

Navigation Protection Program (NPP)
820-800 Burrard Street
Vancouver BC
V6Z 2J8

Our file: **2022-508312**
Registry number: **6961**

APPROVAL

OWNER: **BC Hydro and Power Authority**
13th Floor, 333 Dunsmuir Street
Vancouver, BC
V6B 5R3

SITE LOCATION: **Located over Peace River, approximately at 56° 11' 22.59" N, 120° 52' 26.4" W, located on unsurveyed foreshore or land covered by water being part of the bed of Peace River, remainder of Theoretical unsurveyed Crown land south 1/2 of Section 14, Township 83, Range 19, West of the 6th Meridian, Peace River District; and the unconstructed Road Allowance between remainder of Theoretical unsurveyed Crown Land south 1/2 of Section 14, Township 83, Range 19, West of the 6th Meridian, Peace River District; and remainder of Theoretical unsurveyed Crown Land of the fractional south 1/2 of Section 13, Township 83, Range 19, West of the 6th, Meridian Peace River District, in Fort Saint John, in the Province of British Columbia.**

WORK:

- **Bridge**

As per the application (detailed above) to the Minister of Transport, submitted pursuant to the *Canadian Navigable Waters Act*, for an approval of the work per the attached five (5) plans, the Minister hereby approves the work pursuant to subsection 7(6) for the construction of the above mentioned work, in accordance with the following terms and conditions:

1. CNWA Approval and its Terms and Conditions shall be posted at an easily accessible place at the worksite.
2. In the event that the operation of the above works is terminated, it will be the proponent's responsibility to remove the works and associated equipment in its entirety.
3. Construction equipment used in conjunction with this project shall be stored in such a manner that it does not obstruct navigation.
4. Equipment used in construction must not prevent vessels from navigating past the work site.
5. Visual watch shall be maintained for vessels while lifting components over the navigation channel.
6. Construction machinery left in the water during darkness or limited visibility shall be marked with a flashing yellow light, visible to upstream and downstream traffic.
7. Any construction equipment anchored or left in or on the waterway shall be marked with a yellow flashing light placed on the outermost extremity if left overnight.
8. Upon completion of the temporary bridge, yellow retro-reflective material shall be placed at the centre point of the bridge on both the upstream and downstream sides.

Our file: **2022-508312**
Registry number: **6961**

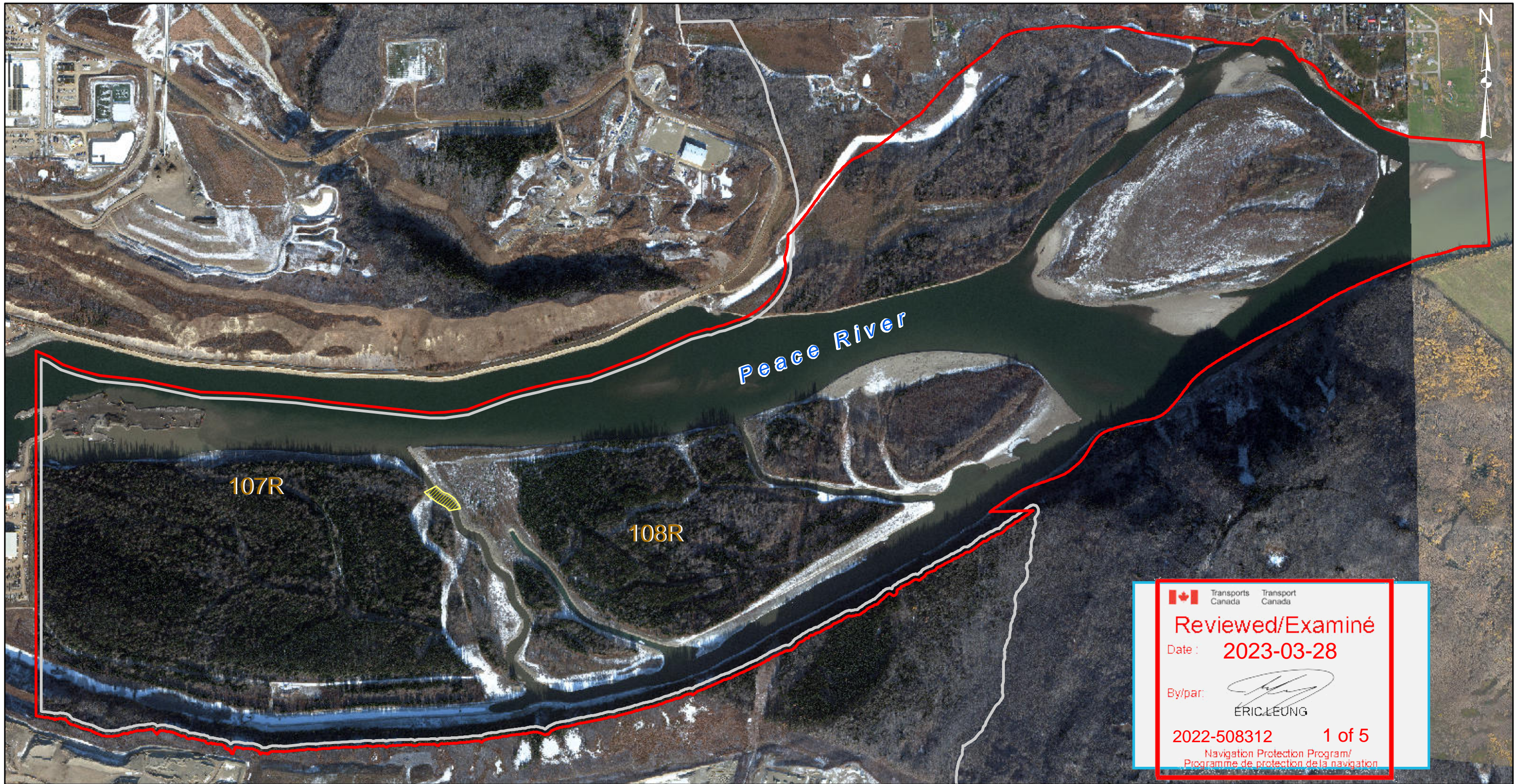
9. The owner shall conduct an Airborne LIDAR survey of the reservoir area post construction and clearing, but prior to the filling of the reservoir. This survey shall be the basis for mapping of the reservoir for boating.

SIGNED ON APRIL 12, 2023
at the NPP regional office of Pacific

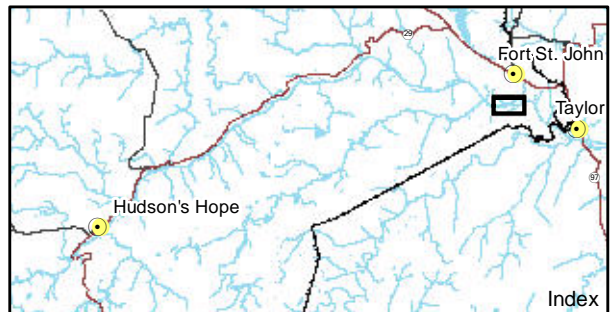


Leung, Eric
2023.04.12
09:09:16
-07'00'

Eric Leung
NPP Officer
Programs Group
Transport Canada
Pacific Region
For the Minister of Transport



	Transports Canada	Transport Canada
Reviewed/Examiné		
Date : 2023-03-28		
By/par: ÉRIC LEUNG		
2022-508312		1 of 5
Navigation Protection Program/ Programme de protection de la navigation		



Map Notes:
 1. Datum: NAD83
 2. Projection: UTM Zone 10N
 3. Imagery: Satellite imagery acquired by PhotoSat 24 Oct 2020;
 LiDAR orthophotos acquired Sept 2019

- Legend**
- Dam Site Licence of Occupation
 - Licence of Occupation
 - Approximate Location of 108R_Temporary_Crossing

1:12,000 0 500 m

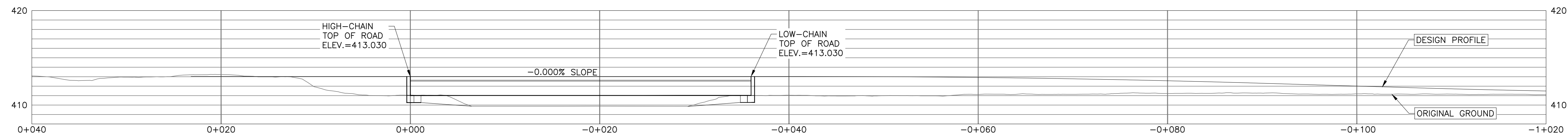
Site C Peace River Temporary Crossing for 108R Fish Habitat Enhancement Canadian Navigable Waters Act Approval Application Detail Map			
Date	Dec 15, 2022	DWG NO	1016-N11-01669
			R 0

DRAFT - FOR DISCUSSION PURPOSES ONLY - CONFIDENTIAL

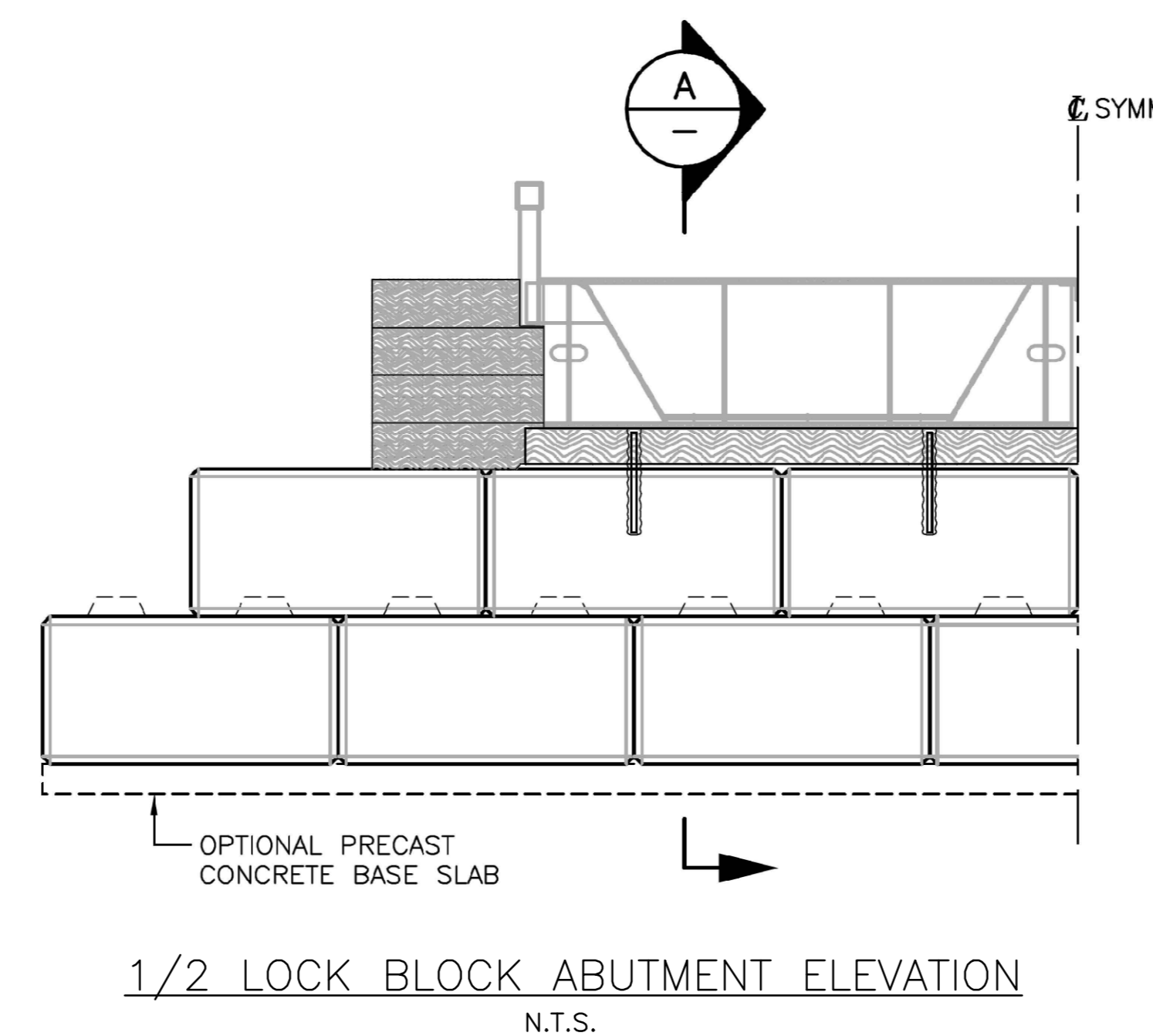
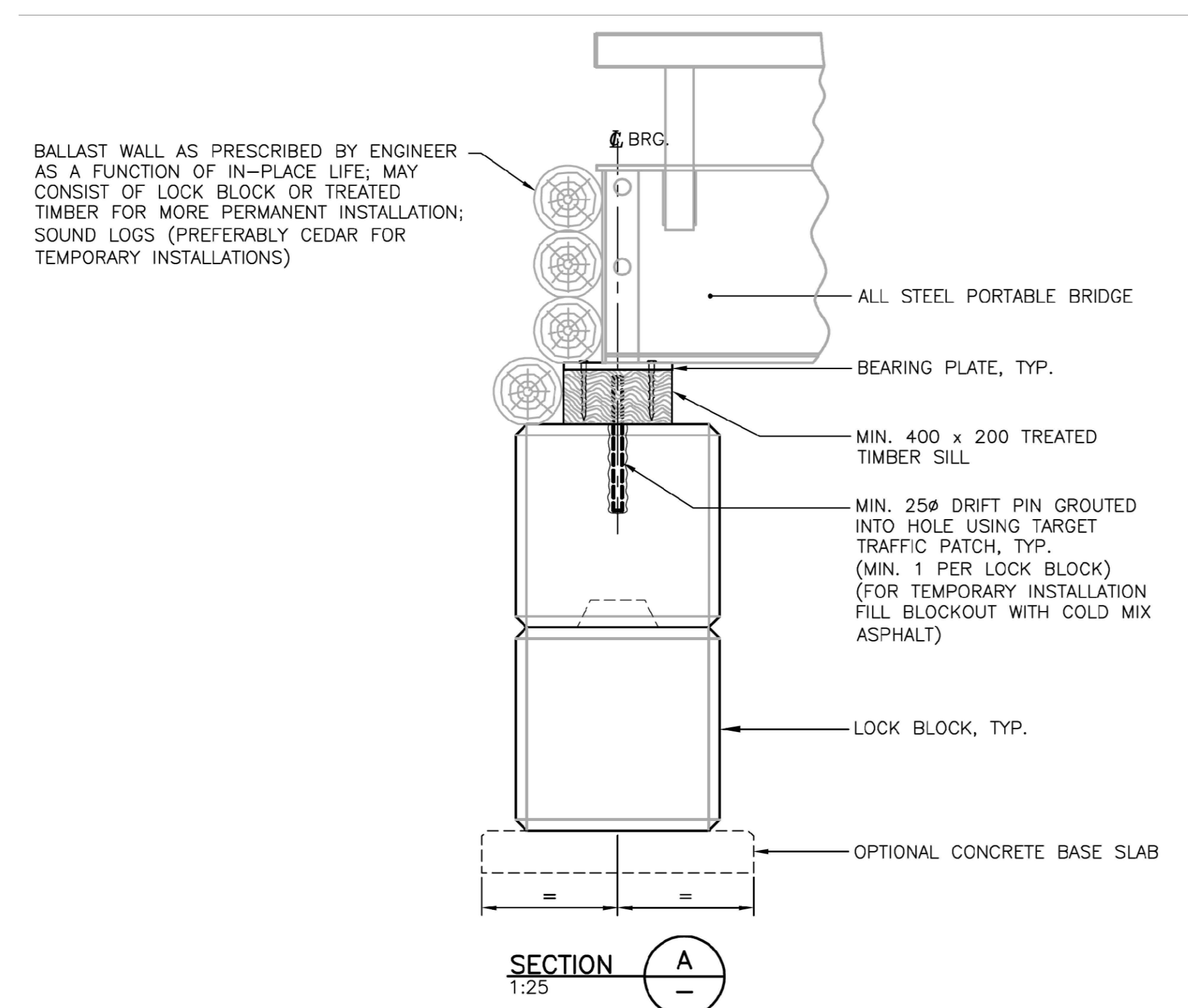
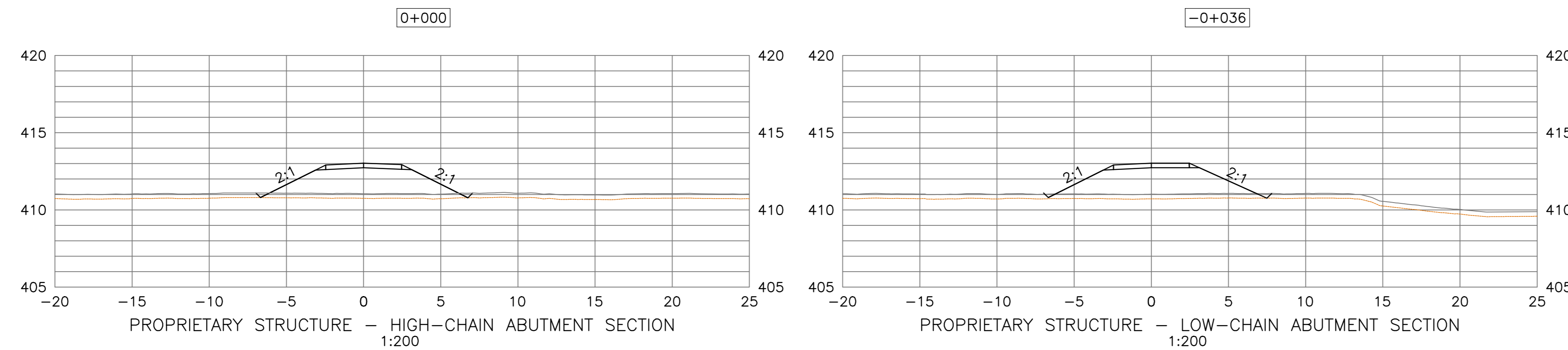
Construction of the Site C Clean Energy Project is subject to required regulatory and permitting approvals.

Path: X:\ArcGIS\Projects\Permitting\Federal_Permits\New\ProAct\CNWA_Approval for Crossing_108R_w_1016-N11-01669.mxd

© BC Hydro 2022 - all rights reserved. This map is for information purposes only and accuracy is not guaranteed.

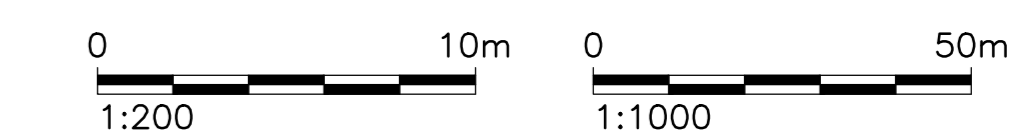


PROFILE - PROPRIETARY STRUCTURE
1:200



ISSUED FOR CONCEPT ONLY

NOT FOR CONSTRUCTION

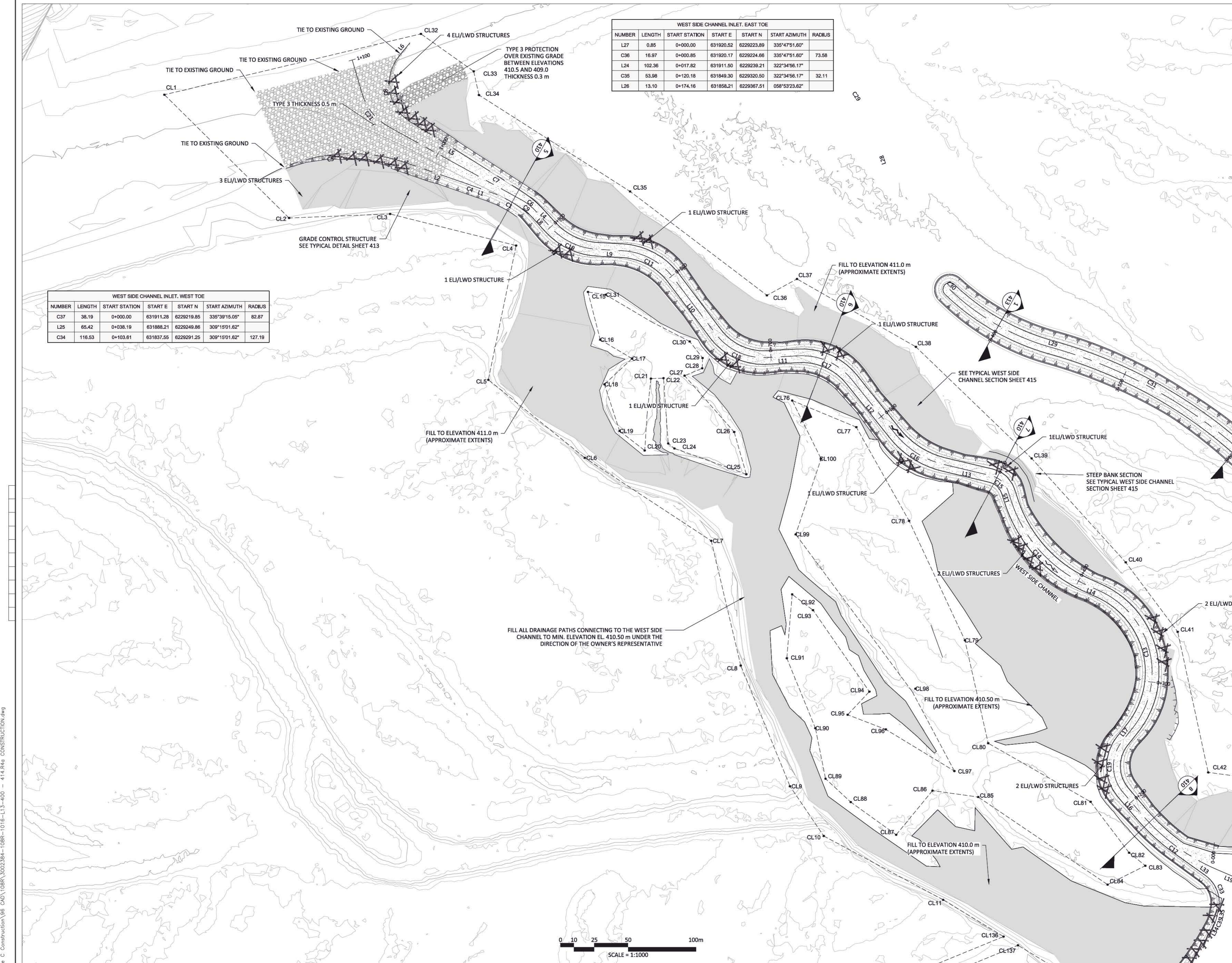


THE SEAL AND SIGNATURE OF THE UNDERSIGNED ON THIS DOCUMENT ONLY CERTIFIES THAT THE ACCURACY AND COMPLETENESS OF THE DESIGN/INFORMATION IN THE DOCUMENT IS APPROPRIATE FOR THE TENDER STAGE OF THE PROJECT, AND THE STATE OF COMPLETION OF THE DOCUMENT REFLECTS THAT LIMITED USE. THE UNDERSIGNED DOES NOT INTEND, WARRANT OR GUARANTEE, NOR ACCEPT ANY RESPONSIBILITY FOR, THE USE OF THESE DOCUMENTS FOR ANY PURPOSES OTHER THAN THE TENDERING PROCESS.

DSGN INDEP CHK DFTG DFTG CHK INSP CIV STR MECH GEO ELEC REV ACPT		CLEAN ENERGY PROJECT - SITE C ROADS - SOUTH BANK P3, P5 AND P8 HAUL ROADS PROPRIETARY STRUCTURE PROFILE AND SECTIONS	
DATE	DIST	DWG NO	SIZE
		1020-C09-06209	A0 0

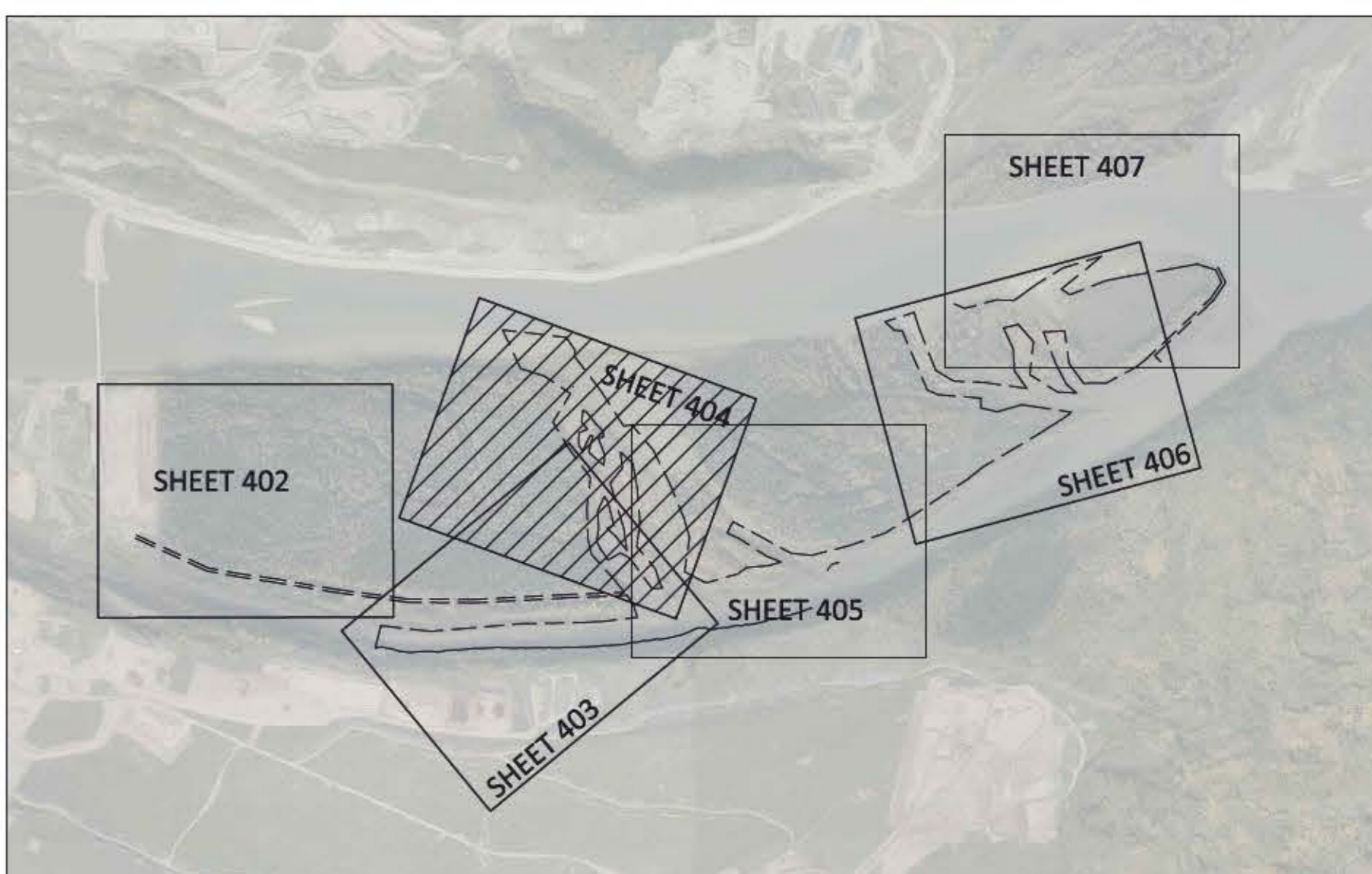
D:\BC Hydro Site C\Design Drawings\PS P3 Access Road\1020-C09-06209.dwg 1/2/2022 1:06:30

REF#	DRAWING NUMBER	TITLE	REF#	DRAWING NUMBER	TITLE	NO	REMARKS	DATE	DESIGNED	INDEP CHK	DFTG	DFTG CHK	INSP CIV	INSP STR	INSP MECH	INSP GEO	INSP ELEC	REV	ACPT
REFERENCE DRAWINGS			REFERENCE DRAWINGS			REVISIONS													



NUMBER	LENGTH	START STATION	START E	START N	START AZIMUTH	RADIUS
L27	0.85	0+000.00	631920.52	622923.89	335°47'51.60"	
C36	16.97	0+000.85	631920.17	622924.66	335°47'51.60"	73.58
L24	102.36	0+017.82	631911.50	622929.21	322°34'56.17"	
C35	53.98	0+120.18	631849.30	622930.50	322°34'56.17"	32.11
L26	13.10	0+174.16	631858.21	622936.51	056°53'23.62"	

NUMBER	LENGTH	START STATION	START E	START N	START AZIMUTH	RADIUS
C37	38.19	0+000.00	631911.28	6229219.85	335°39'15.05"	82.87
L25	65.42	0+036.19	631888.21	6229249.86	309°15'01.62"	
C34	116.53	0+103.61	631837.55	6229291.25	309°15'01.62"	127.19



KEY PLAN
1:17500

NUMBER	LENGTH	START STATION	START E	START N	START AZIMUTH	RADIUS
L18	93.81	0+000.00	632309.07	6228517.92	311°26'45.18"	
C20	3.18	0+093.81	632238.76	6228580.02	311°26'45.18"	107.78
L19	21.48	0+096.99	632236.40	6228582.16	313°08'20.63"	
C12	70.09	0+118.47	632220.73	6228596.84	313°08'20.63"	151.98
L16	20.85	0+188.55	632182.24	6228654.67	339°33'41.76"	
C19	40.91	0+208.40	632174.96	6228674.21	339°33'41.76"	29.69
L17	12.56	0+250.31	632187.27	6228709.89	058°29'32.30"	
C13	119.93	0+262.87	632197.98	6228716.46	058°29'32.30"	65.98
L14	10.82	0+382.80	632209.59	6228819.89	314°19'10.54"	
C14	84.78	0+393.62	632201.84	6228827.45	314°19'10.54"	102.54
L15	8.82	0+478.41	632170.99	6228903.84	001°41'36.46"	
C15	17.40	0+486.93	632171.24	6228912.38	001°41'36.46"	17.08
L13	35.88	0+504.33	632163.55	6228927.13	303°17'32.44"	
C16	43.60	0+540.21	632133.05	6228946.63	303°17'32.44"	65.72
L12	51.01	0+583.81	632107.38	6228980.70	341°18'05.77"	
C17	44.77	0+634.82	632091.02	6229029.01	341°18'05.77"	47.14
L11	23.43	0+679.59	632060.06	6229059.01	286°53'09.21"	
C18	43.54	0+703.03	632037.64	6229065.82	286°53'09.21"	44.50
L10	51.84	0+746.57	632008.02	6229096.35	342°57'11.81"	
C11	43.92	0+798.21	631992.88	6229144.72	342°57'11.81"	50.58
L9	18.73	0+842.13	631964.45	6229176.38	293°11'33.51"	
C10	38.18	0+860.86	631947.24	6229183.76	293°11'33.51"	50.63
L8	16.35	0+900.03	631920.39	6229210.94	337°31'38.27"	
C9	12.94	0+916.39	631914.14	6229226.05	337°31'38.27"	39.65
C21	32.02	1+041.37	631833.99	6229321.35	318°49'51.24"	41.13



LEGEND:

- CHANNEL CENTRELINE
- - - CUT SLOPE
- ▨ TYPE '1' MATERIAL
- ▩ TYPE '2' MATERIAL
- ▧ TYPE '3' MATERIAL
- CL CLEARING LIMITS
- ✕ WP WORK POINT

- NOTE:
- BATHYMETRIC SURVEY IN WORK AREA BY NHC, 2015 & 2017. TOPOGRAPHIC SUPPLEMENTED WITH BC HYDRO LIDAR (2013). BATHYMETRIC SURVEY OUTSIDE OF NHC 2015 SUPPLEMENTED WITH KNIGHT PIESOLD (2011).
 - ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
 - ALL ELEVATIONS ARE ORTHOMETRIC WITH VERTICAL DATUM CGVD28.
 - ALL SLOPES 2H:1V UNLESS OTHERWISE NOTED.
 - DRAWINGS TO BE READ IN CONJUNCTION WITH CONSTRUCTION SPECIFICATIONS.
 - SEE SHEET 1016-L13-415 FOR CLEARING LIMIT WORK POINTS.

SITE C CLEAN ENERGY PROJECT
GENERAL PLANT
FISH HABITAT MITIGATION
DOWNSTREAM - SITE 108R
2018 CONSTRUCTION
WEST SIDE CHANNEL PLAN - STA. 0+000 TO STA. 1+102

DSGN	AMB
INDEP CHK	BMC
DFTG	CZZ
DFTG CHK	AMB
INSP	
CIV	STR
MECH	GEO
ELEC	

DATE: 14 NOV 2019

DIST: DWG NO: 1016-L13-404

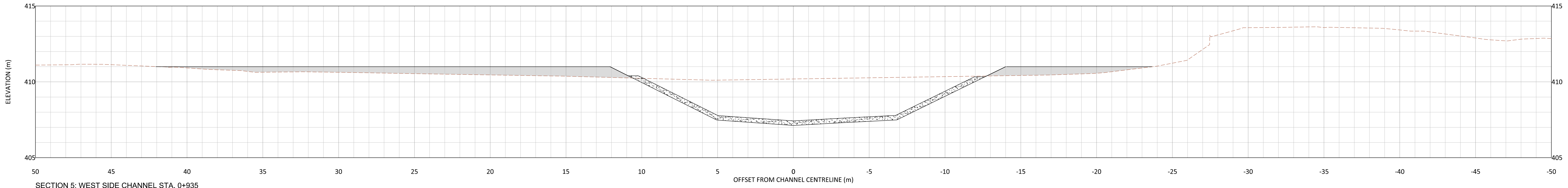
SIZE: A

R: 4

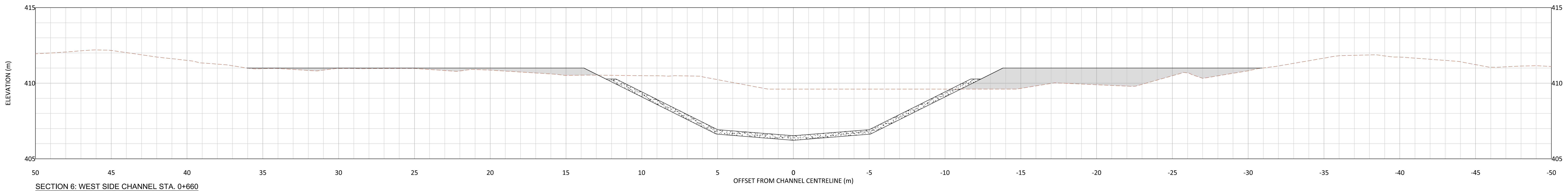
REF#	DRAWING NUMBER	TITLE	REF#	DRAWING NUMBER	TITLE

NO	REVISIONS	DATE	DESIGNED	INSP	DFTG	INSP	INSP	INSP	INSP	INSP	REV	ACPT
4	ISSUED FOR CONSTRUCTION	14 NOV 2019	A. BLEZY	BMC	CZZ	AMB						
3	ISSUED FOR CONSTRUCTION	29 MAR 2019	A. BLEZY	BMC	CZZ	AMB						
2	ISSUED FOR CONSTRUCTION	12 JAN 2018	A. BLEZY	BMC	PRF	AMB						

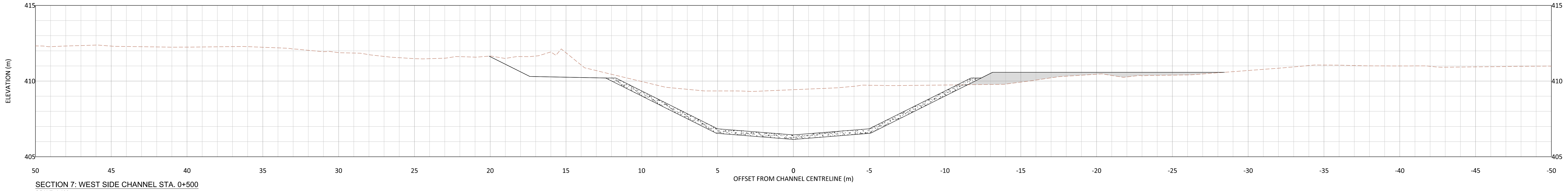
C:\Users\jblezy\OneDrive\Documents\Projects\1016-L13-400 - 414-R4g CONSTRUCTION.dwg
 2019-11-14 10:42 AM



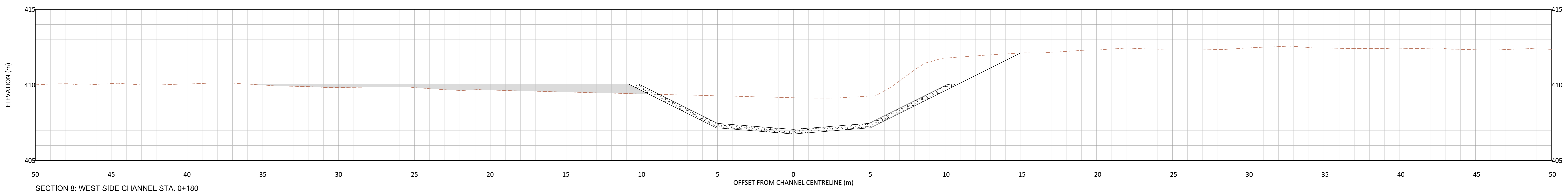
SECTION 5: WEST SIDE CHANNEL STA. 0+935
SCALE: 1:100



SECTION 6: WEST SIDE CHANNEL STA. 0+660
SCALE: 1:100



SECTION 7: WEST SIDE CHANNEL STA. 0+500
SCALE: 1:100



SECTION 8: WEST SIDE CHANNEL STA. 0+180
SCALE: 1:100

Reviewed/Examiné
Date: 2023-03-28
By: [Signature]
ÉRIC LÉVESQUE
2022-508312 4 of 5
Assessment Protection Program /
Programme de protection des milieux

LEGEND:

- EXISTING GROUND
- PROPOSED GROUND
- TYPE '1' MATERIAL
- ▨ TYPE '2' MATERIAL
- ▩ TYPE '3' MATERIAL

C:\Users\jblaw\OneDrive\Documents\Projects\1088\1088-1018-113-400 - 414-R40 CONSTRUCTION.dwg
 2/27/2019 2:42 PM

REF#	DRAWING NUMBER	TITLE	REF#	DRAWING NUMBER	TITLE
		REFERENCE DRAWINGS			REFERENCE DRAWINGS

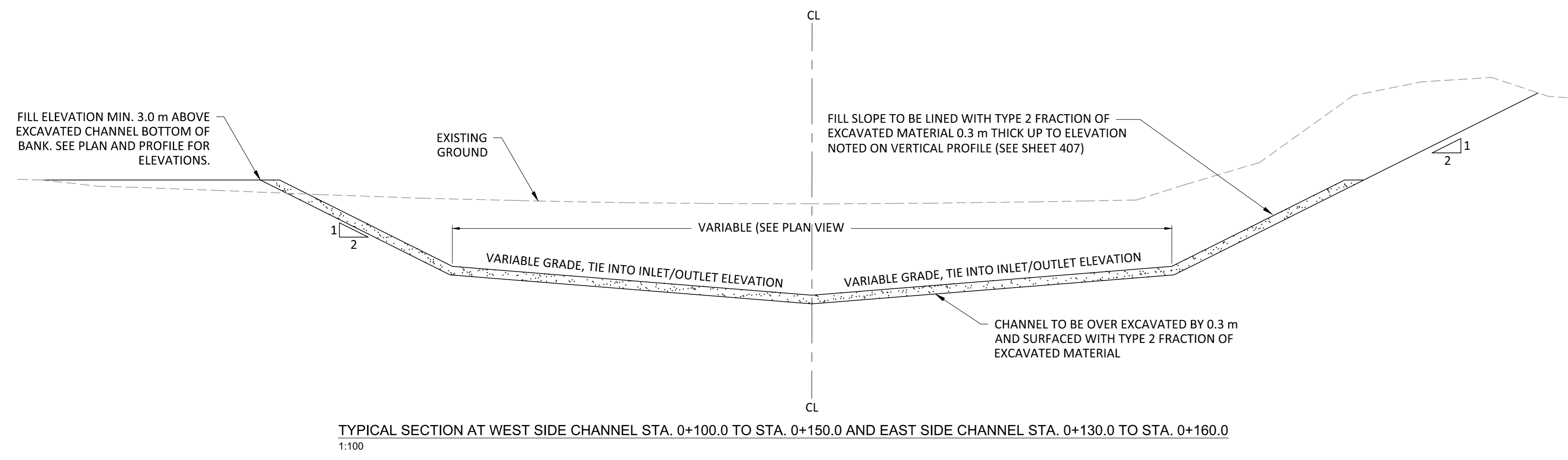
NO	REMARKS	DATE	DESIGNED	INSP	DFTG	INSP	INSP	INSP	INSP	INSP	INSP	REV	ACPT
4	ISSUED FOR CONSTRUCTION	14 NOV 2019	A. BLEZY	BMC	CZZ	AMB							
3	ISSUED FOR CONSTRUCTION	29 MAR 2019	A. BLEZY	BMC	CZZ	AMB							
2	ISSUED FOR CONSTRUCTION	12 JAN 2018	A. BLEZY	BMC	PRF	AMB							

DSGN	AMB
INDEP CHK	BMC
DFTG	CZZ
DFTG CHK	AMB
INSP	
REV	A. BLEZY
ACPT	B. CHILIBECK

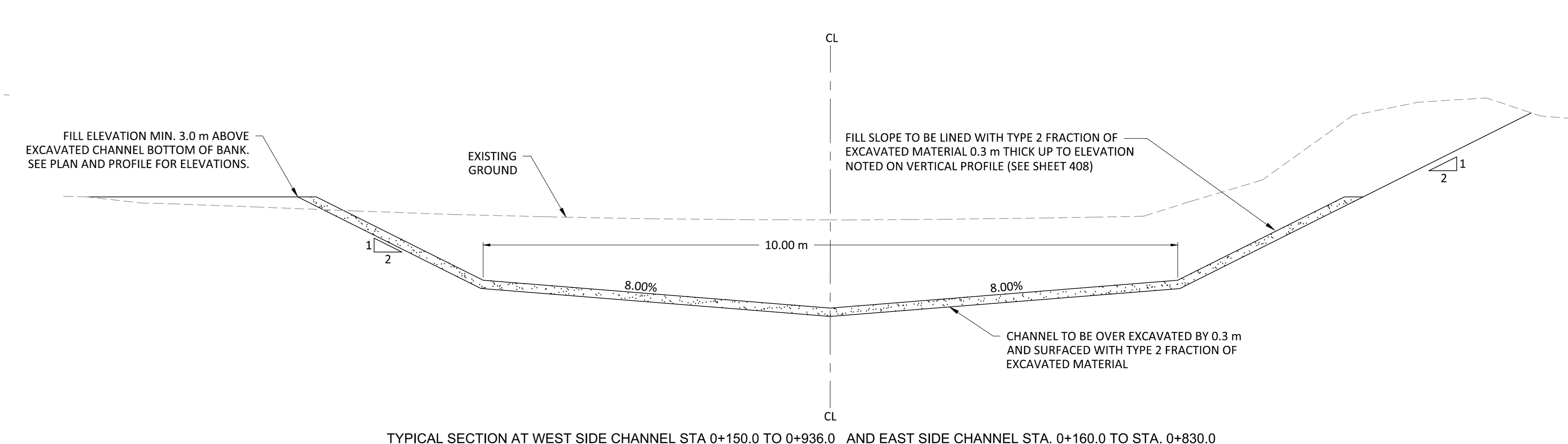


SITE C CLEAN ENERGY PROJECT
GENERAL PLANT
FISH HABITAT MITIGATION
DOWNSTREAM - SITE 108R
2018 CONSTRUCTION
WEST SIDE CHANNEL SECTIONS

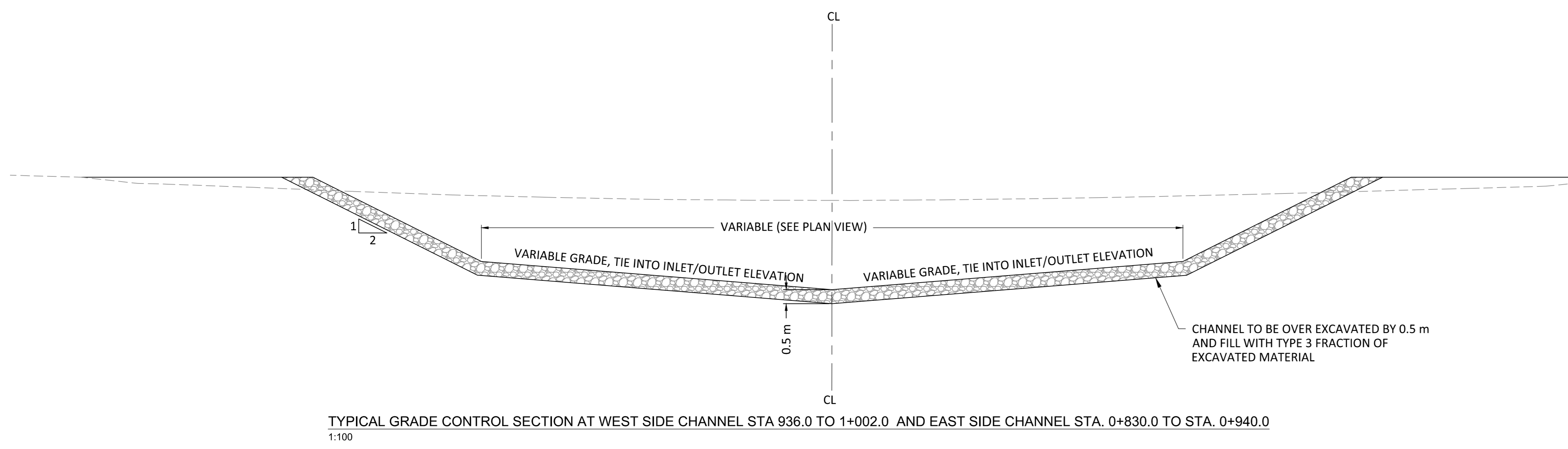
DATE: 14 NOV 2019
 DIST: 1016-L13-410
 DWG NO: 1016-L13-410
 SIZE: A0
 R: 4



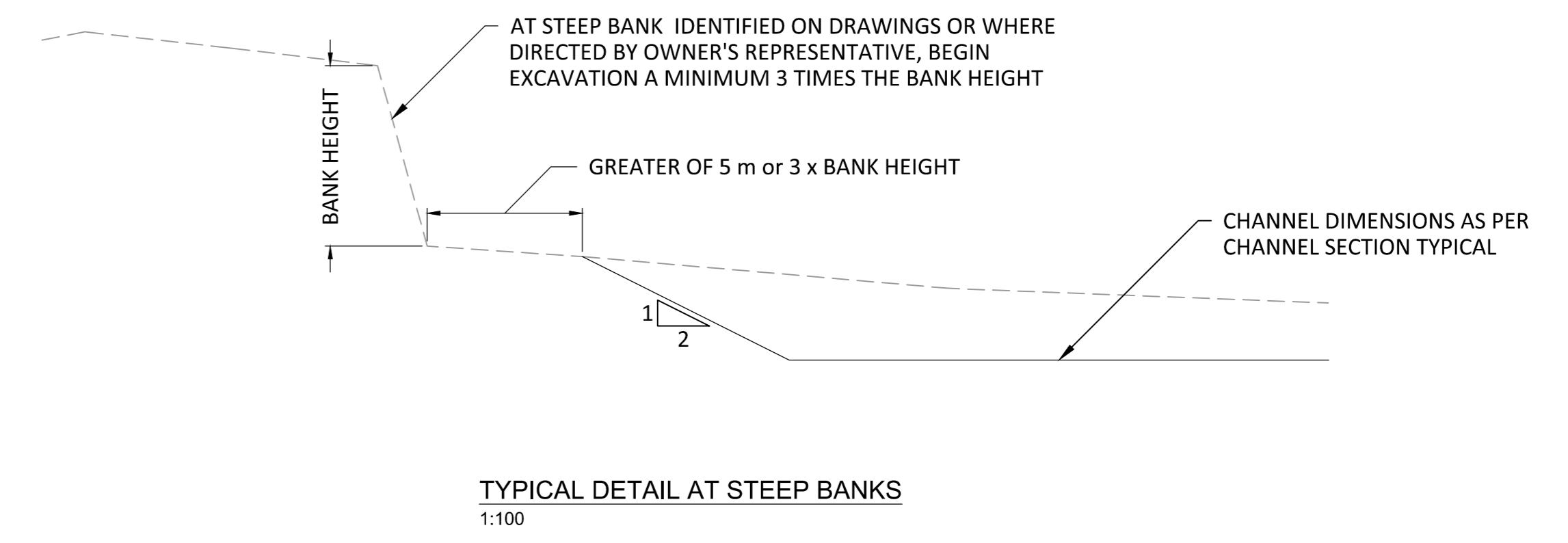
TYPICAL SECTION AT WEST SIDE CHANNEL STA. 0+100.0 TO STA. 0+150.0 AND EAST SIDE CHANNEL STA. 0+130.0 TO STA. 0+160.0
1:100



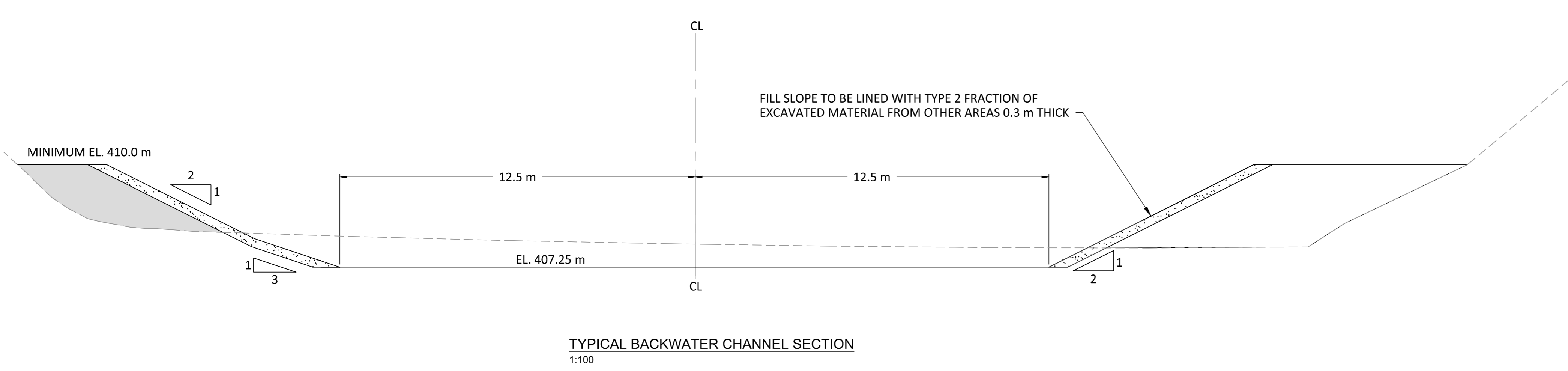
TYPICAL SECTION AT WEST SIDE CHANNEL STA. 0+150.0 TO STA. 0+936.0 AND EAST SIDE CHANNEL STA. 0+160.0 TO STA. 0+830.0
1:100



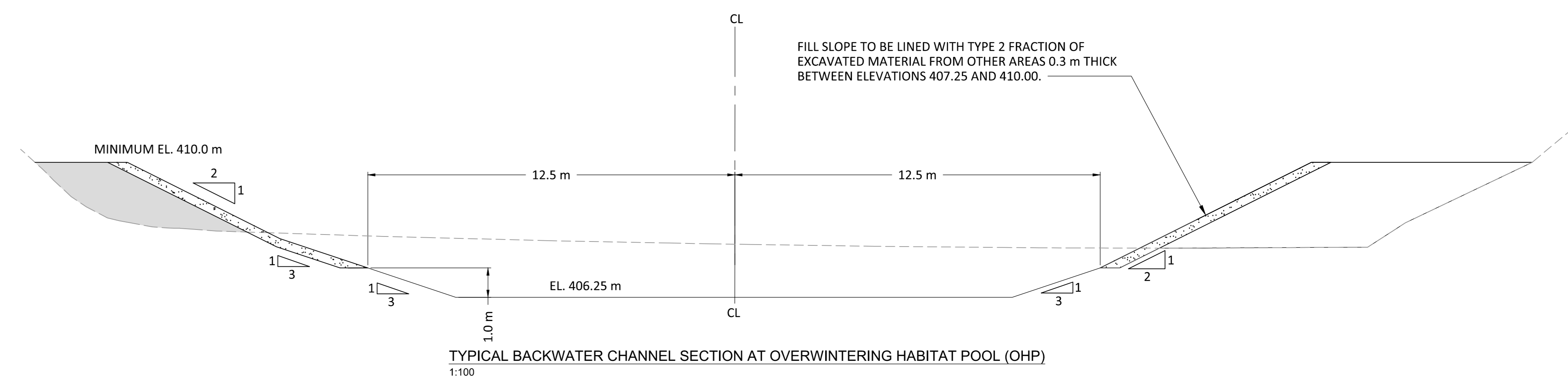
TYPICAL GRADE CONTROL SECTION AT WEST SIDE CHANNEL STA. 936.0 TO STA. 1+002.0 AND EAST SIDE CHANNEL STA. 0+830.0 TO STA. 0+940.0
1:100



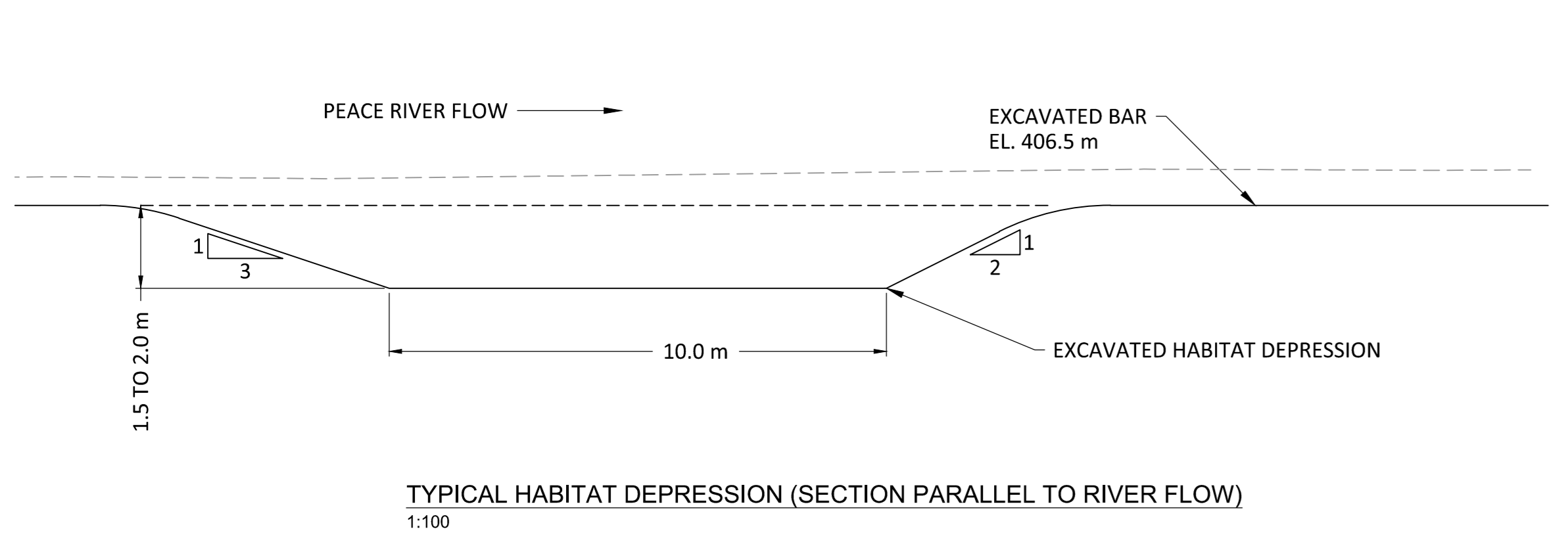
TYPICAL DETAIL AT STEEP BANKS
1:100



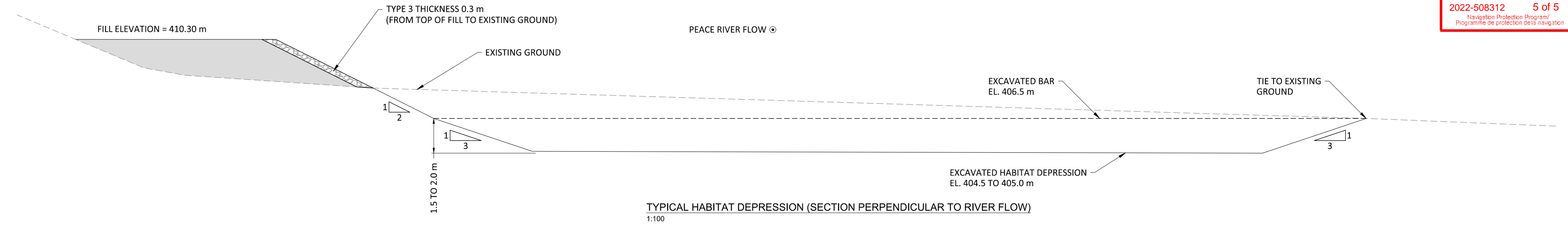
TYPICAL BACKWATER CHANNEL SECTION
1:100



TYPICAL BACKWATER CHANNEL SECTION AT OVERWINTERING HABITAT POOL (OHP)
1:100



TYPICAL HABITAT DEPRESSION (SECTION PARALLEL TO RIVER FLOW)
1:100



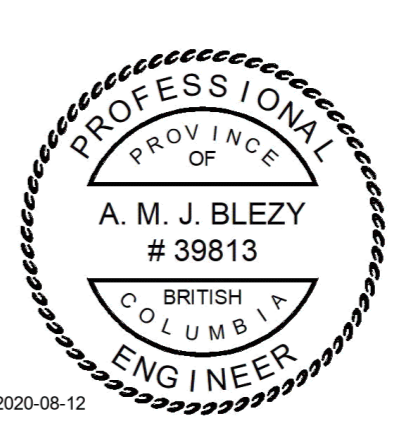
TYPICAL HABITAT DEPRESSION (SECTION PERPENDICULAR TO RIVER FLOW)
1:100



LEGEND:

---	EXISTING GROUND		TYPE '2' MATERIAL
---	PROPOSED GROUND		TYPE '3' MATERIAL
---	TYPE '1' MATERIAL		

DSGN	AMB
INDEP CHK	BMC
DFTG CHK	CZZ
DFTG CHK	AMB
INSP	
CIV	
STR	
MECH	
GEO	
ELEC	
REV	
ACPT	
REV	A. BLEZY
ACPT	B. CHILIBECK
DATE	14 NOV 2019
DIST	
DWG NO	1016-L13-415



nhc northwest hydraulic consultants

BChydro

SITE C CLEAN ENERGY PROJECT

GENERAL PLANT

FISH HABITAT MITIGATION

DOWNSTREAM - SITE 108R

2018 CONSTRUCTION

TYPICAL SECTIONS

DATE: 14 NOV 2019

DIST:

DWG NO: 1016-L13-415

SIZE: A0

R: 4

\\nrc\file\work\Projects\108R\108R-1016-L13-400 - 414-R40 CONSTRUCTION.dwg
 C:\Users\zhuo\OneDrive\Documents\108R-1016-L13-400 - 414-R40 CONSTRUCTION.dwg
 2023/03/28 09:54:28 PM