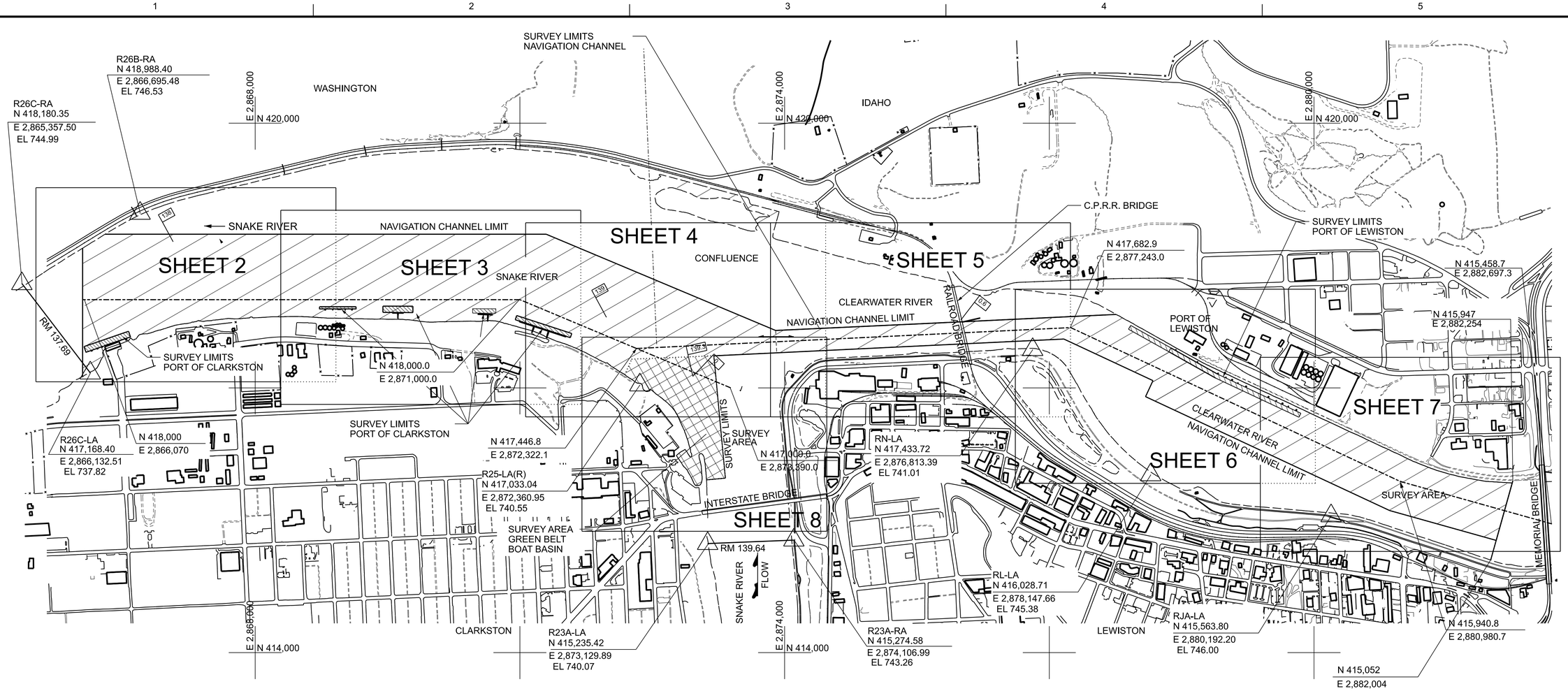

CONFLUENCE AREA - SITE PLAN

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
- 139 RIVER MILE
- SURVEY CONTROL
- 732s SOUNDING
- AID TO NAVIGATION

NOTES

1. A MULTIBEAM BATHYMETRIC SURVEY OF THE SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE WAS CONDUCTED BY TERRASOND LIMITED ON OCTOBER 4-12, 2019.
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 VERTICAL POSITIONING WAS PROVIDED BY REAL-TIME KINEMATIC (RTK) GPS. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION USING A TRIMBLE R10 GPS RECEIVER ON CONTROL POINT "R25-LA(R)" AND "R26B-RA."
4. BATHYMETRIC DATA COLLECTION WAS CONDUCTED USING A R2 SONIC 2024 MULTIBEAM ECHOSOUNDER, APPLANIX WAVEMASTER INERTIAL NAVIGATION SYSTEM, AML MINOS-X SOUND VELOCITY PROBE, AND QPS QINSY V8.1 ACQUISITION SOFTWARE. DATA WAS PROCESSED USING CARIS HIPS V10.4.
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 HIGH AND LOW 50-FOOT RADIUS SORT OF THE 3-FOOT X 3-FOOT INVERSE WEIGHTED MEAN SOUNDINGS.
7. THIS MAP REPRESENTS CONDITIONS AT THE TIME OF THE SURVEY.

N

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MARK	DESCRIPTION	DATE

ISSUE DATE: 1/6/2020
SOLICITATION NO.: 9817
CONTRACT NO.: W912EF-16-D-0004
FILE NO.:

DESIGNED BY: MEYER
DRAWN BY: LINDBLAD
CHECKED BY: MILDON
SUBMITTED BY: TERRASOND LIMITED
SIZE:

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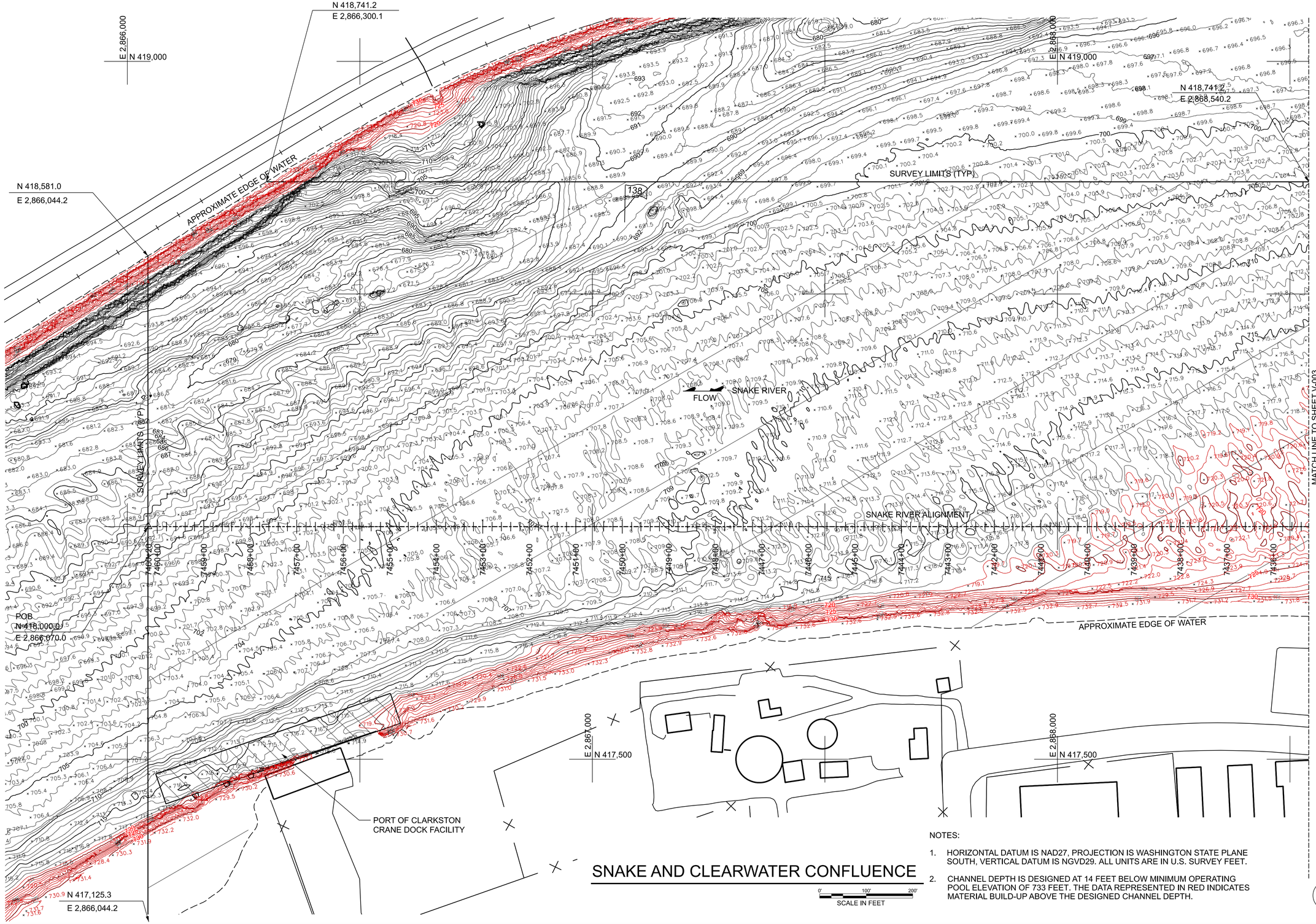
W912EF-16-D-0004-9817

SNAKE RIVER AND CLEARWATER
RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID
V-101

DATE AND TIME PLOTTED: 1/6/2020

DESIGN FILE: L:\Z_surveys\00Hydro_Condition\2019_Hydro_Condition\25Nov2019_Revised Submittals\Nav Condition Surveys\Drawings and Bathymetry\Confluence\Drawings Bentley Opensite\LLConfV-101—.dgn



SNAKE AND CLEARWATER CONFLUENCE

NOTES:

1. HORIZONTAL DATUM IS NAD27, PROJECTION IS WASHINGTON STATE PLANE SOUTH, VERTICAL DATUM IS NGVD29. ALL UNITS ARE IN U.S. SURVEY FEET.
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.

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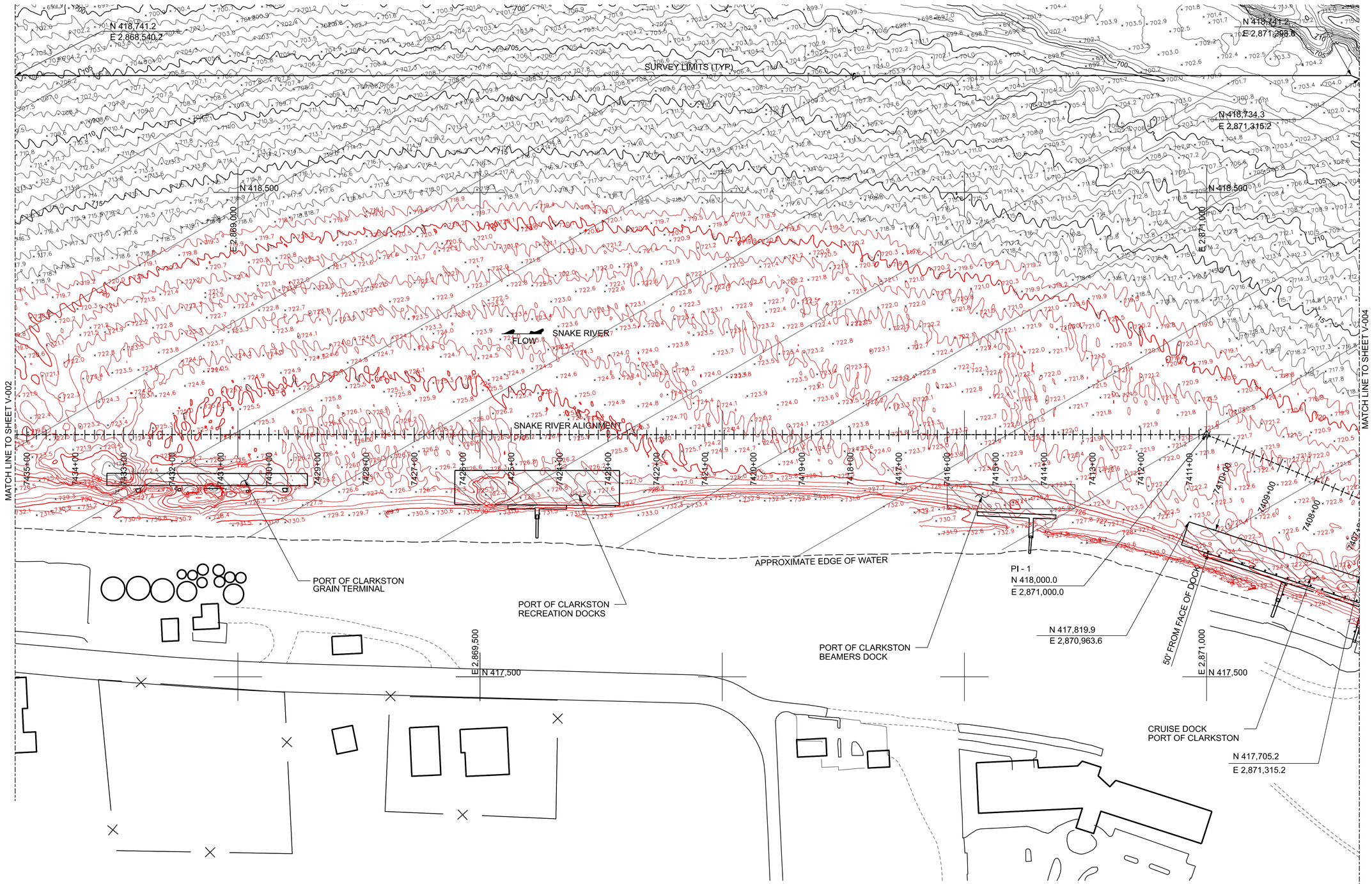
SNAKE RIVER AND CLEARWATER
RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID
V-102

DATE AND TIME PLOTTED: 1/6/2020

DESIGN FILE: L:\Z_surveys\00Hydro_Condition\2019_Hydro_Condition\25Nov2019_Revised Submittals\Nav Condition Surveys\Drawings and Bathymetry\Confluence\Drawings Bentley Opensite\LLConfV-102---.dgn



SNAKE AND CLEARWATER CONFLUENCE

0' 100' 200'
SCALE IN FEET

NOTES:

1. HORIZONTAL DATUM IS NAD27, PROJECTION IS WASHINGTON STATE PLANE SOUTH, VERTICAL DATUM IS NGVD29. ALL UNITS ARE IN U.S. SURVEY FEET.
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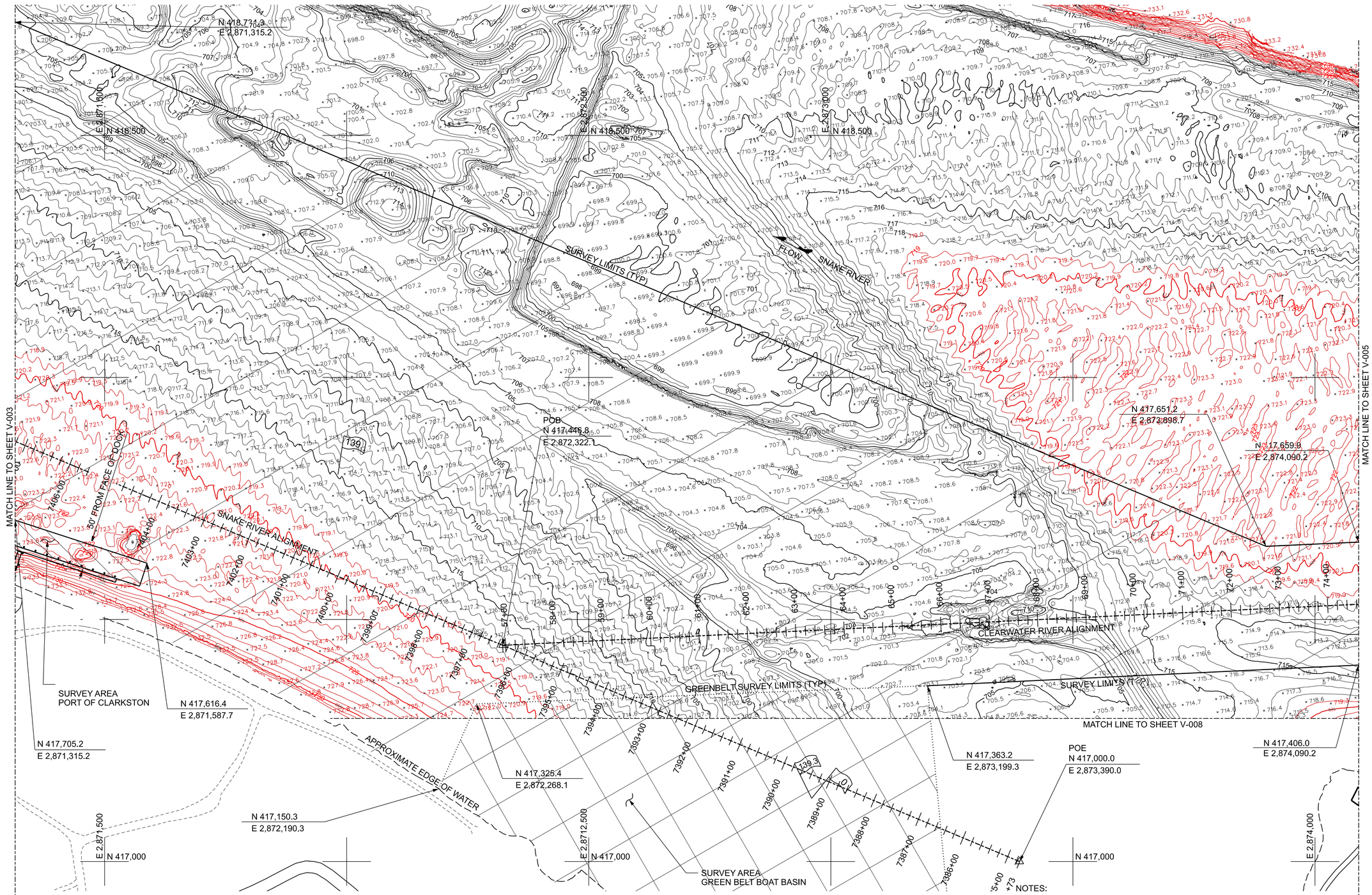
SNAKE RIVER AND CLEARWATER
RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID
V-103

DATE AND TIME PLOTTED: 1/6/2020

DESIGN FILE: L:\Z_surveys\00Hydro_Condition\2019_Hydro_Condition\25Nov2019_Revised Submittals\Nav Condition Surveys\Drawings and Bathymetry\Confluence\Drawings Bentley Opensite\LLConfV-103---.dgn



SNAKE AND CLEARWATER CONFLUENCE

0' 100' 200'
SCALE IN FEET

NOTES:

1. HORIZONTAL DATUM IS NAD27, PROJECTION IS WASHTINGTON STATE PLANE SOUTH, VERTICAL DATUM IS NGVD29. ALL UNITS ARE IN U.S. SURVEY FEET.
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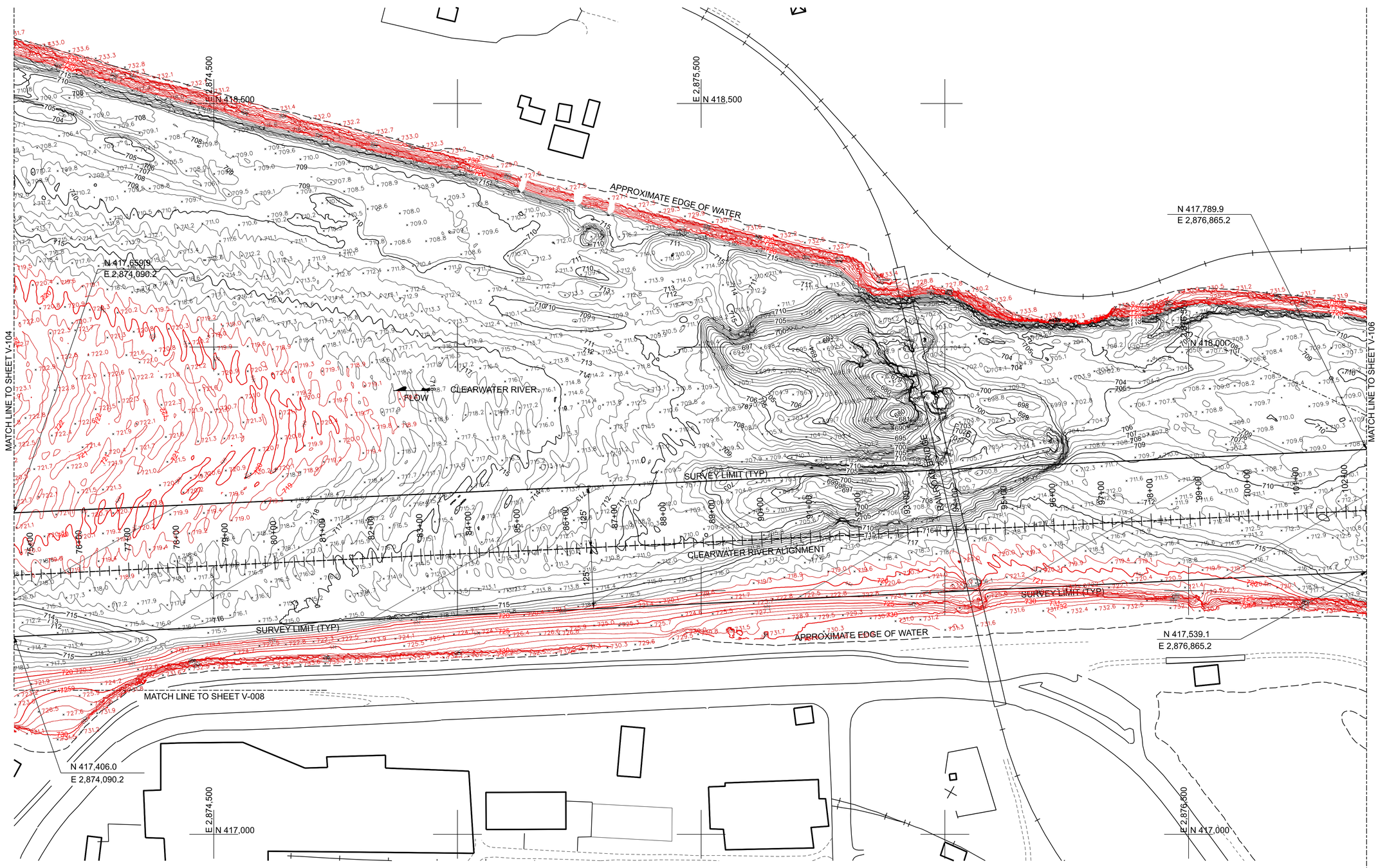
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID
V-104

DATE AND TIME PLOTTED: 1/6/2020
DESIGN FILE: L:\Z_surveys\00Hydro_Condition\2019_Hydro_Condition\25Nov2019_Revised Submittals\Nav Condition Surveys\Drawings and Bathymetry\Confluence\Drawings Bentley Opensite\LLConfV-104---.dgn



SNAKE AND CLEARWATER CONFLUENCE

0' 100' 200'
SCALE IN FEET

NOTES:

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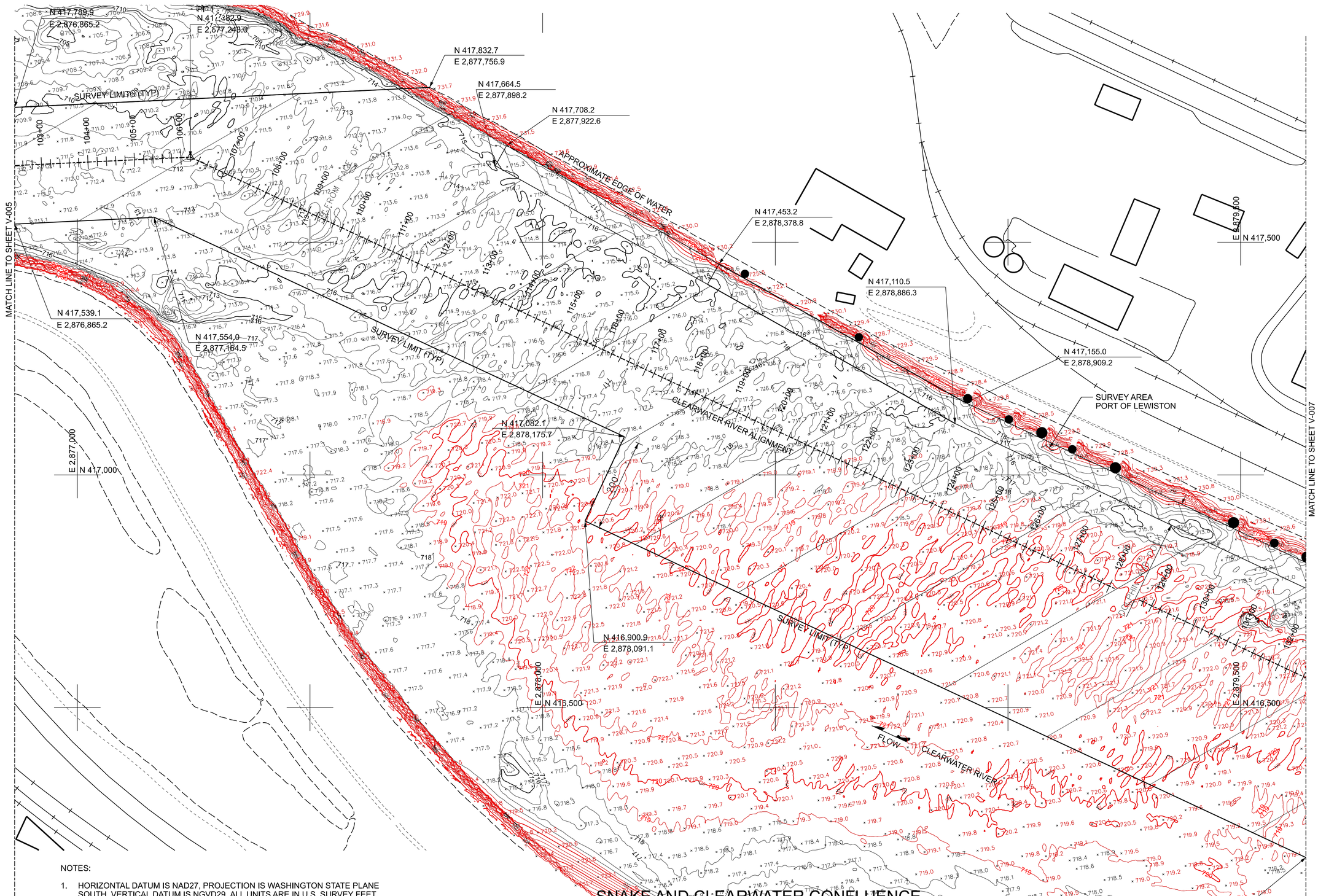
SNAKE RIVER AND CLEARWATER
RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID
V-105

DATE AND TIME PLOTTED: 1/6/2020

DESIGN FILE: L:\Z_surveys\00Hydro_Condition\2019_Hydro_Condition\25Nov2019_Revised Submittals\Nav Condition Surveys\Drawings and Bathymetry\Confluence\Drawings Bentley Opensite\LLConfV-105---.dgn



NOTES:

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SNAKE AND CLEARWATER CONFLUENCE

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W912EF-16-D-0004-9817

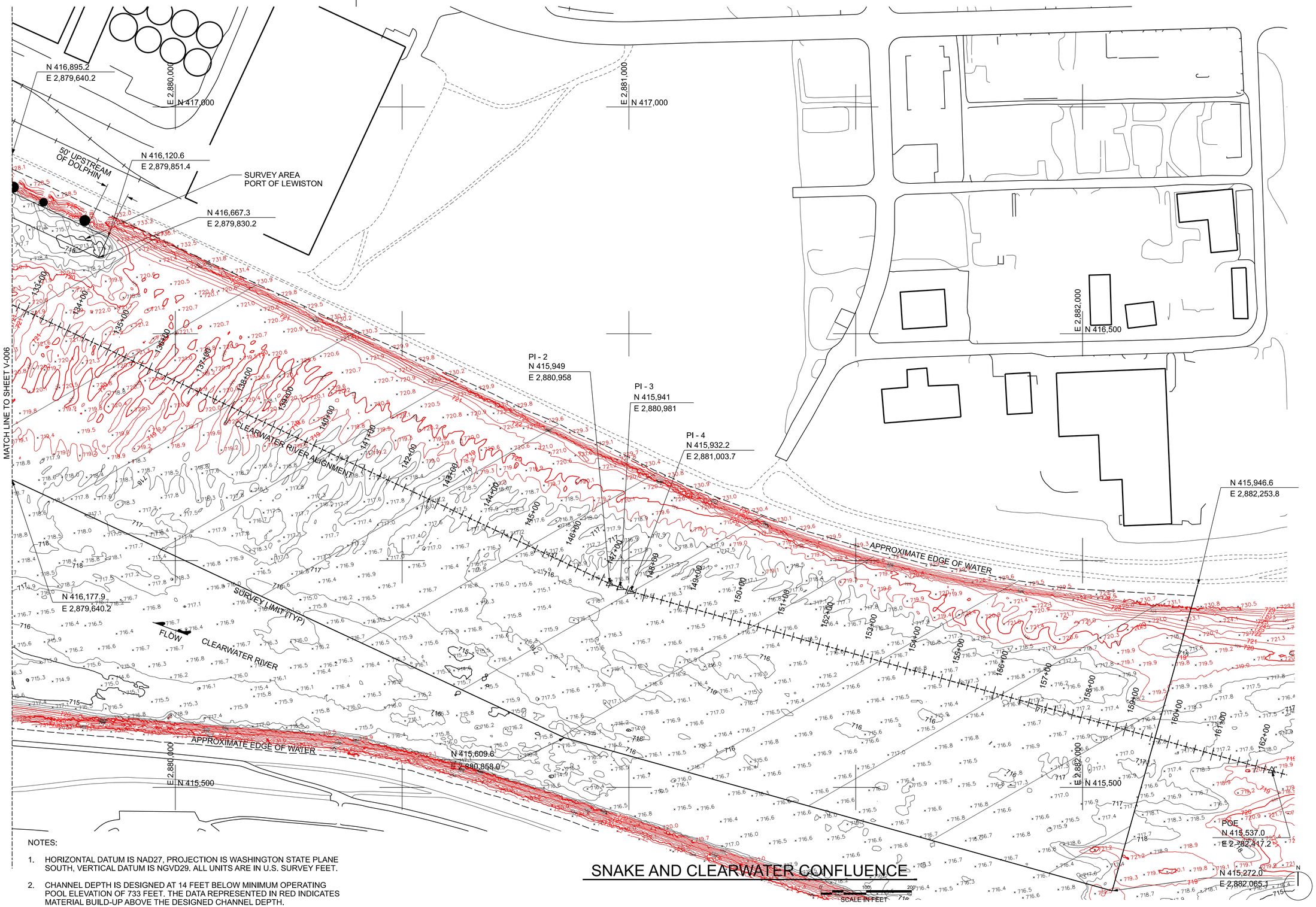
SNAKE RIVER AND CLEARWATER
RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID

V-106

DATE AND TIME PLOTTED: 1/6/2020

DESIGN FILE: L:\Z_surveys\00Hydro_Condition\2019_Hydro_Condition\25Nov2019_Revised Submittals\Nav Condition Surveys\Drawings and Bathymetry\Confluence\Drawings Bentley Opensite\LLConfV-106—.dgn



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SNAKE AND CLEARWATER CONFLUENCE

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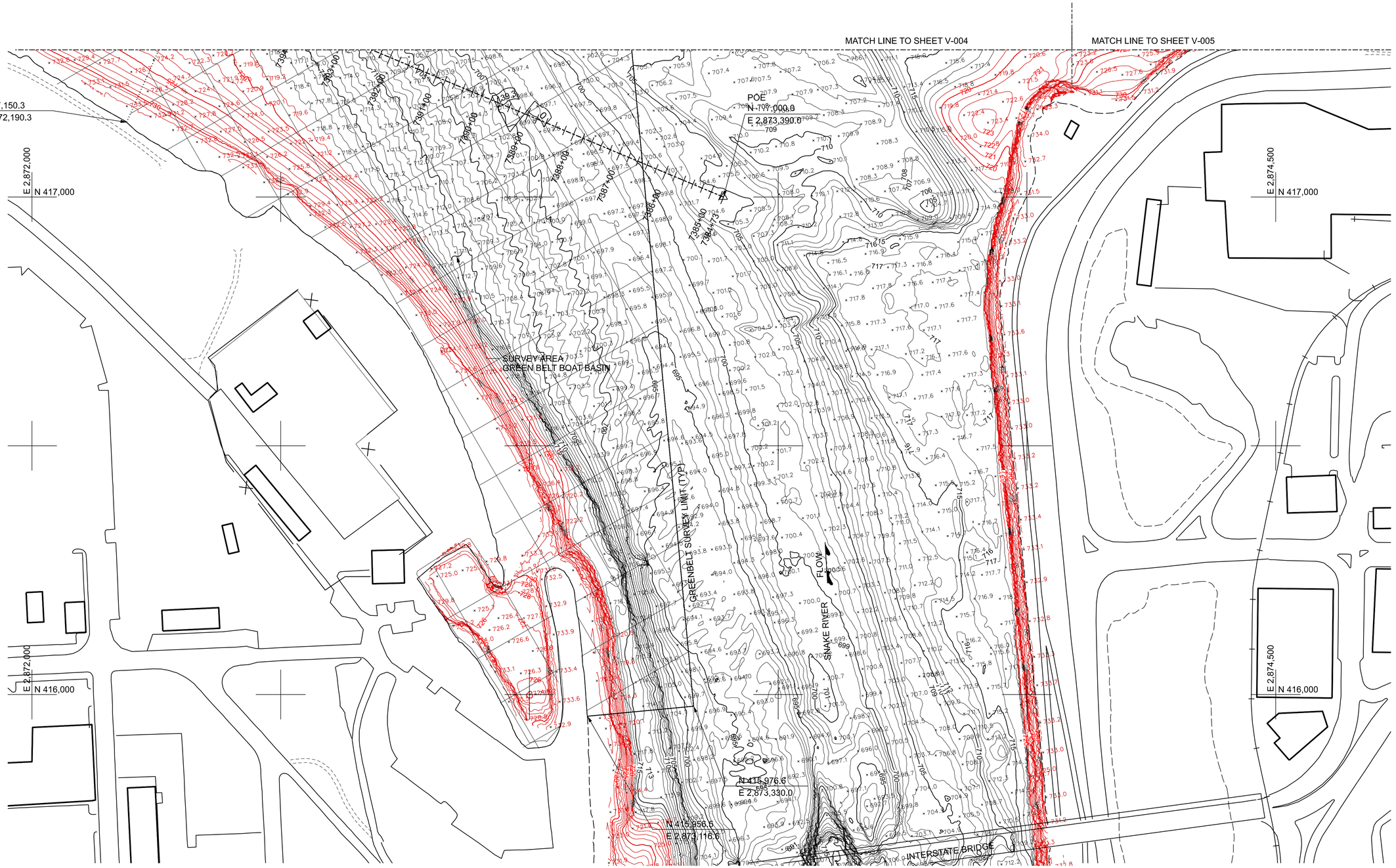
SNAKE RIVER AND CLEARWATER RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID
V-107

DATE AND TIME PLOTTED: 1/6/2020

DESIGN FILE: L:\Z_surveys\00Hydro_Condition\2019_Hydro_Condition\25Nov2019_Revised Submittals\Nav Condition Surveys\Drawings and Bathymetry\Confluence\Drawings Bentley Opensite\LLConfV-107---.dgn



SNAKE AND CLEARWATER CONFLUENCE

0' 100' 200'
SCALE IN FEET

NOTES:

1. HORIZONTAL DATUM IS NAD27, PROJECTION IS WASHINGTON STATE PLANE SOUTH, VERTICAL DATUM IS NGVD29. ALL UNITS ARE IN U.S. SURVEY FEET.
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SNAKE RIVER AND CLEARWATER
RIVER CONFLUENCE
MULTI-BEAM BATHYMETRIC SURVEY

SHEET ID
V-108

DATE AND TIME PLOTTED: 1/6/2020

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