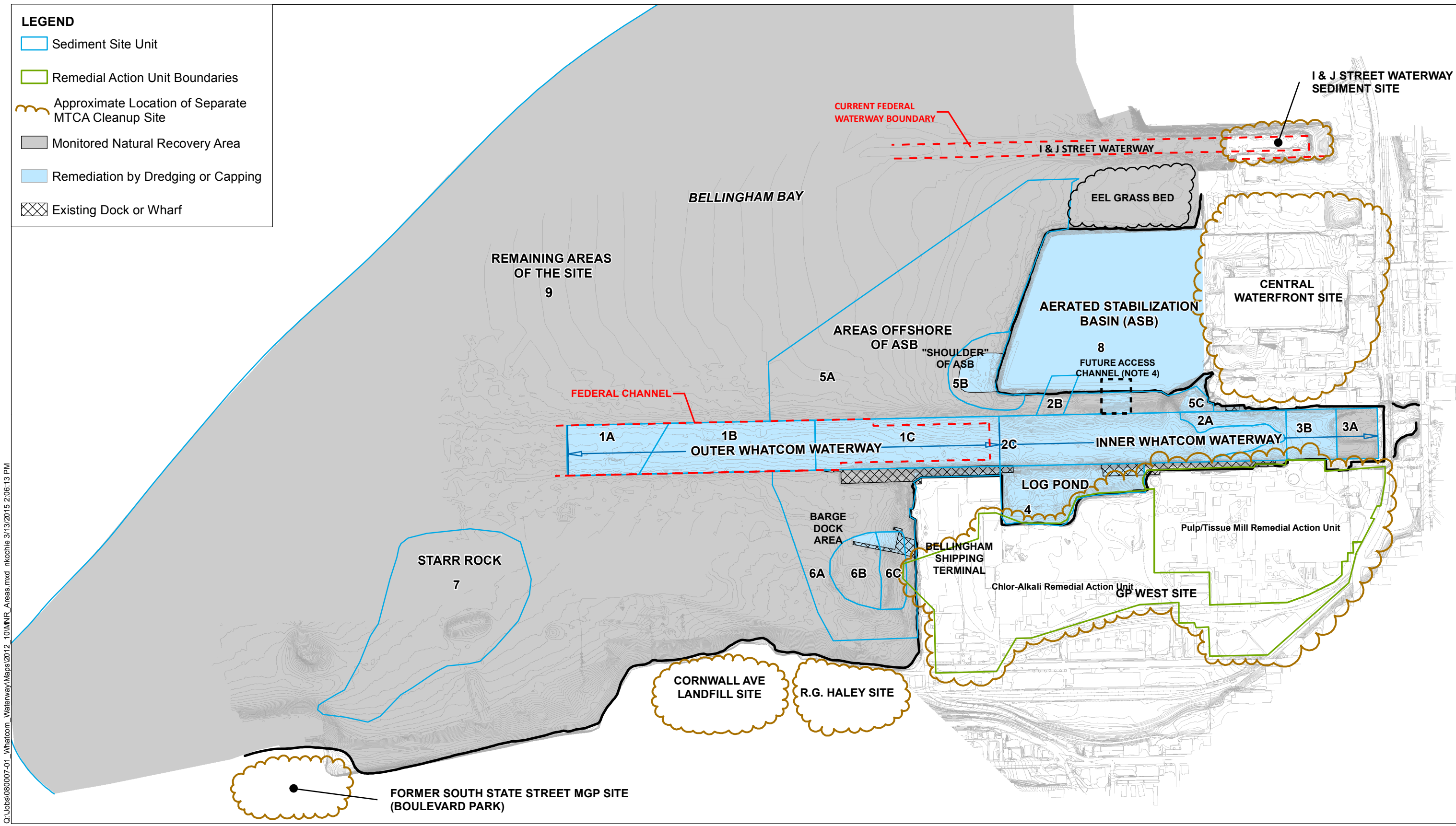
T:\CAD\Projects\0007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wtr\EDR\007-RP-008-EDR.dwg Construction Project for Phase 1 Areas
Feb 06, 2015 1:30pm epipkin



SOURCE: Figure 6-5 of Exhibit 1 of the First Amendment to the Whatcom Waterway Site Consent Decree (2011).
HORIZONTAL DATUM: Washington State Plane North, NAD 83 Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).



Figure 2
Construction Project for Phase 1 Areas
Final Engineering Design Report
Whatcom Waterway Cleanup in Phase 1 Site Areas



NOTES:

1. Site units are shown based on those in Figure 2-3 Cleanup Action Plan, Whatcom Waterway Site, September 2007. Unit 9 boundary updated based on PRDI findings.
2. Horizontal datum: Washington State Plane North, NAD 83 Feet.
3. Vertical datum: Mean Lower Low Water (MLLW).
4. Unit 2B was established in the Cleanup Action Plan based on the anticipated marina access channel location. This location will be adjusted during final design.
5. Remedial Action Unit (RAU) boundaries were defined in the Final Cleanup Action Plan for the GP West Pulp and Tissue Remedial Action Unit (Aspect 2014).

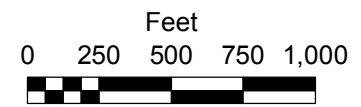
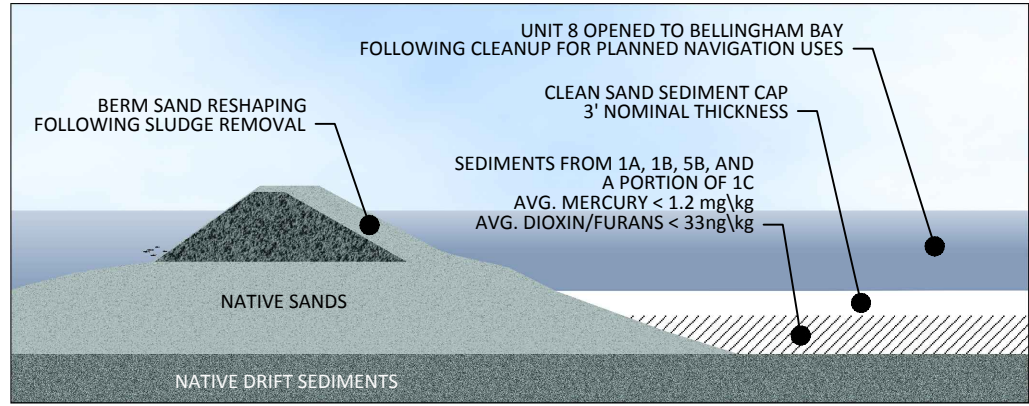


Figure 3
 Monitored Natural Recovery Areas
 Final Engineering Design Report
 Whatcom Waterway Cleanup in Phase 1 Site Areas

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 Feb 06, 2015 12:12pm epipkin



NOTE: The final cap elevation, composition, and thickness to be determined during engineering design.

CROSS-SECTION A-A'

— SLUDGE REMOVAL, DEWATERING AND UPLAND DISPOSAL FOLLOWED BY REMOVAL OF APPROXIMATELY 340,000 CY OF CLEAN SAND. PLACEMENT OF APPROXIMATELY 210,200 CY OF CONTAMINATED SEDIMENT FROM 1A, 1B, 5B, AND A PORTION OF 1C FOLLOWED BY CAPPING AND OPENING OF UNIT 8 TO BELLINGHAM BAY IN CONJUNCTION WITH PLANNED NAVIGATION USES.

DREDGE APPROXIMATELY 192,200 CY WITH CONFINED DISPOSAL IN UNIT 8

- DREDGE UNITS 1A, 1B, AND PORTION OF 1C
- DREDGE BERTH 1 UNDER DOCK AREAS
- MANAGE DREDGE RESIDUALS INCLUDING PLACEMENT OF SAND COVER

DREDGE APPROXIMATELY 18,000 CY WITH CONFINED DISPOSAL IN UNIT 8

- BACKFILL WITH CLEAN SAND

DREDGE AND CAP

- PLANNED ACCESS CHANNEL CONNECTING UNIT 8 TO BELLINGHAM BAY FOLLOWING CLEANUP (LOCATION TO BE FINALIZED DURING ENGINEERING DESIGN), POTENTIAL LOCATION SHOWN

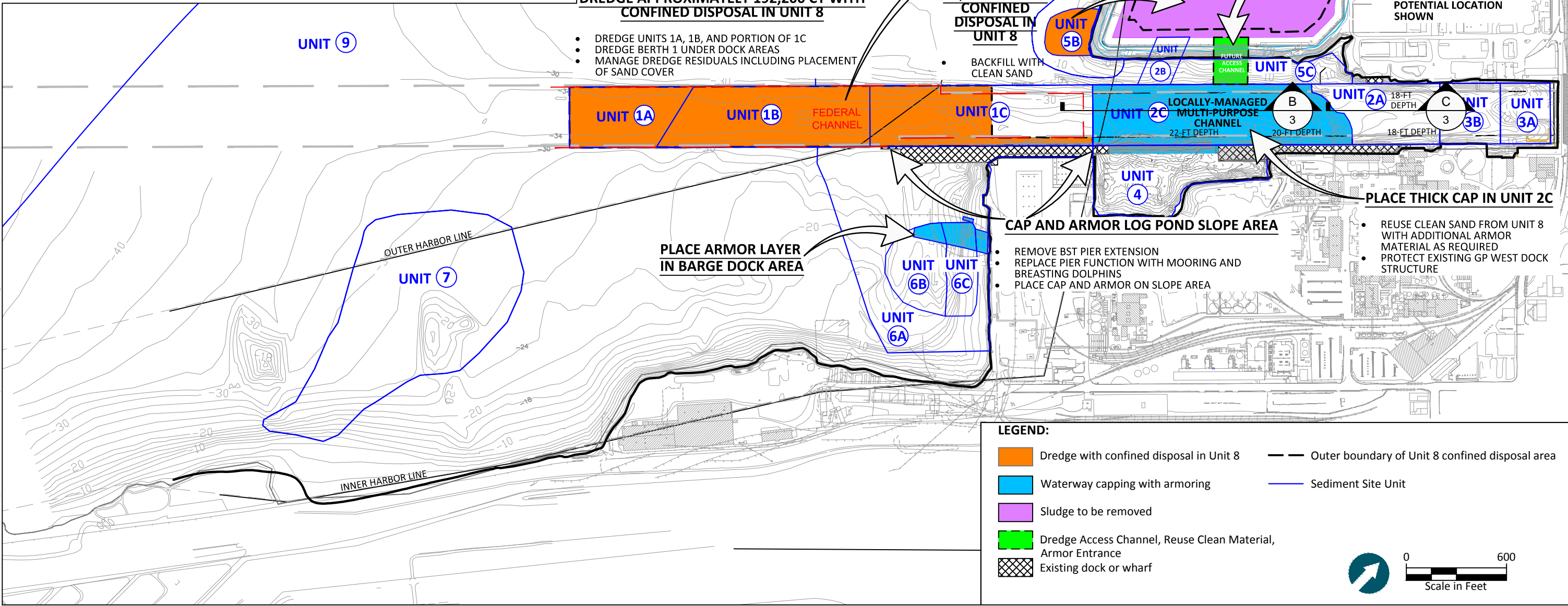
PLACE ARMOR LAYER IN BARGE DOCK AREA

CAP AND ARMOR LOG POND SLOPE AREA

- REMOVE BST PIER EXTENSION
- REPLACE PIER FUNCTION WITH MOORING AND BREASTING DOLPHINS
- PLACE CAP AND ARMOR ON SLOPE AREA

PLACE THICK CAP IN UNIT 2C

- REUSE CLEAN SAND FROM UNIT 8 WITH ADDITIONAL ARMOR MATERIAL AS REQUIRED
- PROTECT EXISTING GP WEST DOCK STRUCTURE



LEGEND:

Dredge with confined disposal in Unit 8	Outer boundary of Unit 8 confined disposal area
Waterway capping with armoring	Sediment Site Unit
Sludge to be removed	
Dredge Access Channel, Reuse Clean Material, Armor Entrance	
Existing dock or wharf	

0 600
Scale in Feet

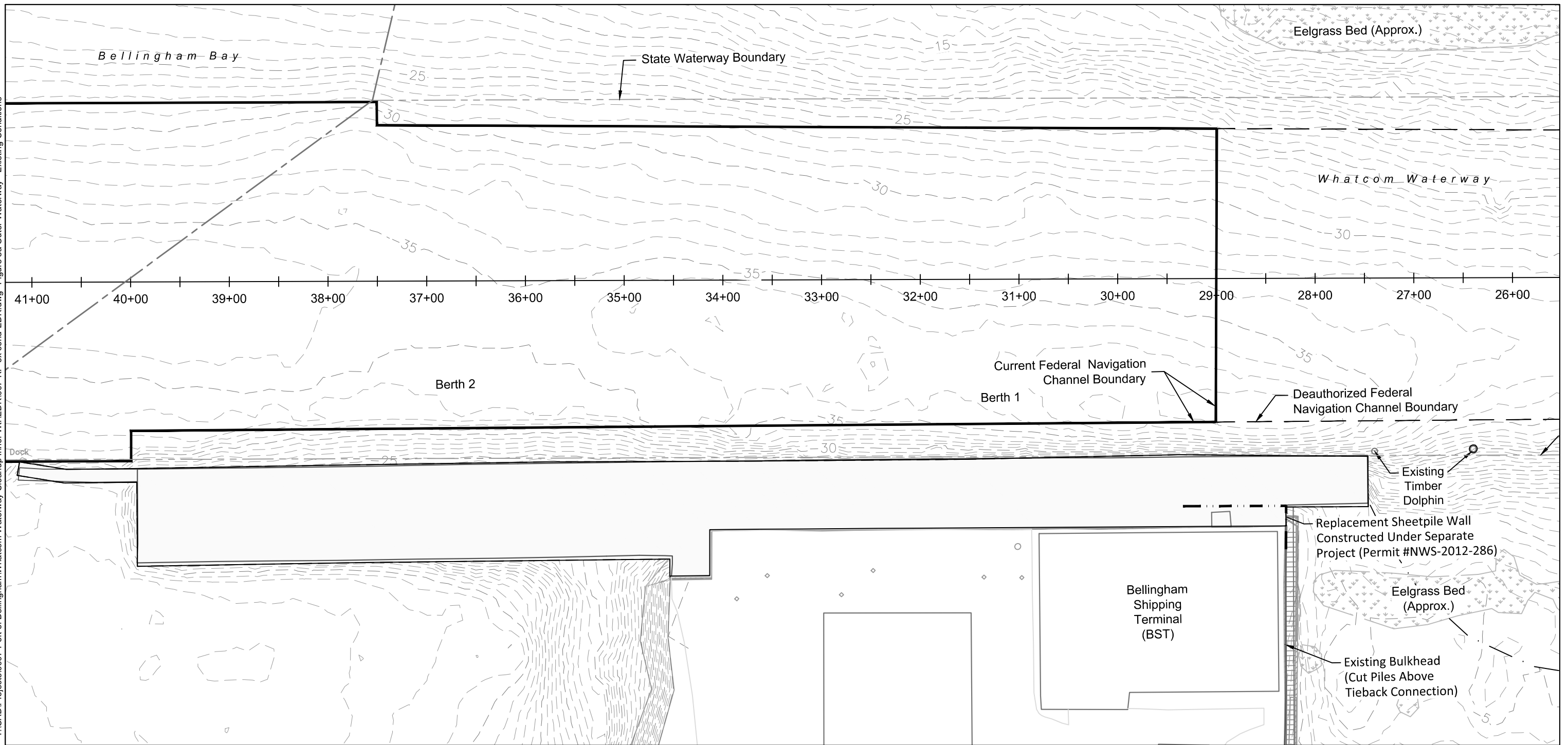
SOURCE: Figure 6-5 of Exhibit 1 of the First Amendment to the Whatcom Waterway Site Consent Decree (2011).
HORIZONTAL DATUM: Washington State Plane North, NAD 83 Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW).



Figure 4
 Construction Project for Phase 2 Areas
 Final Engineering Design Report
 Whatcom Waterway Cleanup in Phase 1 Site Areas

T:\CAD\Projects\007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wtr\EDR\007-RP-ex cond-EDR.dwg Figure 5a Outer Waterway - Existing Conditions

Feb 06, 2015 12:12pm eppkin

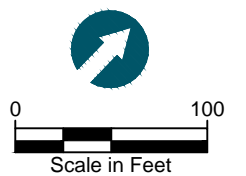


SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

NOTES:
 Eelgrass Survey Conducted in October 2008.

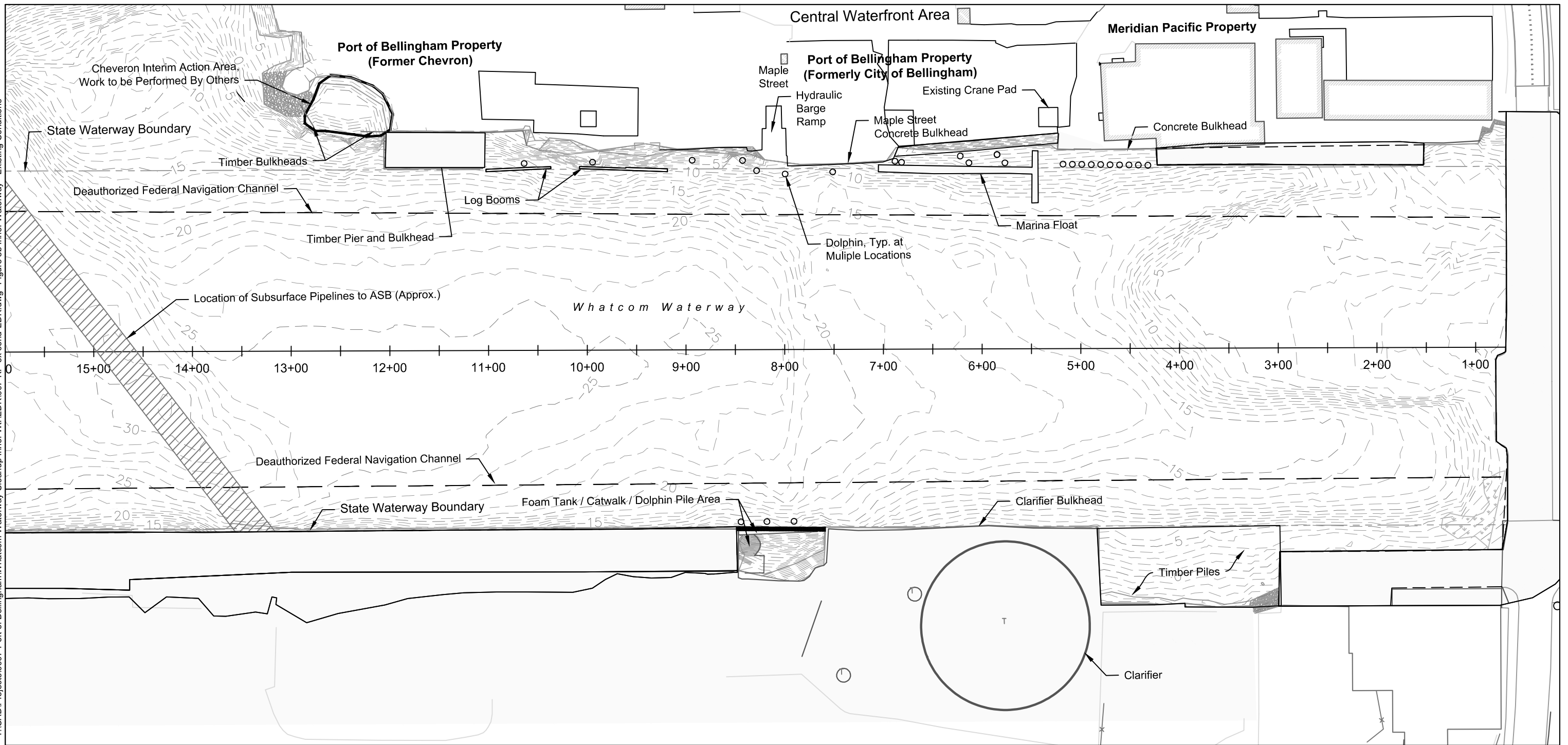
LEGEND:
 — — Existing Major Contour (5' Interval)
 - - - Existing Minor Contour (1' Interval)

 Eelgrass Bed



T:\CAD\Projects\007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wtr\EDR\007-RP-ex cond-EDR.dwg Figure 5b Inner Waterway - Existing Conditions

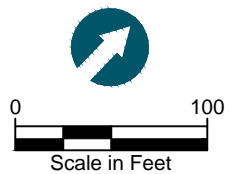
Feb 06, 2015 12:12pm eppkin



SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

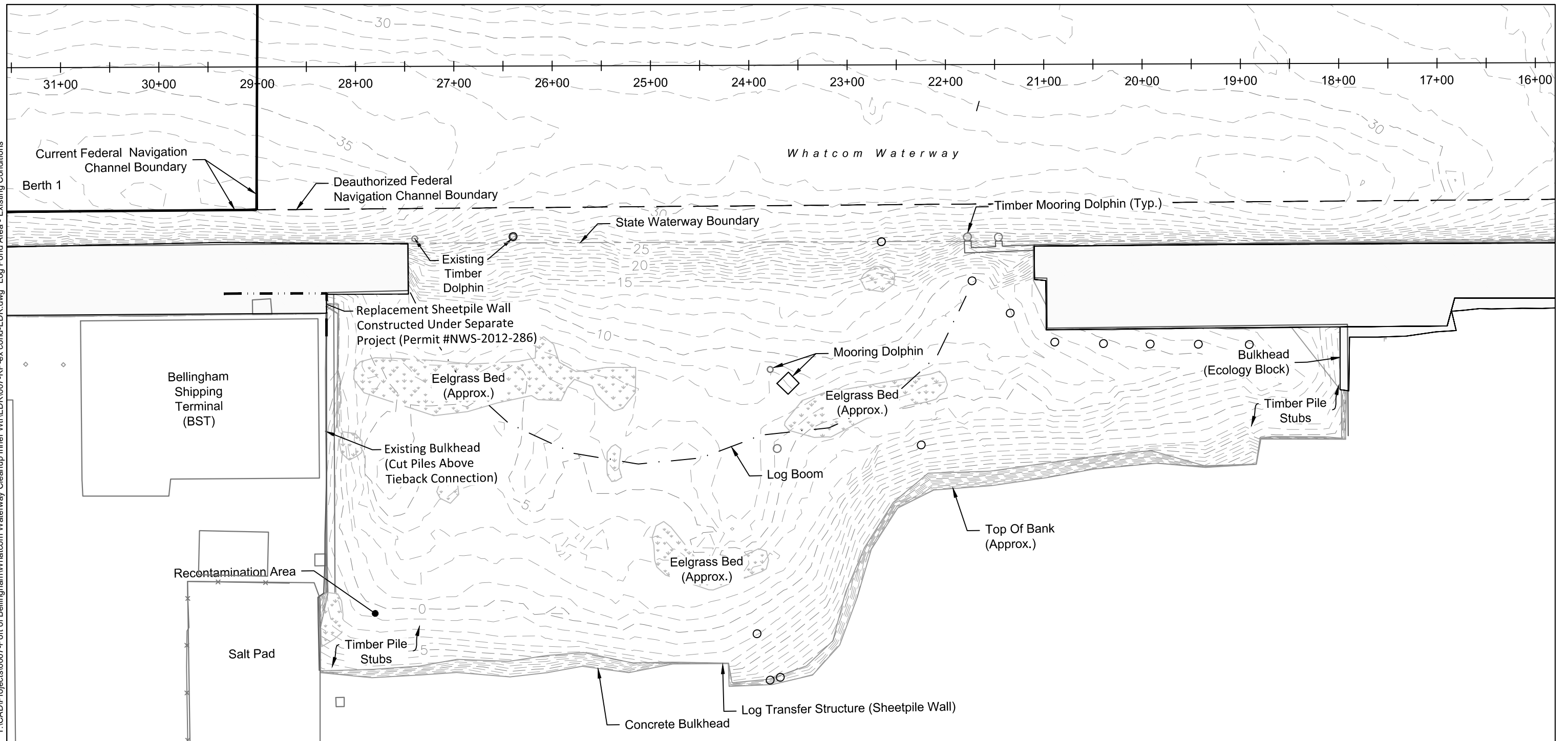
LEGEND:
 --- Existing Major Contour (5' Interval)
 --- Existing Minor Contour (1' Interval)

 Eelgrass Bed



T:\CAD\Projects\007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wtr\EDR\007-RP-ex cond-EDR.dwg Log Pond Area - Existing Conditions

Feb 06, 2015 12:12pm epipkin



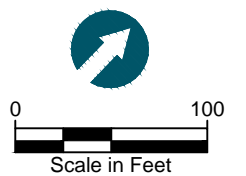
SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

NOTES:
 Eelgrass Survey Conducted in October 2008.

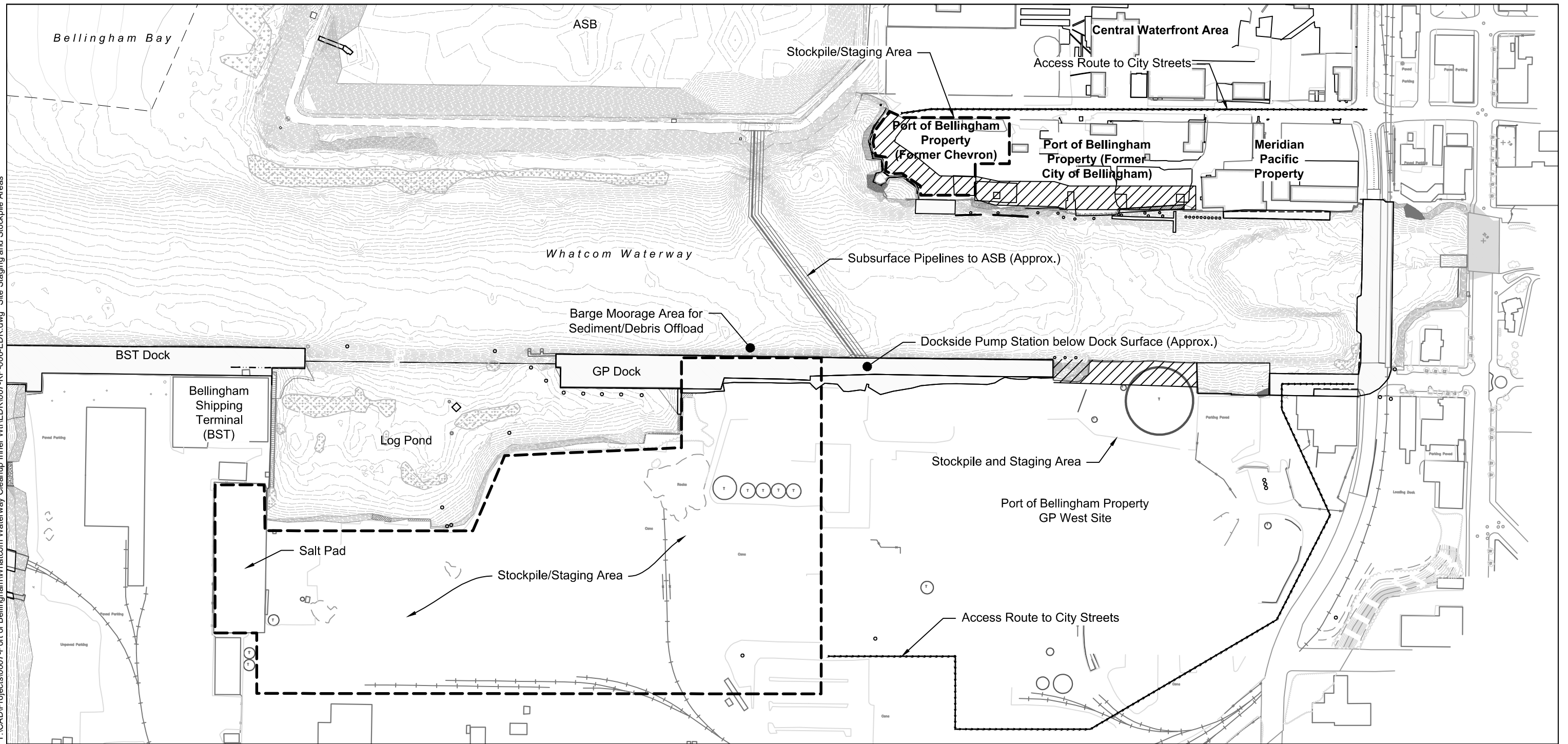
LEGEND:

- — Existing Major Contour (5' Interval)
- — Existing Minor Contour (1' Interval)

 Eelgrass Bed

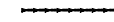

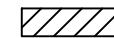


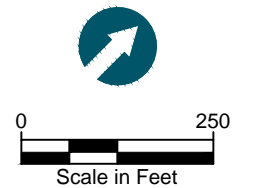
T:\CAD\Projects\0007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wt\EDR\007-RP-006-EDR.dwg Site Staging and Stockpile Areas



SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

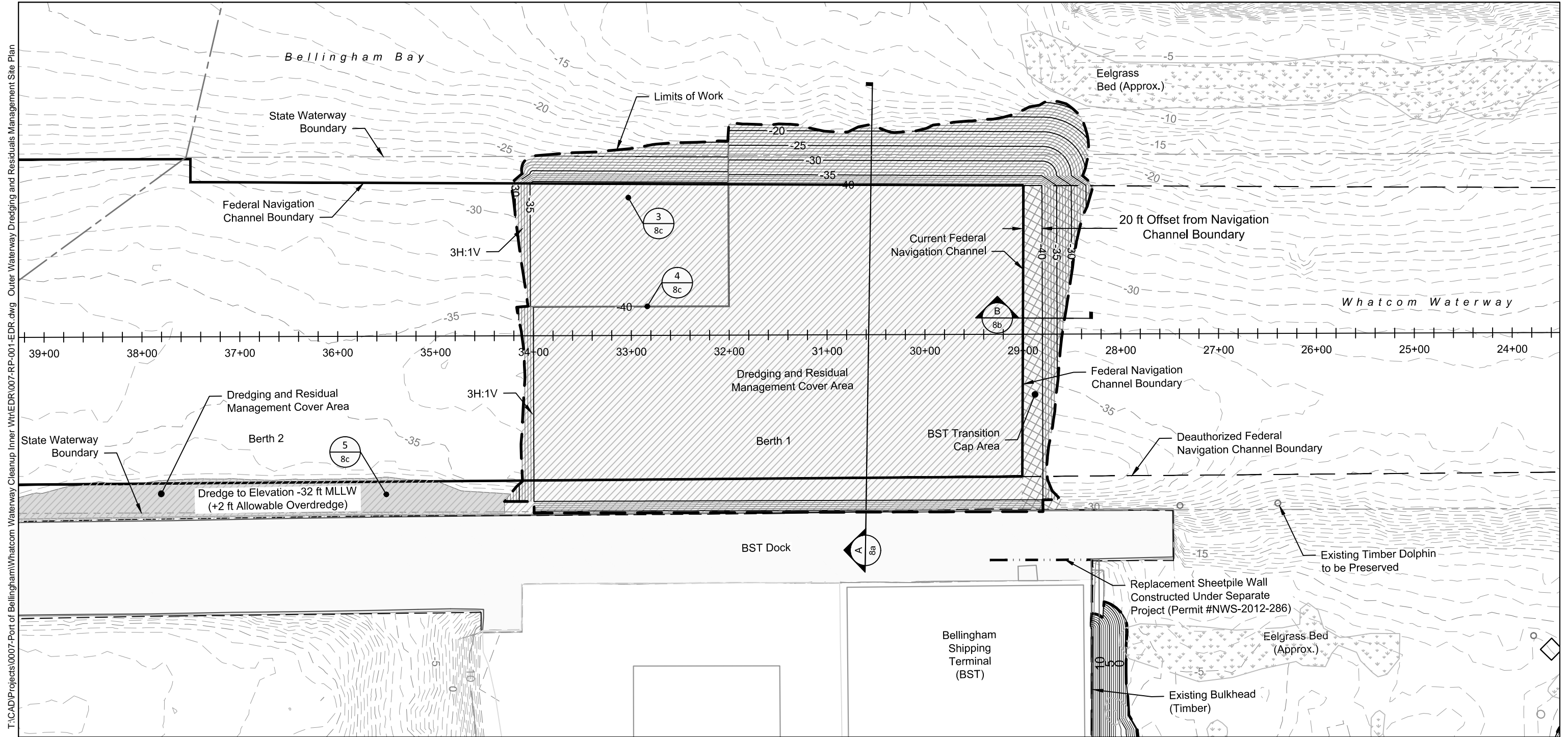
LEGEND:

-  Access Route
-  Stockpile/Staging Area
-  Nearshore Work Area



Feb 06, 2015 1:35pm epipkin

T:\CAD\Projects\0007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wt\EDR\007-RP-01-EDR.dwg Outer Waterway Dredging and Residuals Management Site Plan



Feb 06, 2015 12:16pm epipkin

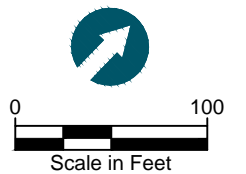
SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Ft.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Ft.

NOTES:
 1. Eelgrass Survey Conducted in October 2008.
 2. Residuals Management Finished Grade not Presented in this Figure. See Details (Figure 8c) for Residuals Management Cover and Transition Slope Area Cap.

LEGEND:

- Existing Major Contour (5' Interval)
- Existing Minor Contour (1' Interval)
- Proposed Post-Dredge Major Contour (5' Interval)
- Proposed Post-Dredge Minor Contour (1' Interval)

- Eelgrass Bed
- Dredging and Residual Management Cover Area
- BST Transition Cap Area



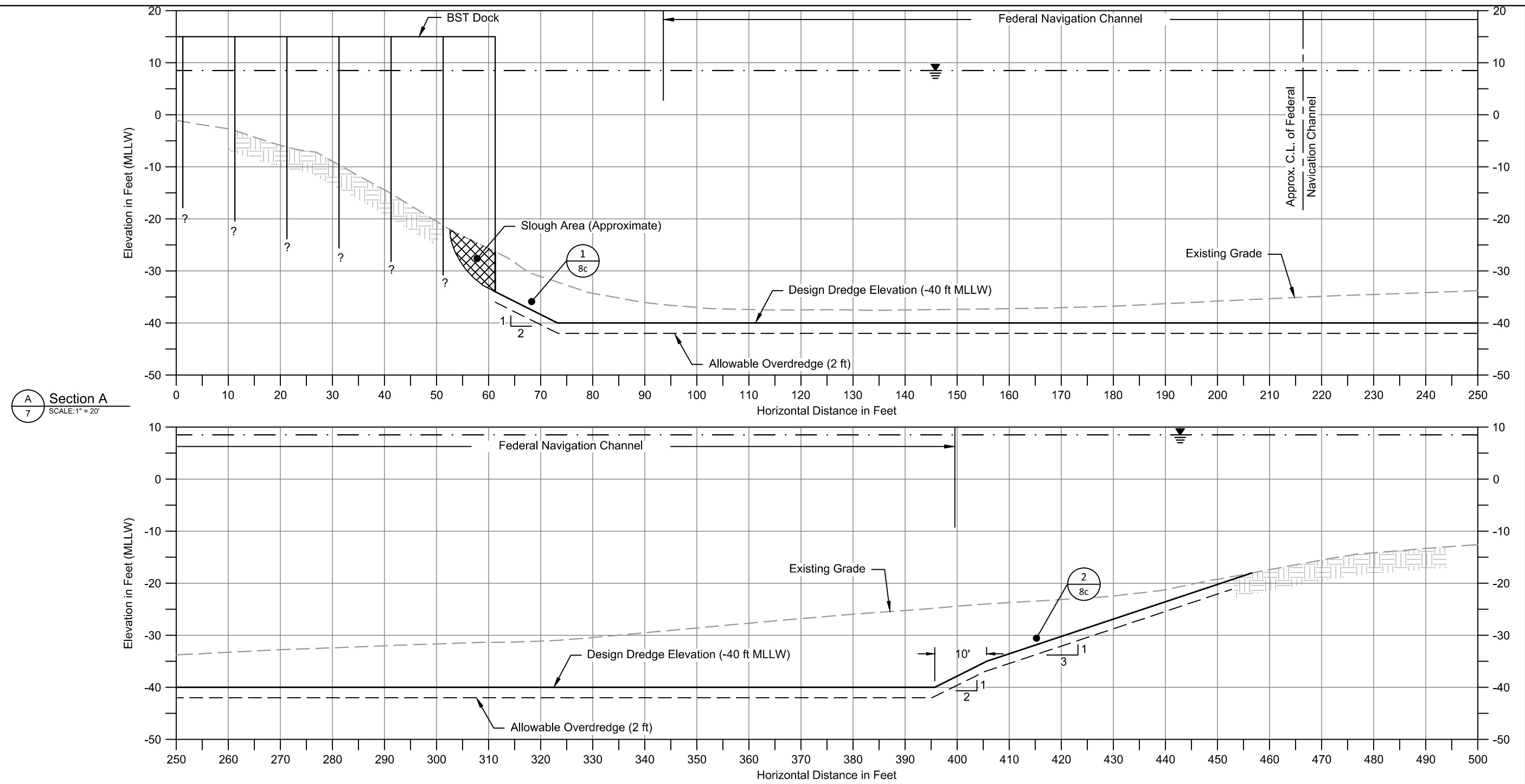
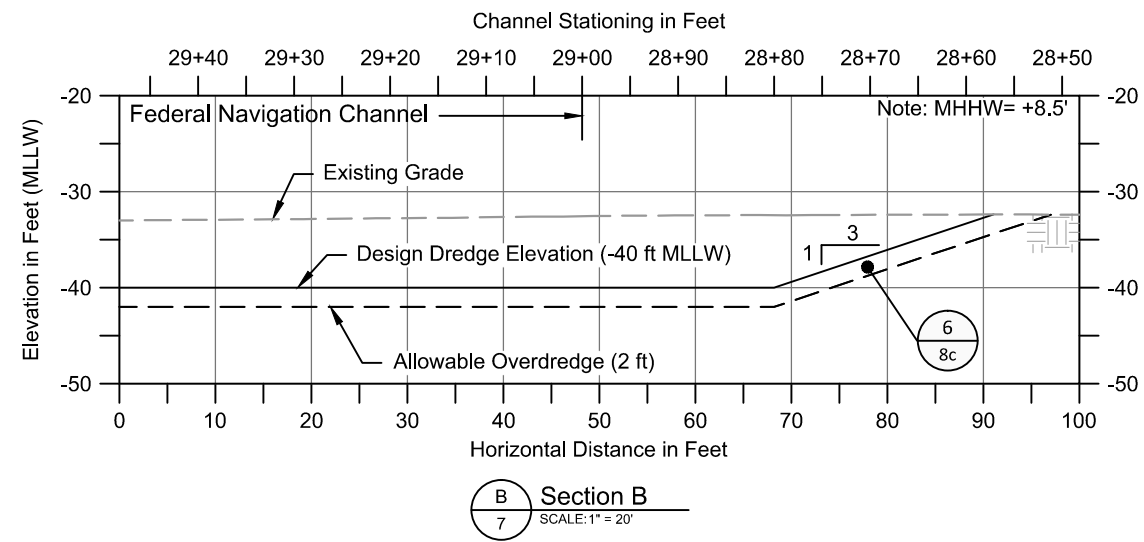


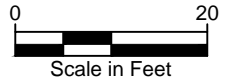
Figure 8a
Outer Waterway Dredging Section A-A'
Final Engineering Design Report
Whatcom Waterway Cleanup In Phase 1 Site Areas



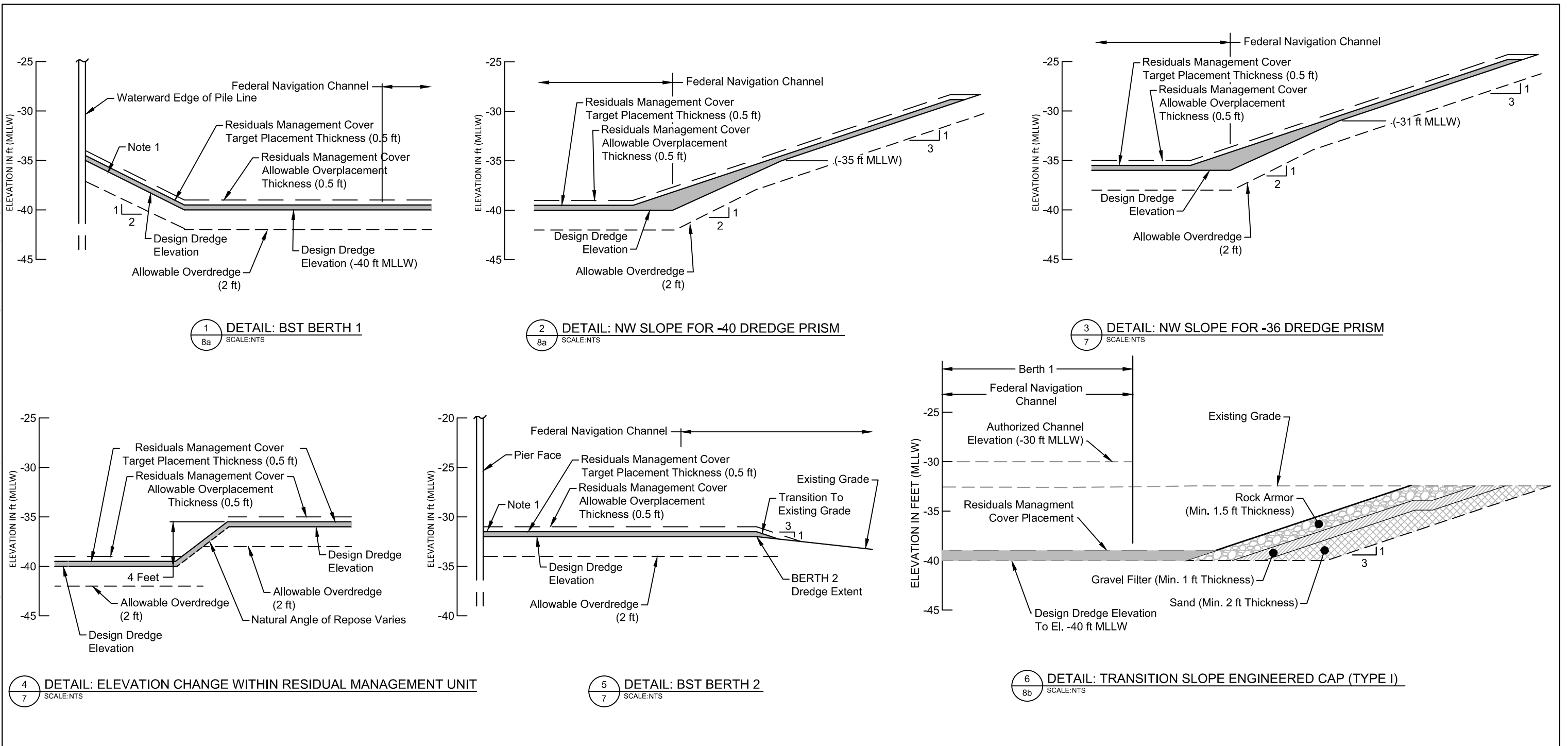
Section B SCALE: 1" = 20'

LEGEND:

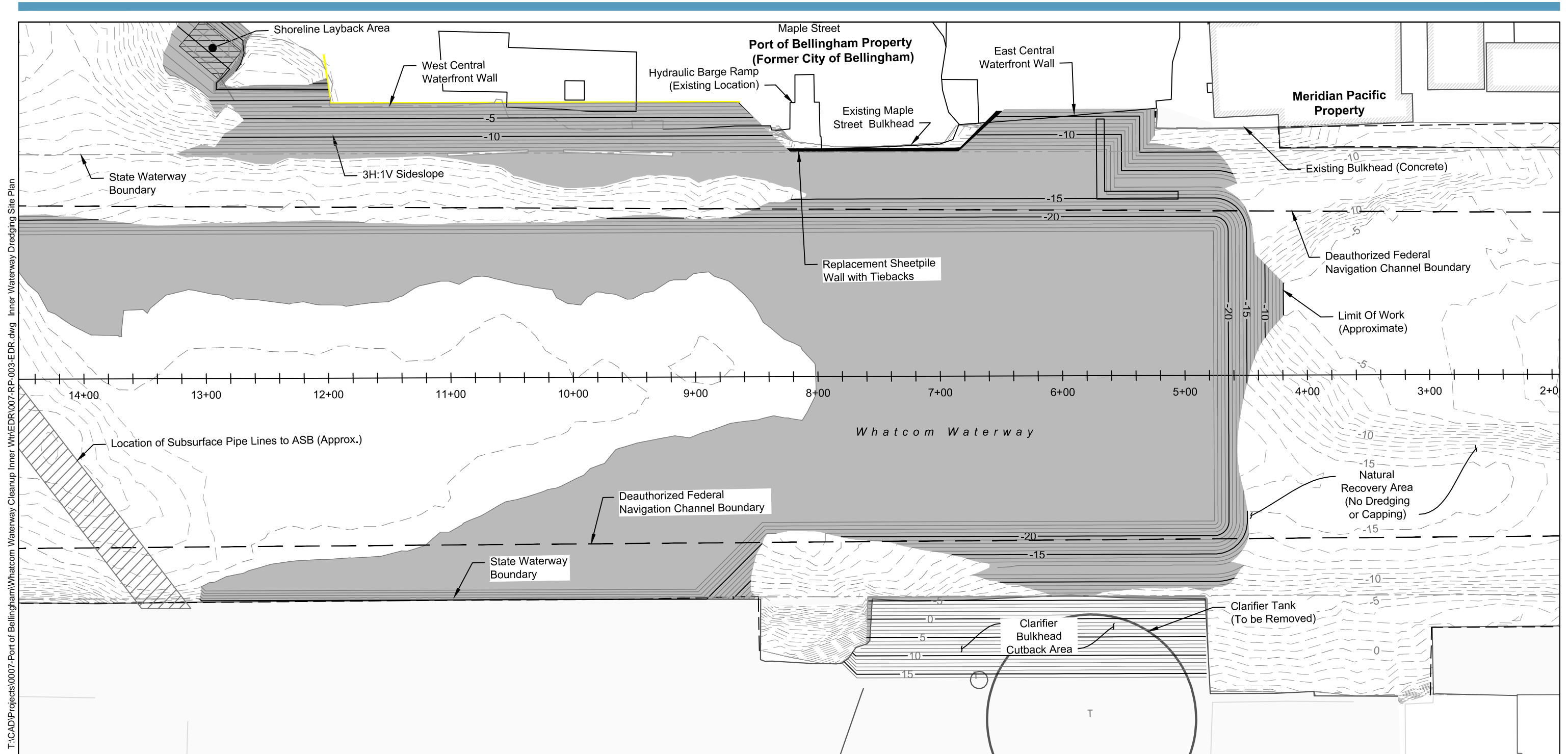
- Existing Grade
- Proposed Post-Dredge Surface
- . - MHHW (+8.5')



T:\CAD\Projects\0007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wtr\EDR\007-RP-001-EDR.dwg Outer Waterway Dredging Details



- NOTES:**
1. Second dredge pass to be completed to remove slough material from under pier slope (See Figure 8a, Section A) and return elevation to design dredge elevation prior to placing residuals cover.








T:\CAD\Projects\0007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wt\EDR\007-RP-003-EDR.dwg Inner Waterway Dredging Site Plan

Feb 06, 2015 12:20pm epipkin

SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

NOTES:
 1. Figure does not show excavation/backfill, which may be necessary behind containment wall.

LEGEND:

 Existing Major Contour (5' Interval)	 Area of Dredging
 Existing Minor Contour (1' Interval)	 Proposed Major Contour (5' Interval)
	 Proposed Minor Contour (1' Interval)

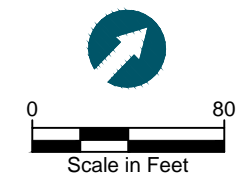
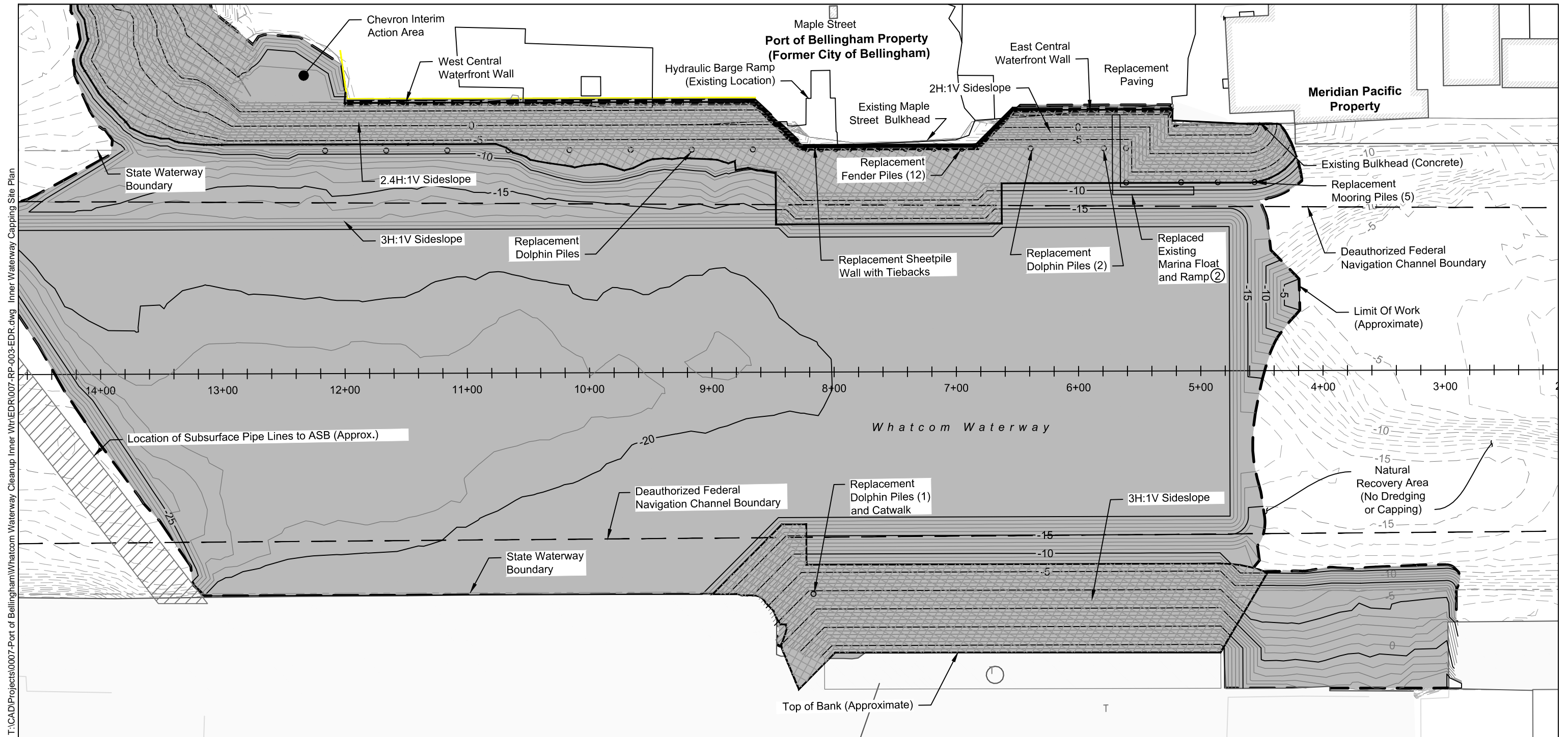


Figure 9a
 Inner Waterway Dredging Site Plan
 Final Engineering Design Report
 Whatcom Waterway Cleanup in Phase 1 Site Areas





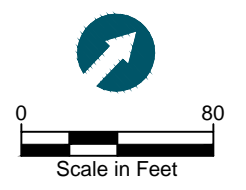
T:\CAD\Projects\0007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wt\EDR\007-RP-003-EDR.dwg Inner Waterway Capping Site Plan

SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

LEGEND:

— — Existing Major Contour (5' Interval)	— — Proposed Major Contour (5' Interval)	■ Area of Capping
— — Existing Minor Contour (1' Interval)	— — Proposed Minor Contour (1' Interval)	▨ Armor Rock Area

- NOTES:**
- Figure does not show excavation/backfill, which may be necessary behind containment wall.
 - Final locations of replaced float and pilings will be determined in coordination with WDFW and USACE.



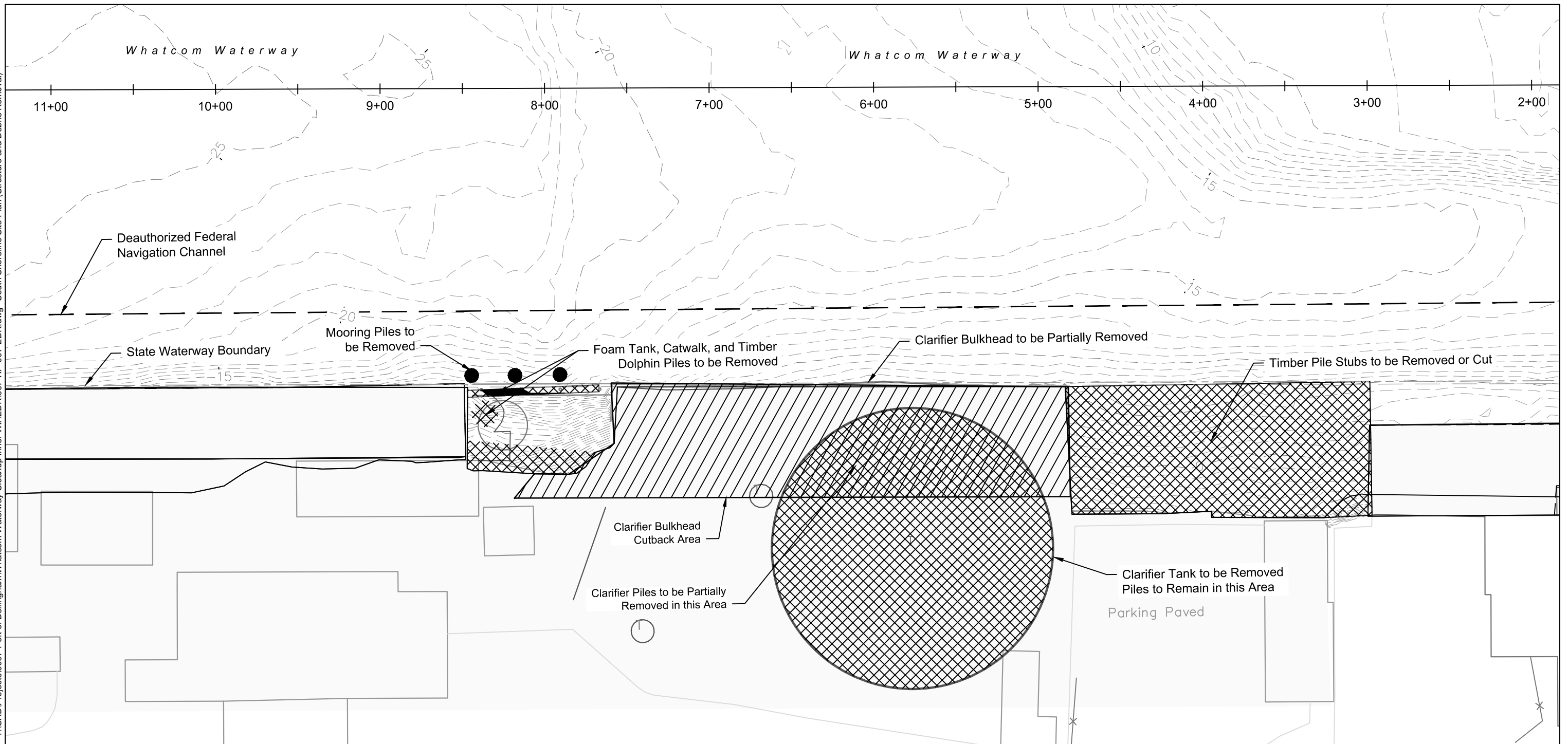
Feb 24, 2015 8:59am epipkin



Figure 9b
 Inner Waterway Capping Site Plan
 Final Engineering Design Report
 Whatcom Waterway Cleanup in Phase 1 Site Areas

T:\CAD\Projects\007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wtr\EDR\007-RP-007-EDR.dwg_South Shoreline Site Plan (Structure and Debris Removal)



Feb 06, 2015 12:23pm eppkin



SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

LEGEND:

- Existing Major Contour (5' Interval)
- Existing Minor Contour (1' Interval)

-  Structure/Shoreline Debris for Removal
-  Dolphins to be Removed

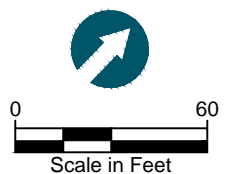
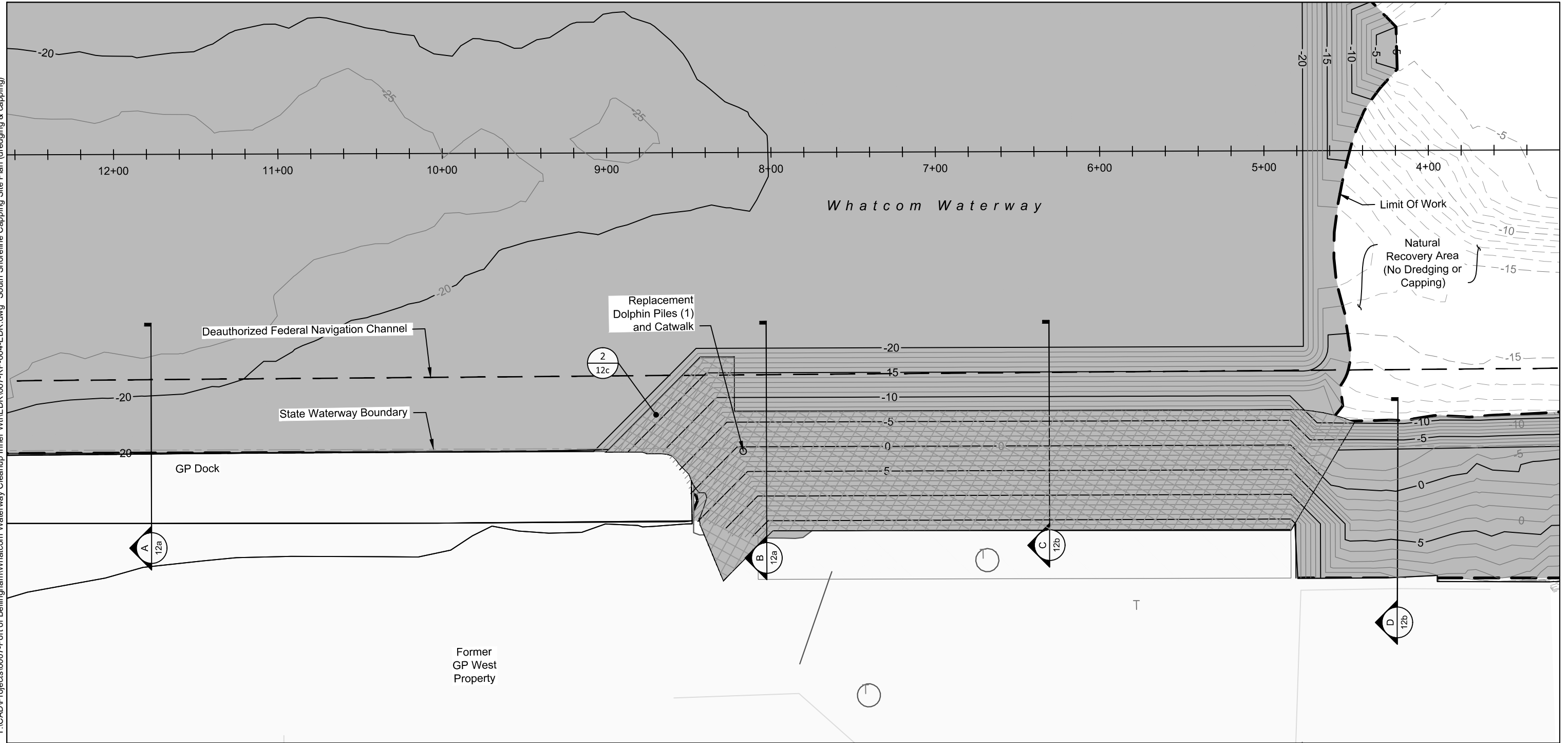


Figure 10
 South Shoreline Site Plan (Structure and Debris Removal)
 Final Engineering Design Report
 Whatcom Waterway Cleanup in Phase 1 Site Areas

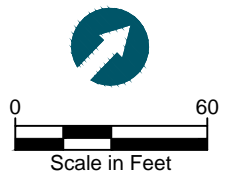
T:\CAD\Projects\0007-Port of Bellingham\Whatcom Waterway Cleanup Inner Wtr\EDR\007-RP-004-EDR.dwg South Shoreline Capping Site Plan (dredging & capping)



SOURCE: Drawing prepared from bathymetric survey provided by Wilson Engineering.
HORIZONTAL DATUM: Washington State Plane North, NAD83, Feet.
VERTICAL DATUM: Mean Lower Low Water (MLLW), Feet.

LEGEND:

- | | | |
|--|--|-------------------|
| — — Existing Major Contour (5' Interval) | — — Proposed Major Contour (5' Interval) | ■ Area of Capping |
| — — Existing Minor Contour (1' Interval) | — — Proposed Minor Contour (1' Interval) | ▨ Armor Rock Area |



Feb 06, 2015 12:27pm epipkin