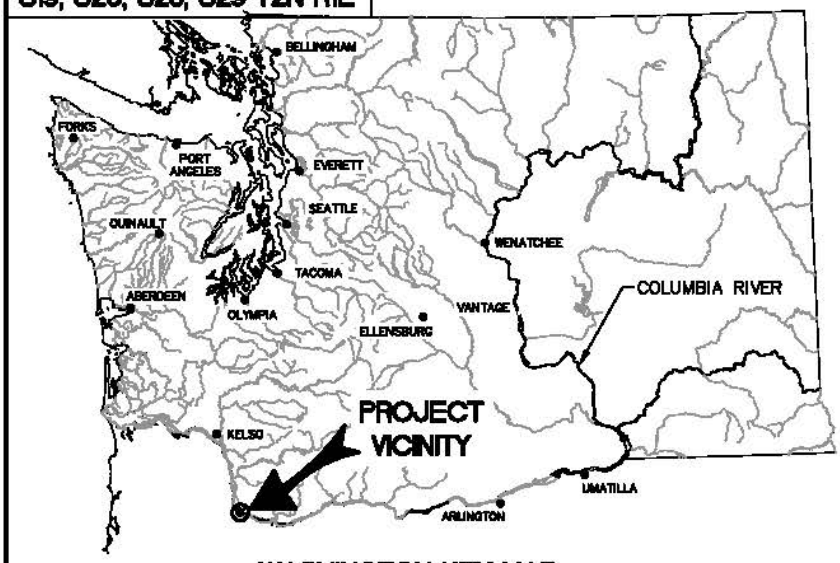
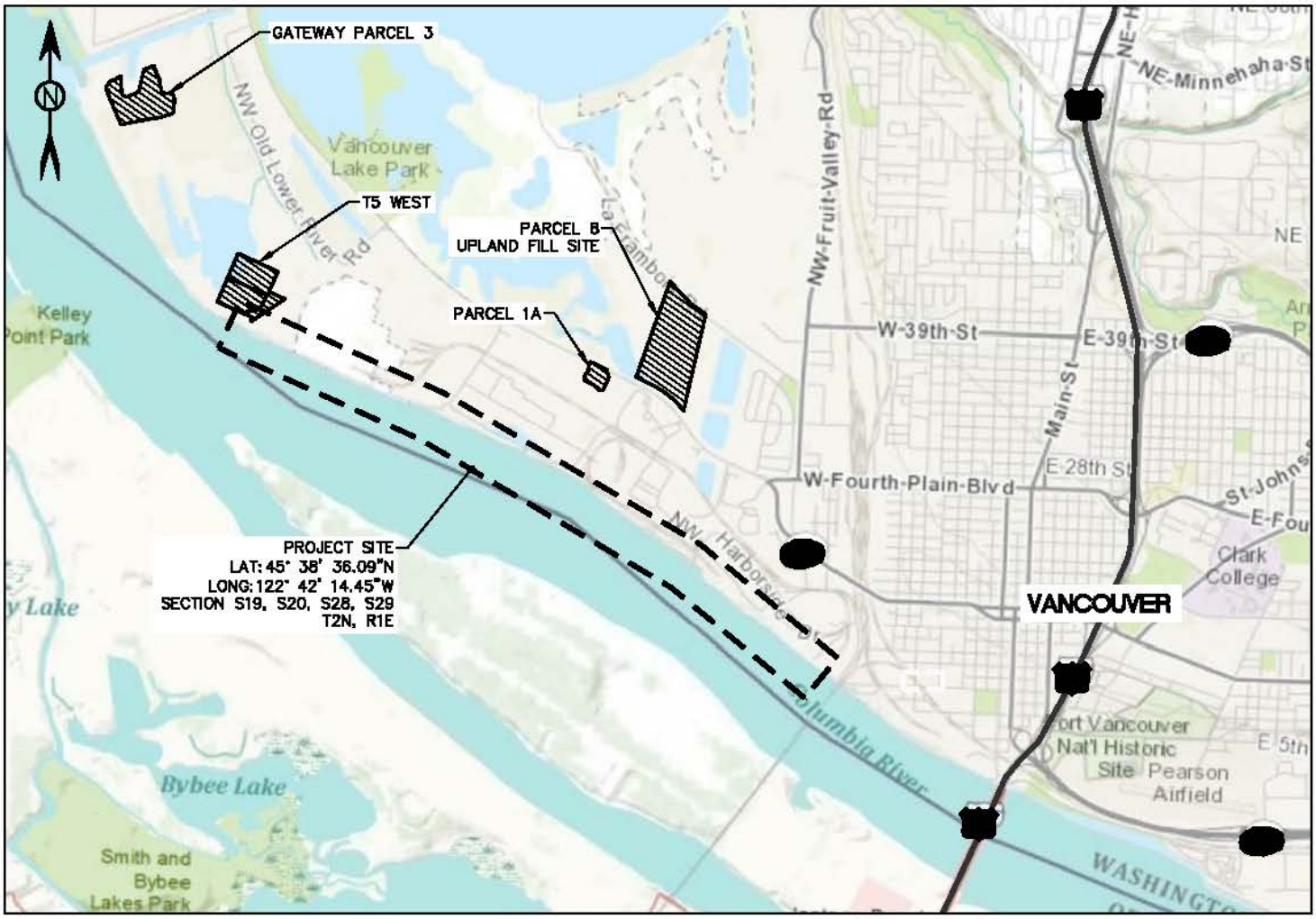
S19, S20, S28, S29 T2N R1E



WASHINGTON KEY MAP

1. COVER SHEET
2. OVERALL SITE PLAN
3. SITE PLAN 1
4. SITE PLAN 2
5. SITE PLAN 3
6. SITE PLAN 4
7. SITE PLAN 5
8. SITE PLAN 6
9. BERTH DREDGING SECTIONS 1
10. BERTH DREDGING SECTIONS 2
11. UNDER DOCK DREDGING SITE PLAN AND SECTION
12. UNDER DOCK DREDGING TEMPORARY CONTAINMENT AREA



LEGEND

PROPOSED UPLAND PLACEMENT SITE

LOCATION MAP

0 2000 4000

SCALE IN FEET

RIVER WATER LEVELS (CRD)	
MAXIMUM RIVER STAGE	15.1'
MINIMUM RIVER STAGE	−0.7'

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

VICINITY MAP

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

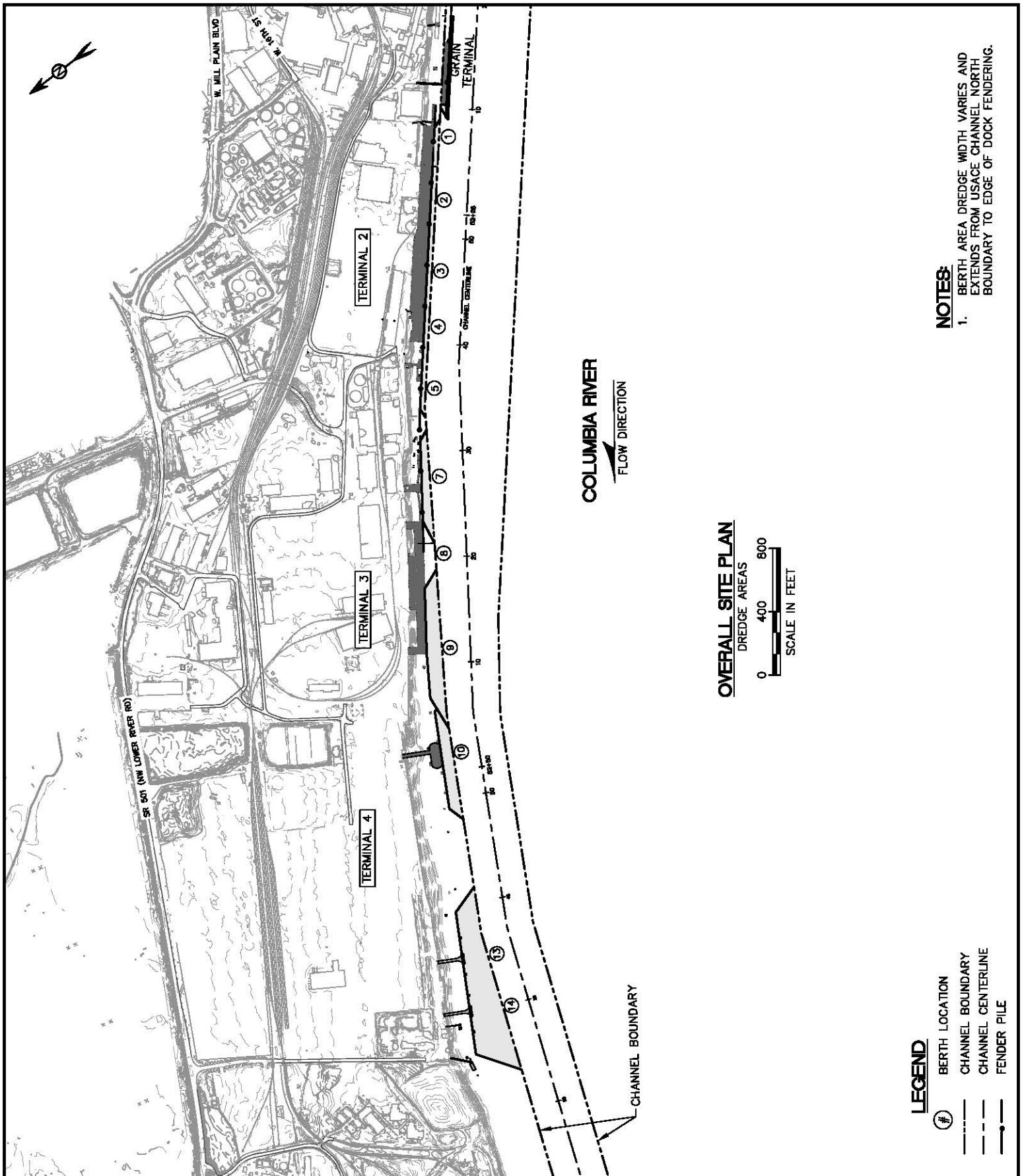
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 1 OF 12 DATE: 12/18/12



PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

OVERALL SITE PLAN

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

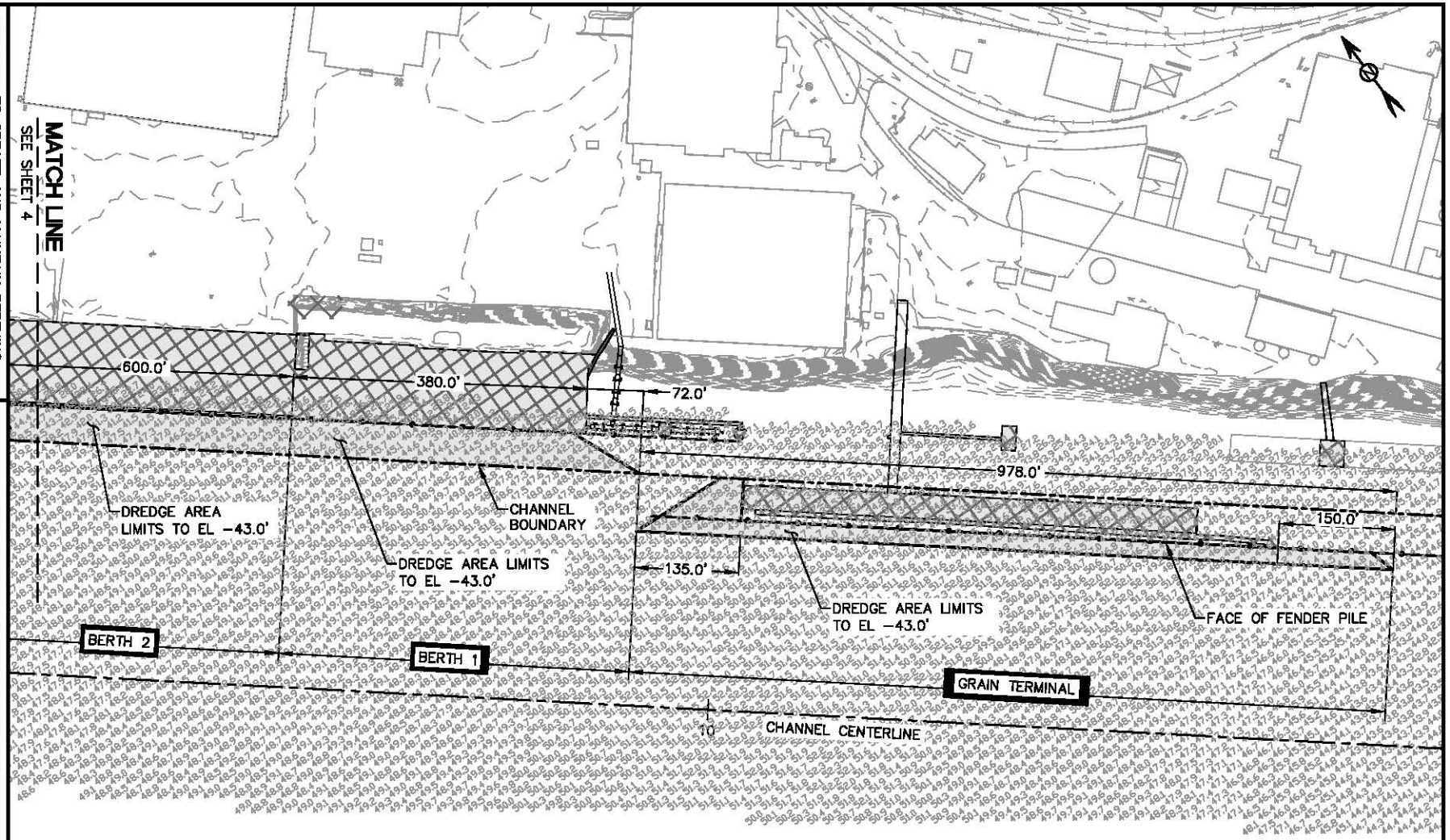
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 2 OF 12 DATE: 12/18/12



DREDGING PLAN

0 100 200
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 1

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

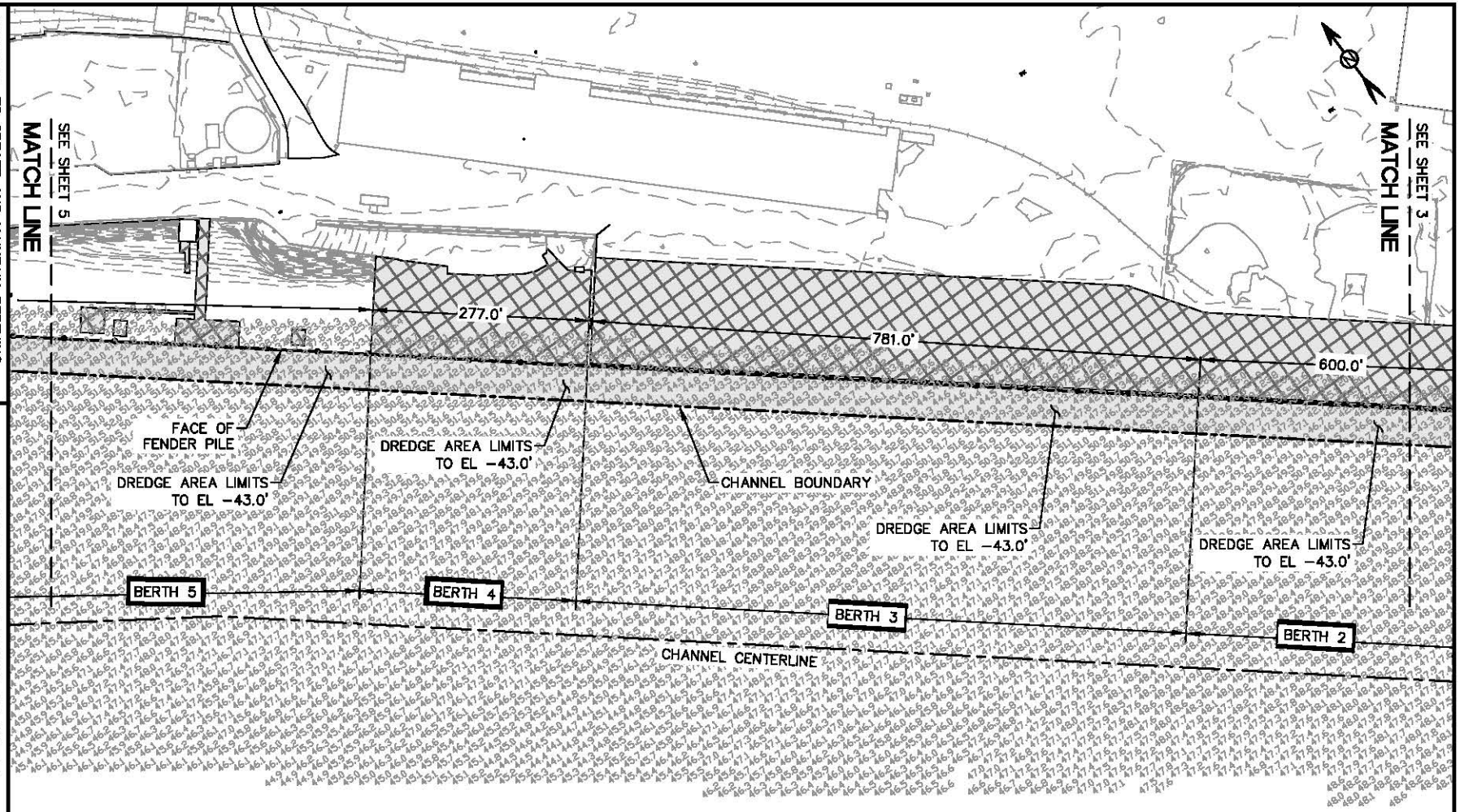
STATE: WASHINGTON

SHEET 3 OF 12

DATE: 12/18/12

NWP-2007-916-1

ENCLOSURE



PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT
SITE PLAN 2

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

STATE: WASHINGTON

SHEET 4 OF 12

DATE: 12/18/12

DREDGING PLAN

0 100 200

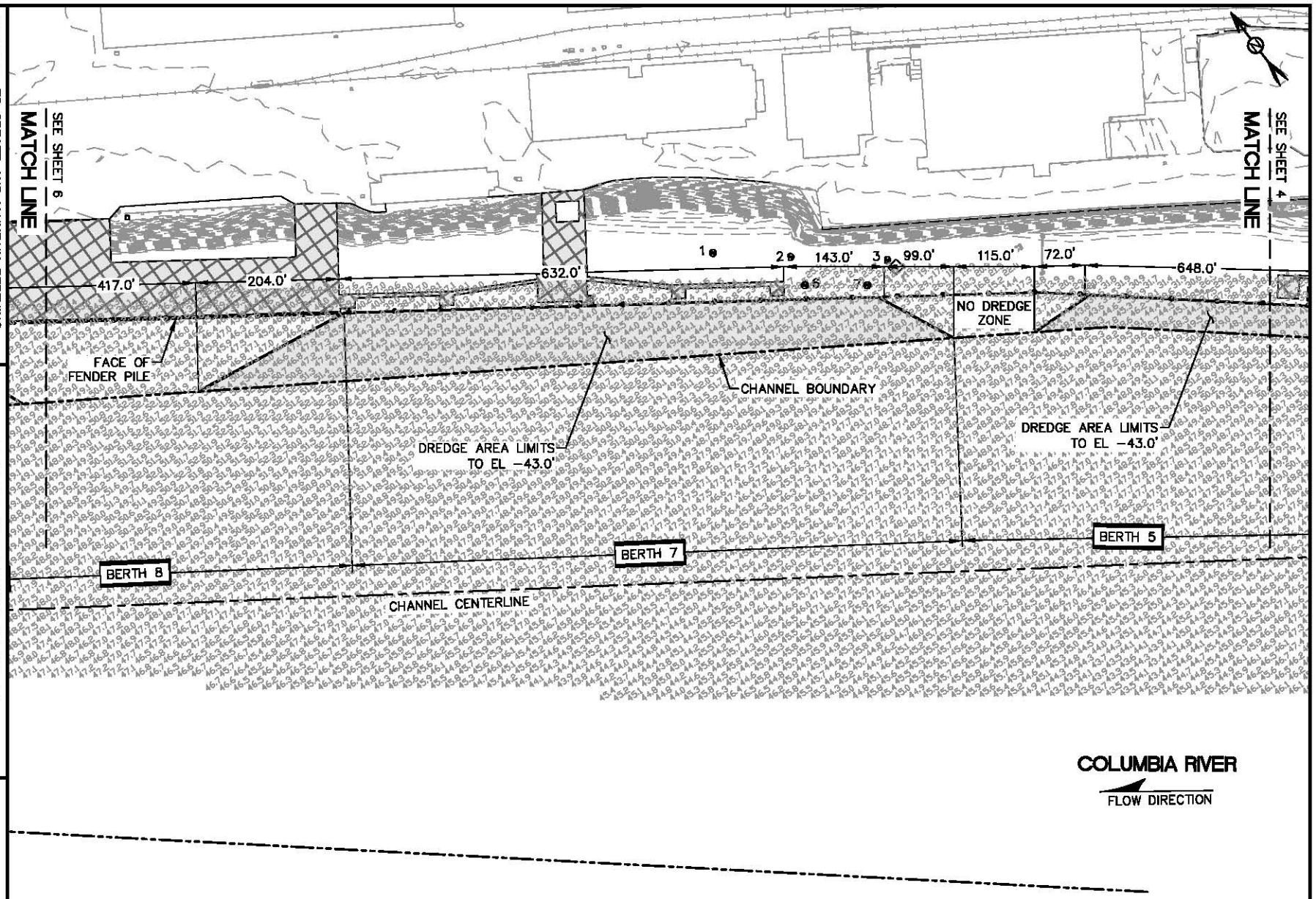
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.



PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 3

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

STATE: WASHINGTON

SHEET 5 OF 12

DATE: 12/18/12

DREDGING PLAN

0 100 200

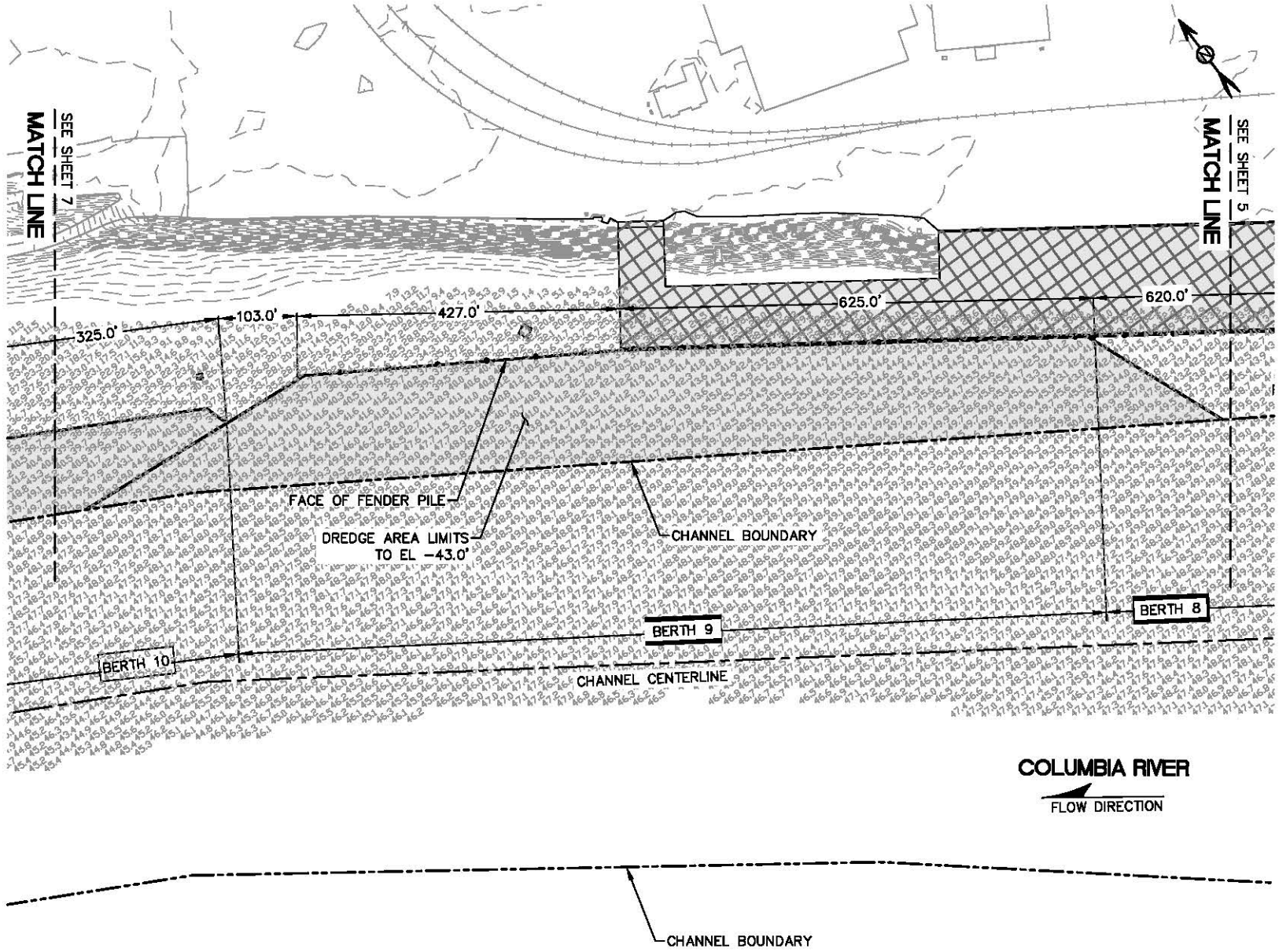
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA
- ASH CREEK ASSOCICATES, INC. SEDIMENT SAMPLE LOCATIONS (DECEMBER 2011)

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.



DREDGING PLAN

0 100 200

SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
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PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 4

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

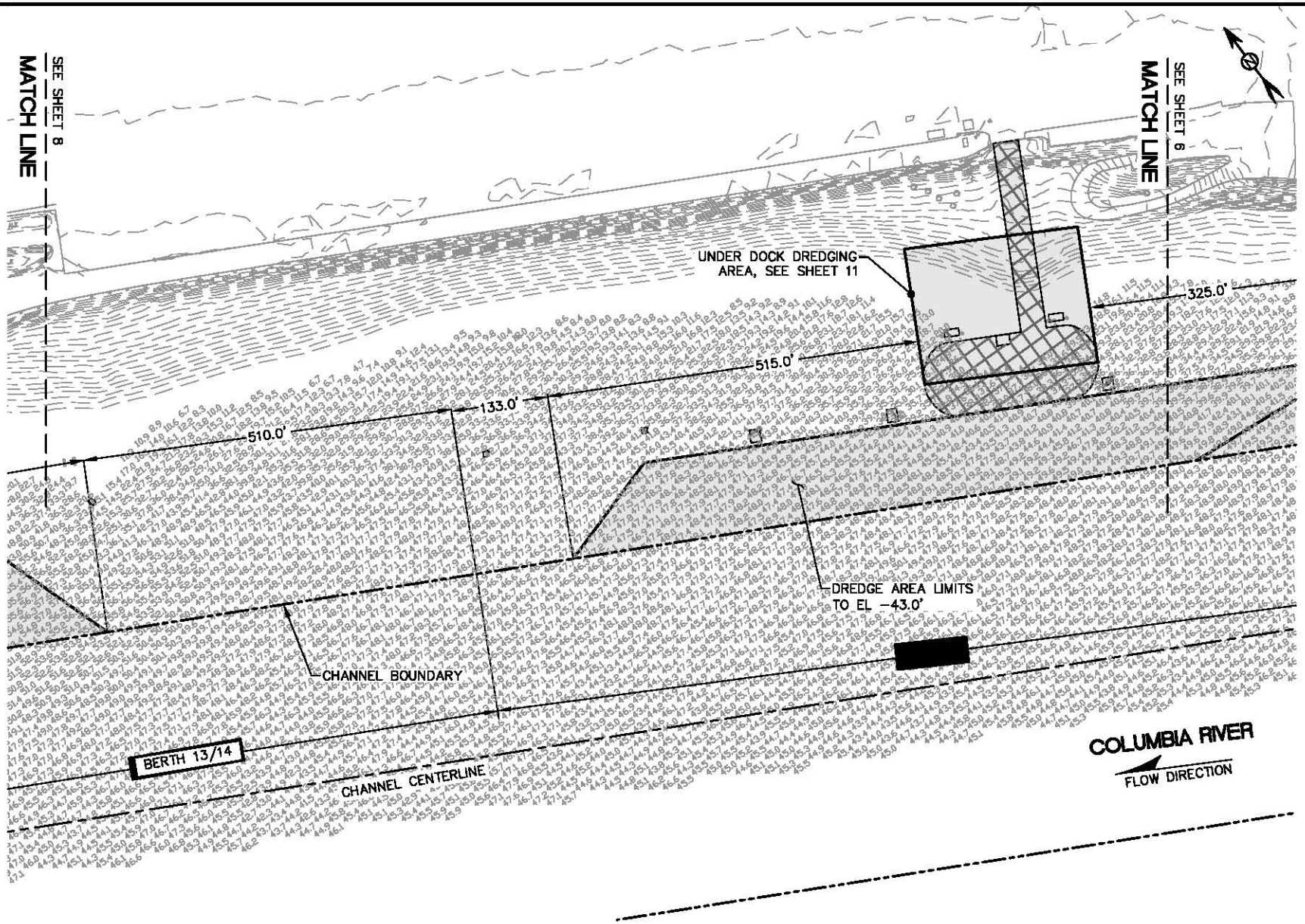
STATE: WASHINGTON

SHEET 6 OF 12

DATE: 12/18/12

NWP-2007-916-1

ENCLOSURE



DREDGING PLAN

0 100 200

SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 5

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

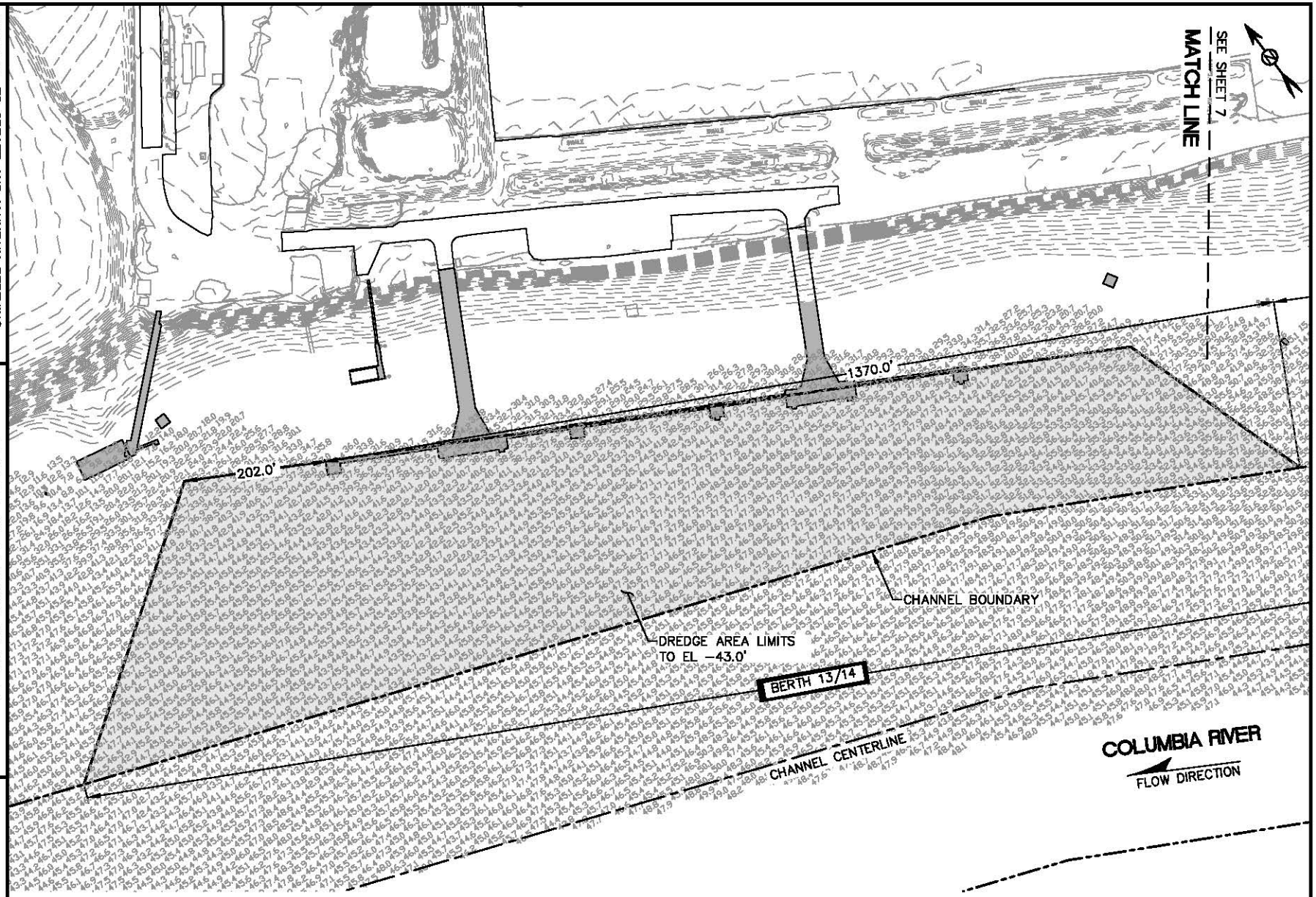
STATE: WASHINGTON

SHEET 7 OF 12

DATE: 12/18/12

NWP-2007-916-1

ENCLOSURE



DREDGING PLAN

0 100 200
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 6

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

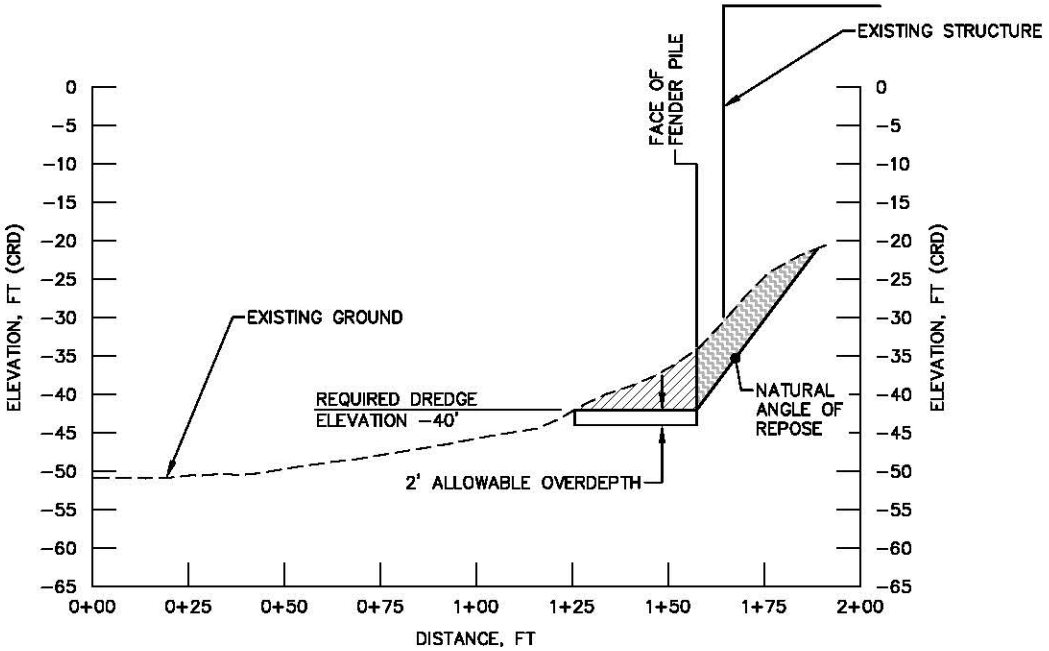
STATE: WASHINGTON

SHEET 8 OF 12

DATE: 12/18/12

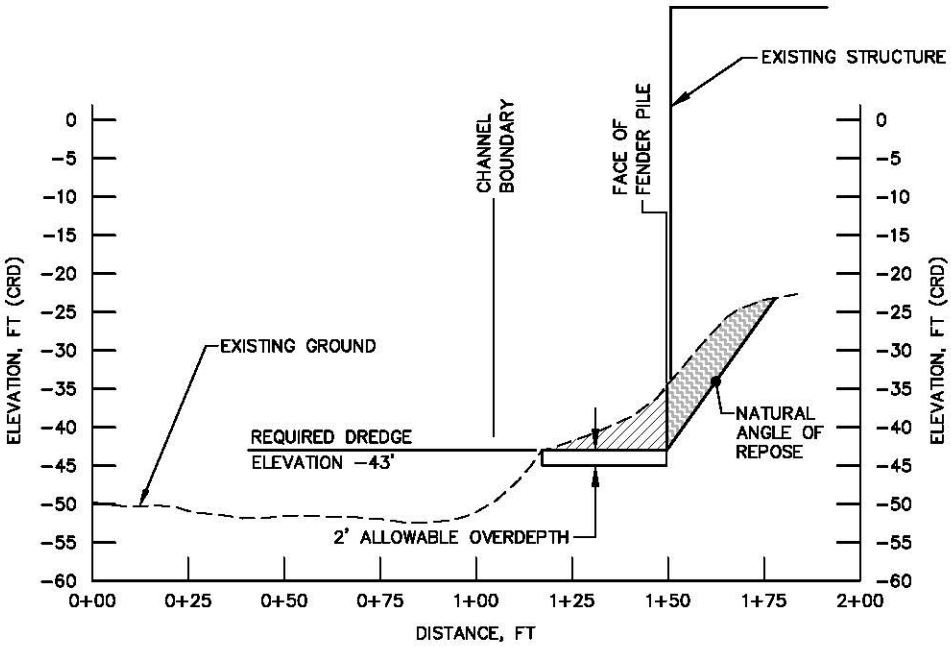
NWP-2007-916-1

ENCLOSURE



TYPICAL SECTION - BERTHS 1, 5, 10, 13, 14

(INTERIM MAINTENANCE)



TYPICAL SECTION - GRAIN TERMINAL AND BERTHS 1, 2, 3, 4, 5, 7, 10, 13, 14

(AUTHORIZED DEPTH)

LEGEND

- EXISTING GROUND (OCTOBER 23, 2012)
- DREDGE AREA
- APPROXIMATE SLOUGHING AREA

HORIZ. 0 25 50

VERT. 0 12.5 25

SCALE IN FEET

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

BERTH DREDGING SECTIONS 1

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

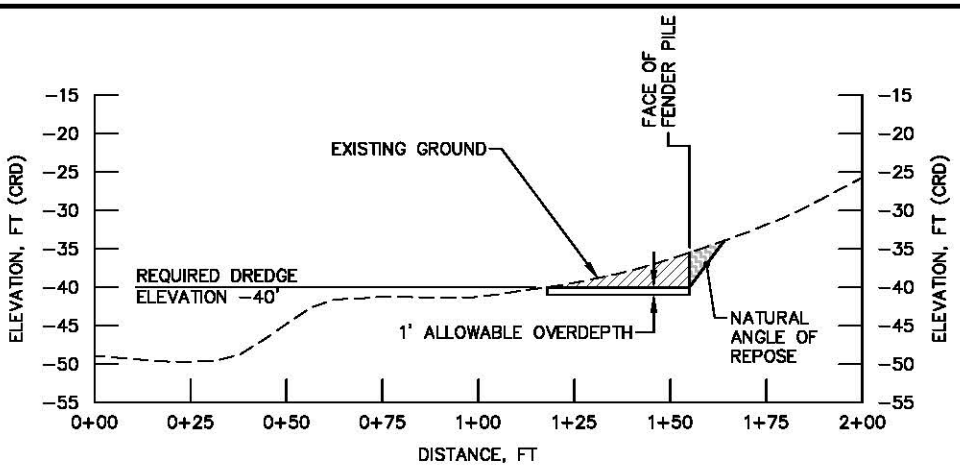
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

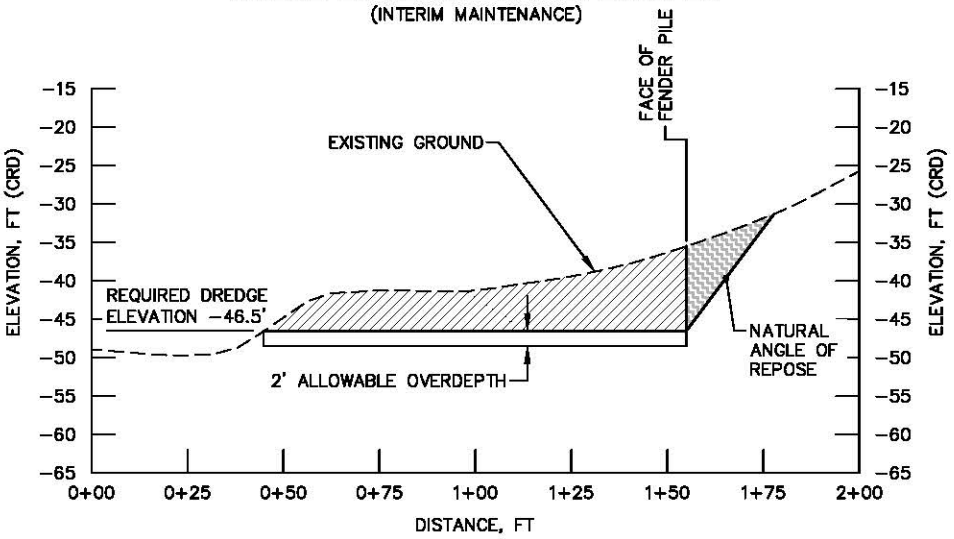
COUNTY: CLARK STATE: WASHINGTON

SHEET 9 OF 12 DATE: 12/18/12



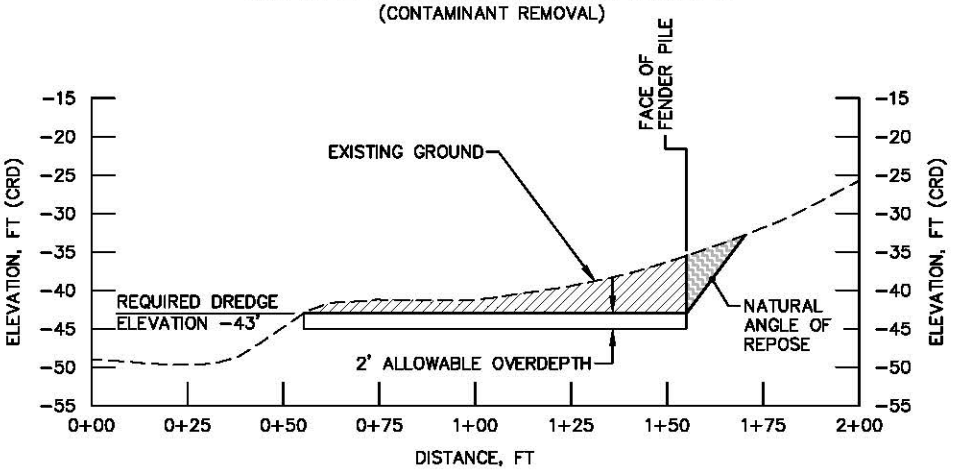
TYPICAL SECTION - BERTHS 8 AND 9

(INTERIM MAINTENANCE)



TYPICAL SECTION - BERTHS 8 AND 9

(CONTAMINANT REMOVAL)



TYPICAL SECTION - BERTHS 8 AND 9

(AUTHORIZED DEPTH)

LEGEND

- EXISTING GROUND (OCTOBER 23, 2012)
- DREDGE AREA
- APPROXIMATE SLOUGHING AREA

HORIZ. 0 25 50

VERT. 0 12.5 25

SCALE IN FEET

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

BERTH DREDGING SECTIONS 2

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

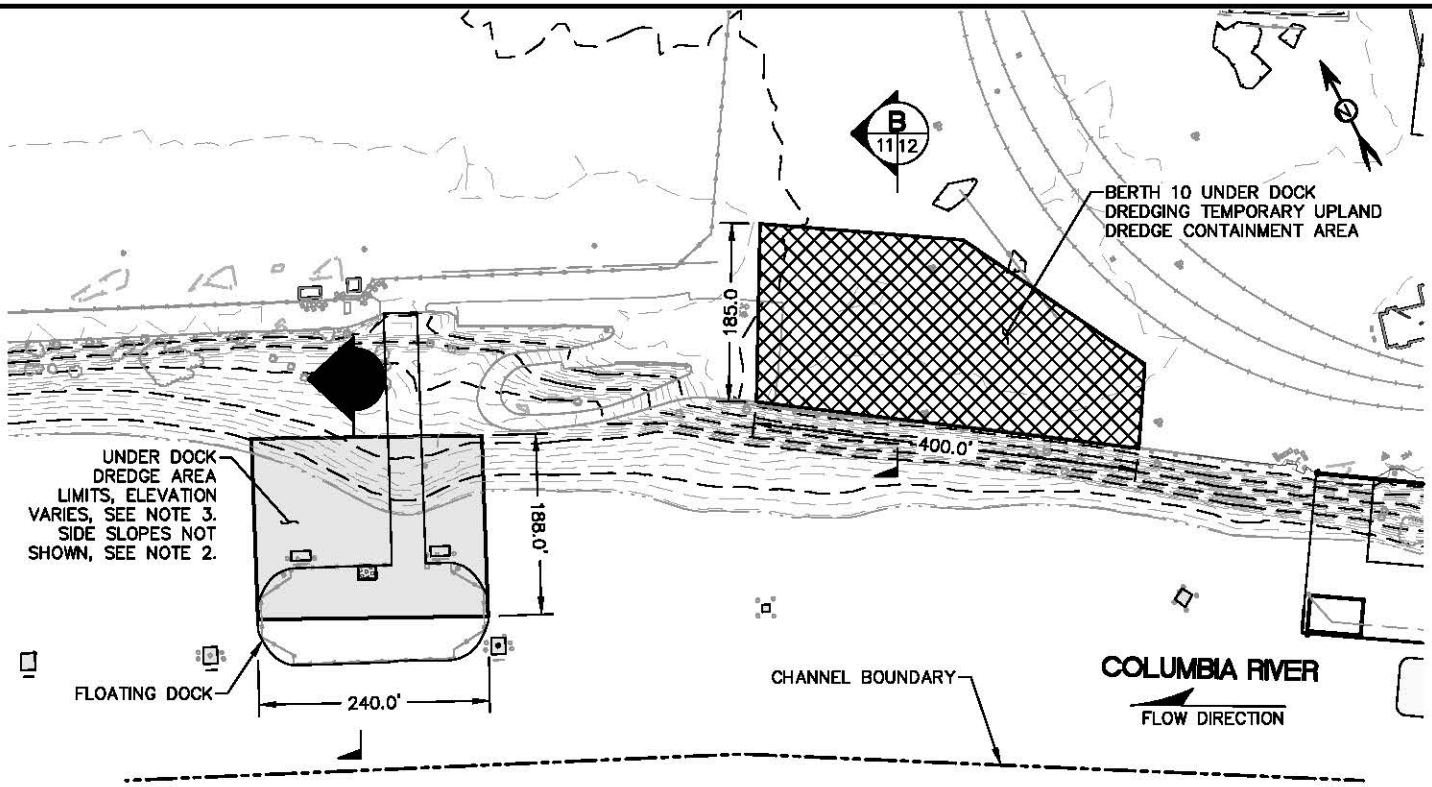
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 10 OF 12 DATE: 12/18/12

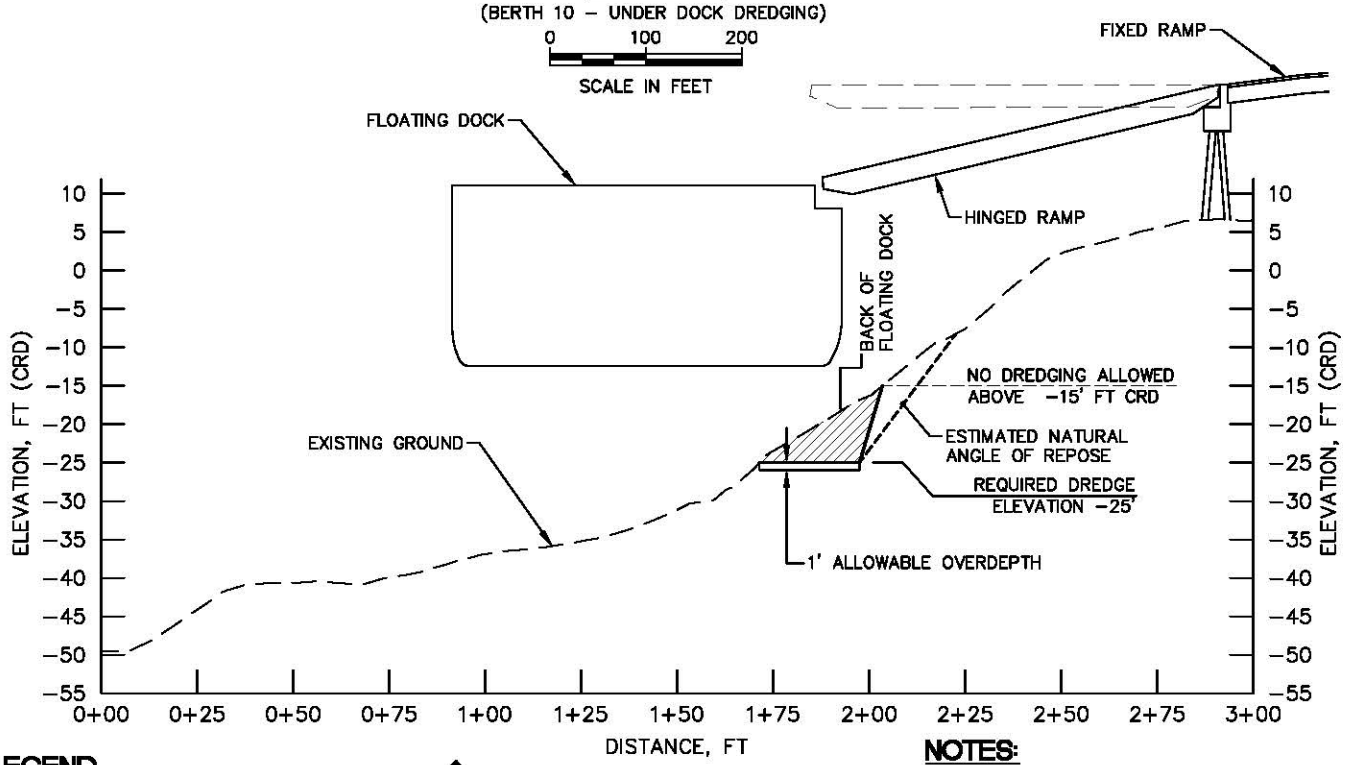


SITE PLAN

(BERTH 10 – UNDER DOCK DREDGING)

0 100 200

SCALE IN FEET



LEGEND

- EXISTING GROUND (OCTOBER 23, 2012)
- CHANNEL BOUNDARY
- DREDGE AREA
- TEMPORARY UPLAND DREDGE CONTAINMENT AREA
- BERTH BOTTOM AREA

A

SECTION

(BERTH 10 UNDER DOCK DREDGING)

HORIZ. 0 25 50

VERT. 0 12.5 25

SCALE IN FEET

NOTES:

1. PIPELINE CORRIDOR BETWEEN BERTH 10 UNDER DOCK DREDGING AREA AND UPLAND TEMPORARY CONTAINMENT AREA NOT SHOWN.
2. 3H:1V DREDGING SLOPES NOT SHOWN. TOP OF DREDGING SLOPES NOT SHOWN AND WILL VARY DEPENDING ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION.
3. DREDGE AREA LIMITS TO BE WITHIN AREAS DEEPER THAN EL –15.0' CRD.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

UNDER DOCK DREDGING SITE PLAN AND SECTION

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

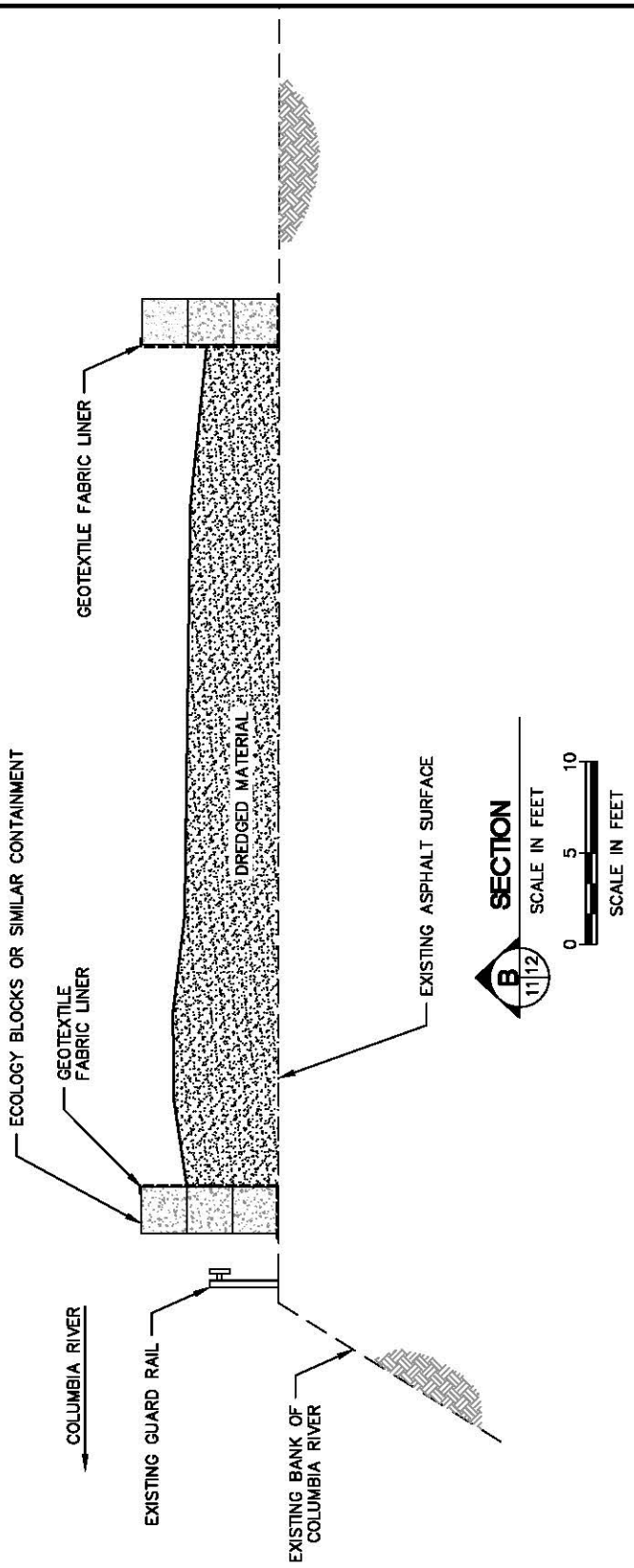
REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 11 OF 12 DATE: 12/18/12



LEGEND

- - - - EXISTING GROUND

DREDGED MATERIAL

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W DATUM: CRD	**PORT OF VANCOUVER BERTH DREDGING PROJECT** **UNDER DOCK DREDGING TEMPORARY CONTAINMENT AREA** APPLICATION BY: PORT OF VANCOUVER	PROPOSED: MAINTENANCE DREDGING REFERENCE NUMBER: NWS-2007-916 IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5 AT: VANCOUVER COUNTY: CLARK STATE: WASHINGTON SHEET 12 OF 12 DATE: 12/18/12