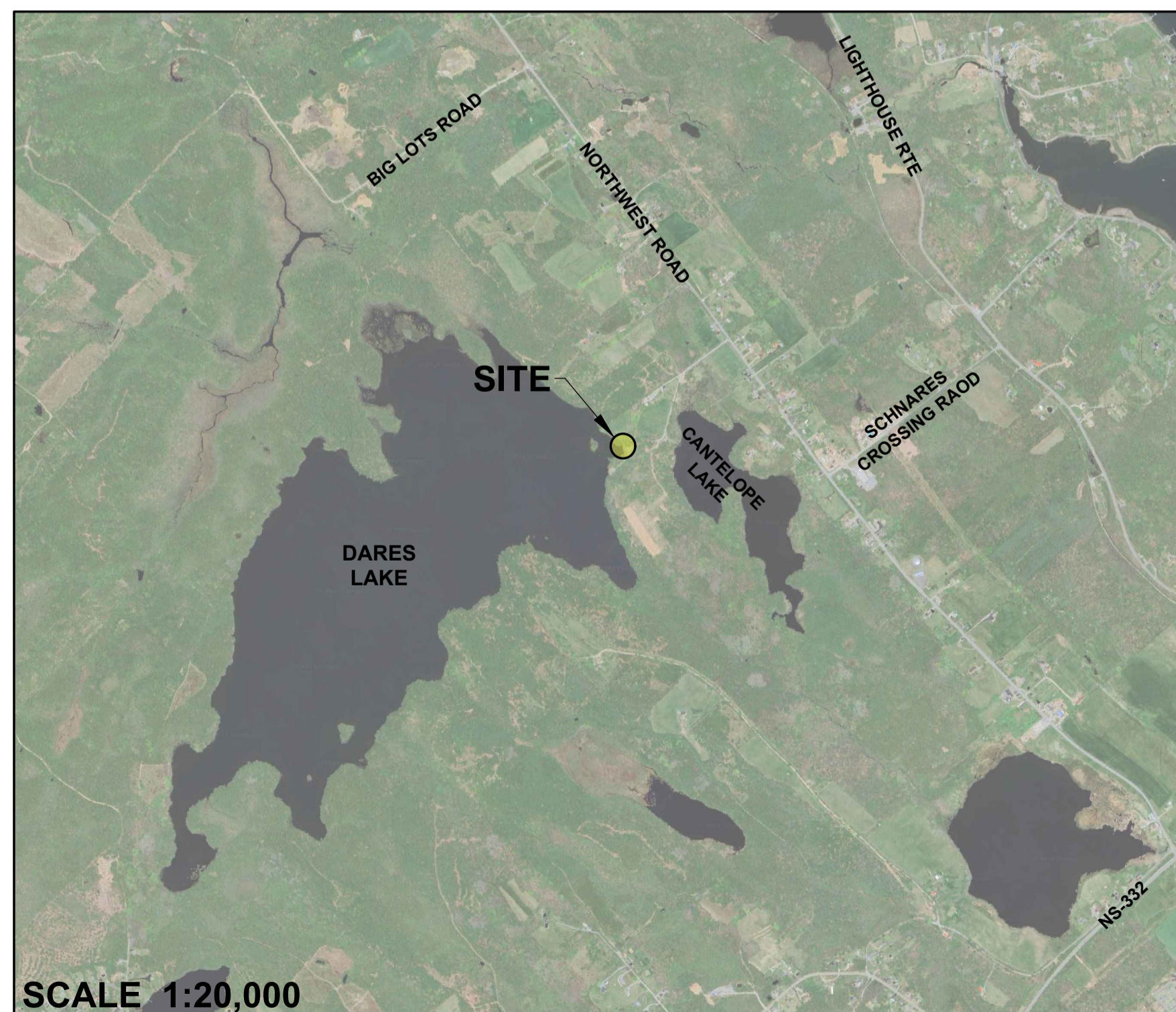


DARES LAKE DAM AND SPILLWAY

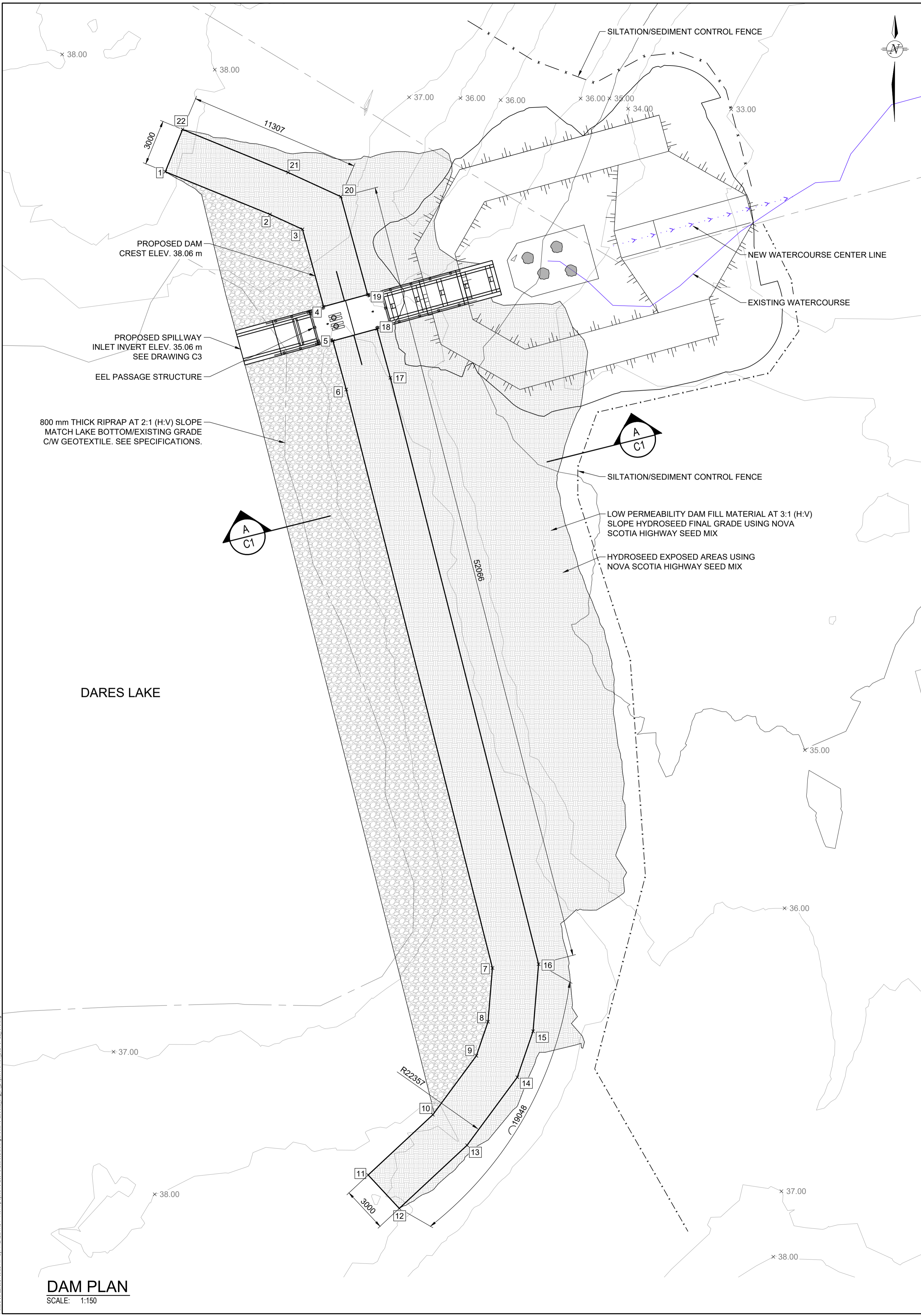
UPGRADES AND EEL PASSAGE

LUNENBURG, NS



DRAWINGS INDEX	
C1	PROJECT OVERVIEW
C2	DISSIPATION POOL PLAN AND SECTIONS
C3	SPILLWAY PLAN AND SECTION VIEW
C4	SPILLWAY SECTIONS AND DETAILS
C5	EEL PASSAGE STRUCTURE PLAN AND DETAILS
C6	EEL PASSAGE SECTIONS AND DETAILS
C7	MISCELLANEOUS DETAILS

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DAM PLAN
SCALE: 1:150

DAM WAYPOINTS		
WAYPOINT	NORTHING, m	EASTING, m
1	4917266.6736	391535.7879
2	4917263.8727	391542.6678
3	4917262.8931	391544.8034
4	4917257.8145	391546.1919
5	4917255.5603	391546.8081
6	4917252.3708	391547.6801
7	4917214.3660	391557.2907
8	4917210.8302	391557.0001
9	4917208.6000	391556.2358
10	4917204.7267	391553.3746
11	4917200.7667	391549.1209
12	4917198.5709	391551.1651
13	4917202.7205	391555.6223
14	4917207.1896	391558.9237
15	4917210.2115	391559.9594
16	4917214.6177	391560.3215
17	4917253.1341	391550.5815
18	4917256.3514	391549.7020
19	4917258.6057	391549.0856
20	4917265.0358	391547.3276
21	4917266.6267	391543.8594
22	4917269.4521	391536.9191

- DAM RAISE NOTES:**
- RAISE DAM USING IN-SITU OR IMPORTED MATERIAL WITH A MINIMUM OF 55% PASSING 75 MICRON SIEVE BY WEIGHT, AND COMPACTED TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698. COMPACTION OF FILL MATERIAL MUST FOLLOW DIV. 2 SEC. 8 OF NOVA SCOTIA STANDARD SPECIFICATION (HEREINAFTER REFERRED TO AS "THE SPECIFICATION"). MATERIAL MUST BE APPROVED BY ENGINEER PRIOR TO PLACEMENT.
 - TYPE 1 RIP-RAP SHALL BE PLACED IN ACCORDANCE WITH DIV. 3 SEC. 6 OF THE SPECIFICATION AND SHALL BE AT LEAST 800 mm THICK MEASURED PERPENDICULAR TO THE PREPARED SURFACE. THE RIP-RAP MUST BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT AND SHALL FOLLOW THE FOLLOWING GRADING LIMITS:

MASS (kg)	SIZE* (mm)	FINER BY MASS (%)
300	600	100
200	530	70 - 90
100	420	40 - 55
10	190	0 - 15
- HYDROSEED MIX SHALL CONSIST OF THE *Nova Scotia Highway Seed Mix*, AND SHALL BE SUPPLIED AND APPLIED ACCORDING TO DIV. 7 SEC. 5 OF THE SPECIFICATION.

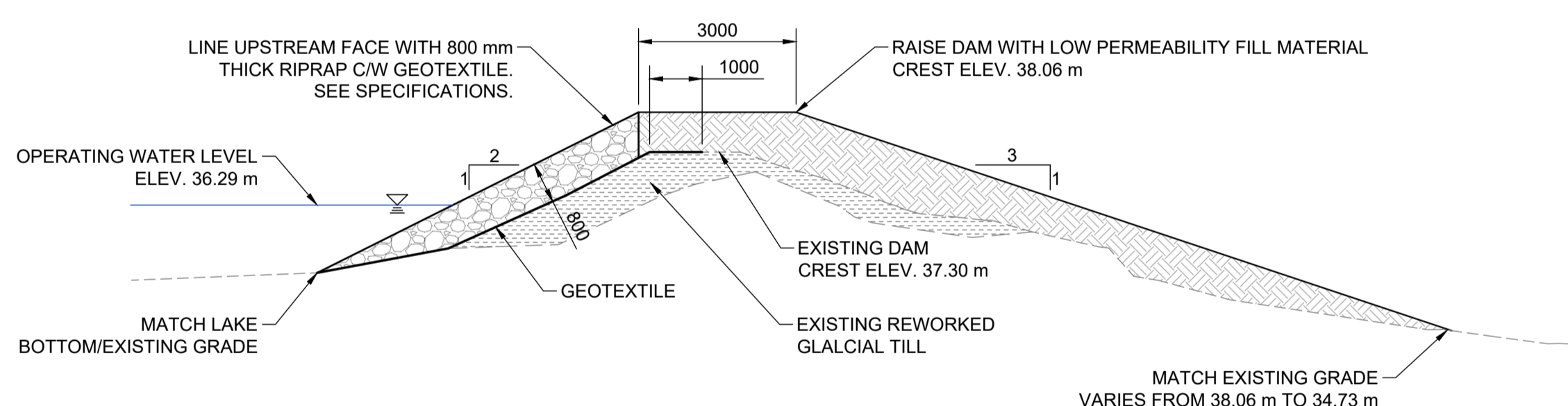
- DISSIPATION POOL NOTES:**
- DISSIPATION POOL SHALL BE CONSTRUCTED OF A ROCK MIXTURE CONSISTING OF RIP-RAP AT LEAST 1100 mm THICK MEASURED PERPENDICULAR TO THE PREPARED SURFACE AND THE APPROPRIATE AMOUNT OF FINES TO ENSURE WATER WILL NOT BE LOST THROUGH INTERSTITIAL SPACING.

MASS (kg)	SIZE* (mm)	FINER BY MASS (%)
750	820	100
500	710	70 - 90
250	570	40 - 55
25	260	0 - 15
 - DISSIPATION POOL TYPE 2 MIXED RIP-RAP MUST BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT AND SHALL CONFORM TO THE FOLLOWING GRADING LIMITS:

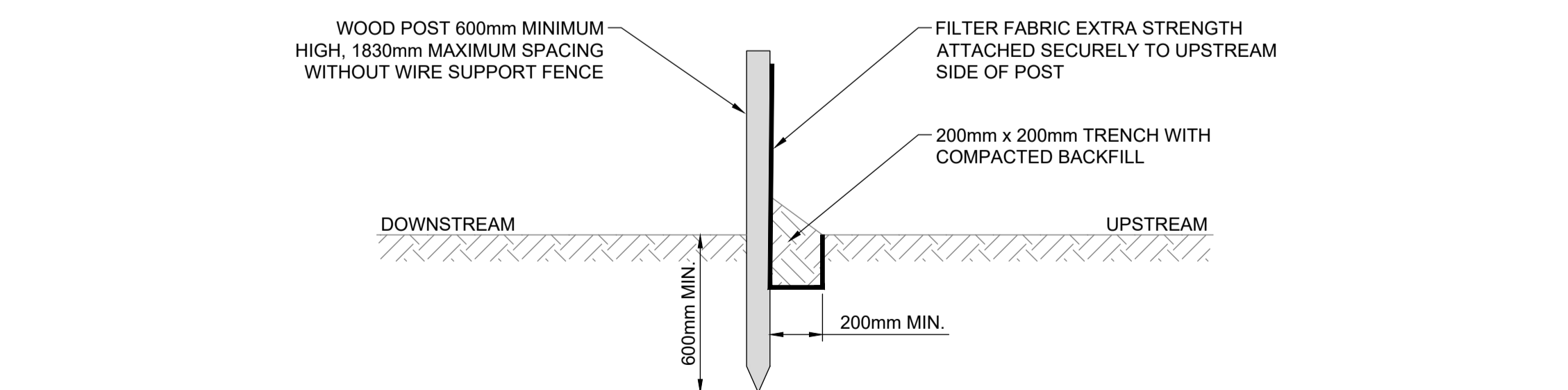
MASS (kg)	SIZE* (mm)	FINER BY MASS (%)
750	820	100
500	710	70 - 90
250	570	40 - 55
25	260	0 - 15
 - DISSIPATION POOL FINES SHALL BE FINE GRANULAR MATERIAL, GRAVEL BORROW OR PIT-RUN MATERIAL (20% FINES, DOES NOT INCLUDE CLAYS).
 - WASH THE DISSIPATION POOL PRIOR TO OPENING PERMANENTLY TO THE ENVIRONMENT.

*APPROXIMATE DIAMETER

- GENERAL NOTES**
- DATUM: CGVD 2013.
 - PROJECTION: NAD83 (CSRS) UTM ZONE 20N.
 - ALL UNITS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.



TYPICAL DAM SECTION
SCALE: 1:100



- NOTES:**
- INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
 - REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 - MAINTAIN SILTATION FENCE UNTIL VEGETATION IS FIRMLY ESTABLISHED.

TYPICAL SILTATION/SEDIMENT CONTROL FENCE DETAIL
SCALE: 1:20

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NUMBER	ISSUE	DATE (YYYYMMDD)

ENGINEER'S STAMP

NOT FOR CONSTRUCTION

DRAWN BY	TLR	CHECKED BY	HA
CALCULATIONS BY	JP	CHECKED BY	HA

PROJECT
DARES LAKE DAM AND SPILLWAY UPGRADES AND EEL PASSAGE LUNENBURG, NS

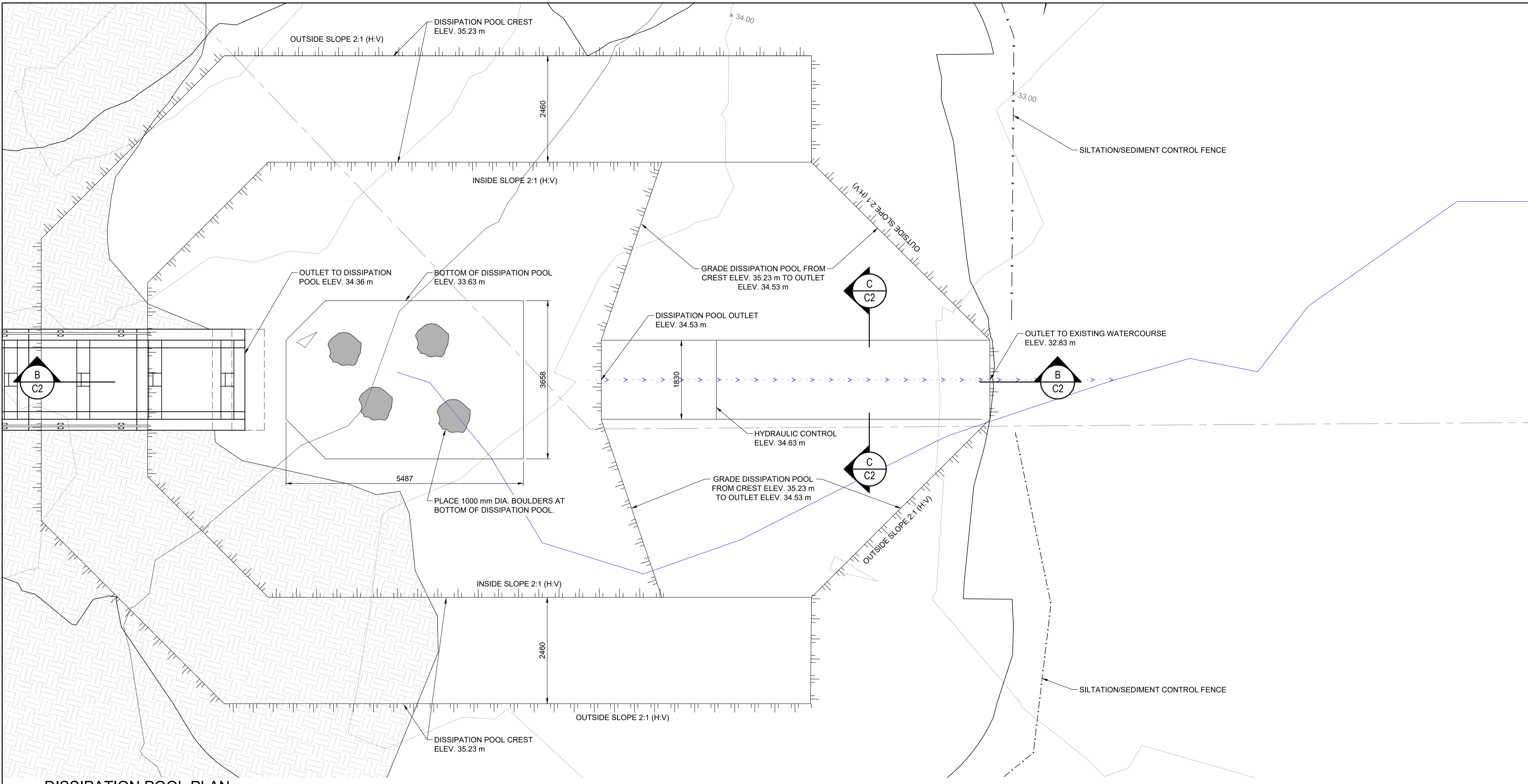
DRAWING
PROJECT OVERVIEW

SCALE
AS NOTED

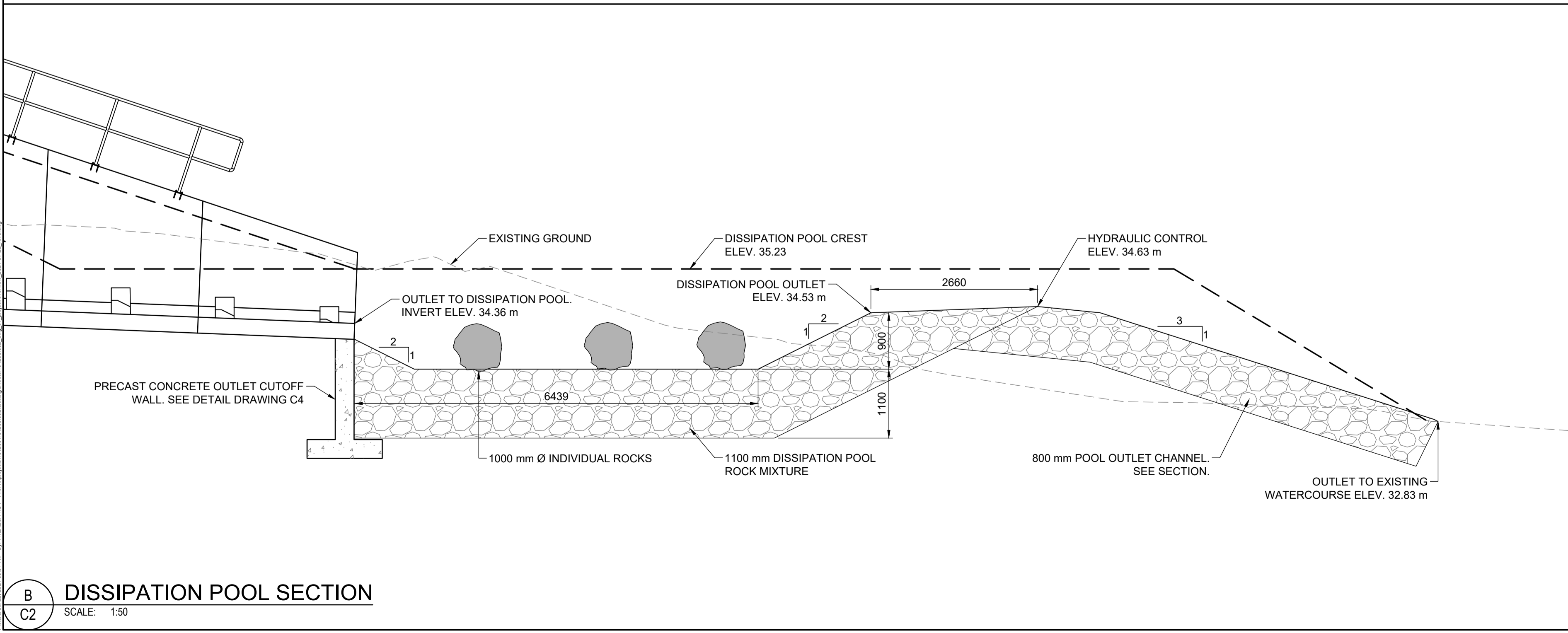
FILE NO.	101263.002	SHEET NO.	C1
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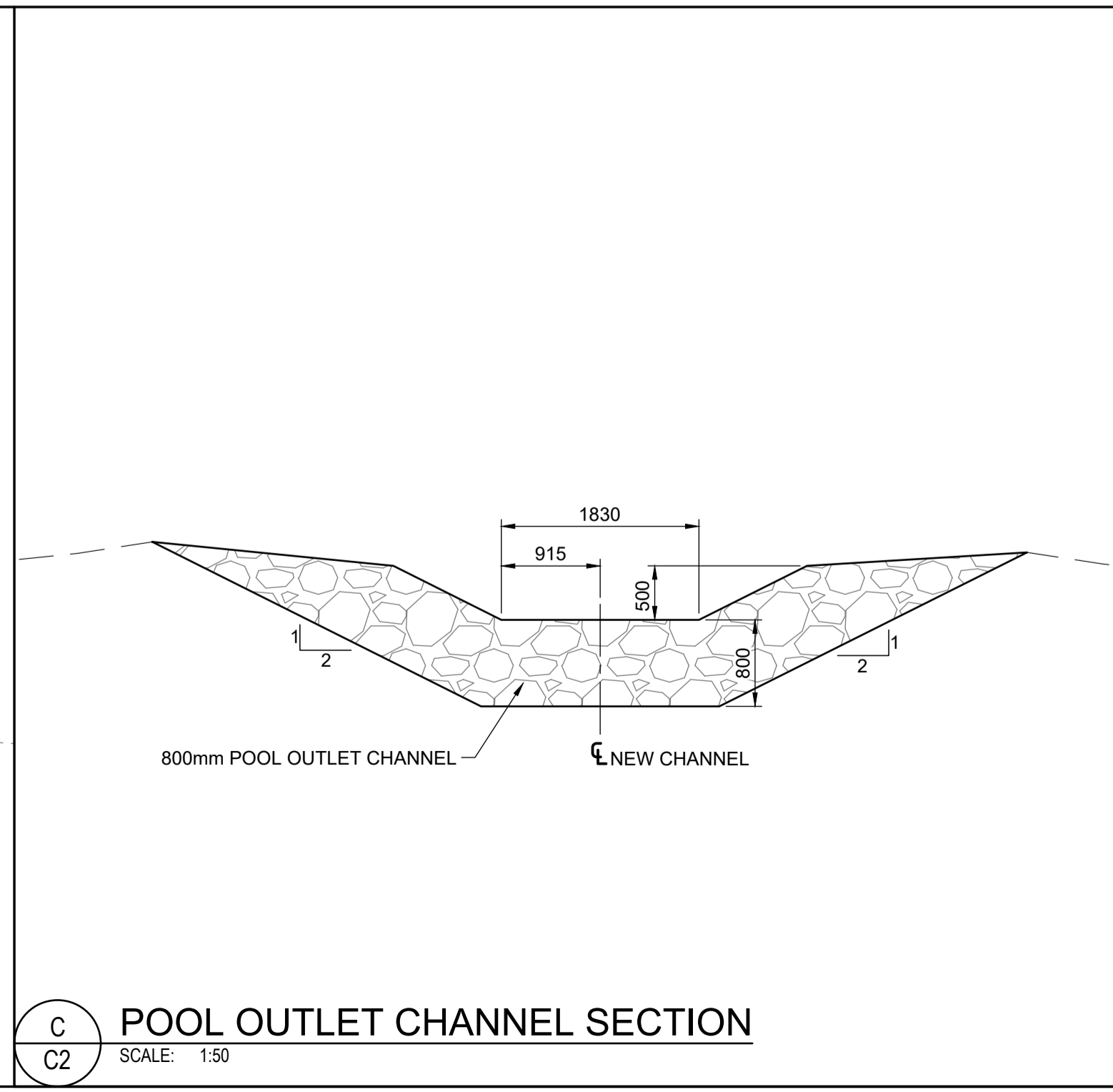
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DISSIPATION POOL PLAN
SCALE: 1:50



DISSIPATION POOL SECTION
SCALE: 1:50



POOL OUTLET CHANNEL SECTION
SCALE: 1:50

- GENERAL NOTES**
- 1) DATUM: CGVD 2013.
 - 2) PROJECTION: NAD83 (CSRS) UTM ZONE 20N.
 - 3) ALL UNITS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.

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ENGINEER'S STAMP

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CALCULATIONS BY	JP	CHECKED BY	HA

PROJECT
DARES LAKE DAM AND SPILLWAY UPGRADES AND EEL PASSAGE LUNENBURG, NS

DRAWING
DISSIPATION POOL PLAN AND SECTIONS

SCALE
AS NOTED

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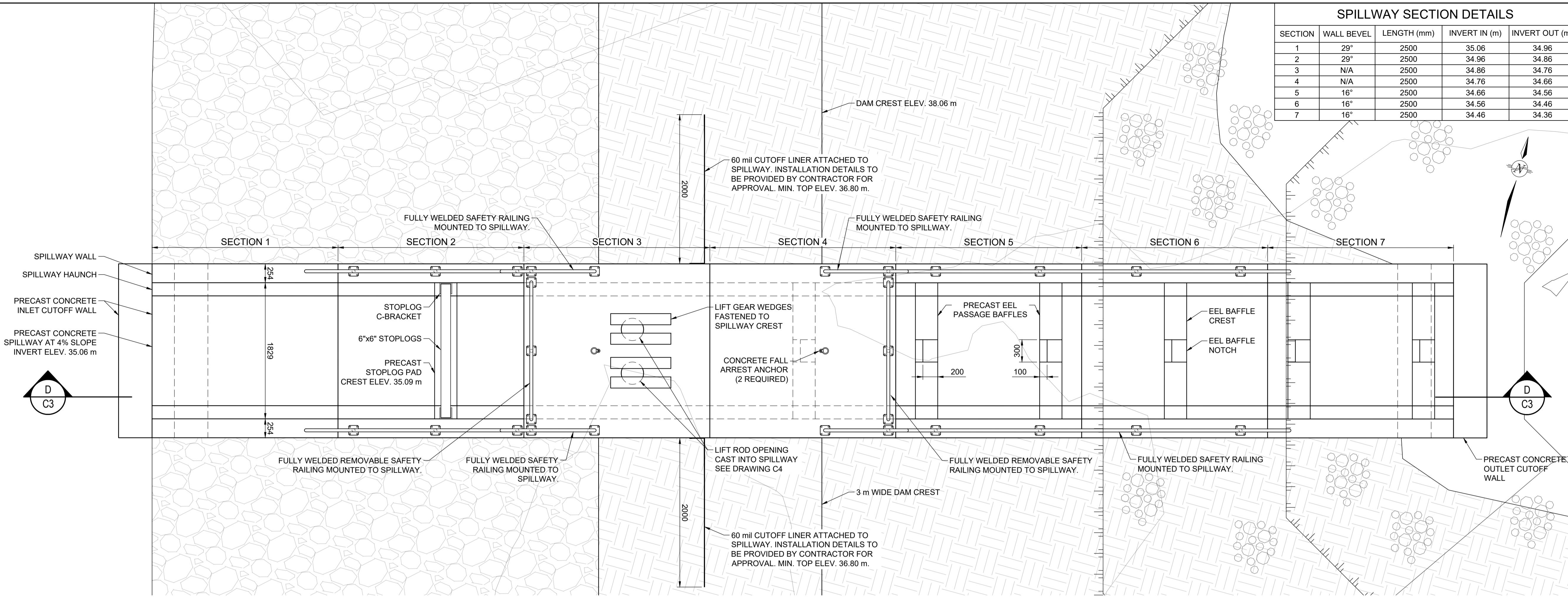


B
C2

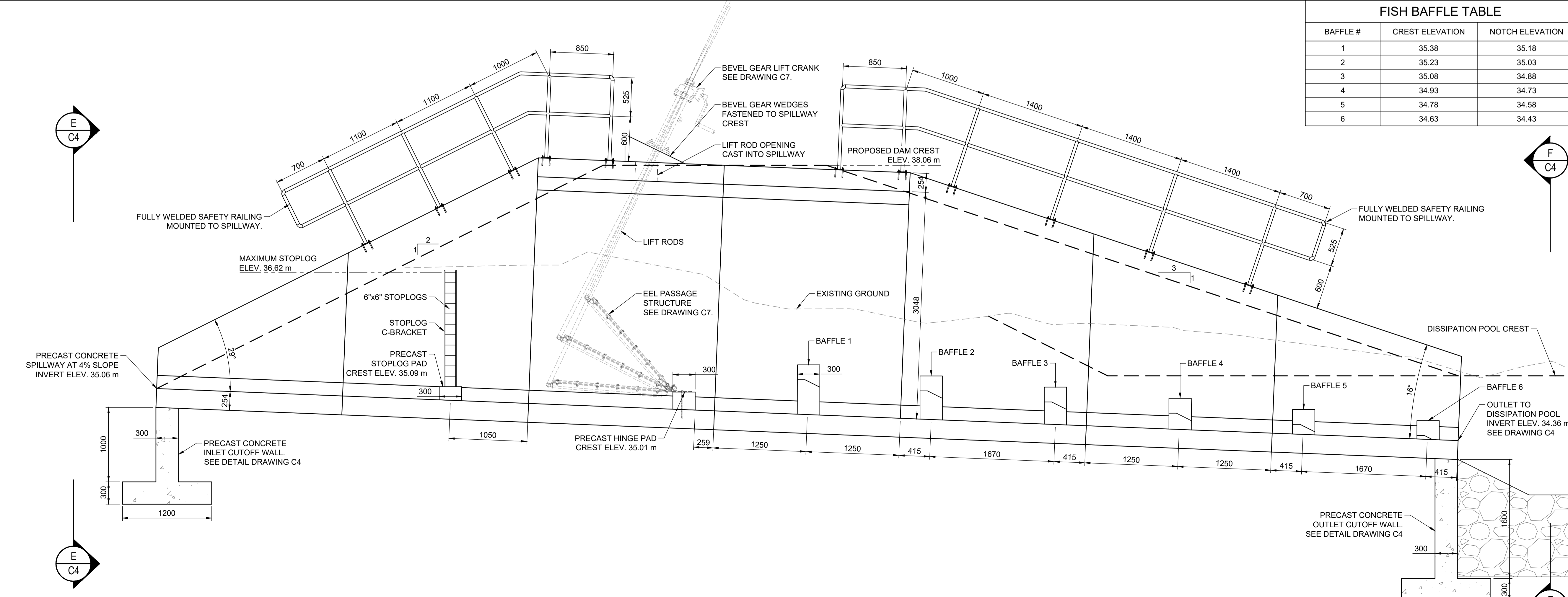
C
C2

SPILLWAY SECTION DETAILS				
SECTION	WALL BEVEL	LENGTH (mm)	INVERT IN (m)	INVERT OUT (m)
1	29°	2500	35.06	34.96
2	29°	2500	34.96	34.86
3	N/A	2500	34.86	34.76
4	N/A	2500	34.76	34.66
5	16°	2500	34.66	34.56
6	16°	2500	34.56	34.46
7	16°	2500	34.46	34.36

- GENERAL NOTES**
- DATUM: CGVD 2013.
 - PROJECTION: NAD83 (CSRS) UTM ZONE 20N.
 - ALL UNITS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.



FISH BAFFLE TABLE		
BAFFLE #	CREST ELEVATION	NOTCH ELEVATION
1	35.38	35.18
2	35.23	35.03
3	35.08	34.88
4	34.93	34.73
5	34.78	34.58
6	34.63	34.43



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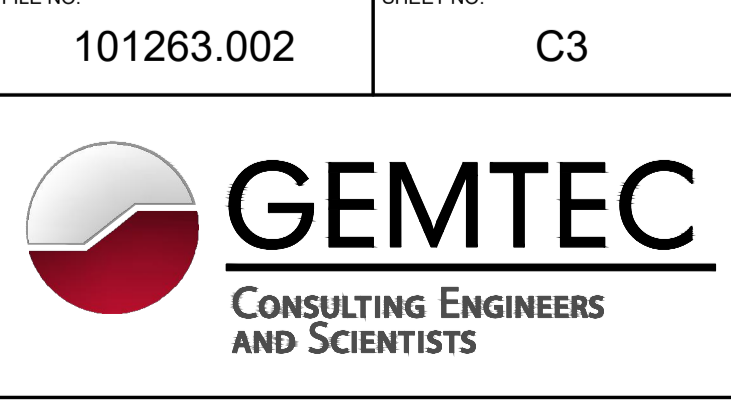
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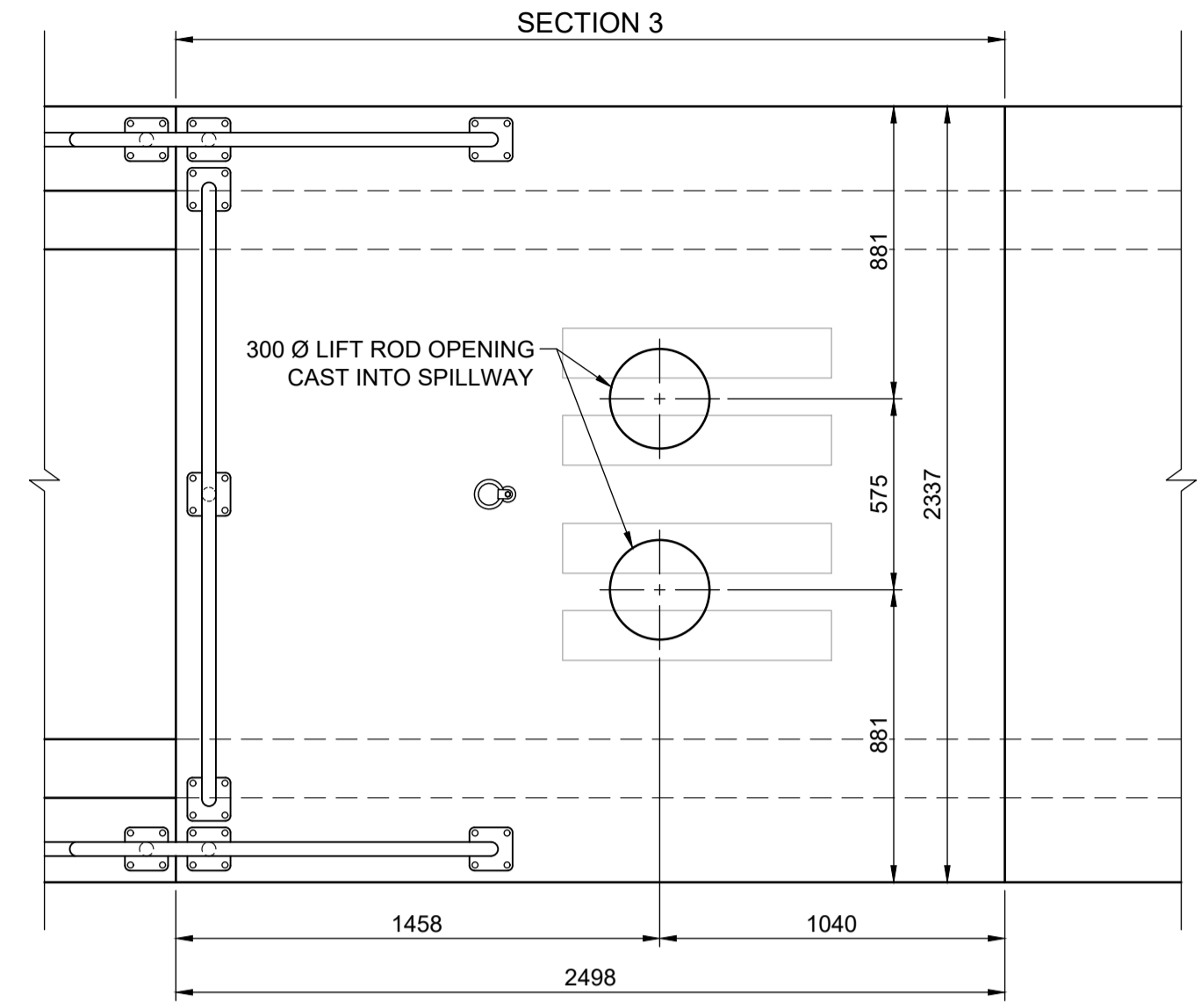
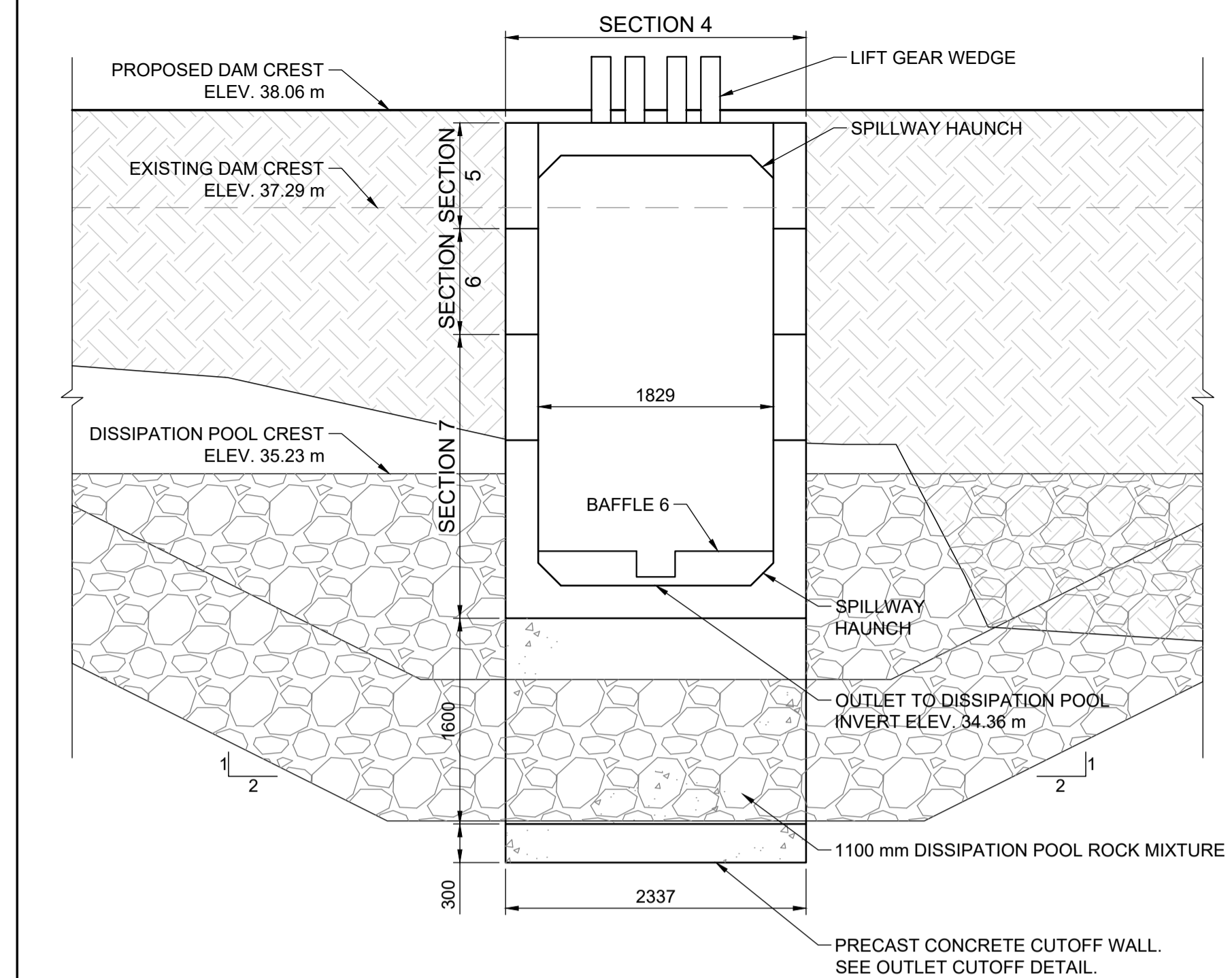
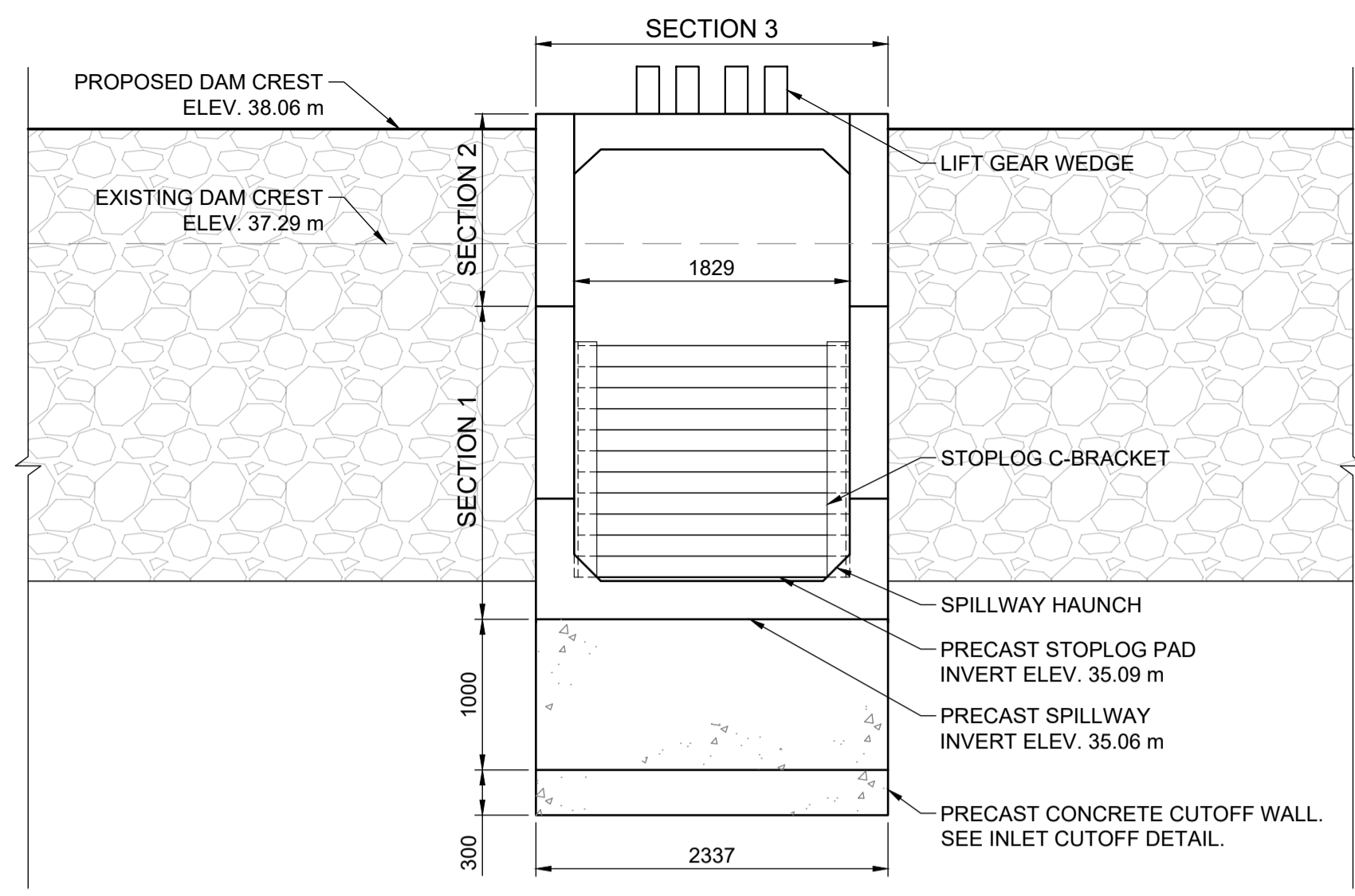
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CALCULATIONS BY	JP	CHECKED BY	HA

PROJECT
DARES LAKE DAM AND SPILLWAY UPGRADES AND EEL PASSAGE LUNENBURG, NS

DRAWING
SPILLWAY PLAN AND SECTION VIEW

SCALE	1:30
FILE NO.	101263.002
SHEET NO.	C3



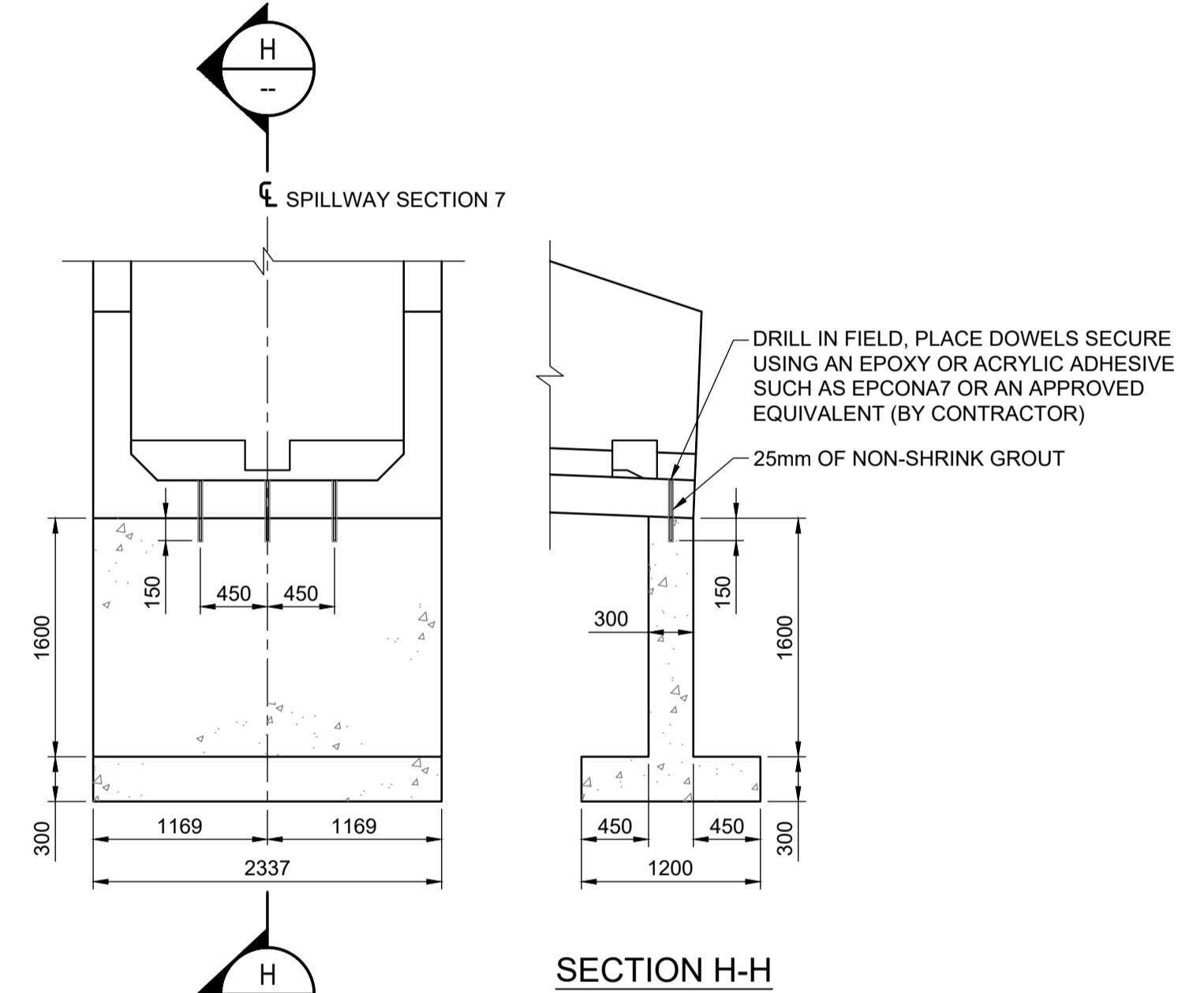
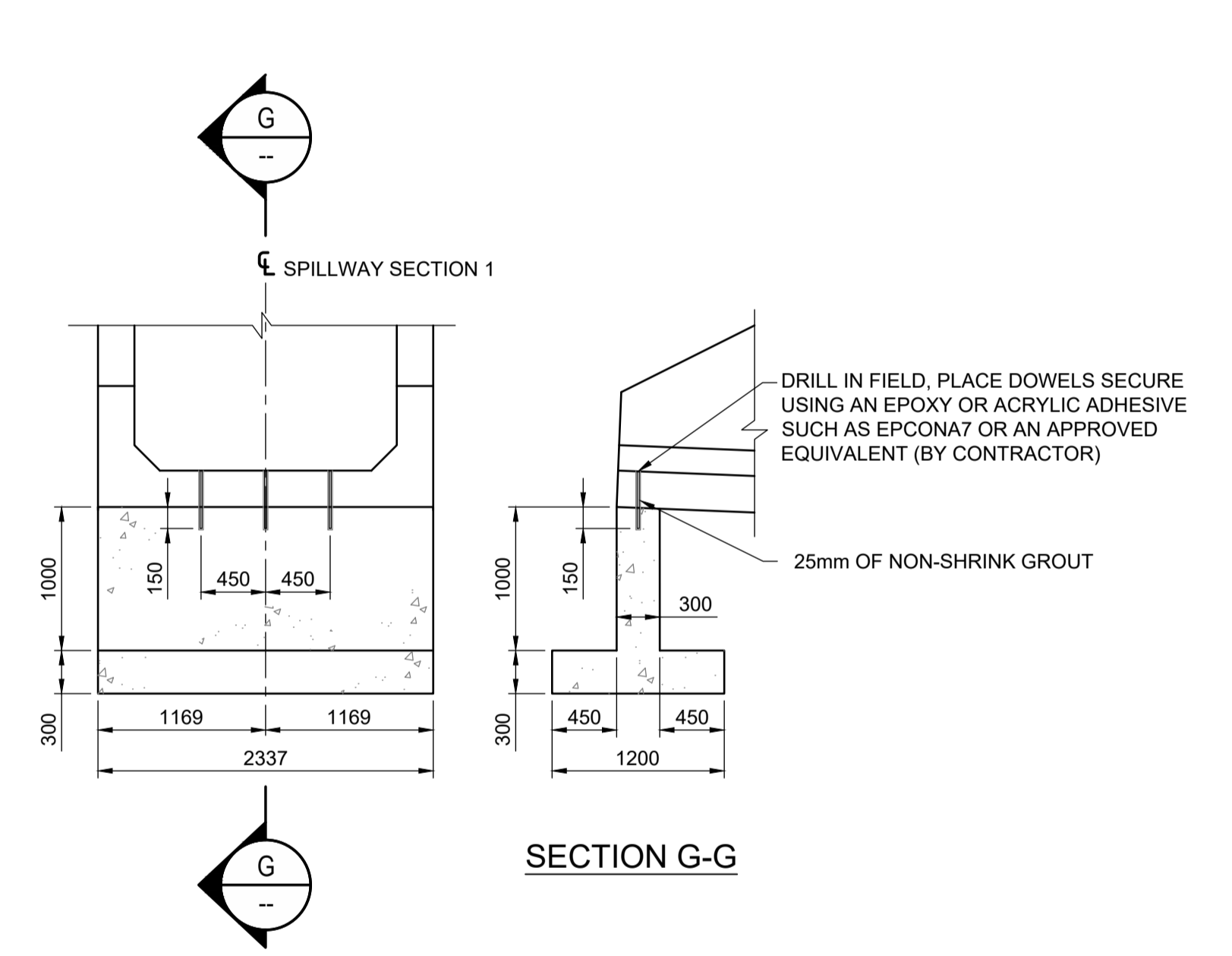


- GENERAL NOTES**
- 1) DATUM: CGVD 2013.
 - 2) PROJECTION: NAD83 (CSRS) UTM ZONE 20N.
 - 3) ALL UNITS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.

E SPILLWAY UPSTREAM SECTION VIEW
 SCALE: 1:40

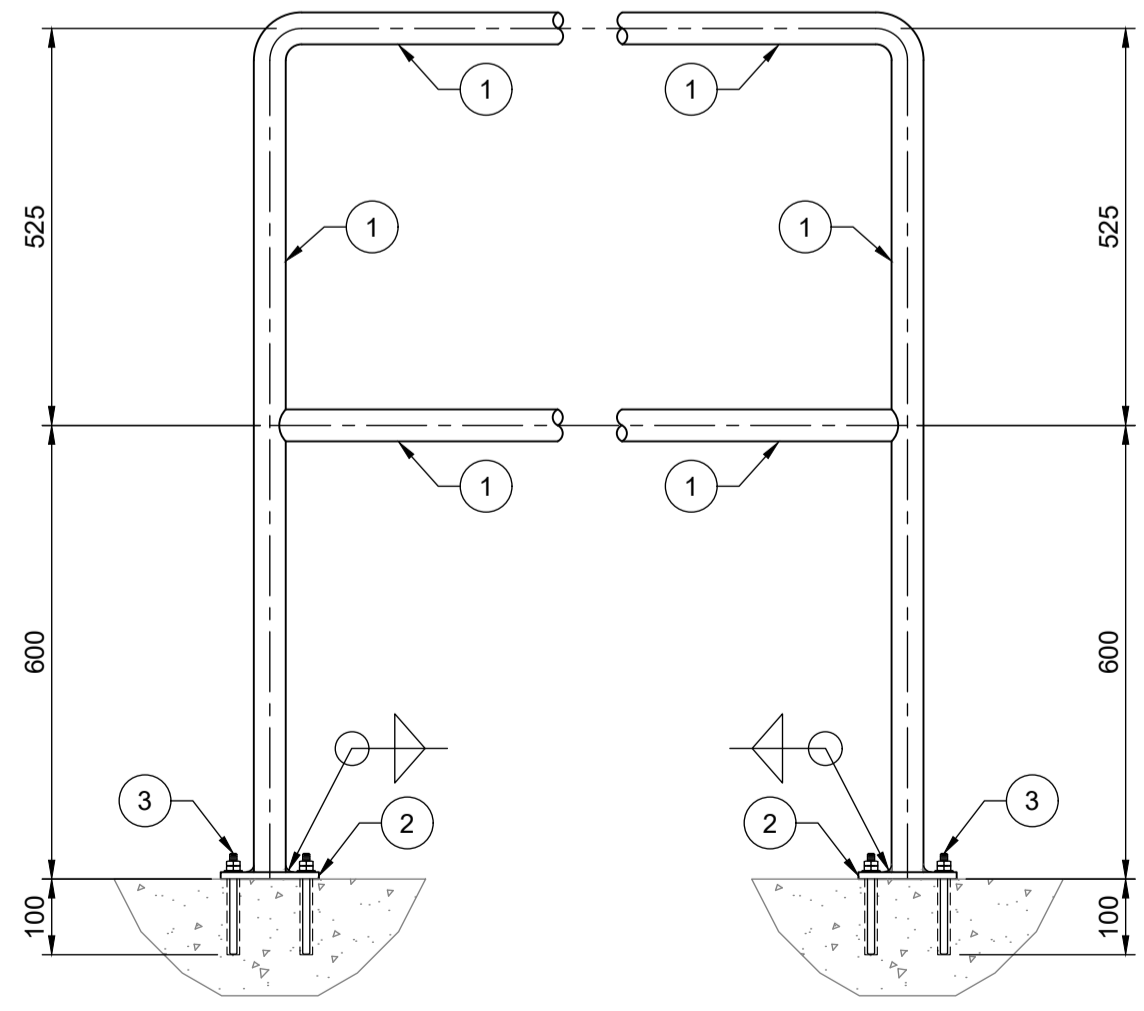
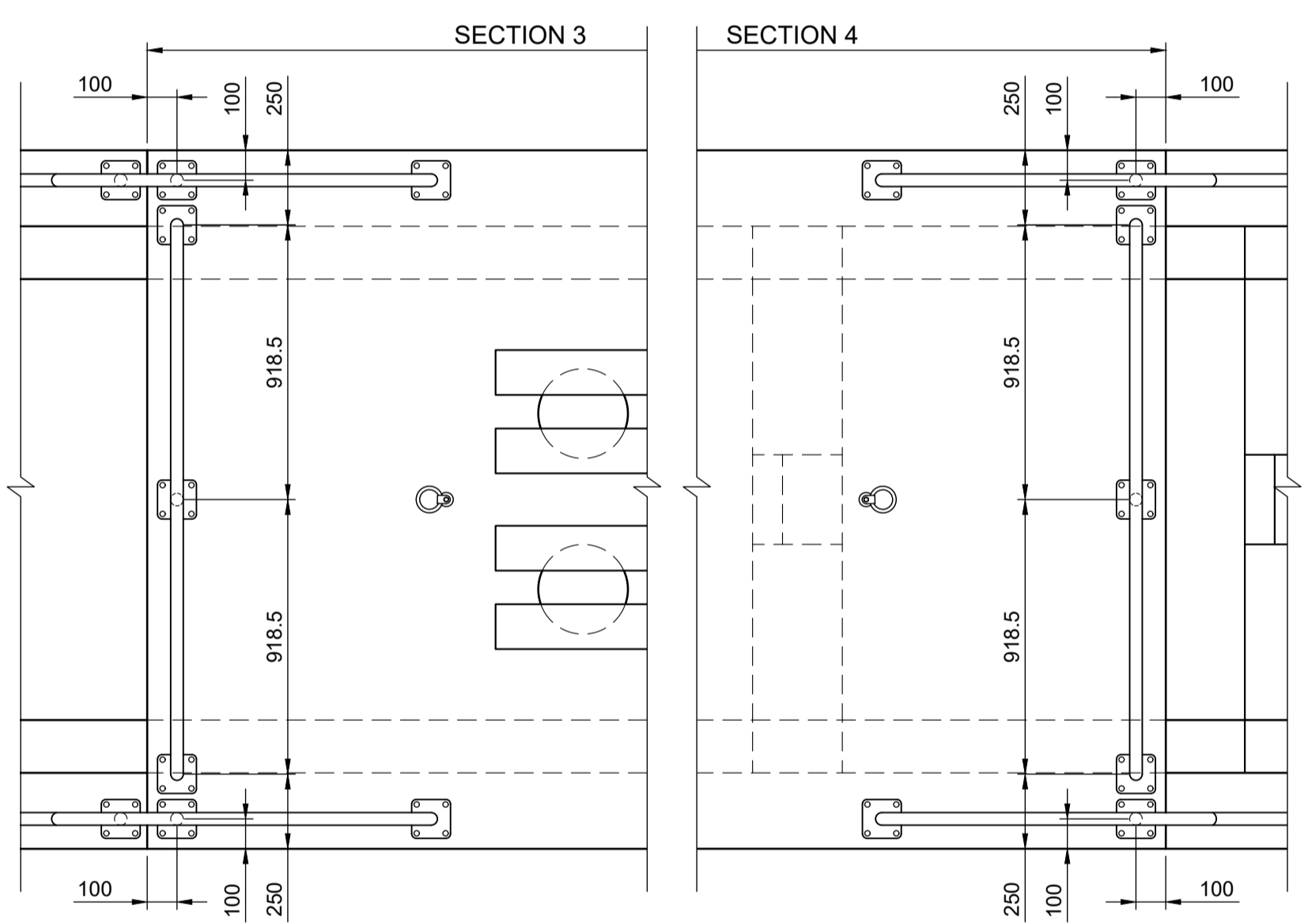
F SPILLWAY DOWNSTREAM SECTION VIEW
 SCALE: 1:40

LIFT ROD OPENING DETAIL
 SCALE: 1:20



PRECAST CONCRETE INLET CUTOFF WALL DETAIL
 SCALE: 1:40

PRECAST CONCRETE OUTLET CUTOFF WALL DETAIL
 SCALE: 1:40



- NOTES:**
1. 42.2 mm OD x 6.3 mm THICK SS TUBING: SCH 10S 304L SS TO ASTM A778 & A774.
 2. 6.35 mm THICK SS MOUNTING PLATE: 304L SS TO ASTM TO A240.
 3. HILTI HIT-HY 200 ADHESIVE ANCHORING SYSTEM C/W 9.5 mm Ø HIT-Z-R SS ANCHOR ROD, DOUBLE SS WASHERS AND NUTS.
 4. SAFETY RAILING PIPE AND MOUNTING PLATE: 180 GRIT POLISHED AFTER FABRICATION.

SAFETY RAILING LOCATION AND DETAILS
 SCALE: NTS

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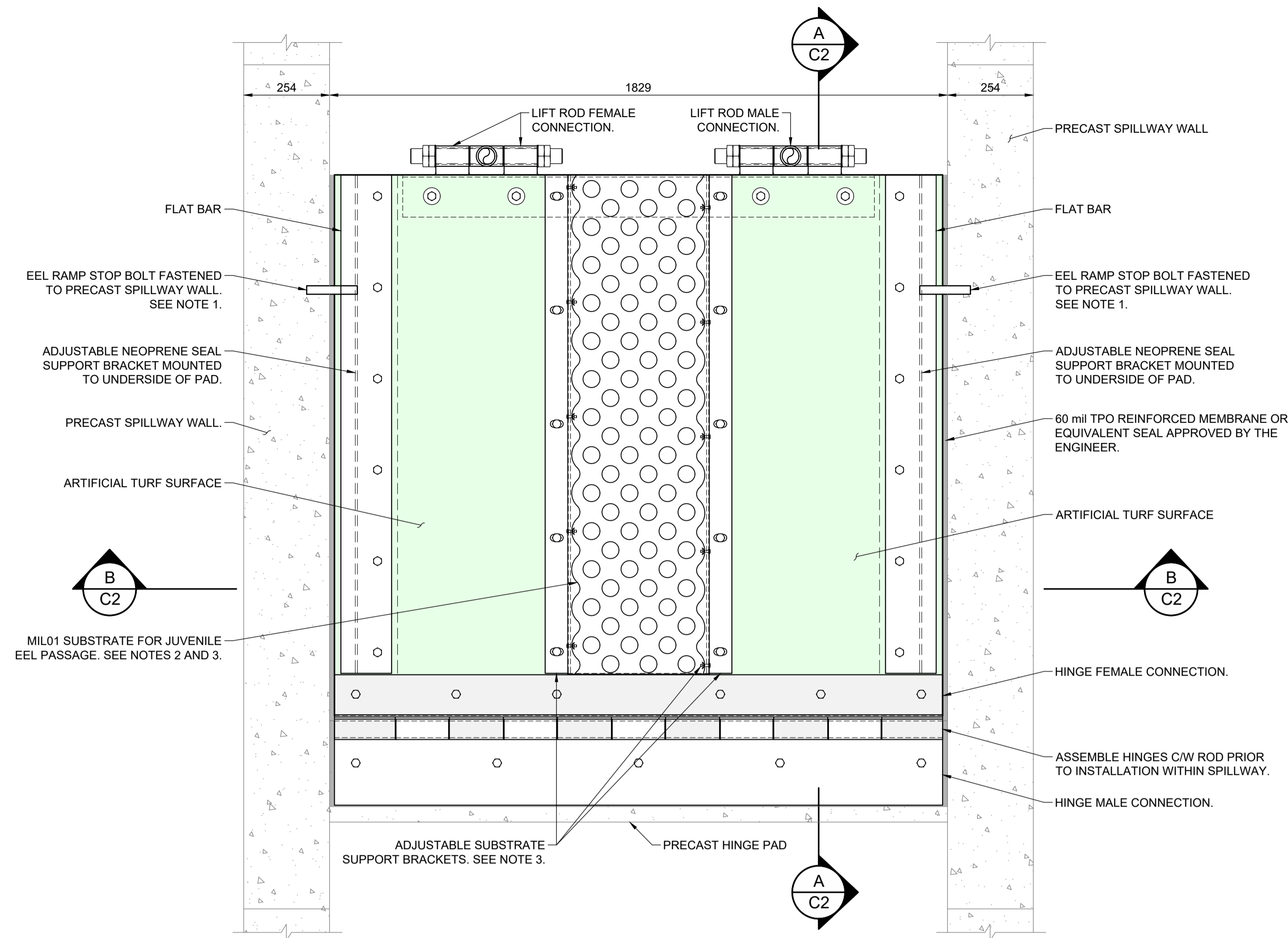
PROJECT
DARES LAKE DAM AND SPILLWAY UPGRADES AND EEL PASSAGE LUNENBURG, NS

DRAWING
SPILLWAY SECTIONS AND DETAILS

SCALE
AS NOTED

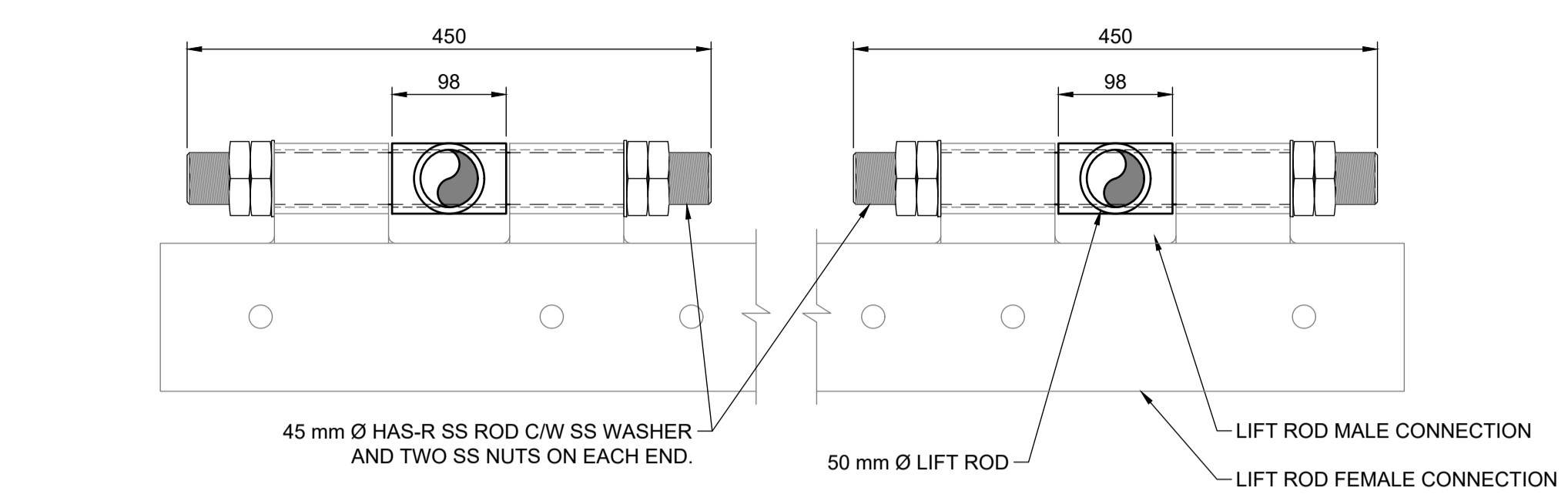
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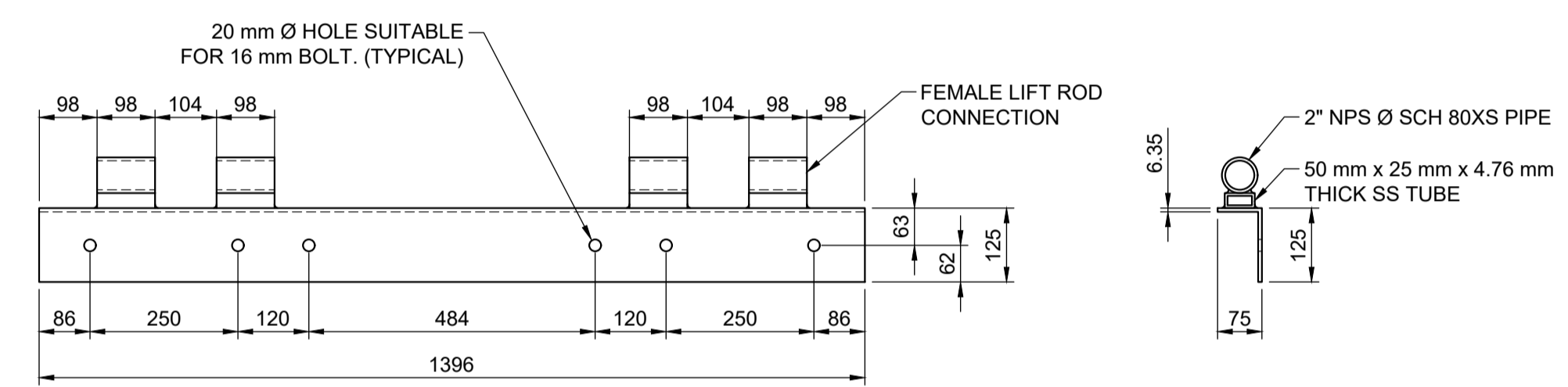


- NOTE:
1. FIELD FIT EEL RAMP STOP BOLTS TO LIMIT MAXIMUM EEL RAMP ELEV. TO 36.29m
 2. FIELD FIT MIL01 SUBSTRATE TO FIT LENGTH OF PAD. CUT AND SMOOTH ALL ROUGH EDGES AS REQUIRED.
 3. MIL01 SUBSTRATE TO BE ATTACHED TO THE ADJUSTABLE BRACKETS AT THE CLOSEST POINTS TO THE OUTER EDGES. FIELD FIT HOLE LOCATIONS TO SUIT.

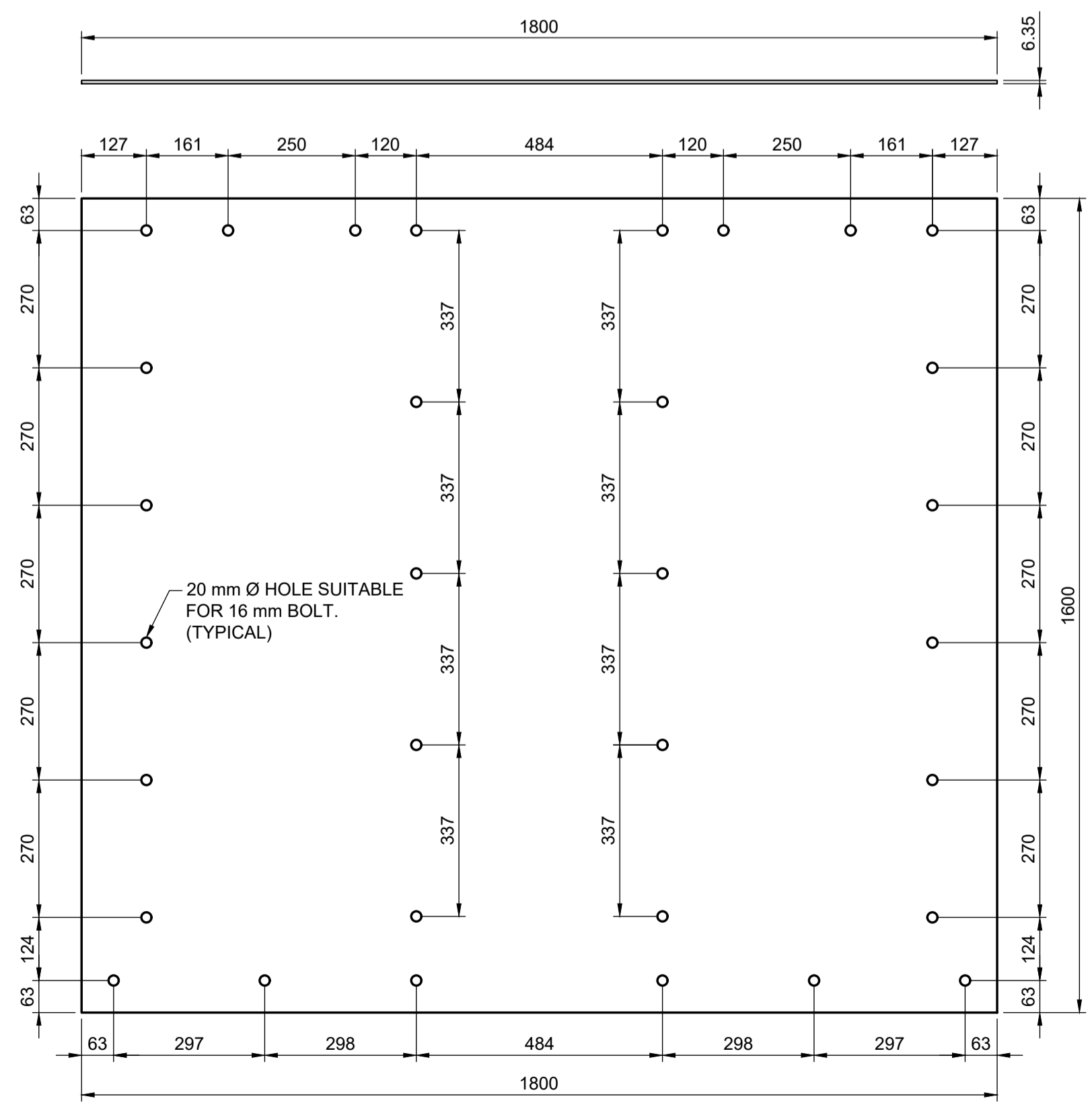
EEL PASSAGE STRUCTURE PLAN
SCALE: 1:10



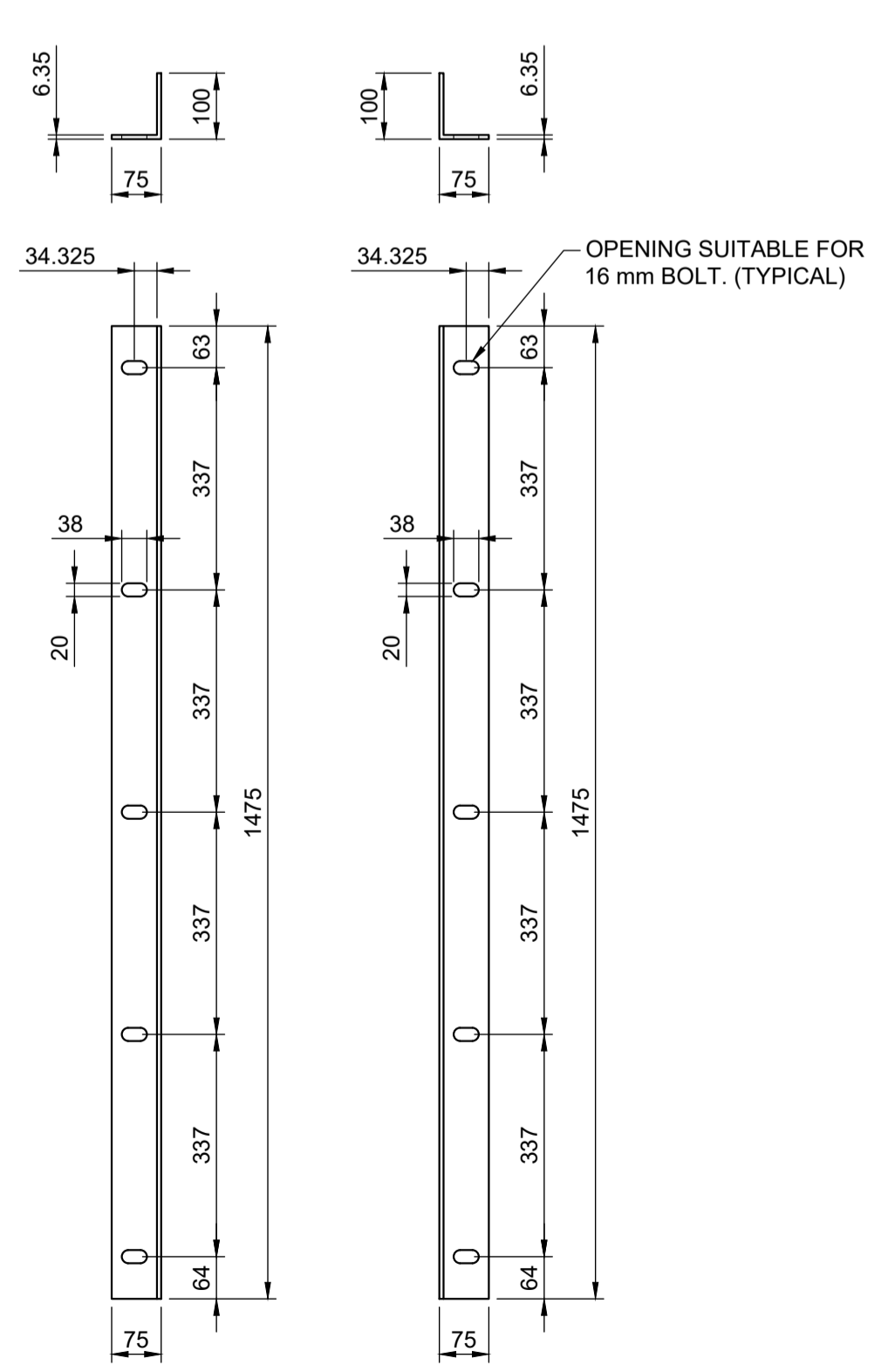
LIFT ROD MALE CONNECTION DETAIL
SCALE: 1:5



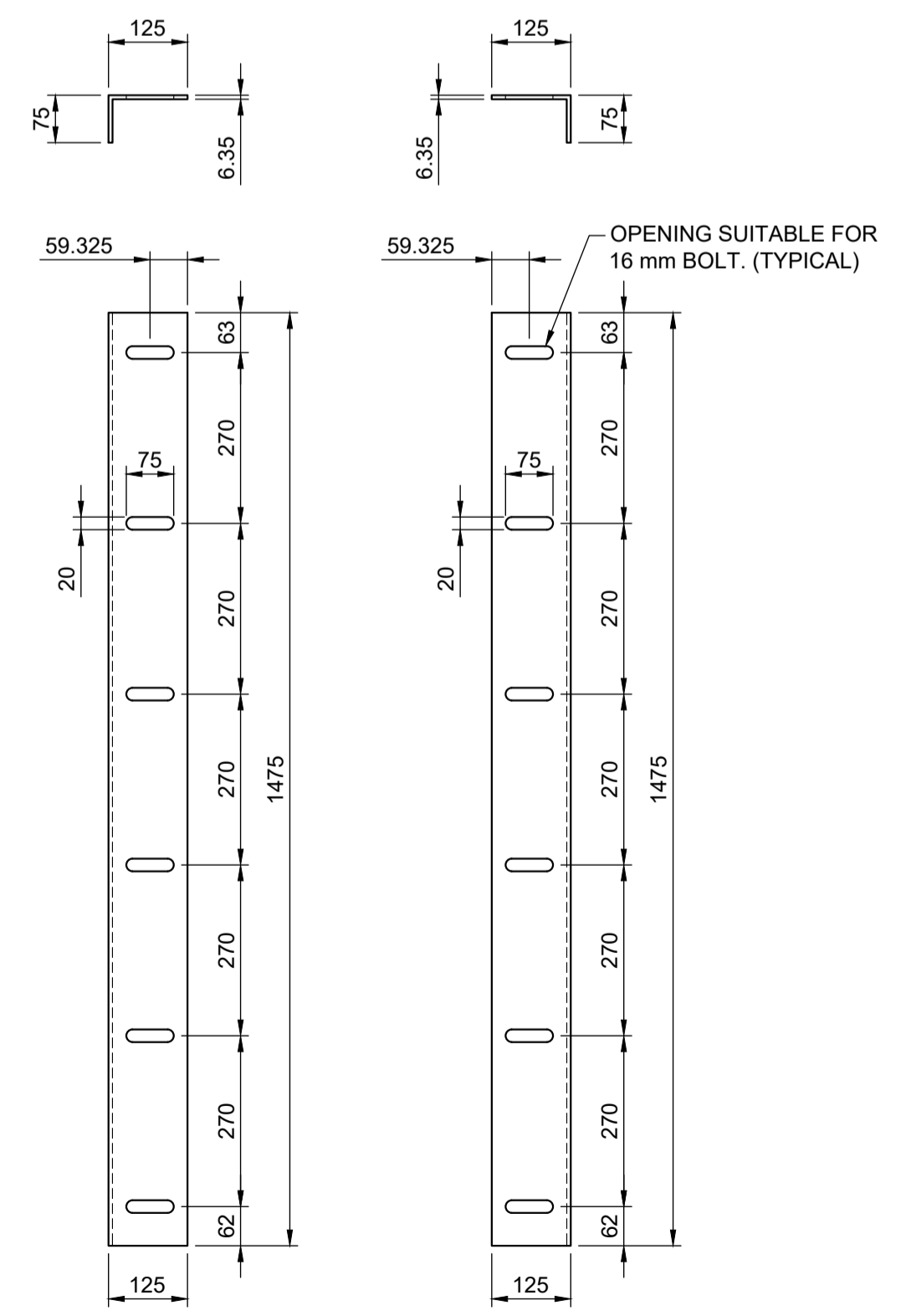
LIFT ROD FEMALE CONNECTION DETAIL
SCALE: 1:10



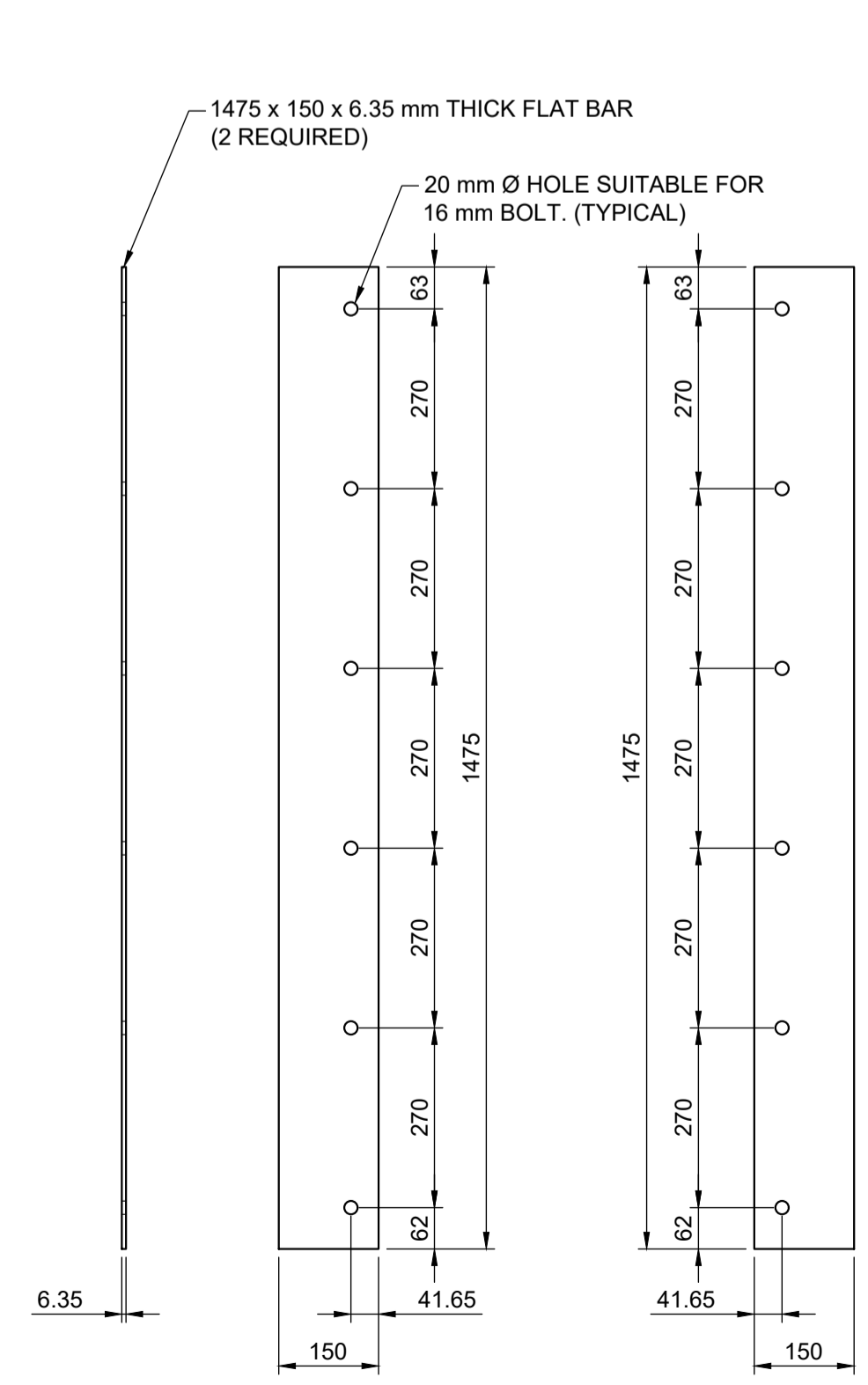
EEL RAMP PAD DETAIL
SCALE: 1:10



ADJUSTABLE SUBSTRATE SUPPORT BRACKET
SCALE: 1:10



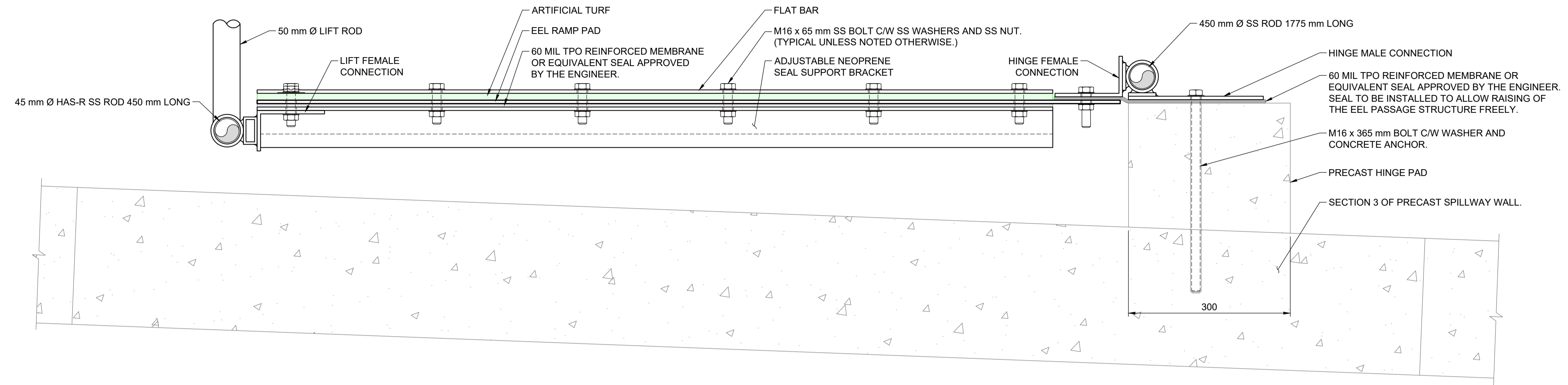
ADJUSTABLE NEOPRENE SEAL SUPPORT BRACKET
SCALE: 1:10



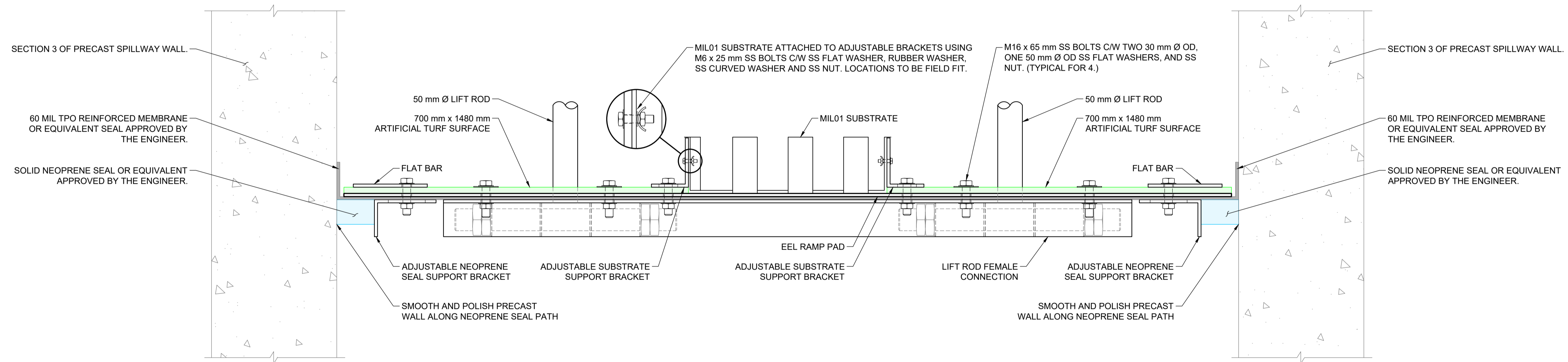
FLAT BAR DETAIL
SCALE: 1:10

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ENGINEER'S STAMP		
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CALCULATIONS BY	JP	CHECKED BY HA
PROJECT		
DARES LAKE DAM AND SPILLWAY UPGRADES AND EEL PASSAGE LUNENBURG, NS		
DRAWING		
EEL PASSAGE STRUCTURE PLAN AND DETAILS		
SCALE		
AS NOTED		
FILE NO.	101263.002	SHEET NO. C5

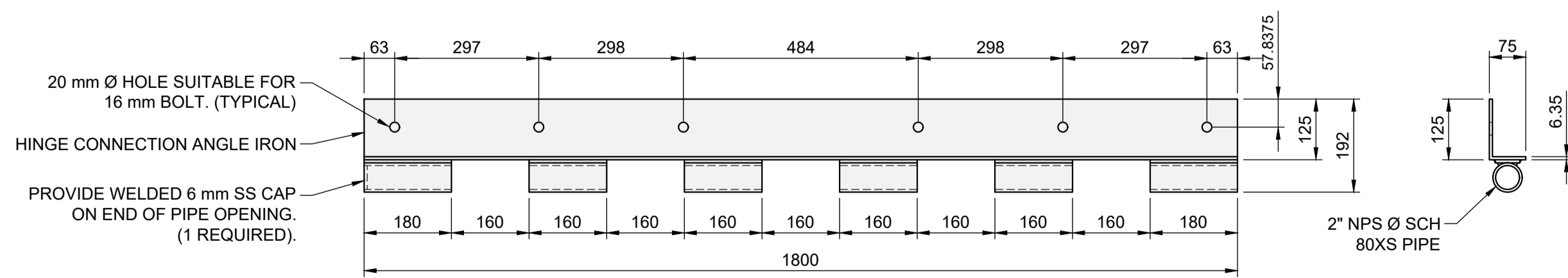
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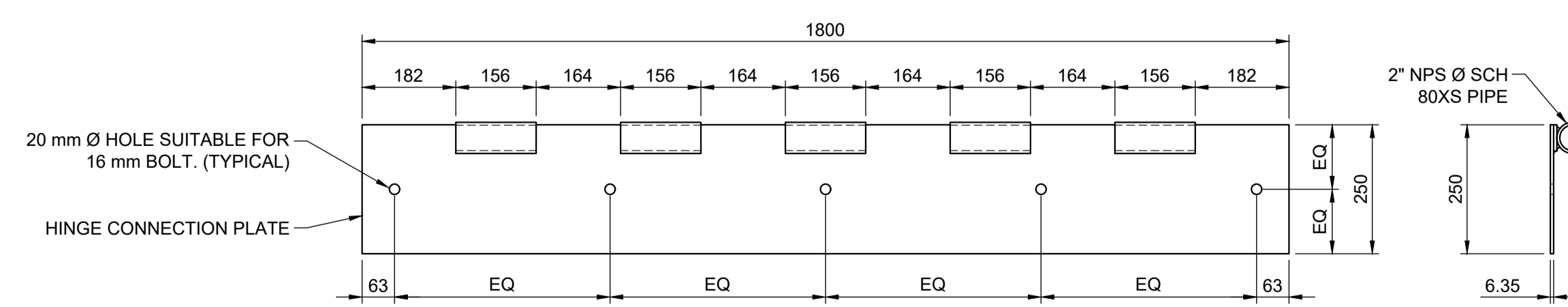
A SECTION A-A
C1 SCALE: 1:5



B SECTION B-B
C1 SCALE: 1:5



HINGE FEMALE CONNECTION DETAIL
SCALE: 1:10



HINGE MALE CONNECTION DETAIL
SCALE: 1:10

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PROJECT

DARES LAKE DAM AND SPILLWAY UPGRADES AND EEL PASSAGE LUNENBURG, NS

DRAWING

EEL PASSAGE SECTIONS AND DETAILS

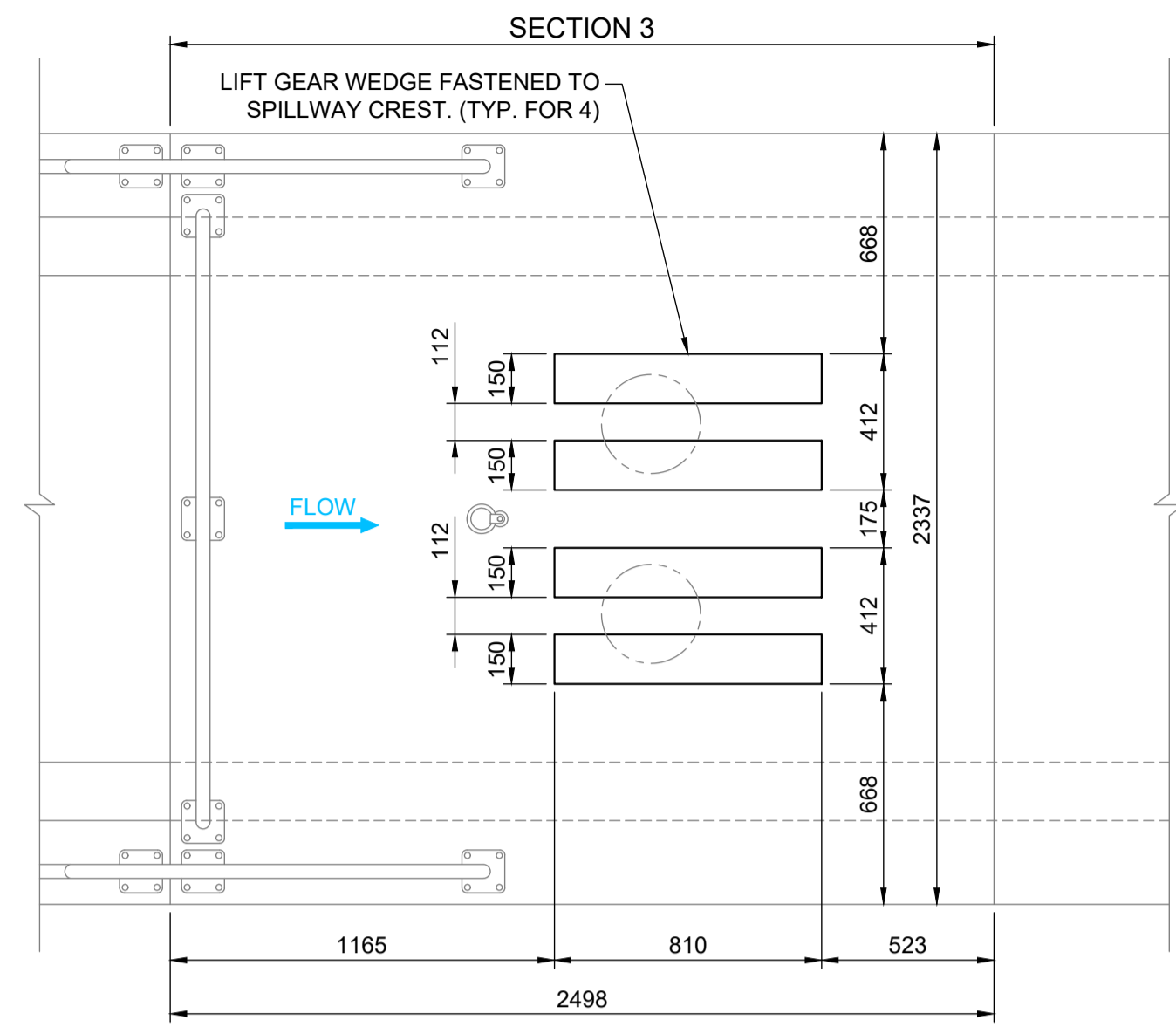
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AS NOTED

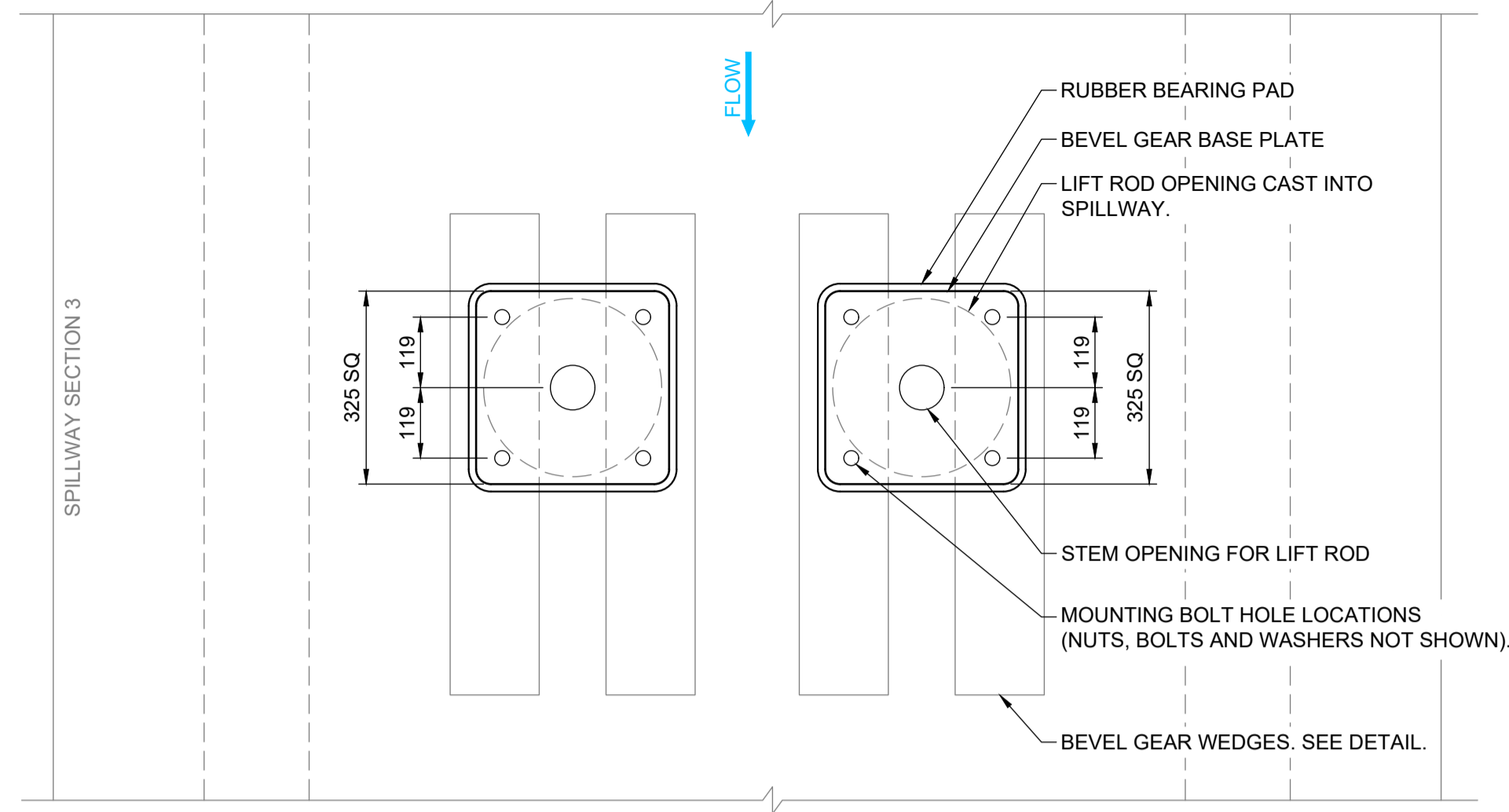
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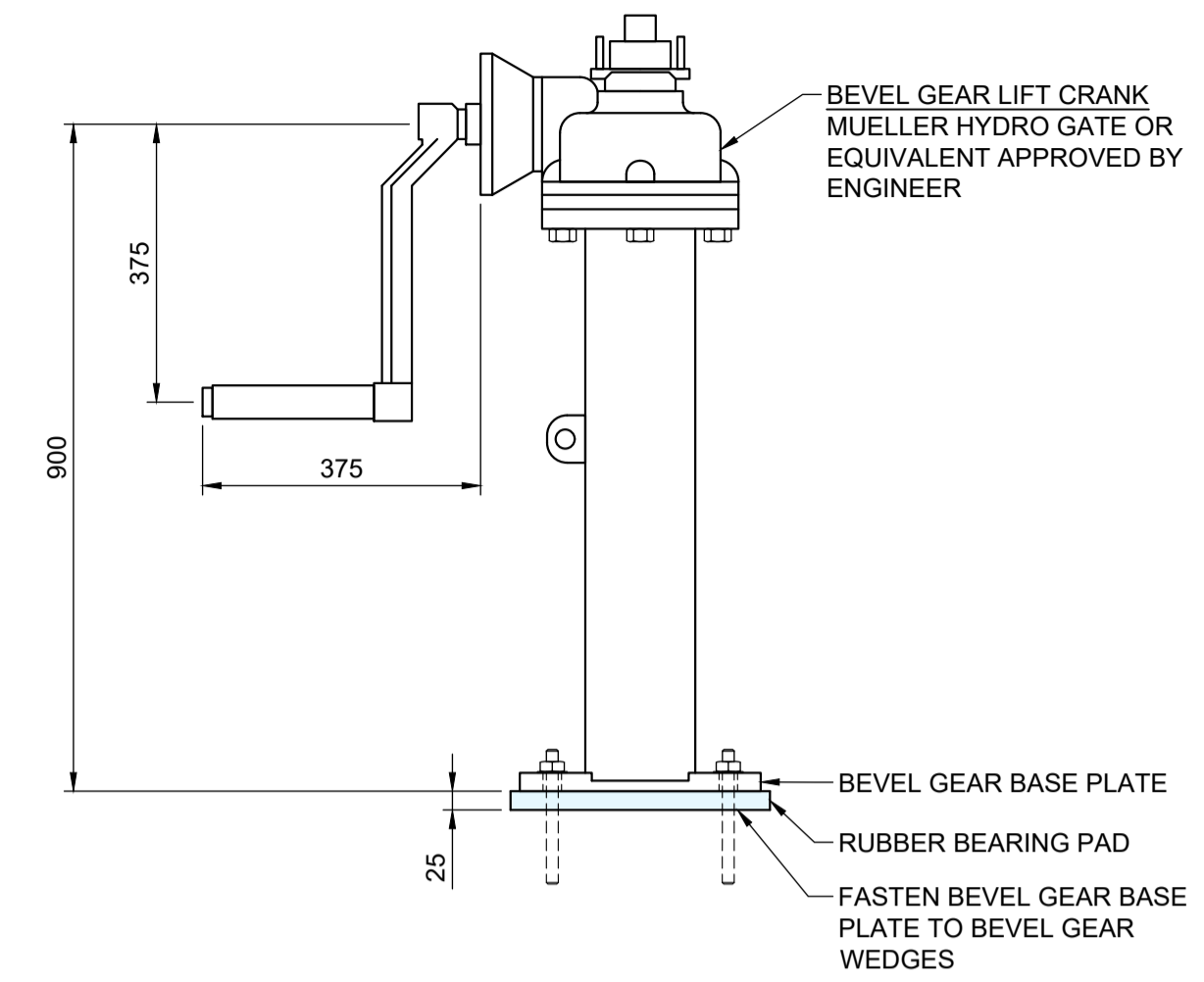
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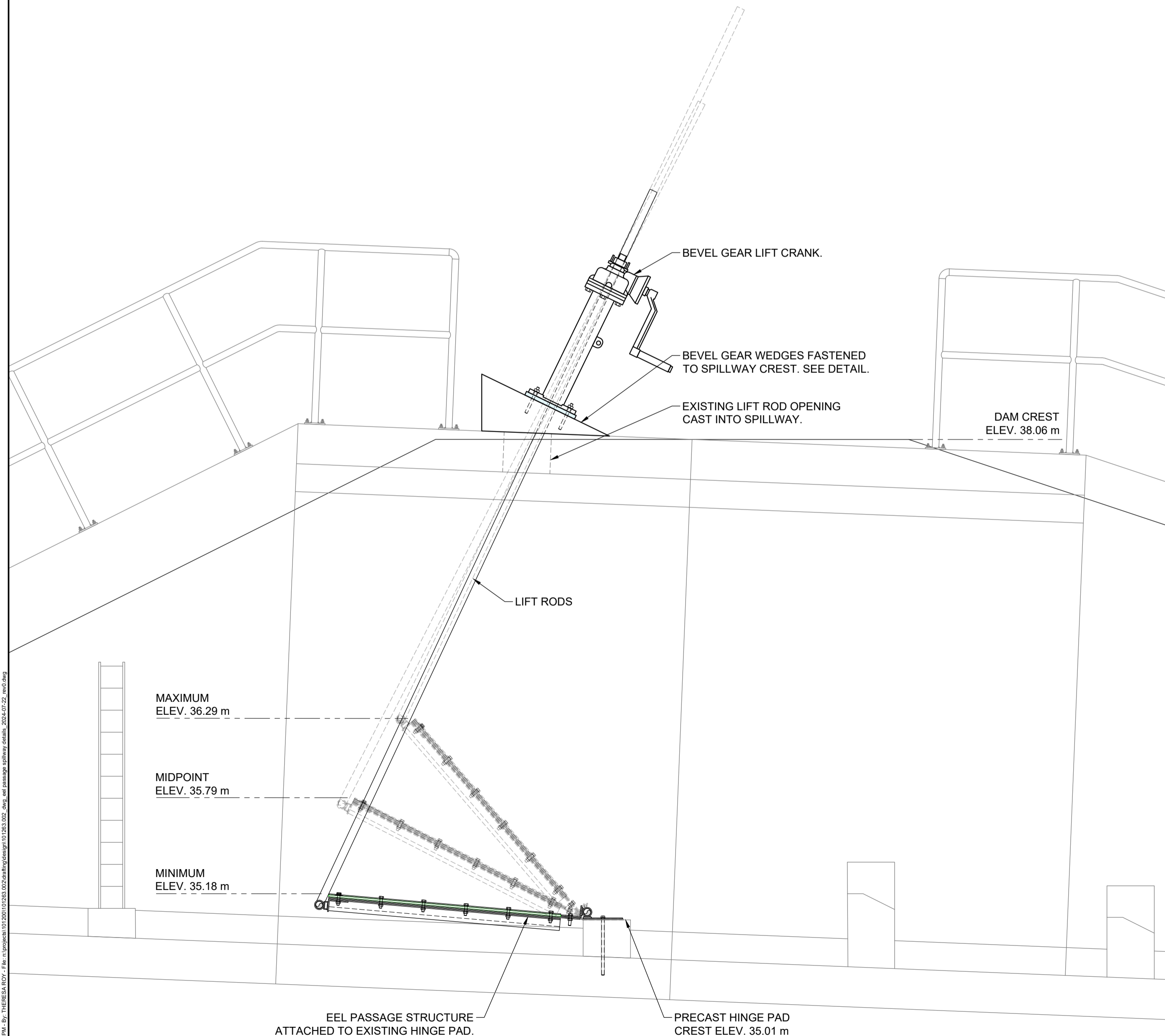
LIFT GEAR WEDGE DETAIL
SCALE: 1:20



BEVEL GEAR BASE PLATE DETAIL
SCALE: 1:10



BEVEL GEAR LIFT CRANK DETAIL
SCALE: 1:10



SPILLWAY SECTION VIEW
SCALE: 1:20

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PROJECT
DARES LAKE DAM AND SPILLWAY UPGRADES AND EEL PASSAGE LUNENBURG, NS

DRAWING
MISCELLANEOUS DETAILS

SCALE
AS NOTED

FILE NO.	101263.002	SHEET NO.	C7
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Revised: Jul 22, 2024 10:32 AM By: TLR (EEL PASSAGE) File: 101263.002 (EEL PASSAGE) Drawing: 101263.002 (EEL PASSAGE) Scale: 1:20 Date: 2024/07/22