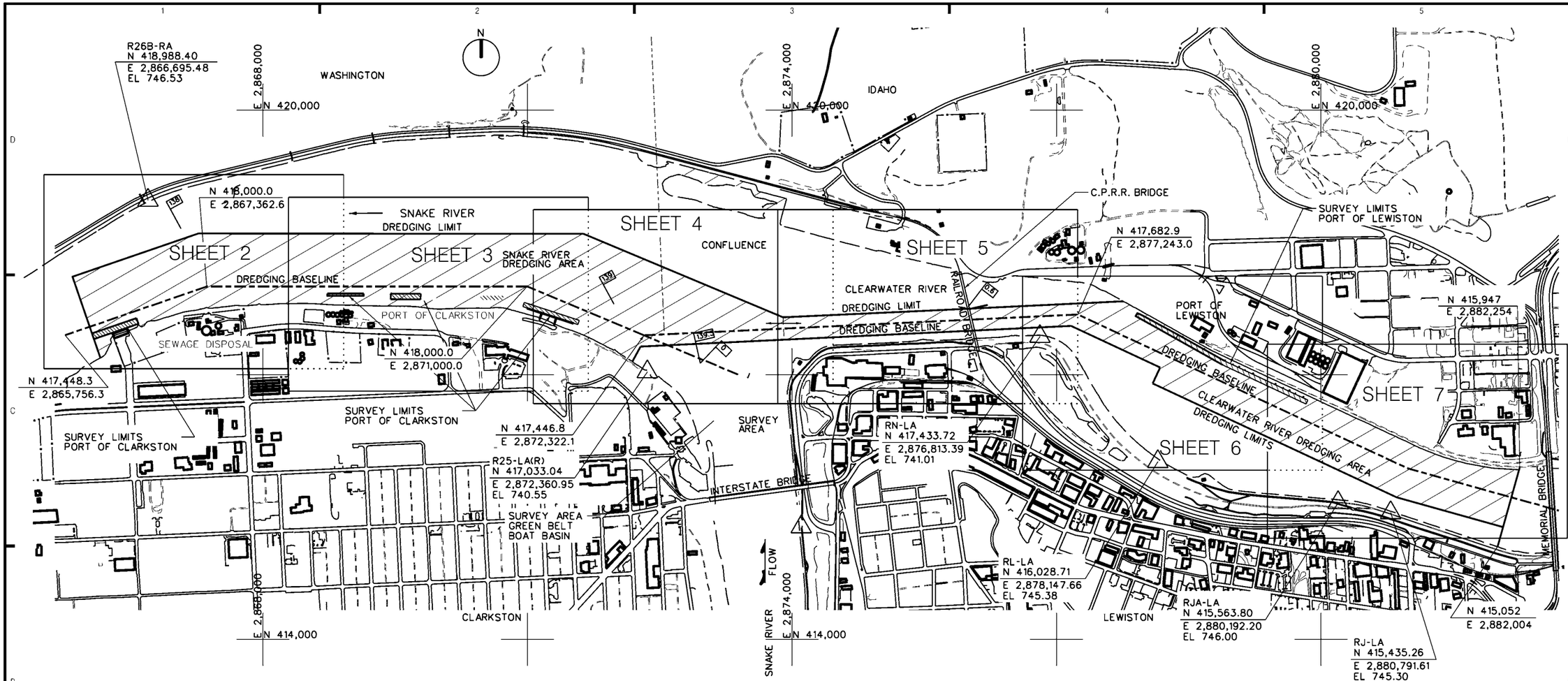

POST DREDGING CONDITION SURVEYS
GENERAL SITE PLAN

0' 600' 1200'

HORIZONTAL AND VERTICAL CONTROL

R24A-LA
(GPS BASE STATION)
3-1/2" BRASS DISK USACE
STAMPED "R24-A-LA 1984"
N 416874.54
E 2872608.74
ELEVATION 741.08

R25A-LA(R)
3-1/2" BRASS DISK USACE
STAMPED "R25 LA-R 1984"
N 417033.04
E 2872360.95
ELEVATION 740.55

R26B-RA
3-1/2" BRASS DISK USACE
STAMPED "R-26-B-RA 1984"
N 418988.40
E 2866695.48
ELEVATION 746.53

R-JA-LA
3-1/2" BRASS DISK USACE
STAMPED "RJA-LA 1985"
N 415563.80
E 2880192.20
ELEVATION 746.00

RL-LA
3-1/2" BRASS DISK USACE
STAMPED "RL-LA 1975"
N 416028.71
E 2878147.66
ELEVATION 745.38

RN-LA
3-1/2" BRASS DISK USACE
STAMPED "RN-LA 1975"
N 417433.72
E 2876813.39
ELEVATION 741.01

LEGEND

- SURVEY ALIGNMENT
- SURVEY AREA CONFLUENCE
- SURVEY AREA GREENBELT BOAT BASIN
- SURVEY AREA PORT OF CLARKSTON
- SURVEY AREA PORT OF LEWISTON
- RIVER MILE
- SURVEY CONTROL
- .722.0 SOUNDING
- +740.1 SPOT ELEVATION

NOTES

1. A MULTIBEAM BATHYMETRIC SURVEY OF THE SNAKE AND CLEARWATER RIVER CONFLUENCE WAS CONDUCTED BY TERRASOND LTD. ON FEBRUARY 11-12 & 24, 2015
2. HORIZONTAL DATUM IS NAD27, PROJECTION IS WASHINGTON STATE PLANE SOUTH, VERTICAL DATUM IS NGVD29. ALL UNITS ARE IN US SURVEY FEET
3. HORIZONTAL AND VERITICAL POSITIONING WAS PROVIDED BY REAL-TIME KINEMATIC (RTK) GPS. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION USING A TRIMBLE R8 GPS RECEIVER ON CONTROL POINT R24A-LA.
4. BATHYMETRIC DATA COLLECTION WAS CONDUCTED USING AN R2 SONIC 2024 MULTIBEAM ECHOSOUNDER, APPLANIX POS MV INERTIAL NAVIGATION SYSTEM, AML SVPLUS SOUND VELOCITY PROBE, AND QINSY V8.1 ACQUISITION SOFTWARE. DATA WAS PROCESSED USING CARIS HIPS V8.1
5. CONTOURS SHOWN HEREON WERE GENERATED FROM A 3-FOOT HORIZONTAL RESOLUTION DATASET USING INVERSE WEIGHTED MEAN OF ALL SOUNDINGS WITHIN A 3-FOOT X 3-FOOT CELL
6. PLOTTED SOUNDINGS REPRESENT THE SHALLOWEST DEPTH IN THE 3-FOOT X 3-FOOT CELL. A SHOAL BIASED SORT OF THE MEAN SOUNDINGS WAS PERFORMED USING A 50 FOOT SORT RADIUS
7. THIS MAP REPRESENTS CONDITIONS AT THE TIME OF THE SURVEY

US Army Corps of Engineers
Walla Walla District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

DESIGNED BY: MEYER
DWN. BY: LNL
CHKED. BY: KMM
SUBMITTED BY:
DATE: 13, 25 FEB 2015
TASK ORDER NO. 9
CONTRACT NO. W912EF-10-D-0002
FILE NO.:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON

TERRASOND
8 FEDERAL STREET, SUITE 1, PORTLAND, ME 04101
83 WYMAN STREET, SUITE 2, SEATTLE, WA 98117
WWW.TERRASOND.COM 1.800.327.7683

LOWER GRANITE LOCK AND DAM
SNAKE AND CLEARWATER RIVERS, WASHINGTON AND IDAHO
WA912EF-10-D-0002, T.O. NO. 9
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
POST DREDGING SURVEYS

Plate number:
V-001
Sheet 1 of 7

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BORDER SIZE IS ANSI D

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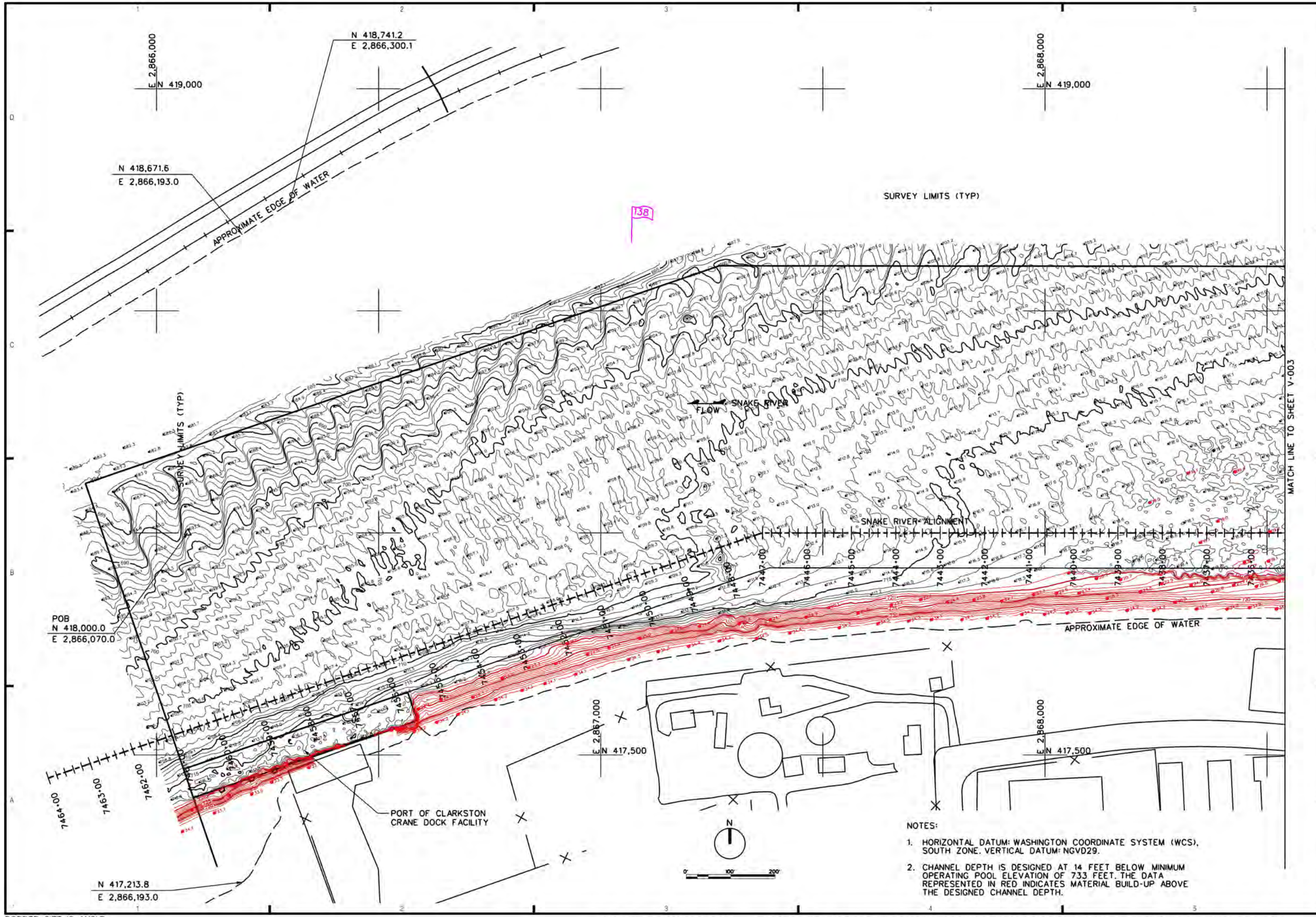

NOTES:

1. HORIZONTAL DATUM: WASHINGTON COORDINATE SYSTEM (WCS), SOUTH ZONE. VERTICAL DATUM: NGVD29.
2. CHANNEL DEPTH IS DESIGNED AT 14 FEET BELOW MINIMUM OPERATING POOL ELEVATION OF 733 FEET. THE DATA REPRESENTED IN RED INDICATES MATERIAL BUILD-UP ABOVE THE DESIGNED CHANNEL DEPTH.

US Army Corps of Engineers
Walla Walla District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

DESIGNED BY: MEYER
DATE: 13, 25 FEB 2015
CHKD BY: XMM
FACIL. ORDER NO. 9
CONTRACT NO: W912EF-10-D-0002
SUBMITTED BY
FILE NO.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON

TERRASOND
ENGINEERING, SURVEYING, MAPPING
1115 NE 42ND STREET, SUITE 210, VANCOUVER, WASHINGTON 98663
(360) 735-0500 FAX (360) 735-0501

LOWER GRANITE LOCK AND DAM
SNAKE AND CLEARWATER RIVERS, WASHINGTON AND IDAHO

WA912EF-10-D-0002, T.O. NO. 9
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
POST DREDGING SURVEYS

Plate number:
V-002

Sheet 2 of 7

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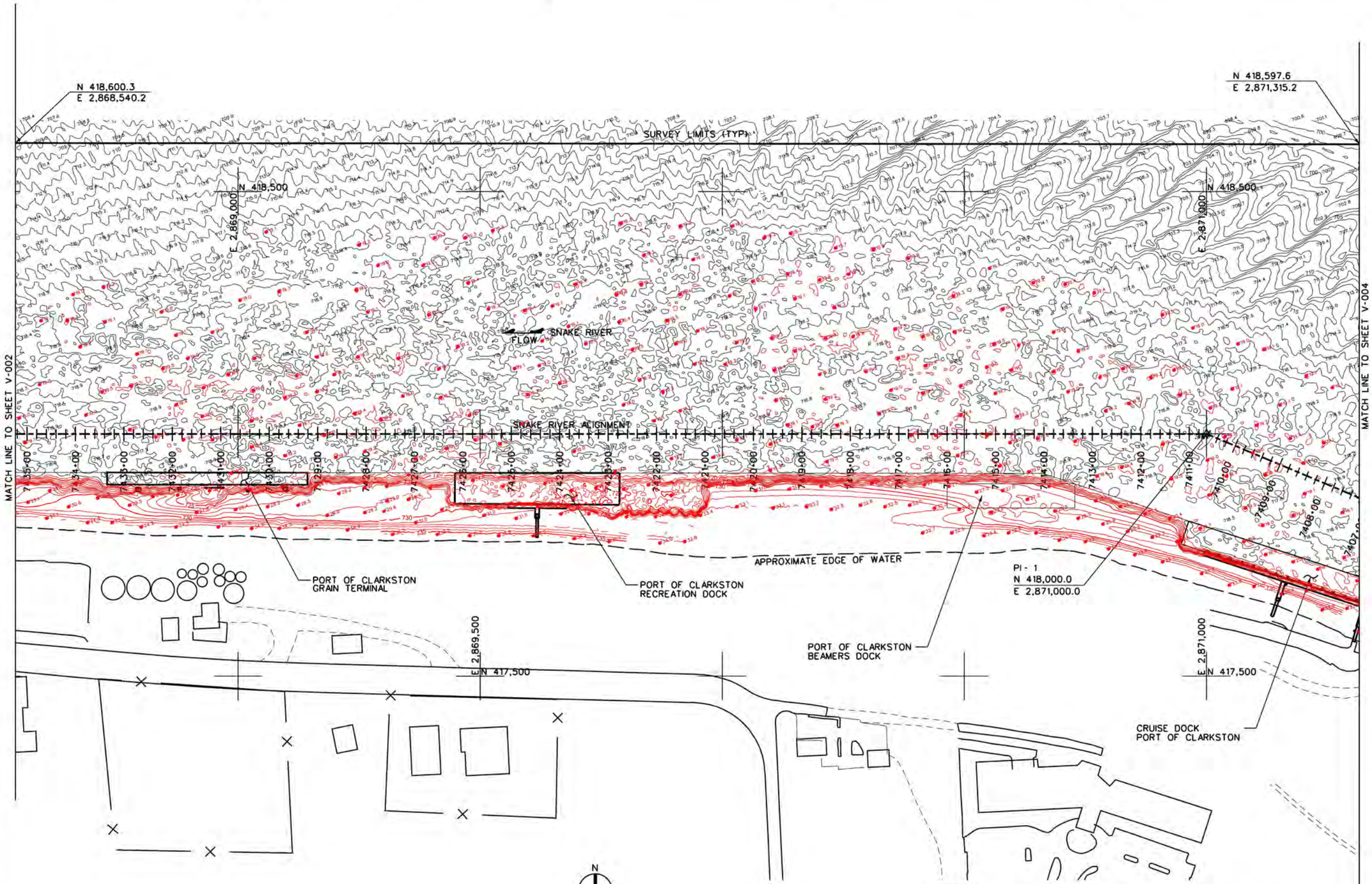

NOTES:

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US Army Corps of Engineers
Walla Walla District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

DESIGNED BY: MEYER
DWN BY: LAL
CHKED BY: AMM
SUBMITTED BY:
DATE: 13, 25 FEB 2015
FSA: WRKSP NO. 9
CONTRACT NO.: W912EF-10-D-0002
FILE NO.:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA WASHINGTON

TERRASOND
ENGINEERS • SURVEYORS • PLANNERS
811 SW NAITO PARKWAY, SUITE 400, PORTLAND, OR 97204
(503) 223-6663 FAX (503) 223-6664

LOWER GRANITE LOCK AND DAM
SNAKE AND CLEARWATER RIVERS, WASHINGTON AND IDAHO

WA912EF-10-D-0002, T.O. NO. 9
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
POST DREDGING SURVEYS

Plate number:
V-003
Sheet 3 of 7

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NOTES:

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US Army Corps of Engineers
Walla Walla District

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DESIGNED BY: MEYERS
DWN BY: LNL
CHKD BY: MMM
SUBMITTED BY:
DATE: 13, 25 FEB 2015
DSN. DRGN NO. 9
CONTRACT NO. W912EF-10-D-0002
FILE NO.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON

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LOWER GRANITE LOCK AND DAM
SNAKE AND CLEARWATER RIVERS, WASHINGTON AND IDAHO

WA912EF-10-D-0002, T.O. NO. 9
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
POST DREDGING SURVEYS

Plate number:
V-004

Sheet 4 of 7

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NOTES:

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US Army Corps of Engineers
Walla Walla District

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DESIGNED BY: MEYER
DWN BY: LNL
CHKD BY: KMM
SUBMITTED BY:
DATE: 13, 25 FEB 2015
DWG ORDER NO. 9
CONTRACT NO. W912EF-10-D-0002
FILE NO.:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON

TERRASOND
EARTH SCIENCE CONSULTANTS
810 NE RAND CREEK DR, ST. ANTHONY, IDAHO 83445
(208) 559-0025 FAX (208) 559-0026

LOWER GRANITE LOCK AND DAM
SNAKE AND CLEARWATER RIVERS, WASHINGTON AND IDAHO

WA912EF-10-D-0002, T.O. NO. 9
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
POST DREDGING SURVEYS

Plate number:
V-005

Sheet 5 of 7

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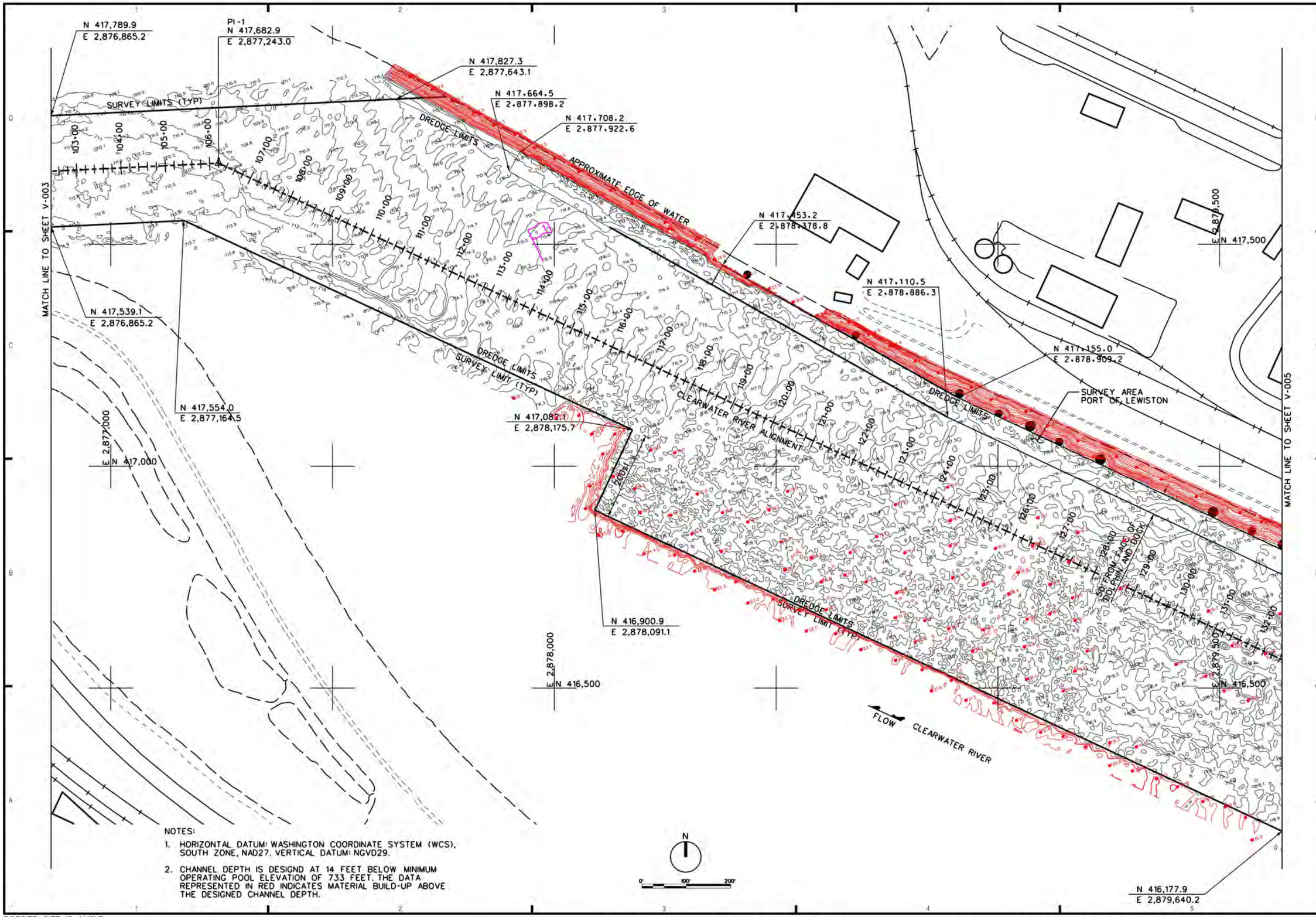

NOTES:

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US Army Corps of Engineers
Walla Walla District

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DESIGNED BY: MEYER
DWN BY: LNL
CHKED BY: KMM
SUBMITTED BY:
DATE: 13, 25 FEB 2015
DSN. CHECK NO. 9
CONTRACT NO. W912EF-10-D-0002
FILE NO.

U.S. ARMY ENGINEER DISTRICT
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TERRASOND
811 SW NAITO PARKWAY, SUITE 210, PORTLAND, OREGON
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LOWER GRANITE LOCK AND DAM
SNAKE AND CLEARWATER RIVERS, WASHINGTON AND IDAHO

WA912EF-10-D-0002, T.O. NO. 9
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
POST DREDGING SURVEYS

Plate number:
V-006

Sheet 6 of 7

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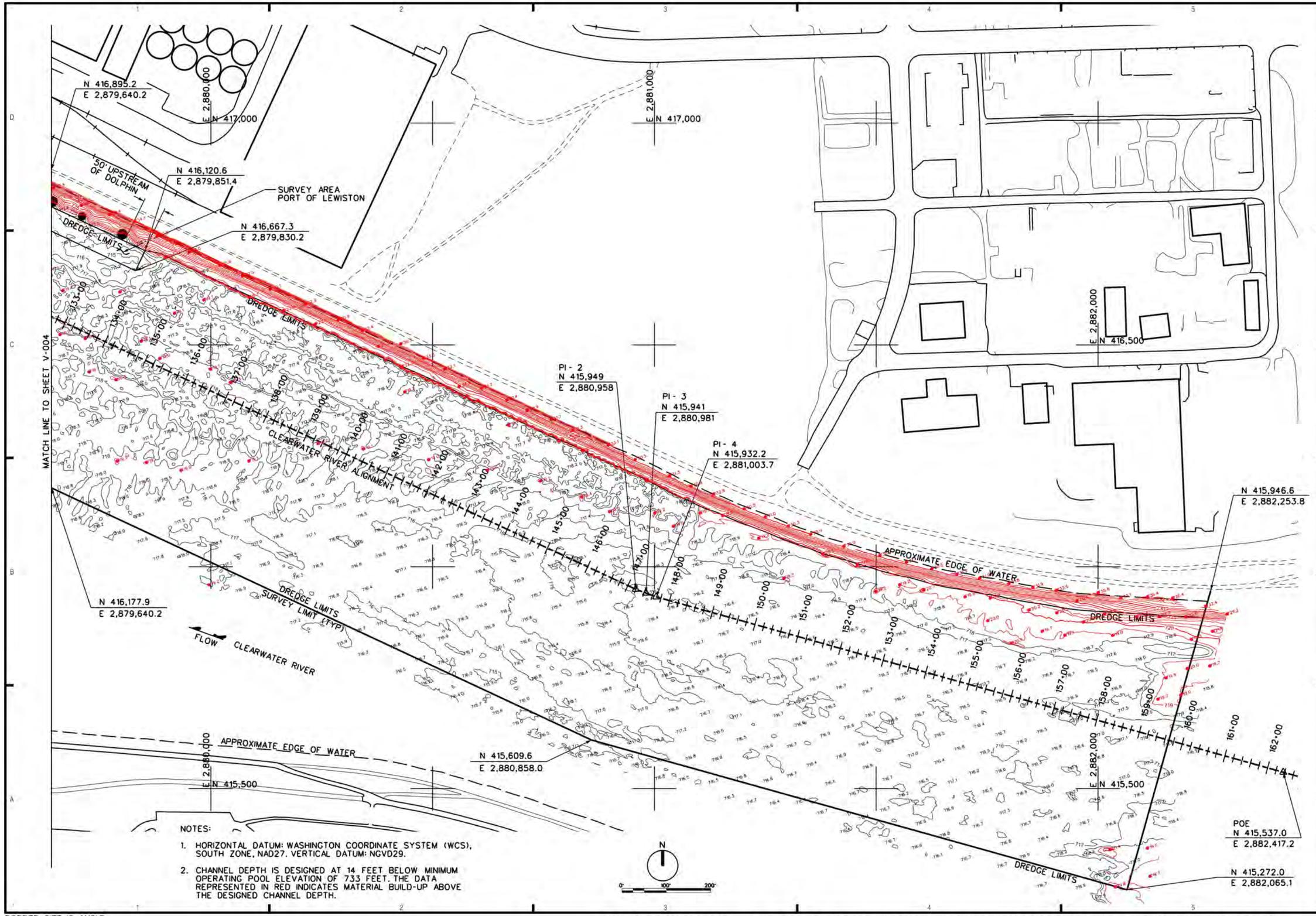

NOTES:

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US Army Corps of Engineers
Walla Walla District

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DESIGNED BY: MEYER
DWN BY: LNL
CHKD BY: KMM
SUBMITTED BY:
DATE: 13, 25 FEB 2015
FSA: CHECK NO. 9
CONTRACT NO: W9127E-10-D-0002
FILE NO.:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WALLA WALLA, WASHINGTON

TERRASOND
ELECTRONIC SURVEYS, LLC
BIG SKY WAY, CHESS, MONTANA 59718
PHONE: (406) 222-2121, FAX: (406) 222-2122
WWW.TERRASOND.COM, SURVEY@TERRASOND.COM

LOWER GRANITE LOCK AND DAM
SNAKE AND CLEARWATER RIVERS, WASHINGTON AND IDAHO

WA912EF-10-D-0002, T.O. NO. 9

SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
POST DREDGING SURVEYS

Plate number:
V-007

Sheet 7 of 7

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