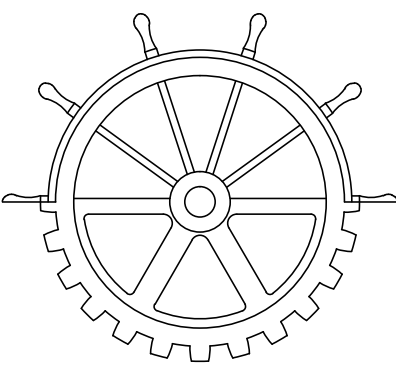




Public Works and Government Services
Canada



Ontario Region
Professional and Technical Services

Heritage Canals and Engineering Works

Travaux publics et Services gouvernementaux
Canada

Région de l'Ontario
Services professionnels et techniques

Canaux historiques et travaux d'ingénierie



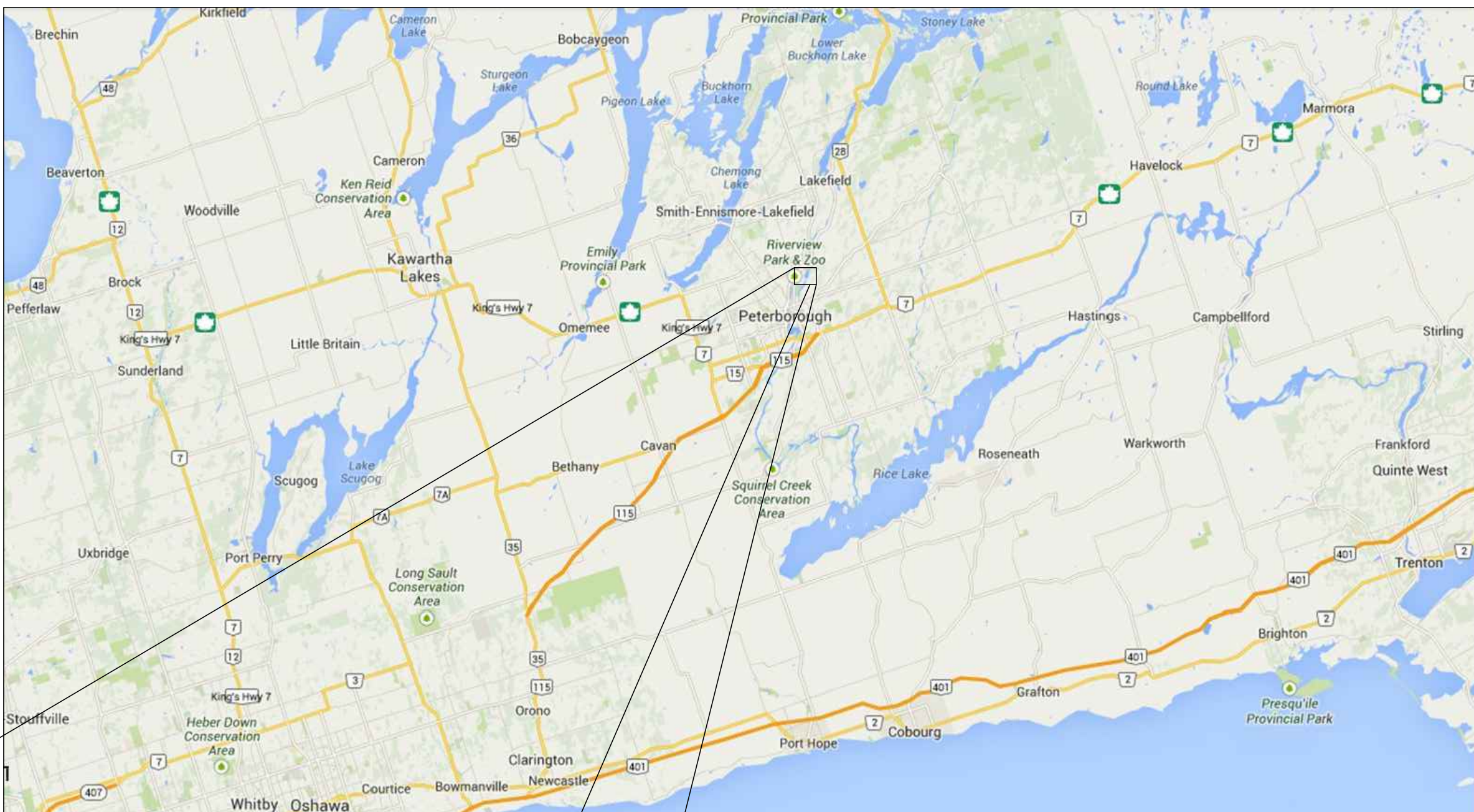
Parks
Canada

Parcs
Canada



TRENT SEVERN WATERWAY

THOMPSON'S BAY DAM REHABILITATION 2014



LIST OF DRAWINGS

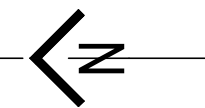
- 100 COVER SHEET
- 101 SITE PLAN
- 102 GENERAL ARRANGEMENT
- 103 REMOVALS
- 104 FOOTING DIMENSIONS
- 105 FOOTING REINFORCEMENT
- 106 DAM DIMENSIONS
- 107 DAM REINFORCEMENT I
- 108 DAM REINFORCEMENT II
- 109 DECK DETAILS
- 110 RAILING DETAILS
- 111 MISCELLANEOUS DETAILS
- 112 SAFETY SIGNAGE I
- 113 SAFETY SIGNAGE II
- 114 SAFETY SIGNAGE III
- 115 REFERENCE DRAWINGS

Canada

ISSUED FOR TENDER
SEPT. 2, 2014

PWGSC PROJECT NUMBER
R.065830.301

HCEW DRAWING REFERENCE NUMBER
COTSW 14/R11

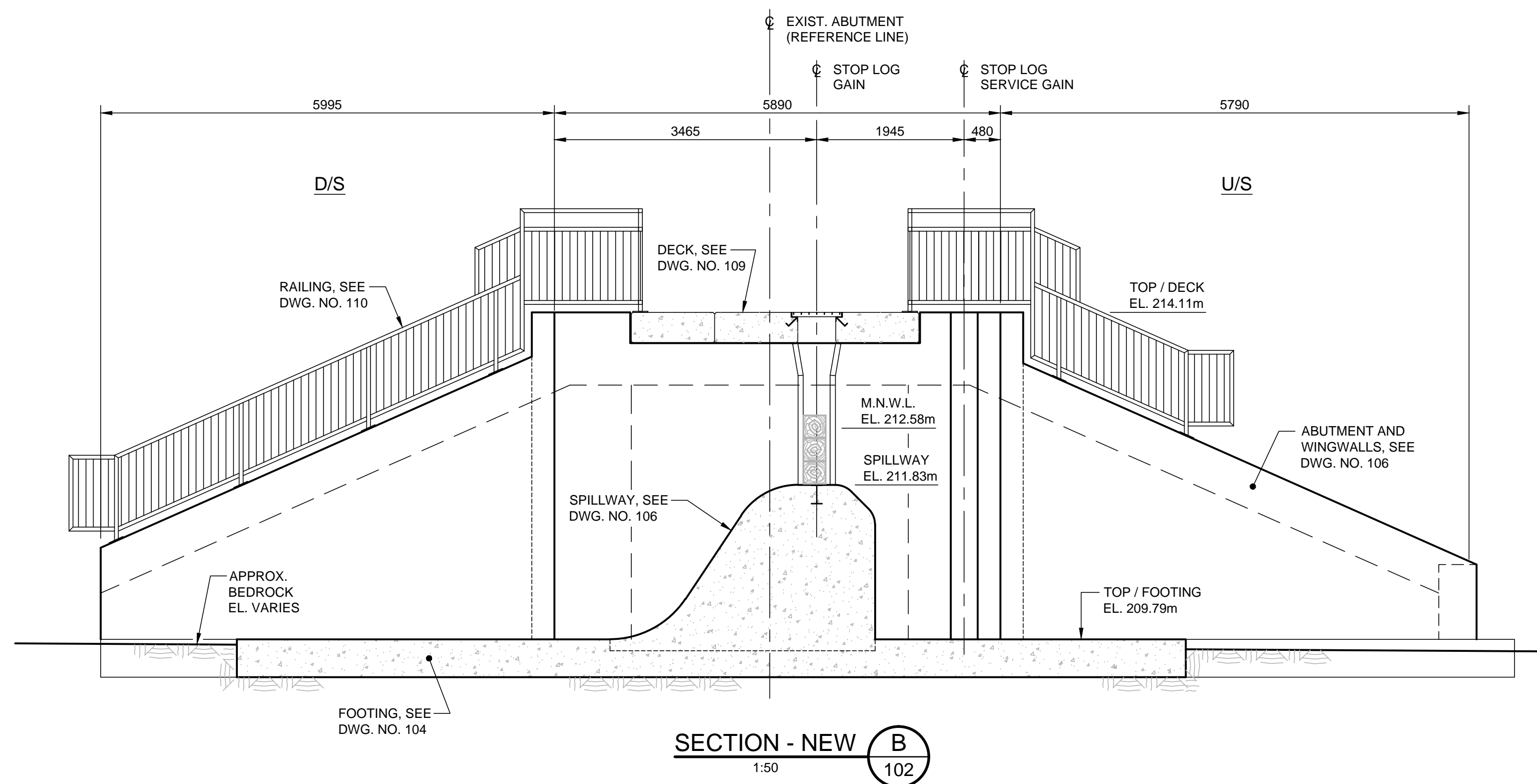
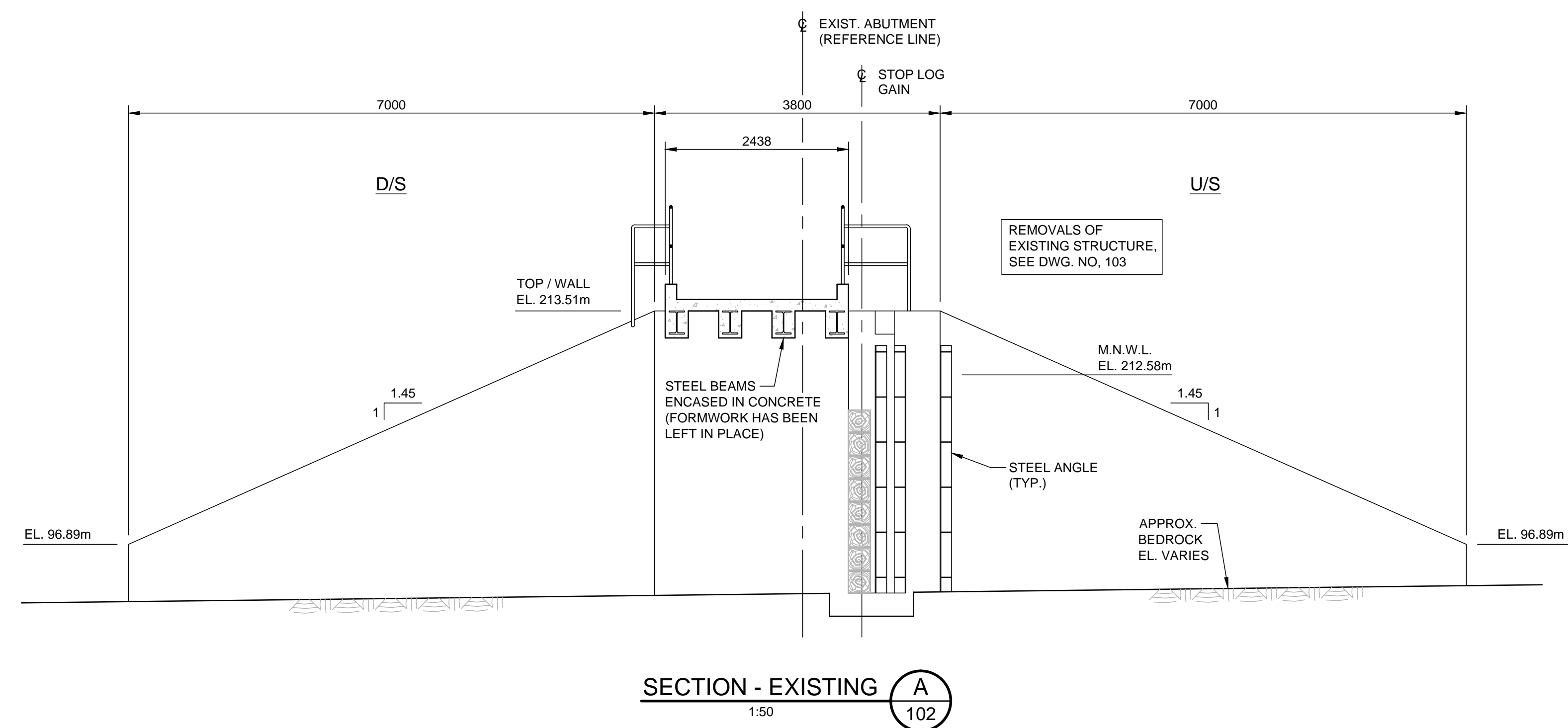
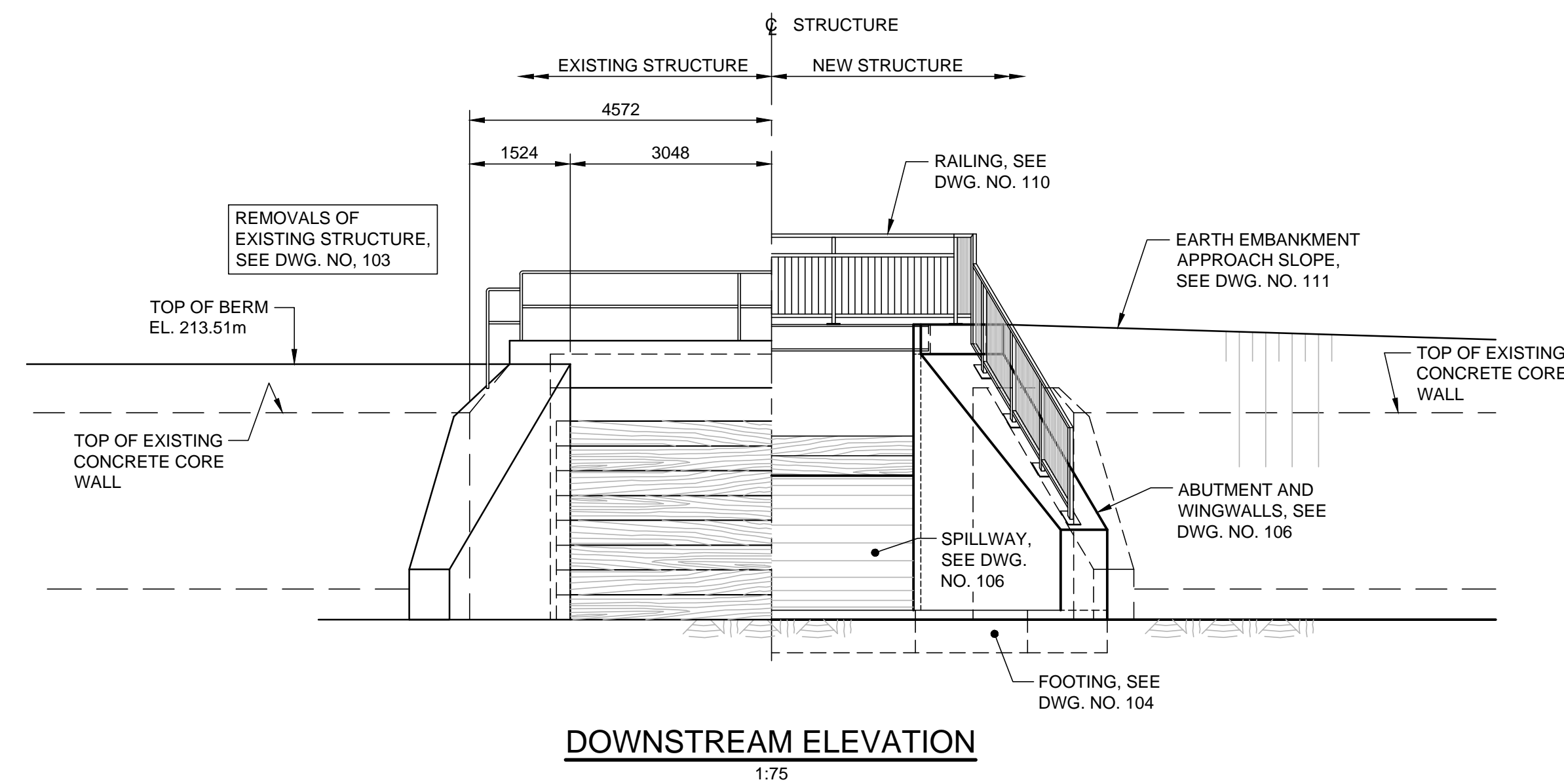
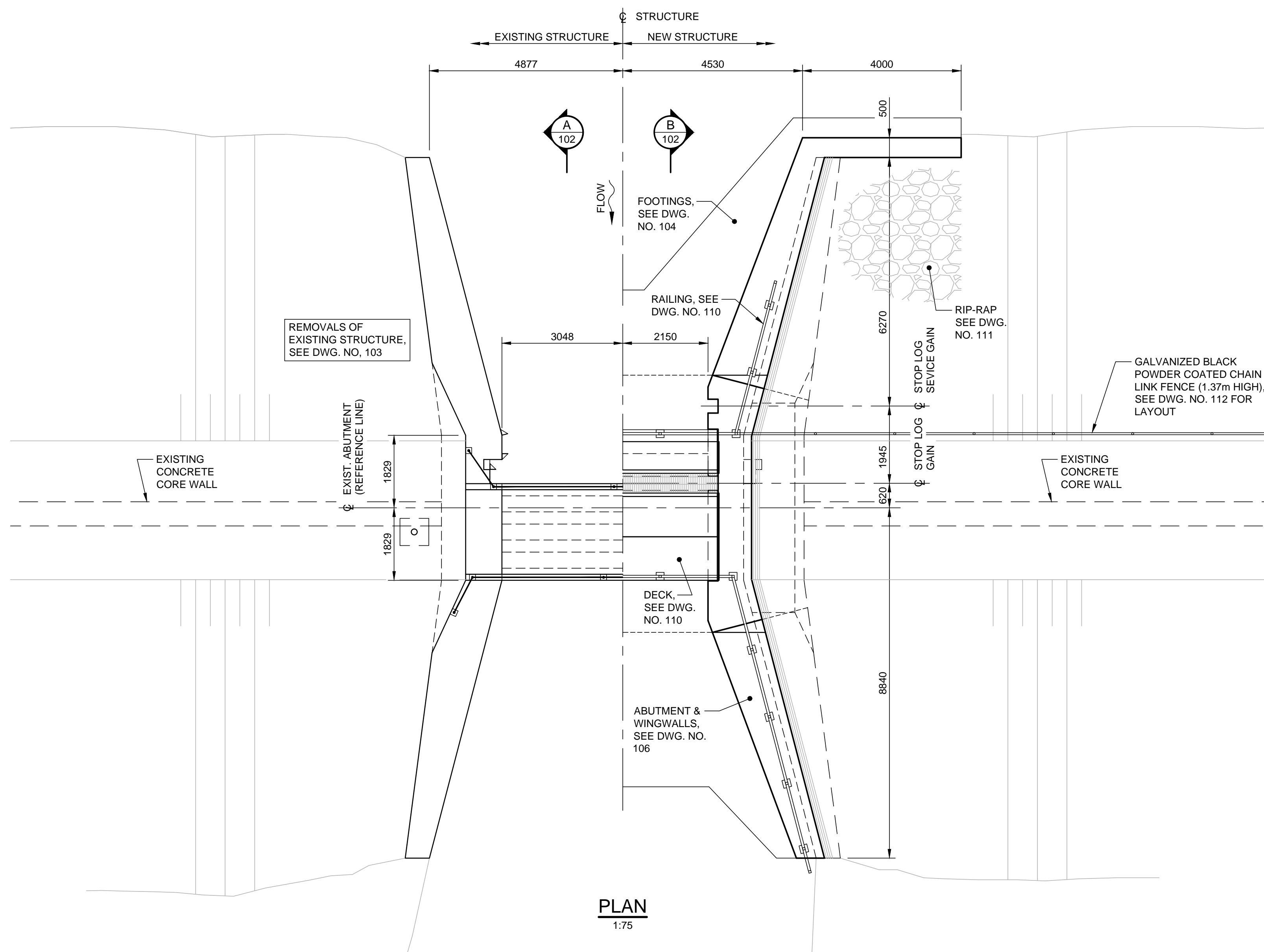


GENERAL NOTES :

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
2. CONTRACTOR SHALL EXAMINE AND VERIFY ALL EXISTING SITE CONDITIONS, DIMENSIONS AND ELEVATIONS, AND COMPARE THEM TO THOSE SHOWN ON THE DRAWINGS BEFORE COMMENCING WORK ON SHOP DRAWINGS AND/OR FABRICATION OF NEW ELEMENTS. ANY DISCREPANCIES AND/OR OMISSIONS, IF ANY, SHALL IMMEDIATELY BE REPORTED, IN WRITING, TO THE DEPARTMENTAL REPRESENTATIVE.
3. ALL STEEL COMPONENTS TO BE HOT DIP GALVANIZED, REFER TO SPECIFICATIONS.
4. ALL STOP LOGS MUST BE TESTED TO ENSURE PROPER FIT AND TOLERANCES.
5. CONTRACTOR TO PROVIDE DESIGN AND SHOP DRAWINGS OF ACCESS RAMP TO UPSTREAM AREA OF WORK. DESIGN RAMP TO MINIMIZE ADDITIONAL SURCHARGE LOADING TO EXISTING EARTH EMBANKMENT BY HEAVY MACHINERY.
6. REFERENCE LINE ON CONTRACT DRAWINGS IS THE CENTRELINE OF EXISTING ABUTMENTS.

LEGEND:

M.N.W.L. - MAXIMUM NORMAL WATER LEVEL



No.	Description	Drawn By (Des Par)	Date
1	ISSUED FOR TENDER	DMR	02/09/2014

Revision / Révision

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the
Departmental Representative of all discrepancies.

A	A Detail number Numéro du détail
B	B Location dwg. number Numéro sur dessin

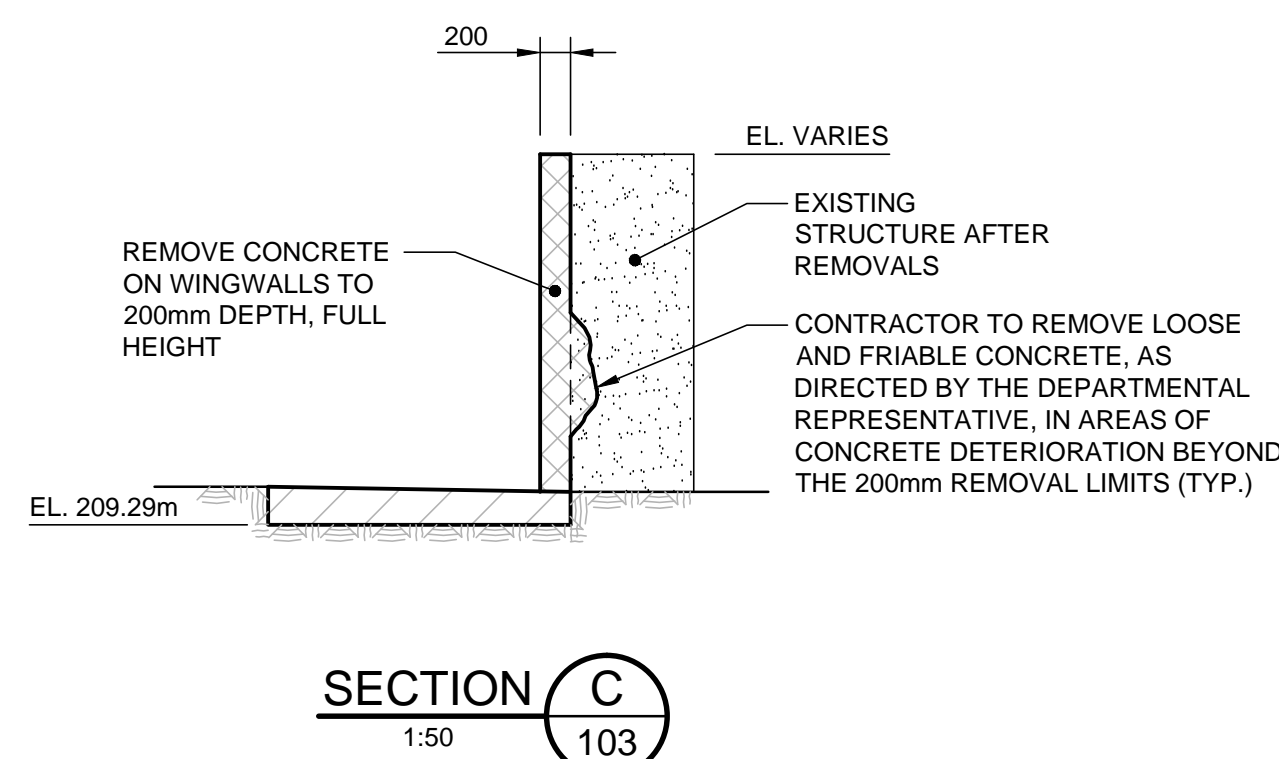
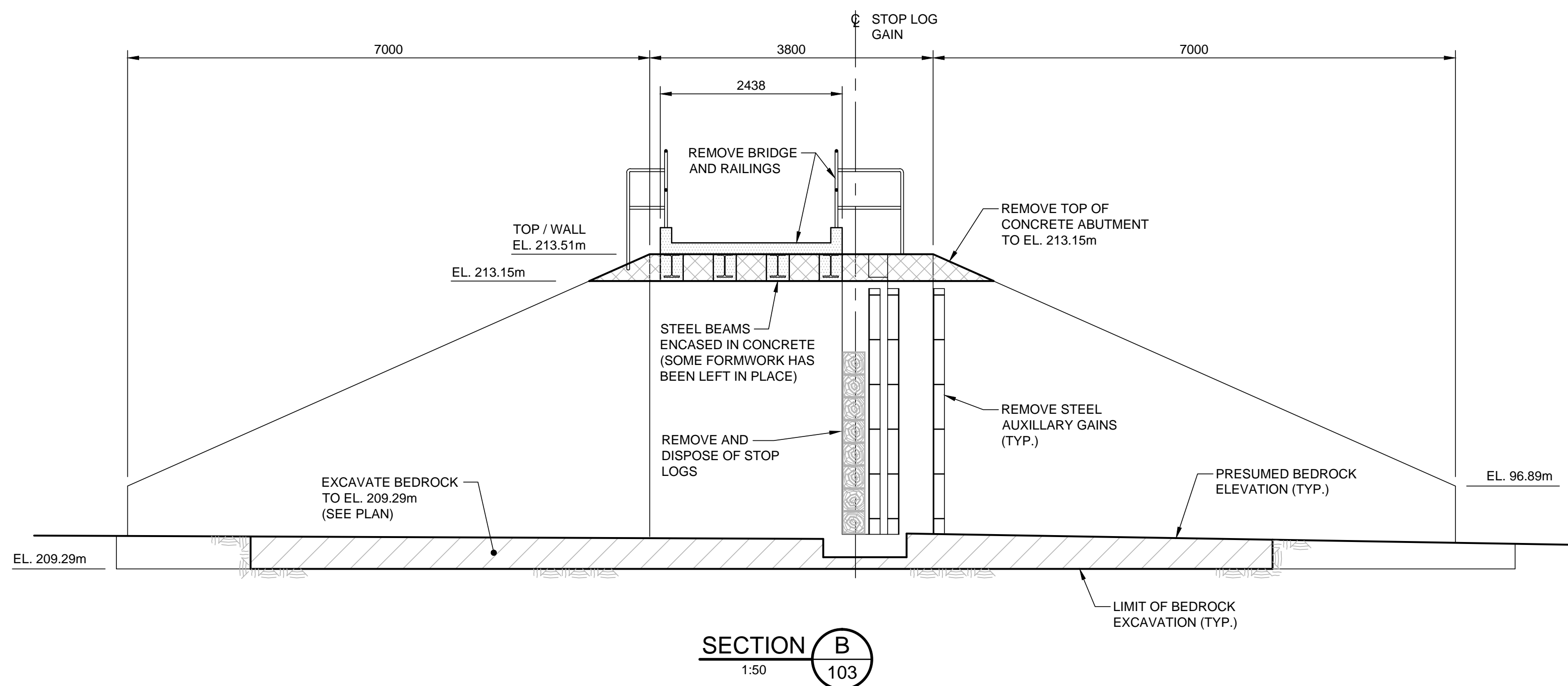
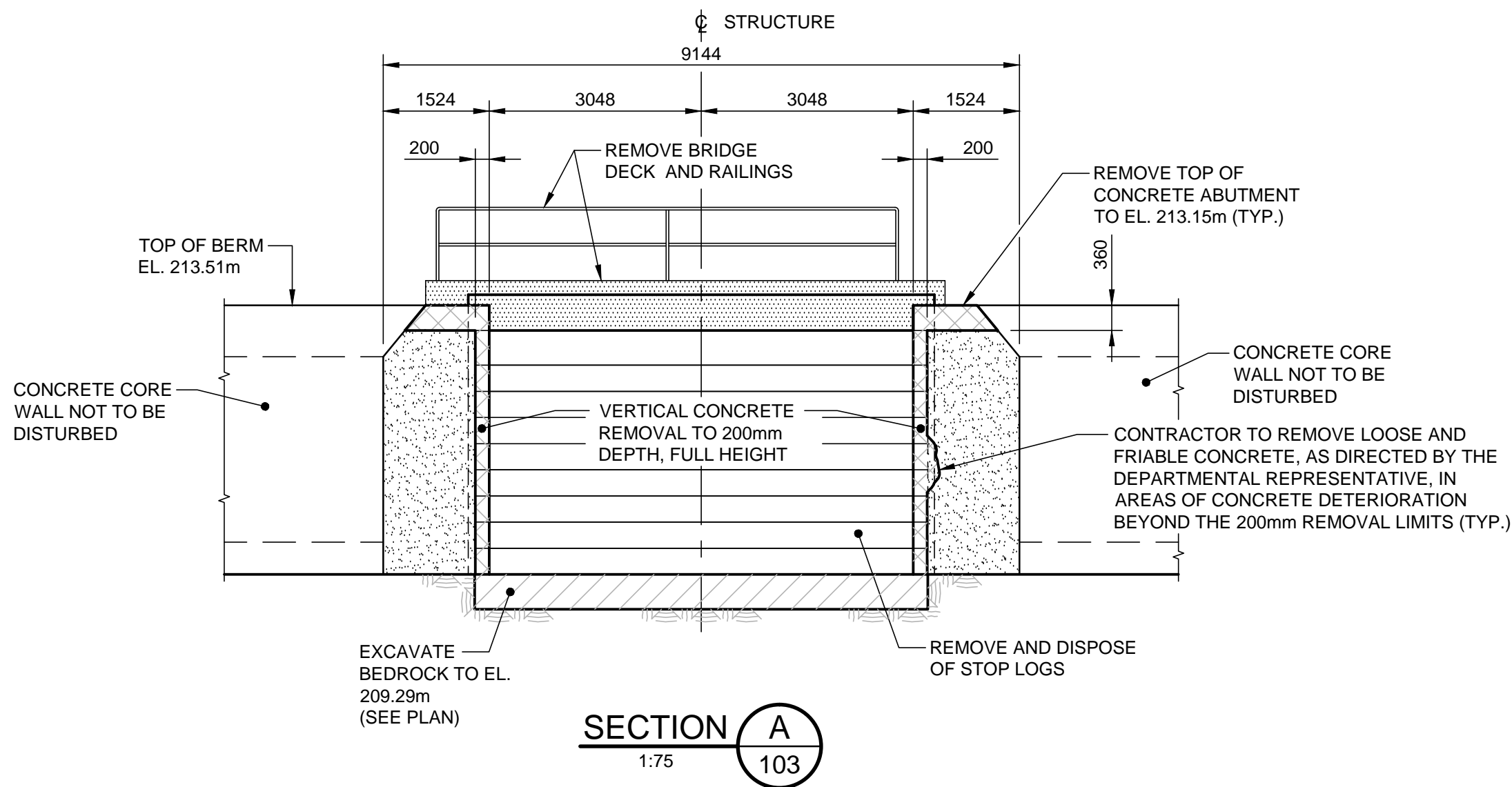
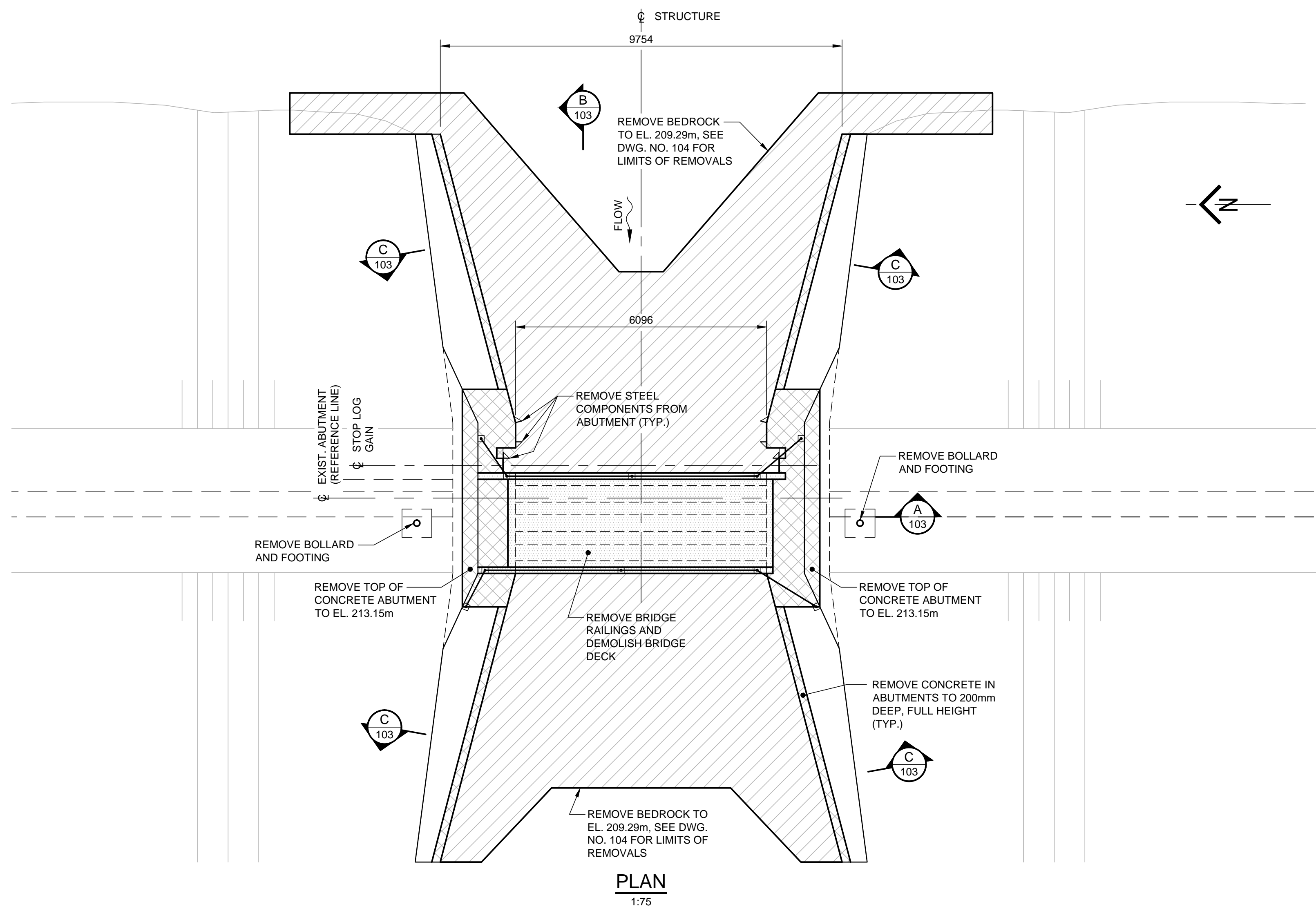
Project title / Titre du projet

THOMPSON BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

GENERAL ARRANGEMENT

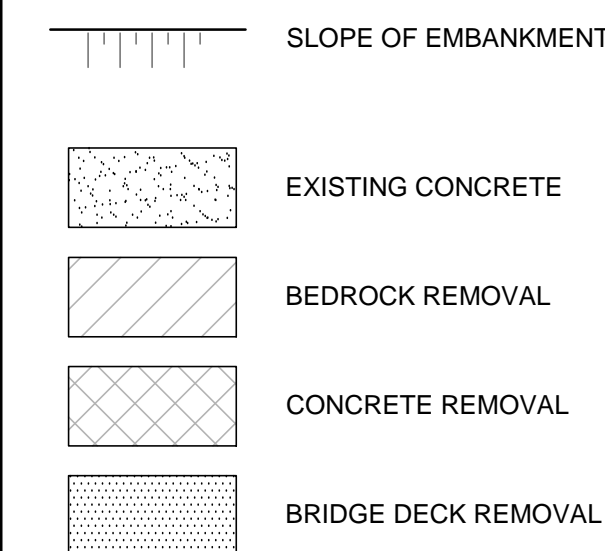
Drawn by / Dessiné par DAVID ROWAN	Designed by / Conçu par CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin JAN. 2014
Project manager / Administrateur de projet DANIEL SEGURA	
HCEW Number / Numéro de CHTI COTSW 14/R11	Drawing Number/ Numéro du Dessin 102
Project Number / Numéro du projet R.065830.301	Sheet Feuille 3 of 16



NOTES :

1. ALL DIMENSIONS AND DETAILS PRESENTED ARE BASED ON INFORMATION FROM THE FOLLOWING DRAWINGS (SEE DRAWING No. 115) : T11-286-2 - THOMPSON'S BAY, AS BUILT
2. ALL ELEVATIONS INDICATED ARE BASED ON THE 2013 DSR FOR THOMPSON'S BAY DAM BY AECOM.
3. LOCATION AND ELEVATION OF BEDROCK IS APPROXIMATE.
4. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING TO ENSURE STABILITY AND INTEGRITY OF EXISTING STRUCTURES AND ADJACENT ELEMENTS AT ALL STAGES OF SELECTIVE DEMOLITION. INSTITUTE ALL NECESSARY MEASURES TO PREVENT ANY OVER-STRESSING, DISPLACEMENT AND/OR SETTLEMENT OF EXISTING STRUCTURE.
5. SAWCUT TO A MINIMUM DEPTH OF 75mm, ALL LIMITS OF CONCRETE AND ROCK REMOVAL.

LEGEND:



No.	Description	Drawn By Des. Par	Date
1	ISSUED FOR TENDER	DMR	02/09/2014

Do not scale drawings.
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A	A Detail number Numéro du détail
B	B Location dwg. number Numéro sur dessin

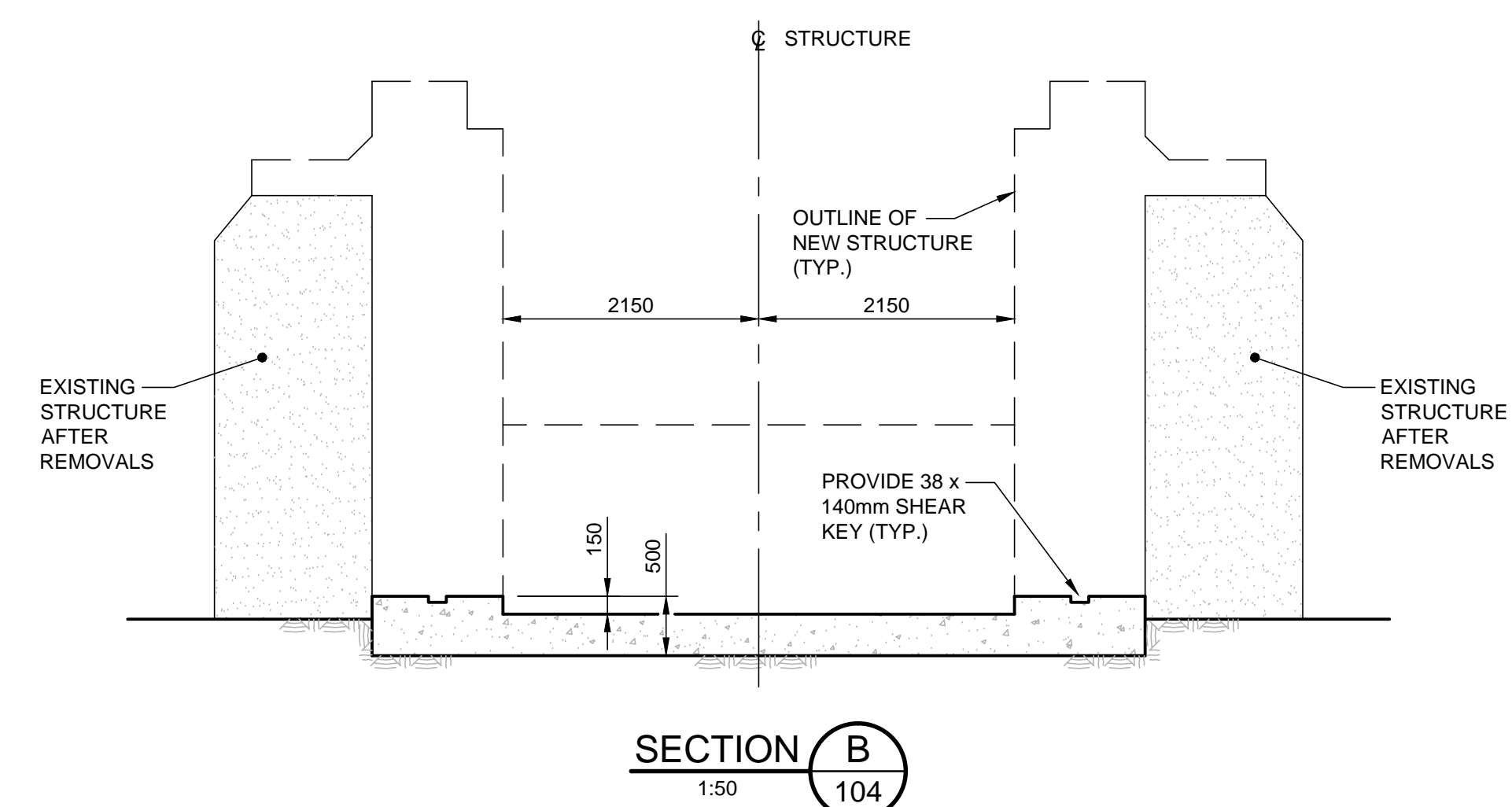
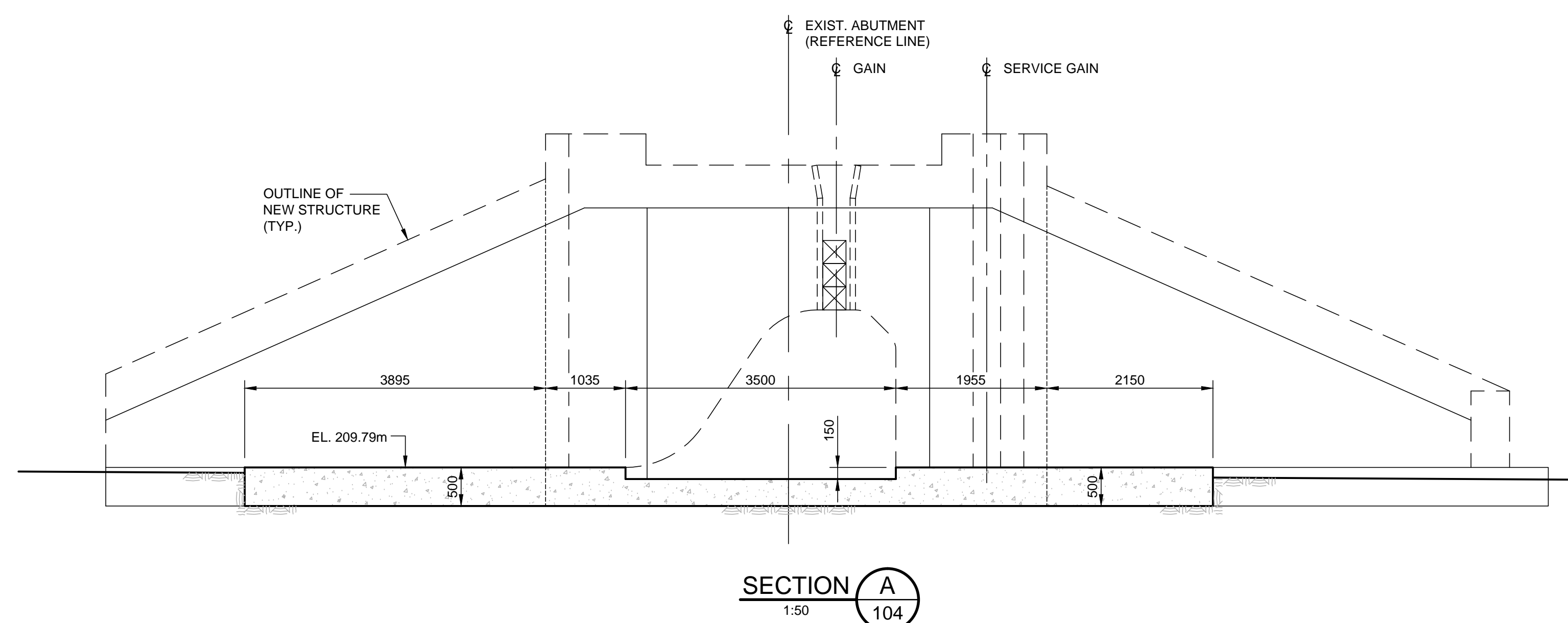
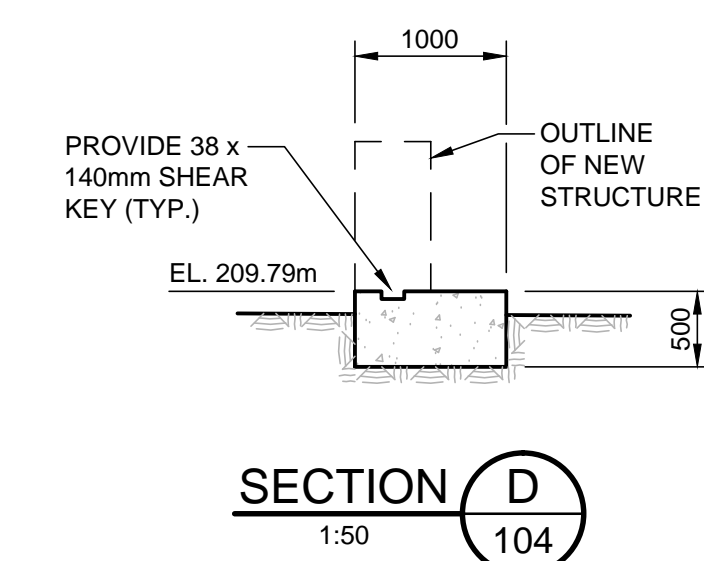
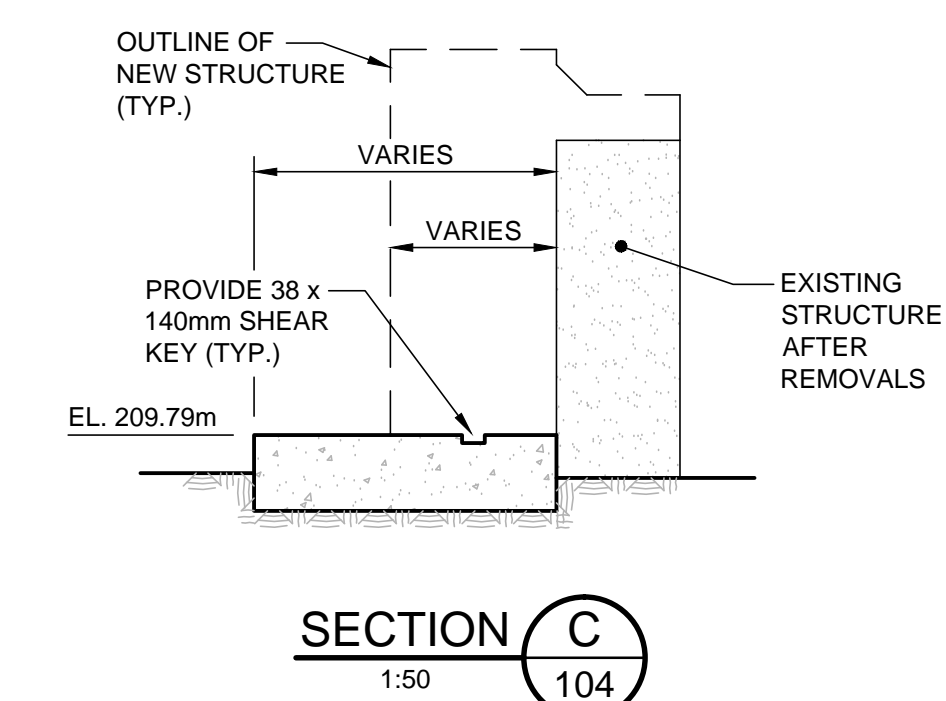
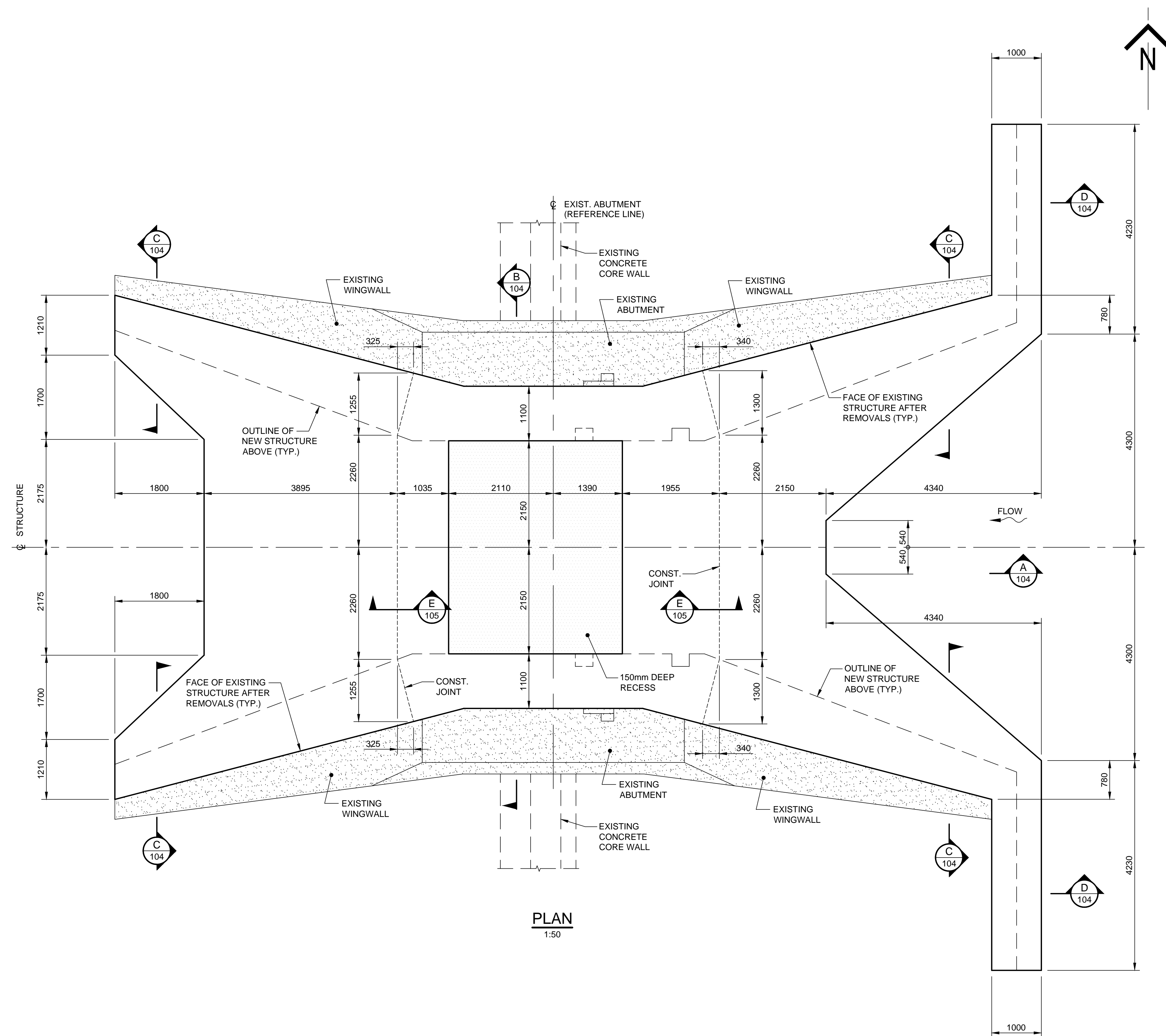
Project title / Titre du projet

THOMPSON'S BAY DAM REPLACEMENT 2014

Drawing title / Titre du dessin


REMOVALS

Drawn by / Dessiné par DAVID ROWAN	Designed by / Conçu par CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin JAN. 2014
Project manager / Administrateur de projet DANIEL SEGURA	
HCEW Number / Numéro de CHTI COTSW 14/R11	Drawing Number / Numéro du Dessin 103
Project Number / Numéro du projet R.065830.301	Sheet Feuille 4 of 16 du



1	ISSUED FOR TENDER	DMR	02/09/2014
No.	Description	Dwn By Des.Pai	Date
Revision / Révision			

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A Detail number
Numéro du détail

B Location dwg. number
Numéro sur dessin

Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

FOOTING DIMENSIONS

Drawn by / Dessiné par	Designed by / Conçu par
DAVID ROWAN	CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin
	JAN. 2014
Project manager / Administrateur de projet	
DANIEL SEGURA	
HCEW Number / Numéro de CHTI	Drawing Number / Numéro du Dessin
COTSW 14/R11	104 Sheet 5 of 16
Project Number / Numéro du projet	
R.06580.301	

NOTES:

1. ALL REINFORCING STEEL HOOKS ARE STANDARD UNLESS NOTED OTHERWISE.
2. ALL REINFORCING STEEL LAP SPICES ARE CLASS 'B' UNLESS NOTED OTHERWISE.
3. ALL REINFORCING STEEL SPACING IS CENTRE TO CENTRE OF REBAR.
4. ALL REINFORCING STEEL TO HAVE 100mm MIN. COVER.
5. ALL REINFORCING STEEL PROJECTION LENGTHS ARE 300mm UNLESS OTHERWISE NOTED.

LEGEND:

E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE
B.L.L. - BOTTOM LOWER LAYER
B.U.L. - BOTTOM UPPER LAYER
T.L.L. - TOP LOWER LAYER
T.U.L. - TOP UPPER LAYER
P.T. - POINT OF TANGENT

No.	Description	Drawn By Dessiné par	Date
1	ISSUED FOR TENDER	DMR	02/09/2014
Revision / Révision			
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A	A Detail number Numéro du détail
B	B Location dwg. number Numéro sur dessin

Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

FOOTING
REINFORCEMENT

Drawn by / Dessiné par DAVID ROWAN	Designed by / Conçu par CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin JAN. 2014

Project manager / Administrateur de projet

DANIEL SEGURA

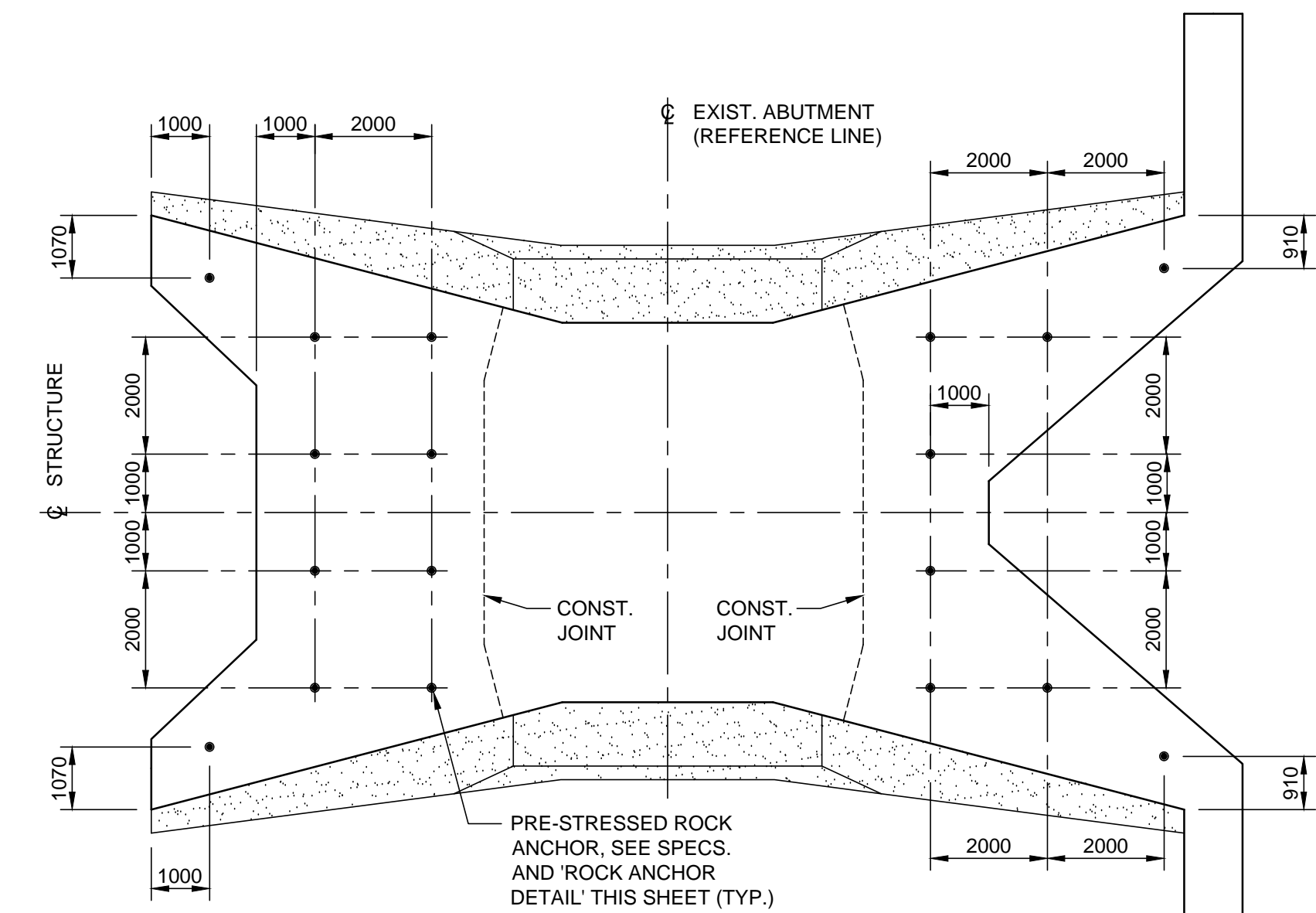
HCEW Number / Numéro de CHTI

COTSW 14/R11

Project Number / Numéro du projet

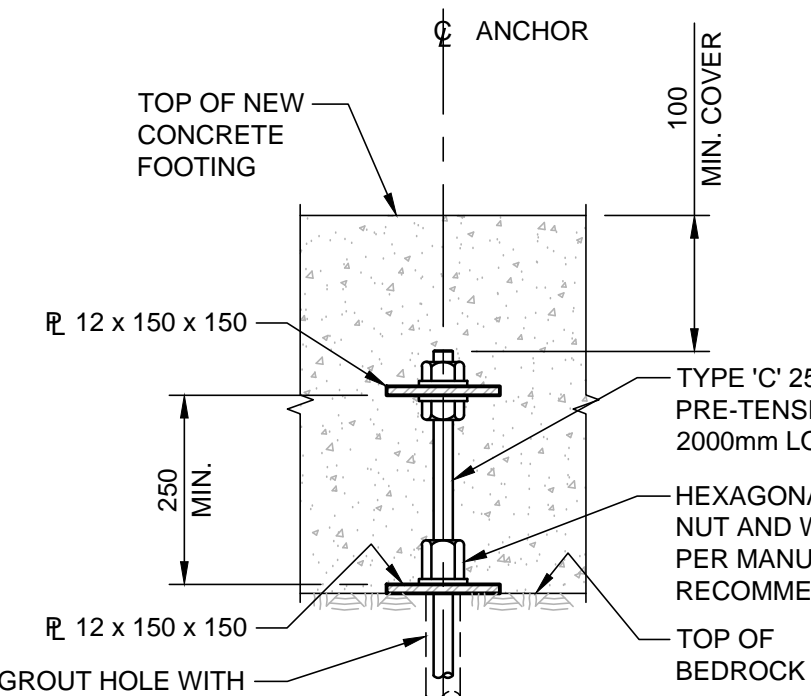
R.065830.301

Drawing Number/
Numéro du Dessin
105
Sheet
Feuille 6 of 16



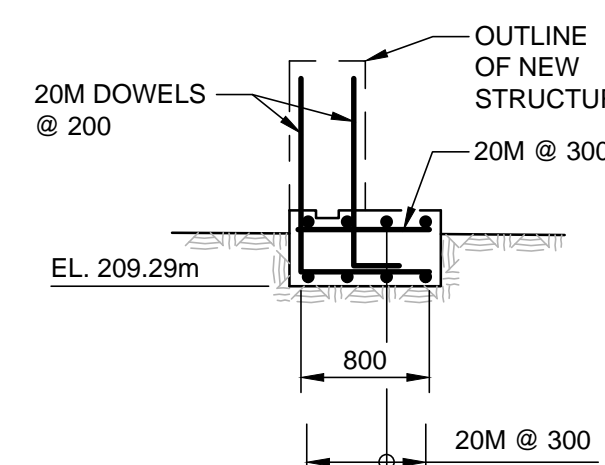
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ROCK ANCHOR DETAIL

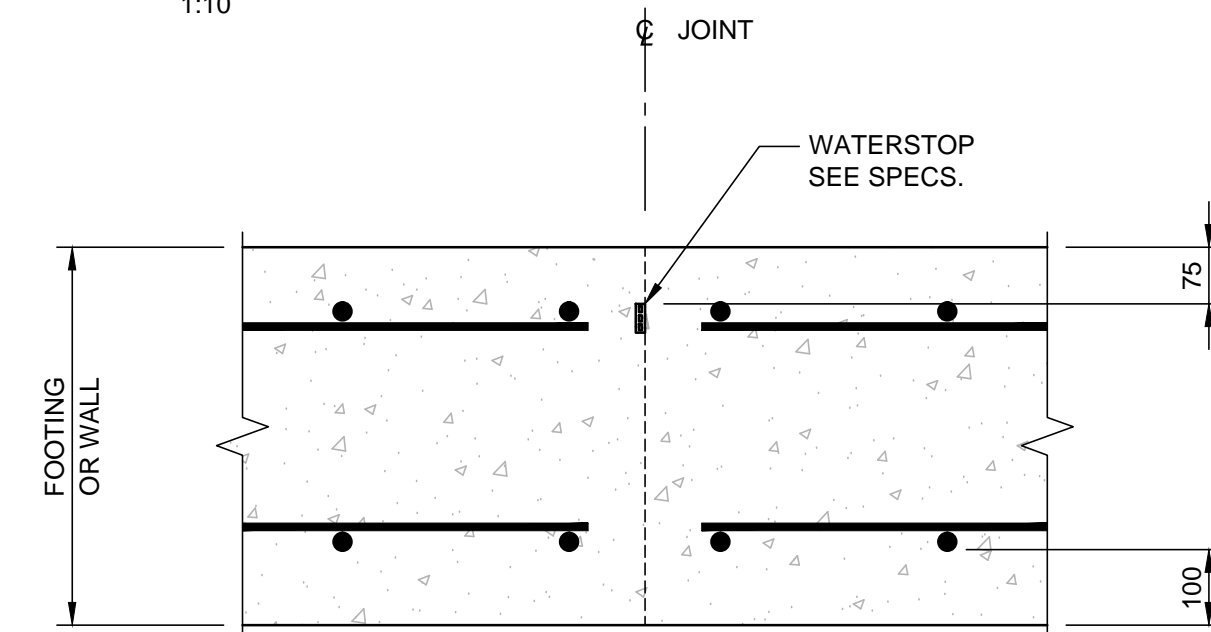
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SECTION D

1:50

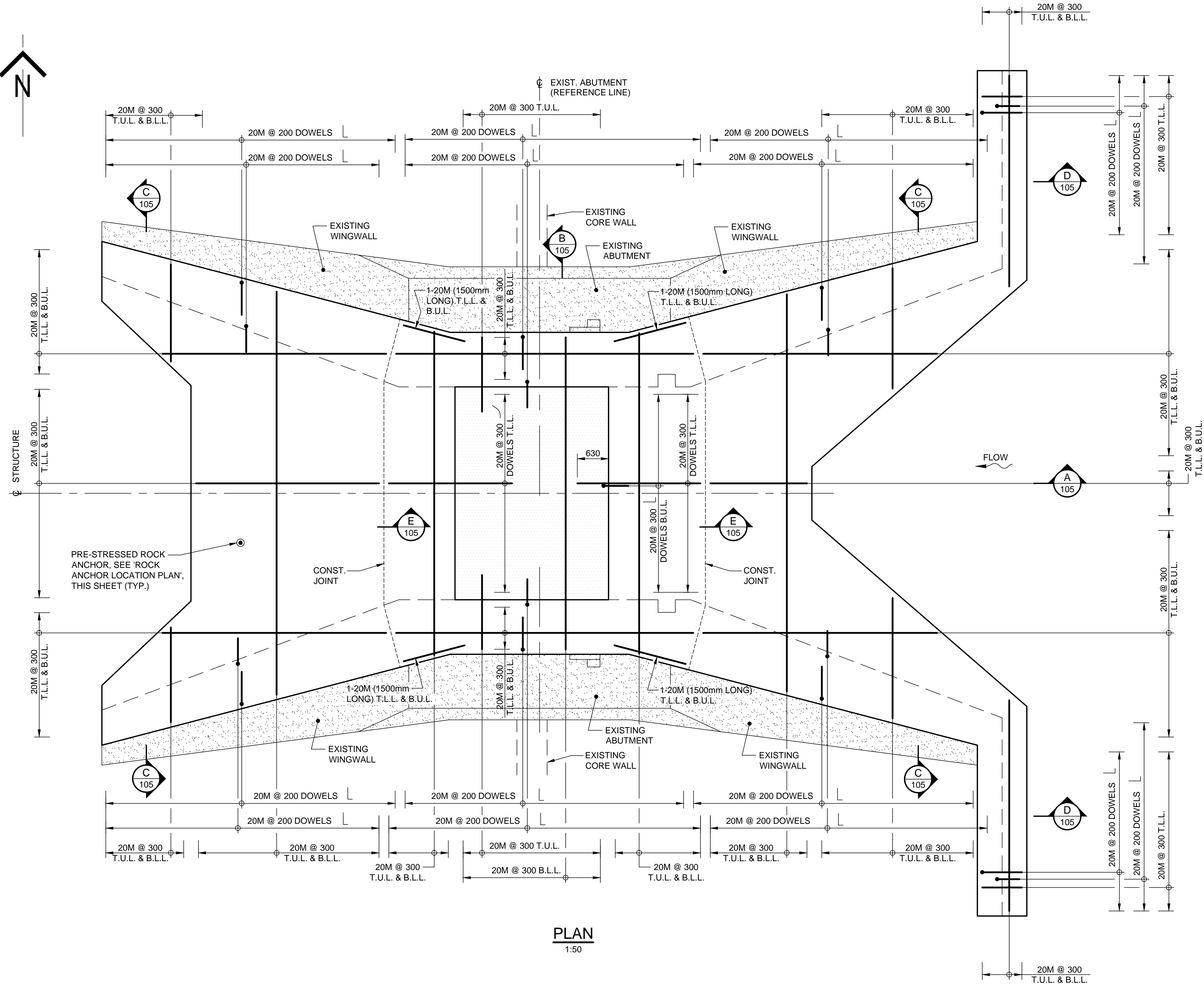
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SECTION E

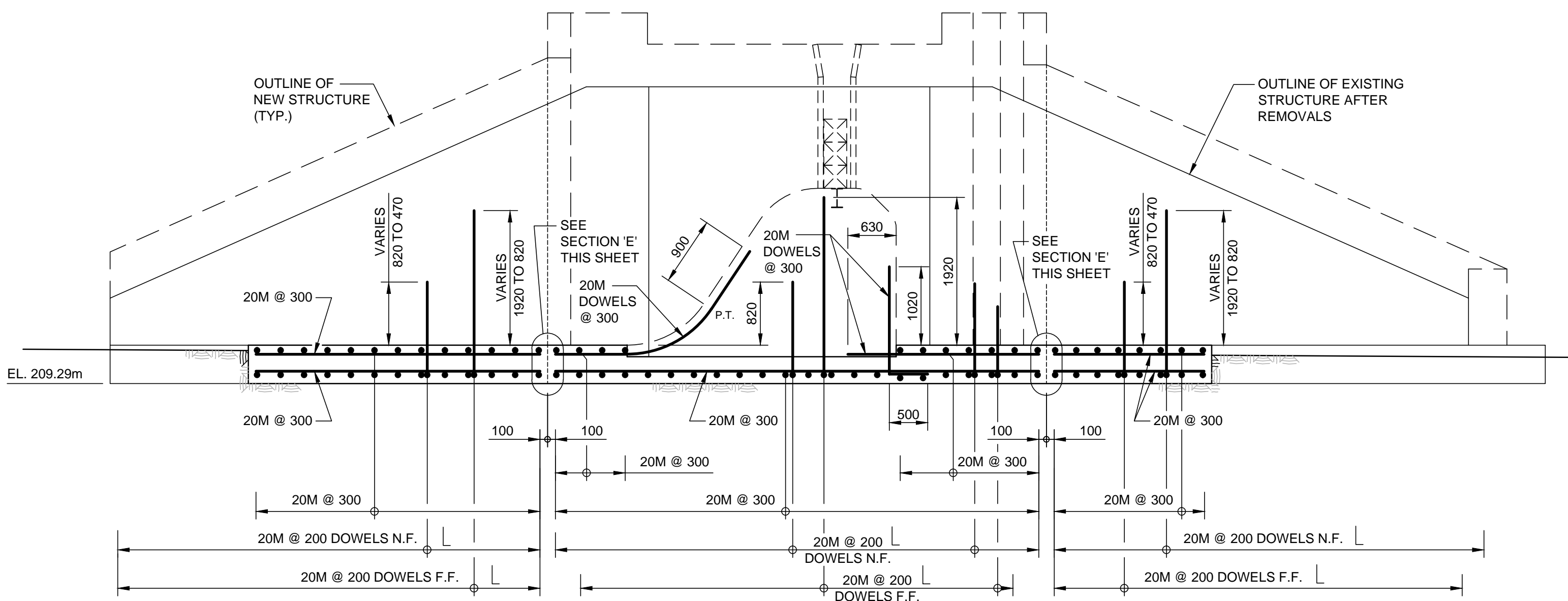
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105



PLAN

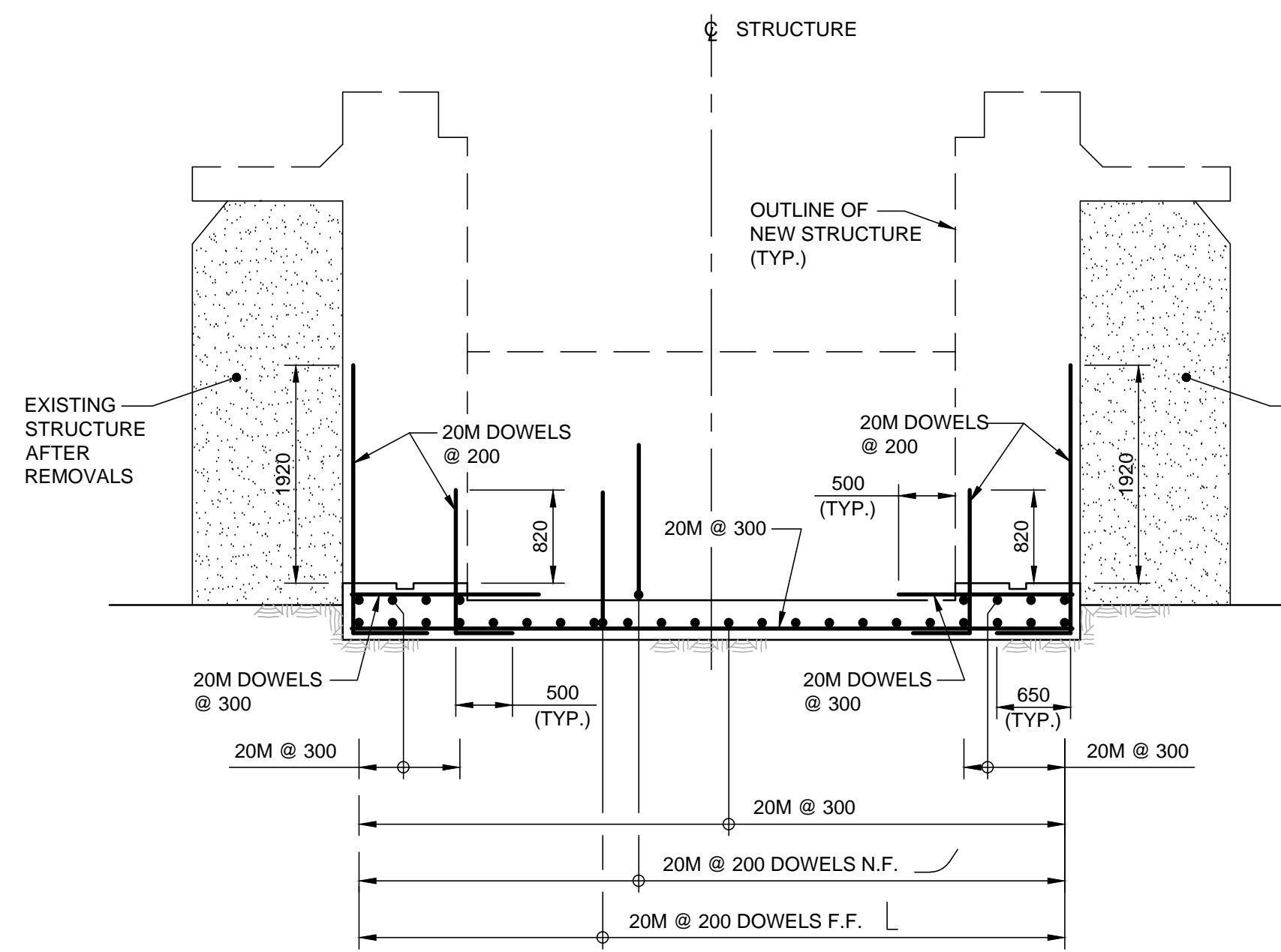
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SECTION A

1:50

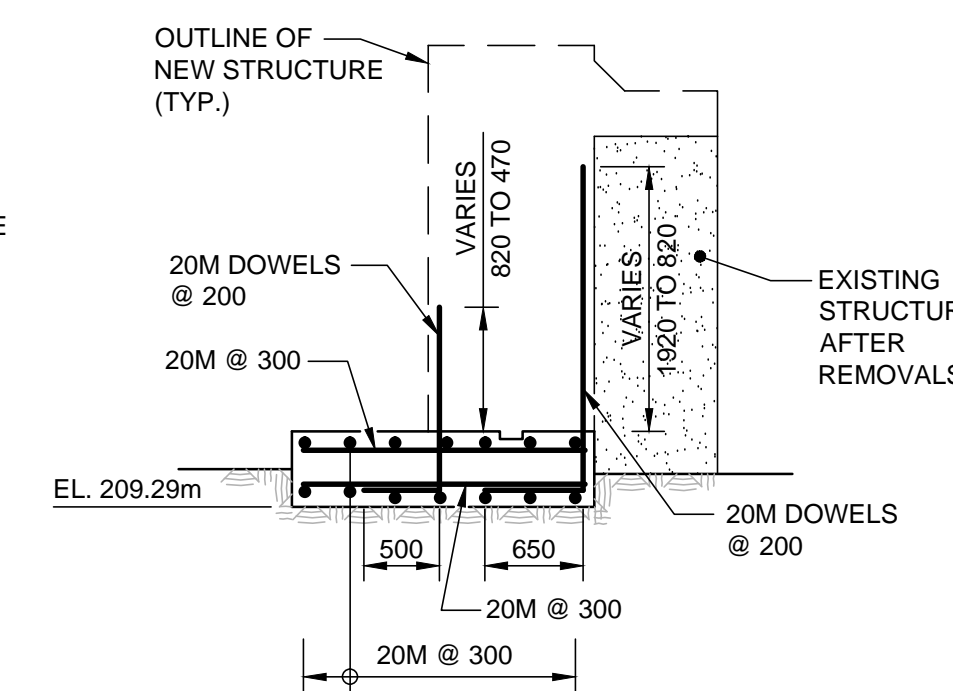
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SECTION B

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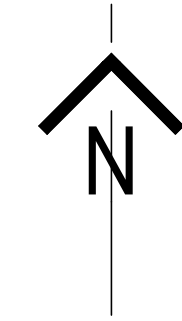
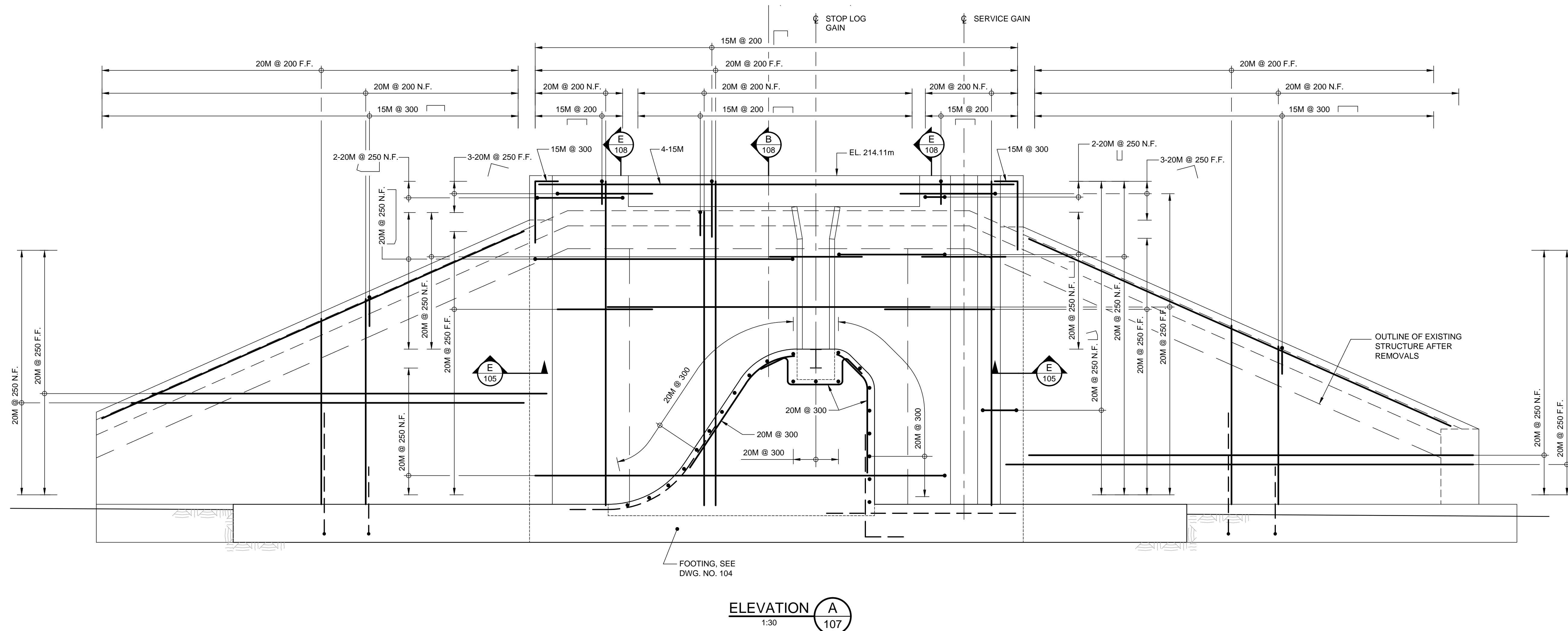
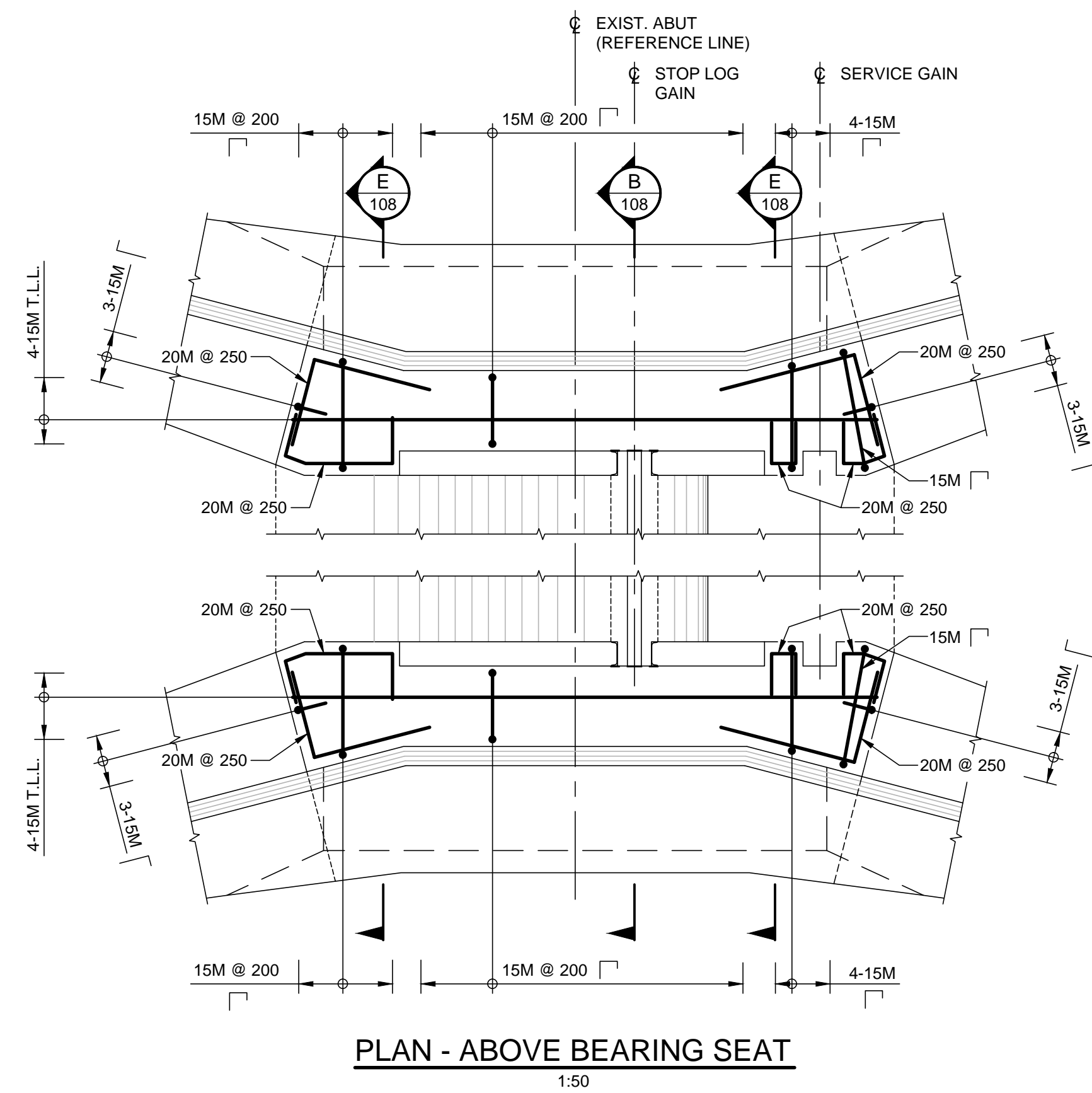
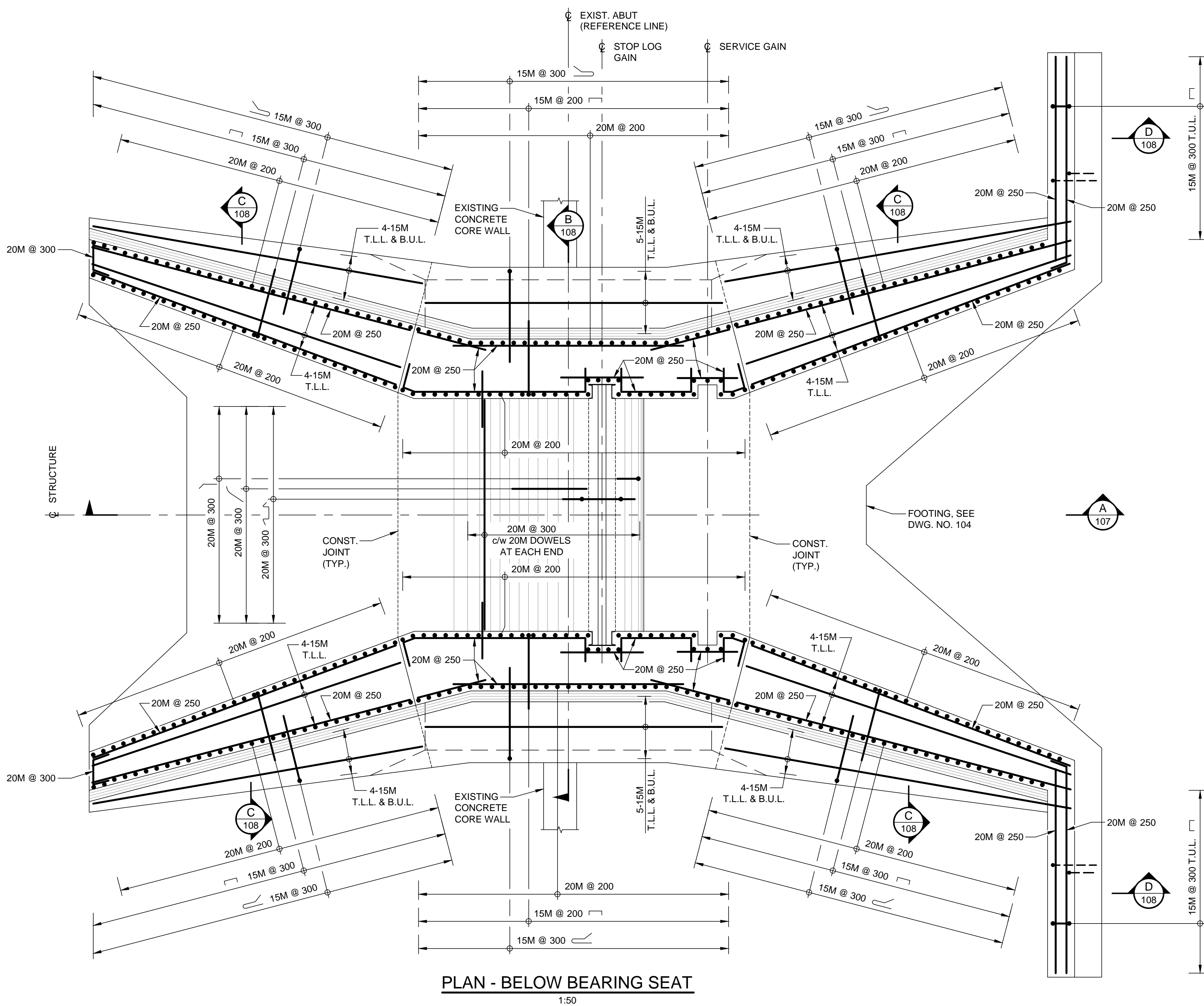
105



SECTION C

1:50

105



NOTES:

1. ALL REINFORCING STEEL HOOKS ARE STANDARD UNLESS NOTED OTHERWISE.
2. ALL REINFORCING STEEL LAP SPLICES ARE CLASS 'B' UNLESS NOTED OTHERWISE.
3. CLEAR COVER IS 75mm UNLESS NOTED OTHERWISE.
5. ALL REINFORCING STEEL PROJECTION LENGTHS ARE 300mm UNLESS OTHERWISE NOTED.

LEGEND:

E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE
B.L.L. - BOTTOM LOWER LAYER
B.U.L. - BOTTOM UPPER LAYER
T.L.L. - TOP LOWER LAYER
T.U.L. - TOP UPPER LAYER

No.	Description	Drawn By Dessiné Par	Date
1	ISSUED FOR TENDER	DMR	02/09/2014

Revision / Révision

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the
Departmental Representative of all discrepancies.

A	A Detail number Numéro du détail
B	B Location dwg. number Numéro sur dessin

Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

DAM REINFORCEMENT I

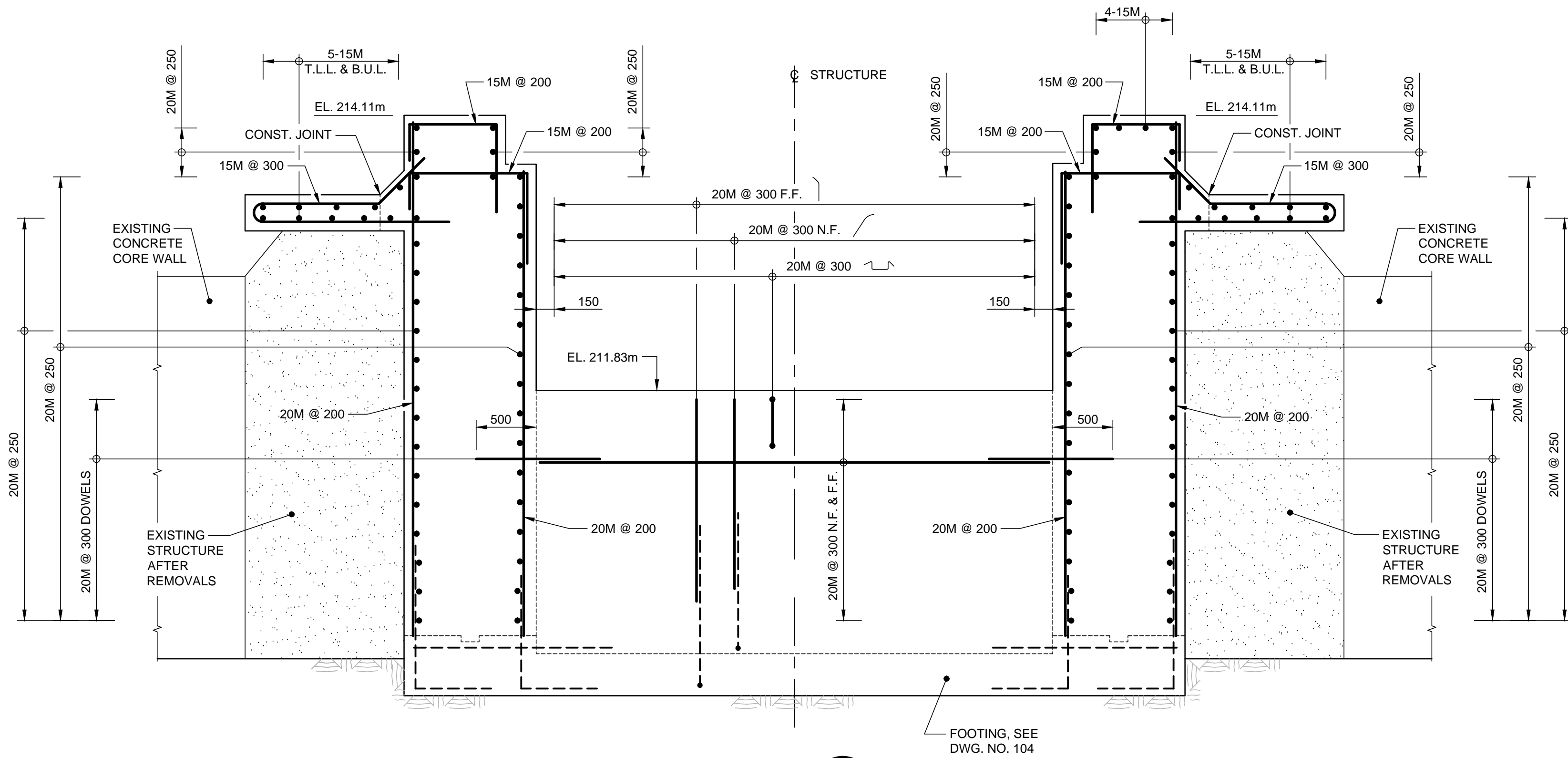
Drawn by / Dessiné par DAVID ROWAN	Designed by / Conçu par CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin JAN. 2014
Project manager / Administrateur de projet DANIEL SEGURA	
HCEW Number / Numéro de CHTI COTSW 14/R11	Drawing Number / Numéro du Dessin 107
Project Number / Numéro du projet R.065830.301	Sheet Feuille 8 of 16

NOTES:

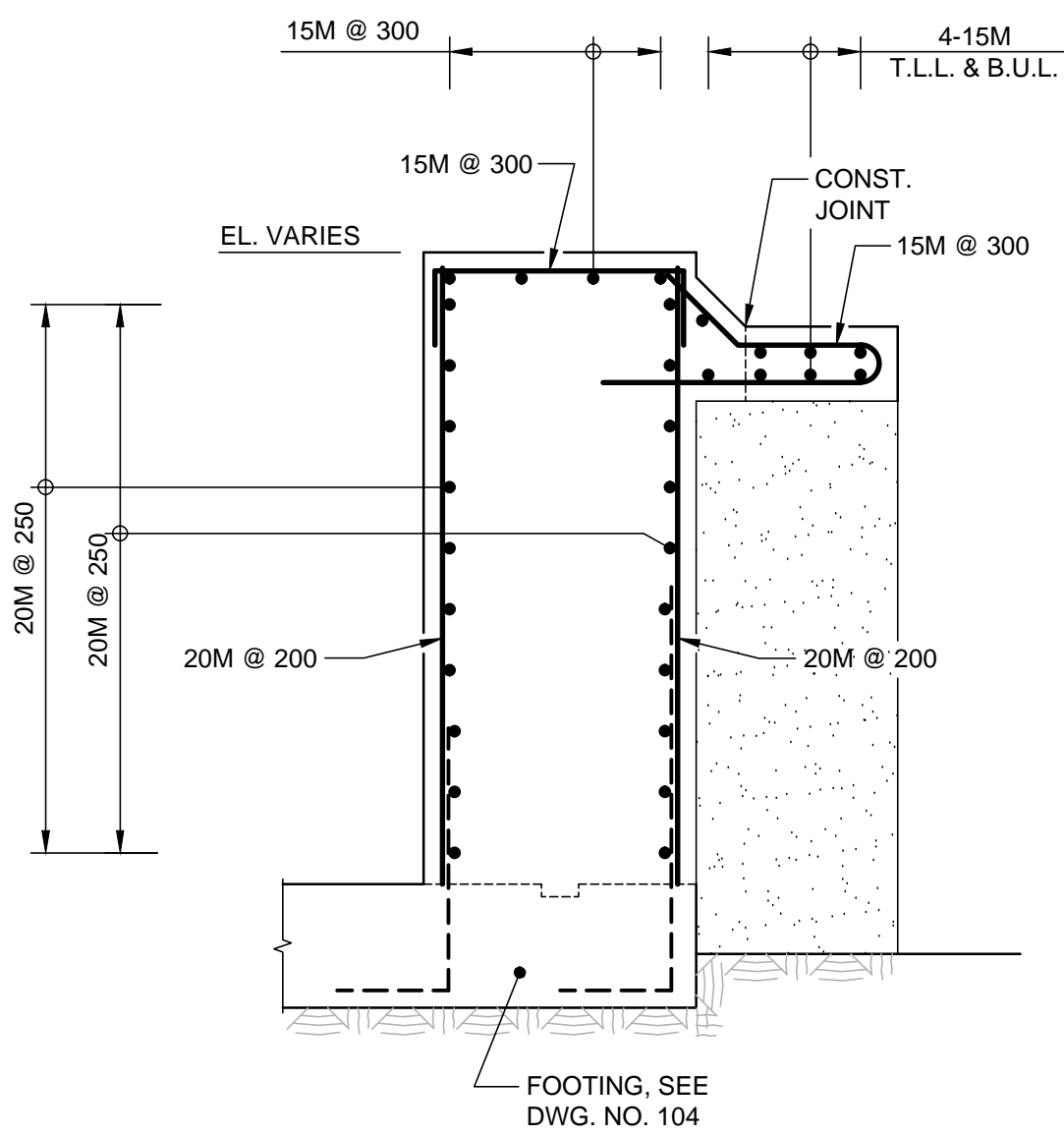
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2. ALL REINFORCING STEEL LAP SPICES ARE CLASS 'B' UNLESS NOTED OTHERWISE.
3. ALL REINFORCING STEEL SHALL BE CLASS 'B' UNLESS NOTED OTHERWISE.
4. ALL REINFORCING STEEL SHALL BE CLASS 'B' UNLESS NOTED OTHERWISE.
5. ALL REINFORCING STEEL PROJECTION LENGTHS ARE 300mm UNLESS OTHERWISE NOTED.

LEGEND:

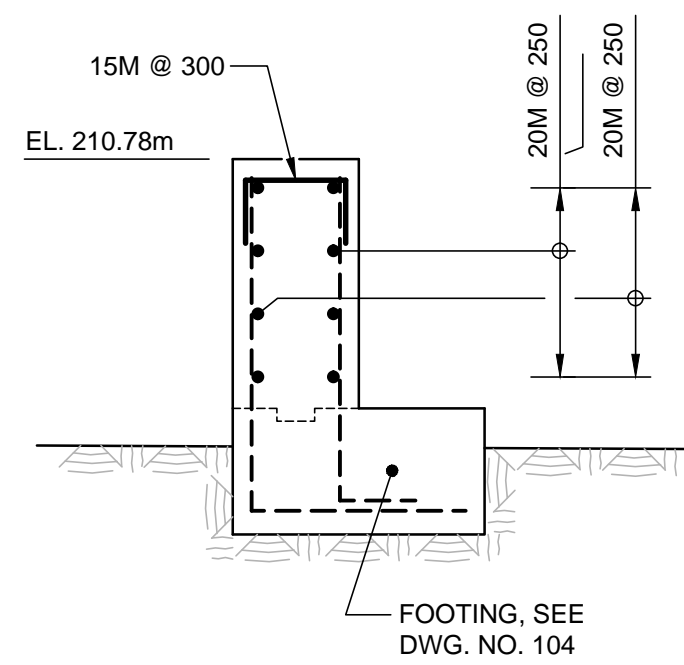
- E.F. - EACH FACE
N.F. - NEAR FACE
F.F. - FAR FACE
B.L.L. - BOTTOM LOWER LAYER
B.U.L. - BOTTOM UPPER LAYER
T.L.L. - TOP LOWER LAYER
T.U.L. - TOP UPPER LAYER



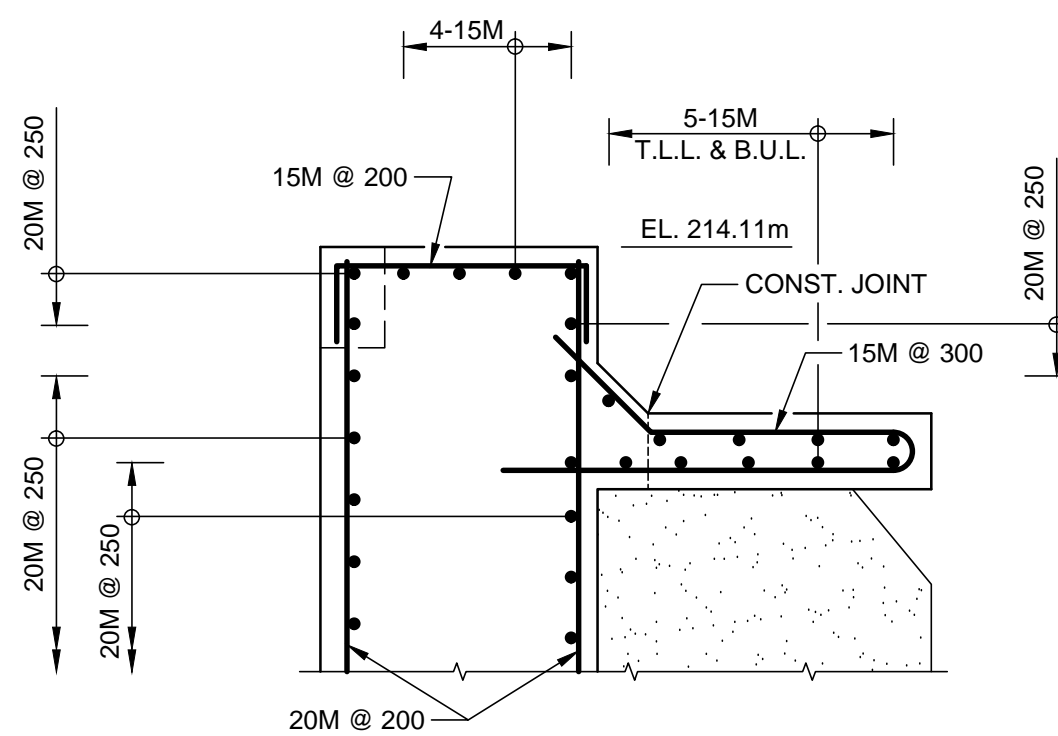
SECTION B
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SECTION C
1:30 108



SECTION D
1:30 108



SECTION E
1:30 108

No.	Description	Dwn By (Des Par)	Date
1	ISSUED FOR TENDER	DMR	02/09/2014

Revision / Révision

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A Detail number
Numéro du détail
B Location dwg. number
Numéro sur dessin

Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

DAM REINFORCEMENT II

Drawn by / Dessiné par DAVID ROWAN	Designed by / Conçu par CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin JAN. 2014


Project manager / Administrateur de projet DANIEL SEGURA	HCEW Number / Numéro de CHTI COTSW 14/R11	Drawing Number/ Numéro du Dessin 108
Project Number / Numéro du projet R.065830.301	Sheet Feuille 9 of du 16	

NOTES:

1. ALL DIMENSIONS ARE IN METRIC AND GIVEN IN MILLIMETERS
2. ALL EXPOSED EDGES OF CONCRETE TO HAVE 20 mm CHAMFER UNLESS OTHERWISE NOTED

1	ISSUED FOR TENDER	DMR	02/09/2014		
No.	Description	Dwn.By Des.Par	Date		
Revision / Révision					

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A Detail number
Numéro du détail

B Location dwg. number
Numéro sur dessin

Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

DECK DETAILS

Drawn by / Dessiné par

Designed by / Conçu par

Approved by / Approuvé par

Drawing Date / Date du dessin

Project manager / Administrateur de projet	93
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DANIEL SEGURA

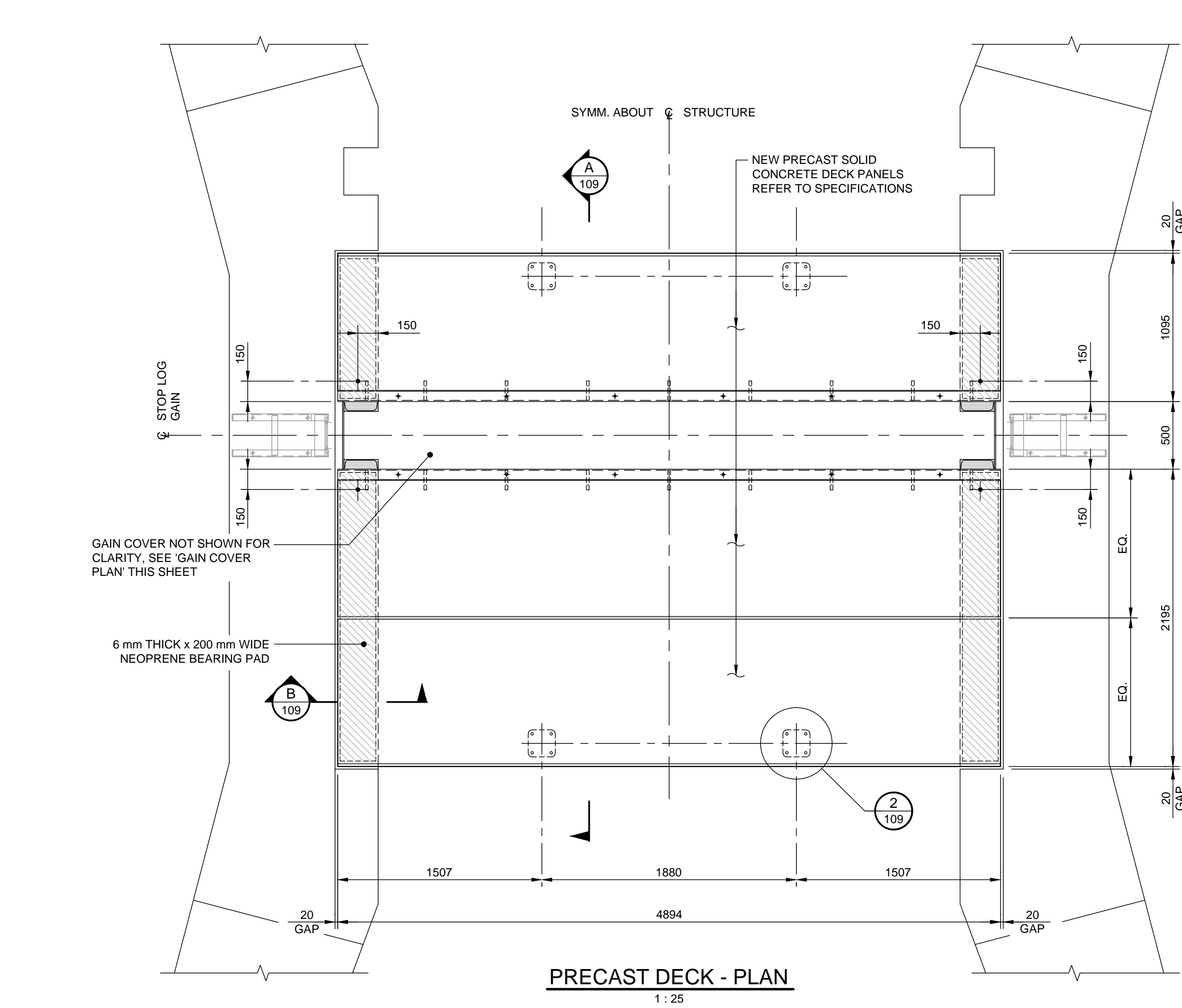
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COTSW 14/R11

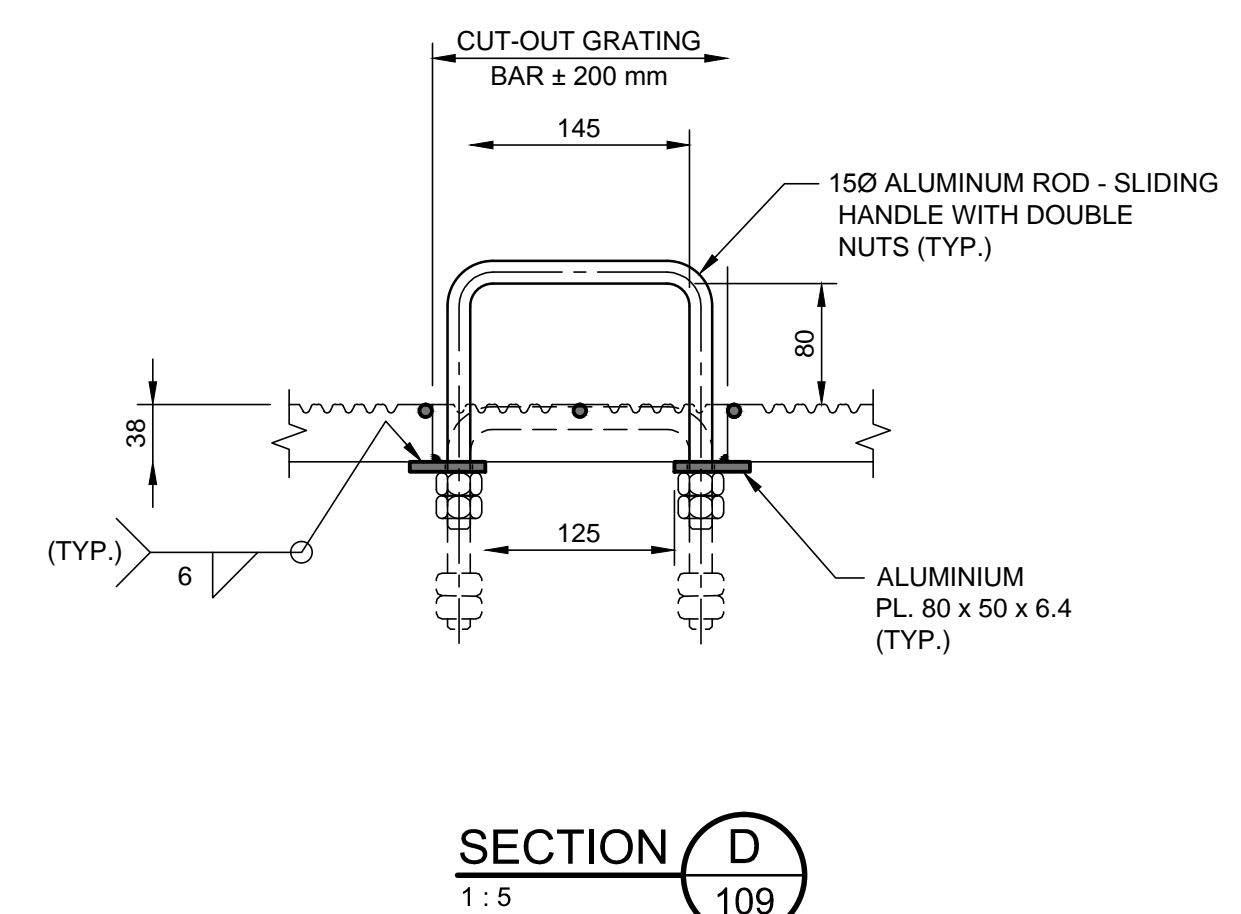
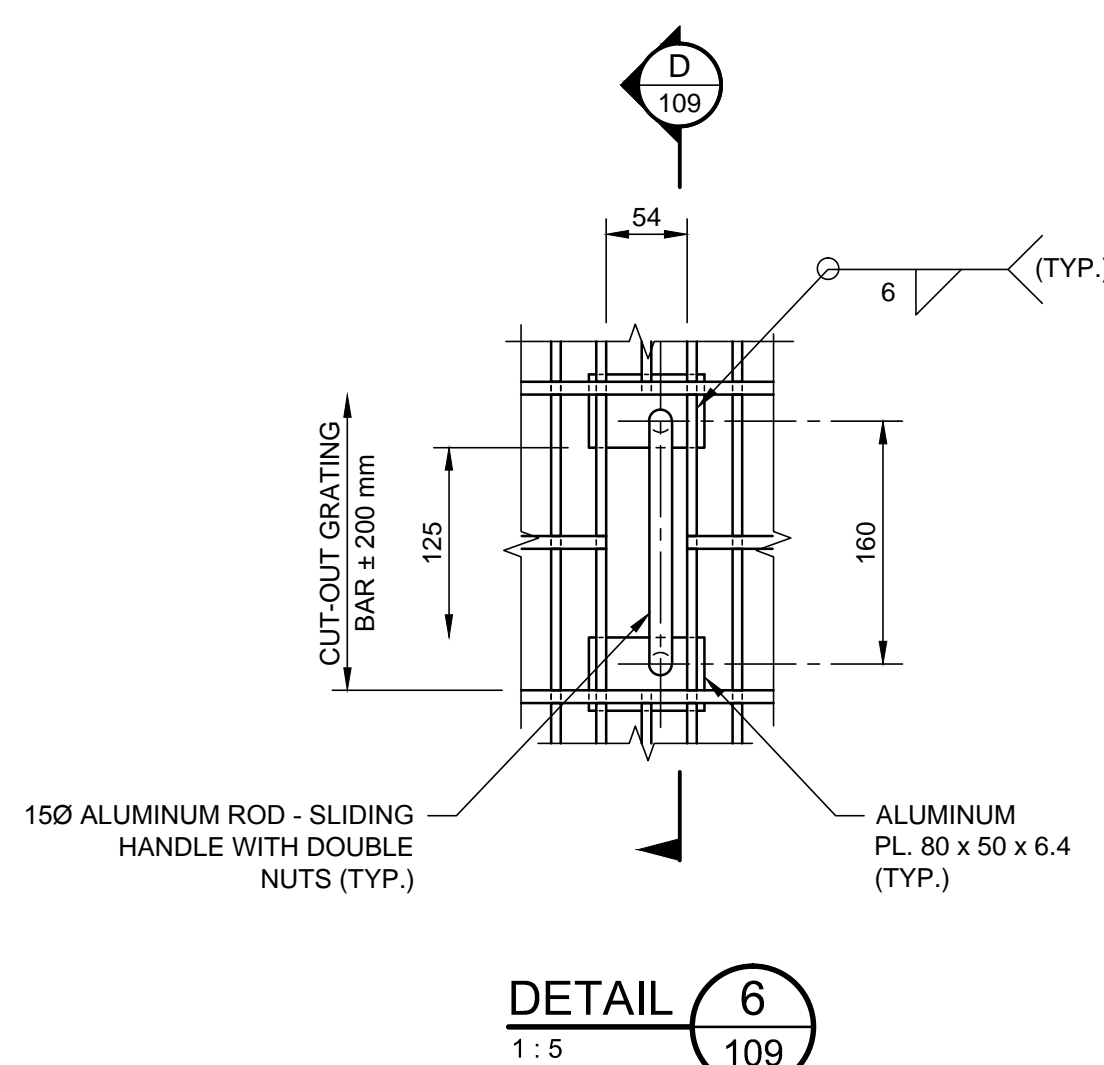
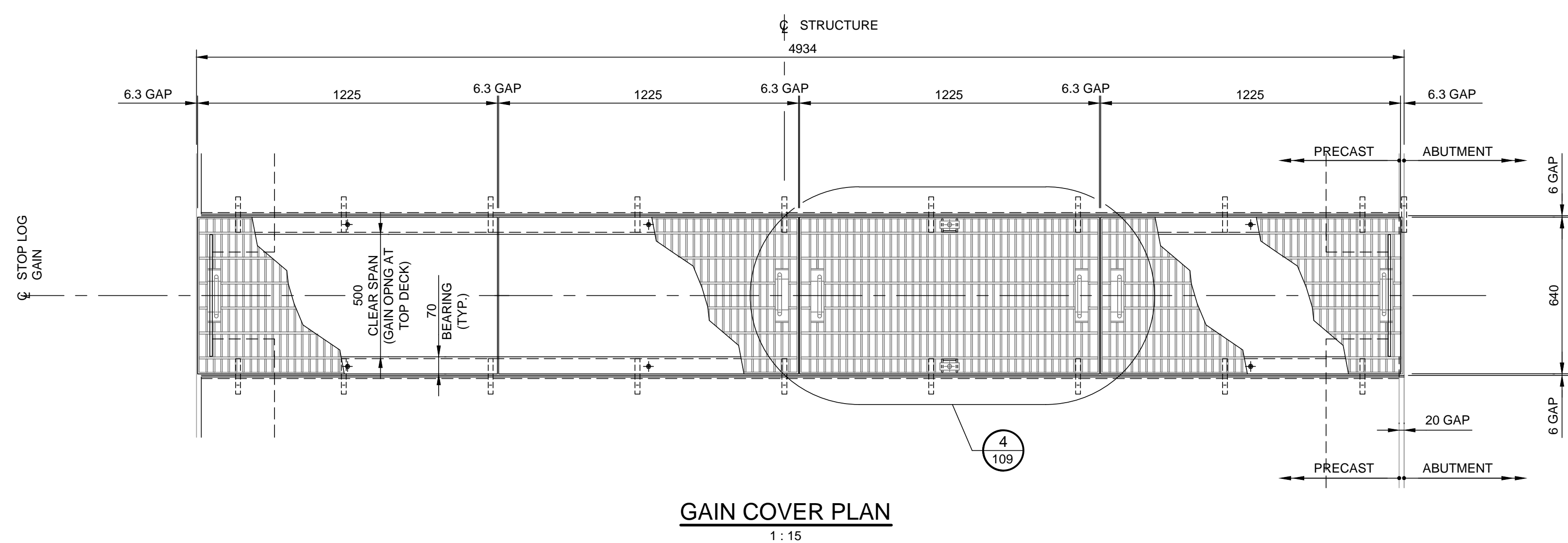
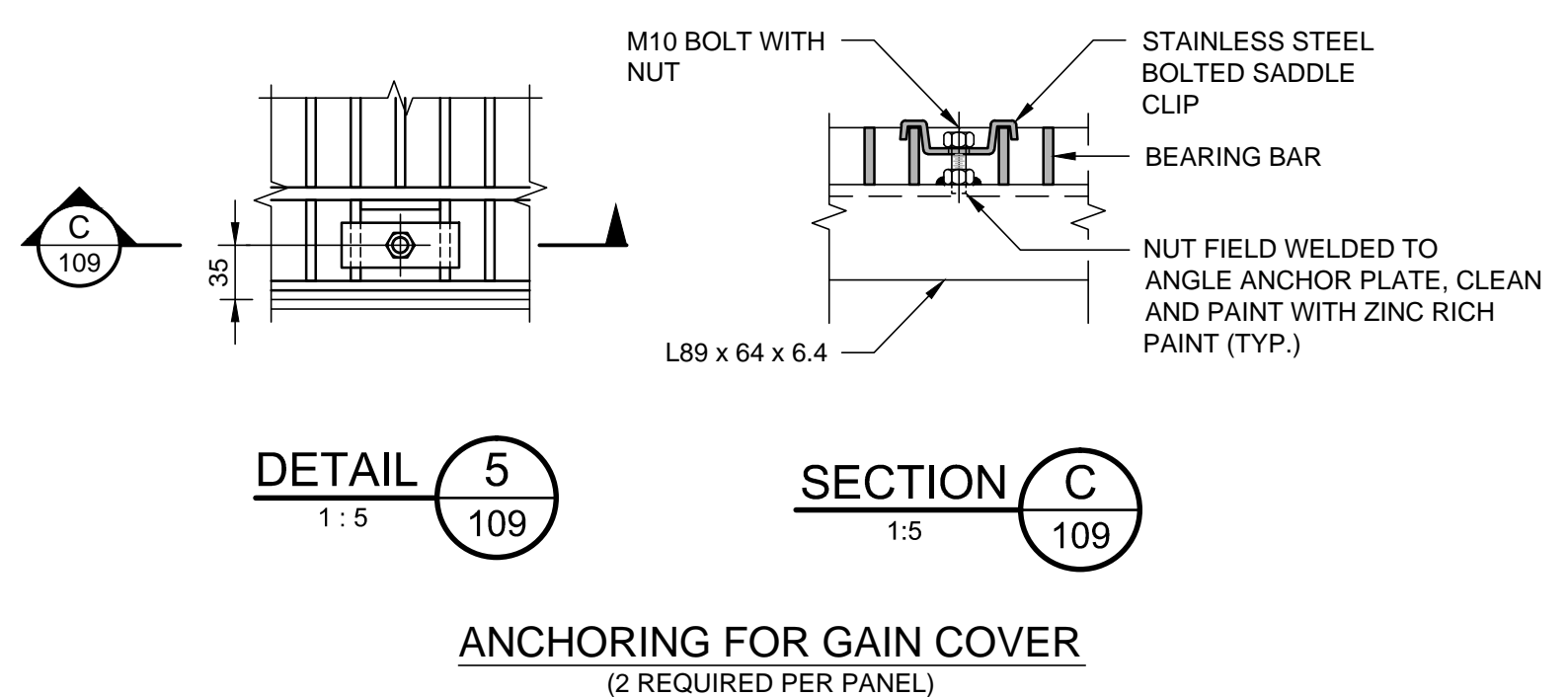
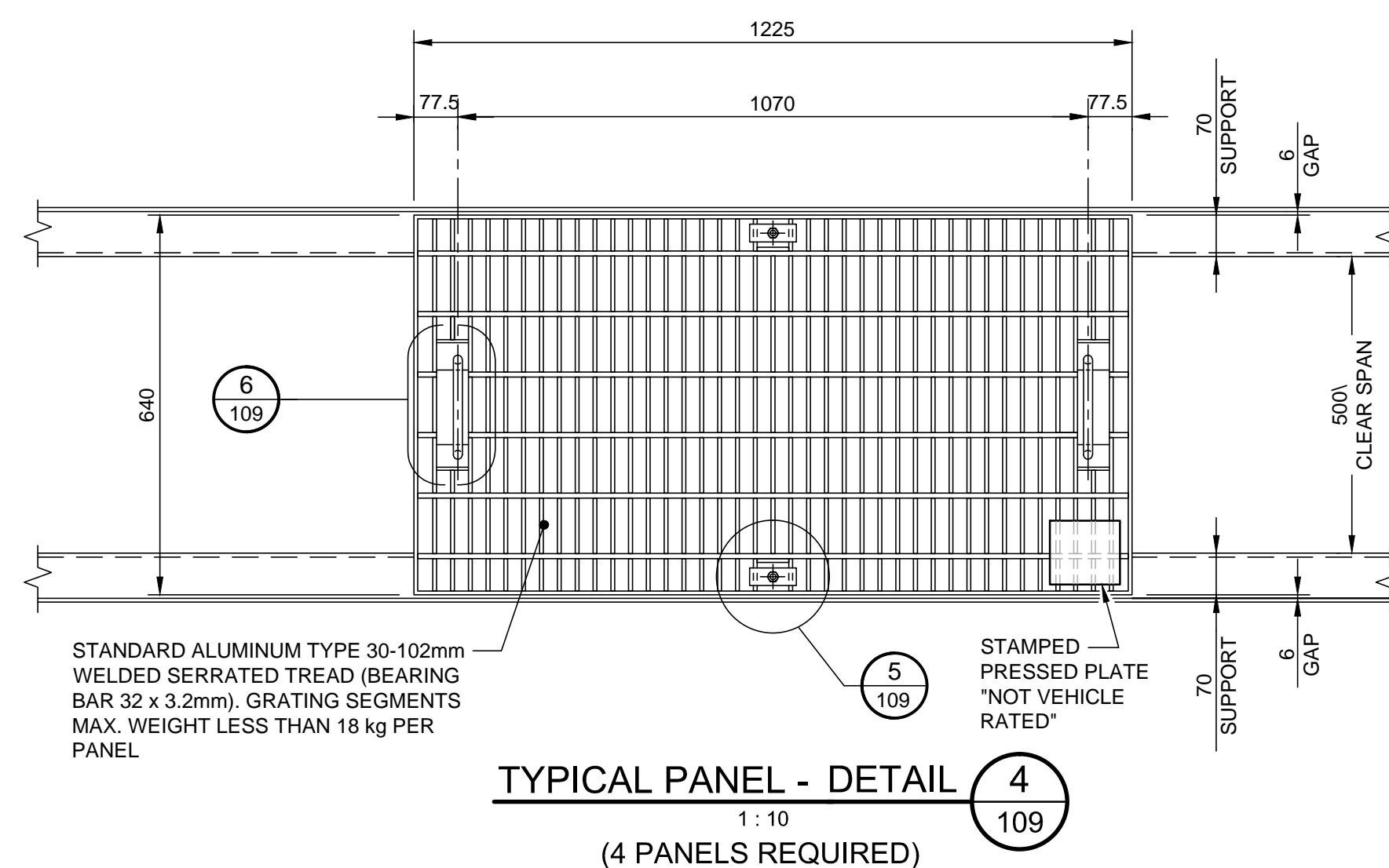
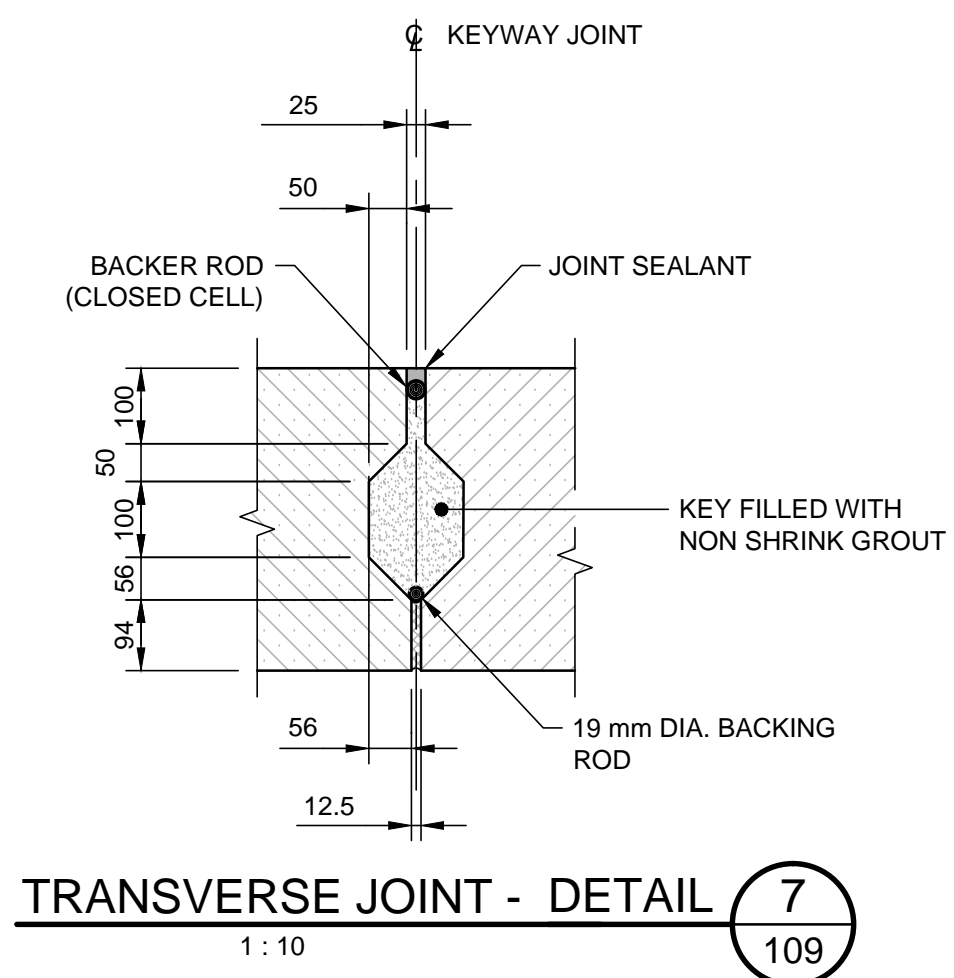
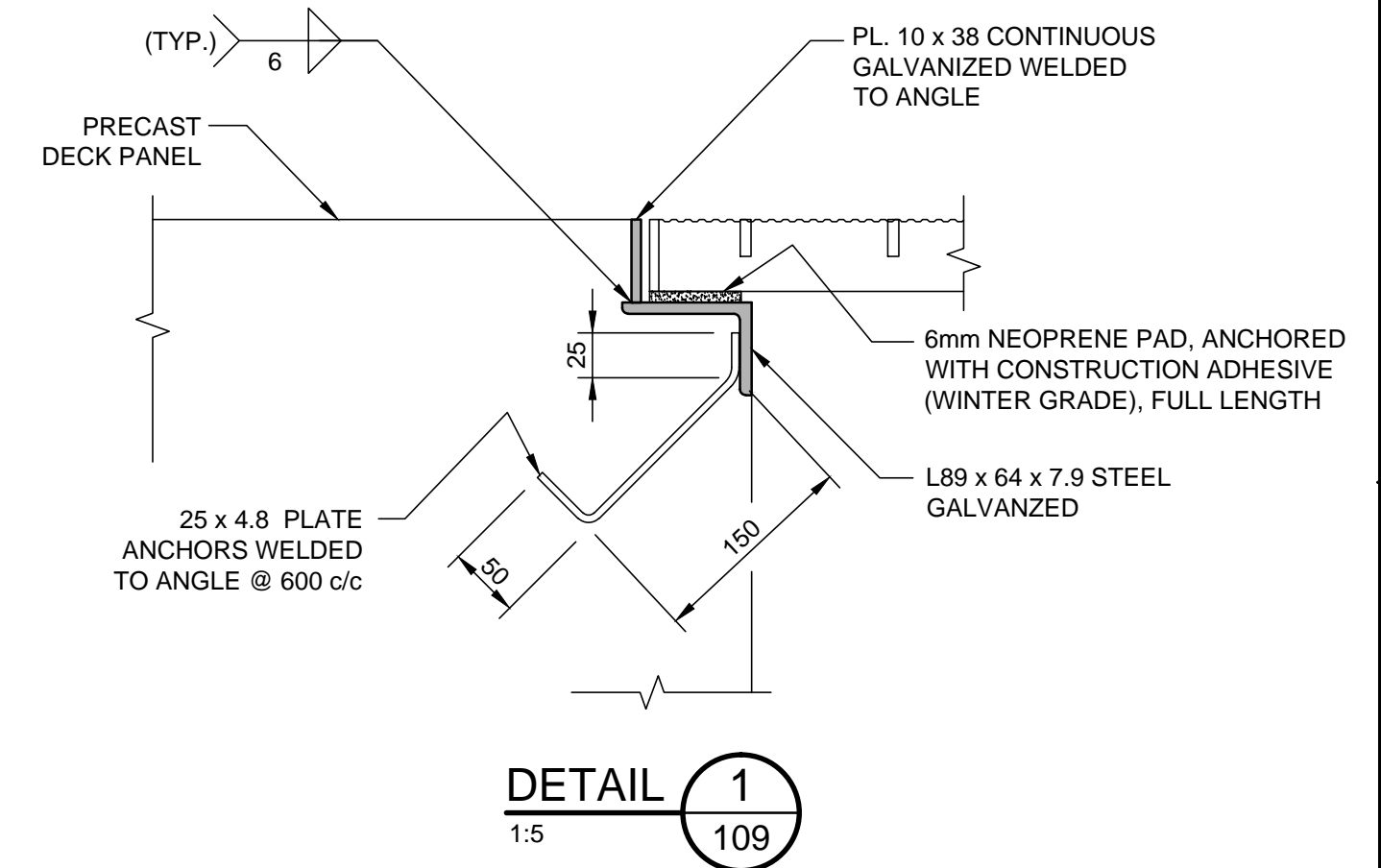
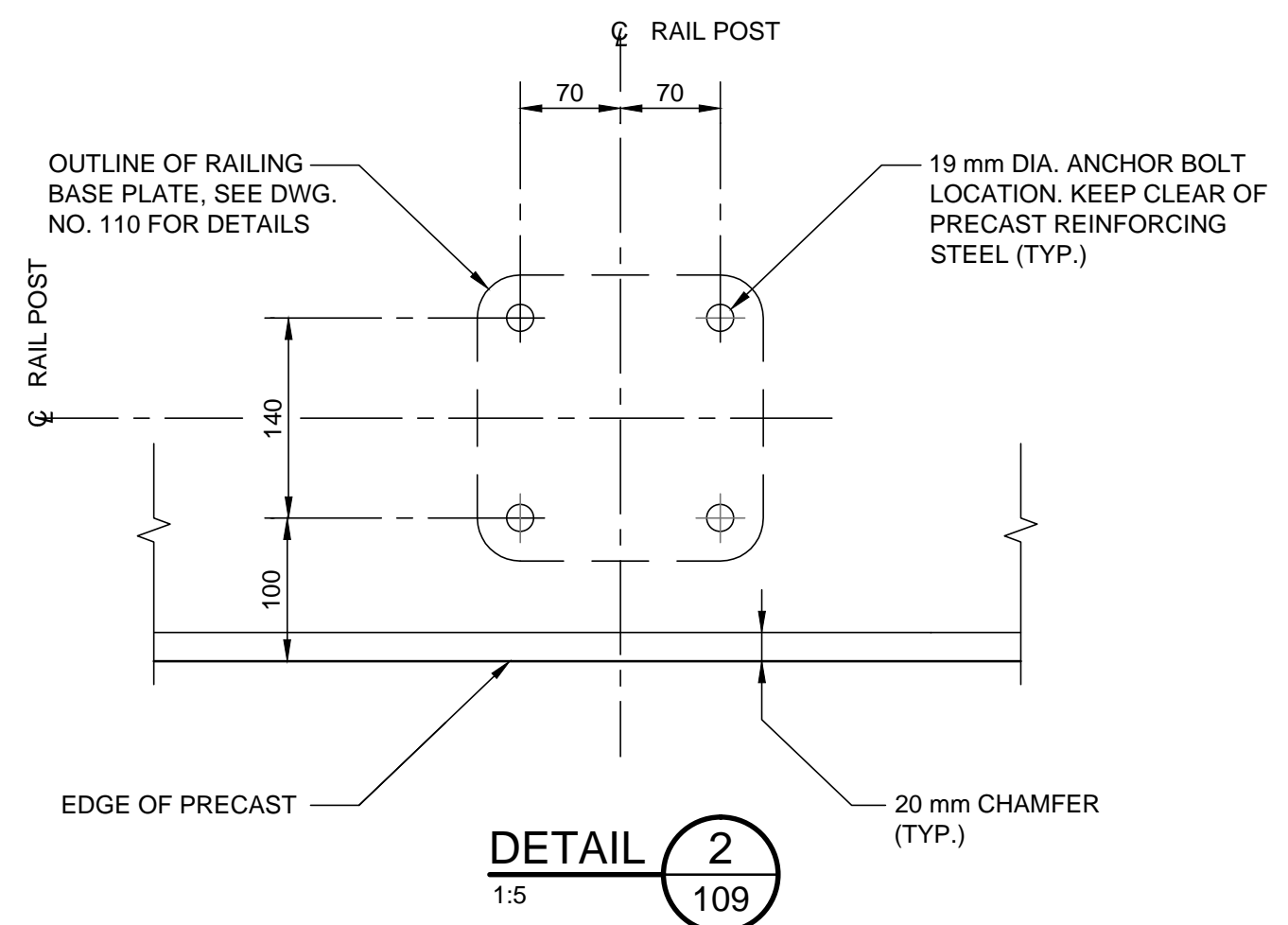
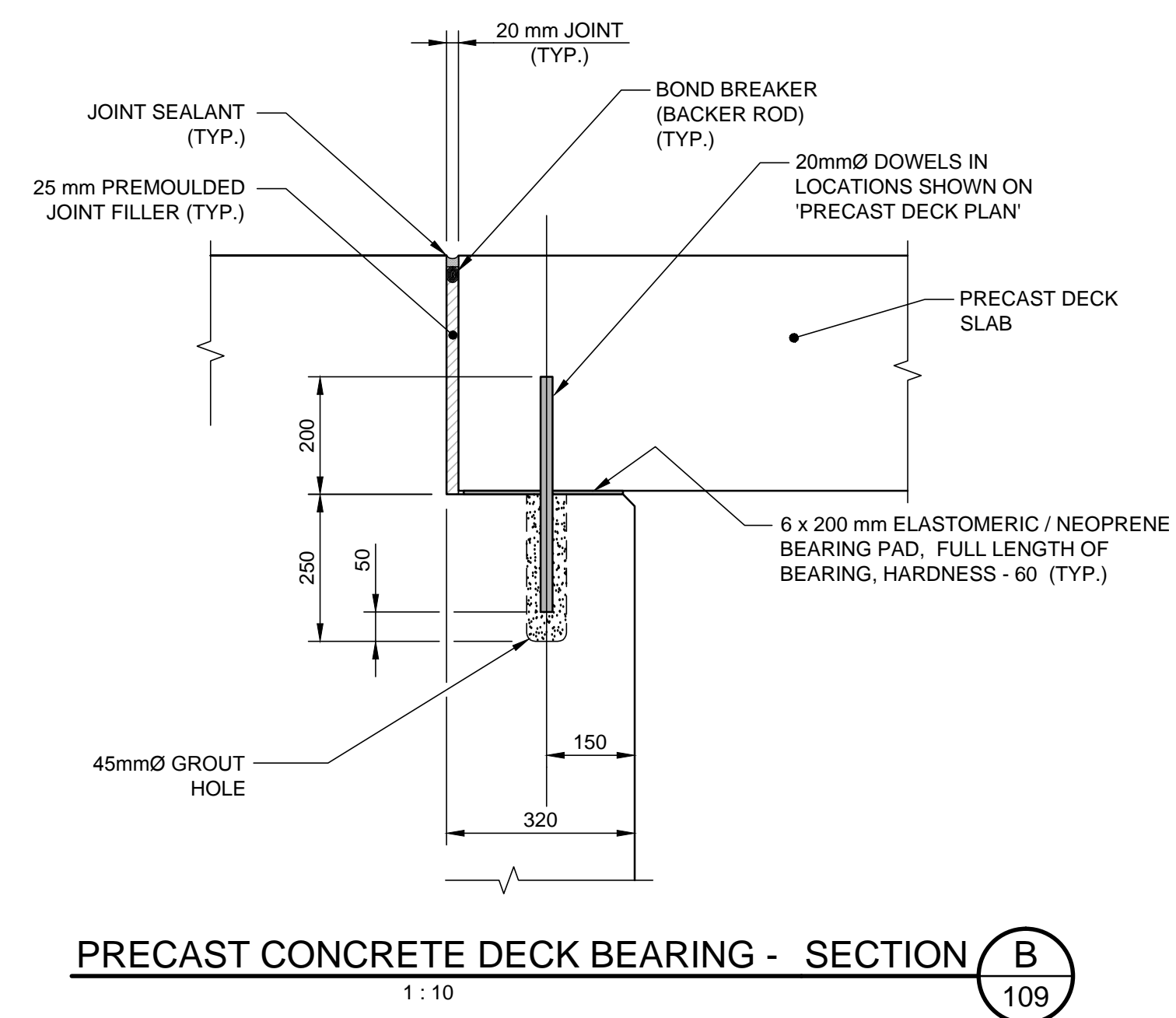
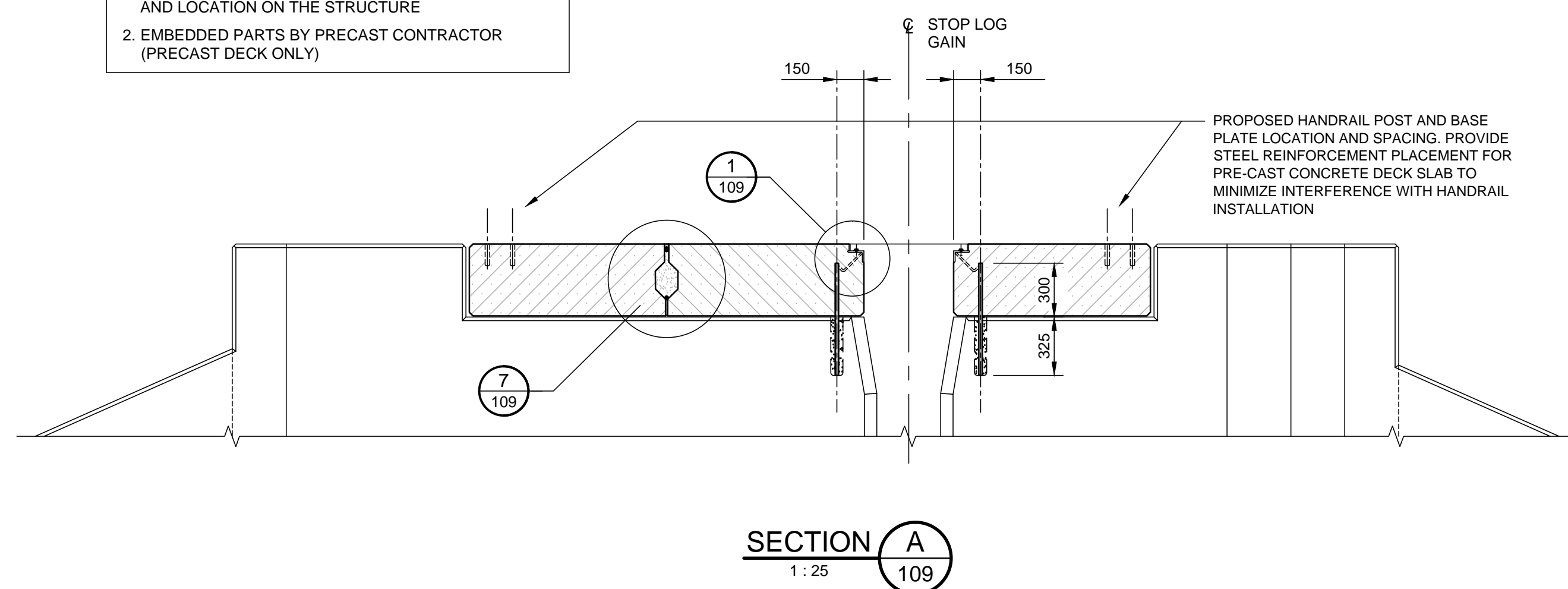
Project Number / Numéro du projet

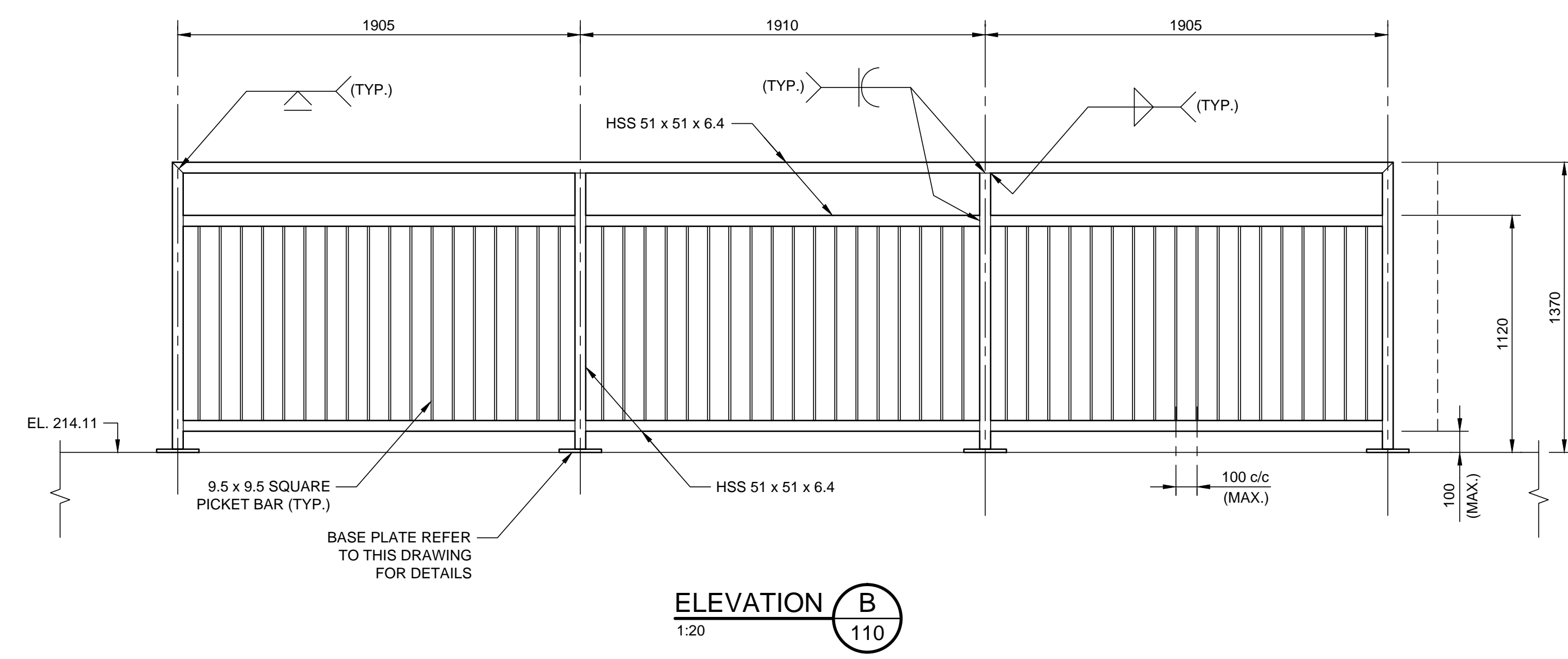
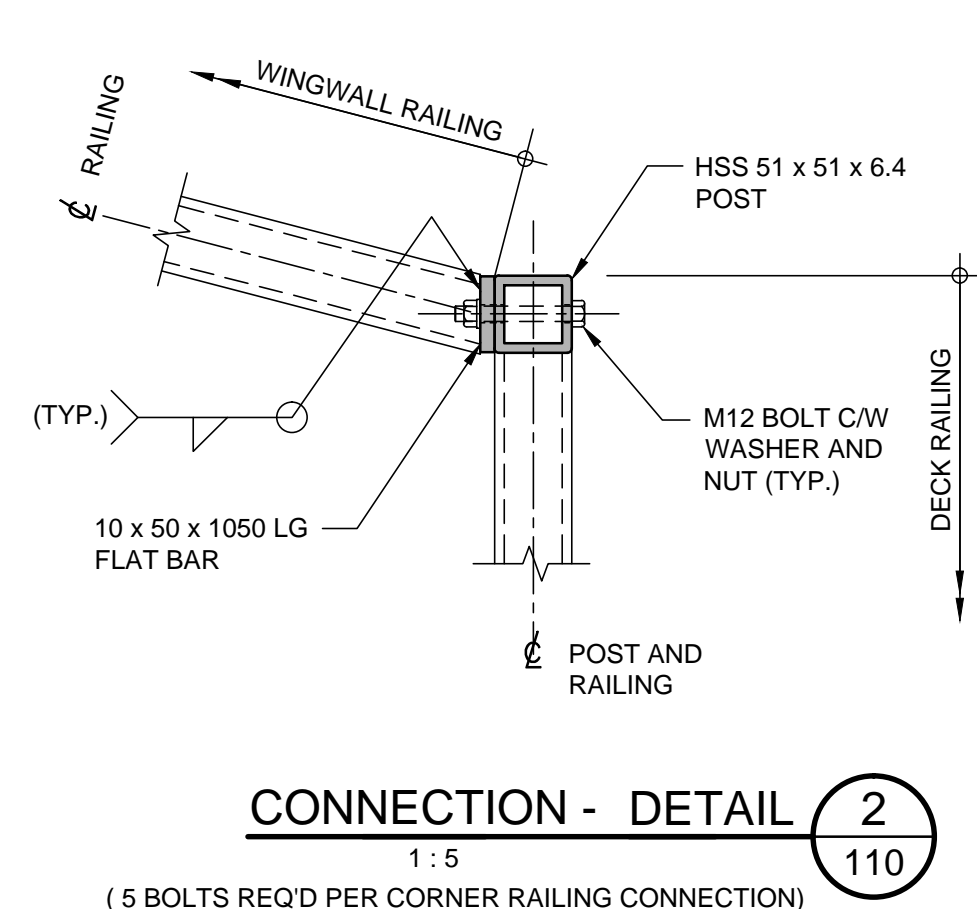
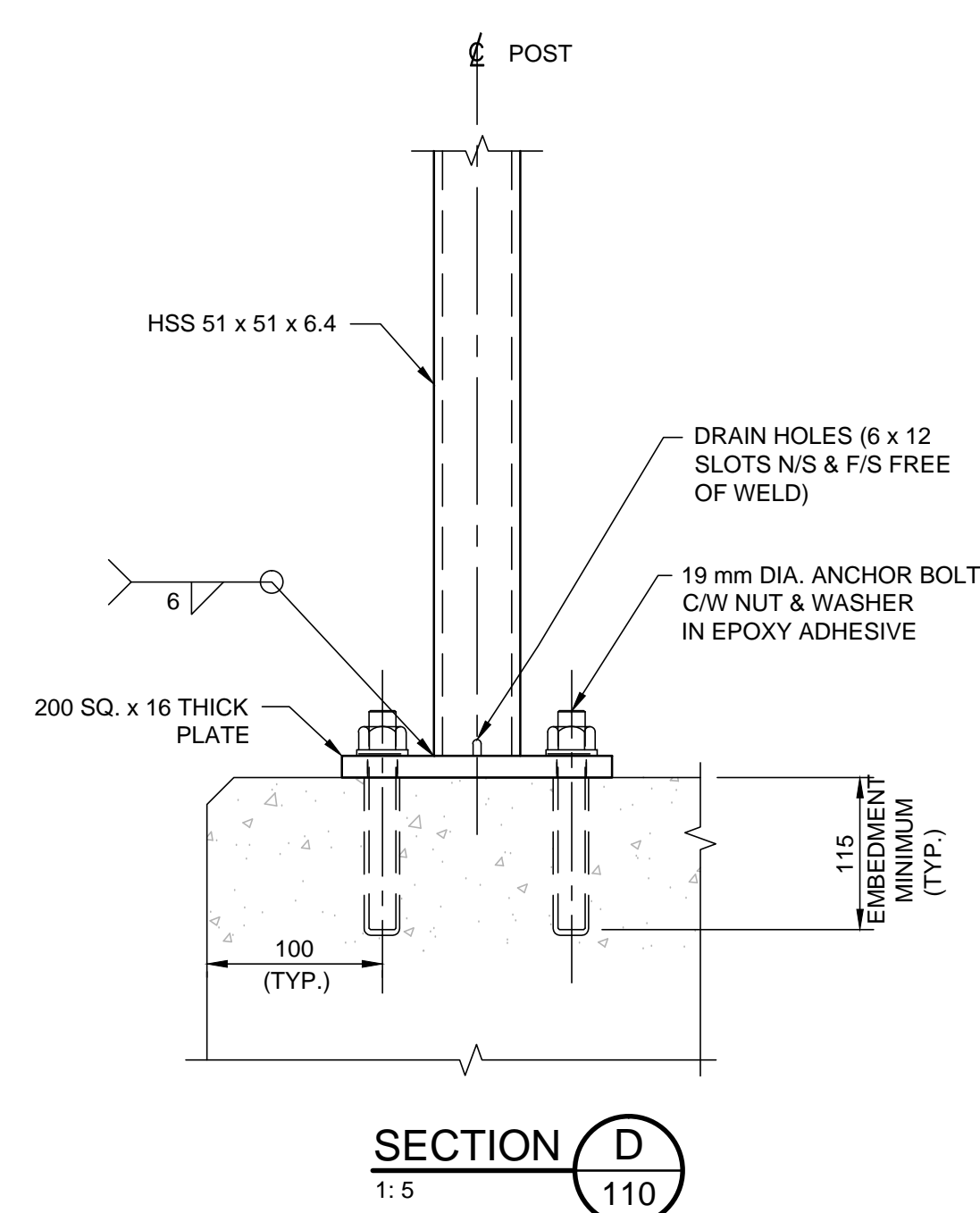
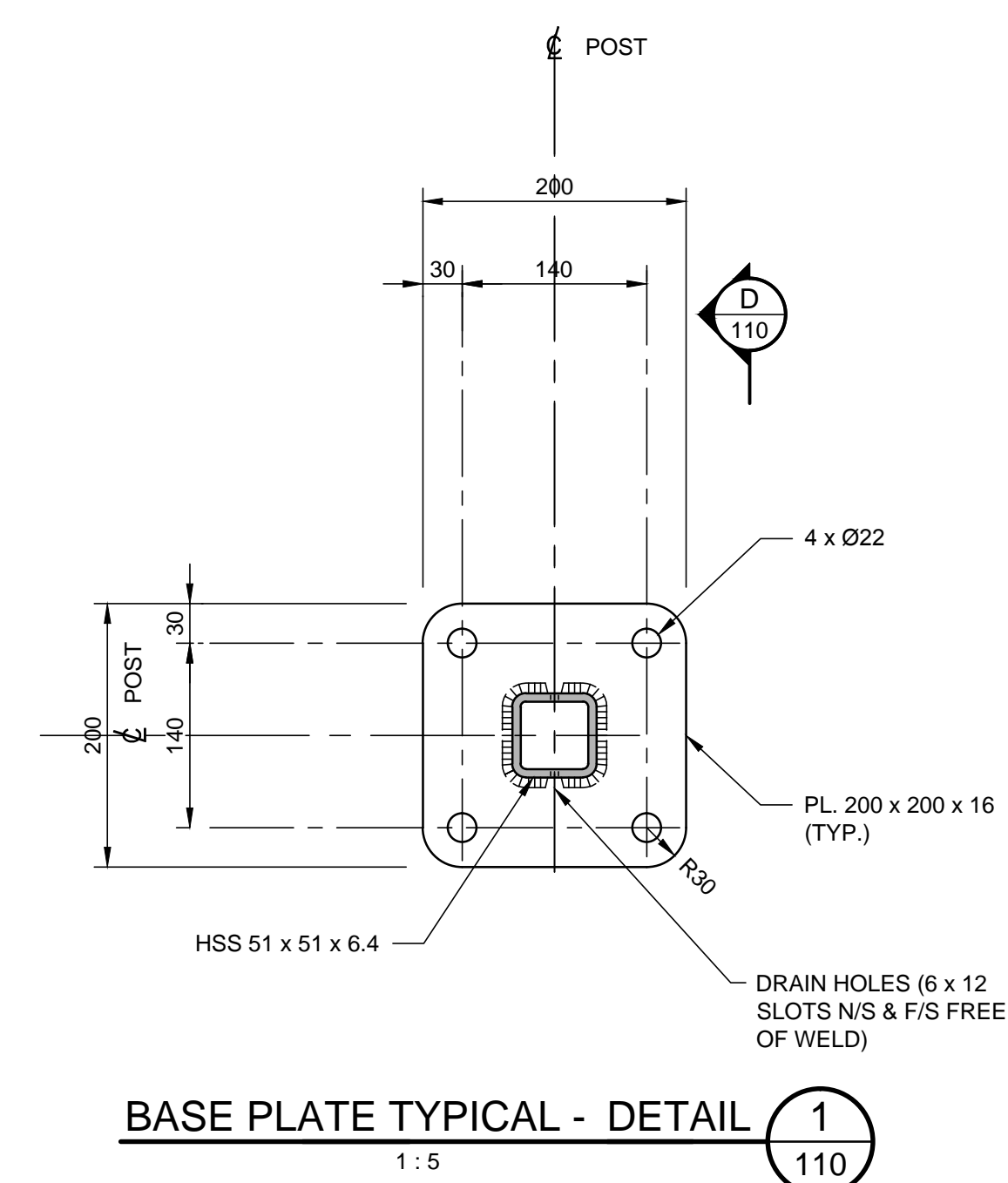
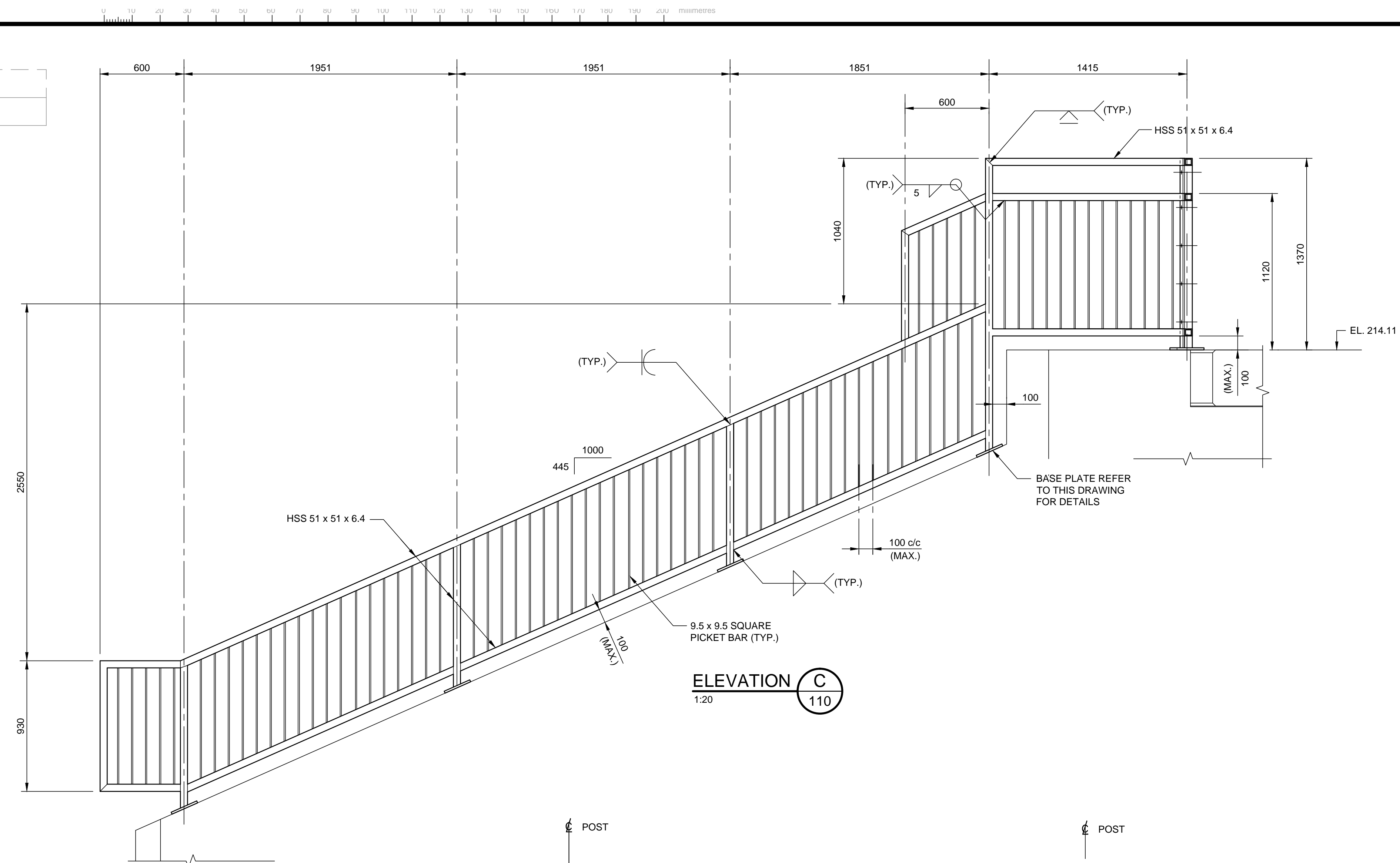
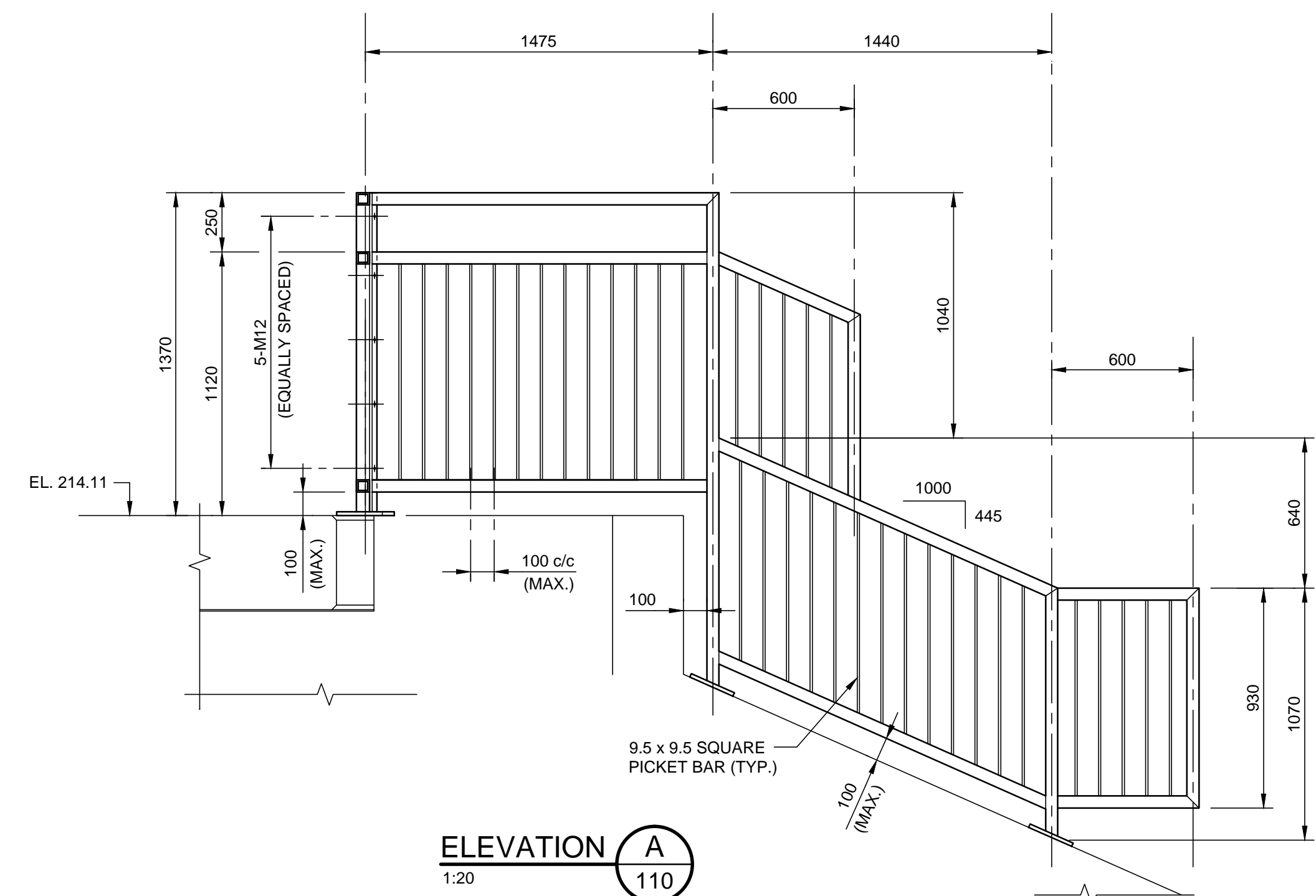
Drawing Number/
Numéro du Dessin

109

Sheet 10 of 16
Feuille 10 de 16


- NOTES:**
1. PROVIDE REMOVABLE LIFTING LUGS FOR EACH PRECAST DECK PANEL. CLEARLY LABEL EACH PANEL SO THEY CAN BE ARRANGED IN PROPER SEQUENCE AND LOCATION ON THE STRUCTURE
 2. EMBEDDED PARTS BY PRECAST CONTRACTOR (PRECAST DECK ONLY)





1	ISSUED FOR TENDER	DMR	02/09/2014
No.	Description	Dwn By Des.Par	Date
Revision / Révision			

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A Detail number
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B Location dwg. number
Numéro sur dessin

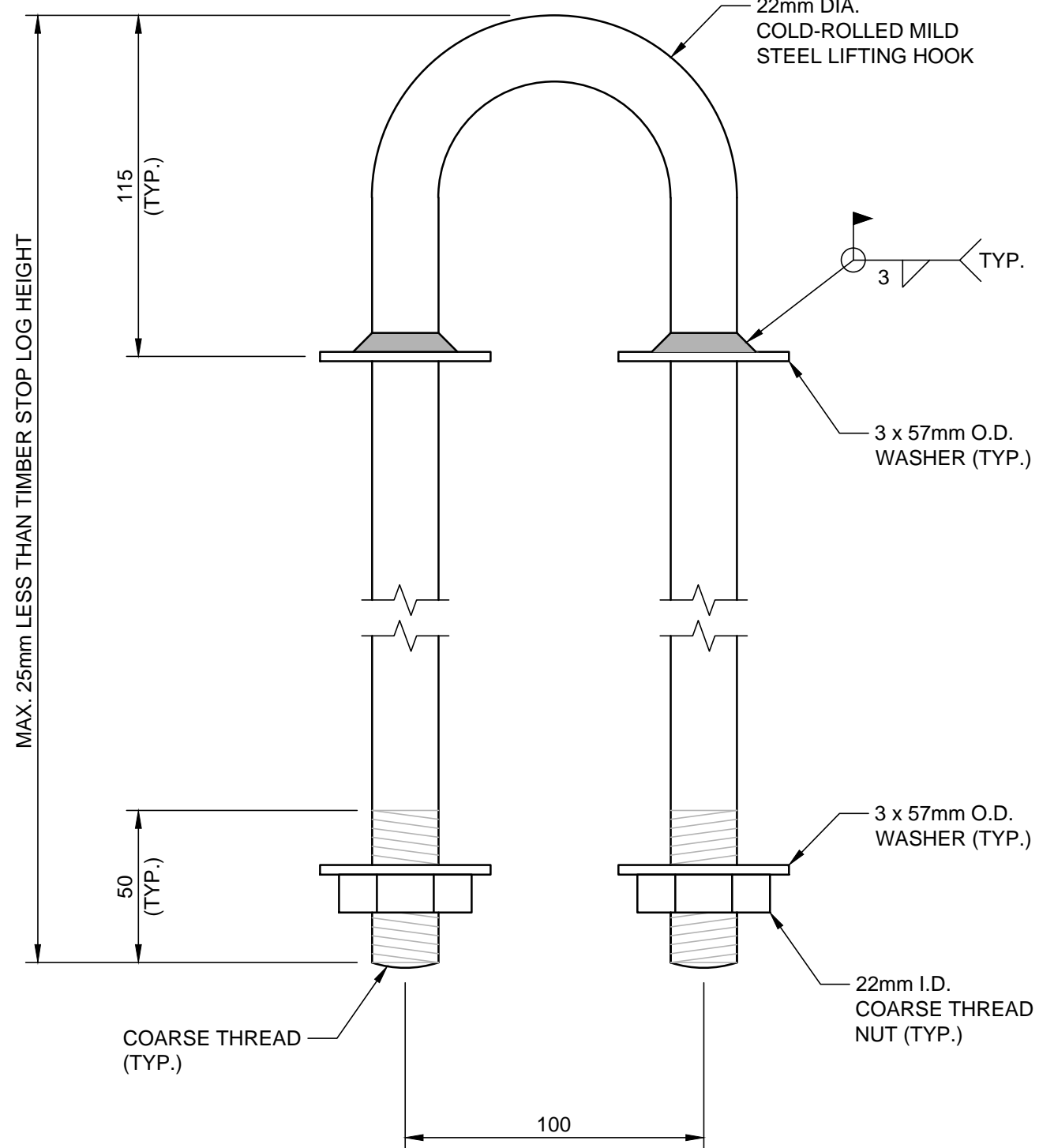
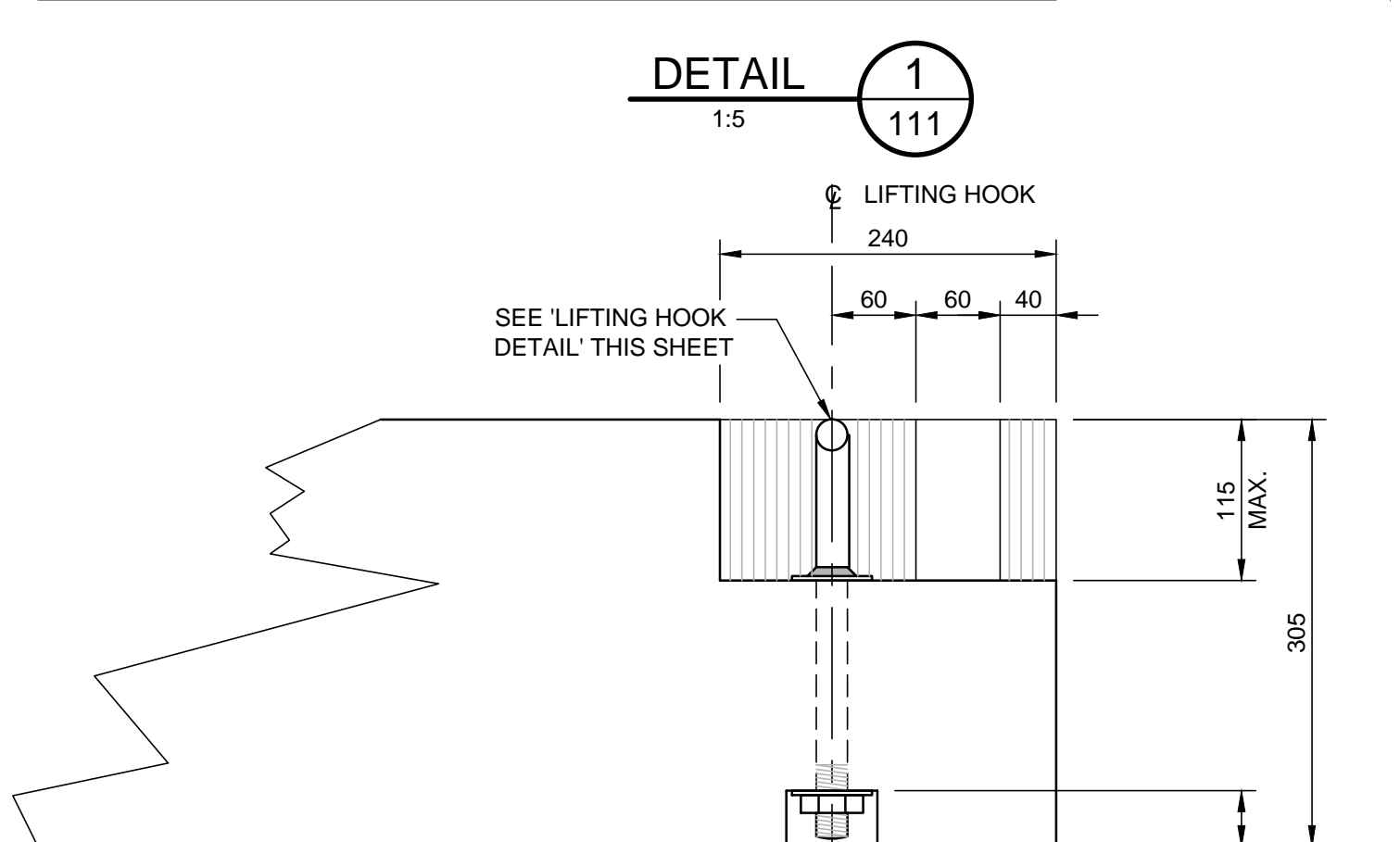
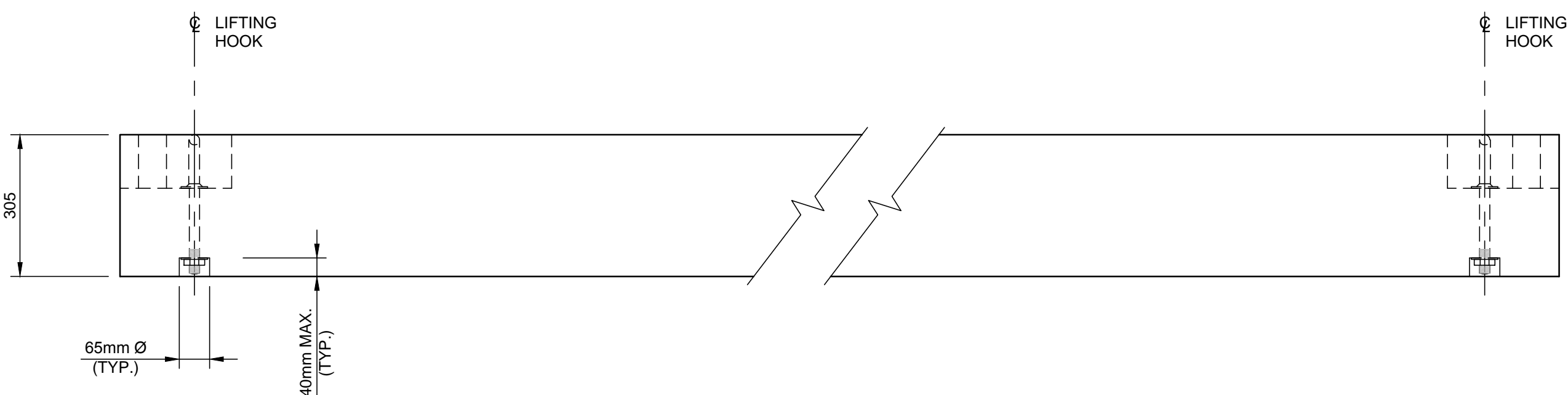
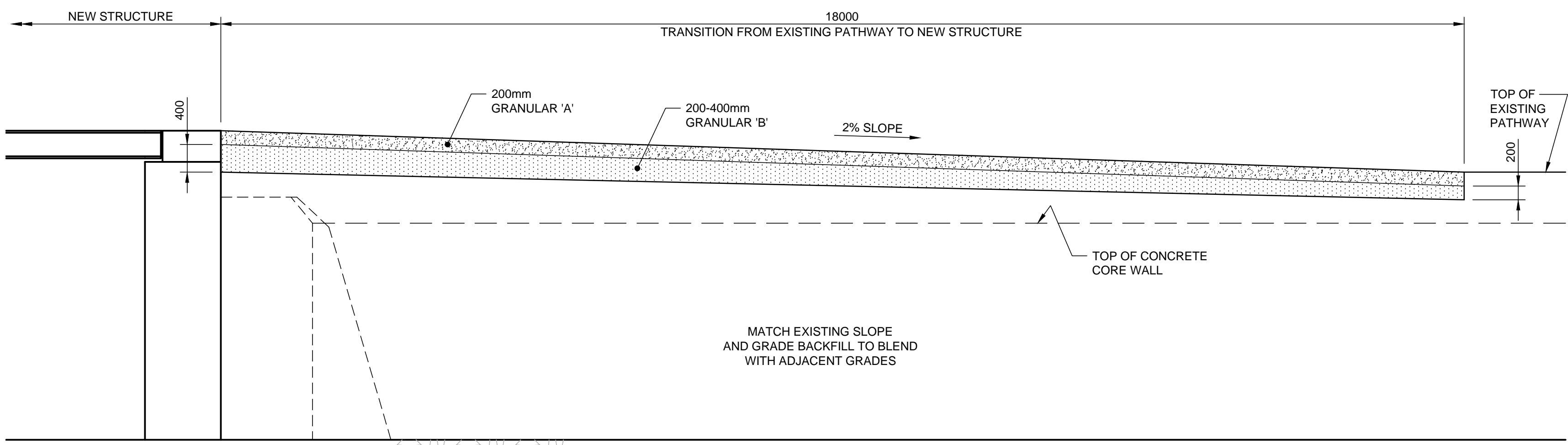
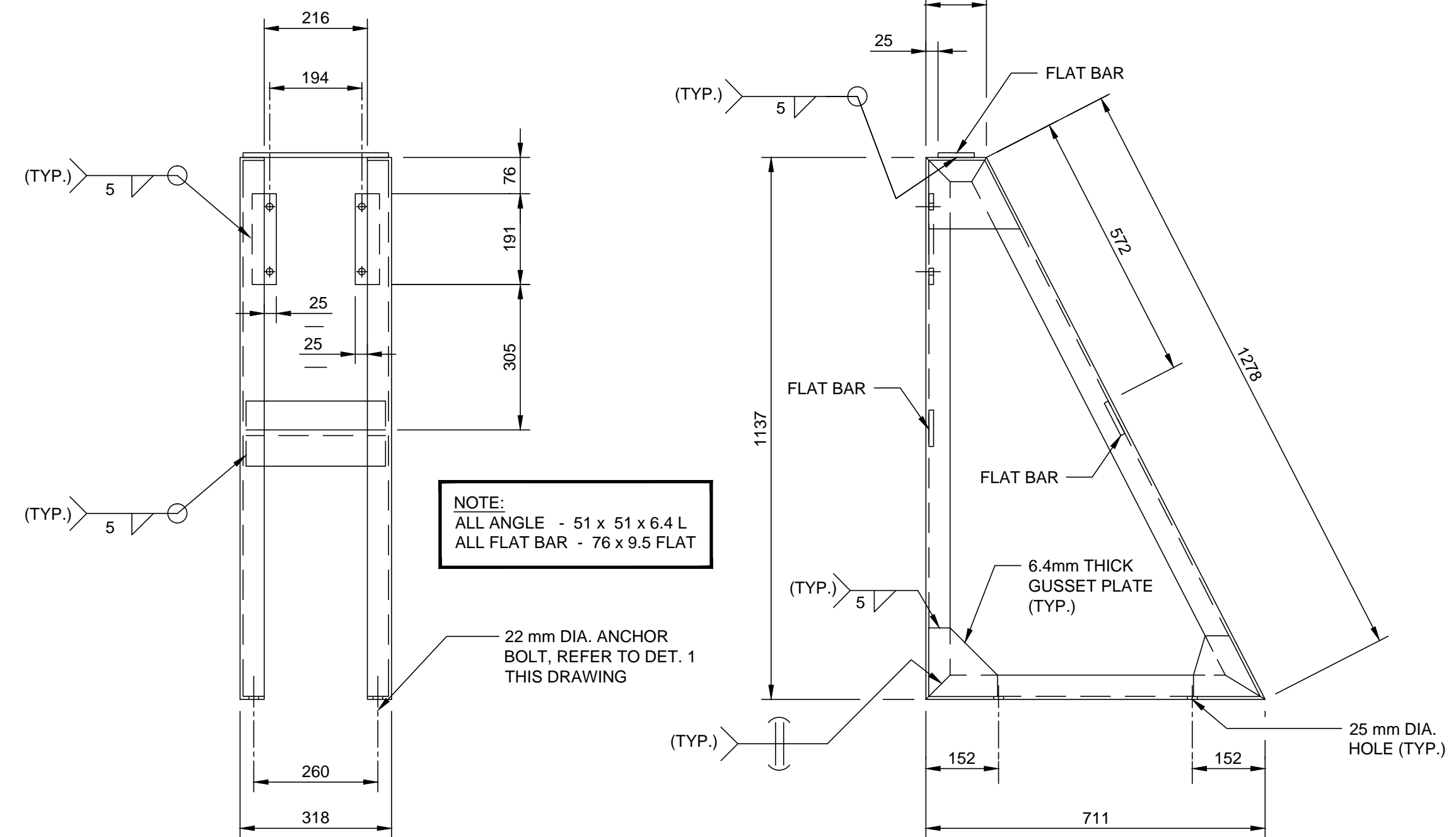
Project title / Titre du projet

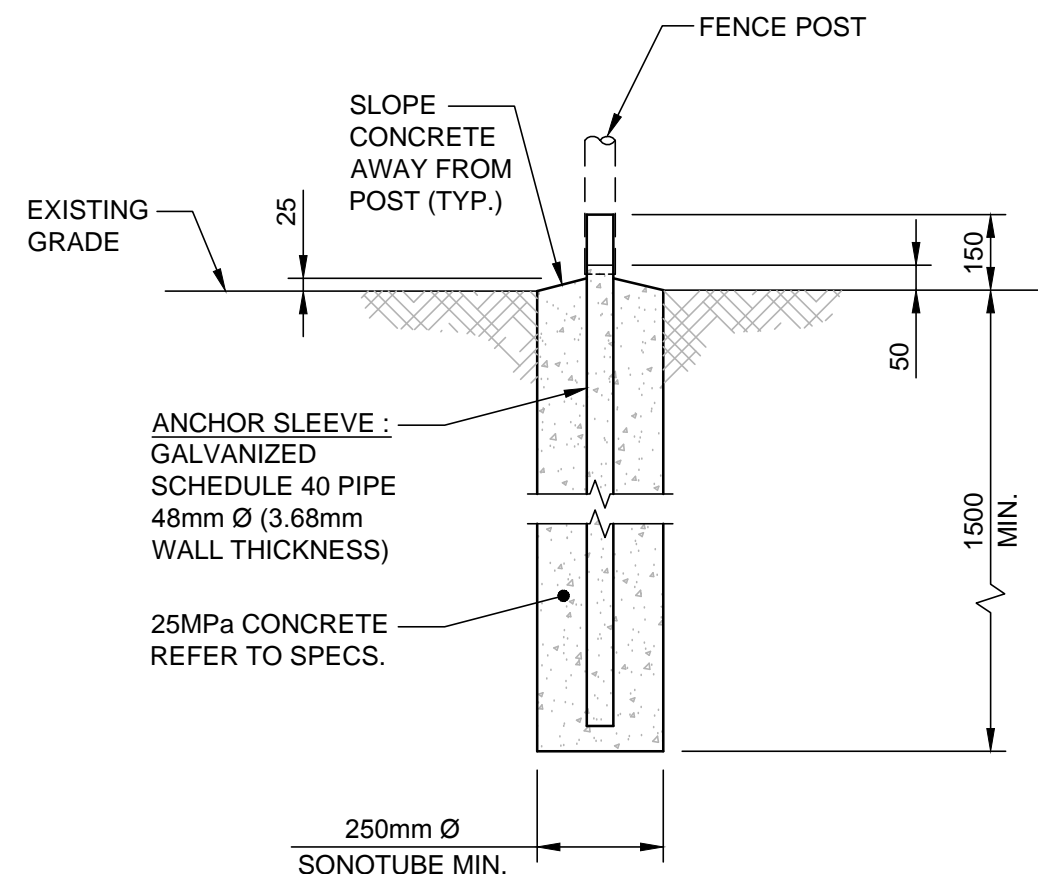
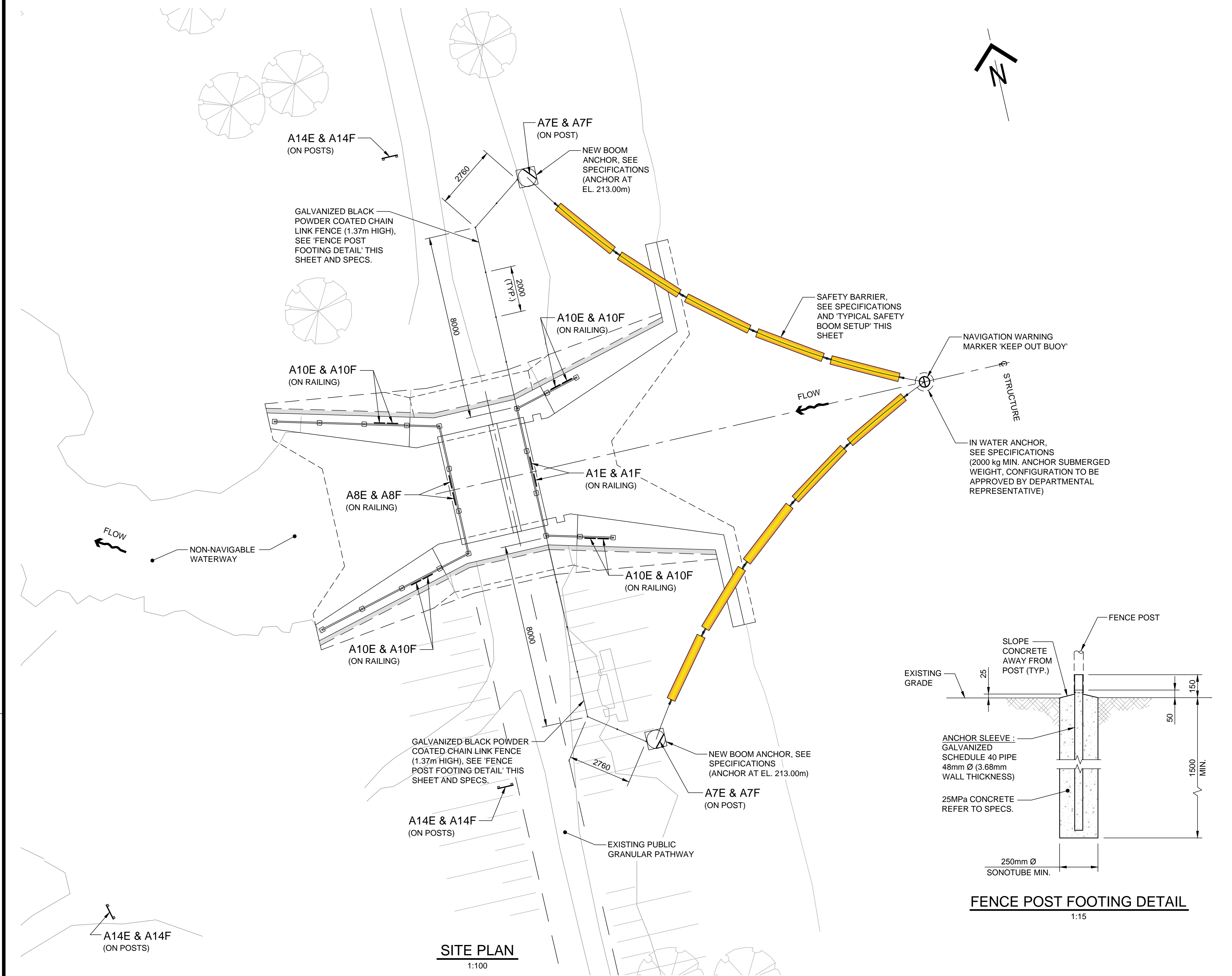
THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

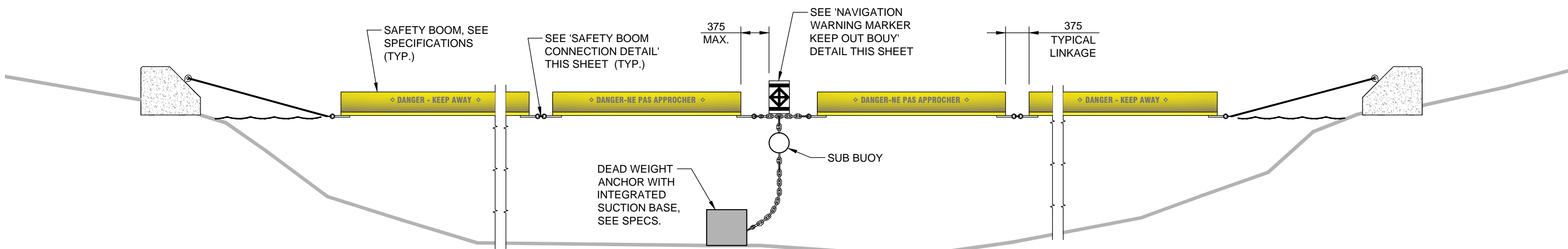
RAILING DETAILS

Drawn by / Dessiné par	Designed by / Conçu par
HENRYK CHRZANOWSKI	CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin
	JULY 2014
Project manager / Administrateur de projet	
DANIEL SEGURA	
HCEV Number / Numéro de CHTI	Drawing Number / Numéro du Dessin
COTSW 14R/11	110
Project Number / Numéro du projet	Sheet Facile 11 of du 16
R.065830.301	

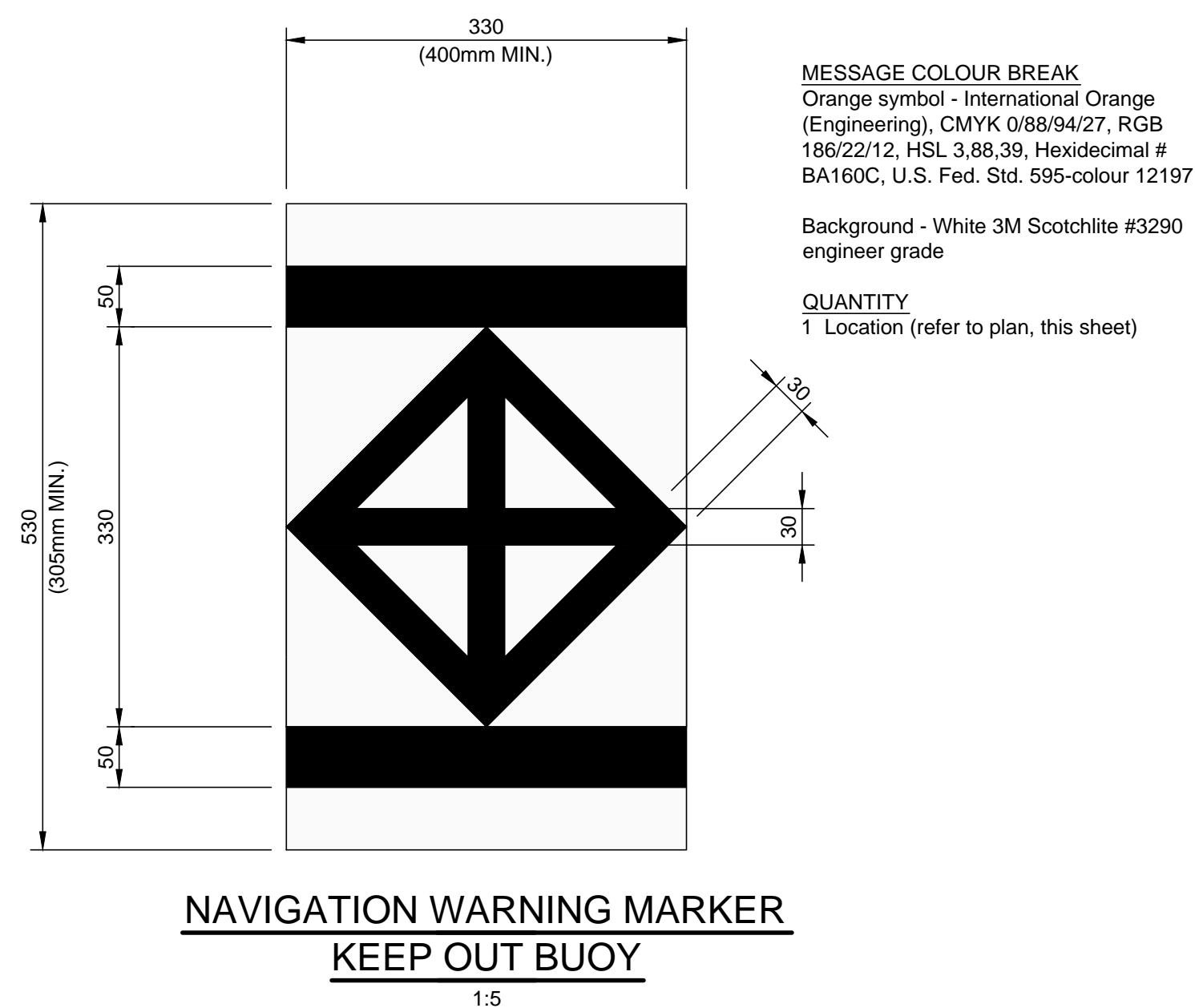




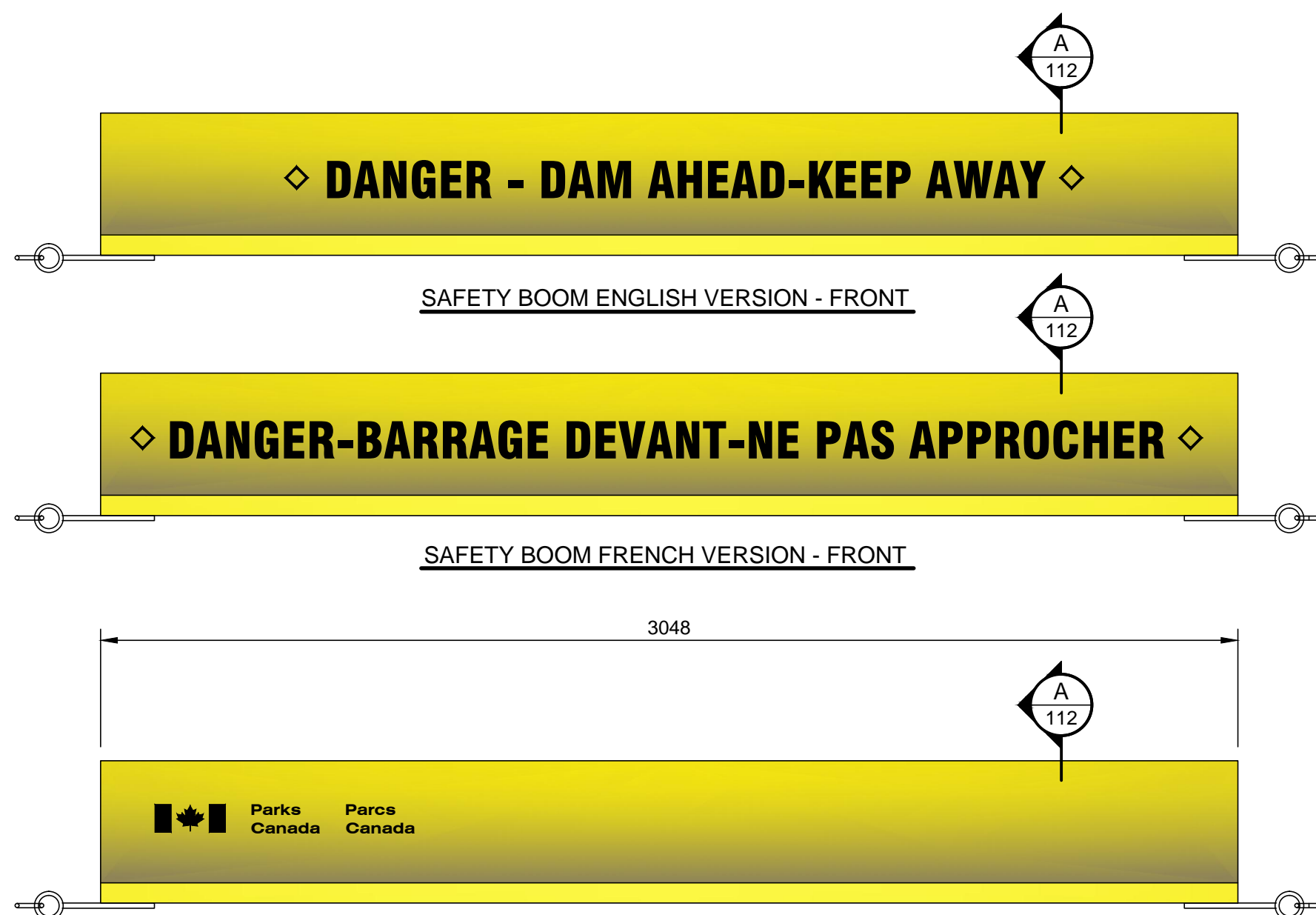
FENCE POST FOOTING DETAIL
1:15



TYPICAL SAFETY BOOM SETUP
N.T.S.

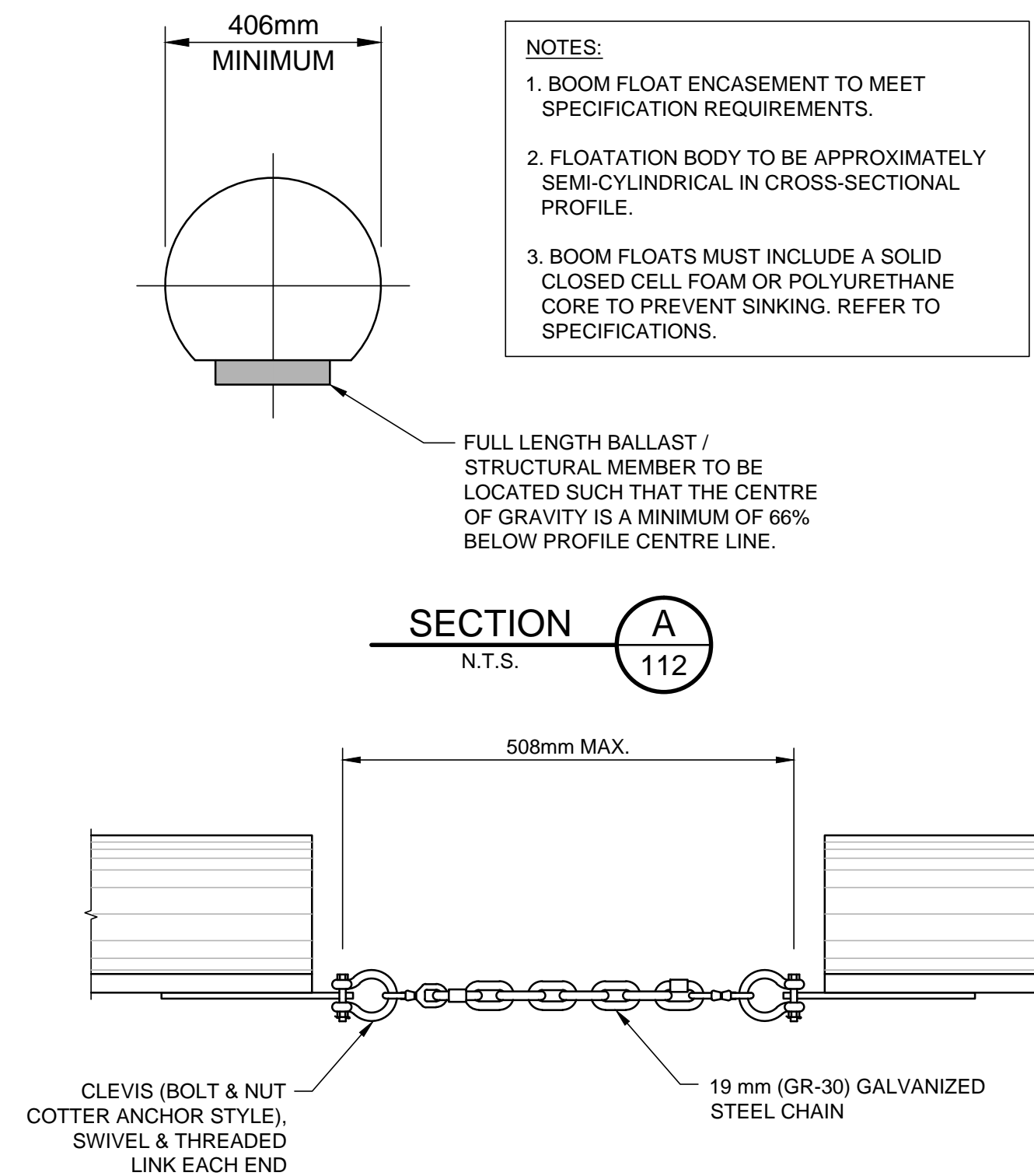


NAVIGATION WARNING MARKER
KEEP OUT BUOY
1:5



SAFETY BOOM DETAILS
N.T.S.

NOTE:
MAX. LENGTH OF EACH BOOM
SEGMENT IS 3050mm.



SAFETY BOOM CONNECTION DETAILS
N.T.S.

LEGEND:



NOTES:

- ANCHOR DESIGN TO BE PROVIDED BY MANUFACTURER OF SAFETY BOOMS BASED ON SITE SPECIFIC DETAILS, SUCH AS: FLOW, CHANNEL WIDTH AND DEPTH, TYPE OF SOIL AND USAGE, AS PROVIDED IN SPECIFICATIONS.
- SHOP DRAWINGS TO BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENCED IN THE PROVINCE OF ONTARIO.
- SAFETY BOOM CONCRETE ANCHORS TO BE SUFFICIENTLY ABOVE SURROUNDING TERRAIN AS TO PREVENT SAFETY BOOM CONNECTION CABLE FROM ABRADING ON SURROUNDING SHORELINE, REFER TO SPECIFICATIONS.
- ANCHOR DESIGN / SAFETY BOOM CONNECTION TO ALLOW FOR EASE OF REMOVAL FOR WINTER SEASON.
- SHORE ANCHORS TO BE LOCATED AT OR ABOVE MAXIMUM NAVIGATIONAL WATER LEVEL.

No.	Description	Drawn By Dessiné Par	Date
1	ISSUED FOR TENDER	DMR	02/09/2014

Revision / Révision

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the
Departmental Representative of all discrepancies.

A	A Detail number Numéro du détail
B	B Location dwg. number Numéro sur dessin

Project title / Titre du projet

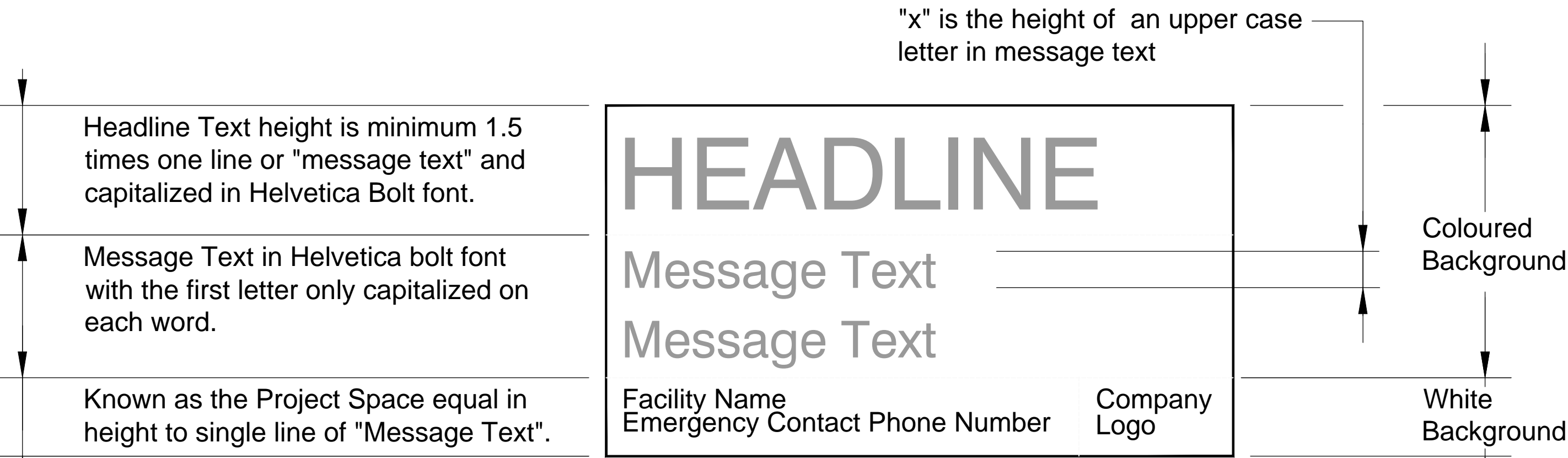
THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

SAFETY SIGNAGE I

Drawn by / Dessiné par DAVID ROWAN	Designed by / Conçu par CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin JAN. 2014

Project manager / Administrateur de projet DANIEL SEGURA	Drawing Number / Numéro du Dessin COTSW 14/R11
Project Number / Numéro du projet R.065830.301	Sheet Feuille 13 of 16 du de



NOTES:

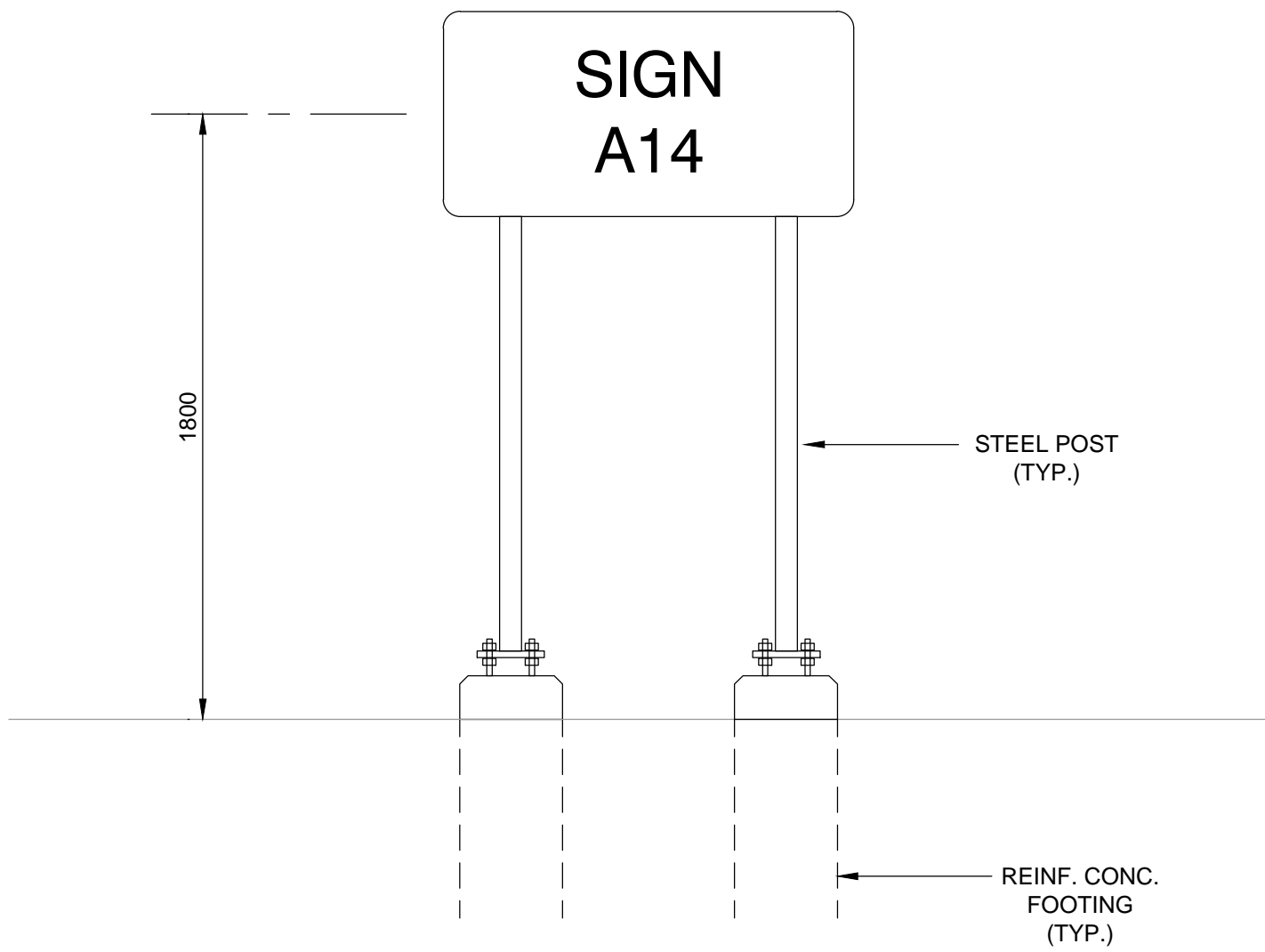
- All dimensions in millimetres unless otherwise stated.
- Contractor will check all drawings and dimensions and clarify any discrepancies with the departmental representative prior to fabrication.
- Contractor will refer to the sign schedule for content and fabrication/installation details and clarify any discrepancies with the departmental representative prior to fabrication.
- Signs must be finished to the highest possible standards.
- All parts must be tested to ensure proper fit and tolerances.
- Bolt holes and fasteners must not interfere with graphic sign face.
- Contractor shall remove all sharp corners and edges.
- Post type and installation height to be confirmed by site.
- Official Public Works and Government Services Canada logo to be used.

TYPICAL TEXT SIZE & TYPE AND BACKGROUND COLOUR

1:10

SIGN COLOURS

- SIGN BOARD BACKGROUND RED**
PANTONE COLOUR MATCHING
SYSTEM NO.485 SOLID COATED
PANTONE PMS 485 C
CMYK 0/96/100/0
RGB 213/43/30
HEXIDECIMAL #D52B1E
- SIGN BOARD TEXT AND BACKGROUND WHITE**
CMYK 0/0/0/0
RGB 255/255/255
HEXIDECIMAL #FFFFFF
- SIGN BOARD TEXT BLACK**
CMYK 0/0/0/100
RGB 0/0/0
HEXIDECIMAL #000000
- LOGO FLAG RED**
PANTONE COLOUR MATCHING
SYSTEM NO.032 SOLID COATED
PANTONE PMS 032 C
CMYK 0/100/100/0
RGB 213/43/30
HEXIDECIMAL #33BBEE
- LOGO TEXT BLACK**
CMYK 0/0/0/100
RGB 0/0/0
HEXIDECIMAL #000000
- SIGN BOARD BACKGROUND**
PANTONE MATCHING SYSTEM (PMS)
123 YELLOW, ENGINEER GRADE



ELEVATION

1:30

SIGN FONTS AND TEXT HEIGHTS

- SIGN HEADER** - HELVETICA NEUE 55 ROMAN (BOLD), MAX TEXT HEIGHT XXX mm, MIN. XXX mm UPPERCASE
 - ILLUSTRATED ON THIS DRAWING AS THE WORD 'DANGER'
- SIGN MESSAGE** - HELVETICA NEUE 55 ROMAN (BOLD), MAX TEXT HEIGHT XXX mm, MIN. TEXT HEIGHT 150mm, FIRST LETTER CAPITALIZED EVERY WORD
 - INCLUDES 2 LINES OF TEXT AS ILLUSTRATED ON THIS DRAWING AS THE WORDS 'DAM AHEAD' AND 'KEEP OUT'
- *NAME OF DAM** - HELVETICA NEUE 55 ROMAN (BOLD), TEXT HEIGHT XX mm, NAME CASE (ADHESIVE DECAL BY OTHERS)
- *EMERGENCY CONTACT** - HELVETICA NEUE 55 ROMAN (BOLD), TEXT HEIGHT XX mm, UPPERCASE (ADHESIVE DECAL BY OTHERS)

PARKS CANADA LOGO - DIGITAL LOGO FILE TO BE PROVIDED TO FABRICATOR BY PARKS CANADA

SIGNS MATERIALS AND FABRICATION SPECIFICATIONS

1.0 MATERIALS SPECIFICATIONS

- ALL MATERIALS MUST BE OF NEW STOCK AND FREE FROM DEFECTS.
- SIGNS MUST CONSIST OF ALUMINIUM FLAT SHEETS, EXTRUDED PANELS OR ALUMINIUM COMPOSITE PANELS RETRO-REFLECTORIZED ON THE FACE SIDE WITH ALL LETTERS, NUMERALS, SYMBOLS, BORDERS AND CORNERS AS SHOWN ON THE PLANS.
- SIGNS EQUAL TO OR GREATER IN WIDTH THAN SIX FEET ARE CONSIDERED STRUCTURAL (ST) AND MUST BE FABRICATED ON EXTRUDED PANELS OR ALUMINIUM COMPOSITE PANELS. SIGNS LESS THAN SIX FEET IN WIDTH WILL BE CONSIDERED NON-STRUCTURAL (NS) SIGNS TO BE FABRICATED WITH ALUMINIUM FLAT SHEET OR FOAM CORE COMPOSITE. ANY EXCEPTIONS TO THESE FABRICATION STANDARDS WILL BE INDICATED BY THE DEPARTMENTAL REPRESENTATIVE AT TIME OF PURCHASE ORDER.
- NON-STRUCTURAL - FLAT SHEET ALUMINIUM SIGNS

SHEET ALUMINIUM SIGNS MUST BE FLAT-SHEET TENSION-LEVELLED, SIGN GRADE ALUMINIUM, ALLOY 5052-H32, CONFORMING TO THE REQUIREMENTS OF ASTM B209M, SPECIFICATION FOR ALUMINIUM AND ALUMINIUM-ALLOY SHEET AND PLATE. NOMINAL THICKNESS FOR SHEET-FACED SIGNS IS 3.0 MM (0.125"). TO ENSURE MAXIMUM TOLERANCING AND BEST APPEARANCE, SHEET ALUMINIUM SIGN PANELS MUST BE CUT USING A NUMERICALLY CONTROLLED DEVICE SUCH AS WATER JET OR LASER CUTTING SYSTEM. ALTERNATIVELY, SHEET ALUMINIUM SUBSTRATES MAY BE SHEARED TO SIZE, CORNER-PUNCHED AND DETAILED, PROVIDED THAT THE DIMENSIONS AND CORNER RADII EXACTLY MATCH THE SUPPLIED SIGN ARTWORK. ALL EDGES MUST BE BROKEN, DE-BURRED AND MADE SMOOTH.

1.5 STRUCTURAL - EXTRUDED ALUMINIUM SIGNS

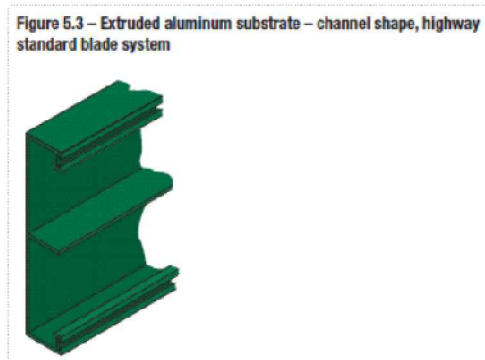
STRUCTURAL EXTRUSION BASED SIGN FACES (FIGURE 5.3) MUST BE CONSTRUCTED USING 305 MM (12") STANDARD HIGHWAY EXTRUDED BLADES (SHAPE # 73247) USING ALUMINIUM ALLOY 6061-T6 OR 6063-T5. EXTRUDED BLADES ARE TO BE MILL FINISHED WITH NO EXPOSURE TO ANY SILICONE-BORNE PRODUCTS.

FOR MORE INFORMATION AND TYPICAL DETAIL, PLEASE REFER TO THE FOLLOWING SOURCES:

ALBERTA T&U DRAWING TEB 1.95 ([HTTP://WWW.TU.GOV.AB.CA/CONTENT/DOCTYPE233/PRODUCTION/SIGNAGE.PDF](http://www.tu.gov.ab.ca/content/doctype233/production/signage.pdf))

BRITISH COLUMBIA STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2004 ([HTTP://WWW.TH.GOV.BC.CA/PUBLICATIONS/CONST_MAINT/CONTRACT_SERV/STANDARDSPECS.HTM](http://www.th.gov.bc.ca/publications/const_maint/contract_serv/standardspecs.htm))

MINISTÈRE DES TRANSPORTS DU QUÉBEC ([HTTP://WWW.PUBLICATIONSDUQUEBEC.GOUV.QC.CA/PRODUITS/OUVRAGE_ROUTIER.FR.HTML](http://www.publicationsduquebec.gouv.qc.ca/produits/ouvrage_routier.fr.html))



1.6 NON-STRUCTURAL AND STRUCTURAL - ALUMINIUM COMPOSITE SIGNS

NON-STRUCTURAL ALUMINIUM COMPOSITE PANELS ARE TO CONSIST OF DOUBLE SIDED 0.3mm (0.012") TO 0.4mm (0.015") THICK ALUMINIUM FRONT AND BACK FACE BONDED TO 3mm POLYETHYLENE FOAM CORE.

STRUCTURAL ALUMINIUM COMPOSITE PANELS ARE TO CONSIST OF DOUBLE SIDED 0.3mm (0.012") TO 0.4mm (0.015") THICK ALUMINIUM FRONT AND BACK FACE BONDED TO 10mm CORRUGATED OR SINGLE PROFILE (FLUTED) POLYALLOMER CORE. SOLID POLYETHYLENE OR FOAM CORE COMPOSITE PRODUCTS WILL NOT BE ACCEPTED FOR STRUCTURAL PANELS DUE TO EXCESSIVE WEIGHT.

ALUMINIUM FACE SHEETS FOR COMPOSITE PANELS TO BE SIGN GRADE ALLOY 5052-H32, CONFORMING TO THE REQUIREMENTS OF ASTM B209M, SPECIFICATION FOR ALUMINIUM AND ALUMINIUM-ALLOY SHEET AND PLATE.

SINGLE FACE TO BE FINISHED WITH 20 MICRONS FACTORY BAKED ACRYLIC WHITE PAINT MEETING REQUIREMENTS OF ASTM D-4214, D-2244. FACTORY COATED FACE WILL ACT AS BACK FACE OF FINISHED SIGN. NO-FACTORY COATED FACE MAY BE SUPPLIED AS MILL FINISH PROVIDED IT WILL ACCEPT LAMINATED RETRO-REFLECTIVE SHEETING, SCREEN PRINT AND DIGITAL PRINT TYPE INKS ASSOCIATED WITH SIGN GRAPHICS DESIGN.

STRUCTURAL PANEL WEIGHT NOT TO EXCEED 13.6kg (30lbs) AND NON-STRUCTURAL PANEL WEIGHT NOT TO EXCEED 9.1 kg (20lbs) WHEN CUT TO SPECIFIED DIMENSIONS.

STRUCTURAL PANELS TO BE TESTED IN ACCORDANCE WITH ASTM E72 AND DESIGNED TO WITHSTAND A MINIMUM WIND FORCE OF +/- 0.96kPa (20psf).

PANELS SHALL BE PERFORMANCE BOND TESTED TO PASS ASTM C481-C.

ACCEPTABLE PRODUCTS FOR STRUCTURAL PANELS ARE 'PROLITE' OR 'ALUMALITE' BY LAMINATORS INC. OR 'ALUMACORR' BY NUDD OR APPROVED EQUAL.

ACCEPTABLE PRODUCT FOR NON-STRUCTURAL PANELS IS 'ALUPANEL' BY MULTIPANEL

2.0 FABRICATION SPECIFICATIONS

2.1 THE MAXIMUM ALLOWABLE DEVIATION FROM FLATNESS MUST NOT EXCEED 0.1MM PER 1CM (0.010 INCH PER INCH) WIDTH OF THE SIGN PANEL.

2.2 NO HOLES MUST BE MADE IN SIGNS FACES. MOUNTING DETAILS VARY FROM SIGN TO SIGN. DRILLING OR PUNCHING OF HOLES AND ASSOCIATED MOUNTING HARDWARE IS TO BE BY OTHERS AND NOT PART OF SIGNS FABRICATOR SCOPE OF WORK.

2.3 ALL ALUMINIUM SUBSTRATE MUST BE GIVEN A CHROMATE CONVERSION COATING IN ACCORDANCE WITH ASTM B 449, CLASS 2, AND MUST BE PREPARED BY ONE OF THE TREATMENT SEQUENCE OPTIONS DESCRIBED IN ASTM B 449, APPENDIX X2. THE CHEMICALS AND SOLVENTS MUST BE APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SUFFICIENT LABORATORY FACILITIES TO TEST AND CONTROL THE CONCENTRATION OF THE SOLUTIONS USED MUST BE MAINTAINED AT THE TREATING PLANT. A LOG OF THE CONCENTRATION OF TREATING SOLUTIONS MUST BE MAINTAINED. TREATED PANELS MUST BE HANDLED IN SUCH A MANNER AS TO PREVENT CONTAMINATION. PANELS MUST BE STORED IN A DRY, CLEAN AREA FREE FROM DUST, ACID FUMES OR VAPOURS. WHEN ALUMINIUM IS SHIPPED TO A SECONDARY LOCATION FOR RETRO-REFLECTORIZING, ADEQUATE PRECAUTIONS MUST BE TAKEN TO ENSURE THAT THE MATERIAL ARRIVES AT THE DESTINATION UNCONTAMINATED.

2.4 BACKGROUND COLOURING (RED AND WHITE) MUST BE APPLIED AS A LAMINATED RETRO-REFLECTIVE SHEETING, COLOURED AS INDICATED ON DRAWINGS. SHEETING TO BE ASTM STANDARD D4956-11A, TYPE IV, CLASS I. USE ASTM D 4956 TYPE IX, XI OR AASHTO M 268 TYPE C OR D PRISMATIC RED FOR RED BACKGROUND PORTIONS OF SIGNS.RETROREFLECTIVE SHEETING MUST BE HIGH INTENSITY THAT IS AN UNMETALLIZED MICRO PRISMATIC REFLECTIVE MATERIAL.

2.5 ALL SIGNS MUST BE OF THE HIGHEST QUALITY WITH CONSISTENT DAYTIME AND NIGHTTIME COLOR AND RETRO-REFLECTIVITY

2.6 A MAXIMUM OF ONE VERTICAL OVERLAP SPLICE APPROXIMATELY 6MM WIDE WILL BE ALLOWED ON SIGN DIMENSION GREATER THAN 1220. APPLY CLEAR COATING OR EDGE SEALER AFTER APPLICATION OF THE RETRO-REFLECTIVE SHEETING AS RECOMMENDED BY THE SHEETING MANUFACTURER. WHERE CLEAR FINISH IS USED, THE FINISH MUST BE APPLIED AFTER SCREENING OF MESSAGES AND BORDERS. WHERE EDGE SEALER IS USED, THE SEALER MUST BE APPLIED TO ALL SPLICES AND EDGES. THE COMPLETED SIGN FACE MUST BE FREE FROM AIR BUBBLES, WRINKLES OR OTHER BLEMISHES.

2.7 LETTERS AND SYMBOLS MUST BE APPLIED TO THE BACKGROUND OF THE SIGN BY THE DIRECT OR REVERSE SCREEN PROCESS. MESSAGES AND BORDERS OF A COLOR DARKER THAN THE SIGN FIELD MUST BE APPLIED TO THE RETROREFLECTIVE SHEETING BY THE DIRECT PROCESS. MESSAGES AND BORDERS OF A COLOR LIGHTER THAN THE SIGN FIELD MUST BE PRODUCED BY THE REVERSE SCREEN PROCESS. INKS USED IN THE SILKSCREEN PROCESS MUST BE OF THE TYPE TO PRODUCE THE DESIRED COLOR AND DURABILITY WHEN APPLIED ON RETROREFLECTIVE SHEETING. SILKSCREEN INKS MUST BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE INK MUST PRODUCE THE DESIRED COLOUR WHEN APPLIED ON RETROREFLECTIVE SHEETING BACKGROUND AND MUST DRY TO A GOOD FILM WITHOUT RUNNING, STREAKING OR SAGGING. THE SCREENING MUST BE DONE IN A MANNER THAT RESULTS IN A UNIFORM COLOUR AND TONE, WITH SHARPLY DEFINED EDGES OF LEGEND AND BORDER WITHOUT BLEMISHES ON THE SIGN FIELD THAT WILL AFFECT THE INTENDED USE. SIGNS AFTER SCREENING MUST BE DRIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO PROVIDE A SMOOTH HARD FINISH. ANY SIGNS ON WHICH BLISTERS APPEAR DURING THE DRYING PROCESS WILL BE REJECTED.

1	ISSUED FOR TENDER	DMR	02/09/2014
No.	Description	Own By (Des Par)	Date

Revision / Révision

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the
Departmental Representative of all discrepancies.

A Detail number
Numéro du détail
B Location dwg. number
Numéro sur dessin

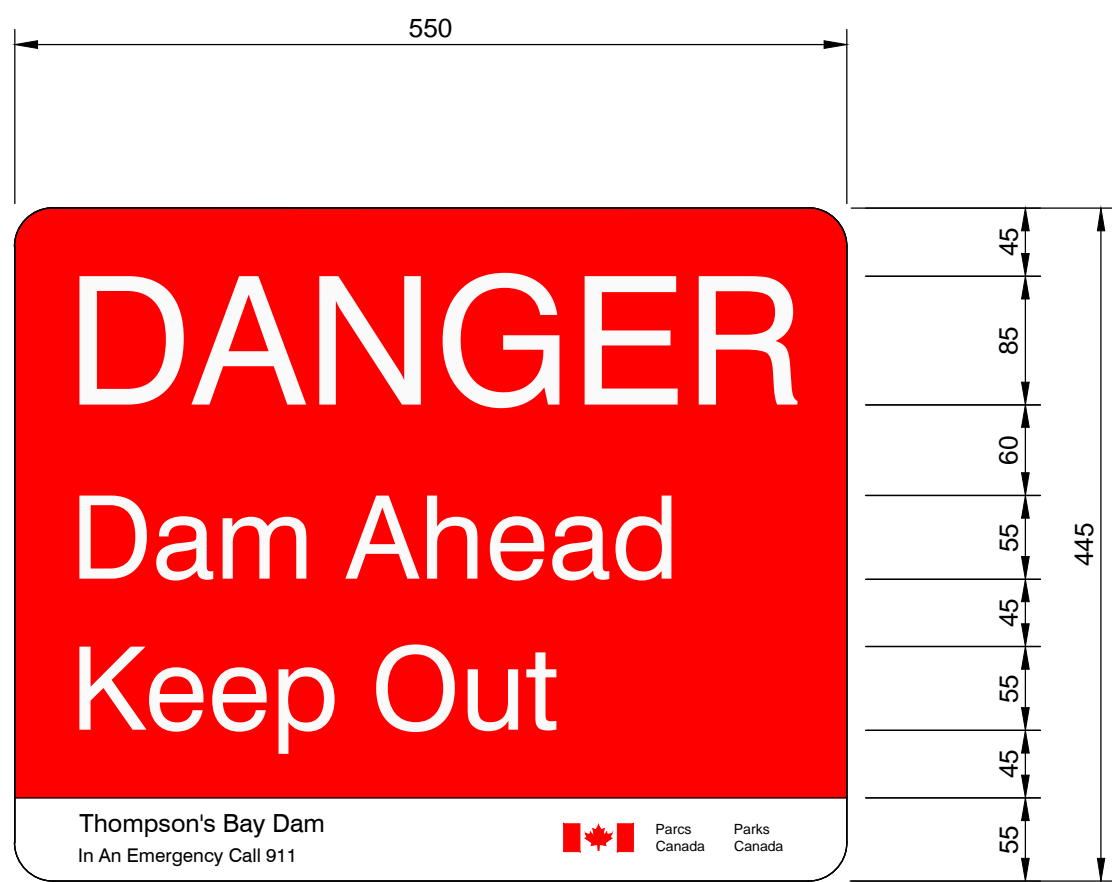
Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

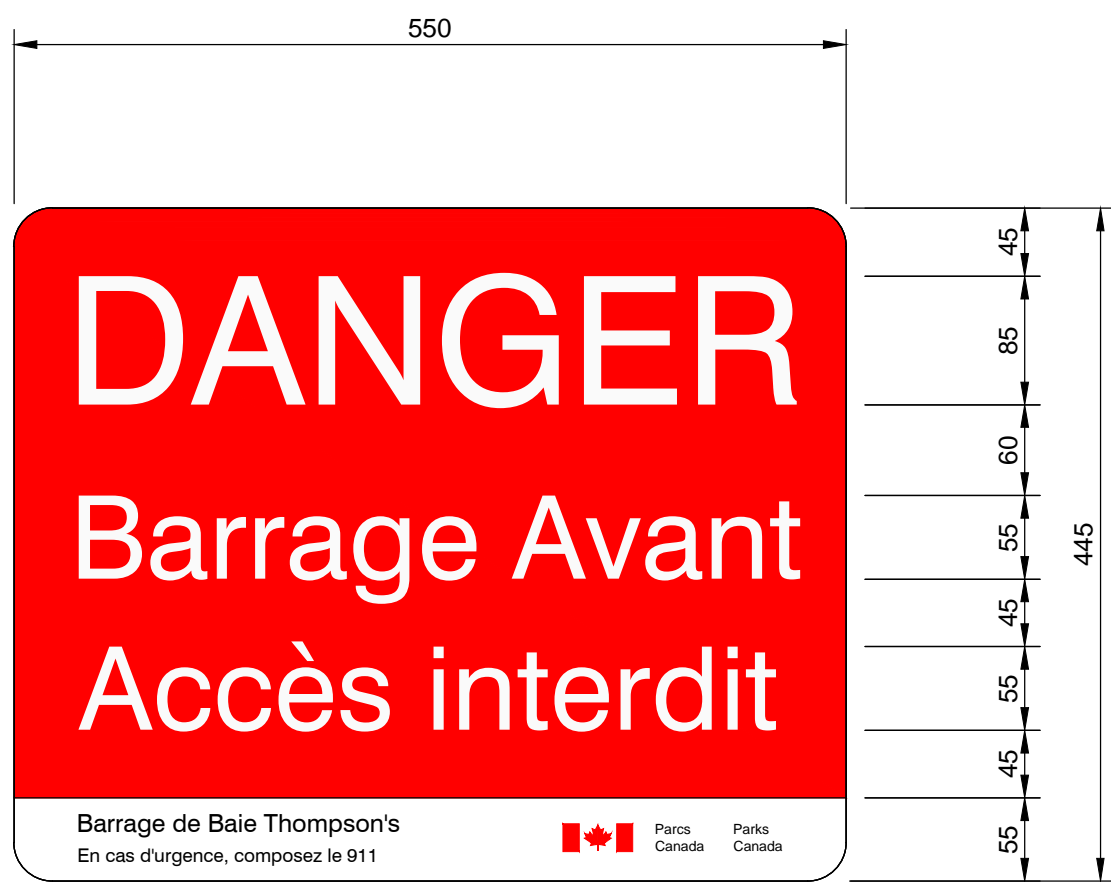
SAFETY SIGNAGE II

Drawn by / Dessiné par	Designed by / Conçu par
DAVID ROWAN	CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin
	JAN. 2014
Project manager / Administrateur de projet	
DANIEL SEGURA	
HCEW Number / Numéro de CHTI	Drawing Number/ Numéro du Dessin
COTSW 14/R11	113
Project Number / Numéro du projet	Sheet Feuille
R.065830.301	14 of du 16



A1E

SAFETY SIGN - TYPE A1
1:5



A1F

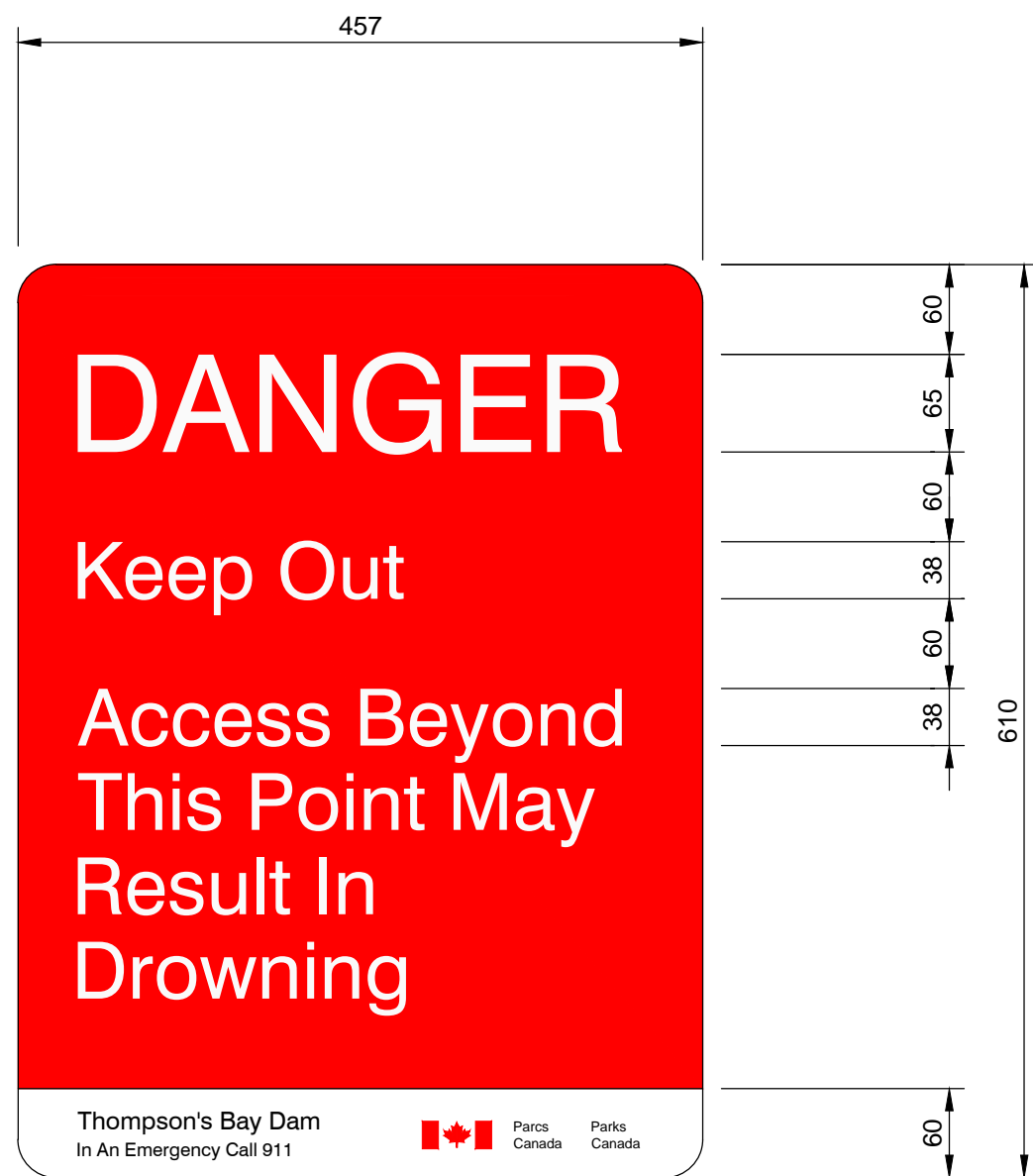
SUBSTRATE
3mm sheet aluminum alloy 5052-H32

MESSAGE COLOUR BREAK
Pantone Matching System (PMS), 485RED
White CMYK 0/0/0/100, RGB 255/255/255, Hexidecimal #FFFFFF
Black CMYK 0/0/0/100, RGB 0/0/0, Hexidecimal #000000
Logo - official PCA logo
- red flag
- black letters

QUANTITY
1 English
1 French

NOTE
Single-sided
50 mm radius corners
Holes to be done on site

***x* SIZE**
80 mm



A10E

SAFETY SIGN - TYPE A10
1:5



A10F

SUBSTRATE
3mm sheet aluminum alloy 5052-H38

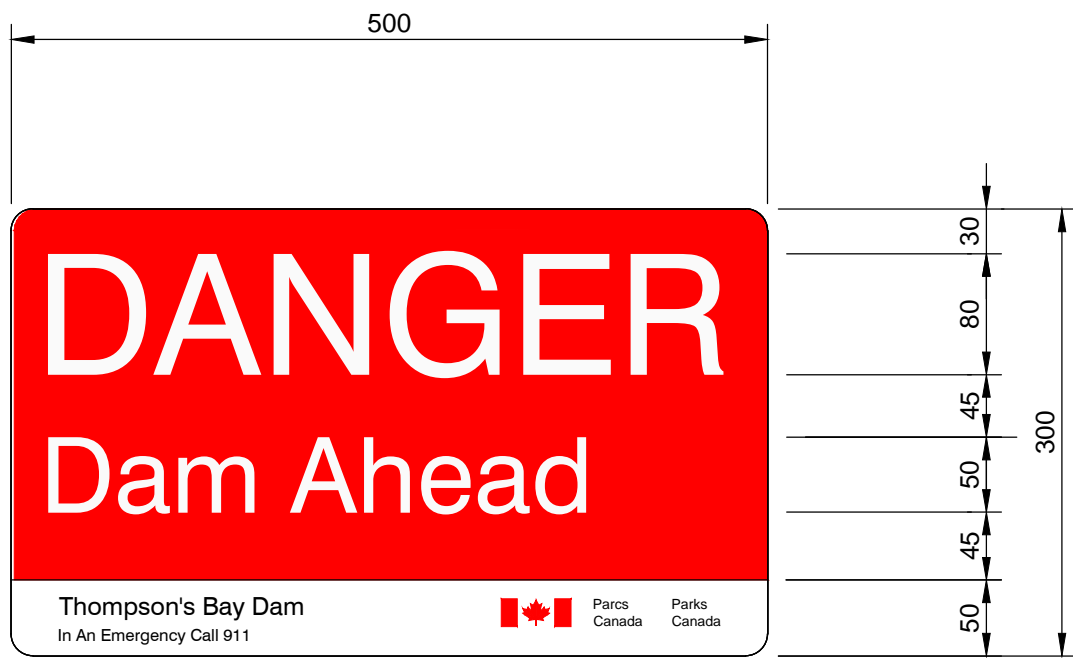
MESSAGE COLOUR BREAK
Logo - official PCA logo
- red flag
- black letters

QUANTITY
2 English
2 French

***x* SIZE**
38 mm

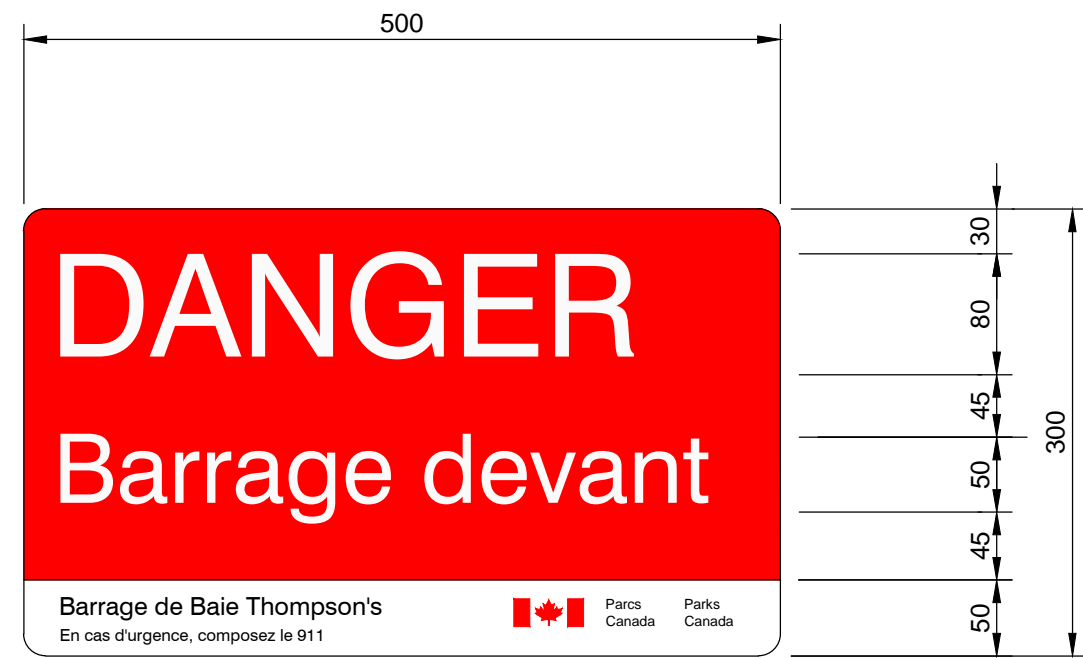
NOTE
Single-sided
50 mm radius corners
Holes to be done on site

LOCATION
See dwg. no. 112



A7E

SAFETY SIGN - TYPE A7
1:5



A7F

SUBSTRATE
3mm sheet aluminum alloy 5052-H38

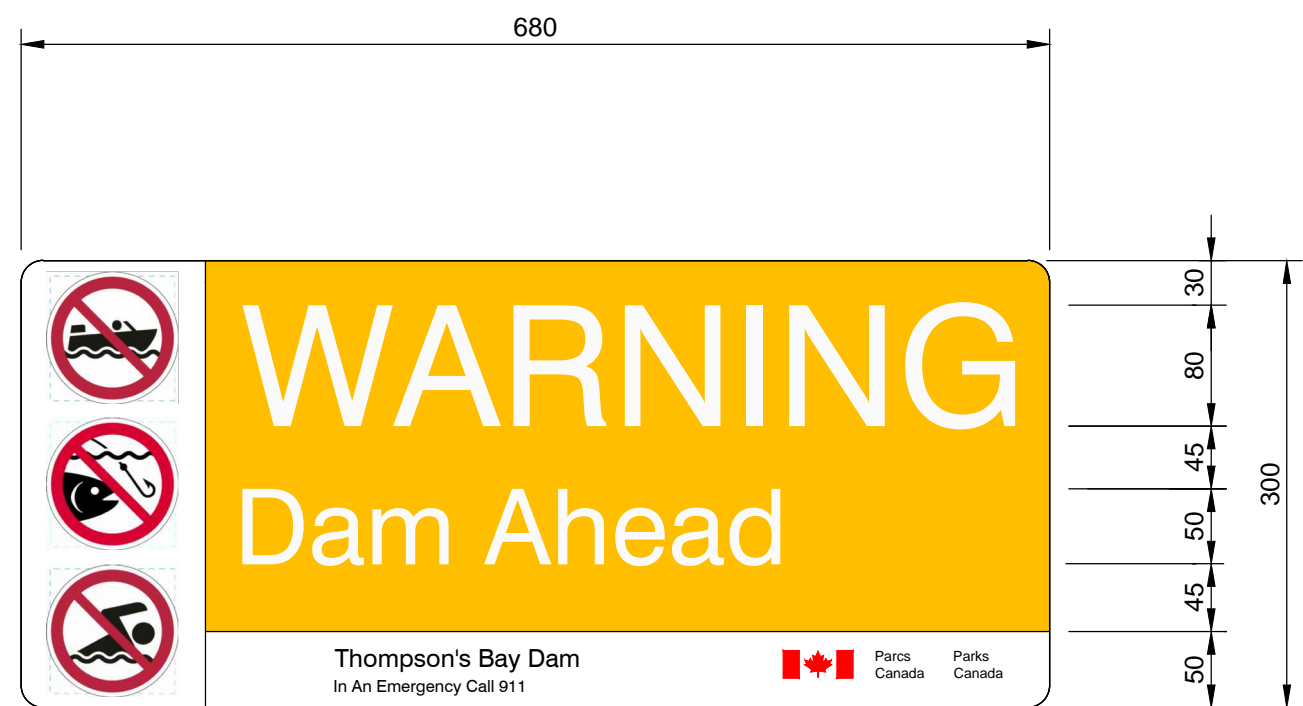
MESSAGE COLOUR BREAK
Logo - official PCA logo
- red flag
- black letters

QUANTITY
2 English
2 French

NOTE
Single-sided
25.4 mm radius corners
Holes to be done on site

LOCATION
See dwg. no. 112

***x* SIZE**
80 mm



A14E

SUBSTRATE
3mm sheet aluminum alloy 5052-H38

MESSAGE COLOUR BREAK
Pantone Matching System (PMS) 123 Yellow, engineer grade

Pictograph - commercial available pictograph 175 mm Dia.
- white background
- red border
- black symbols

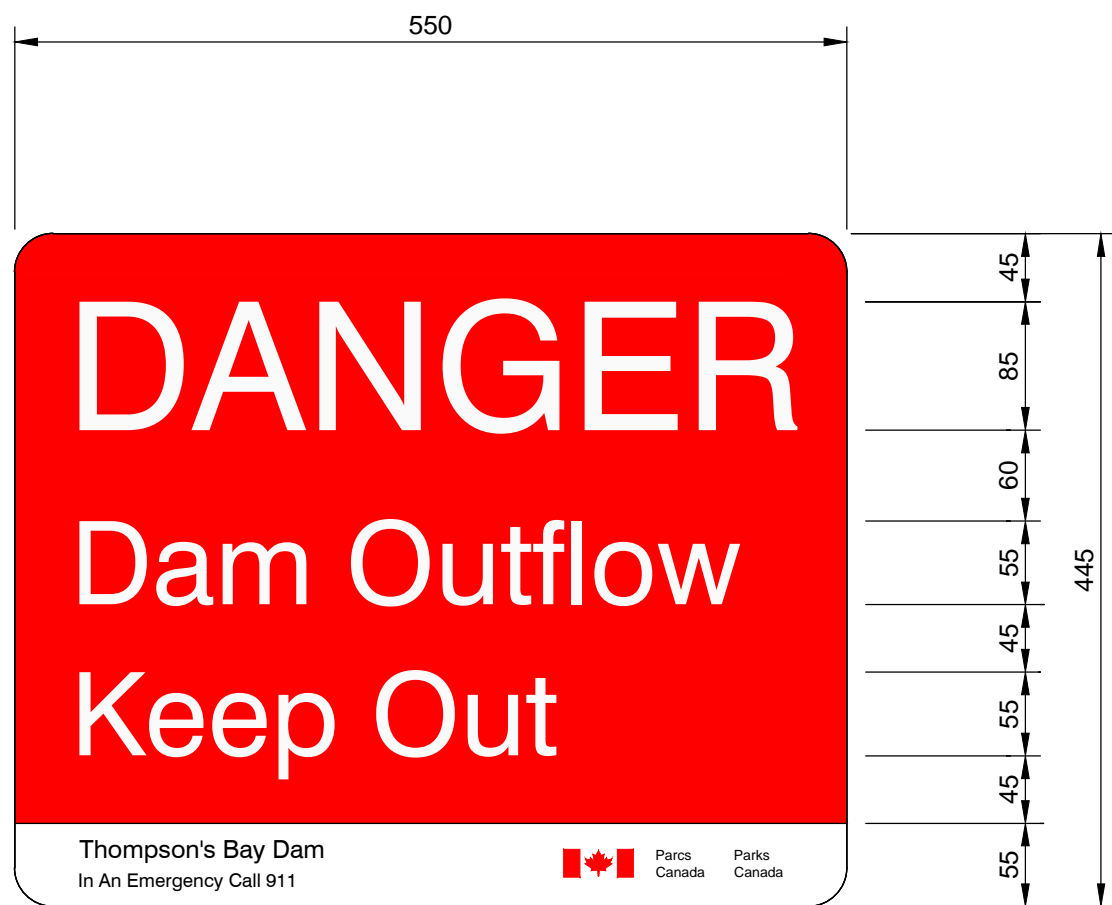
Logo - official PCA logo: Digital Logo to be provided to fabricator by Departmental Representative
- red flag
- black letters

QUANTITY
3 English
3 French

***x* SIZE**
80 mm

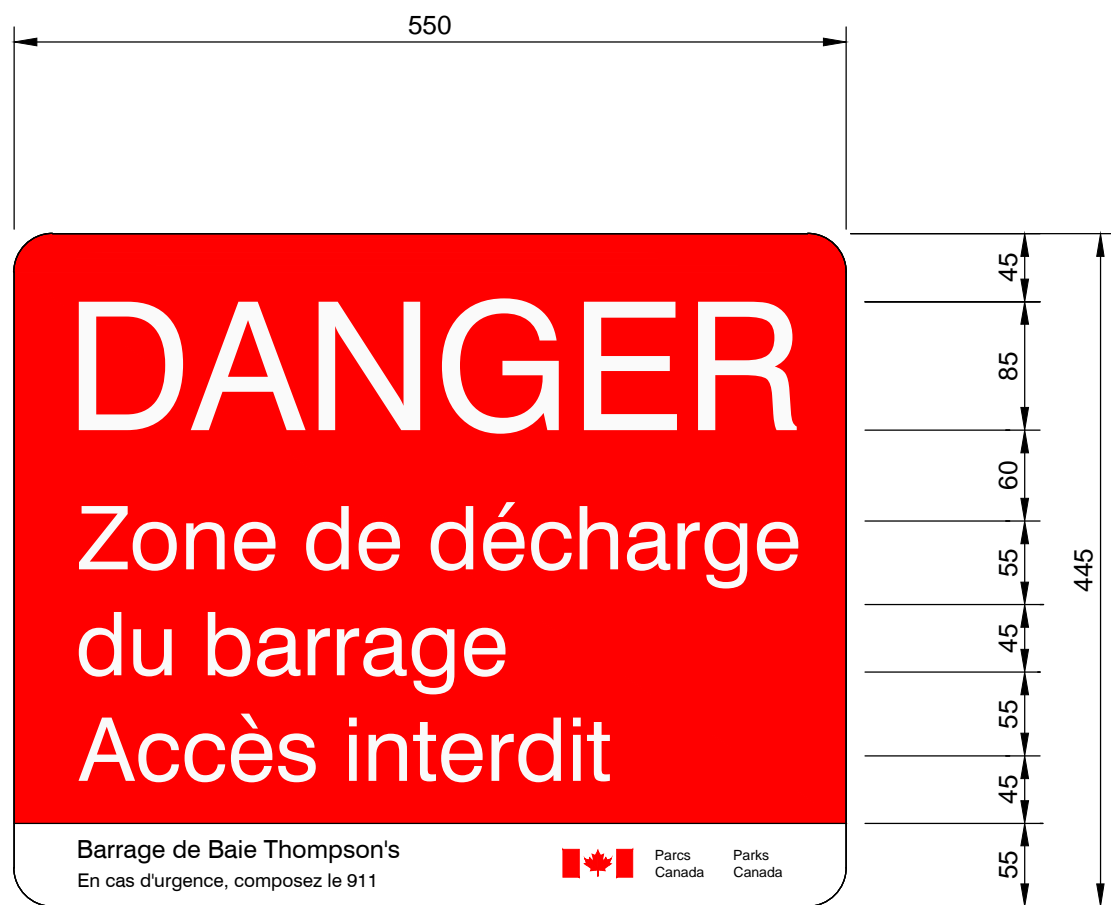
NOTE
Single-sided
25.4 mm radius corners
Holes to be done on site

LOCATION
See dwg. no. 112



A8E

SAFETY SIGN - TYPE A8
1:5



A8F

SUBSTRATE
3mm sheet aluminum alloy 5052-H38

MESSAGE COLOUR BREAK

Logo - official PWGSC logo
- red flag
- black letters

QUANTITY
1 English
1 French

NOTE
Single-sided
25.4 mm radius corners
Holes to be done on site

LOCATION
See dwg. no. 112

***x* SIZE**
80 mm



A14F

SAFETY SIGN - TYPE A14
1:5

1	ISSUED FOR TENDER	DMR	02/09/2014
No.	Description	Drawn By Dessiné Par	Date

Revision / Révision

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Departmental Representative of all discrepancies.

A Detail number
Numéro du détail
B Location dwg. number
Numéro sur dessin

Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

SAFETY SIGNAGE III

Drawn by / Dessiné par
DAVID ROWAN
HENRY K CHRZANOWSKI
Designed by / Conçu par
CHRIS UCHWAT
Drawing Date / Date du dessin
JAN. 2014

Project manager / Administrateur de projet

DANIEL SEGURA

HCEW Number / Numéro de CHTI

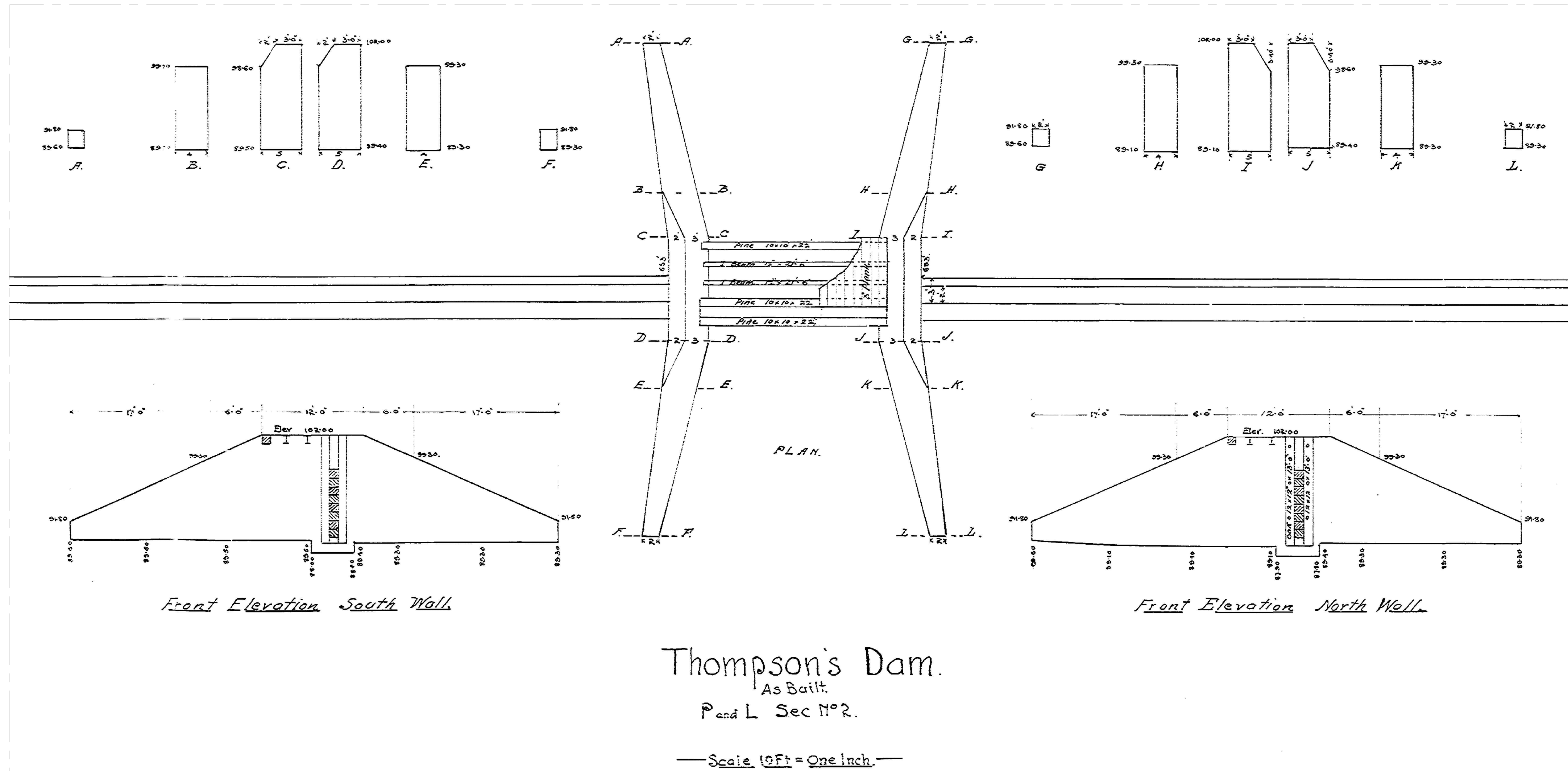
COTSW 14/R11

Project Number / Numéro du projet

R.065830.301

Drawing Number/
Numéro du Dessin
114

Sheet
Feuille 15 of 16



No.	Description	Drawn By Dwg. No.	Date
1	ISSUED FOR TENDER	DMR	02/09/2014

Revision / Révision

Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the
Departmental Representative of all discrepancies.

A Detail number
Numéro du détail
B Location dwg. number
Numéro sur dessin

Project title / Titre du projet

THOMPSON'S BAY DAM
REHABILITATION 2014

Drawing title / Titre du dessin

REFERENCE DRAWINGS

Drawn by / Dessiné par HENRYK CHRZANOWSKI	Designed by / Conçu par CHRIS UCHWAT
Approved by / Approuvé par	Drawing Date / Date du dessin JULY 2014

Project manager / Administrateur de projet
DANIEL SEGURA

HCEW Number / Numéro de CHTI COTSW 14/R11	Drawing Number / Numéro du Dessin 115
Project Number / Numéro du projet R.065830.301	Sheet Feuille 16 of 16