

PUBLIC WORKS & GOVERNMENT SERVICES CANADA

SOUTH JETTY RECONSTRUCTION PROJECT No. R.026729.002



DRAWING LIST					
DRAWING NUMBER	TITLE	DRAWING NUMBER	TITLE	DRAWING NUMBER	TITLE
G 00	GENERAL COVER SHEET	S B61	PRECAST BOX GIRDER	M 01	SITE PLAN AND EXISTING WATER, COMPRESSED AIR AND SANITARY WATER / FIRE MAIN AND COMPRESSED AIR NEW WORK AND KIOSK DETAILS
G 01	NOTES AND ABBREVIATIONS	S B62	PRECAST BOX GIRDER	M 02	SANITARY AND STORM NEW WORK
G 02	REGION PLAN, AREA PLANS & CONTRACTORS WORK SITE	S B63	PRECAST BOX GIRDER	M 03	WEST JETTY - WATER, COMPRESSED AIR, SANITARY AND STORM NEW WORK
G 03	WEST JETTY GENERAL PLAN	S B64	PRECAST BOX GIRDER	M 04	SOUTH JETTY - WATER, COMPRESSED AIR, SANITARY AND STORM NEW WORK
G 04	SOUTH JETTY GENERAL PLAN	S B65	PRECAST BOX GIRDER	M 05	MECHANICAL SECTIONS
G 05	JETTY SLAB & PRECAST DECK PANELS GENERAL ARRANGEMENT PLANS	S B66	PRECAST BOX GIRDER	M 06	MECHANICAL SECTIONS AND SCHEMATICS
G 06	JETTY PILE & PRECAST PILE CAPS GENERAL ARRANGEMENT PLANS	S B67	PRECAST BOX GIRDER	M 07	OIL INTERCEPTOR DETAILS
G 07	WEST AND SOUTH JETTY GENERAL ARRANGEMENT SECTIONS	S B68	PRECAST BOX GIRDER	M 08	
G 08	WEST JETTY GENERAL ARRANGEMENT SECTIONS	S CC1-2	PRECAST CORNER CAP	M 09	
G 09	SOUTH JETTY GENERAL ARRANGEMENT SECTIONS				
G 10	WEST AND SOUTH JETTY GENERAL ARRANGEMENT SECTIONS				
G 11-19	NOT USED	S DP1	PRECAST DECK PANEL	E 00	LEGEND OF SYMBOLS
G 20	EXISTING BATHYMETRY WITH ENGINEERED CAP SHOWING PROPOSED PILE LOCATIONS FOR REFERENCE	S DP2	PRECAST DECK PANEL	E 01	SOUTH JETTY SITE 1 OF 2 EAST SIDE
		S DP3	PRECAST DECK PANEL	E 02	SOUTH JETTY SITE 2 OF 2 WEST SIDE
		S DP4	PRECAST DECK PANEL	E 03	EXISTING SSSR BASEMENT PLANS AND ELEVATIONS
		S DP5-7	PRECAST DECK PANEL	E 04	SSSR BUILDING FIRST FLOOR EQUIPMENT ELEVATION AND CONNECTION DETAILS
D 01	SOUTH JETTY DEMOLITION PLAN	S FS1.1	PRECAST FENDER SUPPORTS	E 05	SSSR BUILDING FIRST FLOOR PLAN AND SINGLE LINE DETAILS
D 02	SOUTH JETTY DEMOLITION PLAN EAST	S FS1.2	PRECAST FENDER SUPPORTS	E 06	SOUTH JETTY LOW VOLTAGE RISERS AND CONNECTION DETAILS
D 03	WEST JETTY DEMOLITION PLAN NORTH	S FS1.3	PRECAST FENDER SUPPORTS	E 07	FIRE ALARM, COMMUNICATIONS AND SCADA SYSTEM DETAILS AND RISERS
		S FS2.1	PRECAST FENDER SUPPORTS	E 08	EMERGENCY ALARM, COMMUNICATIONS AND SCADA SYSTEM DETAILS
		S FS3.1	PRECAST FENDER SUPPORTS	E 09	EGD DUCT BANK NAMING CONVENTION
		S FS3.2	PRECAST FENDER SUPPORTS	E 10	JETTY DUCT BANK SECTIONS 1 OF 7
		S FS3.3	PRECAST FENDER SUPPORTS	E 11	JETTY DUCT BANK SECTIONS 2 OF 7
		S FS4.1	PRECAST FENDER SUPPORTS	E 12	JETTY DUCT BANK SECTIONS 3 OF 7
		S FS4.2	PRECAST FENDER SUPPORTS	E 13	JETTY DUCT BANK SECTIONS 4 OF 7
				E 14	JETTY DUCT BANK SECTIONS 5 OF 7
		S FP1-6	WEST JETTY PRECAST FLAT PANEL	E 15	JETTY DUCT BANK SECTIONS 6 OF 7
				E 16	JETTY DUCT BANK SECTIONS 7 OF 7
		S OW1	PRECAST OIL-WATER SEPARATION PLATFORM	E 17	WEST END OF SERVICE TUNNEL EXISTING PHOTOGRAPHS
				E 18	WEST END OF SERVICE TUNNEL EXISTING PHOTOGRAPHS
		S PC1	PRECAST PILE-CAP	E 19	NOT USED
		S PC2	PRECAST PILE-CAP	E 20	SOUTH JETTY MANHOLE AND PULL PIT DETAILS 1 OF 7
		S PC3	PRECAST PILE-CAP	E 21	SOUTH JETTY MANHOLE AND PULL PIT DETAILS 2 OF 7
		S PC4	PRECAST PILE-CAP	E 22	SOUTH JETTY MANHOLE AND PULL PIT DETAILS 3 OF 7
		S PC5	PRECAST PILE-CAP	E 23	SOUTH JETTY MANHOLE AND PULL PIT DETAILS 4 OF 7
		S PC6	PRECAST PILE-CAP	E 24	SOUTH JETTY MANHOLE AND PULL PIT DETAILS 5 OF 7
		S PC7	PRECAST PILE-CAP	E 25	SOUTH JETTY MANHOLE AND PULL PIT DETAILS 6 OF 7
		S PC8	PRECAST PILE-CAP	E 26	SOUTH JETTY MANHOLE AND PULL PIT DETAILS 7 OF 7
		S PC9	PRECAST PILE-CAP	E 27	SSSR AND SOUTH JETTY LIGHTING CONTROL
		S PC10	PRECAST PILE-CAP	E 28	SSSR AND SOUTH JETTY LIGHTING CABLE ROUTING
		S PC11	PRECAST PILE-CAP	E 29	SOUTH JETTY PULL BOX BONDING TYPICAL DETAIL
		S PC12	PRECAST PILE-CAP	E 30	JETTY MOUNT #1 AND #2 REFURBISHMENT DETAILS 1 OF 2
		S PC13	PRECAST PILE-CAP	E 31	JETTY MOUNT #1 AND #2 REFURBISHMENT DETAILS 2 OF 2
		S PC14	PRECAST PILE-CAP	E 32	JETTY MOUNT #3 AND #5 REFURBISHMENT DETAILS 1 OF 2
		S PC15	PRECAST PILE-CAP	E 33	JETTY MOUNT #3 AND #5 REFURBISHMENT DETAILS 2 OF 2
		S PC16	PRECAST PILE-CAP	E 34	JETTY MOUNT #4 REFURBISHMENT DETAILS 1 OF 2
				E 35	JETTY MOUNT #4 REFURBISHMENT DETAILS 2 OF 2
		S PCD1	WEST JETTY PRECAST D.C. PILE-CAPS	E 36	EXISTING SOUTH JETTY REGULATED SERVICE CONTROL AND PROTECTION
				E 37	JETTY MOUNT #4 REGULATED SERVICE CONTROL AND PROTECTION
		S SD1	PRECAST STORM DRAIN	E 38	SSSR DUCT BANK TO SOUTH JETTY SERVICE RACEWAY DEFLECTION JOINT
		S SD2	PRECAST STORM DRAIN	E 39	DEFLECTION COUPLING ASSEMBLY DETAILS AND DIMENSIONS TYPICAL
				E 40	SOUTH JETTY WEST END DEFLECTION JOINTS
		S UT1	PRECAST UTILITY TRENCH	E 41	SOUTH JETTY WEST END DEFLECTION JOINTS
		S UT2	PRECAST UTILITY TRENCH	E 42	NEW TUG WHARF SERVICES AND DETAILS
		S UT3	PRECAST UTILITY TRENCH	E 43	NEW TUG WHARF SERVICES AND DETAILS
		S UT4	PRECAST UTILITY TRENCH	E 44	NAVIGATIONAL LIGHT, CAISSON PLUG AND FIRE/EMERGENCY ALARM PULL STATION
		S UT5	PRECAST UTILITY TRENCH		
		S UT6	PRECAST UTILITY TRENCH		
		S DL&N	PRECAST DESIGN LOADS & NOTES		
				C 01	EAST END SLOPE EXCAVATION AND ENGINEERED CAPPING PLAN
				C 02	ENGINEERED CAPPING CROSS SECTIONS - SHEET 1
				C 03	ENGINEERED CAPPING CROSS SECTIONS - SHEET 2
				C 04	ENGINEERED CAPPING DETAILS

DRAWING ANNOTATIONS:
 G = GENERAL
 D = DEMOLITION
 S = STRUCTURAL
 M = MECHANICAL
 E = ELECTRICAL
 C = CAPPING

Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017-03-09
1	ISSUED FOR TENDER	2017-01-27
A	ISSUED FOR 90% REVIEW	2016-09-12

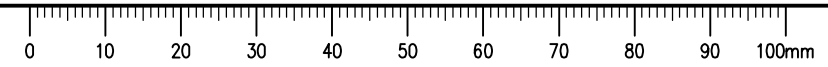
Client/client
PUBLIC WORKS & GOVERNMENT SERVICES CANADA
 ESQUIMALT, B.C., V9A 2P1

Project title/Titre du projet
**VICTORIA, B.C.
 825 ADMIRALS ROAD
 ESQUIMALT GRAVING DOCK**
SOUTH JETTY RECONSTRUCTION

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Drawing title/Titre du dessin
GENERAL COVER SHEET

Project No./No. du projet	Sheet/Feuille	Revision no./Révision no.
R.026729.002	G00	2



1. NOTES:

- 1.1 DETAILED REQUIREMENTS FOR MATERIALS AND FABRICATION ARE DESCRIBED IN THE SPECIFICATIONS. FOR CONVENIENCE, CERTAIN EXTRACTS ARE REPRODUCED BELOW. IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS & THE SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.
- 1.2 DIMENSIONS ARE IN MILLEMETRES UNLESS NOTED OTHERWISE. ELEVATIONS ARE IN METRES, CHART DATUM. SCALES INDICATED ON DRAWINGS ARE FULL SIZE A1 DRAWINGS.
- 1.3 DIMENSIONS, LAYOUT AND DETAILS OF EXISTING STRUCTURES ARE BASED ON DRAWINGS OBTAINED FROM PUBLIC WORKS AND GOVERNMENT SERVICES CANADA AND MAY BE SUBJECT TO CONSTRUCTION VARIATIONS AND MODIFICATIONS. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONFIGURATION AND BRING ANY DISCREPANCIES OR POTENTIAL CONFLICTS TO THE ATTENTION OF THE DEPARTMENTAL REPRESENTATIVE. REFERENCE DRAWINGS ARE LISTED IN THE SPECIFICATIONS.
- 1.4 WITHIN SEVEN (7) DAYS OF MOBILIZATION TO SITE THE CONTRACTOR SHALL PERFORM, AND SUBMIT TO DEPARTMENTAL REPRESENTATIVE FOR REVIEW, A PRE-CONSTRUCTION SURVEY TO CONFIRM THE CONDITIONS, POSITION, AND ELEVATION OF EXISTING DECK STRUCTURES AND APRON PAVEMENT (ALONG THE FULL PERIMETER OF THE SOUTH JETTY STRUCTURES) TO ENSURE CONTINUITY OF JETTY DECK / APRON ELEVATIONS AND SURFACE DRAINAGE GRADES.
- 1.5 THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE DEPARTMENTAL REPRESENTATIVE. LOCATION OF THE CONTRACTOR'S SITE OFFICE AND MATERIAL STORAGE SHALL BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
- 1.6 TIDE ELEVATIONS (CHART DATUM):

EXTREME HIGH WATER LEVEL (EHWL)	3.8m
HIGHER HIGH WATER LEVEL (HHWL)	3.4m
MEAN WATER LEVEL (MWL)	1.9m
LOWER LOW WATER LEVEL (LLWL)	0.1m
EXTREME LOW WATER LEVEL	-0.5m
- 1.7 PWGSC SITE BENCHMARK IS "BOLT". FROM PWGSC PLAN SK4593-1 DATED OCTOBER 1989, "BOLT" IS ELEVATION 4.725m TO PWGSC DATUM, BOLT IS 4.849m ABOVE LLWL; LLWL IS 0.124m BELOW PWGSC DATUM 0.0; LLWL IS 1.871m BELOW GEODETIC ELEVATION.

TO CONVERT FROM GEODETIC DATUM TO CHART DATUM, ADD 1.871m.

TO CONVERT FROM GEODETIC DATUM TO PWGSC DATUM, ADD 1.747m.

TO CONVERT FROM PWGSC DATUM TO CHART DATUM, ADD 0.124m.
- 1.8 FOR CONTROL MONUMENT INFORMATION SEE DRAWING G02.
- 1.9 THE SOUTH JETTY HAS BEEN DESIGNED FOR FORCES ASSOCIATED WITH USAGE E.G. LIVE LOADS, CRANE LOADS, BERTHING AND MOORING LOADS, IN ADDITION TO THE ENVIRONMENTAL FORCES SET FORTH IN THE NATIONAL BUILDING CODE OF CANADA, 2010. THE DESIGN SERVICE LIFE FOR MAJOR STRUCTURAL COMPONENTS IS 75 YEARS.
- 1.10 LIVE LOADS: (ALL LOADS ARE UNFACTORED)
 - a) UNIFORMLY DISTRIBUTED LOAD (UDL): 28.7kPa (600psf)
 - b) UDL NEED NOT BE CONSIDERED COINCIDENT WITH VEHICLE WHEEL LOADS
 - c) AXLE LOADING:
 - TRUCK LOADING (CL-625 PER S6-06):

FRONT AXLE 50kN (DISTRIBUTED TO 2 WHEELS)

REAR AXLE 175kN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
 - MOBILE CRANE LOADING (GROVE RT530E):

OUTRIGGER LOAD: 220kN ON 420mm x 420mm PAD
 - ESQUIMALT FIRE TRUCK (TYPE 1), 1993 THIBAULT ENGINE:

FRONT AXLE 75kN (DISTRIBUTED TO 2 WHEELS)

REAR AXLE 100kN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
 - ESQUIMALT FIRE TRUCK (TYPE 2), 1999 E ONE LADDER TRUCK:

FRONT AXLE 85kN (DISTRIBUTED TO 2 WHEELS)

REAR AXLES 210kN (DISTRIBUTED TO 2 PAIRS OF WHEELS)
 - ESQUIMALT FIRE TRUCK (TYPE 3), 2008 FORT GARY RESCUE TRUCK:

FRONT AXLE 55kN (DISTRIBUTED TO 2 WHEELS)

REAR AXLES 105kN (DISTRIBUTED TO 2 PAIRS OF WHEELS)

DYNAMIC LOAD ALLOWANCE (DLA) SHOULD BE ADDED TO ALL AXLE/WHEEL LOADS.

- 1.11 MOORING LOADS: (ALL LOADS ARE UNFACTORED)
 - a) 100 TONNE BOLLARD: 980kN
 - b) 34 TONNES CLEAT: 334kN

THE MOORING LINE LOADS CAN BE APPLIED AT UP TO 30° ABOVE HORIZONTAL, AND IN ANY OFFSHORE DIRECTION (-90° TO +90°) ON PLAN.

1.12 TYPICAL ABBREVIATIONS:

APPROX/~	APPROXIMATE(LY)	DWG	DRAWING	GALV	GALVANIZED	MIN	MINIMUM	O.D.	OUTSIDE DIAMETER	SS	STAINLESS STEEL	UHMW	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE
BC	BRITISH COLUMBIA	E	EASTING	H	HORIZONTAL	mm	MILLIMETRE	PROJ	PROJECTION	T	TOP	UTM	UNIVERSAL TRANSVERSE MERCATOR
BOT	BOTTOM	EF	EACH FACE	HA	HECTARES	Mpa	MEGAPASCAL	TBD	TO BE DETERMINED	V	VERTICAL	X	EASTING
C/C	CENTRE TO CENTRE	EGD	ESQUIMALT GRAVING DOCK	HHWL	HIGHER HIGH WATER LEVEL	MWL	MEAN WATER LEVEL	T.O.C	TOP OF CONCRETE	Y	NORTHING	Z	ELEVATION IN METRES
C.D.	CHART DATUM	EHWL	EXTREME HIGH WATER LEVEL	ID	INNER DIAMETER	N	NORTHING	RAD.,R	RADIUS	T.O.R.	TOP OF RAIL		
CSRS	CANADIAN SPATIAL REFERENCE SYSTEM	EL	ELEVATION	INV	INVERT	NAD	NORTH AMERICAN DATUM	REINF	REINFORCING	TRB	TEMPORARY RESUSPENSION BARRIER		
CL	CLEAR	EQ SP	EQUALLY SPACED	LLWL	LOWER LOW WATER LEVEL	NF	NEAR FACE	REQ/REQ'D	REQUIRED	TYP	TYPICAL		
CLPR	CLOSURE POUR	EW	EACH WAY	LTD.	LIMITED	No.	NUMBER	REV	REVISION	U.N.O.	UNLESS NOTED OTHERWISE		
CJ	CONSTRUCTION JOINT	EXP JT	EXPANSION JOINT	m	METRE	NOM	NOMINAL	SQ	SQUARE	U/S	UNDER SIDE		
Ø	DIAMETER	FF	FAR FACE	MAX	MAXIMUM	N.T.S.	NOT TO SCALE	STA	STATIONING	TYP.	TYPICAL		
DU	DREDGE UNIT							SIM	SIMILAR				

- 1.13 BERTHING LOADS:
 - MAX. DESIGN SHIP: 9,462 DWT, DND PROTECTEUR CLASS SUPPLY SHIP (A0R) APPROACH VELOCITY 0.15 m/SEC, APPROACH ANGLE 10°, MAX. HULL PRESSURE 20 TONNE/m².
 - MIN. DESIGN SHIP: 835 DWT DND HALIFAX CLASS PATROL FRIGATE APPROACH VELOCITY 0.15 m/SEC, APPROACH ANGLE 10°, MAX. HULL PRESSURE 20 TONNE/m².
- BC FERRIES (COASTAL CLASS, "S" CLASS AND "C" CLASS) ALSO CONSIDERED IN BERTHING/MOORING DESIGN.

- 1.14 SEISMIC LOADS:

LOADING BASED ON SITE SPECIFIC PEAK HORIZONTAL GROUND ACCELERATIONS OBTAINED FROM THE PACIFIC GEOSCIENCE CENTRE, AS FOLLOWS:

A475 EVENT	
PROBABILITY OF EXCEEDANCE PER ANNUM	0.0021
PROBABILITY OF EXCEEDANCE IN 50 YEARS	10%
So(0.2)	0.695
So(0.5)	0.598
So(1.0)	0.314
So(2.0)	0.172
PEAK HORIZONTAL GROUND ACCELERATION, A	0.308g
STRUCTURAL DAMPING	5%

- 1.15 SITE CONTOURS SHOWN ON THE DRAWINGS ARE TAKEN FROM GOLDER ASSOCIATES LTD. DWG. 280 02162010 R2 REV. A DATED 2010-06-17
- 1.16 FOR GEOTECHNICAL INFORMATION SEE TECHNICAL MEMORANDUM BY GOLDER ASSOCIATES "GEOTECHNICAL REVIEW OF THE 99% PILE DESIGN, ESQUIMALT GRAVING DOCK, SOUTH JETTY RECONSTRUCTION PROJECT, ESQUIMALT, BC" DATED MARCH 1, 2017.

PILE DESIGN IS BASED ON THE FOLLOWING ULTIMATE CAPACITIES:

 - END BEARING IN GLACIAL TILL = 2 MPa
 - END BEARING DRIVEN ONTO OR INTO BEDROCK = 7 MPa
 - SHAFT RESISTANCE IN GLACIAL TILL = 225 kPa
 - SHAFT RESISTANCE AT GROUT INTERFACE ROCK SOCKET = 1.4 MPa
 - END BEARING RESISTANCE OF ROCK SOCKETS = 0 MPa
 - RESISTANCE FACTOR FOR COMPRESSION = 0.5
 - RESISTANCE FACTOR FOR TENSION = 0.3

FOR ADDITIONAL GEOTECHNICAL INVESTIGATION AND BOREHOLE LOGS REFER TO THE FOLLOWING PROVIDED IN THE APPENDIX TO THE SPECIFICATIONS.

 - ESQUIMALT GRAVING DOCK SOUTH JETTY DEVELOPMENT PROJECT - KCBL GEOTECHNICAL DATA REPORT (MARCH 23, 2010)
 - ESQUIMALT GRAVING DOCK AND SOUTH LANDING WHARF - KCBL SITE INVESTIGATION AND LIQUEFACTION ASSESSMENT (JUNE 25, 2002)
 - ESQUIMALT GRAVING DOCK WATERLOT - GOLDER ASSOCIATES SUPPLEMENTARY TEST HOLE INVESTIGATION FOR REMEDIAL ACTION PLAN/RISK MANAGEMENT PLAN (MARCH 3, 2010)
 - ESQUIMALT GRAVING DOCK WATERLOT REMEDIATION PROJECT: BOREHOLE INVESTIGATION, TIMBER PORTION OF SOUTH JETTY, FISCAL YEAR 2011-2012 - GOLDER ASSOCIATES (SEPT.7, 2011)
 - ESQUIMALT GRAVING DOCK - PILE DESIGN - AMEC (JULY 1984)
- 1.17 NOT USED
- 1.18 FOR DECK LOADS, SEE APPENDIX TO THE SPECIFICATIONS. EGD LOAD RATING LAYOUT, SKETCH 2 (KM ENGINEERING GROUP INC. 2005)

2. CONCRETE:

- 2.1 ALL CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF:

TYPE	USE	COMPRESSIVE STRENGTH (MPa)
A	ROCK SOCKETS AT PILES, PIPE PILE INFILL AND CONTROL DISPLACEMENT PILE CAPS	35 @ 28 DAYS
B	PRECAST PRE-TENSIONED BOX GIRDERS, PRECAST PILE CAPS, PRECAST FENDER SUPPORTS, PRECAST CORNER SUPPORTS, PRECAST UTILITY TRENCH SEGMENTS AND PRECAST DECK PANELS	45 @ 28 DAYS
C	JETTY DECK SLAB	45 @ 28 DAYS
D	EAST APPROACH RETAINING WALL, AND OTHER REINFORCED CONCRETE STRUCTURES NOT IDENTIFIED AS TYPE A TO C	35 @ 28 DAYS
E	DUCT BANKS	30 @ 28 DAYS
F	PRECAST CONCRETE TUG BOAT FLOAT	40 @ 28 DAYS

FOR EXPOSURE CLASS AND OTHER REQUIREMENTS, REFER TO SPECIFICATIONS.

- 2.2 ALL EXPOSED EDGES SHALL HAVE 20mm CHAMFER, U.N.O.
- 2.3 EXPOSED DECK SURFACES SHALL HAVE CRACK CONTROL JOINTS SAW CUT AT NO MORE THAN 4m SPACING, EACH DIRECTION. SAW CUTS SHALL BE 6mm WIDE AND 12mm DEEP, AND SHALL BE FILLED WITH A NON-SHRINK GROUT.
- 3. CONCRETE REINFORCEMENT:
 - 3.1 REINFORCING BARS SHALL BE UNCOATED BILLET STEEL BARS CONFORMING TO CAN/CSA G30.18-09, 400 MPa MIN. YIELD OR ASTM A615 GRADE 75 WHERE INDICATED.
 - 3.2 DESIGNATION OF REINFORCING BARS:

3-10M0800 MEANS THREE 10M BARS 800 LONG. 2-C20M1500 MEANS TWO 20M BARS, EACH WITH A 90 DEGREE STANDARD HOOK ON EACH END AND A TOTAL LENGTH OF 1500 PER BAR.

--- DENOTES BOTTOM BARS.

--- DENOTES TOP BARS.
 - 3.3 DIMENSIONS TO REINFORCEMENT ARE TO CENTRELINES OF BARS, EXCEPT WHERE CONCRETE COVER OR CLEARANCE BETWEEN BARS IS SHOWN.

- 3.4 CONCRETE COVER FOR REINFORCEMENT (CAST-IN-PLACE):

TOP SURFACES OF JETTY STRUCTURES	70
SEAWARD FACES OF JETTY STRUCTURES	100
STRUCTURES CAST AGAINST SOIL	100
STRUCTURES CAST AGAINST PRECAST CONCRETE	40
TUG BOAT FLOAT	75
ALL OTHE CONCRETE FACES, U.N.O.	70

- CONCRETE COVER FOR REINFORCEMENT (PRECAST):

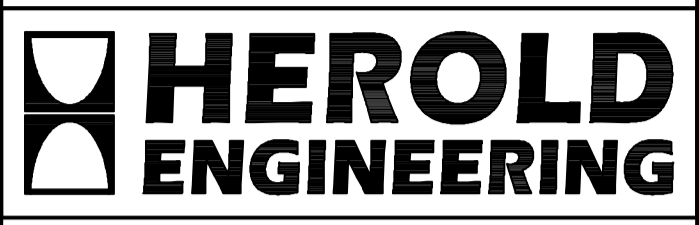
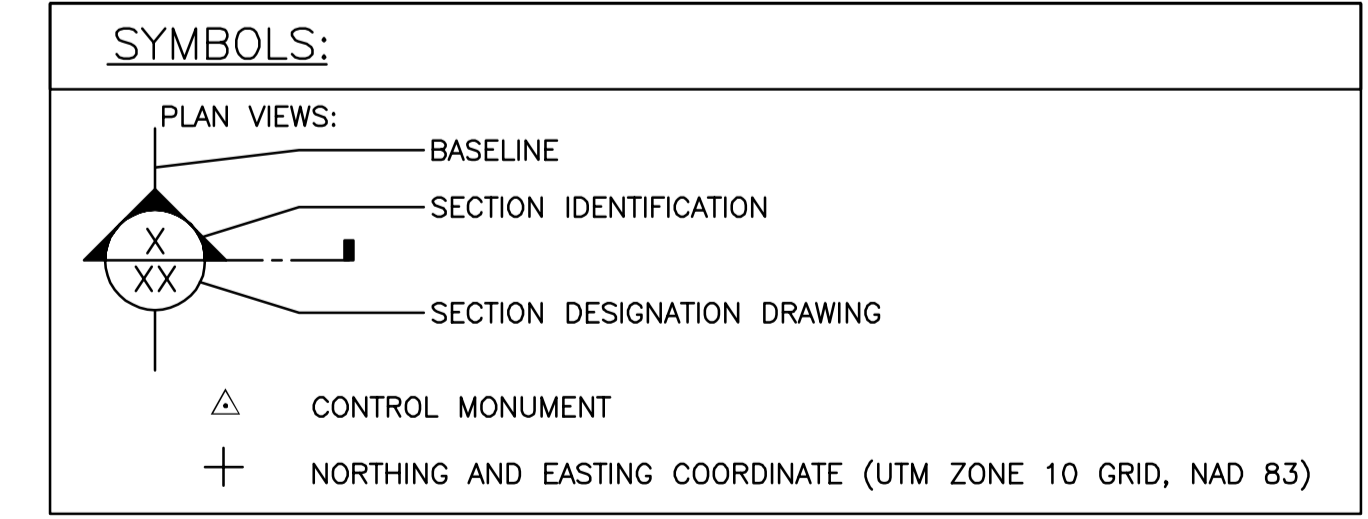
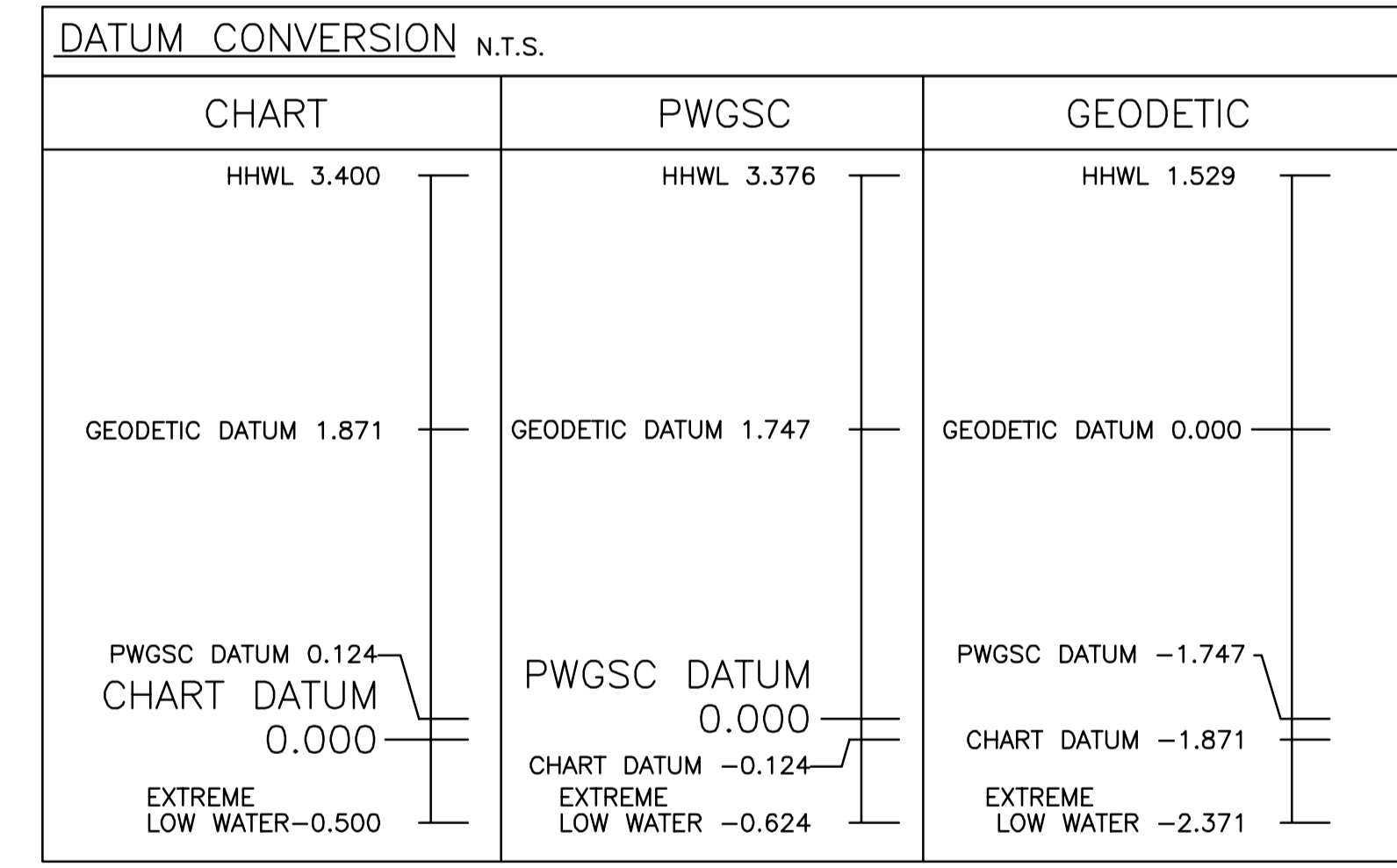
SEAWARD FACE OF FENDER PANELS	100
EXTERIOR WALLS OF PRECAST BOX GIRDERS, U.N.O.	60
SEAWARD PERMANENTLY EXPOSED WALL OF PRECAST BOX GIRDER	85
EXTERIOR SOFFITS OF PRECAST BOX GIRDERS	70
INTERIOR SURFACES OF PRECAST BOX GIRDERS	40
PERMANENTLY EXPOSED FACES OF UTILITY TRENCH	70
INTERIOR SURFACES OF UTILITY TRENCH	40
FACES OF PRECAST ELEMENTS AGAINST CAST-IN-PLACE CONCRETE	40
PRE-TENSIONING STRANDS (SEAWARD PERMANENTLY EXPOSED SURFACES)	100
PRE-TENSIONING STRANDS ON PERMANENTLY EXPOSED EXTERIOR WALLS OF BOX GIRDERS	70
PRE-TENSIONING STRANDS ON PERMANENTLY EXPOSED EXTERIOR SOFFITS OF BOX GIRDERS	80
PRE-TENSIONING STRANDS (INTERIOR SURFACES)	45
ALL OTHER CONCRETE FACES, U.N.O.	70

4. STRUCTURAL STEEL AND STEEL FABRICATIONS:

- 4.1 STRUCTURAL STEEL SHALL MEET CAN/CSA G40.20-13 FOR GENERAL REQUIREMENTS, AND CAN/CSA G40.21-13 FOR QUALITY. GRADES OF MATERIAL, UNLESS NOTED OTHERWISE:

STRUCTURAL STEEL AND MISC. METAL	350W
BOLTS, NUTS AND WASHERS	ASTM A325M
ANCHOR BOLTS	ASTM A307
STEEL PIPE	CSA Z245.1 (GRADE 359 CATEGORY 1) OR AP1 5LX (GRADE 52)
STAINLESS STEEL BAR AND SHAPES	ASTM A276
STAINLESS STEEL PLATE	ASTM A167
- 4.2 ALL STEEL TO BE HOT DIPPED GALVANIZED, U.N.O.
- 4.3 STEEL PIPE PILES TO BE PAINT COATED PER SPECIFICATION 09 97 19. FOR PAINTED LENGTHS, SEE DRAWING S19.
- 4.4 CORE DRILLED MECHANICAL ANCHORS SHALL BE HEAVY DUTY TYPE AND INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 4.5 EXPOSED METALWORK EXCEPT SEISMIC MOVEMENT JOINTS TO BE GROUNDED PER SPECIFICATION 26 05 27.

ANY ELASTOMERIC BEARING PADS SHALL CONFORM TO THE REQUIREMENTS FOR POLYISOPRENE IN TABLE 11.5 OF CAN S6-14, CANADIAN HIGHWAY BRIDGE DESIGN CODE.



HEL JOB FILE: 3191-008



Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/13

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

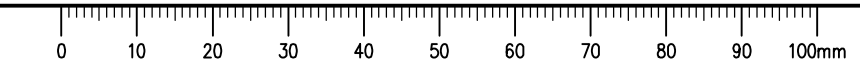
Drawn by/Dessiné par
BOG

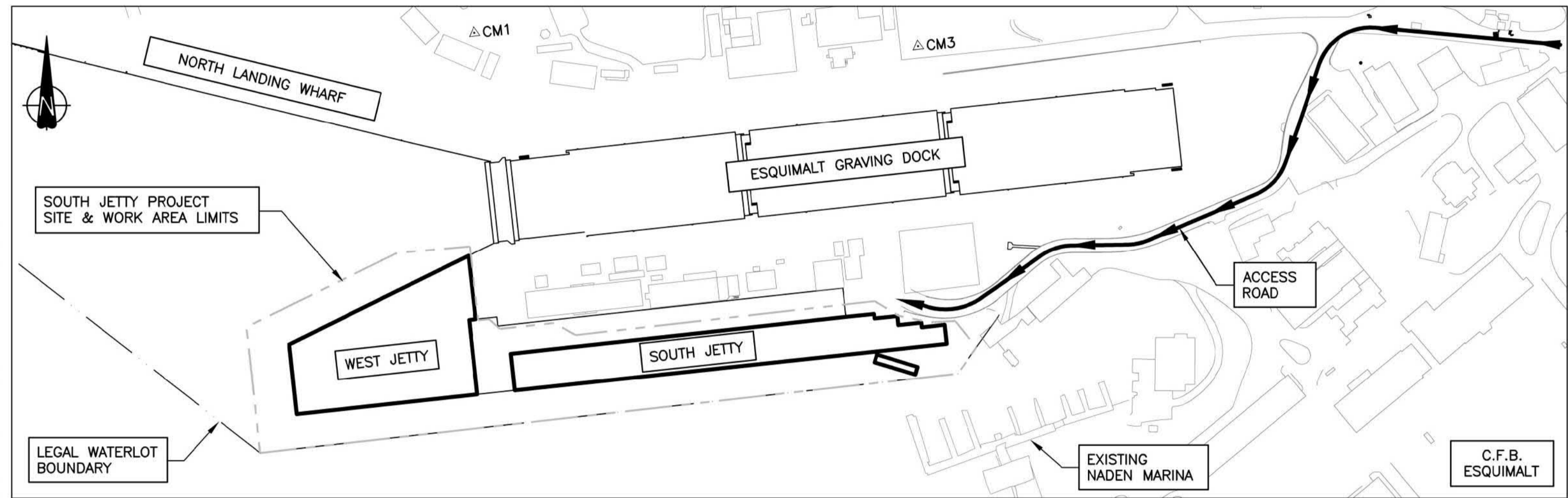
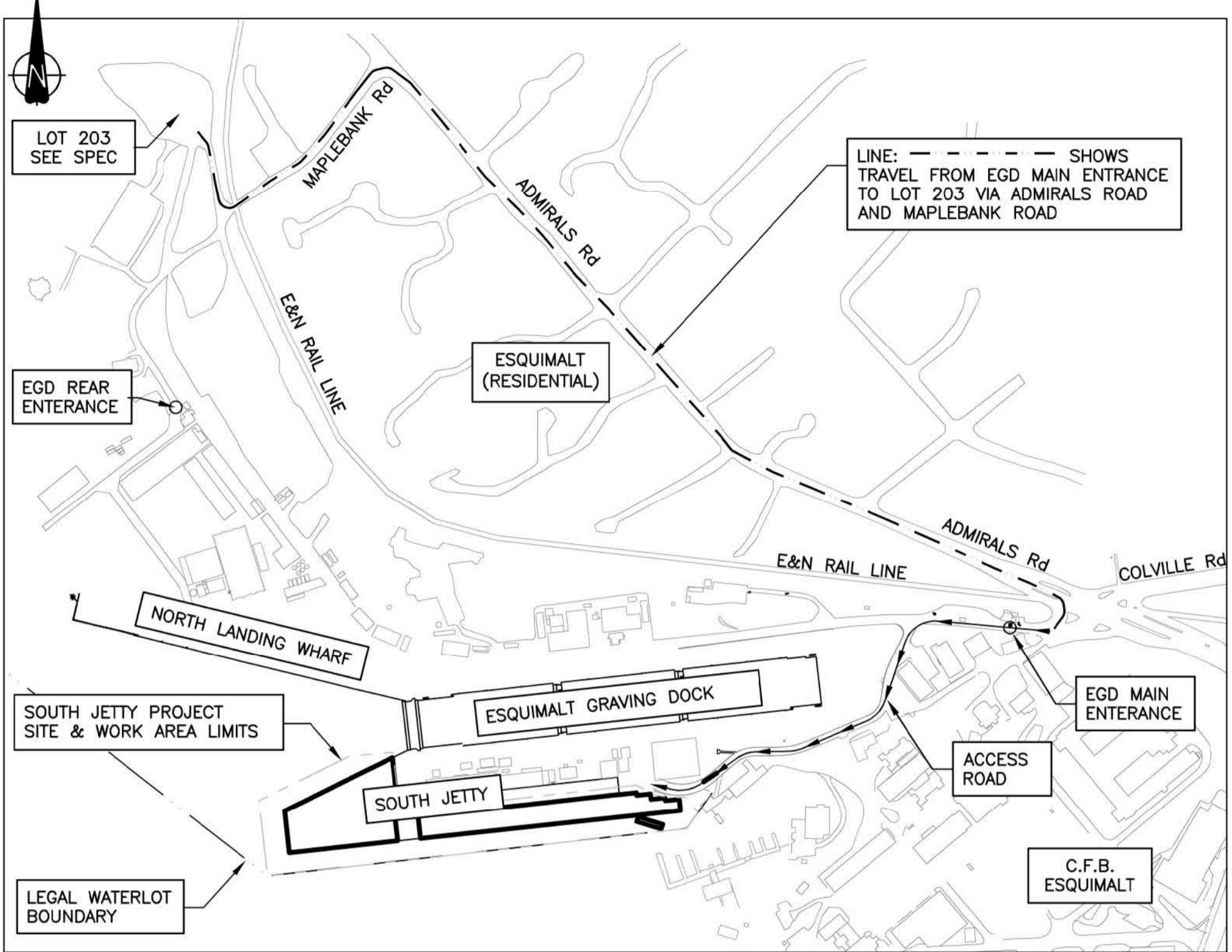
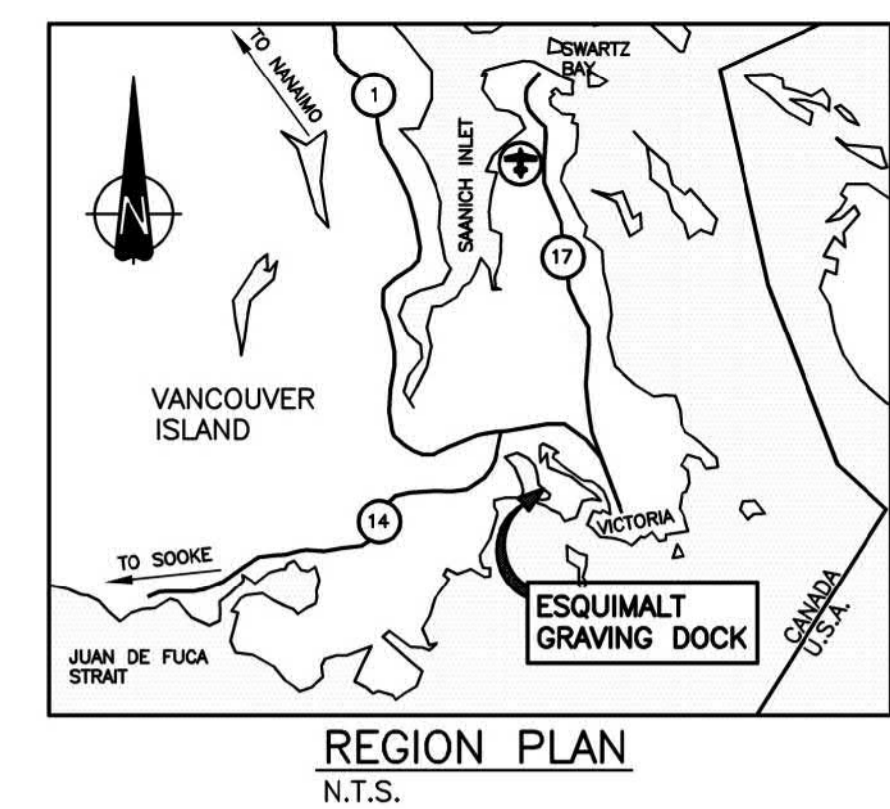
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PREETIPAL PAUL

NOTES AND ABBREVIATIONS

Project No./No. du projet	Sheet/	Revision no./
R.026729.002	G01	2
	OF	



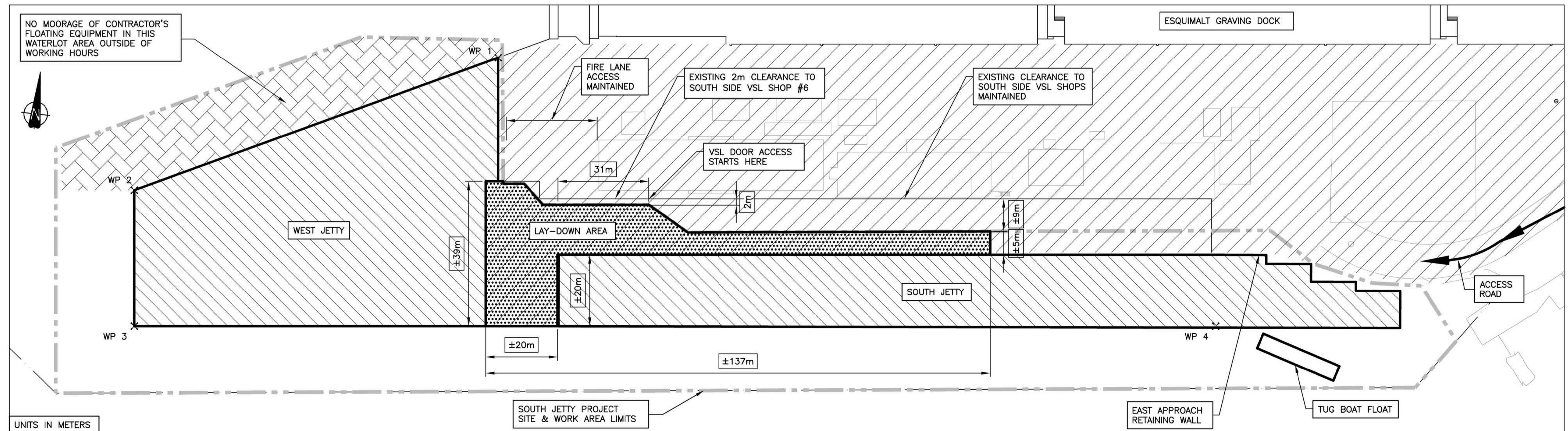


AREA PLAN
1:4000
0 50 100 150 (METERS)

NOTES:
 UPLAND HORIZONTAL DATUM: UTM NAD83 (CSRS)
 UPLAND VERTICAL DATUM: GEODETIC
 EGD: ESQUIMALT GRAVING DOCK
 MASCOT: MANAGEMENT OF SURVEY CONTROL OPERATIONS AND TASKS (MINISTRY OF AGRICULTURE AND LANDS)

AREA PLAN
1:2000
0 50 100 150 (METERS)

CONTROL MONUMENT ID	MONUMENT CONTROLLER	COORDINATES		
		NORTHING (Y)	EASTING (X)	ELEVATION IN METRES (Z)
CM 1	EGD	5364978.464	468379.84	17.846
CM 3	EGD	5364970.304	468613.214	7.787



NOTES:
 1. REFERENCE DWG G1 FOR DATUM INFORMATION.
 2. ACCESS FROM WATER AS APPROVED BY QUEEN'S HARBOUR MASTER.
 3. CONTRACTOR TO COORDINATE WITH PWGSC REGARDING USE OF CONTROL MONUMENTS.
 4. CONTRACTOR TO VERIFY THE COORDINATES AND ELEVATIONS OF CONTROL MONUMENTS USED PRIOR TO START OF WORK.

CONTRACTORS WORK SITE
1:600
0 10 20 30 40 50 METERS

LEGEND:

	EXTENT OF PROJECT WORK SITE
	EXTENT OF EXISTING SOUTH JETTY AND EGD UPLANDS
	EXTENT OF NEW STEEL PILE JETTY
	EXTENT OF CONTRACTOR LAY-DOWN AREA
	EXTENT OF CONTRACTOR NON-MOORAGE AREA
	△ CM10 CONTROL MONUMENT APPROXIMATE LOCATION SEE TABLE
	× WP 4 WORK POINT APPROXIMATE LOCATION SEE TABLE

WORK POINTS		
WP 1	N 5364863.011	E 468380.921
WP 2	N 5364817.446	E 468287.389
WP 3	N 5364780.766	E 468291.229
WP 4	N 5364811.326	E 468583.267

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

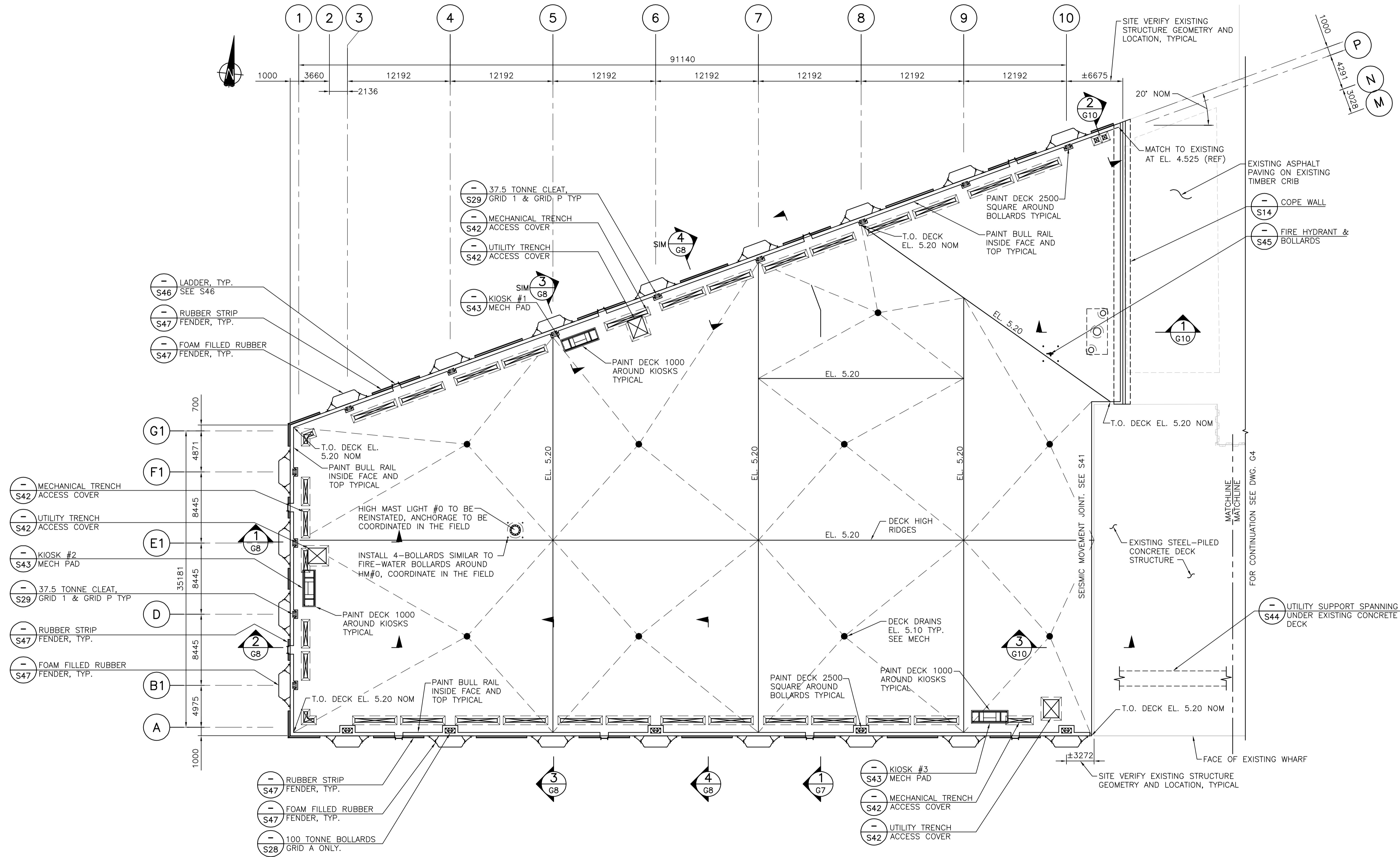
Designed by/Concept par
 KU, TW
 Drawn by/Dessiné par
 BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
 PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
 Regional Manager, Environmental Services
 PREETIPAL PAUL

Drawing title/Titre du dessin
REGION PLAN, AREA PLANS & CONTRACTOR'S WORK SITE

Project No./No. du projet R.026729.002	Sheet/ G02	Revision no./ 2
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GENERAL PLAN - WEST JETTY
1:250

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

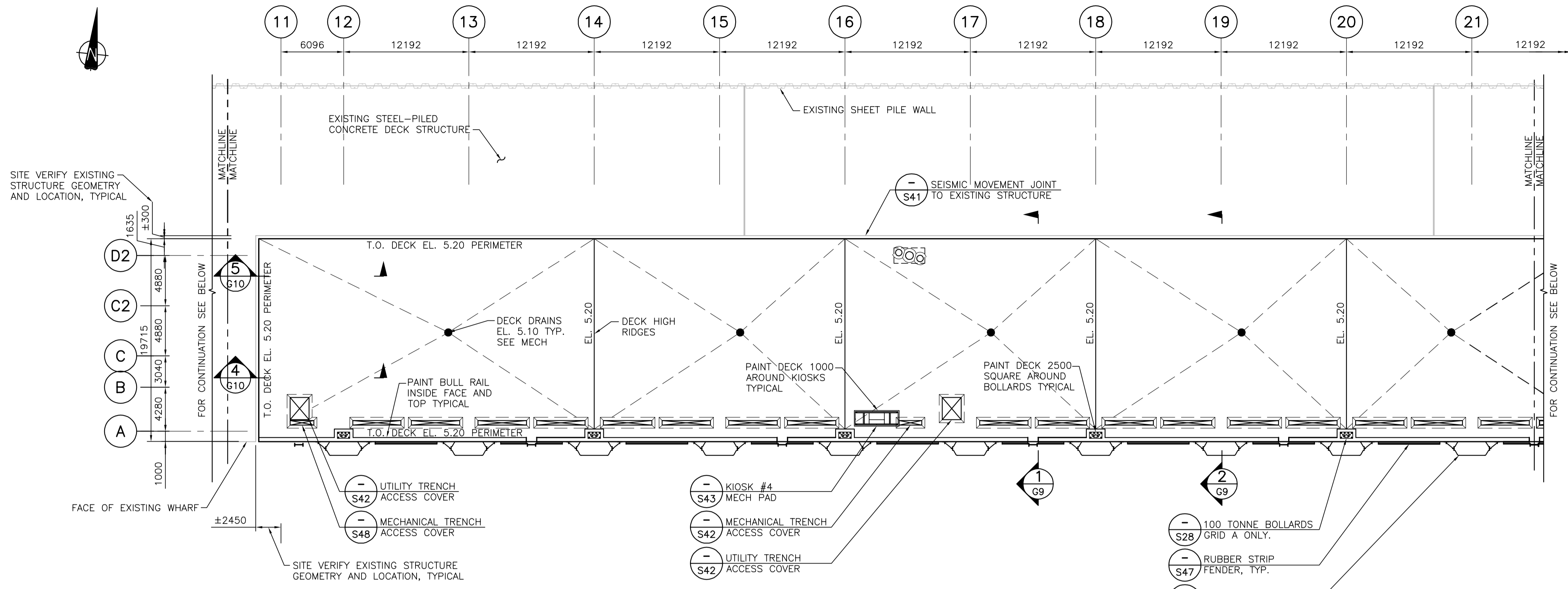
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

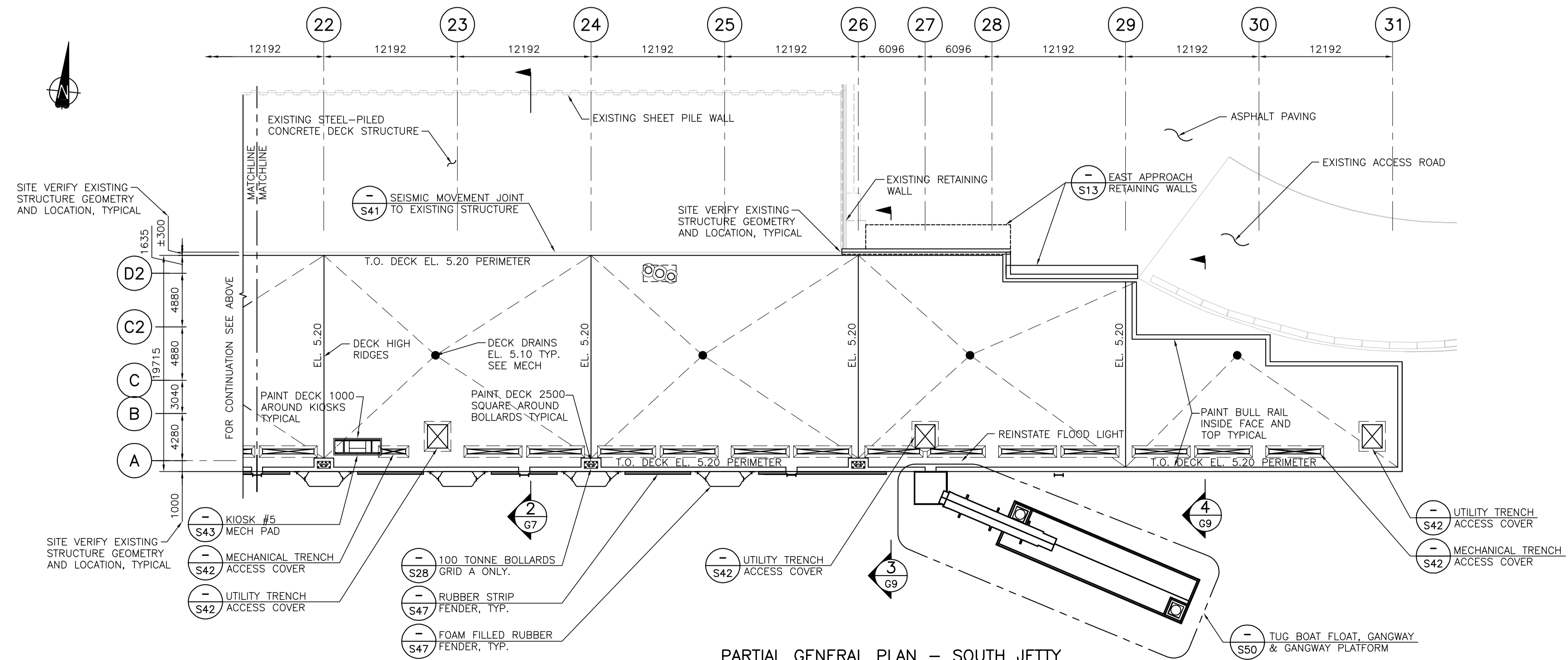
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Designed by/Concept par
KU, TW
Drawn by/Dessine par
BOG
PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL
Drawing title/Titre du dessin
**WEST JETTY
GENERAL PLAN**

Project No./No. du projet R.026729.002	Sheet/ G03	Revision no./ 2
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PARTIAL GENERAL PLAN - SOUTH JETTY
1:250



PARTIAL GENERAL PLAN - SOUTH JETTY
1:250

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/15

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

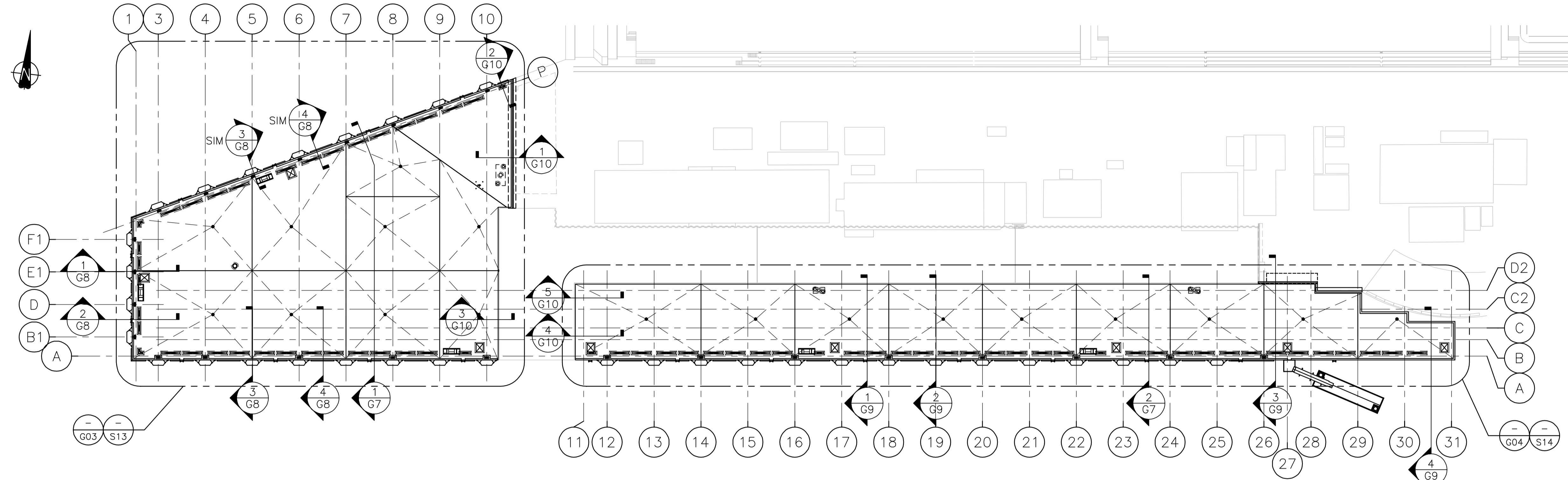
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

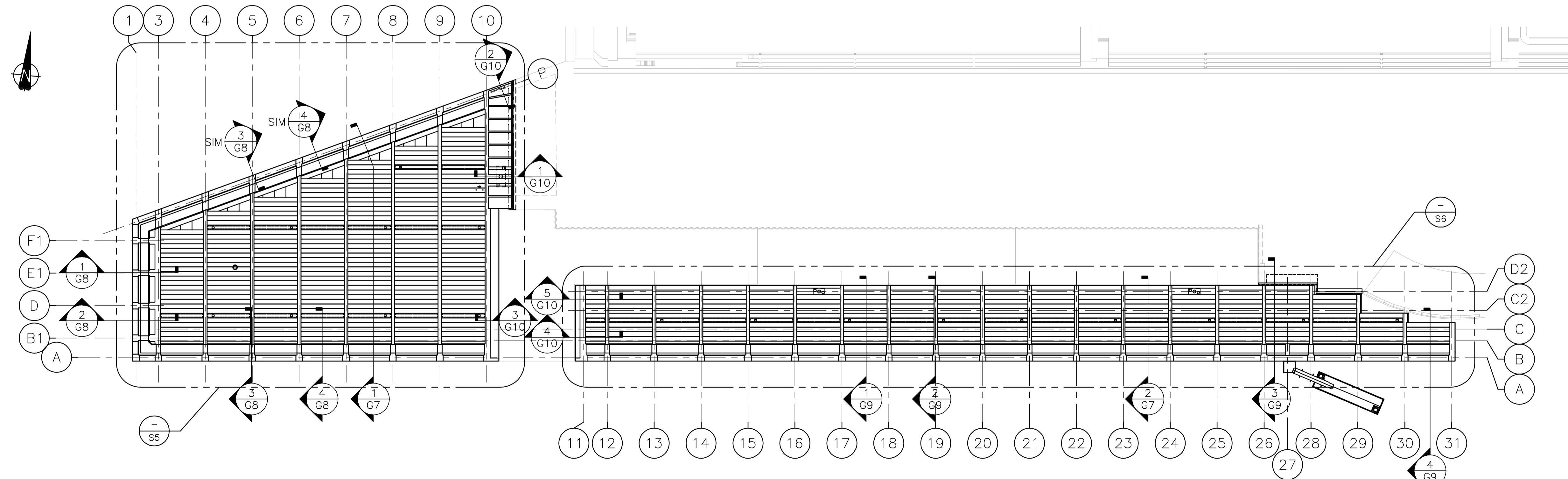
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
SOUTH JETTY GENERAL PLAN

Project No./No. du projet R.026729.002	Sheet/Feuille G04	Revision no./Le Révision no. 2
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SLAB GENERAL ARRANGEMENT PLAN
1:600



PRECAST DECK PANELS GENERAL ARRANGEMENT PLAN
1:600

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

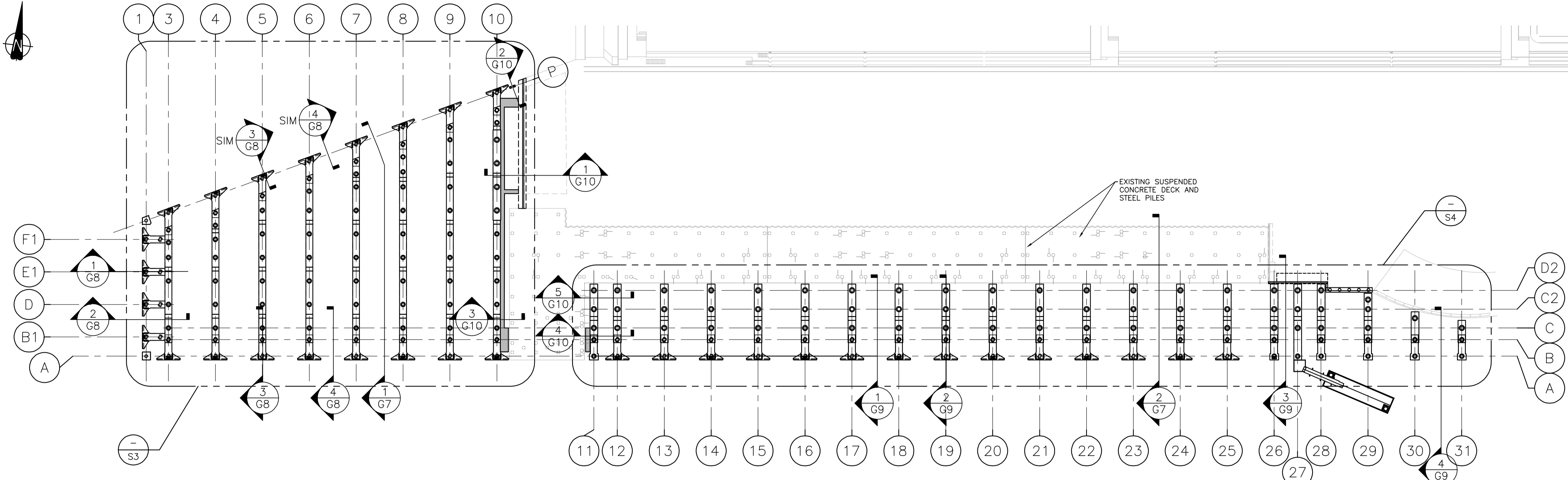
Drawn by/Dessiné par
BOG

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PATRICK TRUONG

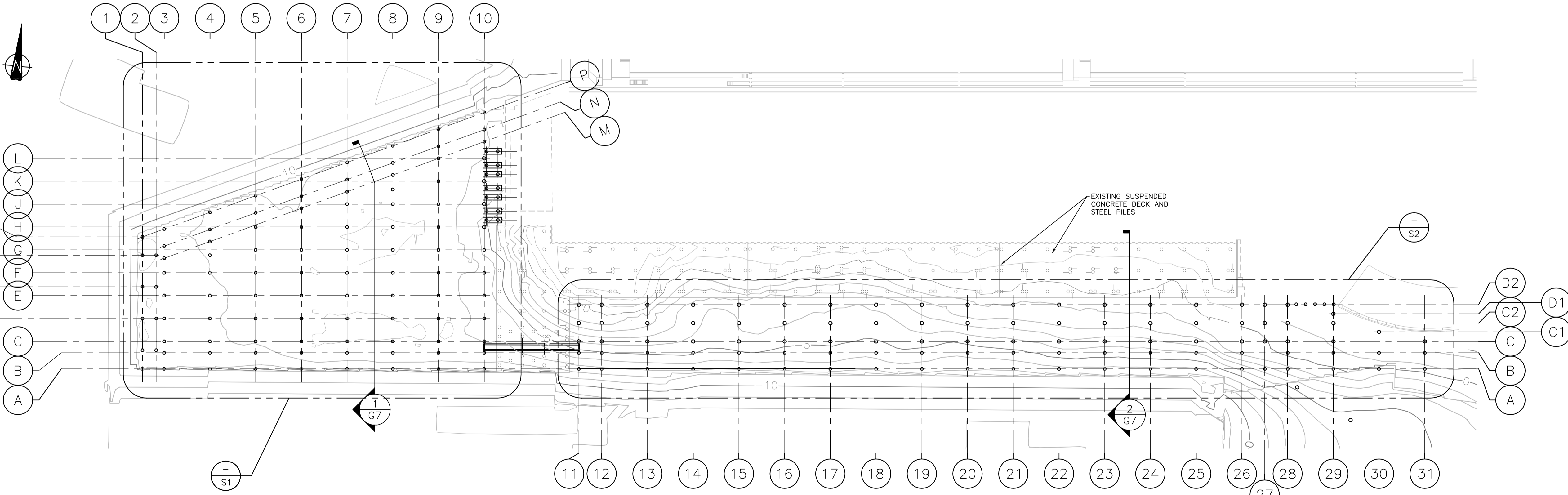
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**JETTY
SLAB & PRECAST DECK PANELS
GENERAL ARRANGEMENT PLANS**

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	G05	2



PRECAST PILE CAPS
GENERAL ARRANGEMENT PLAN
1:600



PILE GENERAL ARRANGEMENT PLAN
1:600

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

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Designed by/Concept par
KU, TW

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BOG

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PATRICK TRUONG

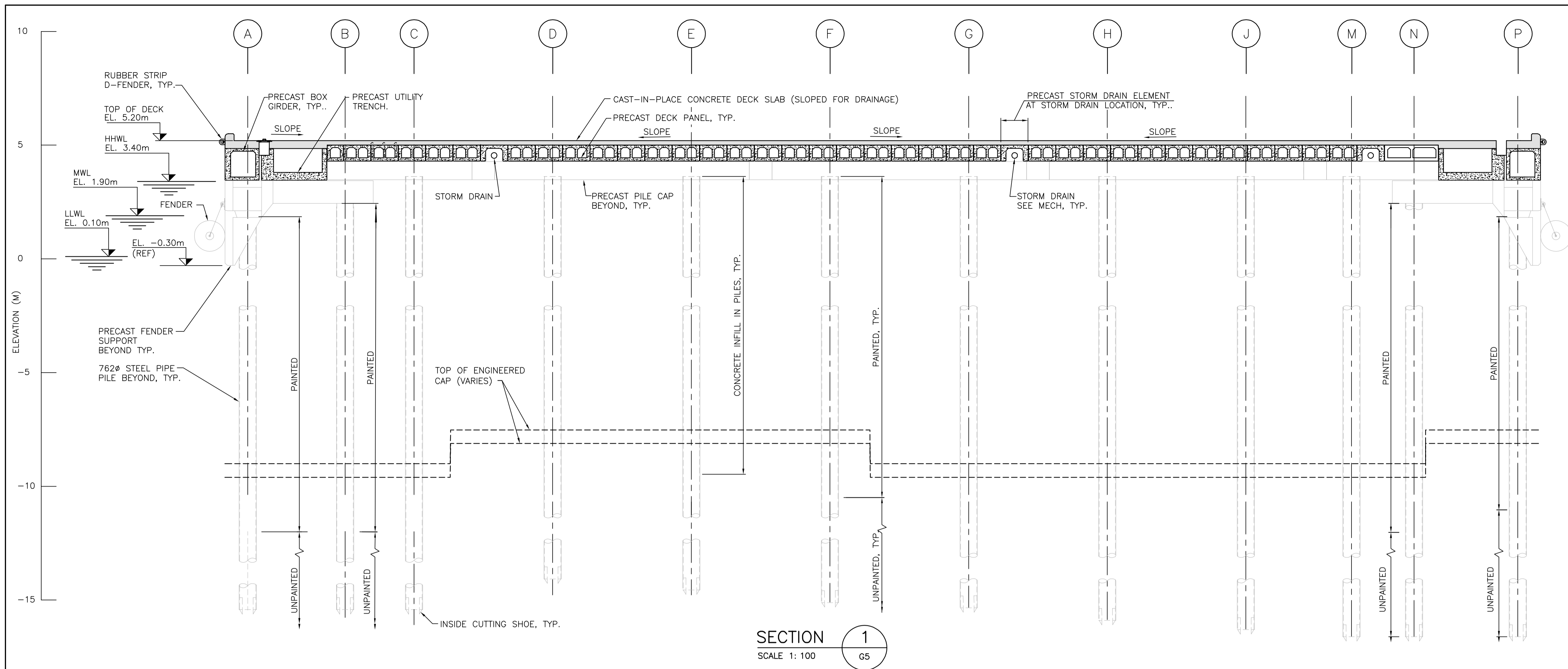
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**JETTY
PILE & PRECAST PILE CAPS
GENERAL ARRANGEMENT PLANS**

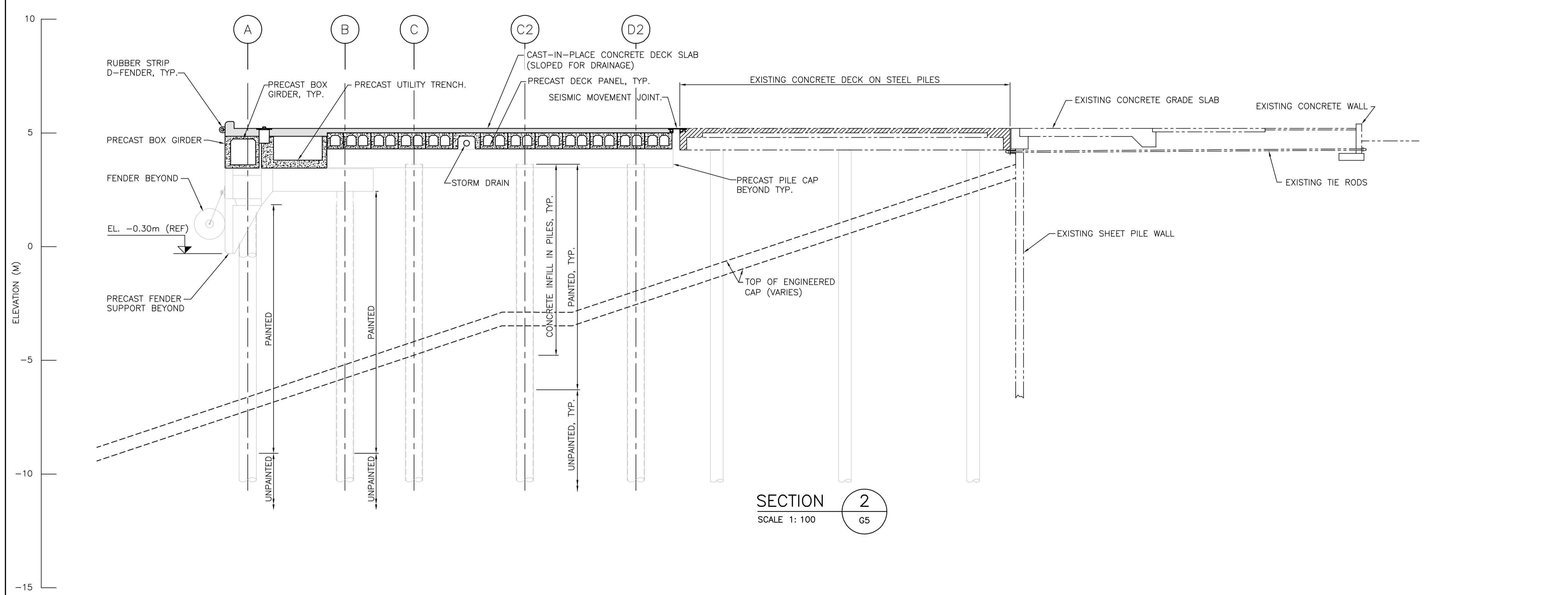
Project No./No. du projet
R.026729.002

Sheet/Fauille
G06

Revision no./Le Révision no.
2



SECTION 1
SCALE 1: 100



SECTION 2
SCALE 1: 100

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

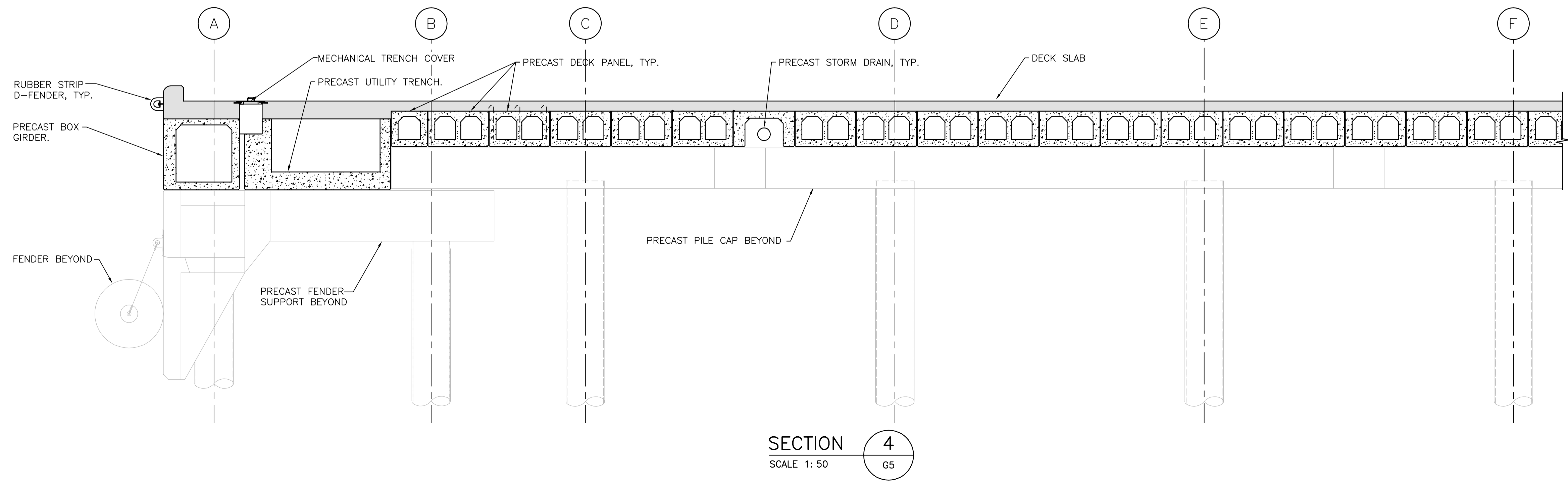
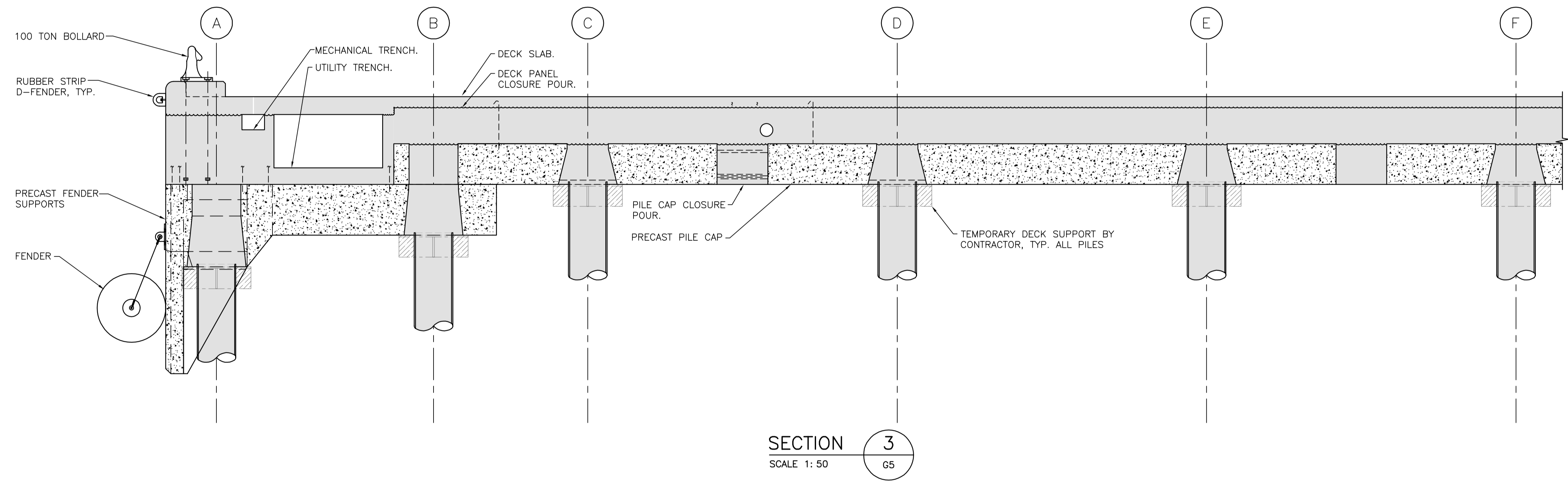
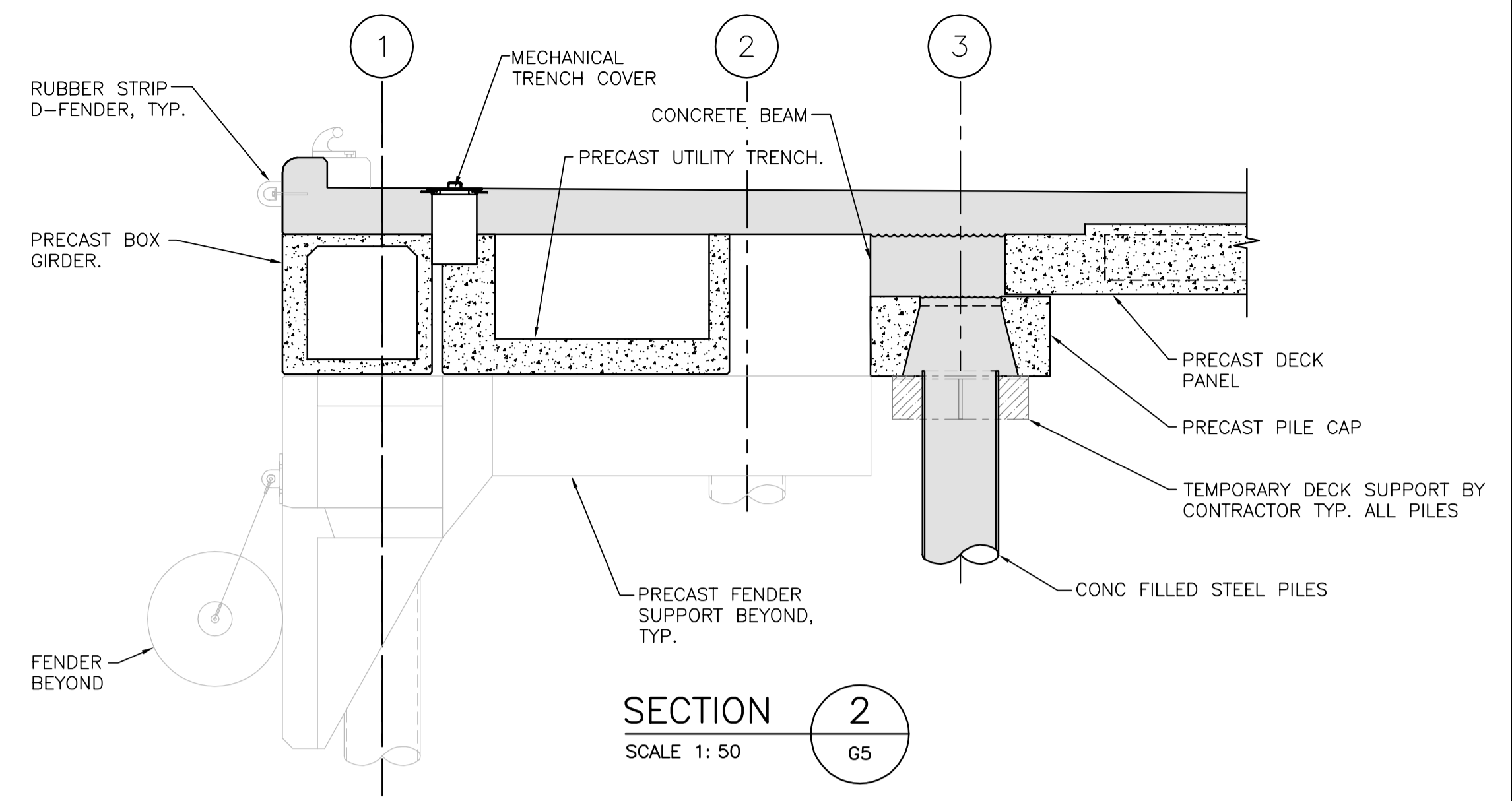
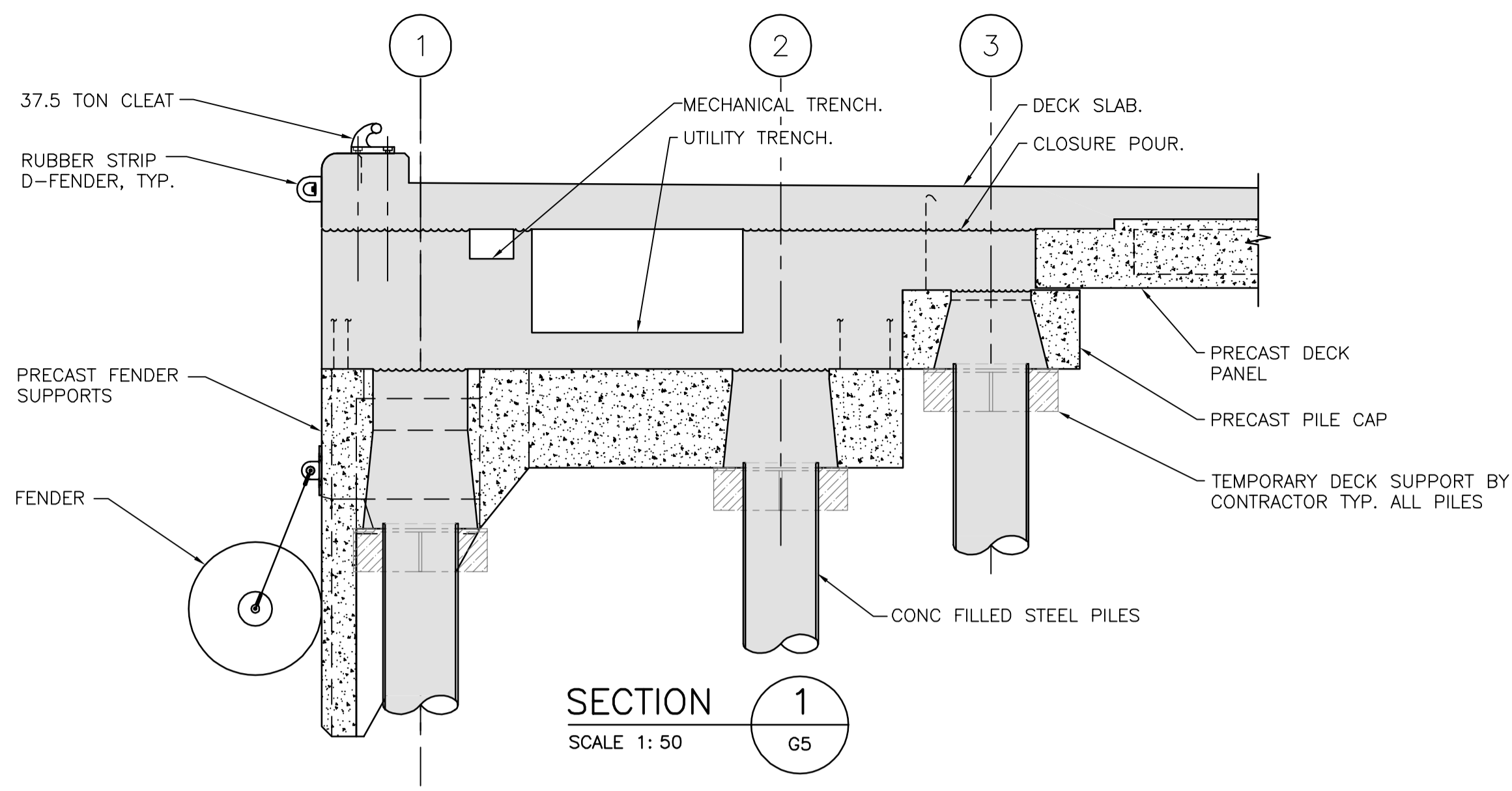
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BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST AND SOUTH JETTY
GENERAL ARRANGEMENT
SECTIONS**

Project No./No. du projet R.026729.002	Sheet/Fauille G07	Revision no./La Révision no. 2
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Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

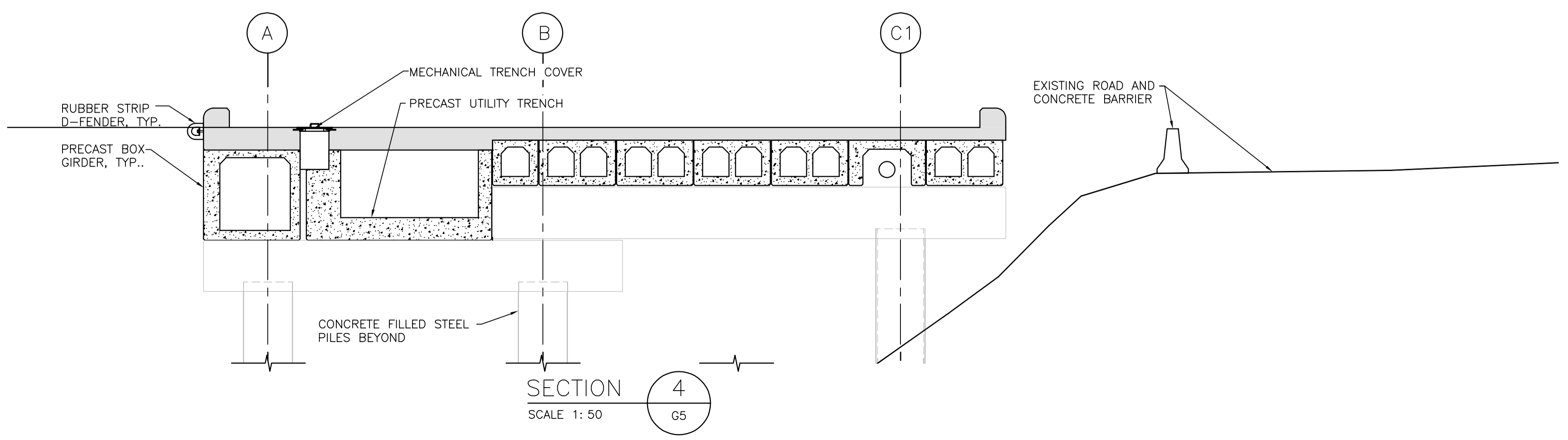
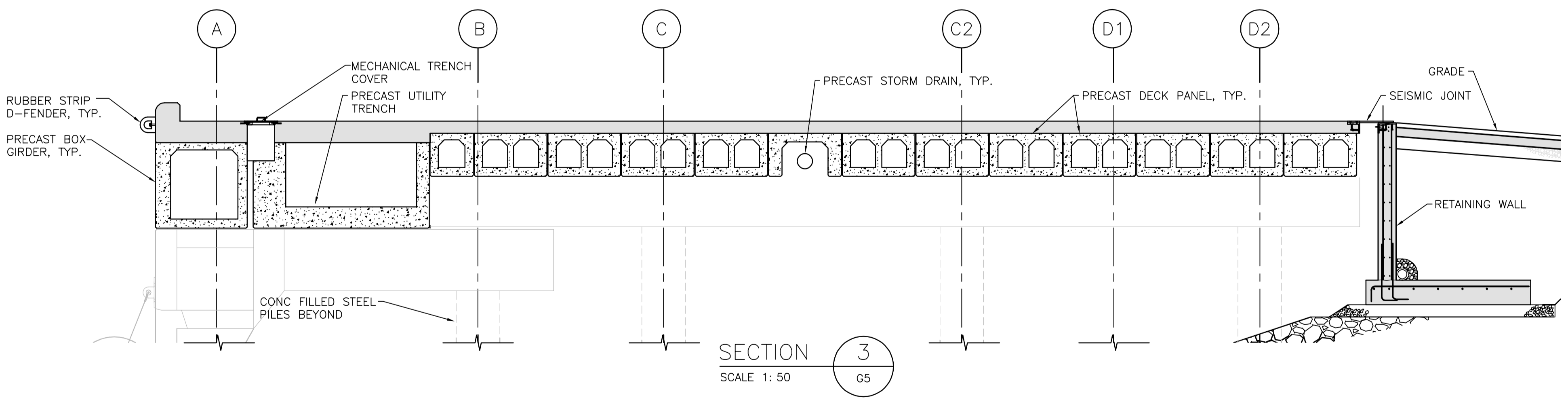
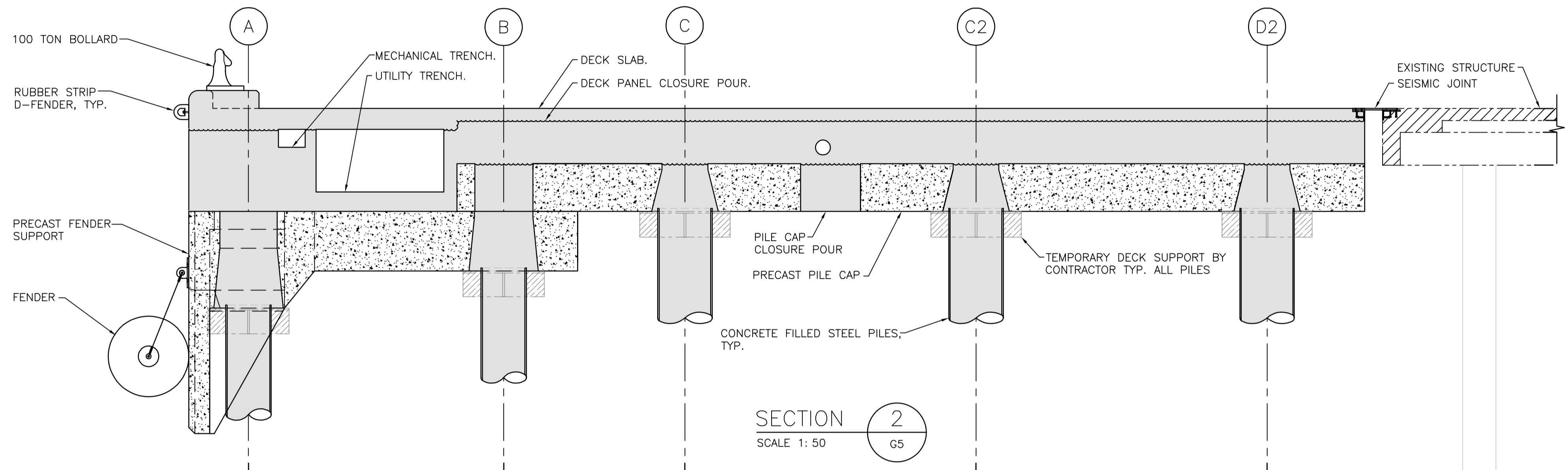
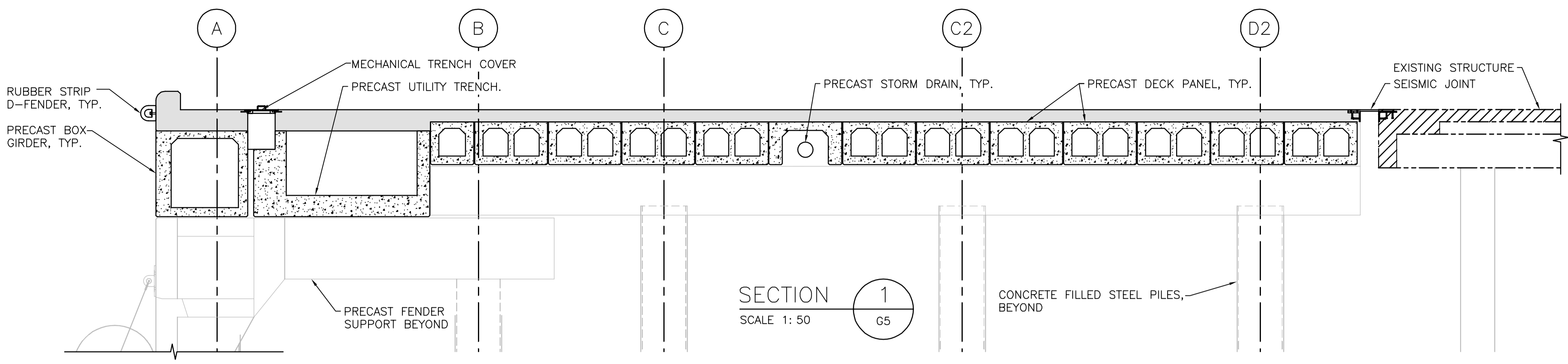
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BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST JETTY
GENERAL ARRANGEMENT
SECTIONS**

Project No./No. du projet	Sheet/Feuille	Revision no./Le Révision no.
R.026729.002	G08	2



Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

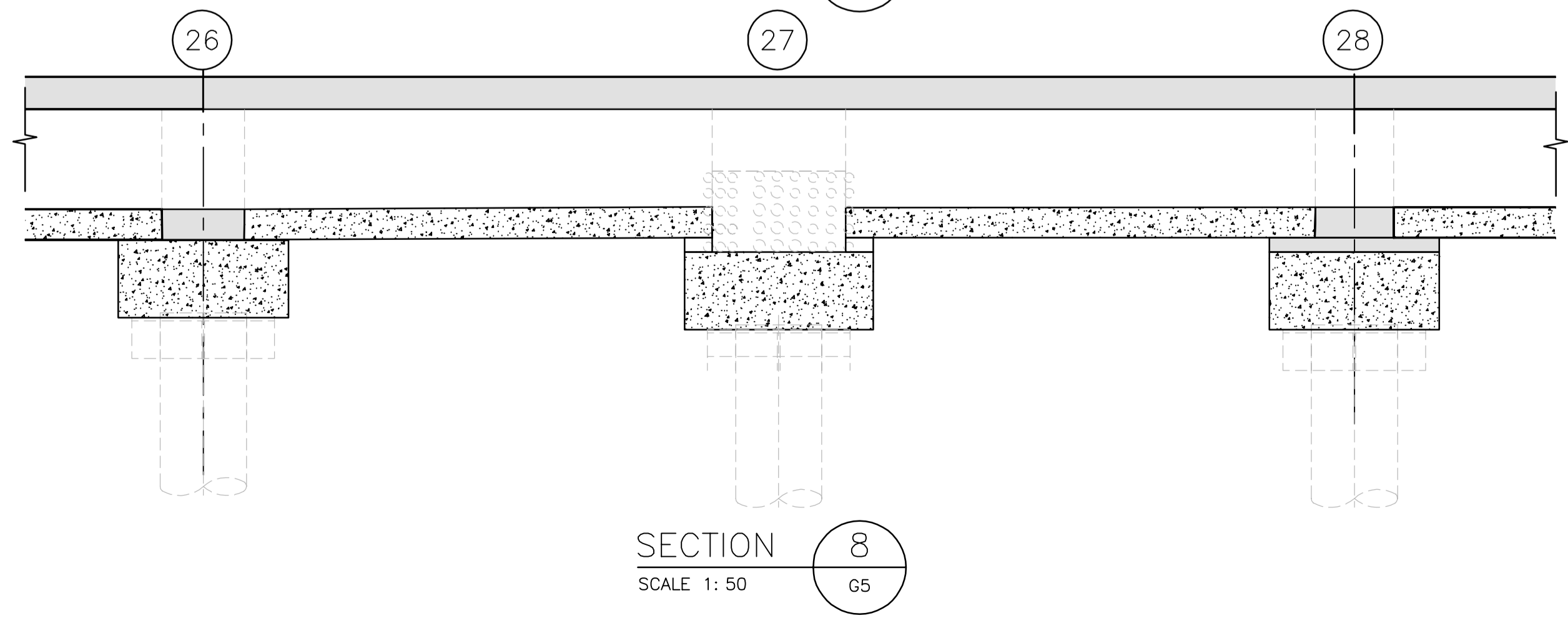
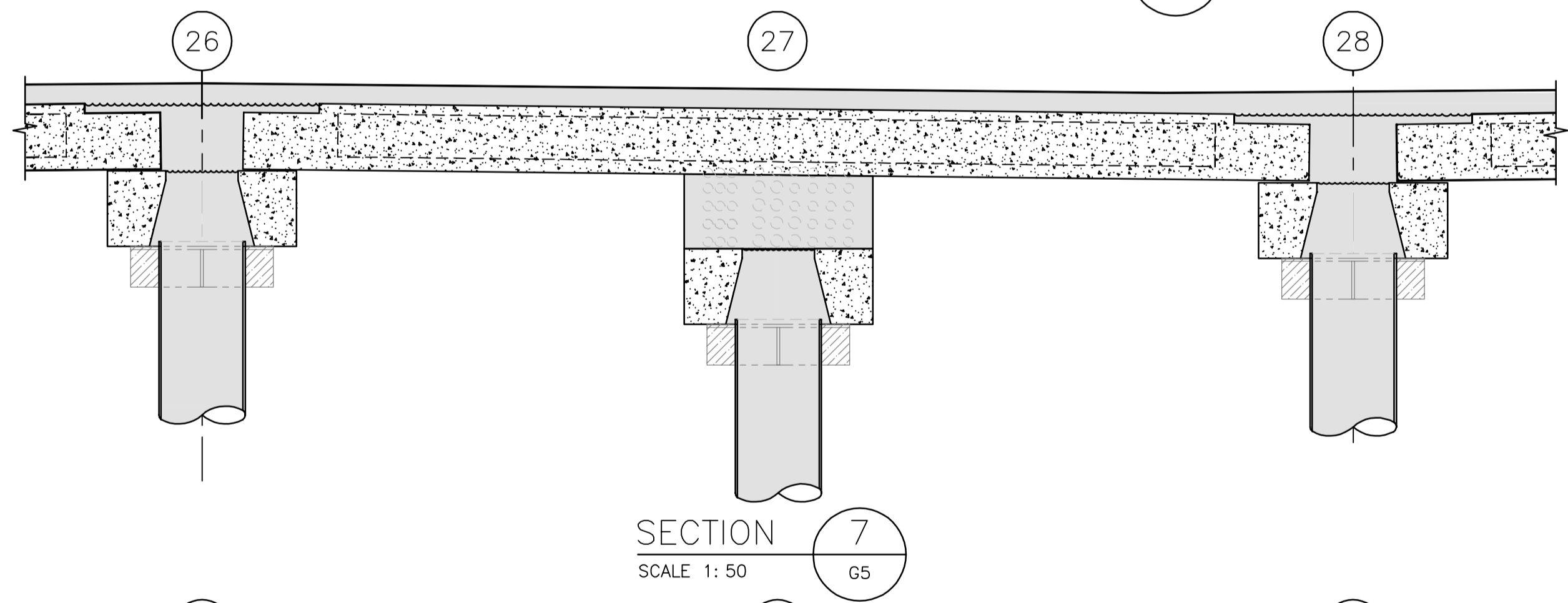
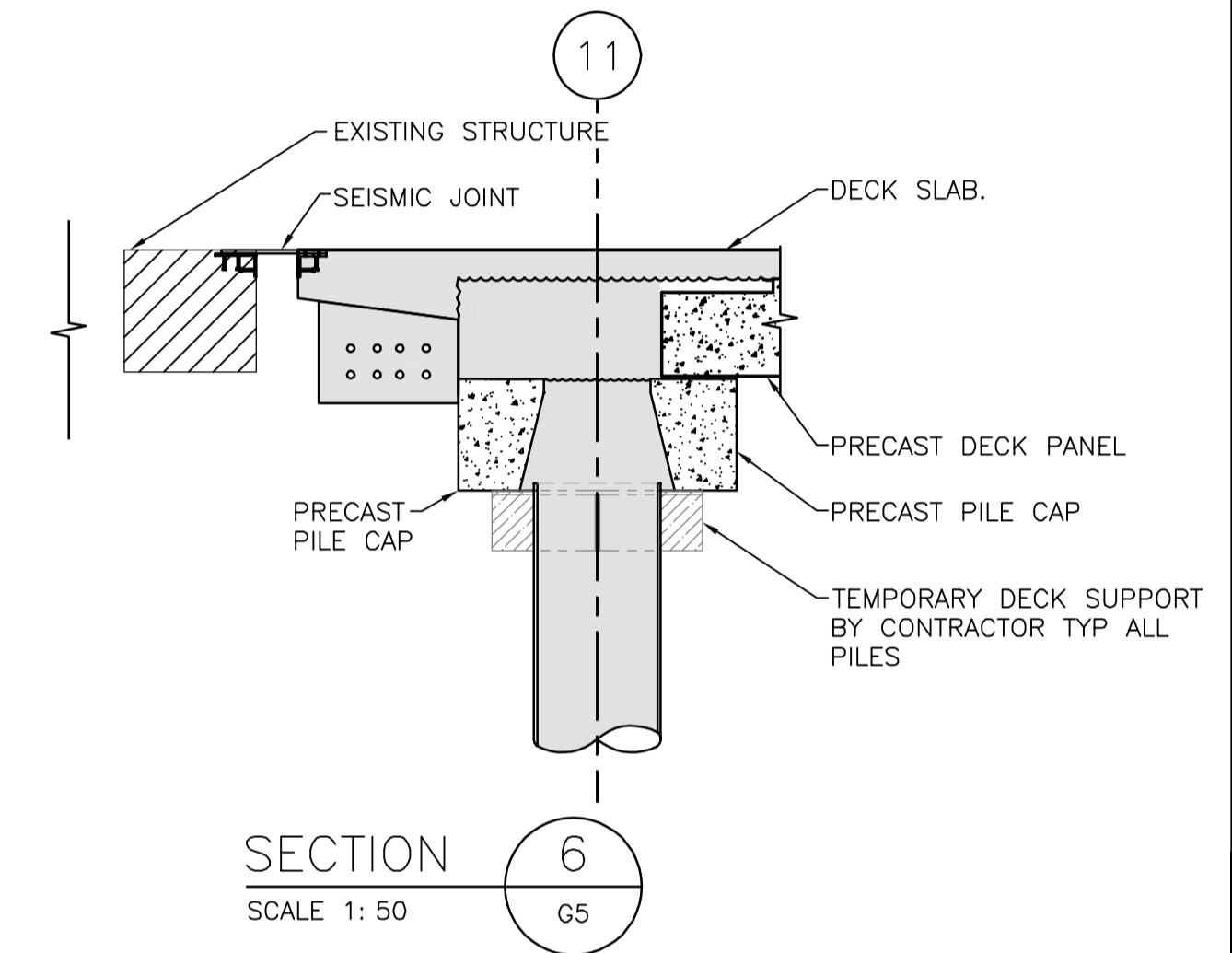
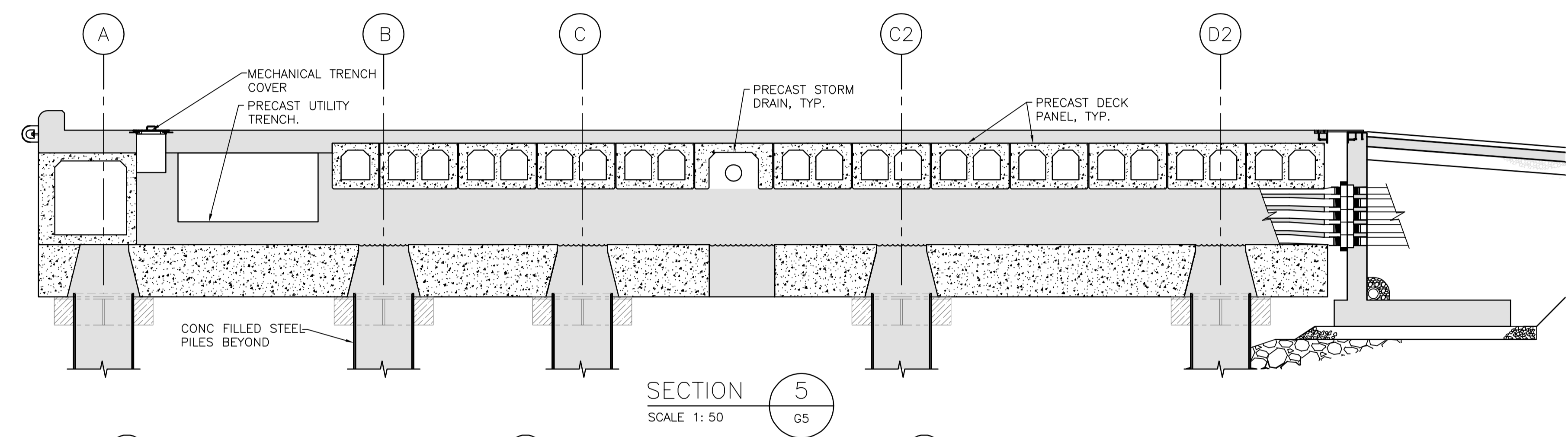
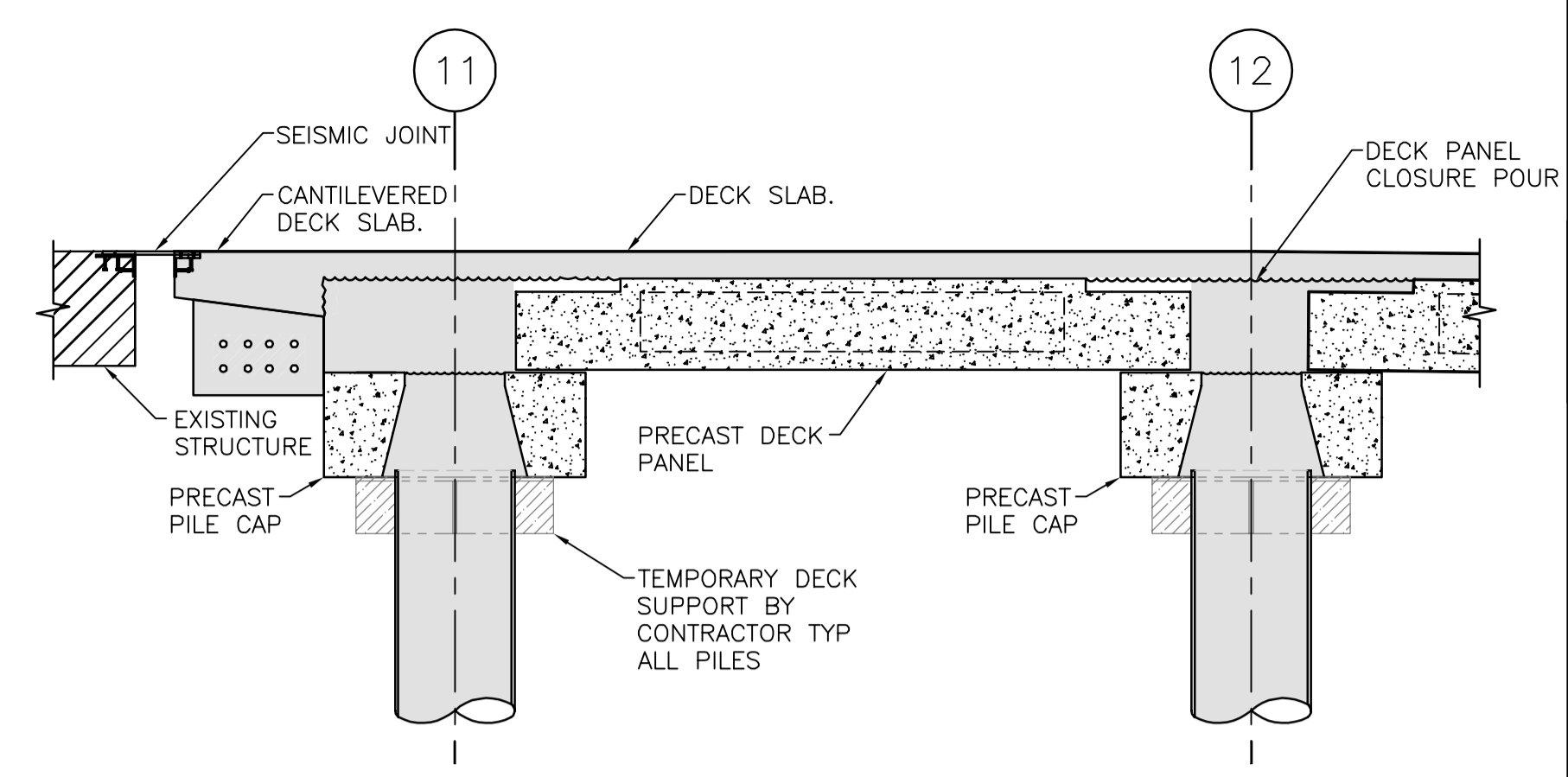
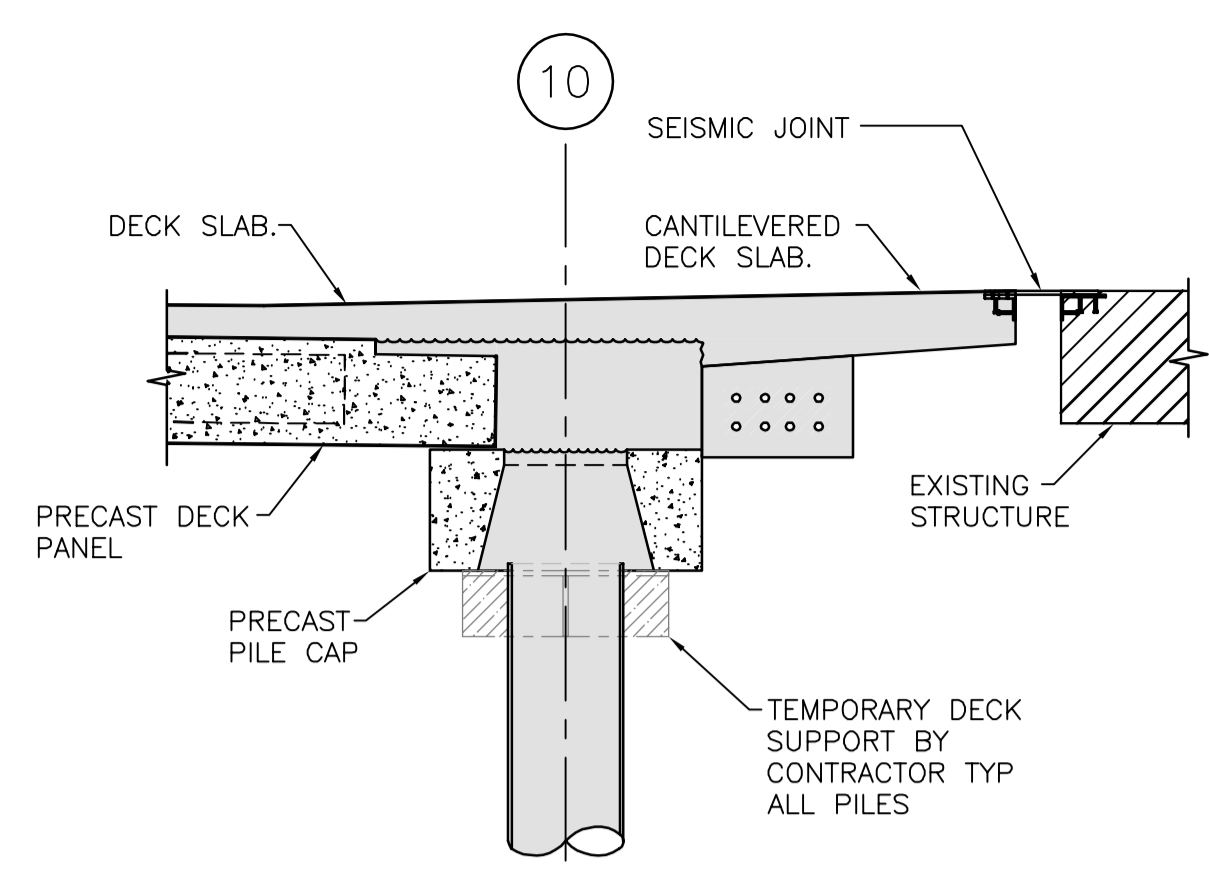
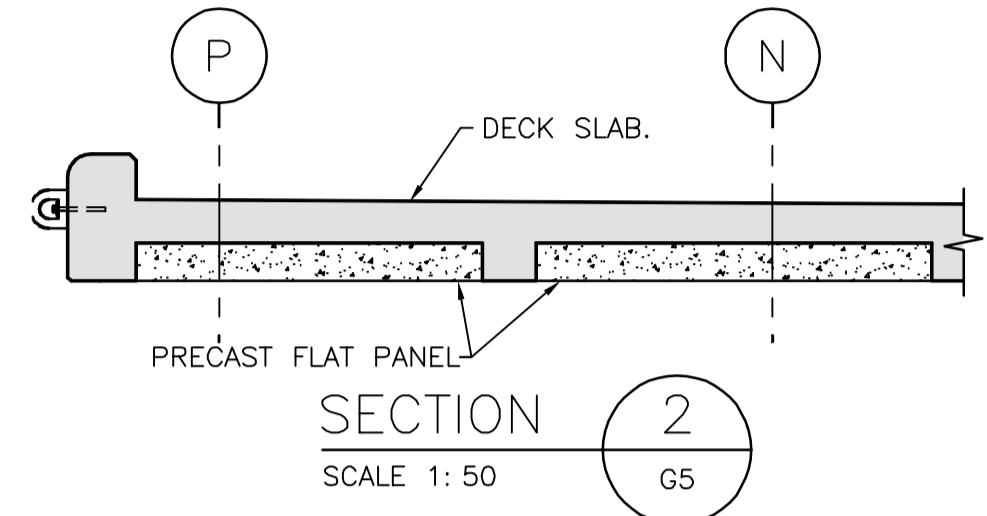
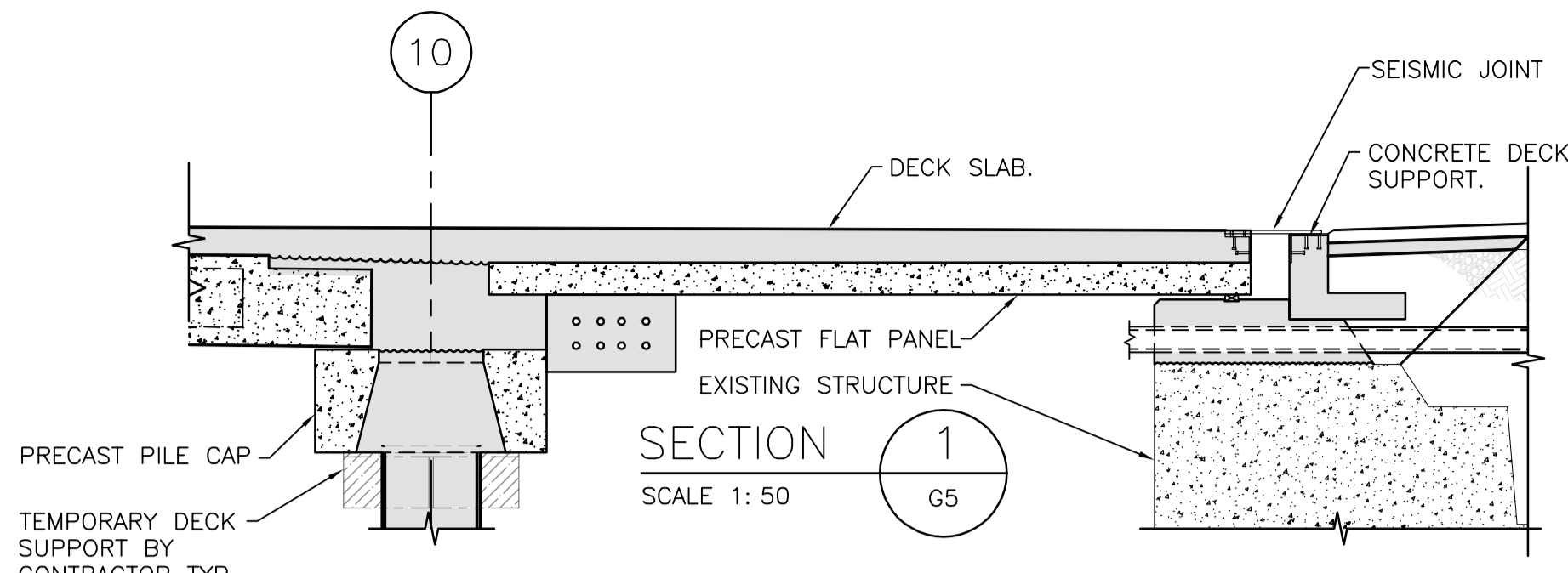
PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin

**SOUTH JETTY
GENERAL ARRANGEMENT
SECTIONS**

Project No./No. du projet	Sheet/Feuille	Revision no./Le Révision no.
R.026729.002	G09	2



Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

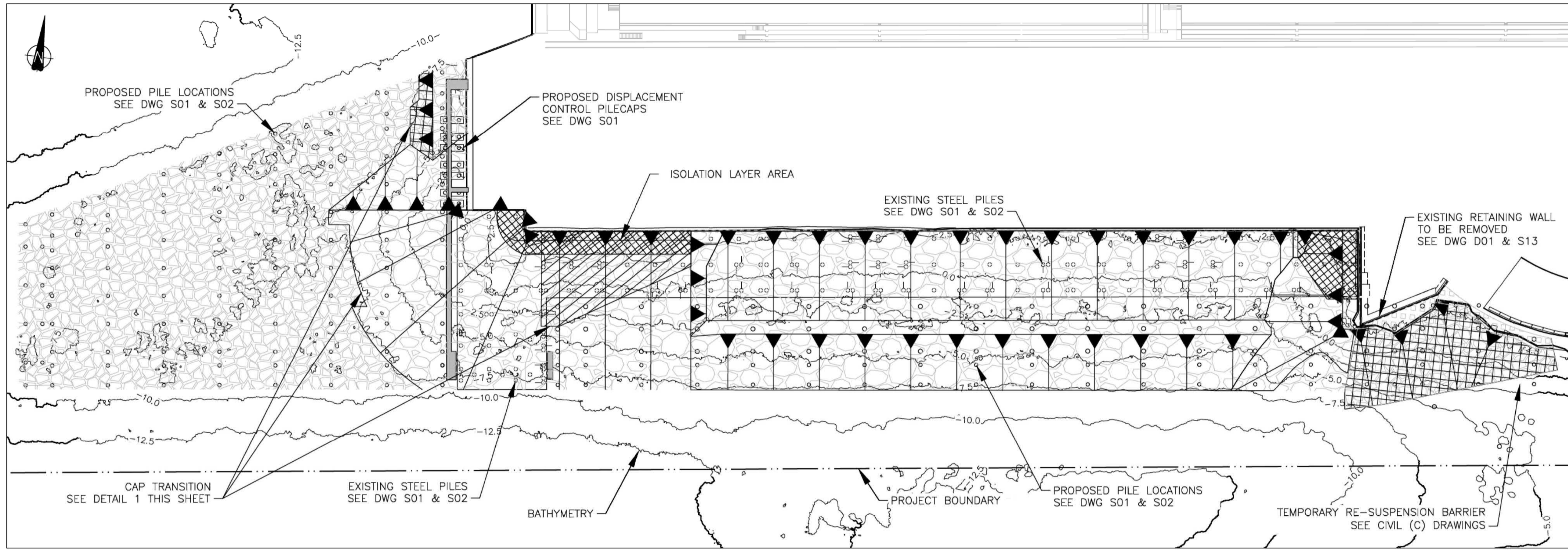
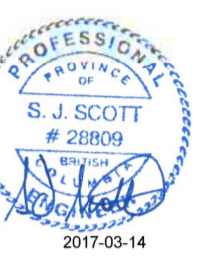
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BOG

PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

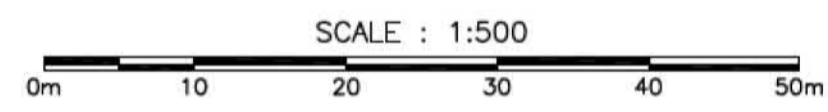
Drawing title/Titre du dessin
**WEST AND SOUTH JETTY
GENERAL ARRANGEMENT
SECTIONS**

Project No./No. du projet R.026729.002	Sheet/Feuille G10	Revision no./ La Révision no. 2
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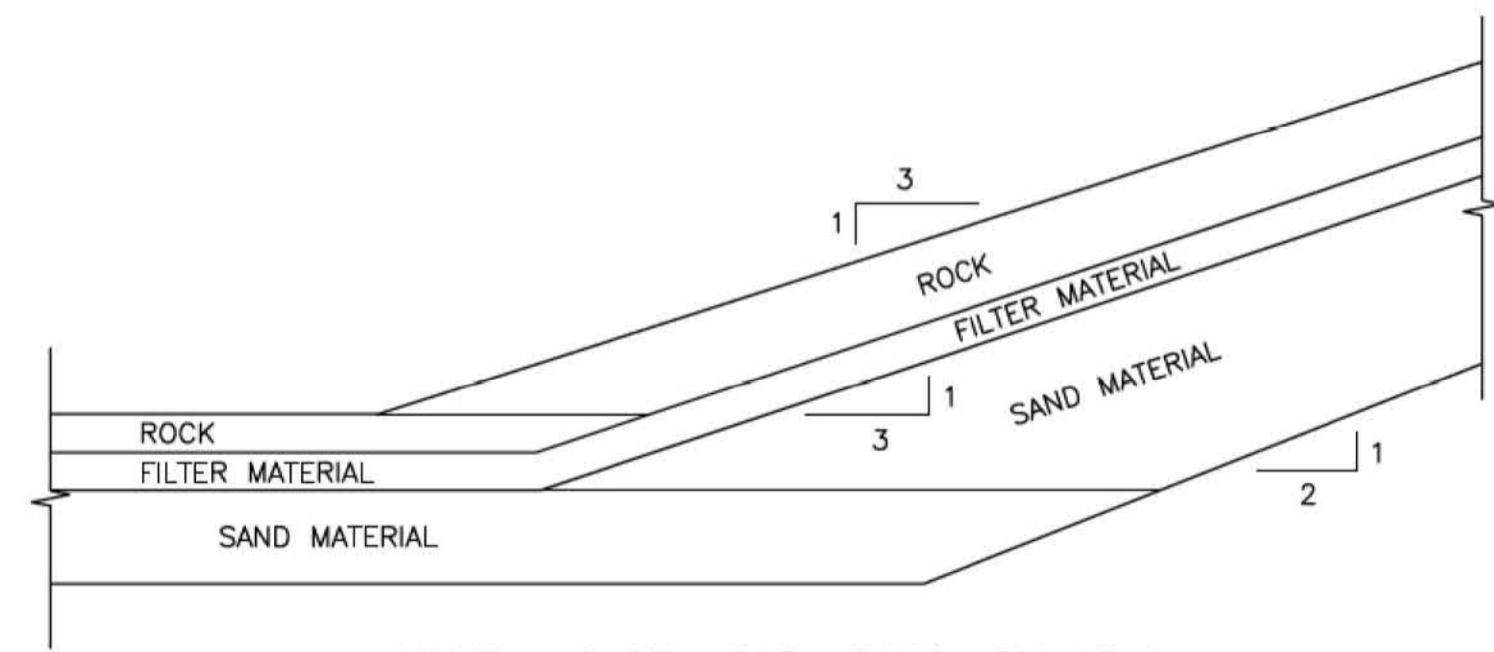


- LEGEND:**
- BATHYMETRY IN METERS
 - TEMPORARY RE-SUSPENSION BARRIER CONTAINMENT AREA (SEE ANCHOR QEA DRAWINGS)
 - EGD WORK SITE AND PROPERTY BOUNDARY
 - CAP SLOPE DESIGNATION
 - TYPE 1 ENGINEERED CAP: (SEE SPECIFICATIONS)
 - TYPE 2 ENGINEERED CAP: (SEE SPECIFICATIONS)
 - TYPE 3 ENGINEERED CAP: (SEE SPECIFICATIONS)
 - TYPE 4 ENGINEERED CAP: (SEE SPECIFICATIONS)
 - TYPE 5 ENGINEERED CAP: (SEE SPECIFICATIONS)
 - IMPERMEABLE GEOSYNTHETIC MATERIAL (SEE SPECIFICATIONS)

EXISTING BATHYMETRY WITH ENGINEERED CAP SHOWING PROPOSED PILE LOCATIONS FOR REFERENCE
SCALE 1: 500



NOTES:
1. FOR NOTES SEE DWG. G01.



EXAMPLE SLOPE CAP TRANSITION AREA
DETAIL 1
NOT TO SCALE

NOTE - ENGINEERED CAPPING PLAN EXTENTS AND INFORMATION:

- ARMOUR CAP EXTENTS AND SLOPE DIRECTIONS DESIGNED BY: ANCHOR QEA, FOR KLOHN CRIPPEN BERGER, FOR PWGSC, (2015-03-20)
- FROM PROJECT: 'ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER-PIER SEDIMENT REMEDIATION'
- DRAWING NUMBER: C28
- DRAWING TITLE: 'ENGINEERED CAPPING PLAN'

ARMOUR CAP PLANS AND DETAILS PROVIDED FOR REFERENCE ONLY, SITE CONDITIONS MAY VARY

NOTE - BATHYMETRIC CONTOURS:

- BATHYMETRY BY: MCCOI MARINE FOR VANCOUVER PILE DRIVING, (2016-12-14)
- FROM PROJECT: 'EGD WATER LOT REMEDIATION PHASE 2 - SOUTH JETTY'
- DRAWING NUMBER: 2015-32-M_823 REV-
- DRAWING TITLE: 'ESQUIMALT GRAVING DOCK WATERLOT PHASE 2 SOUTH JETTY UNDER PIER SEDIMENT REMEDIATION POST CONSTRUCTION SURVEY BATHYMETRIC CONTOUR PLAN'

BATHYMETRY PROVIDED FOR REFERENCE ONLY, SITE CONDITIONS MAY VARY

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client: **PUBLIC WORKS AND GOVERNMENT SERVICES CANADA**

Project title/Titre du projet: **ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par: **KU, TW**

Drawn by/Dessiné par: **BOG**

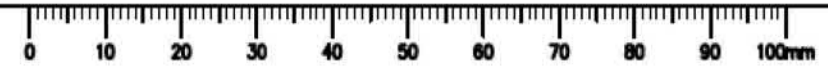
PWGSC Project Manager/Administrateur de Projets TPSGC: **PATRICK TRUONG**

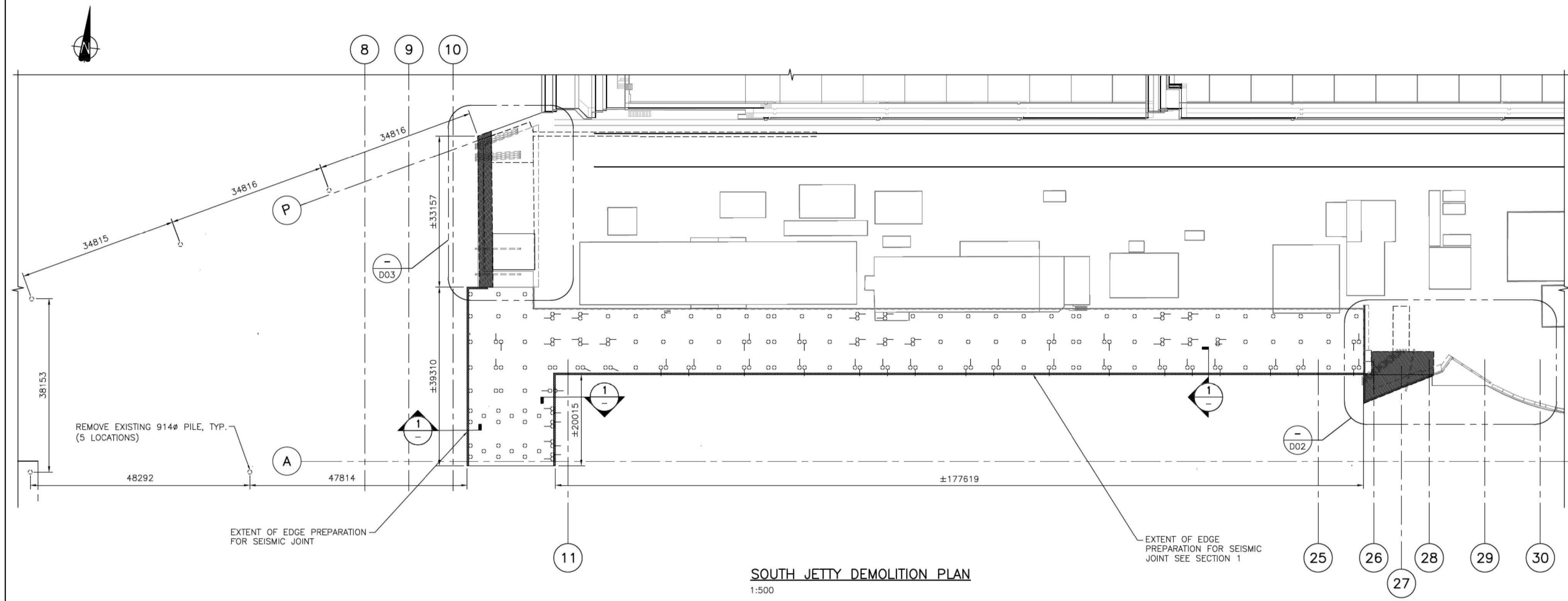
Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: **PREETPAL PAUL**

Drawing title/Titre du dessin:

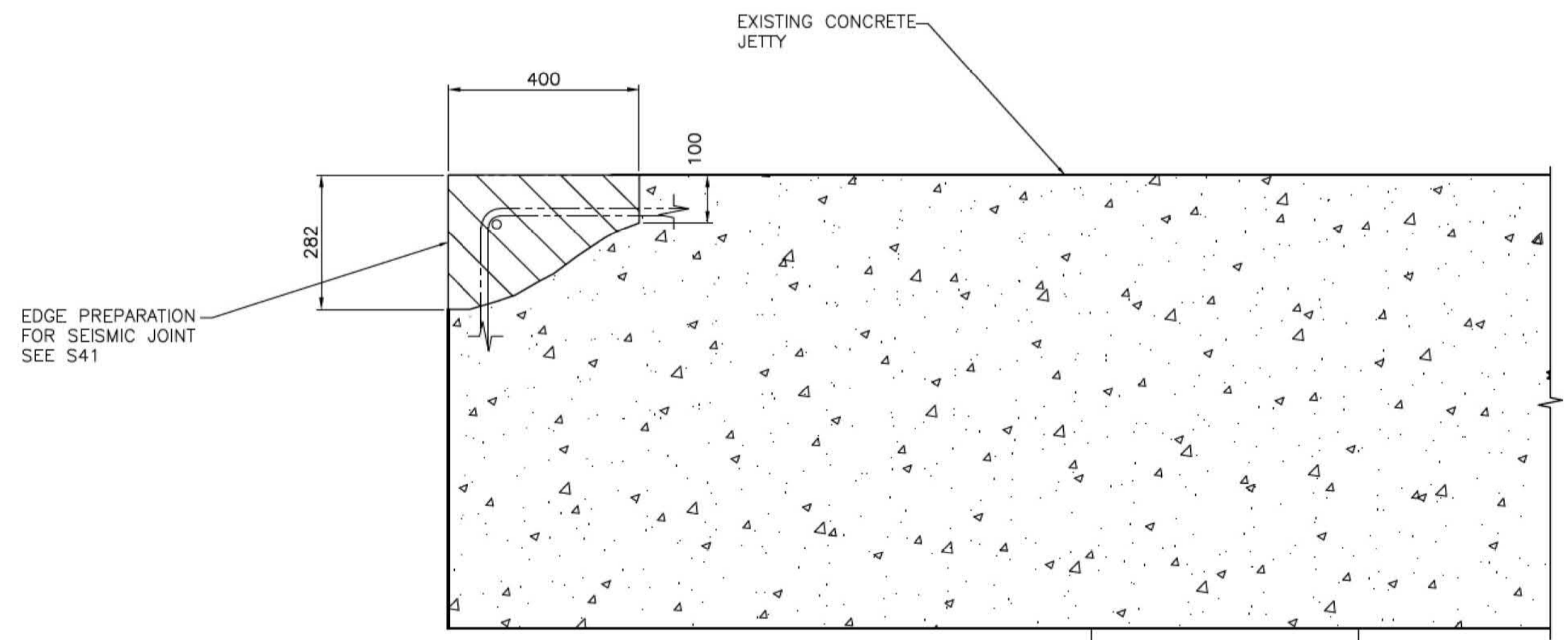
EXISTING BATHYMETRY WITH ENGINEERED CAP SHOWING PROPOSED PILE LOCATIONS FOR REFERENCE

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	G20	2





SOUTH JETTY DEMOLITION PLAN
1:500



SECTION 1
SCALE 1:100

NOTES:
1. FOR NOTES SEE DWG. G1.

NOTE:
EXISTING INFORMATION HAS BEEN TAKEN FROM EXISTING ARCHIVAL DRAWINGS AND SITE OBSERVATIONS. ACTUAL CONDITIONS MAY VARY.

Revision/	Description/	Date/
Revision	Description	Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

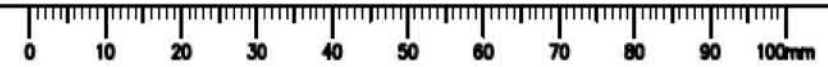
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

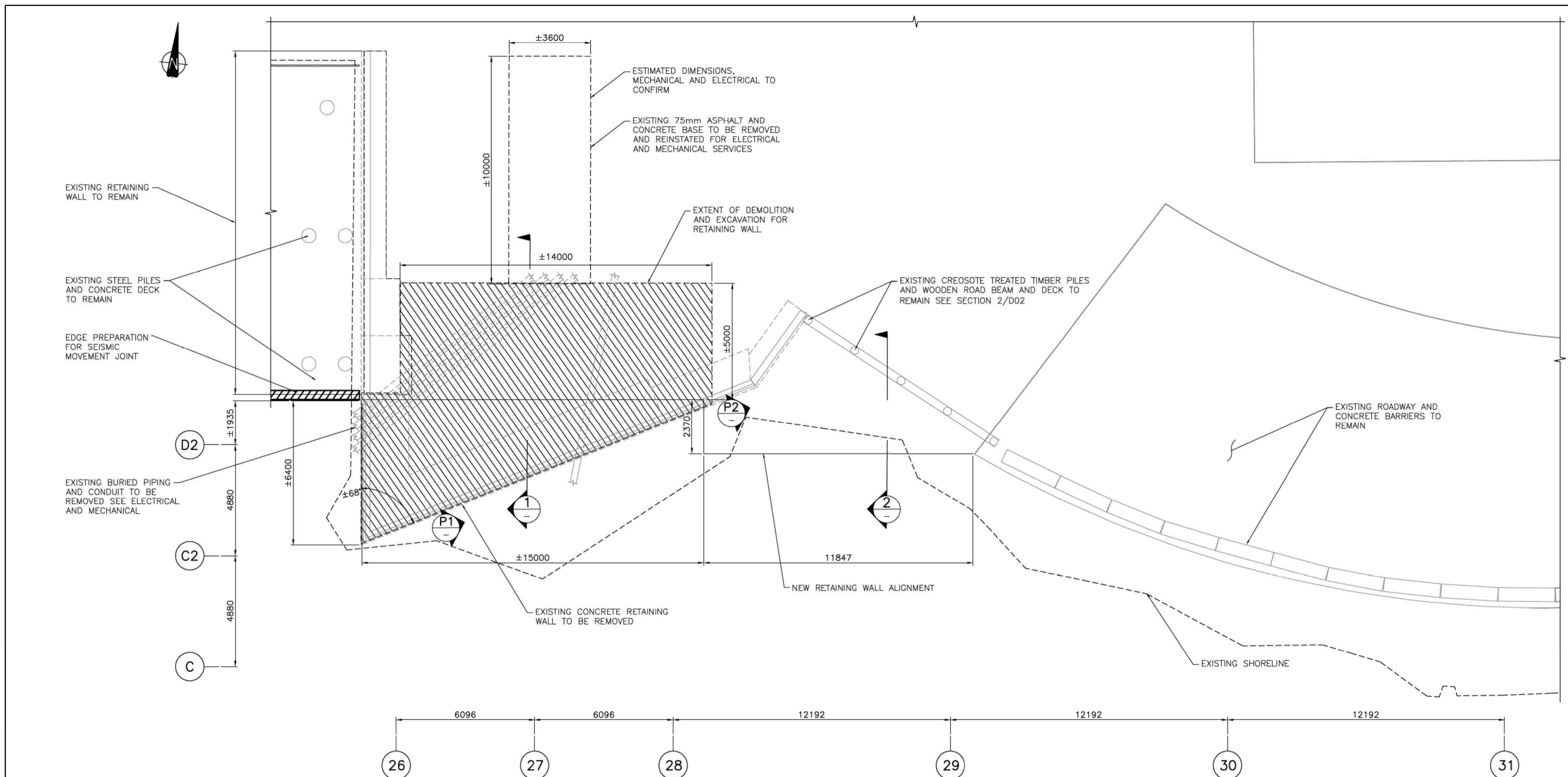
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par: KU, TW
Drawn by/Dessiné par: BOG
PWSC Project Manager/Administrateur de Projets TPSGC: PATRICK TRUONG
Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: PREETPAL PAUL

Drawing title/Titre du dessin
SOUTH JETTY DEMOLITION PLAN

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	D01	2





DEMOLITION PLAN - SOUTH JETTY - EAST
1:100

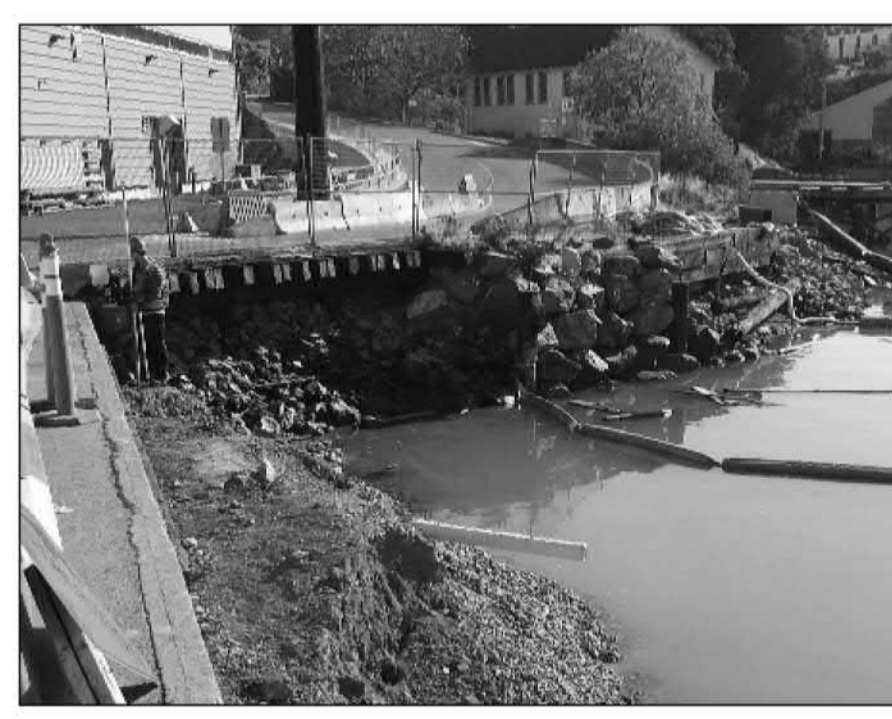
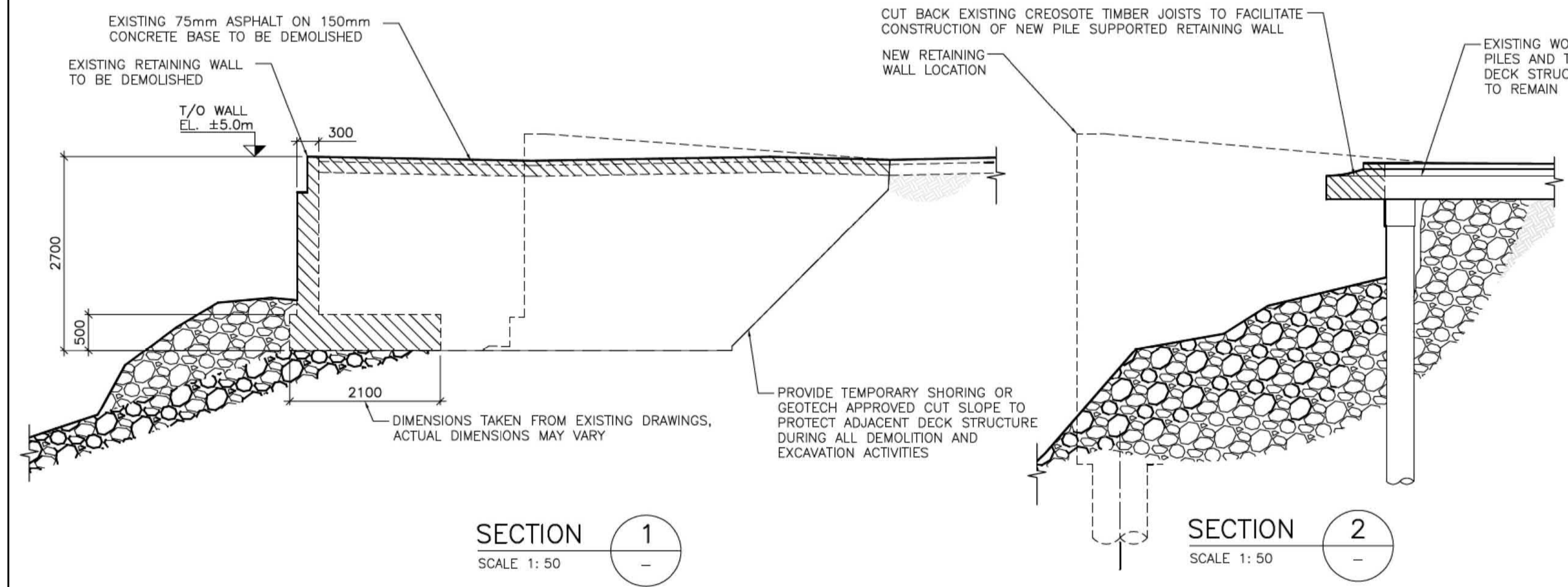


PHOTO P1
N/A



PHOTO P2
N/A

NOTE:
EXISTING INFORMATION HAS BEEN TAKEN FROM EXISTING ARCHIVAL DRAWINGS AND SITE OBSERVATIONS. ACTUAL CONDITIONS MAY VARY.

NOTES:
1. FOR NOTES SEE DWG. G1.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

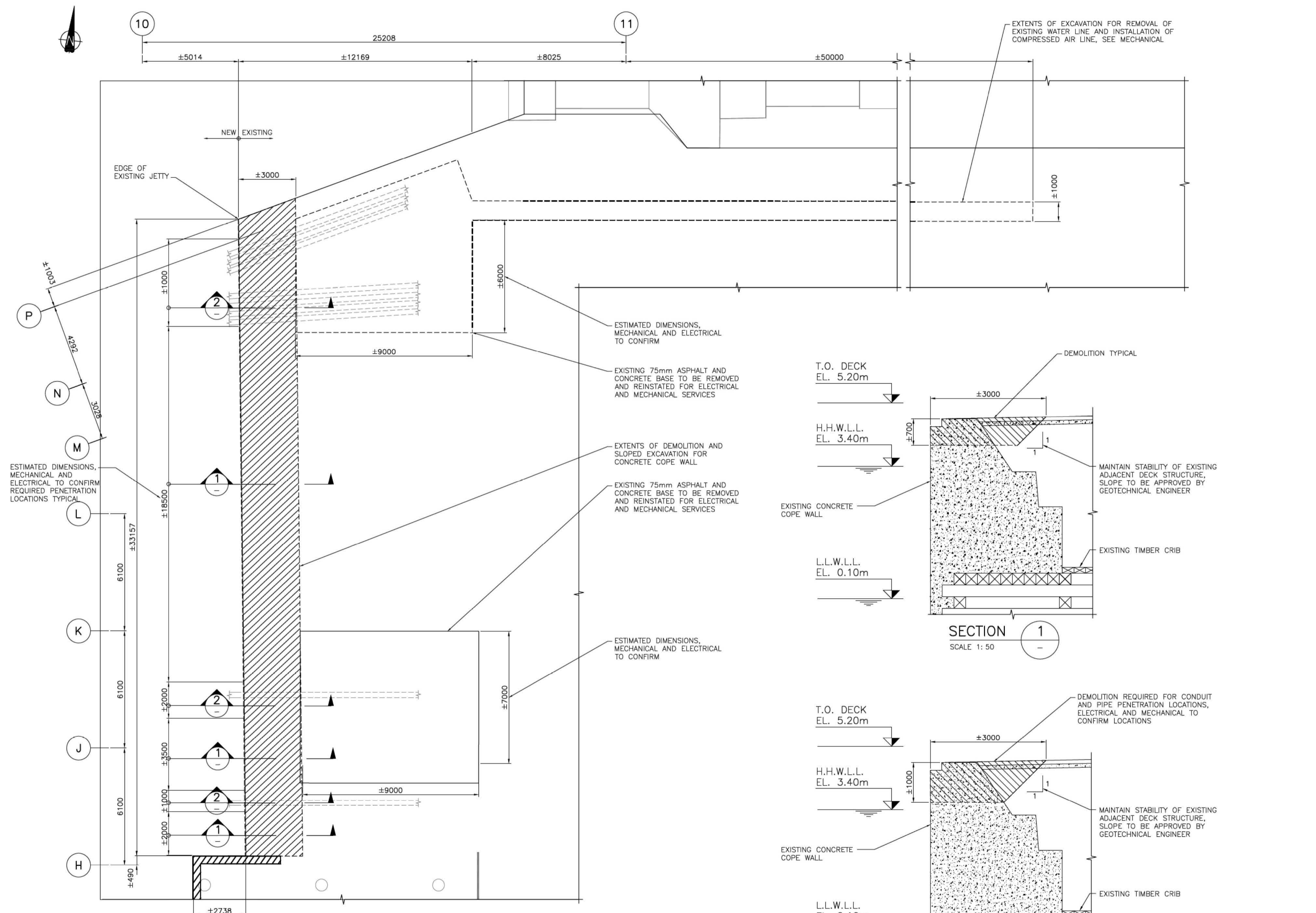
Drawn by/Dessiné par
BOG

PWGC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

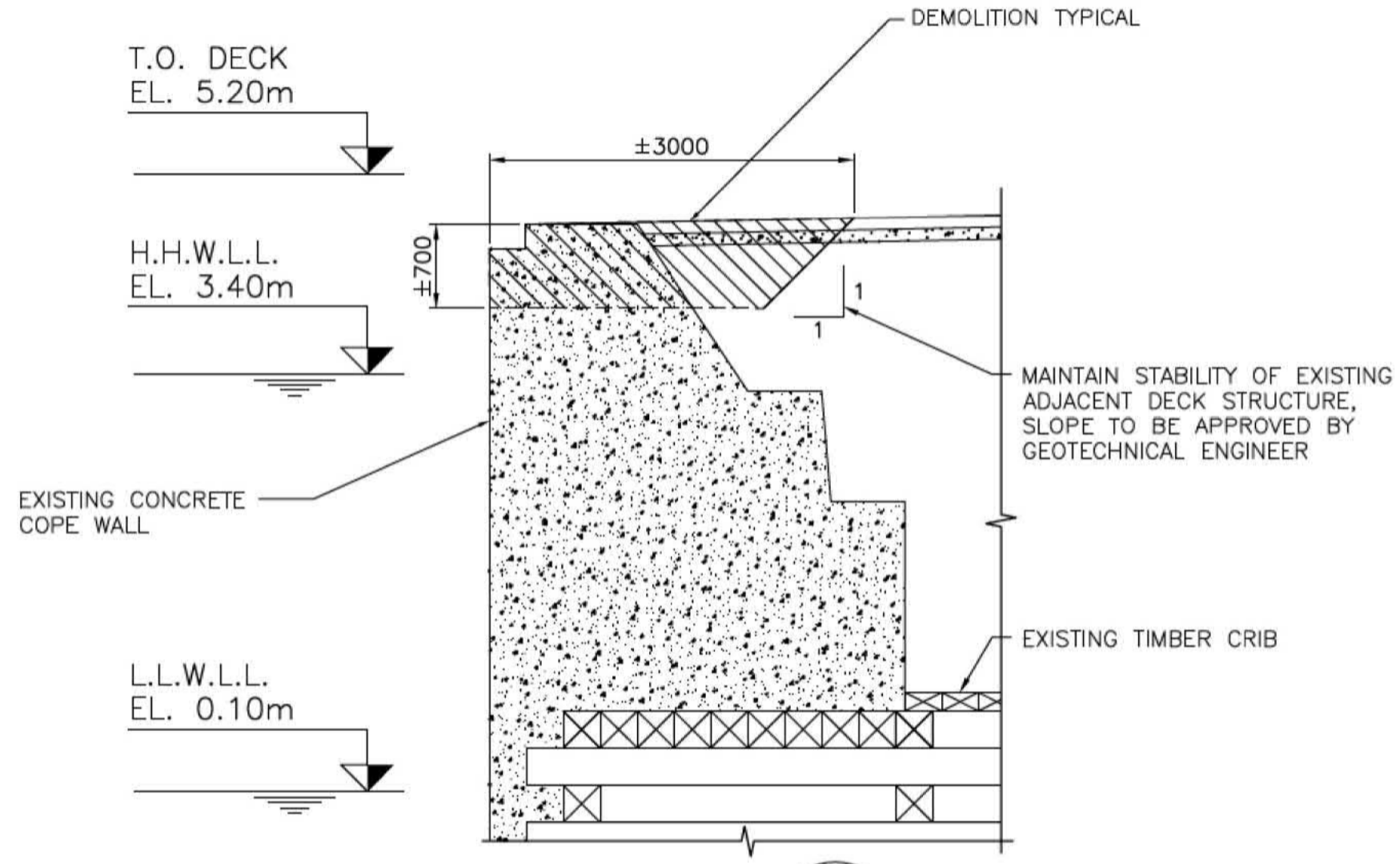
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**SOUTH JETTY
DEMOLITION PLAN
EAST**

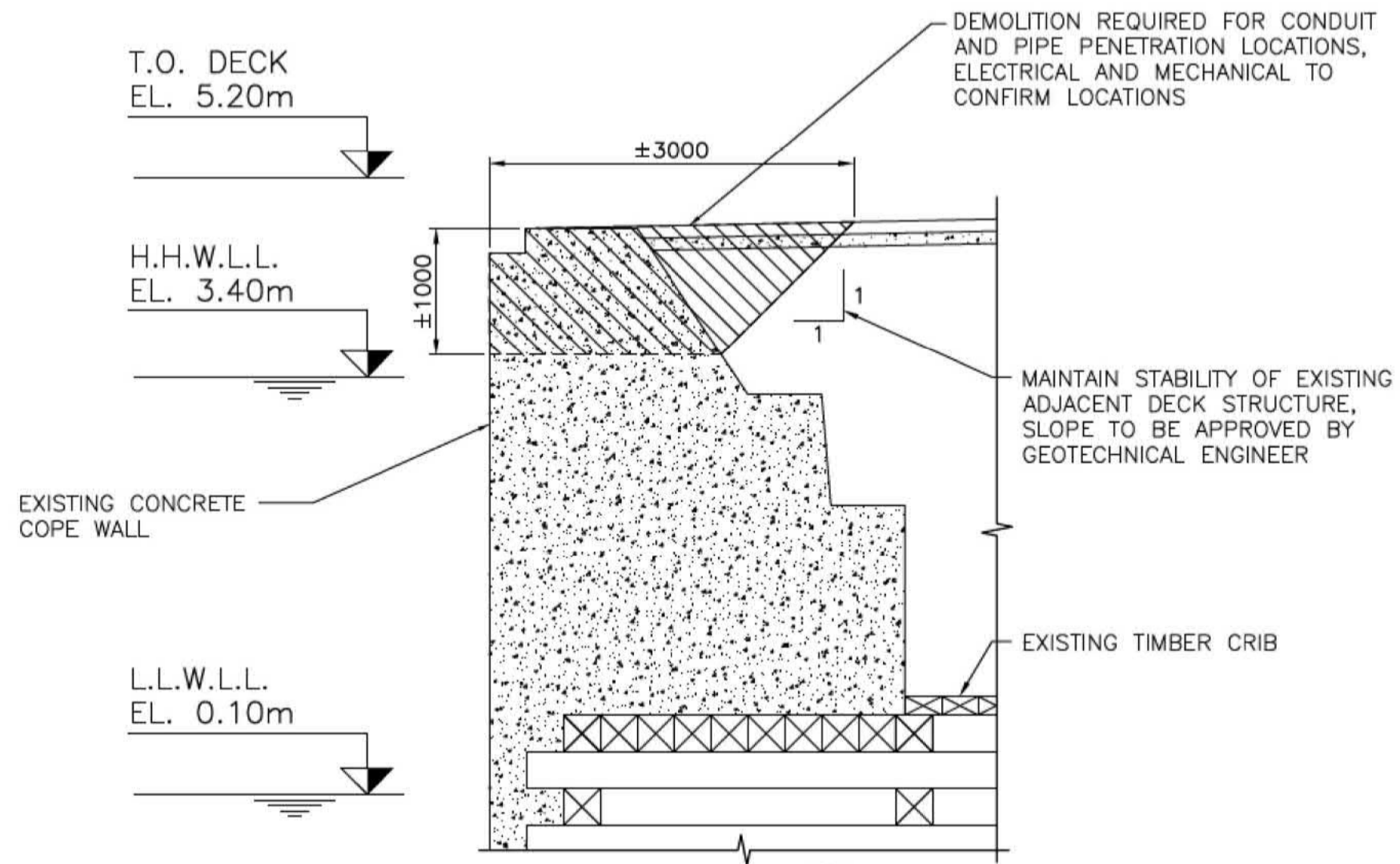
Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	D02	2



COPE WALL DEMOLITION PLAN
1:100



SECTION 1
SCALE 1: 50



SECTION 2
SCALE 1: 50

NOTES:
1. FOR NOTES SEE DWG. G1.

NOTE:
EXISTING INFORMATION HAS BEEN TAKEN FROM EXISTING ARCHIVAL DRAWINGS AND SITE OBSERVATIONS. ACTUAL CONDITIONS MAY VARY.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

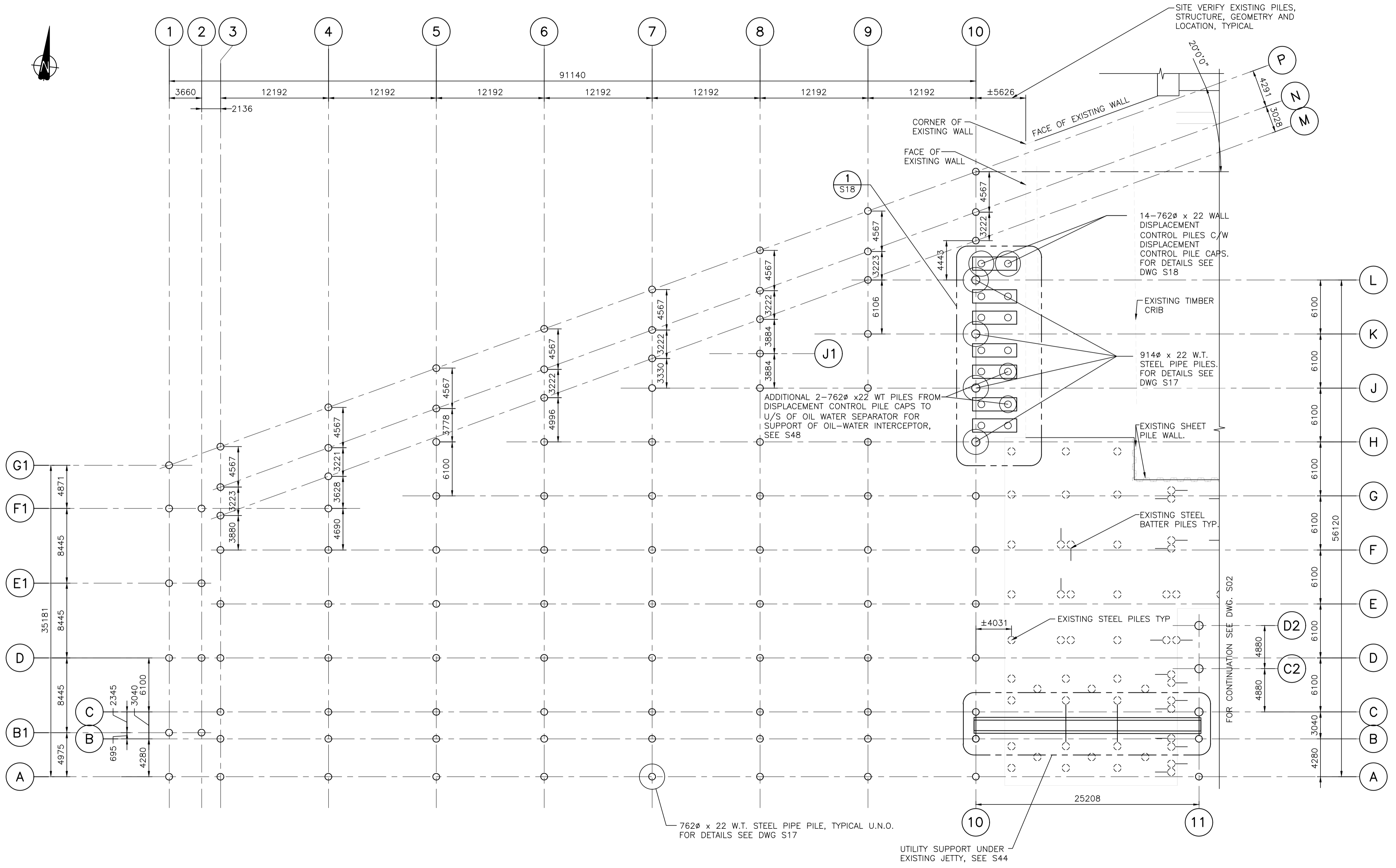
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BOG

PWGC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
WEST JETTY DEMOLITION PLAN NORTH

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	D03	2



PILE PLAN - WEST JETTY
1:250

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - STEEL PILES SHALL CONFORM TO CAN/CSA-Z245.1 GRADE 359 CAT. 1 OR API-5L GRADE X52.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

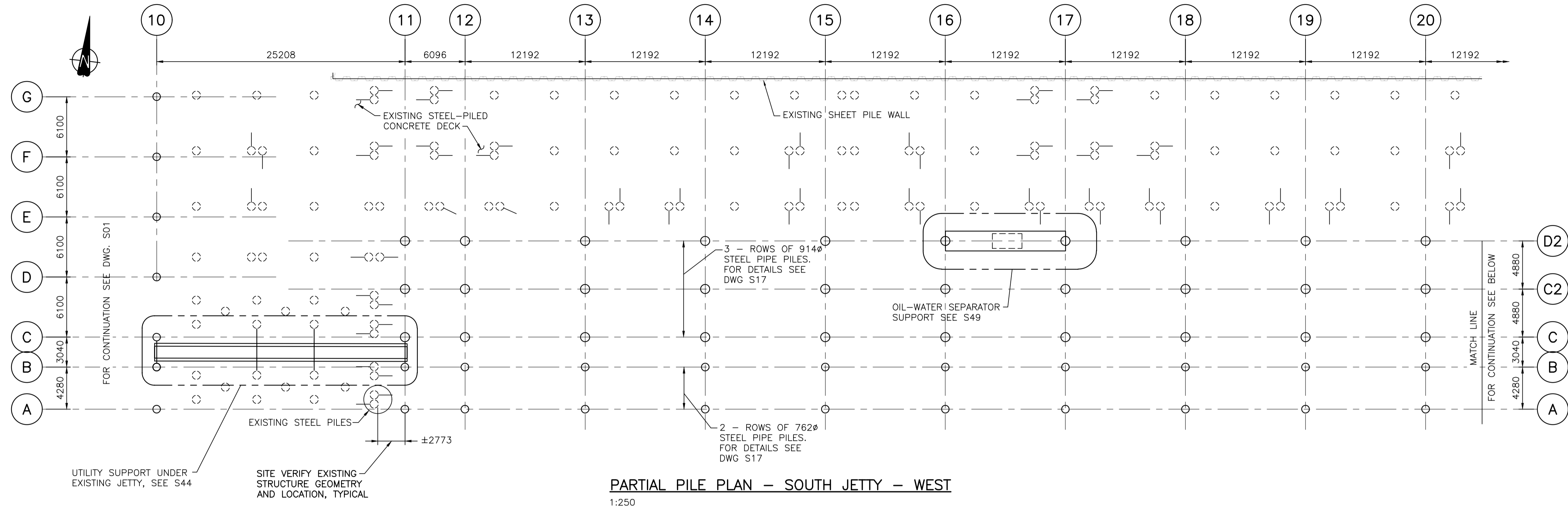
PWSC Project Manager/Administrateur de Projets TFSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

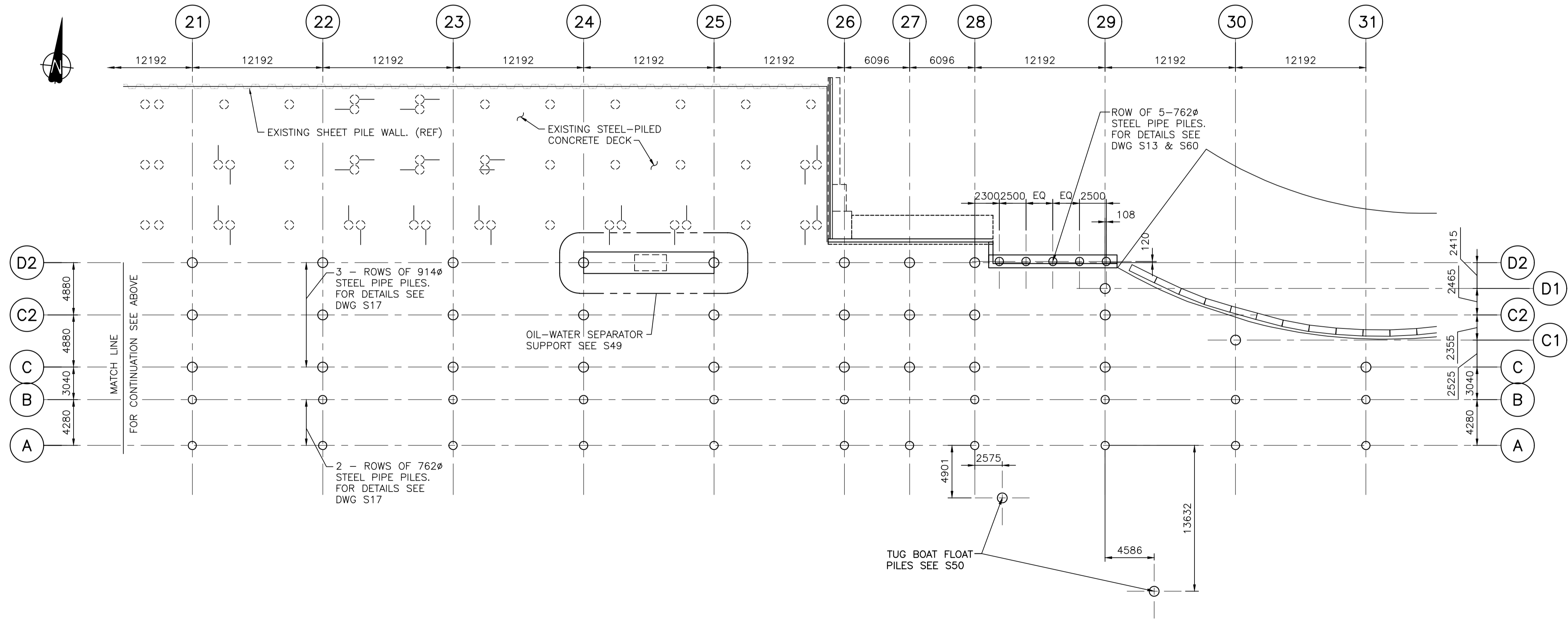
Drawing title/Titre du dessin
**WEST JETTY
PILE PLAN**

Project No./No. du projet R.026729.002	Sheet/ S01	Revision no./ 2
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PARTIAL PILE PLAN - SOUTH JETTY - WEST
1:250



PARTIAL PILE PLAN - SOUTH JETTY - EAST
1:250

NOTES:

- FOR NOTES SEE DWG. G01.
- STEEL PILES SHALL CONFORM TO CAN/CSA-Z245.1 GRADE 359 CAT. 1 OR API-5L GRADE X52.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TFSGC
PATRICK TRUONG

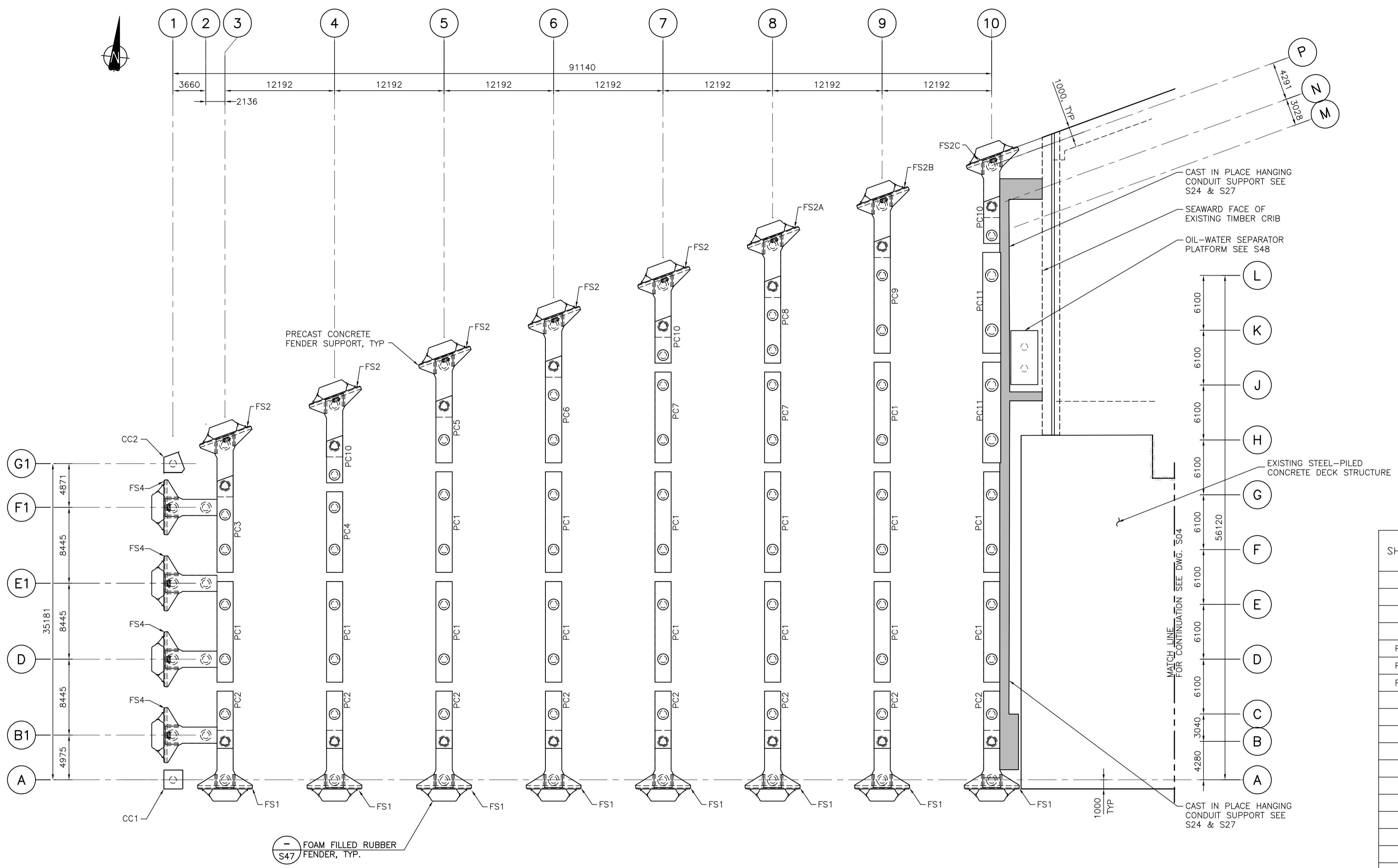
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin

**SOUTH JETTY
PILE PLAN**

Project No./No. du projet	Sheet/	Revision no./
R.026729.002	S02	2





WEST JETTY PRECAST FENDER SUPPORTS & PILE CAP BEAMS PLAN
1:250

PART COUNT SHEETS S3 & S4 COMBINED	
CC1	1
CC2	1
FS1	22
FS2	5
FS2A	1
FS2B	1
FS2C	1
FS3	6
FS4	4
PC1	15
PC2	8
PC3	1
PC4	1
PC5	1
PC6	1
PC7	2
PC8	1
PC9	1
PC10	3
PC11	2
PC12	19
PC13	18
PC14	1
PC15	1
PC16	1
SEE NOTES	

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

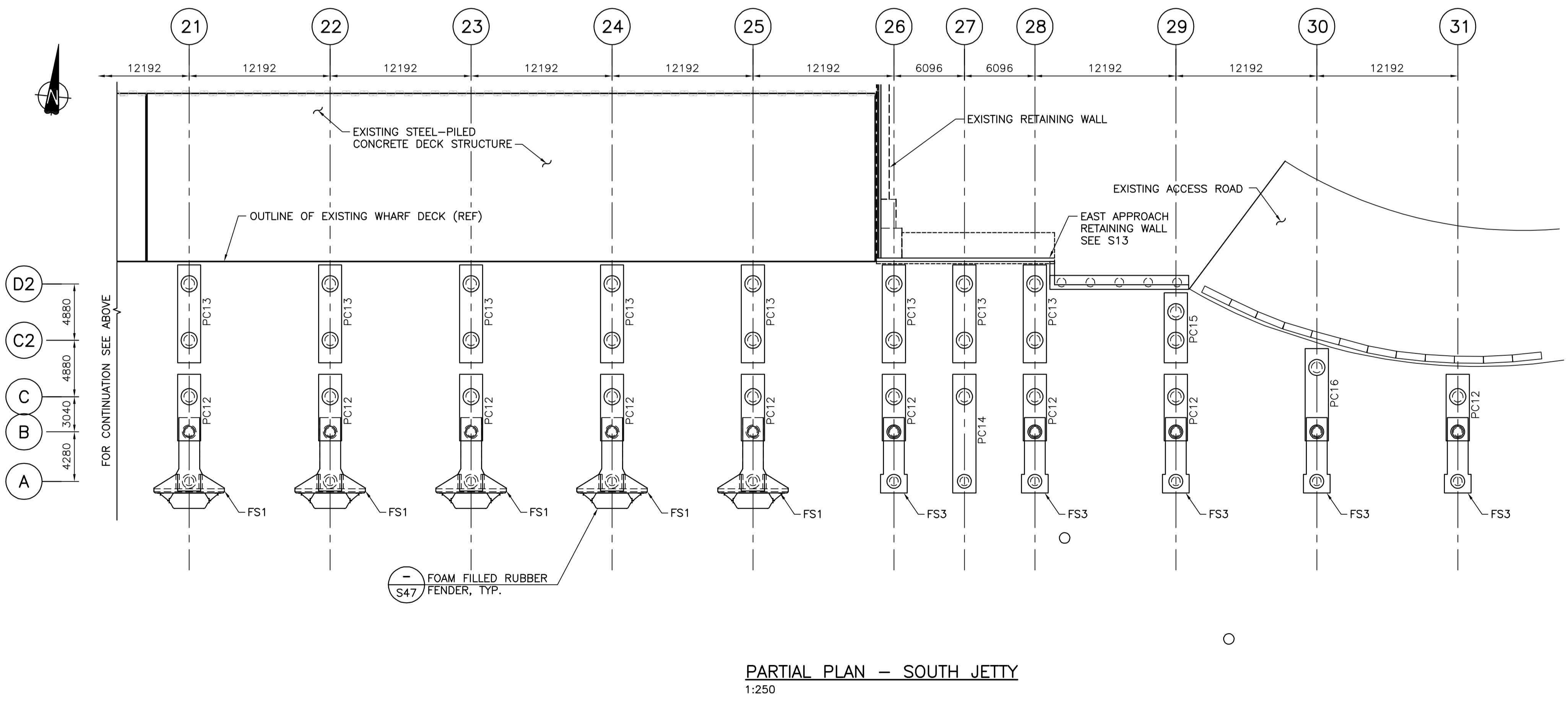
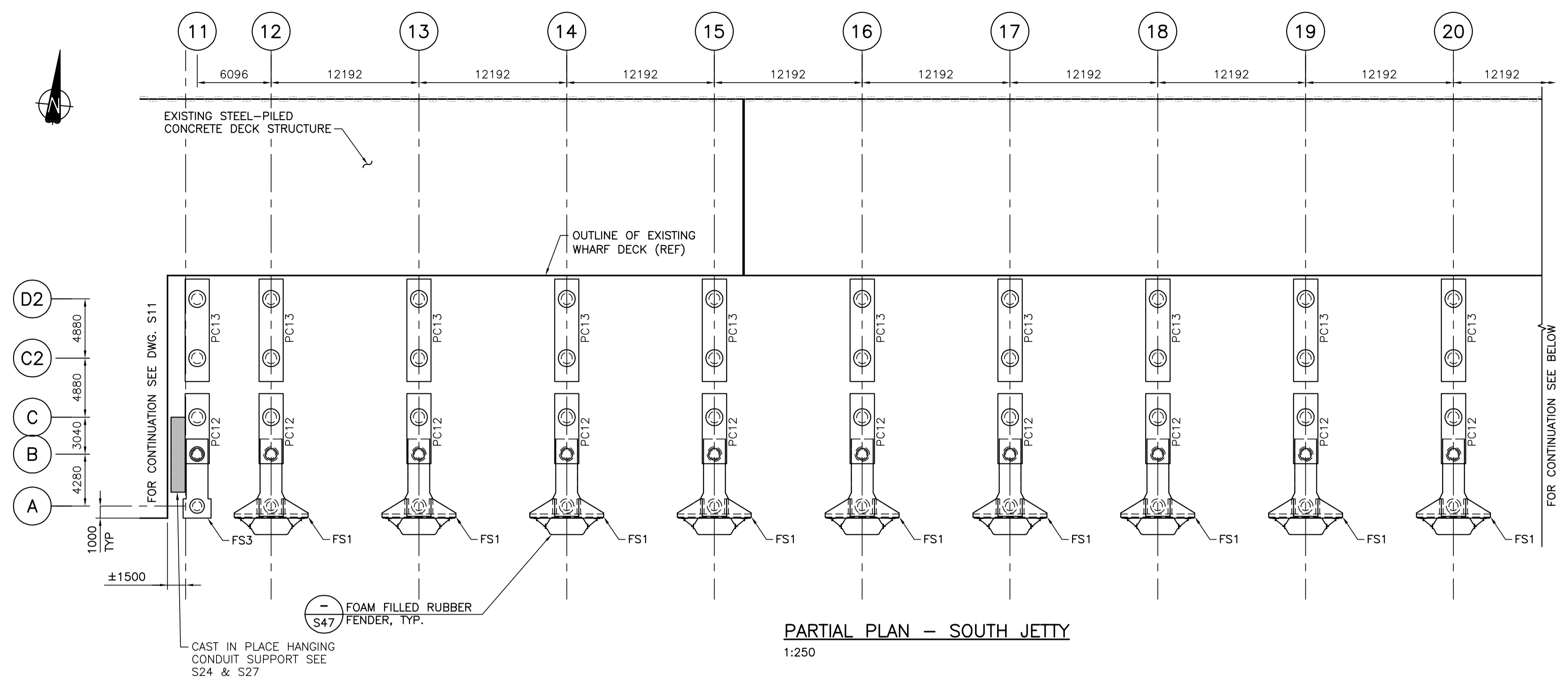
PWGC Project Manager/Administrateur de Projets TFSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
WEST JETTY PRECAST FENDER SUPPORTS & PILE CAP PLAN

Project No./No. du projet R.026729.002	Sheet/ S03	Revision no./ 2
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- NOTES:**
- FOR NOTES SEE DWG. G01.
 - CONTRACTOR TO CONFIRM NUMBER OF PARTS
 - COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.



NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PART COUNT SEE DWG. S03
- COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

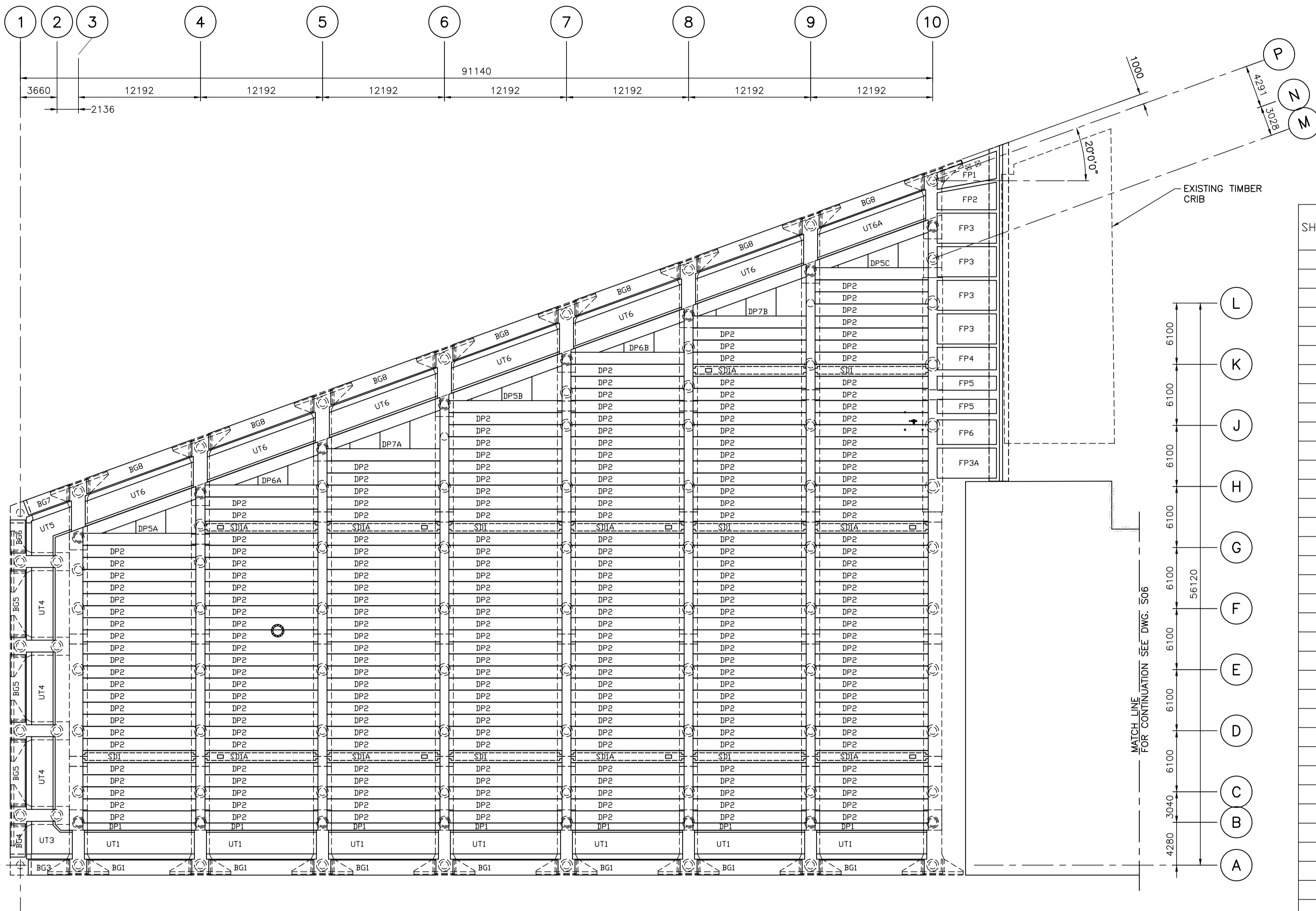
PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin

**SOUTH JETTY
PRECAST FENDER SUPPORTS &
PRECAST PILE CAP PLANS**

Project No./No. du projet R.026729.002	Sheet/ S04	Revision no./ 2
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PART COUNT SHEETS S05 & S06 COMBINED

Element	Quantity
UT1	24
UT2	3
UT3	1
UT4	3
UT5	1
UT6	6
UT6A	1
BG1	25
BG2	1
BG3	1
BG4	1
BG5	3
BG6	1
BG7	1
BG8	7
DP1	27
DP2	402
DP3	1
DP4	11
DP5A	1
DP5B	1
DP5C	1
DP6A	1
DP6B	1
DP7A	1
DP7B	1
SD1	14
SD2	18
SD2	1
FP1	1
FP2	1
FP3	4
FP3A	1
FP4	1
FP5	2
FP6	1
DW1	1

PLAN - WEST JETTY
1:250

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - CONTRACTOR TO CONFIRM NUMBERS OF PARTS
 - FOR PRECAST NOTES SEE SBG1
 - COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

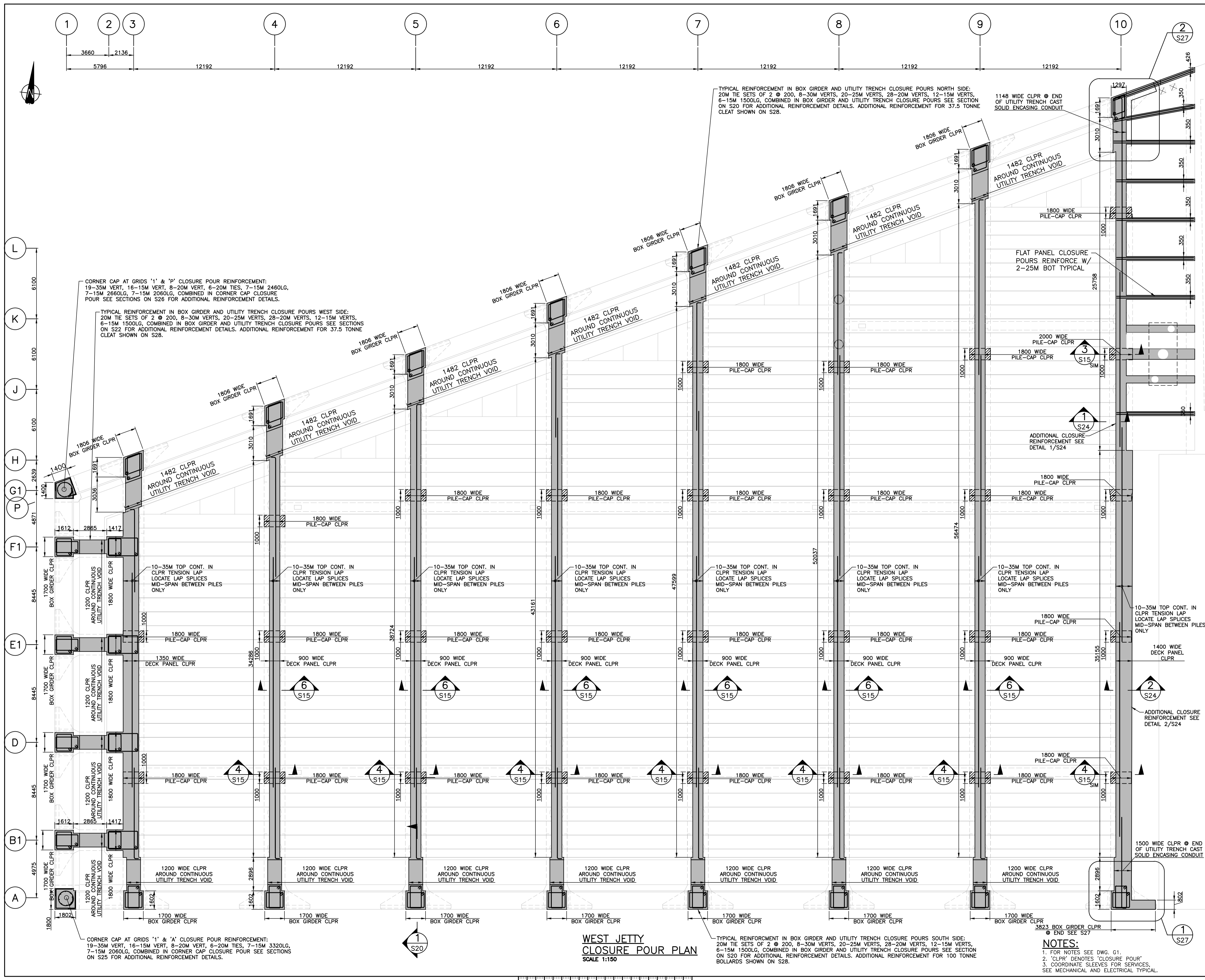
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par
KU, TW
Drawn by/Dessine par
BOG
PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL
Drawing title/Titre du dessin
**WEST JETTY
PRECAST DECK ELEMENTS PLAN**

Project No./No. du projet	Sheet/	Revision no./
R.026729.002	S05	2



CORNER CAP AT GRIDS '1' & 'P' CLOSURE POUR REINFORCEMENT:
19-35M VERT, 16-15M VERT, 8-20M VERT, 6-20M TIES, 7-15M 2480LG,
7-15M 2660LG, 7-15M 2060LG, COMBINED IN CORNER CAP CLOSURE
POUR SEE SECTIONS ON S26 FOR ADDITIONAL REINFORCEMENT DETAILS.

TYPICAL REINFORCEMENT IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS WEST SIDE:
20M TIE SETS OF 2 @ 200, 8-30M VERTS, 20-25M VERTS, 12-15M VERTS,
6-15M 1500LG, COMBINED IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SEE SECTIONS
ON S22 FOR ADDITIONAL REINFORCEMENT DETAILS. ADDITIONAL REINFORCEMENT FOR 37.5 TONNE
CLEAT SHOWN ON S28.

TYPICAL REINFORCEMENT IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS NORTH SIDE:
20M TIE SETS OF 2 @ 200, 8-30M VERTS, 20-25M VERTS, 28-20M VERTS, 12-15M VERTS,
6-15M 1500LG, COMBINED IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SEE SECTION
ON S20 FOR ADDITIONAL REINFORCEMENT DETAILS. ADDITIONAL REINFORCEMENT FOR 37.5 TONNE
CLEAT SHOWN ON S28.

TYPICAL REINFORCEMENT IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SOUTH SIDE:
20M TIE SETS OF 2 @ 200, 8-30M VERTS, 20-25M VERTS, 28-20M VERTS, 12-15M VERTS,
6-15M 1500LG, COMBINED IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SEE SECTION
ON S20 FOR ADDITIONAL REINFORCEMENT DETAILS. ADDITIONAL REINFORCEMENT FOR 100 TONNE
BOLLARDS SHOWN ON S28.

WEST JETTY CLOSURE POUR PLAN
SCALE 1:150

- NOTES:**
1. FOR NOTES SEE DWG. G1.
2. 'CLPR' DENOTES 'CLOSURE POUR'.
3. COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

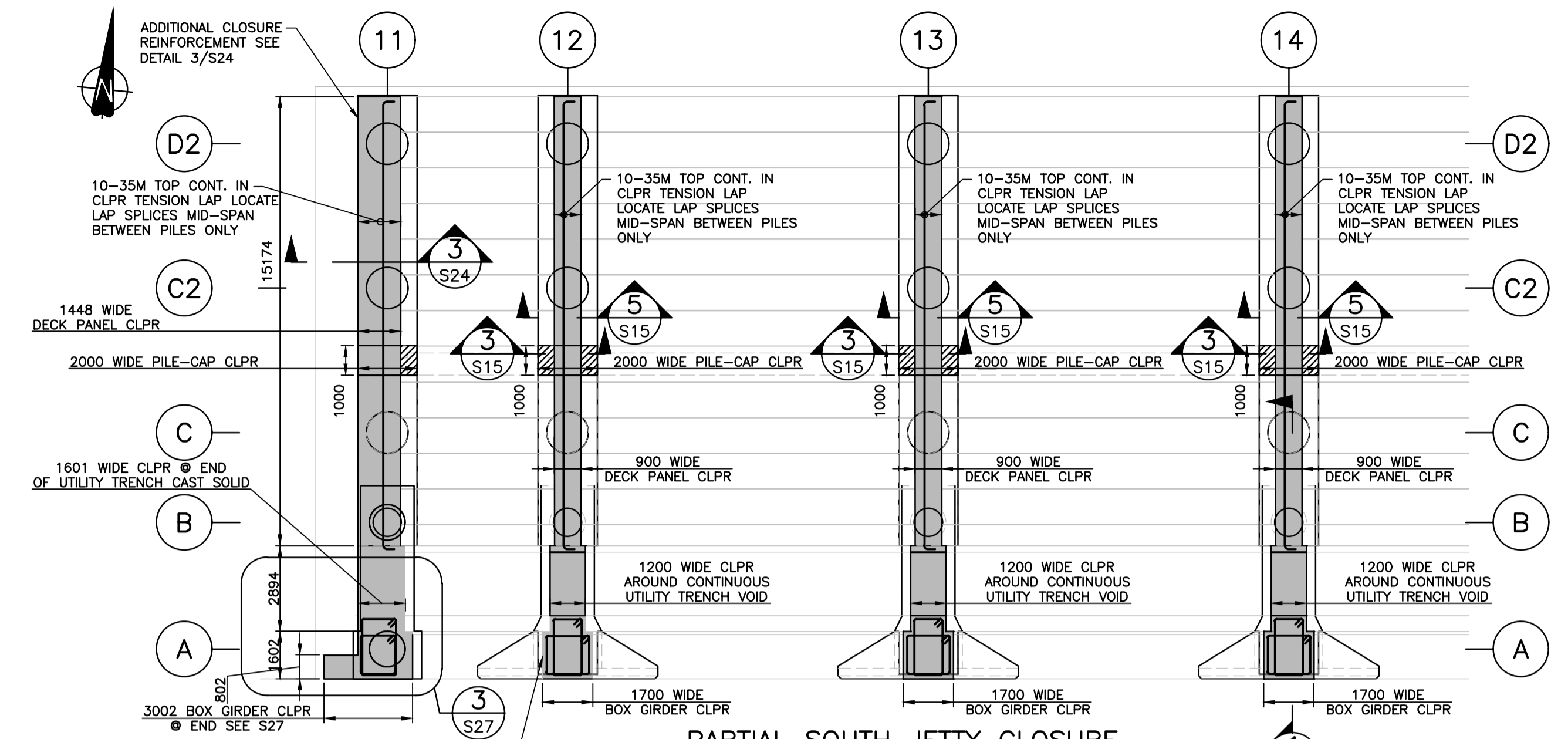
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

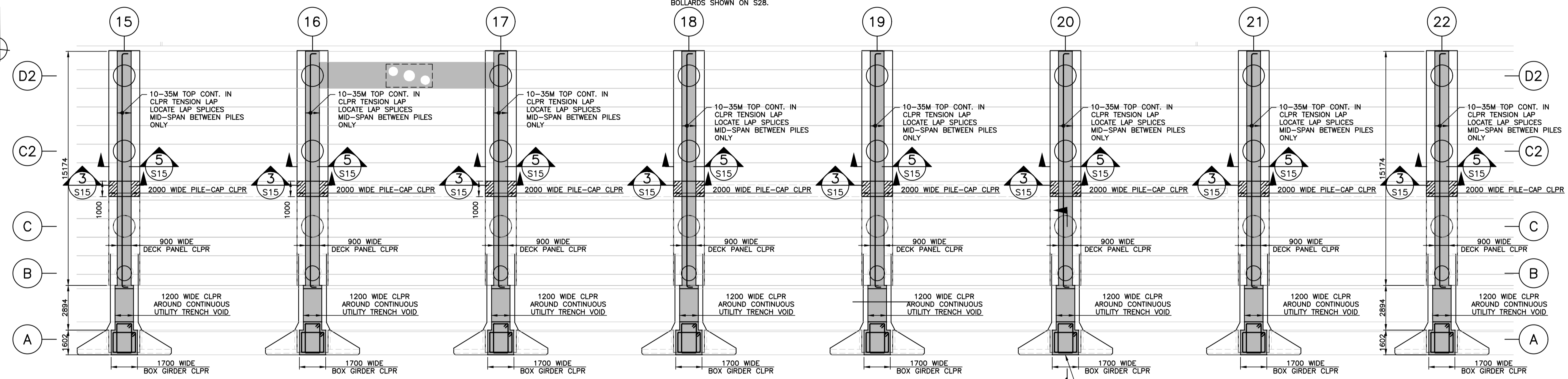
Drawing title/Titre du dessin
WEST JETTY CLOSURE POUR REINFORCING PLAN

Project No./No. du projet R.026729.002	Sheet/Fauille S07	Revision no./ Loi Révision no. 2
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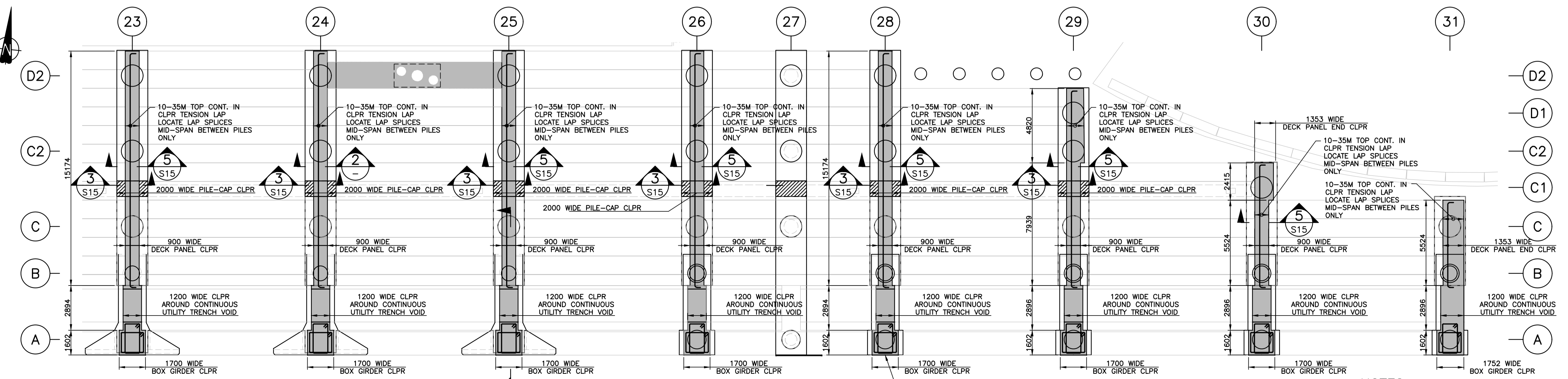
PARTIAL SOUTH JETTY CLOSURE POUR REINFORCING PLAN
SCALE 1:150

TYPICAL REINFORCEMENT IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SOUTH SIDE: 20M TIE SETS OF 2 @ 200, 8-30M VERTS, 20-25M VERTS, 28-20M VERTS, 12-15M VERTS, 6-15M 1500LG, COMBINED IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SEE SECTIONS ON S20 FOR ADDITIONAL REINFORCEMENT DETAILS. ADDITIONAL REINFORCEMENT FOR 100 TONNE BOLLARDS SHOWN ON S28.



PARTIAL SOUTH JETTY CLOSURE POUR REINFORCING PLAN
SCALE 1:150

TYPICAL REINFORCEMENT IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SOUTH SIDE: 20M TIE SETS OF 2 @ 200, 8-30M VERTS, 20-25M VERTS, 28-20M VERTS, 12-15M VERTS, 6-15M 1500LG, COMBINED IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SEE SECTIONS ON S20 FOR ADDITIONAL REINFORCEMENT DETAILS. ADDITIONAL REINFORCEMENT FOR 100 TONNE BOLLARDS SHOWN ON S28.



PARTIAL SOUTH JETTY CLOSURE POUR REINFORCING PLAN
SCALE 1:150

TYPICAL REINFORCEMENT IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SOUTH SIDE: 20M TIE SETS OF 2 @ 200, 8-30M VERTS, 20-25M VERTS, 28-20M VERTS, 12-15M VERTS, 6-15M 1500LG, COMBINED IN BOX GIRDER AND UTILITY TRENCH CLOSURE POURS SEE SECTIONS ON S20 FOR ADDITIONAL REINFORCEMENT DETAILS. ADDITIONAL REINFORCEMENT FOR 100 TONNE BOLLARDS SHOWN ON S28.

- NOTES:**
- FOR NOTES SEE DWG. G1.
 - 'CLPR' DENOTES 'CLOSURE POUR'
 - COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/15

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

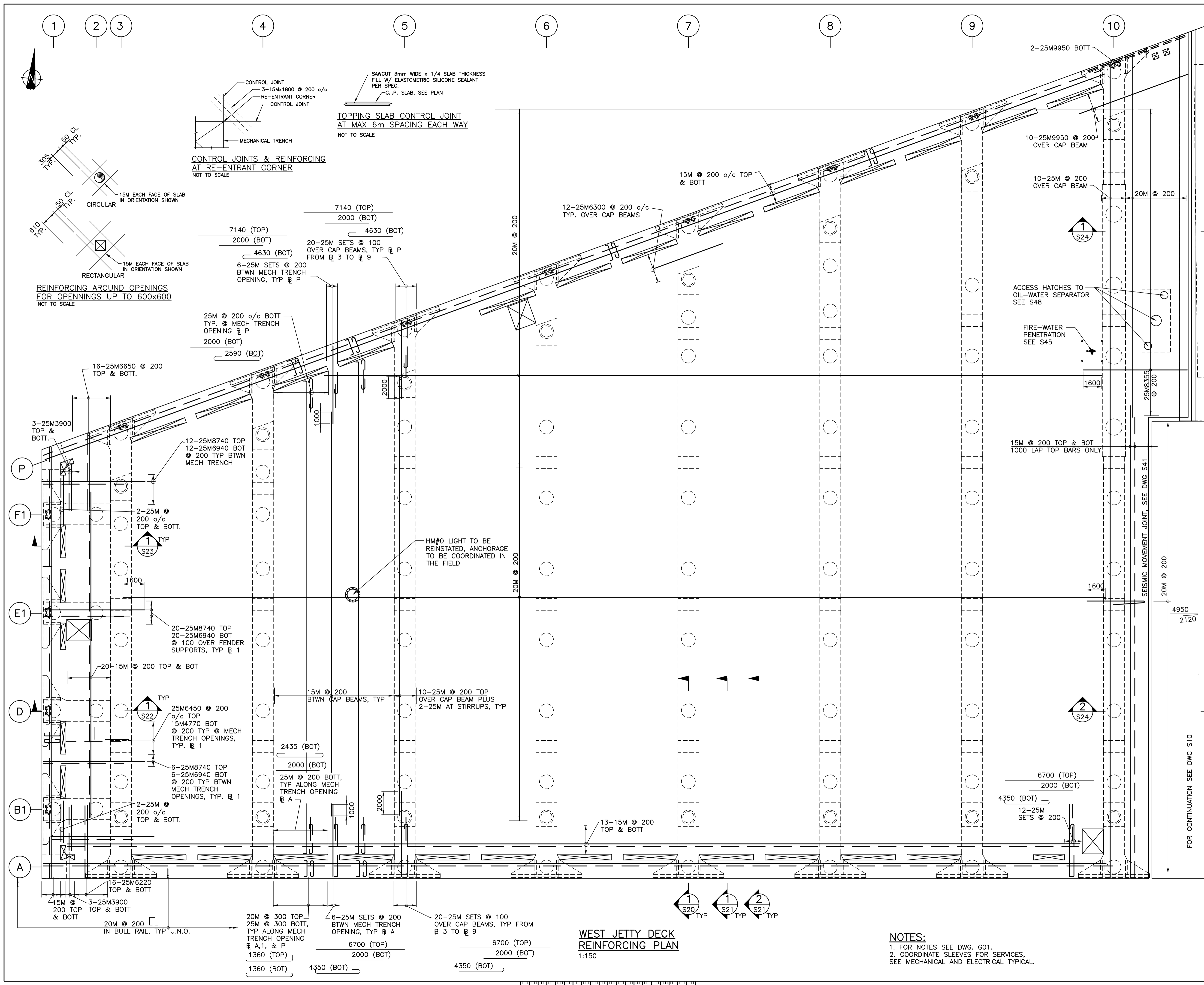
Drawn by/Dessiné par
BOG

PWGC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
SOUTH JETTY CLOSURE POUR REINFORCING PLANS

Project No./No. du projet R.026729.002	Sheet/Feuille S08	Revision no./ Le Révision no. 2
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**WEST JETTY DECK
 REINFORCING PLAN**
 1:150

- NOTES:**
 1. FOR NOTES SEE DWG. G01.
 2. COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/18

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
 KU, TW

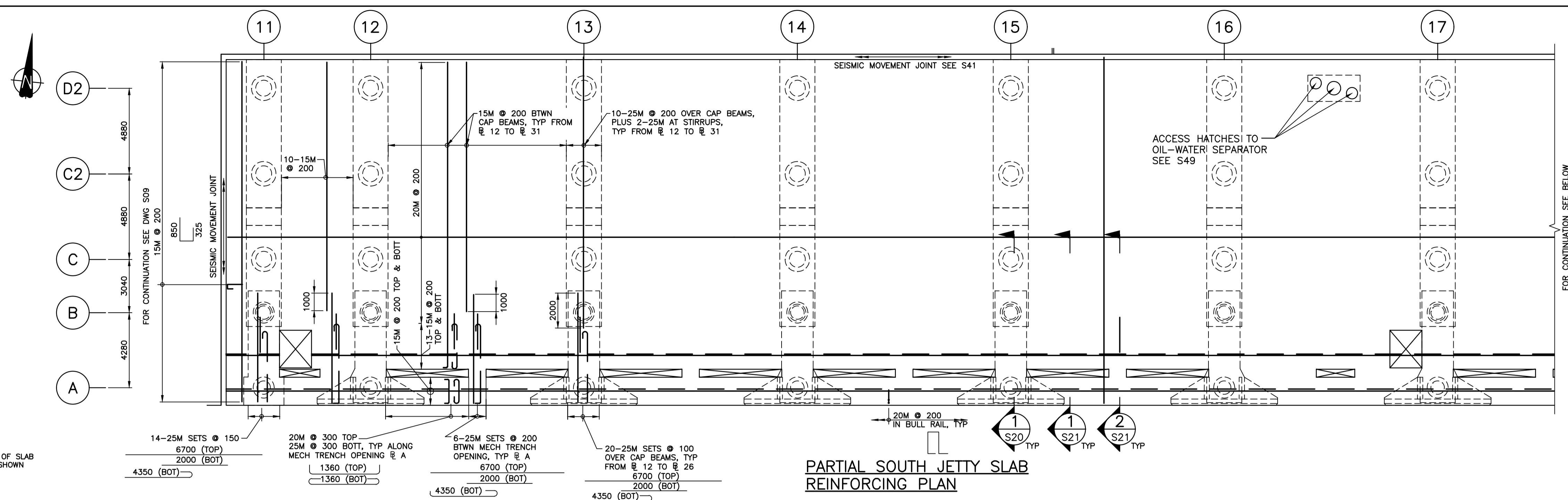
Drawn by/Dessiné par
 BOG

PWGC Project Manager/Administrateur de Projets TPSC
 PATRICK TRUONG

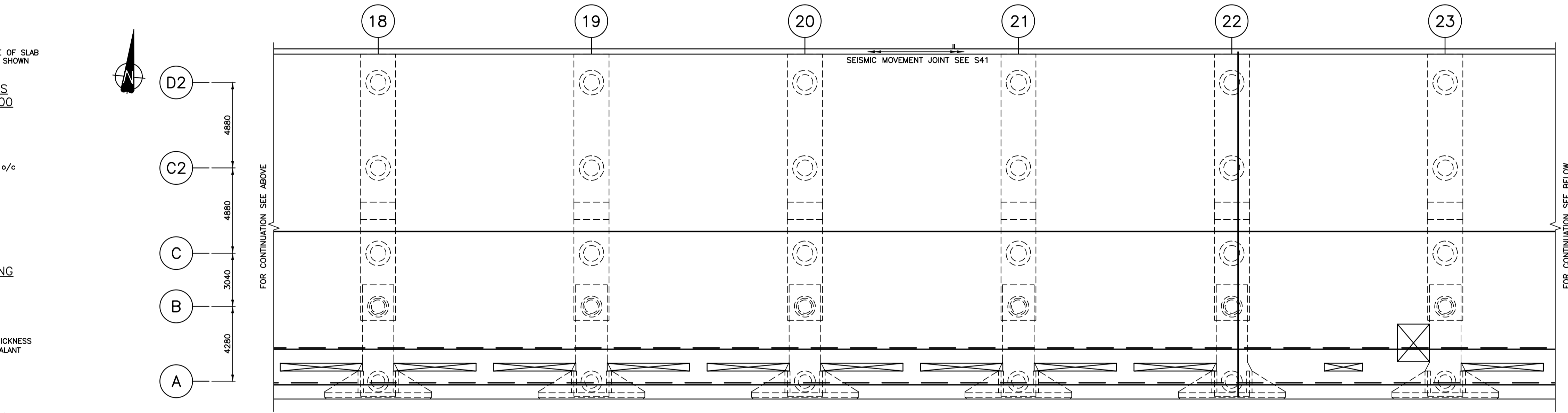
Regional Manager, Architectural and Engineering Services
 Regional Manager, Environmental Services
 PREETIPAL PAUL

Drawing title/Titre du dessin
WEST JETTY DECK REINFORCING PLAN

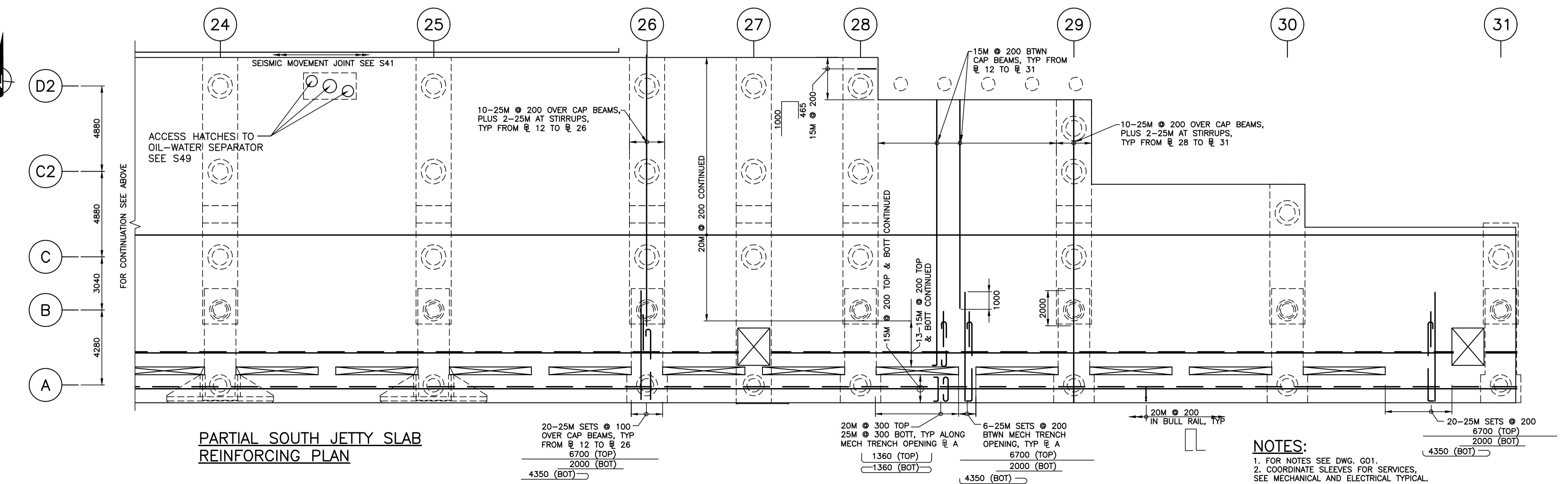
Project No./No. du projet R.026729.002	Sheet/ S09	Revision no./ 2
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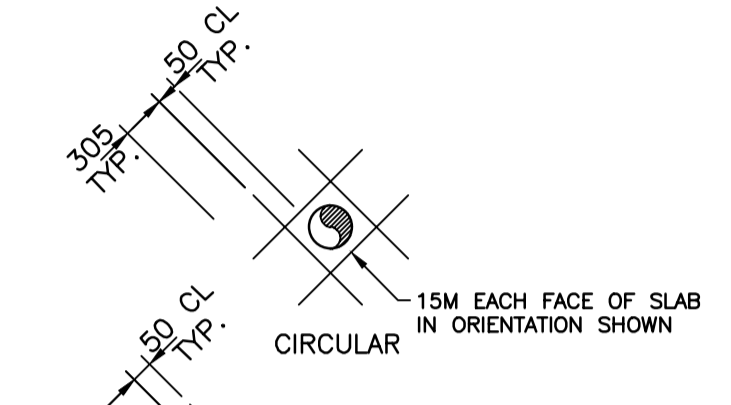
PARTIAL SOUTH JETTY SLAB REINFORCING PLAN



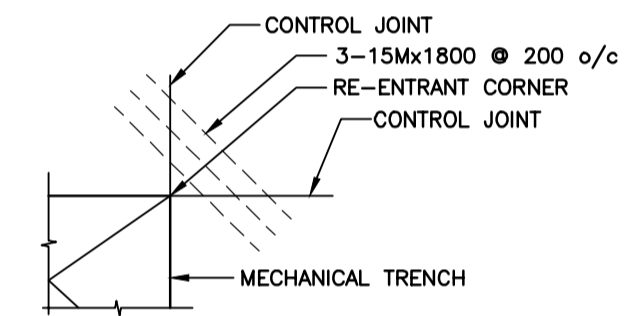
PARTIAL SOUTH JETTY SLAB REINFORCING PLAN



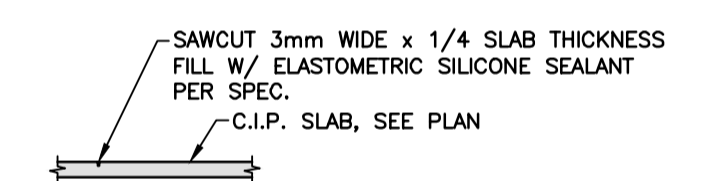
PARTIAL SOUTH JETTY SLAB REINFORCING PLAN



REINFORCING AROUND OPENINGS FOR OPENINGS UP TO 600x600
NOT TO SCALE



CONTROL JOINTS & REINFORCING AT RE-ENTRANT CORNER
NOT TO SCALE



TOPPING SLAB CONTROL JOINT AT MAX 6m SPACING EACH WAY
NOT TO SCALE

NOTES:
1. FOR NOTES SEE DWG. G01.
2. COORDINATE SLEEVES FOR SERVICES. SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

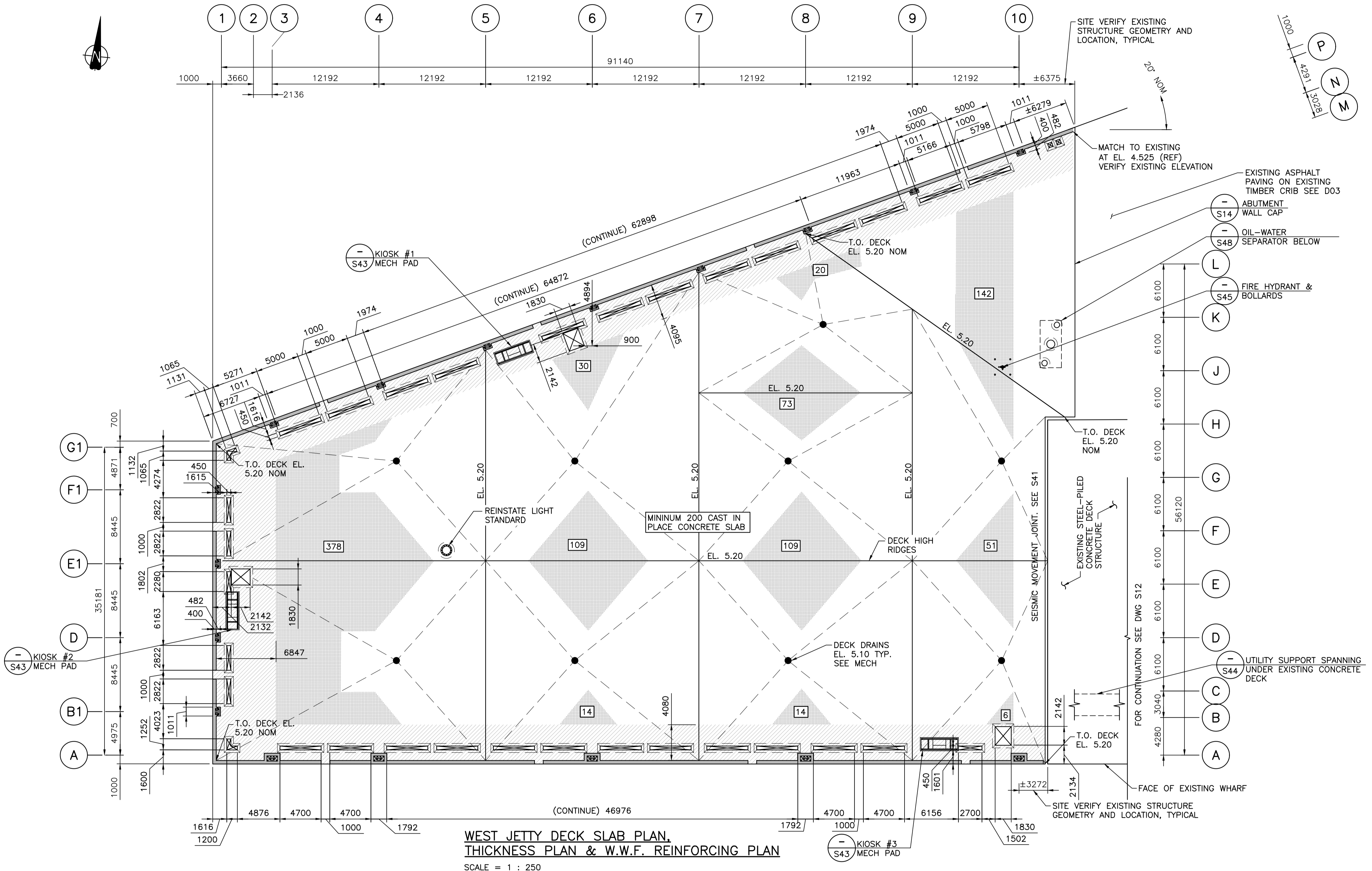
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par: KU, TW
Drawn by/Dessiné par: BOG
PWSC Project Manager/Administrateur de Projets TPSGC: PATRICK TRUONG
Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: PREETPAL PAUL

Drawing title/Titre du dessin
SOUTH JETTY DECK REINFORCING PLANS

Project No./No. du projet R.026729.002	Sheet/Feuille S10	Revision no./Révision no. 2
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WEST JETTY DECK SLAB PLAN, THICKNESS PLAN & W.W.F. REINFORCING PLAN
SCALE = 1 : 250

- LEGEND:**
- EXTENT OF W.W.F. (152x152-MW9.1xMW9.1 WELDED WIRE FABRIC), WITH AREA IN m²
 - EXTENT OF SLAB THICKNESS > 350
 - EXTENT OF 200 BULL RAIL CURB SEE S47

- NOTES:**
1. FOR NOTES SEE DWG. G01.
 2. WELDED WIRE FABRIC IS REQUIRED IN HATCHED AREAS SHOWN (SEE LEGEND) WHERE CONCRETE DECK EXCEEDS 240mm THICK DUE TO DRAINAGE SLOPES. MAINTAIN 70mm COVER FROM TOP OF SLOPED DECK TO FABRIC.
 3. COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/15

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

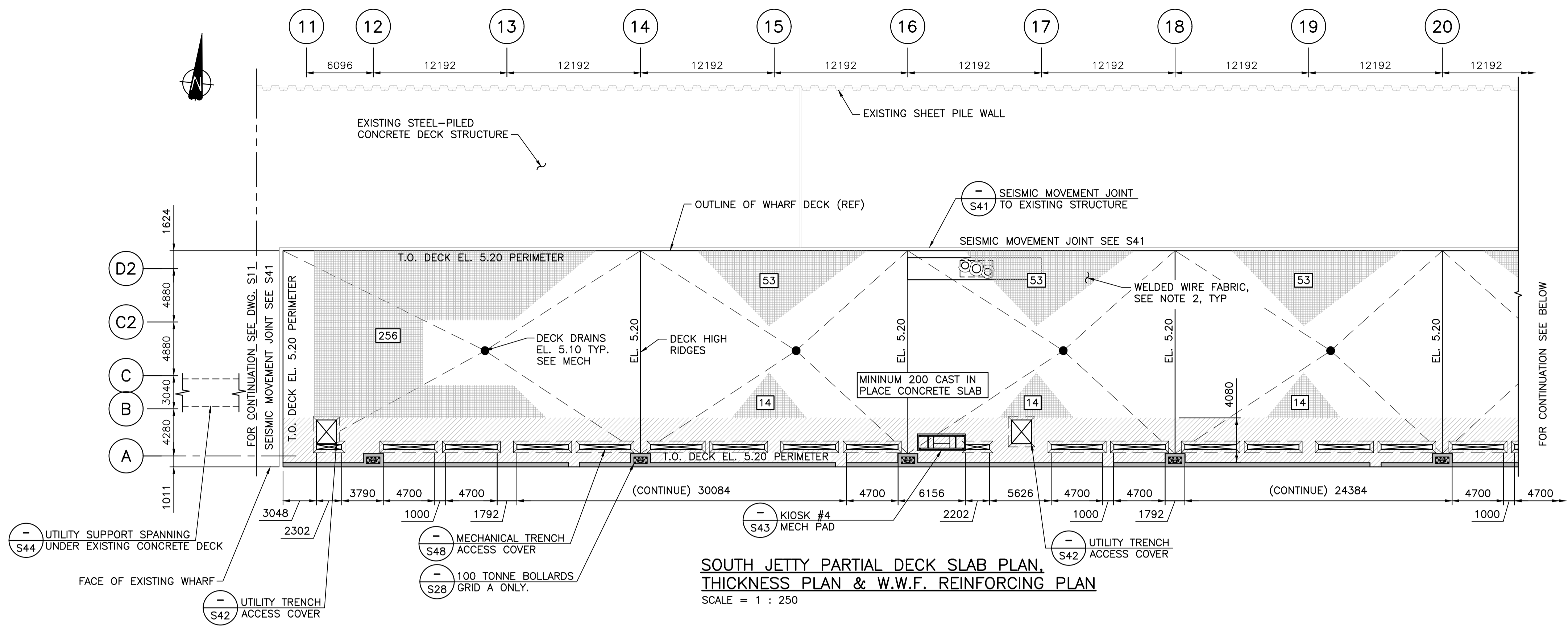
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

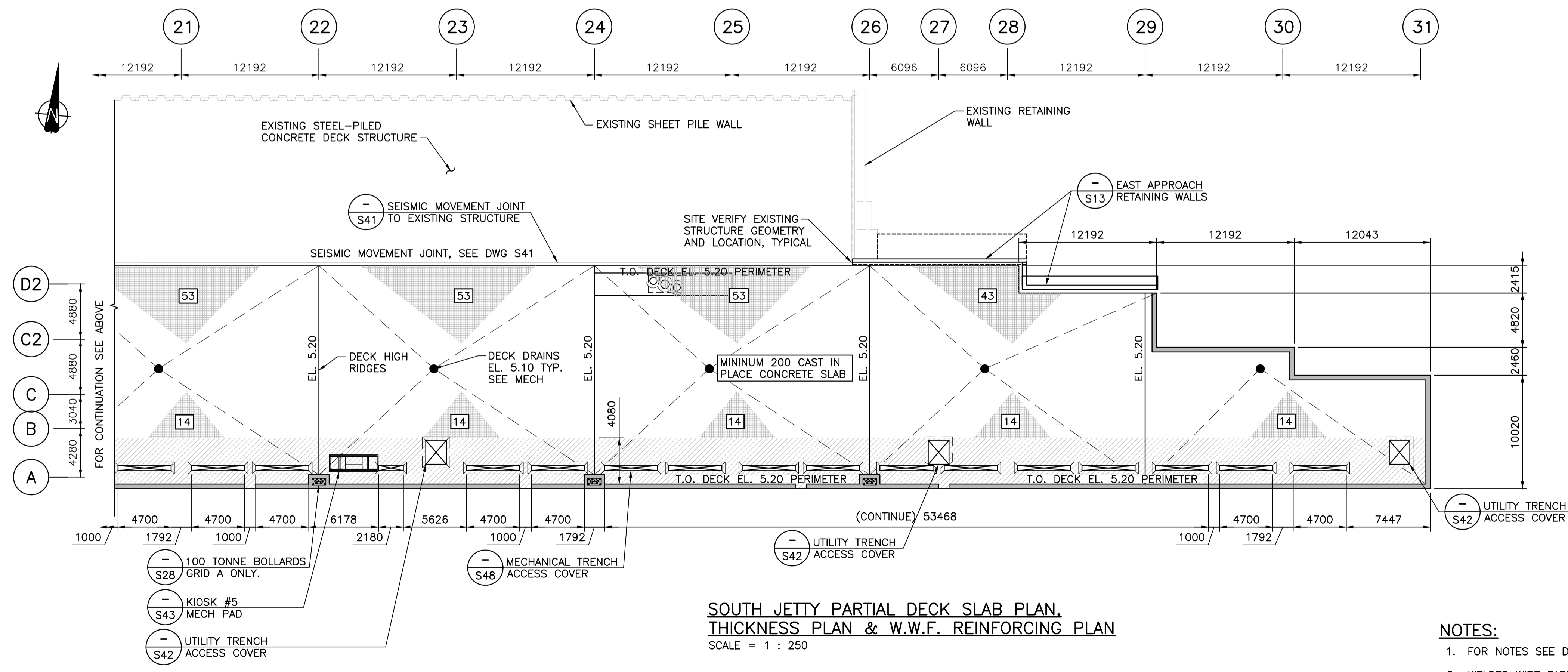
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST JETTY DECK
SLAB PLAN, THICKNESS PLAN &
W.W.F. REINFORCING PLAN**

Project No./No. du projet R.026729.002	Sheet/Feuille S11	Revision no./Le Révision no. 2
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SOUTH JETTY PARTIAL DECK SLAB PLAN, THICKNESS PLAN & W.W.F. REINFORCING PLAN
SCALE = 1 : 250



SOUTH JETTY PARTIAL DECK SLAB PLAN, THICKNESS PLAN & W.W.F. REINFORCING PLAN
SCALE = 1 : 250

LEGEND:

	EXTENT OF W.W.F. (152x152-MW9.1xMW9.1 WELDED WIRE FABRIC) WITH AREA IN m ²
	EXTENT OF SLAB THICKNESS > 350
	EXTENT OF BULL RAIL CURB & BOLLARD PEDESTALS SEE S47

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - WELDED WIRE FABRIC IS REQUIRED IN HATCHED AREAS SHOWN (SEE LEGEND) WHERE CONCRETE DECK EXCEEDS 250mm THICK DUE TO DRAINAGE SLOPES. MAINTAIN 70mm COVER FROM TOP OF SLOPED DECK TO FABRIC.
 - COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

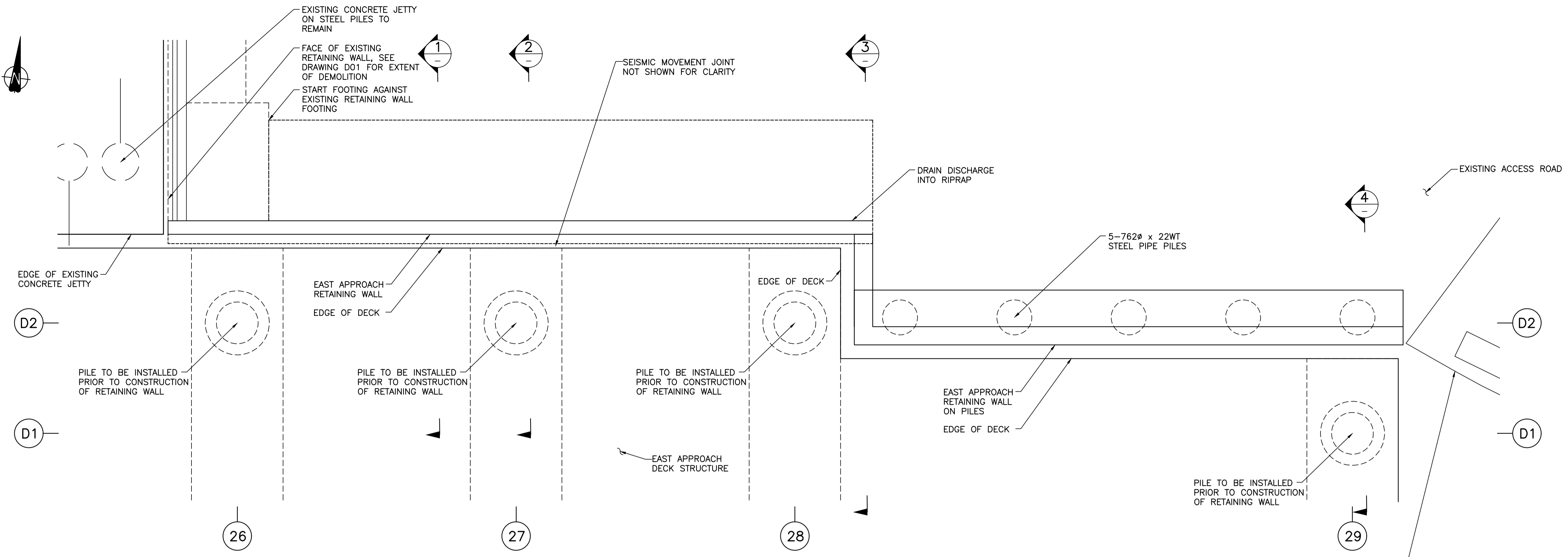
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

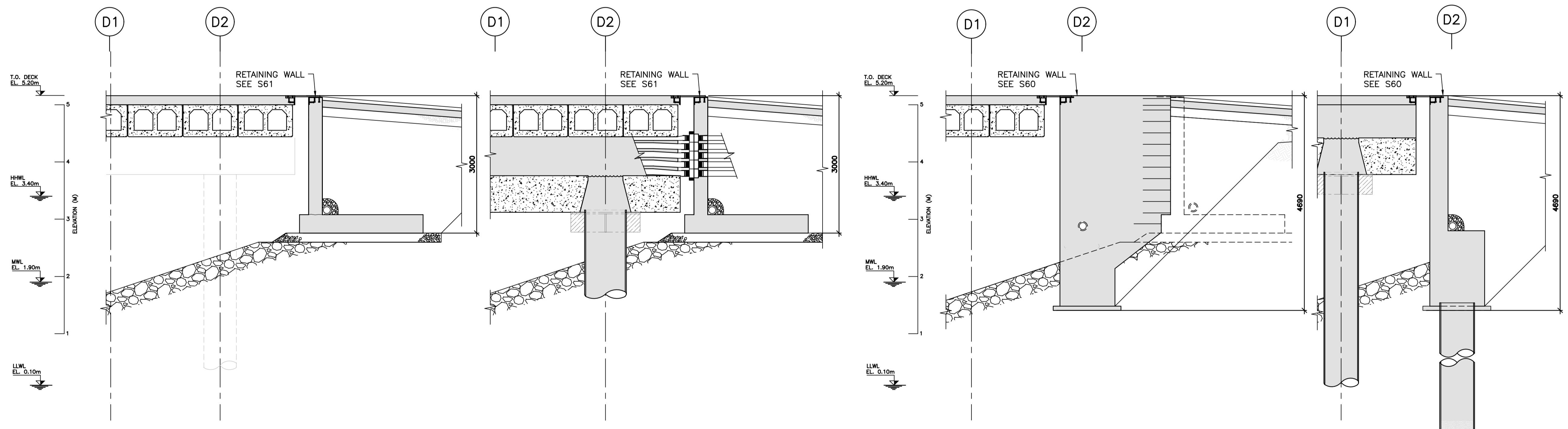
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
SOUTH JETTY DECK SLAB PLAN, THICKNESS PLAN & W.W.F. REINFORCING PLAN

Project No./No. du projet R.026729.002	Sheet/ S12	Revision no./ 2
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SOUTH JETTY APPROACH RETAINING WALLS PLAN
1:50



SECTION 1
SCALE 1:25

SECTION 2
SCALE 1:25

SECTION 3
SCALE 1:25

SECTION 4
SCALE 1:25

- NOTES:**
- FOR NOTES SEE DWG. G1.
 - COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

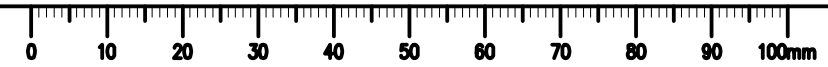
Drawn by/Dessiné par
BOG

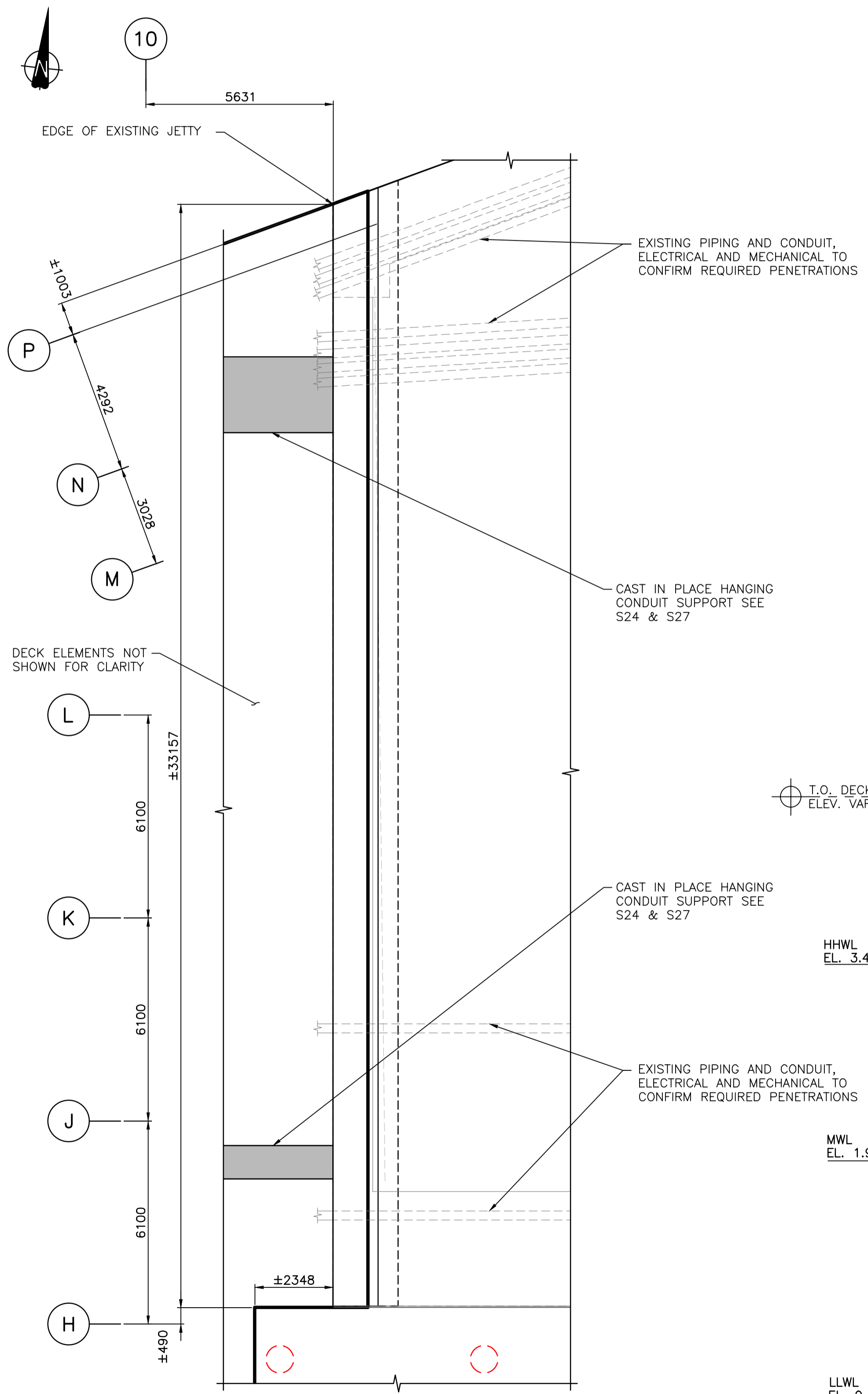
PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

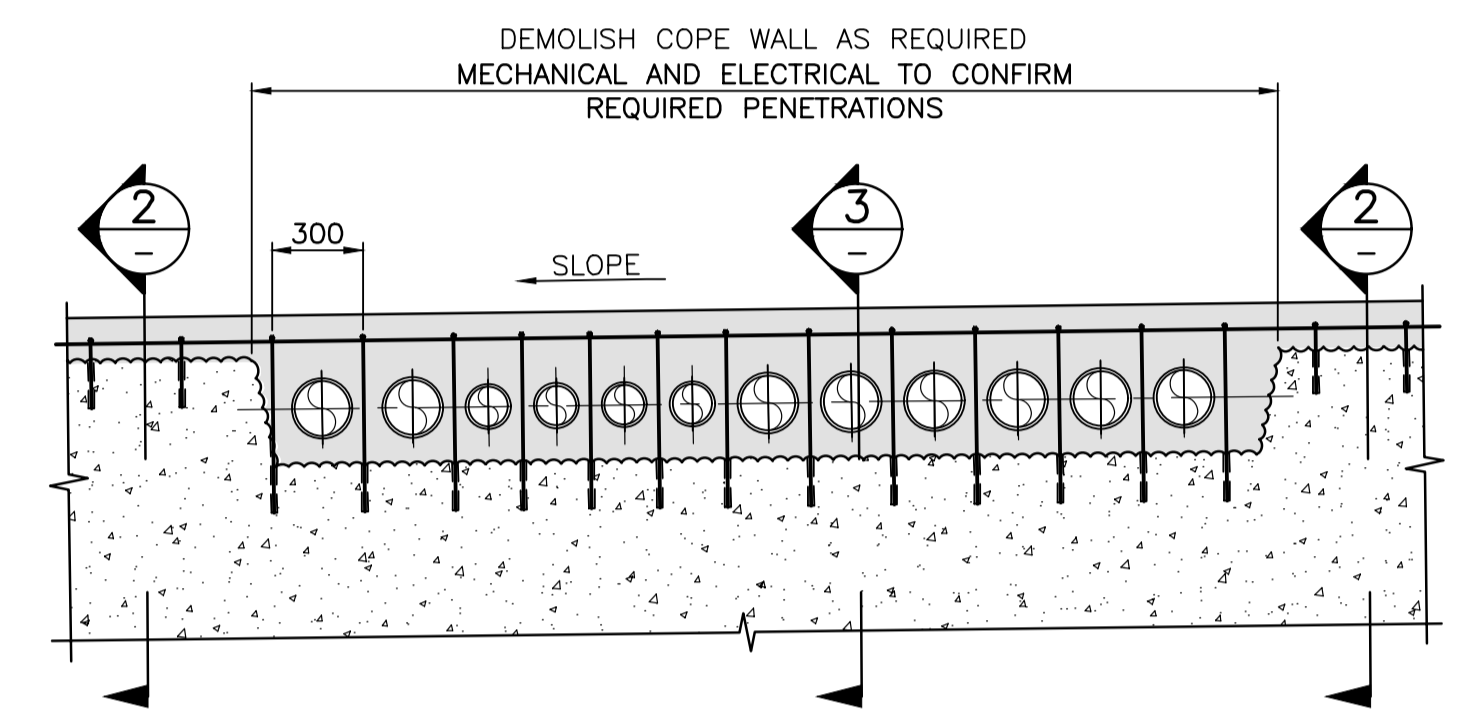
Drawing title/Titre du dessin
SOUTH JETTY EAST APPROACH RETAINING WALLS PLAN

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S13	2

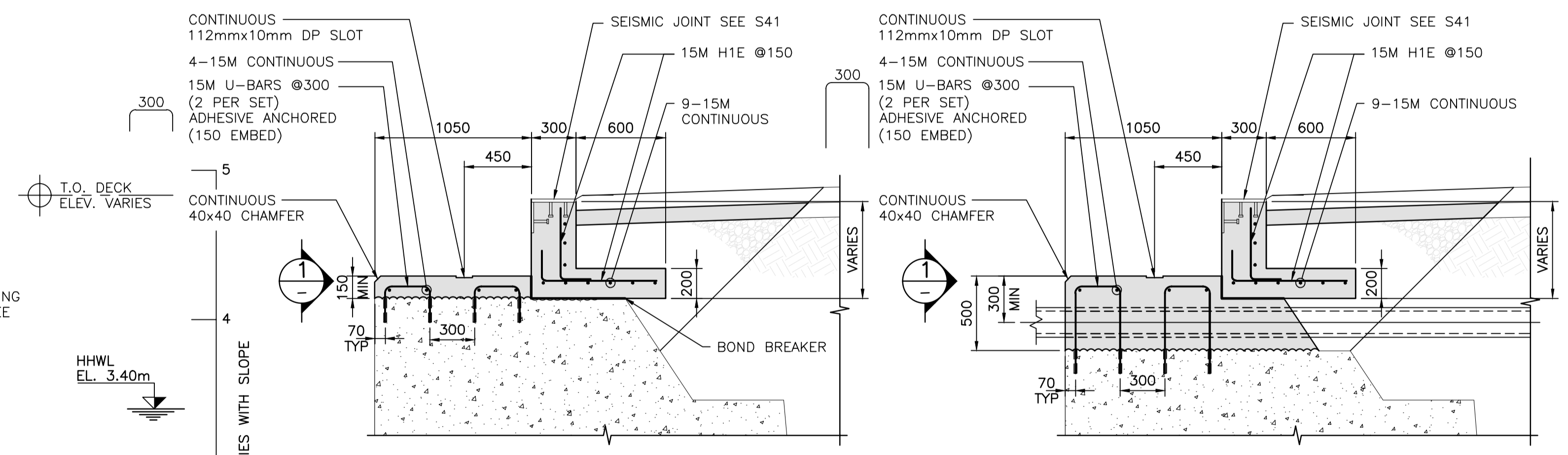




COPE WALL CAP PLAN
1:100



TYPICAL PENETRATION ELEVATION 1
SCALE 1: 25



SECTION 2
SCALE 1: 25

SECTION 3
SCALE 1: 25

- NOTES:**
- FOR NOTES SEE DWG. G1.
 - COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision	Description/Description	Date/Date
2	REISSUED FOR TENDER	20170306
1	ISSUED FOR TENDER	20170327

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

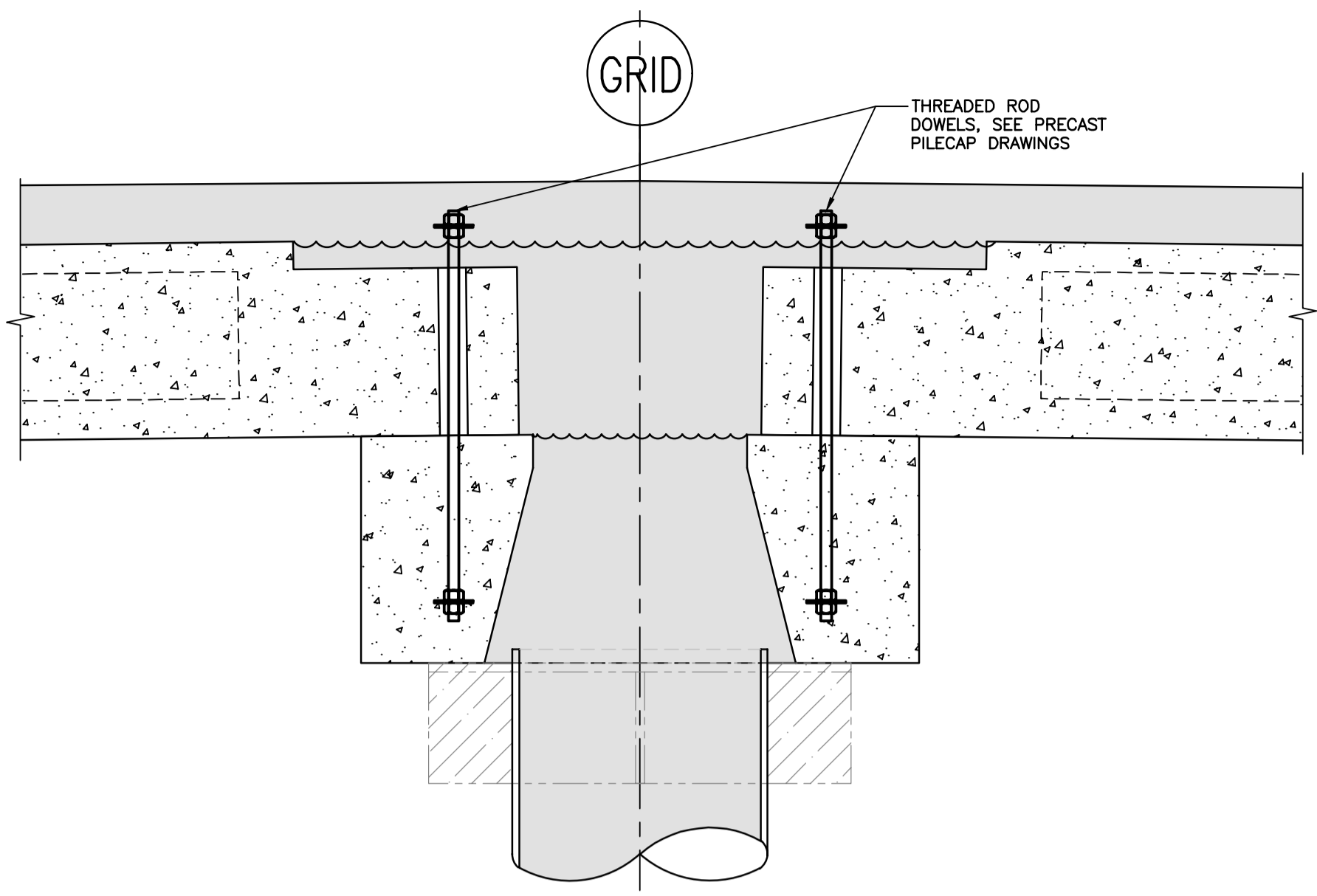
Drawn by/Dessiné par
BOG

PWOSC Project Manager/Administrateur de Projets /PSCG
PATRICK TRUONG

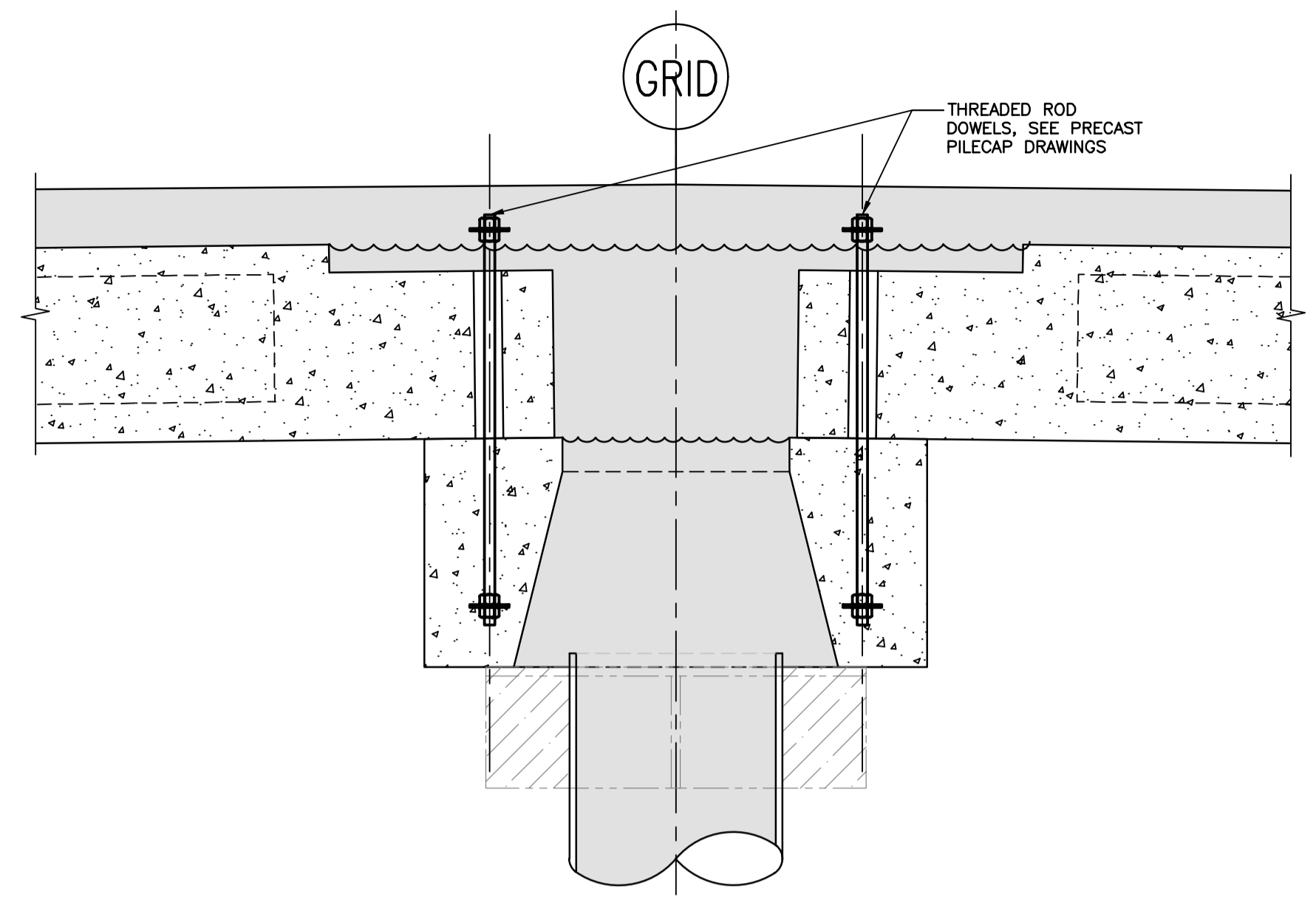
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**WEST JETTY
COPE WALL PLAN
& DETAILS**

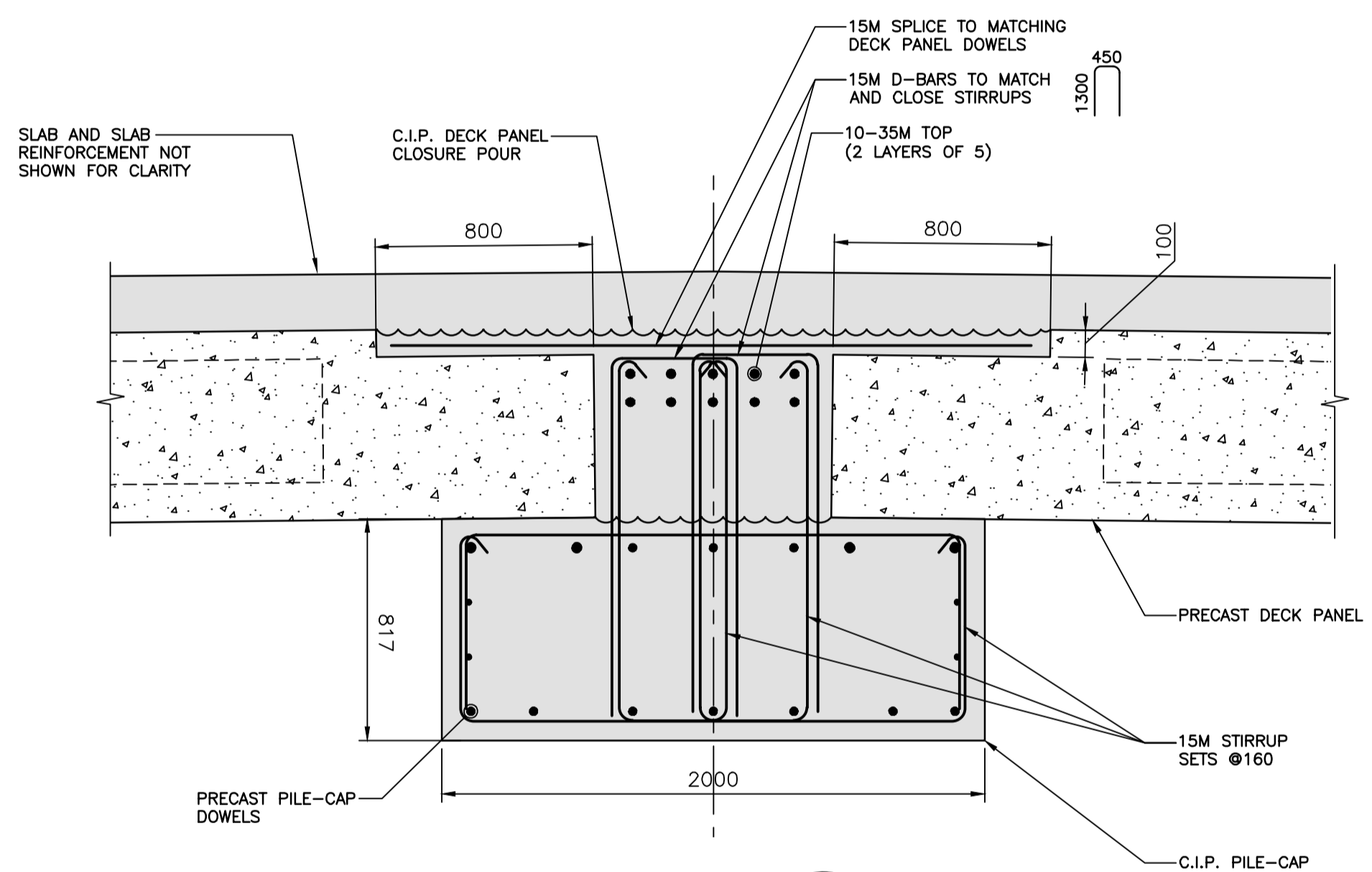
Project No./No. du projet	Sheet/Feuille	Revision no./No. Révision
R.026729.002	S14	2



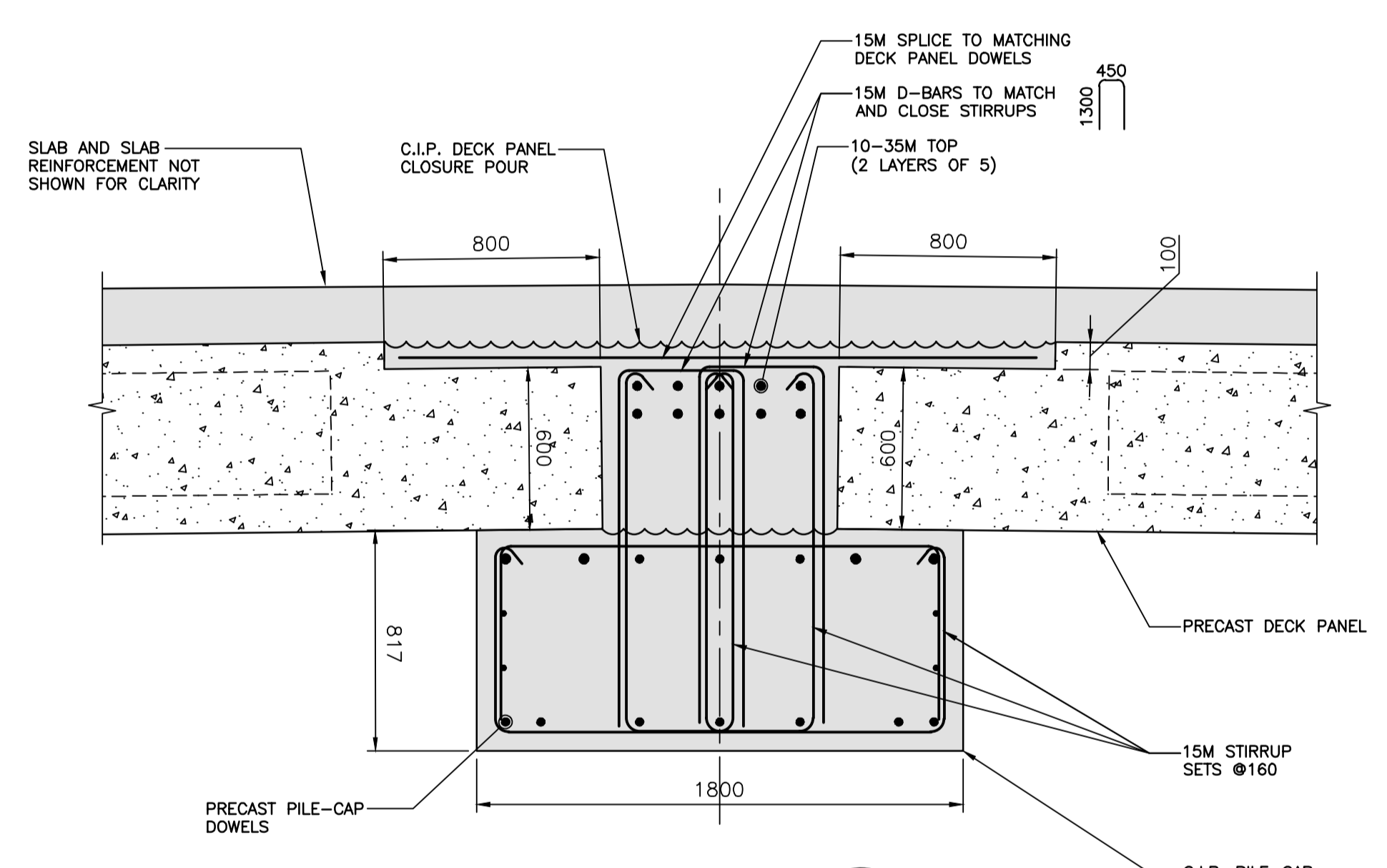
SECTION 1
SCALE 1: 20
S07,S08



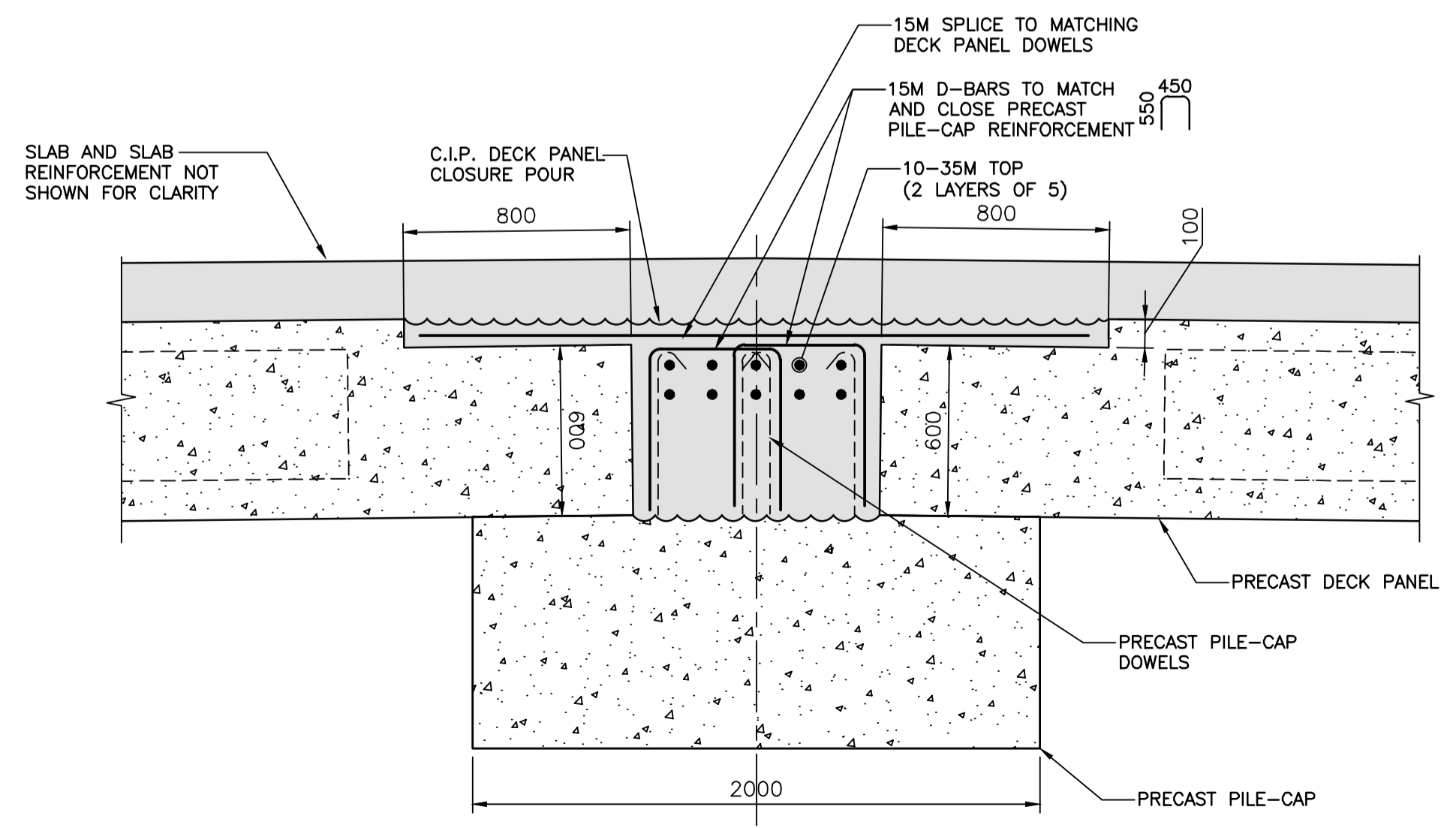
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SCALE 1: 20
S07,S08



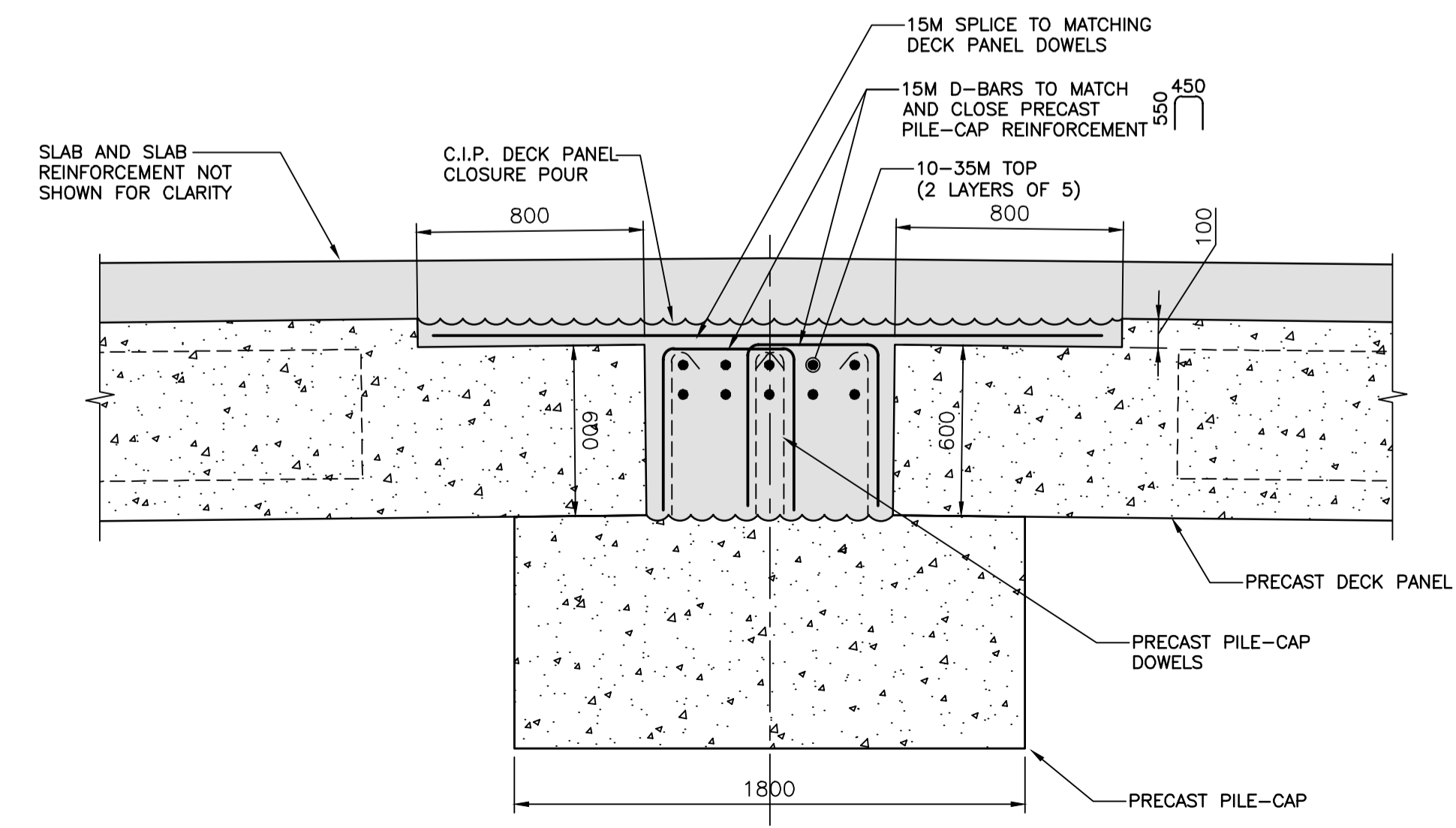
SECTION 3
SCALE 1: 20
S07,S08



SECTION 4
SCALE 1: 20
S07,S08



SECTION 5
SCALE 1: 20
S07,S08



SECTION 6
SCALE 1: 20
S07,S08

NOTES:
1. FOR NOTES SEE DWG. G1.
2. COORDINATE SLEEVES FOR SERVICES, SEE MECHANICAL AND ELECTRICAL TYPICAL.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

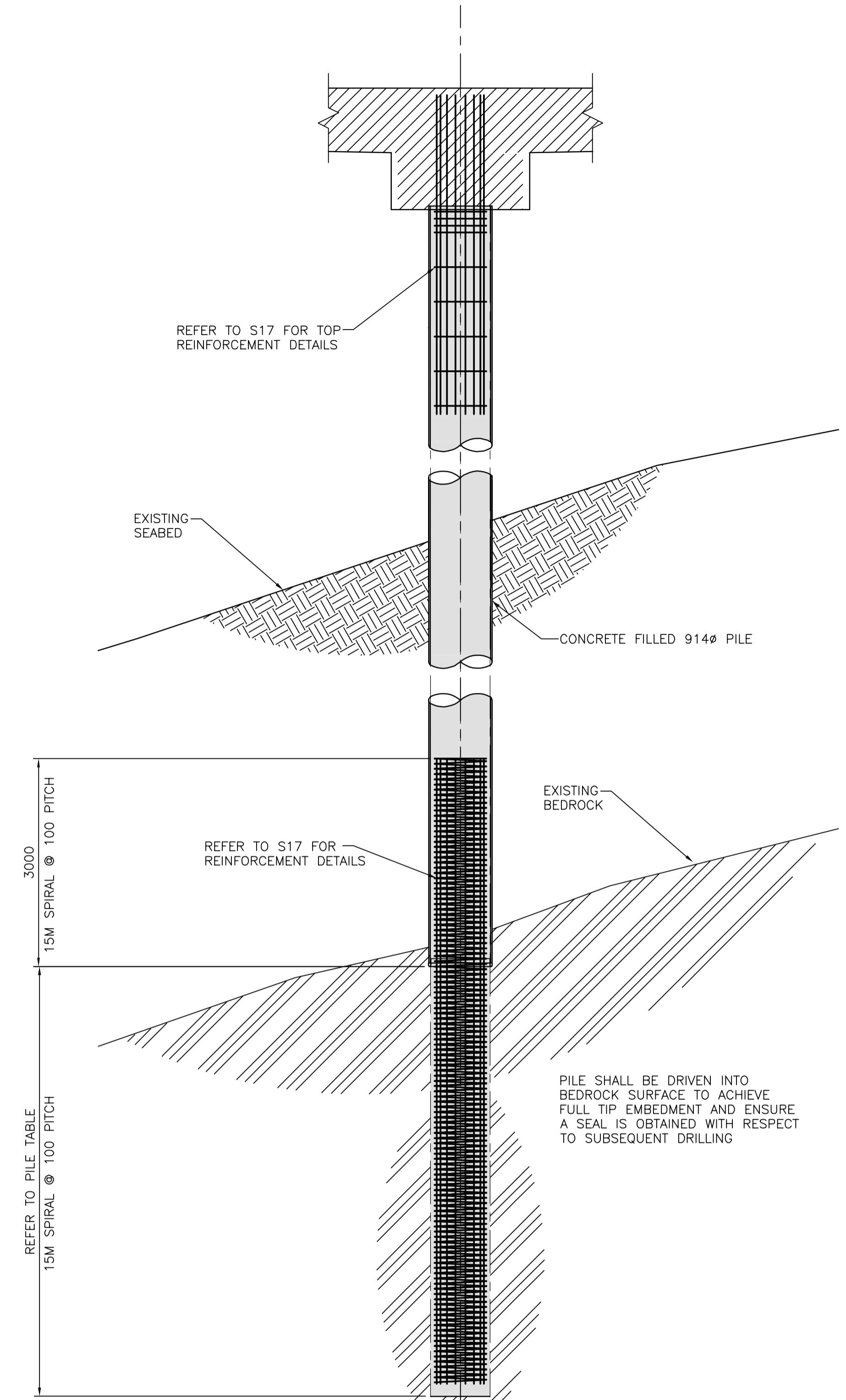
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

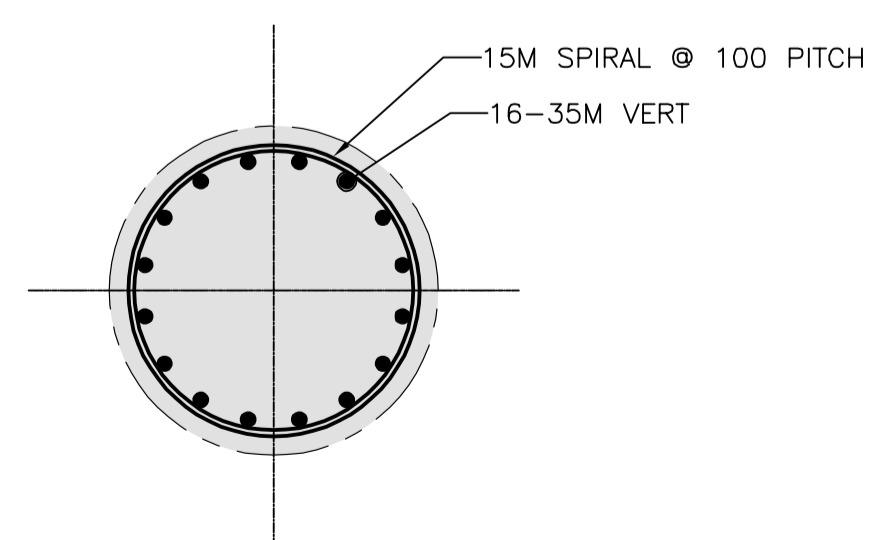
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**CLOSURE POUR
TYPICAL REINFORCEMENT**

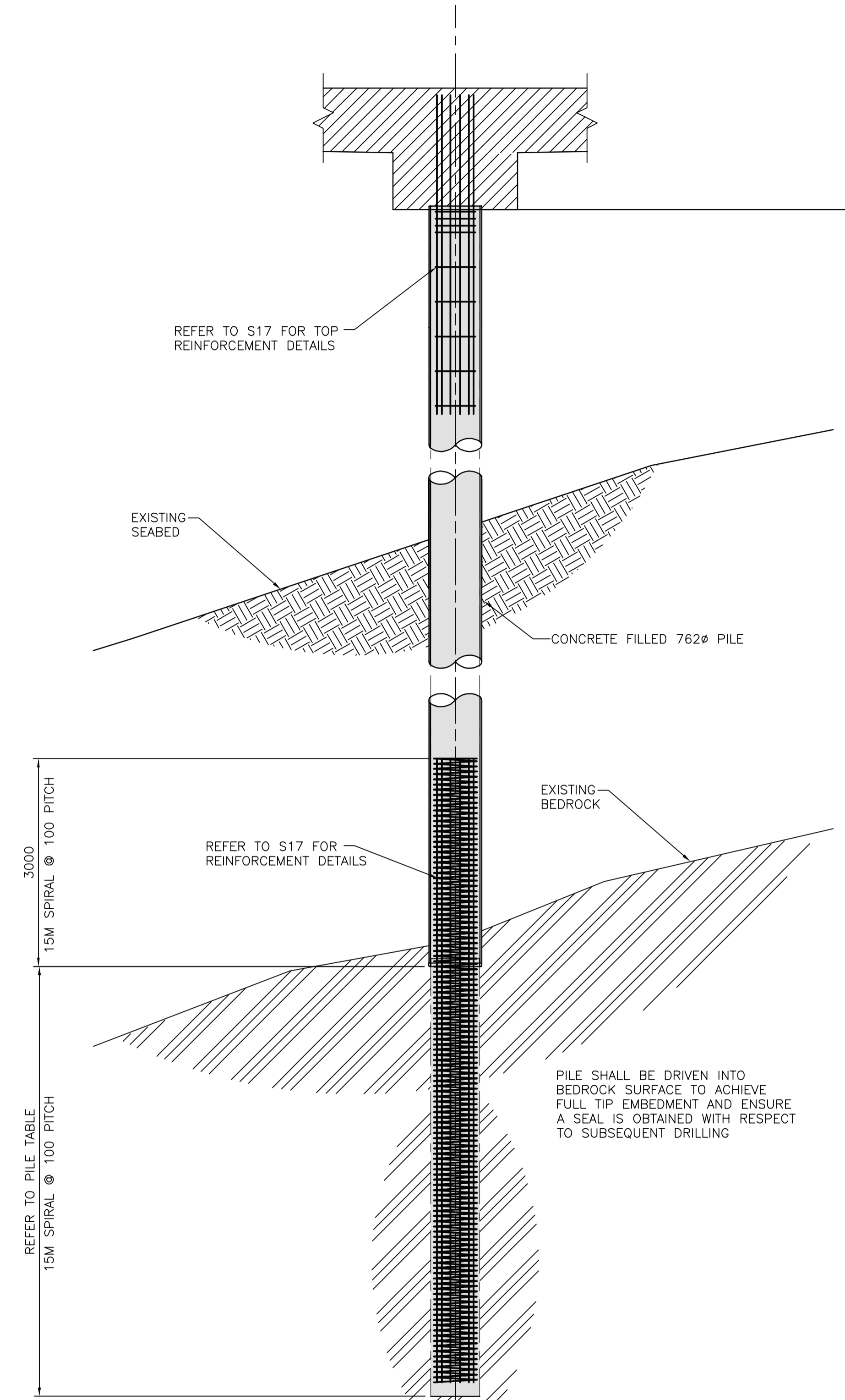
Project No./No. du projet R.026729.002	Sheet/Feuille S15	Revision no./ La Révision no. 2
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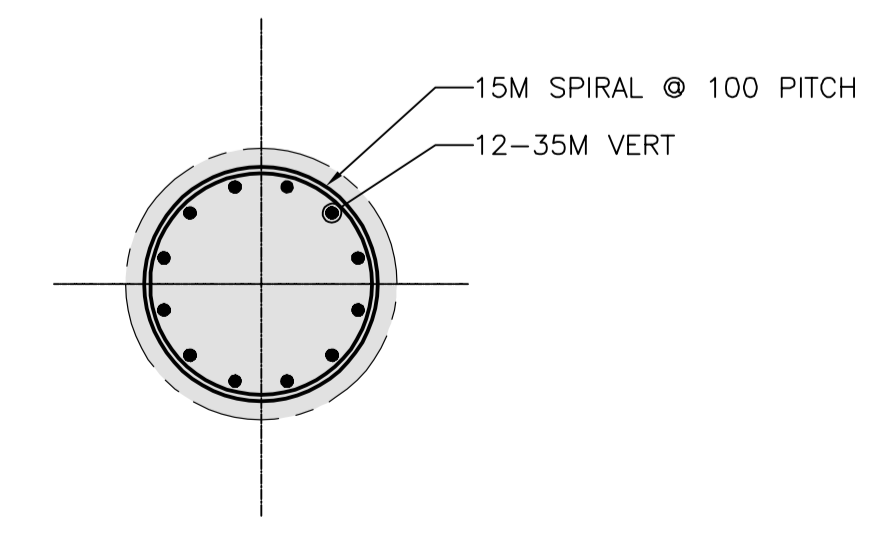
914Ø PILE
1:50



850Ø ROCK SOCKET
1:20



762Ø PILE
1:50



706Ø ROCK SOCKET
1:20

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/13

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

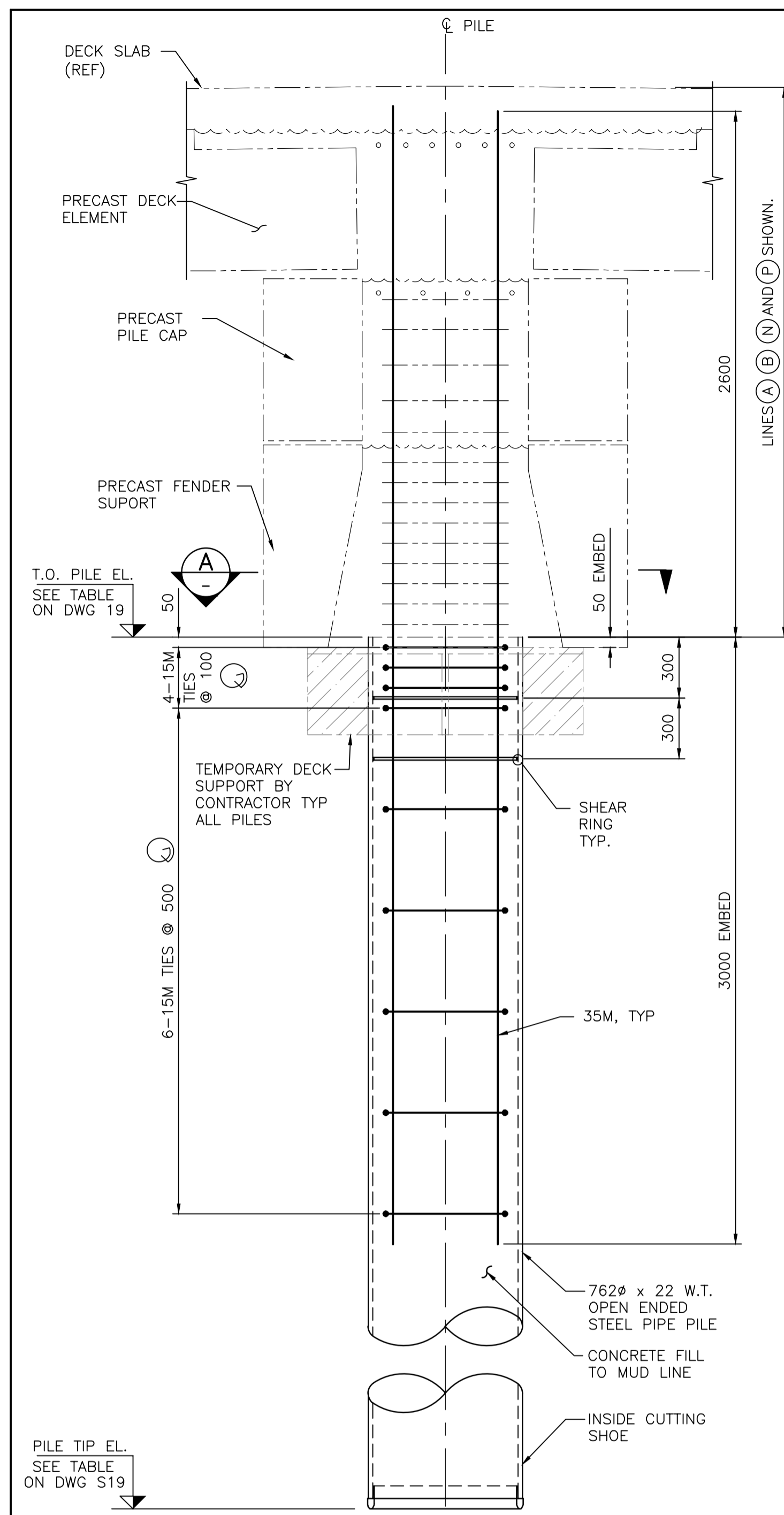
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

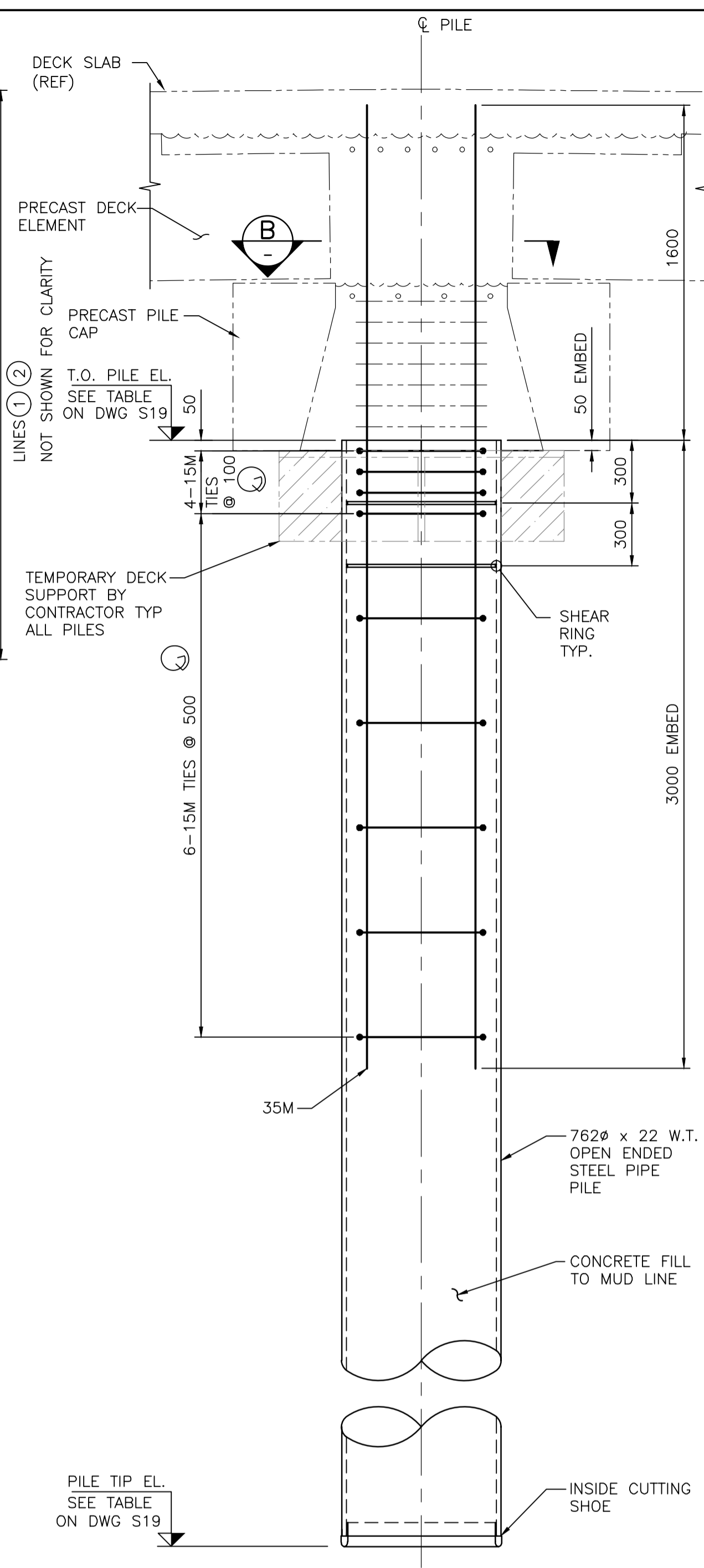
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**ROCK SOCKET PILES
SECTIONS AND DETAILS**

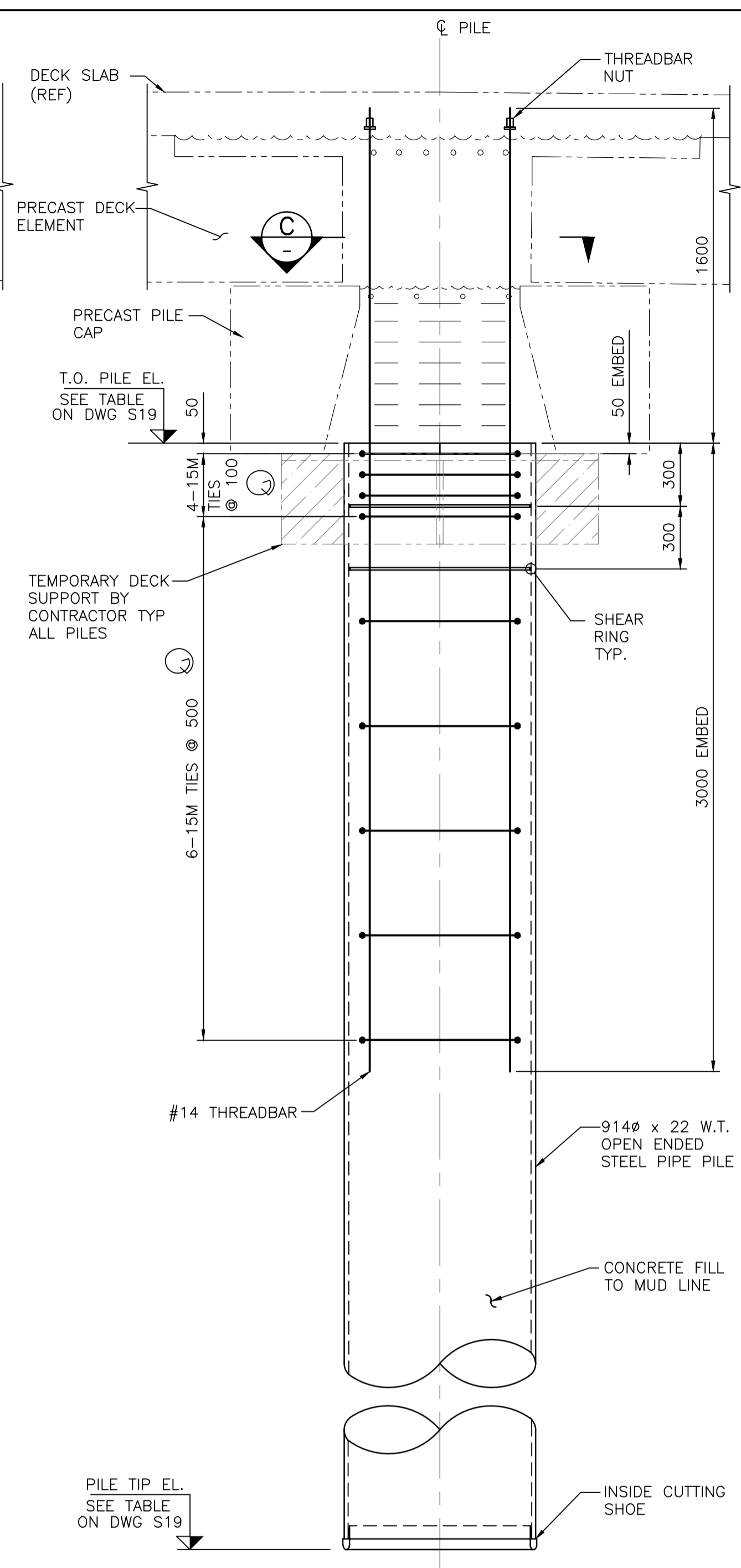
Project No./No. du projet R.026729.002	Sheet/Fauille S16	Revision no./La Révision no. 2
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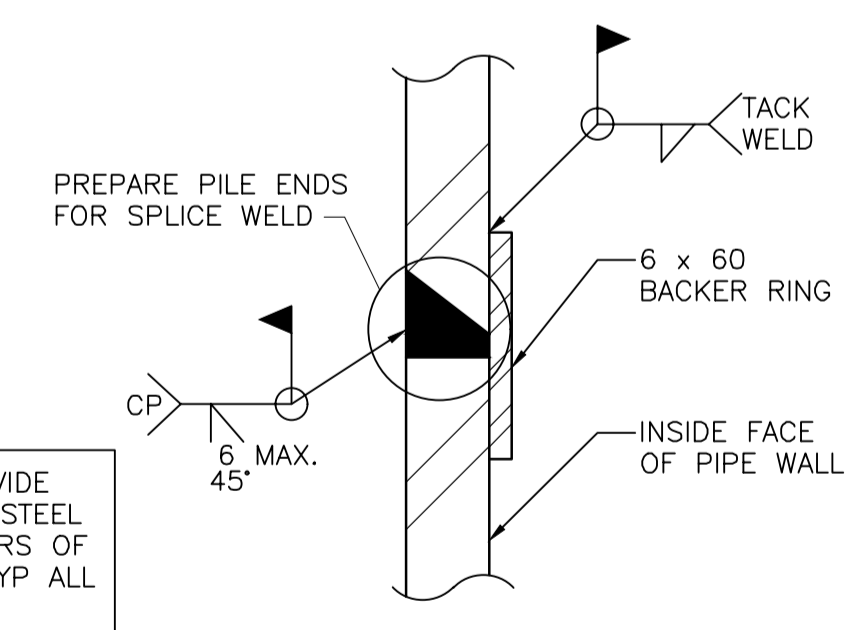
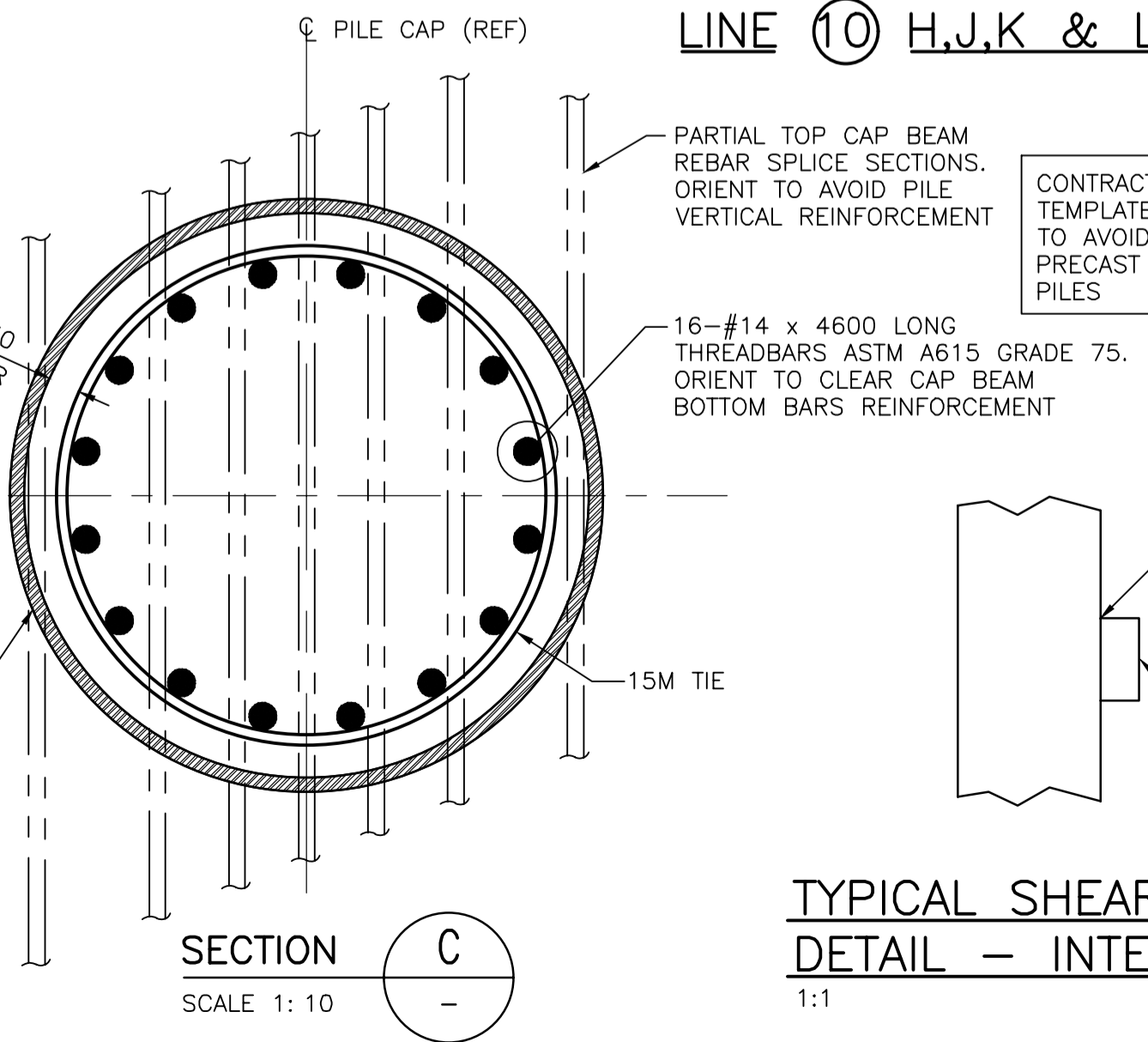
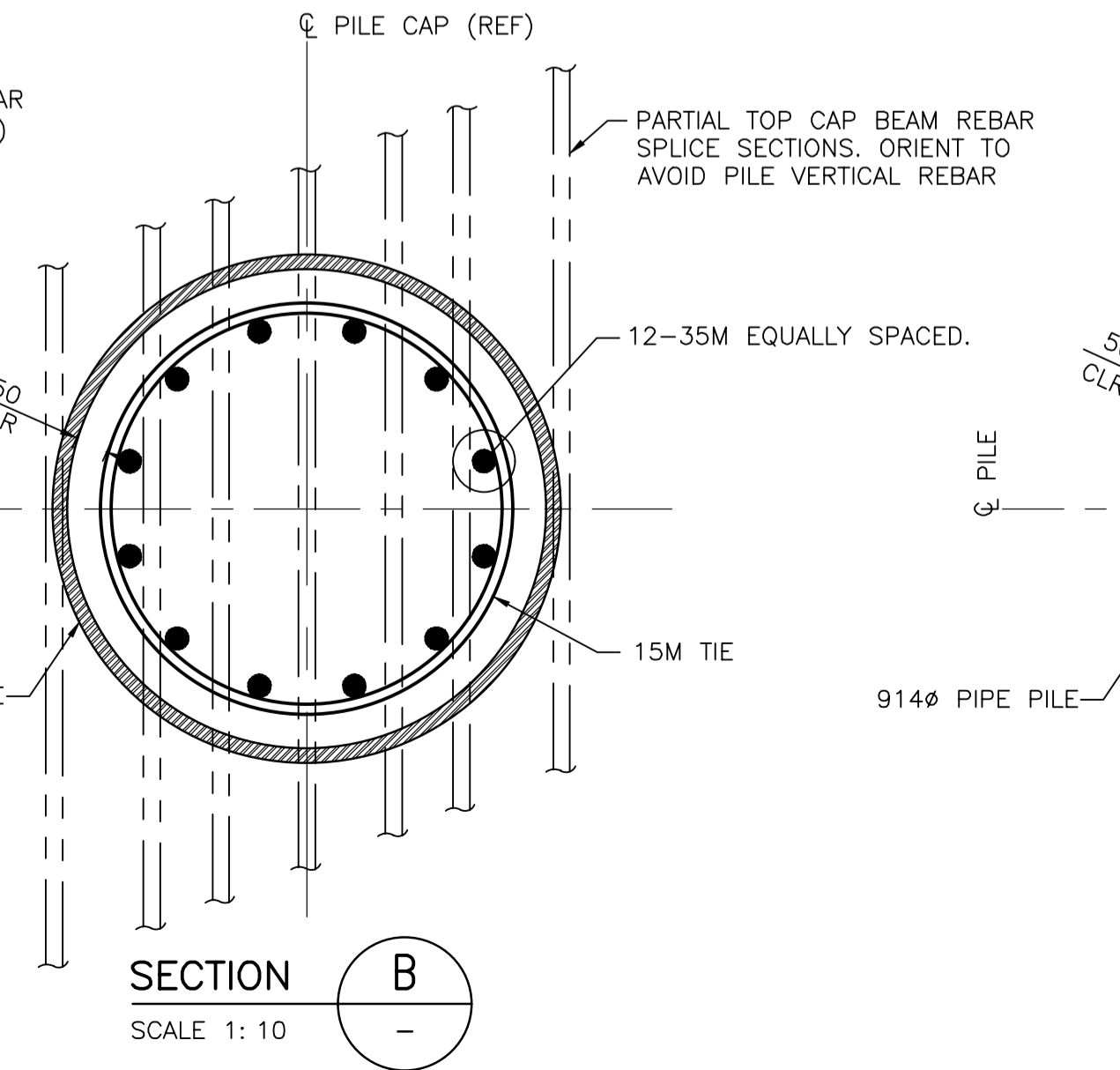
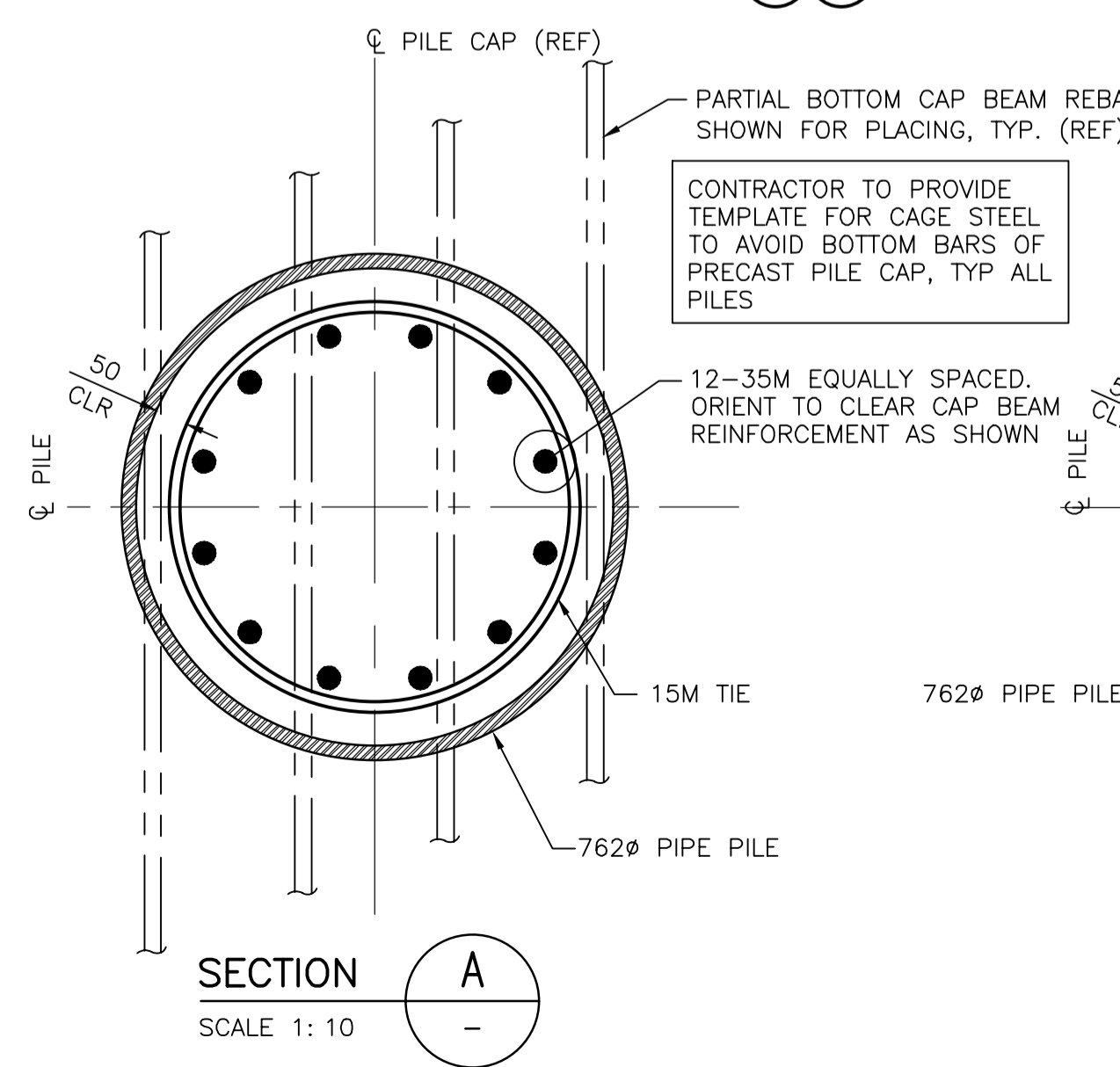
762 ϕ PILE – TYPICAL FOR LINES (A)(B)(N)(P)
1:20



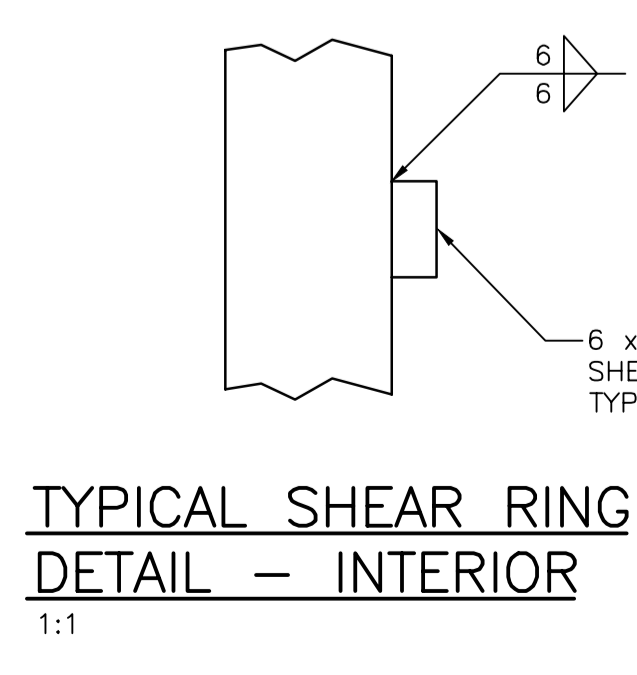
762 ϕ PILE – TYPICAL FOR REMAINDER EXCEPT AT DISPLACEMENT CONTROL PILES
1:20



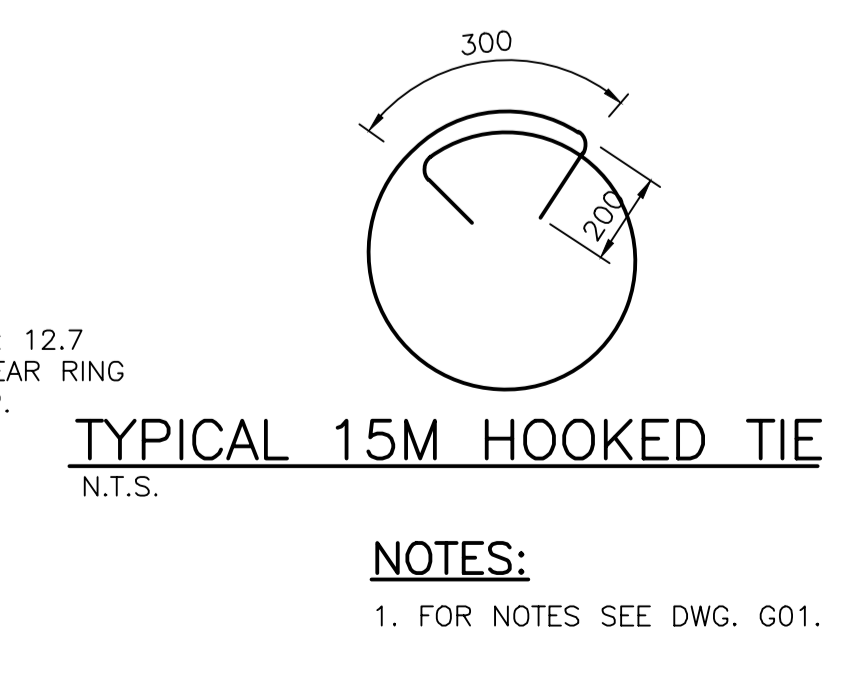
914 ϕ PILE – TYPICAL FOR LINES (11) THRU (31) LINE (10) H, J, K & L
1:20



TYPICAL PIPE PILE SPLICE DETAIL
1:2



TYPICAL SHEAR RING DETAIL – INTERIOR
1:1



TYPICAL 15M HOOKED TIE
N.T.S.

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/04
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/14

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

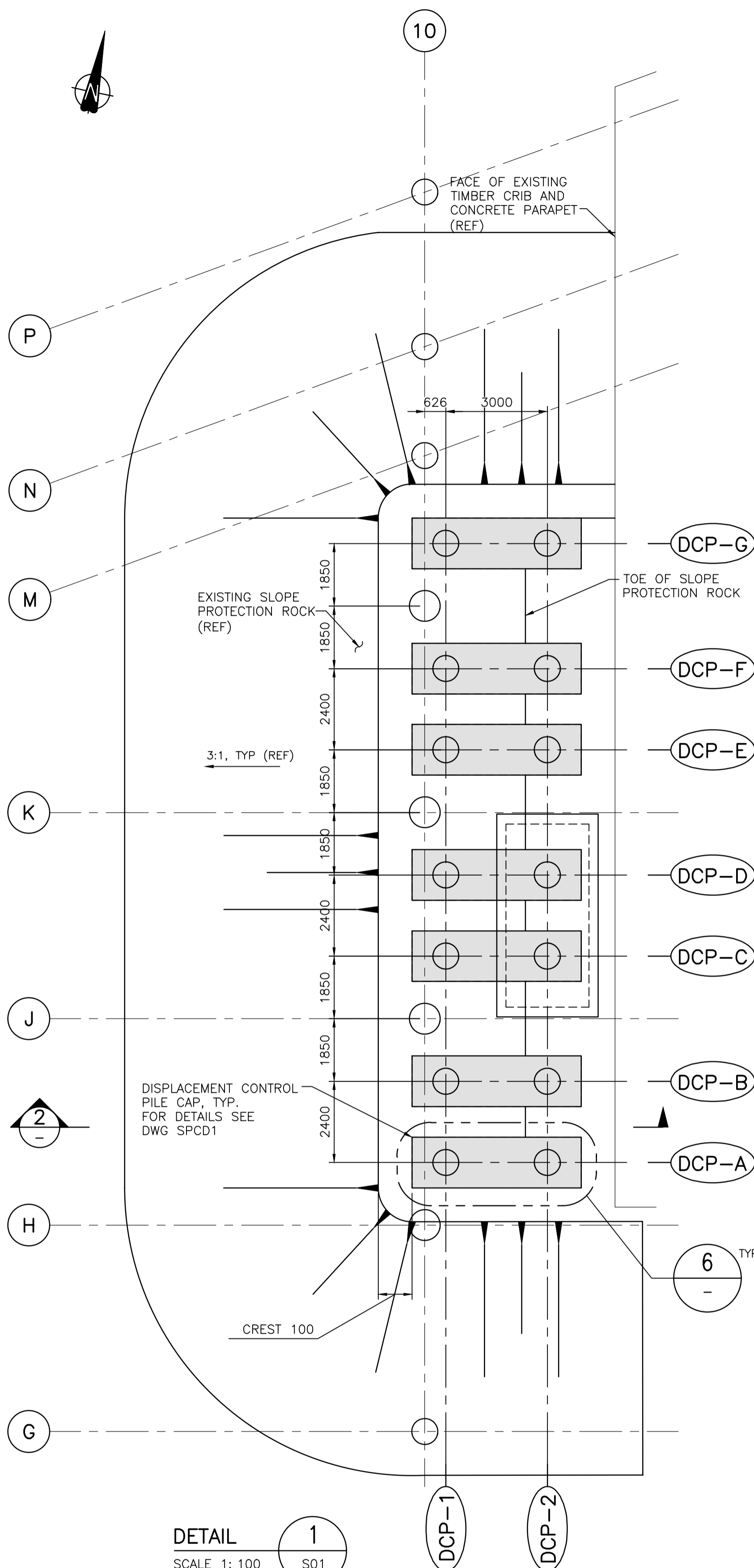
Drawn by/Dessiné par
BOG

PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

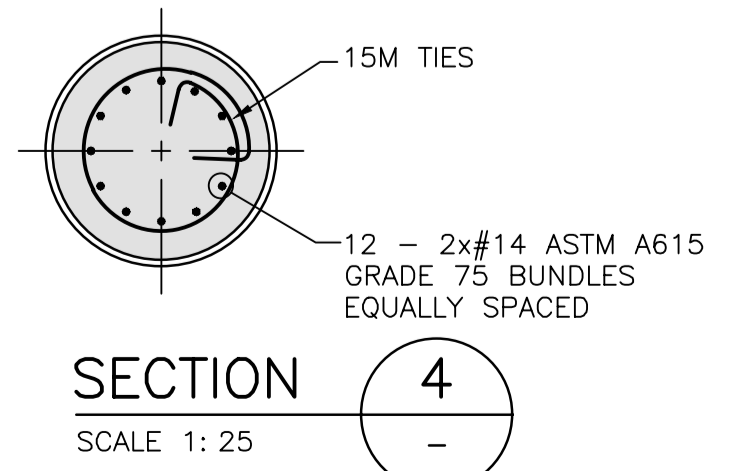
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PILES
SECTIONS AND DETAILS**

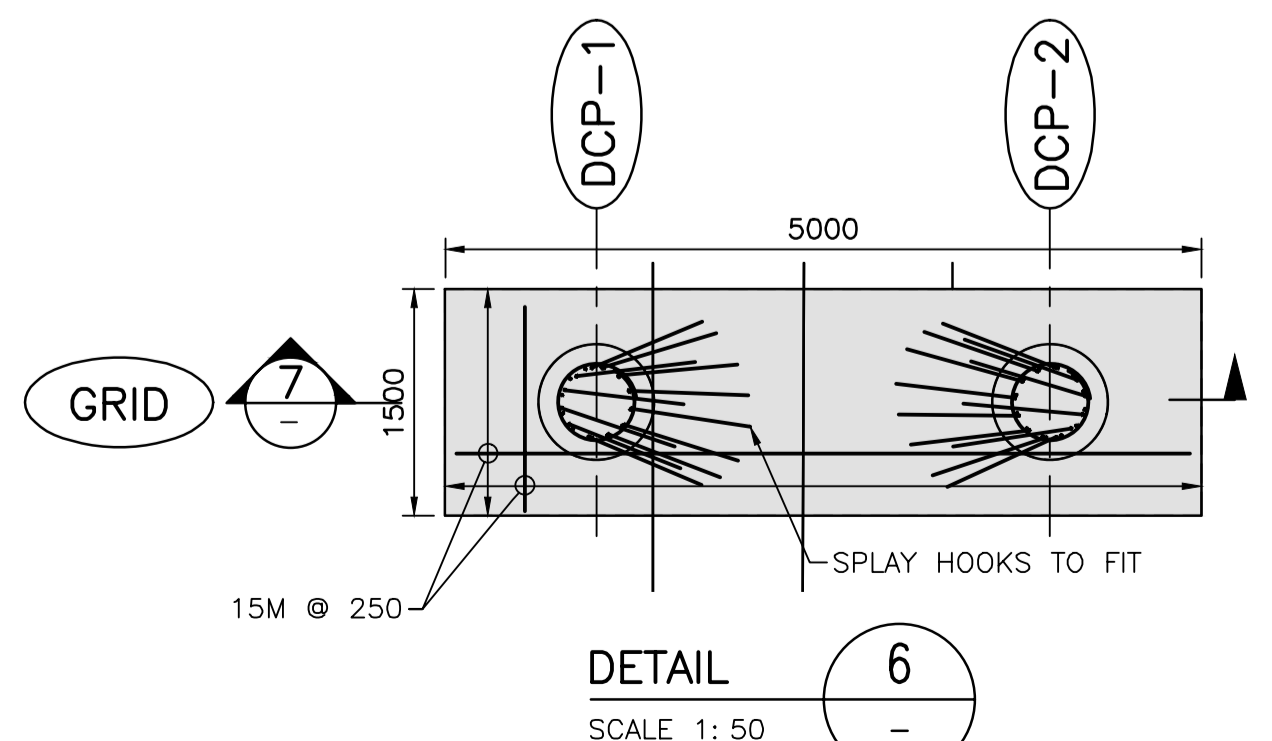
Project No./No. du projet R.026729.002	Sheet/Feuille S17	Revision no./Loi Révision no. 2
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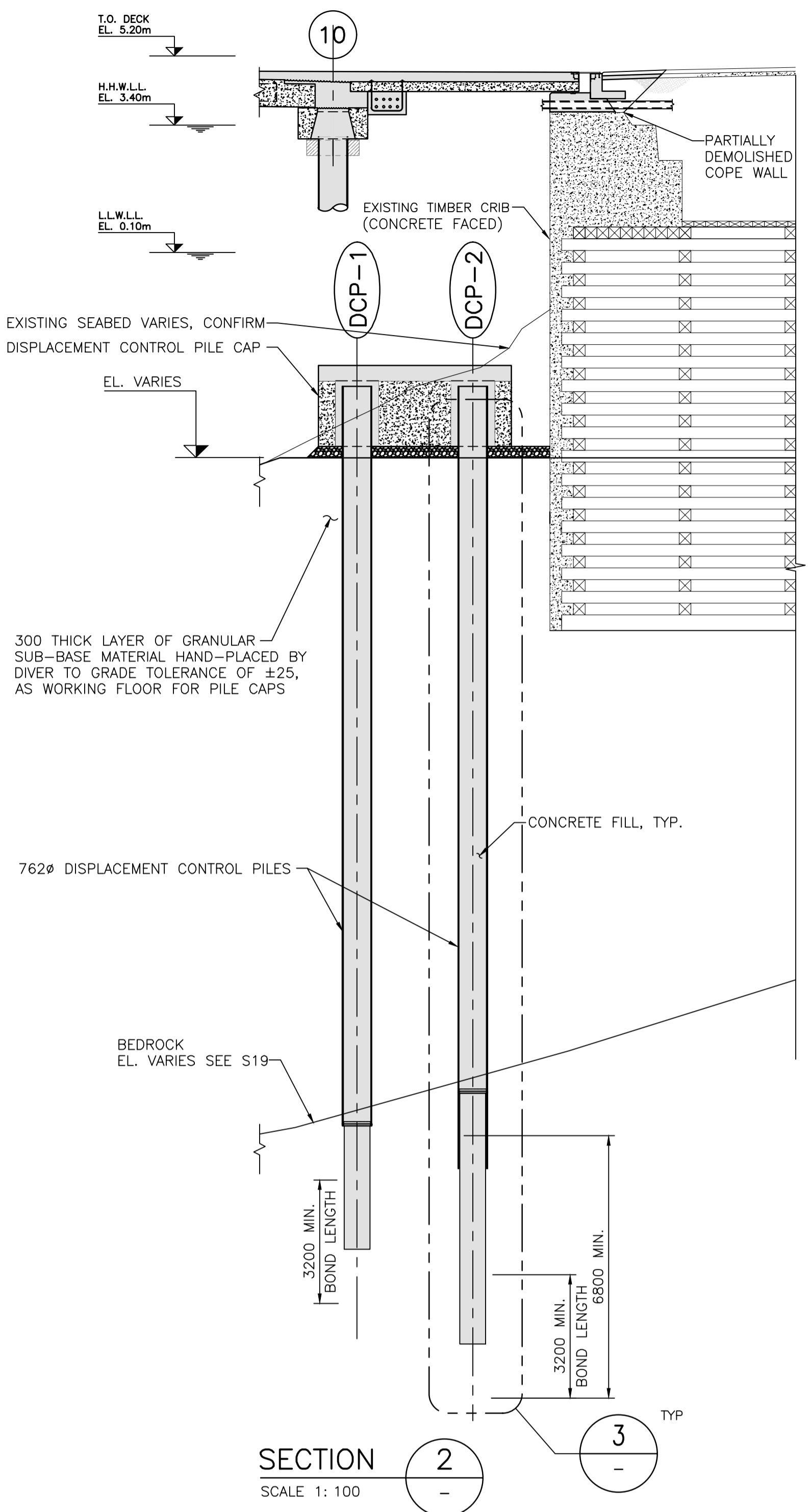
DETAIL 1
SCALE 1: 100
S01



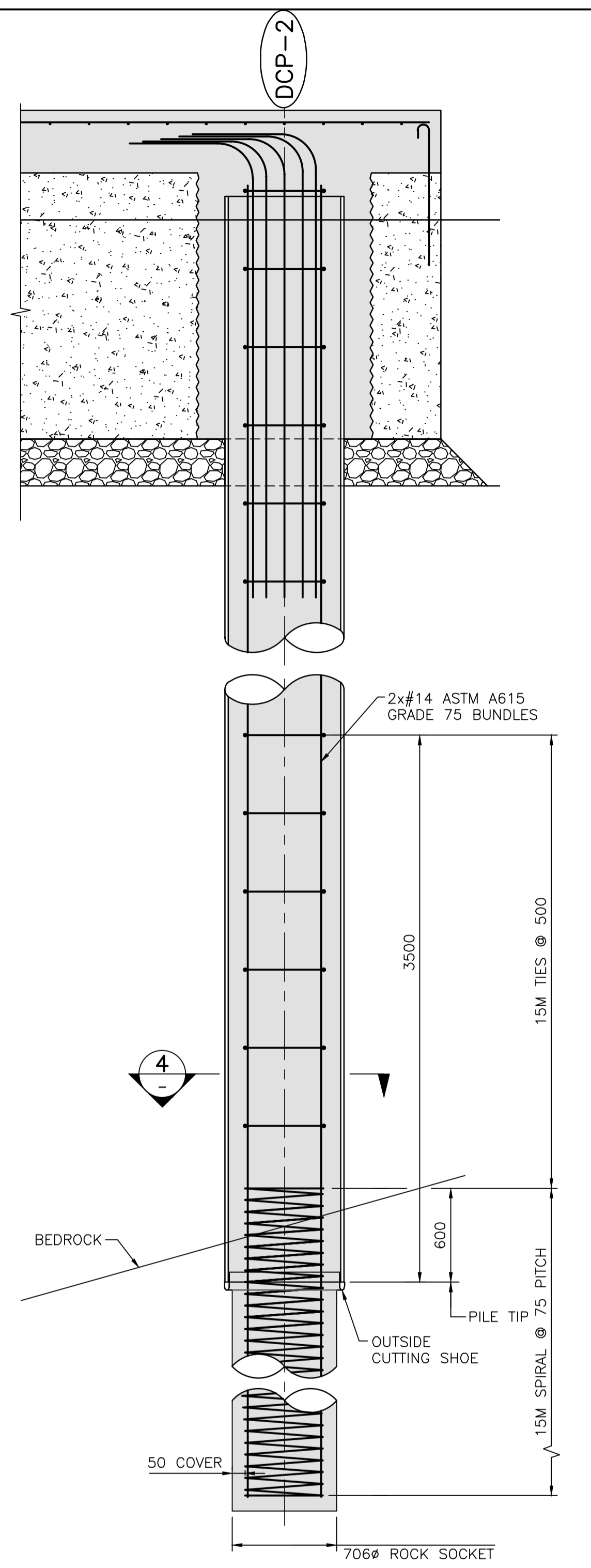
NOT USED
DETAIL 5
SCALE 1: 1



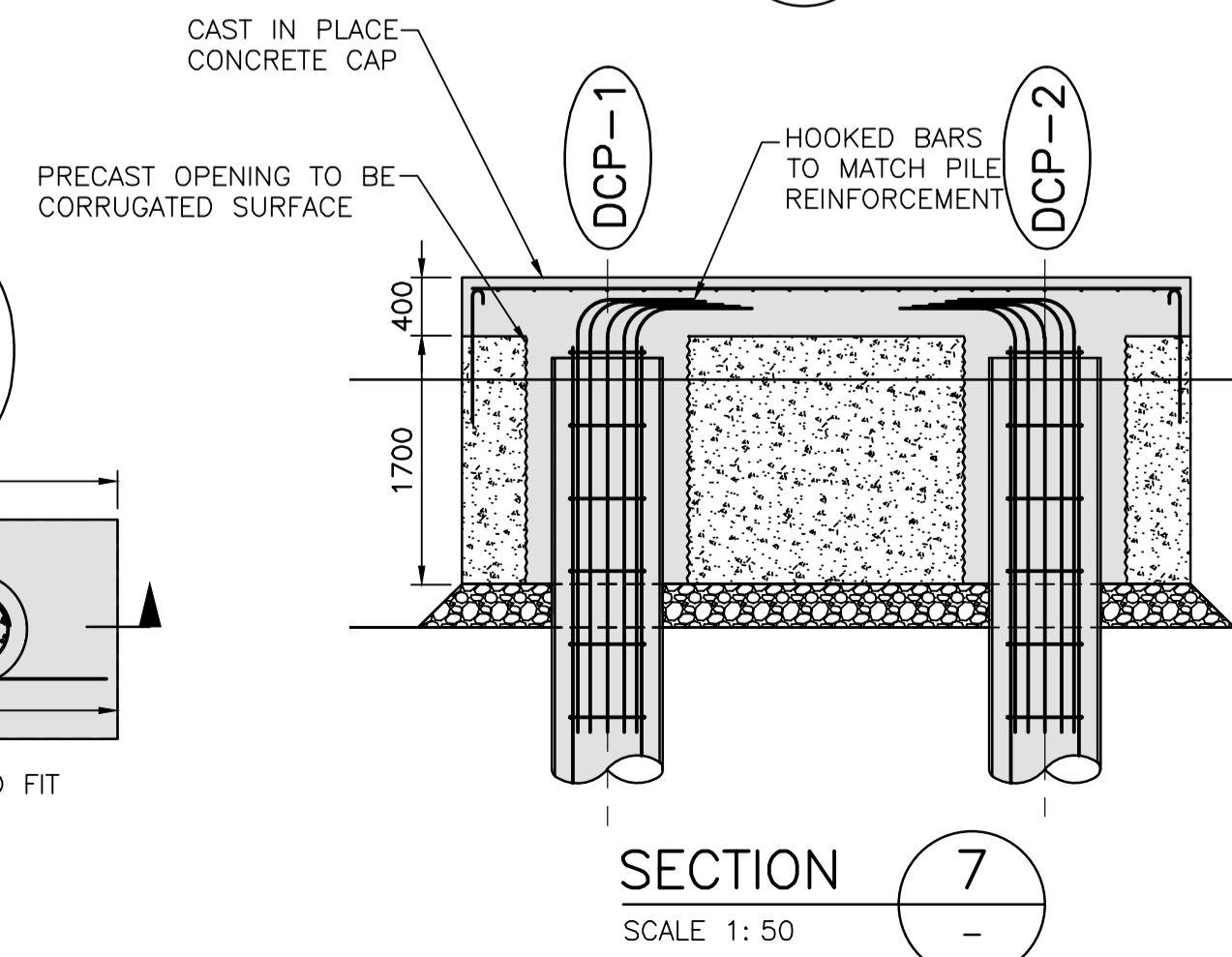
DETAIL 6
SCALE 1: 50



SECTION 2
SCALE 1: 100



DETAIL 3
SCALE 1: 25



SECTION 7
SCALE 1: 50

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - INSTALL DISPLACEMENT PILE CAPS AFTER INSTALLATION OF PILE LINES 9 & 10 PILES P THROUGH F.
 - DISPLACEMENT CONTROL PILE CAP CLOSURE CONCRETE TO BE PLACED BY TREMIE METHOD, SEE SPECIFICATIONS.
 - PILE INFILL CONCRETE, SEE SPECIFICATIONS.
 - ROCK SOCKET CONCRETE, SEE SPECIFICATIONS.



Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
 KU, TW

Drawn by/Dessiné par
 BOG

PWSC Project Manager/Administrateur de Projets TPSCG
 PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
 Regional Manager, Environmental Services
 PREETIPAL PAUL

Drawing title/Titre du dessin
WEST JETTY DISPLACEMENT CONTROL PILES SECTIONS AND DETAILS

Project No./No. du projet	Sheet/Feuille	Revision no./Loi Révision no.
R.026729.002	S18	2

WEST JETTY PILES									
BAY LINE	BAY LINE	PILE DIA (mm)	PILE TYPE	ELEVATION TOP OF PILE	DESIGN TOE ELEVATION	DESIGN PILE LENGTH	DESIGN COATING LENGTH	SOCKET LENGTH	FABRICATED PILE LENGTH
1	A	762	Type 1	2.550	-57	60	22	N/A	63
1	B1	762	Type 1	1.900	-58	60	21	N/A	63
1	D1	762	Type 1	1.900	-54	56	21	N/A	59
1	E1	762	Type 1	1.900	-52	54	21	N/A	57
1	F1	762	Type 1	1.900	-50	52	21	N/A	55
1	P	762	Type 2	2.550	-44	46	21	3.5	49
2	B1	762	Type 1	2.550	-57	60	21	N/A	63
2	D1	762	Type 1	2.550	-54	56	21	N/A	59
2	E1[E2]	762	Type 1	2.550	-52	54	21	N/A	57
2	F1	762	Type 1	2.550	-49	52	21	N/A	55
3	A	762	Type 1	1.900	-58	60	22	N/A	63
3	B	762	Type 1	2.550	-58	61	21	N/A	64
3	C	762	Type 1	3.550	-58	62	21	N/A	65
3	D	762	Type 1	3.550	-54	57	21	N/A	60
3	E	762	Type 1	3.550	-56	60	21	N/A	63
3	F	762	Type 1	3.550	-55	58	21	N/A	61
3	M	762	Type 1	3.550	-49	52	21	N/A	55
3	N	762	Type 1	2.550	-48	51	21	N/A	54
3	P	762	Type 2	1.900	-42	44	21	3.5	47
4	A	762	Type 1	1.900	-55	57	21	N/A	60
4	B	762	Type 1	2.550	-58	61	21	N/A	64
4	C	762	Type 1	3.550	-58	61	21	N/A	64
4	D	762	Type 1	3.550	-52	56	21	N/A	59
4	E	762	Type 1	3.550	-50	54	21	N/A	57
4	F	762	Type 1	3.550	-49	52	21	N/A	55
4	G	762	Type 1	3.550	-47	50	21	N/A	53
4	M	762	Type 2	3.550	-41	45	21	3.5	48
4	N	762	Type 2	2.550	-40	43	21	3.5	46
4	P	762	Type 2	1.900	-39	41	21	3.5	44
5	A	762	Type 1	1.900	-54	56	21	N/A	59
5	B	762	Type 1	2.550	-57	60	21	N/A	63
5	C	762	Type 1	3.550	-56	60	21	N/A	63
5	D	762	Type 1	3.550	-50	54	21	N/A	57
5	E	762	Type 1	3.550	-49	52	21	N/A	55

NOTE: FABRICATED PILE LENGTH INCLUDES A 3m CUT-OFF ALLOWANCE

WEST JETTY PILES									
BAY LINE	BAY LINE	PILE DIA (mm)	PILE TYPE	ELEVATION TOP OF PILE	DESIGN TOE ELEVATION	DESIGN PILE LENGTH	DESIGN COATING LENGTH	SOCKET LENGTH	FABRICATED PILE LENGTH
5	F	762	Type 1	3.550	-47	51	21	N/A	54
5	G	762	Type 1	3.550	-44	48	21	N/A	51
5	M	762	Type 2	3.550	-37	40	22	3.5	43
5	N	762	Type 2	2.550	-36	38	21	3.5	41
5	P	762	Type 2	1.900	-34	36	21	3.5	39
6	A	762	Type 1	1.900	-53	55	21	N/A	58
6	B	762	Type 1	2.550	-54	57	21	N/A	60
6	C	762	Type 1	3.550	-54	58	21	N/A	61
6	D	762	Type 1	3.550	-49	52	21	N/A	55
6	E	762	Type 1	3.550	-47	50	21	N/A	53
6	F	762	Type 1	3.550	-45	48	21	N/A	51
6	G	762	Type 1	3.550	-42	45	21	N/A	48
6	H	762	Type 2	3.550	-35	39	21	3.5	42
6	M	762	Type 2	3.550	-32	35	21	3.5	38
6	N	762	Type 2	2.550	-30	33	21	3.5	36
6	P	762	Type 2	1.900	-29	31	21	3.5	34
7	A	762	Type 1	1.900	-50	52	21	N/A	55
7	B	762	Type 1	2.550	-53	56	21	N/A	59
7	C	762	Type 1	3.550	-52	56	21	N/A	59
7	D	762	Type 1	3.550	-52	56	21	N/A	59
7	E	762	Type 1	3.550	-49	52	21	N/A	55
7	F	762	Type 1	3.550	-44	47	21	N/A	50
7	G	762	Type 1	3.550	-38	42	21	N/A	45
7	H	762	Type 2	3.550	-33	37	21	3.5	40
7	J	762	Type 2	3.550	-29	32	21	3.5	35
7	M	762	Type 2	3.550	-28	31	21	3.5	34
7	N	762	Type 2	2.550	-27	29	21	3.5	32
7	P	762	Type 2	1.900	-25	27	21	3.5	30
8	A	762	Type 1	1.900	-49	51	21	N/A	54
8	B	762	Type 1	2.550	-52	55	21	N/A	58
8	C	762	Type 1	3.550	-51	55	21	N/A	58
8	D	762	Type 1	3.550	-49	53	21	N/A	56
8	E	762	Type 1	3.550	-45	48	21	N/A	51

NOTE: FABRICATED PILE LENGTH INCLUDES A 3m CUT-OFF ALLOWANCE

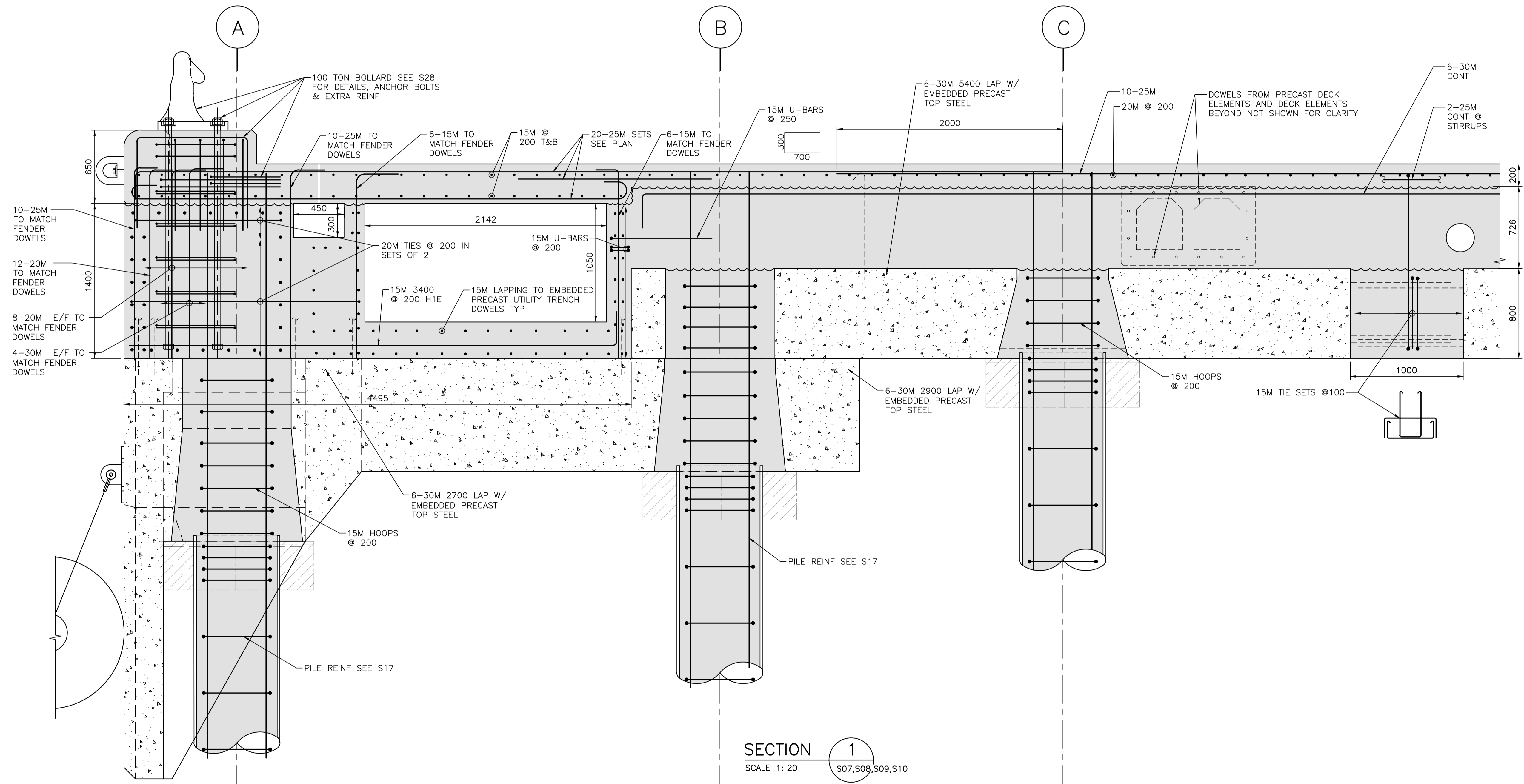
DISPLACEMENT CONTROL PILES							
BAY LINE	BAY LINE	PILE DIA	PILE TYPE	ELEVATION TOP OF PILE	DESIGN TOE ELEVATION	DESIGN PILE LENGTH	FABRICATED PILE LENGTH
DCP-1	DCP-A	762	Type 2	-2.5	-27	25	3
DCP-1	DCP-B	762	Type 2	-2.5	-25	23	3
DCP-1	DCP-C	762	Type 2	-5.0	-23	18	3
DCP-1	DCP-D	762	Type 2	-5.0	-21	16	3
DCP-1	DCP-E	762	Type 2	-7.5	-19	12	3
DCP-1	DCP-F	762	Type 2	-7.5	-19	12	3
DCP-1	DCP-G	762	Type 2	-7.5	-18	11	3
DCP-2	DCP-A	762	Type 2	-2.5	-27	25	6
DCP-2	DCP-B	762	Type 2	-2.5	-25	23	6
DCP-2	DCP-C	762	Type 2	-5.0	-22	18	6
DCP-2	DCP-D	762	Type 2	-5.0	-21	16	6
DCP-2	DCP-E	762	Type 2	-7.5	-19	12	6
DCP-2	DCP-F	762	Type 2	-7.5	-19	12	6
DCP-2	DCP-G	762	Type 2	-7.5	-18	11	6

NOTE: FABRICATED PILE LENGTH INCLUDES A 3m CUT-OFF ALLOWANCE

WEST JETTY PILES									
BAY LINE	BAY LINE	PILE DIA (mm)	PILE TYPE	ELEVATION TOP OF PILE	DESIGN TOE ELEVATION	DESIGN PILE LENGTH	DESIGN COATING LENGTH	SOCKET LENGTH	FABRICATED PILE LENGTH
8	F	762	Type 1	3.550	-41	44	21	N/A	47
8	G	762	Type 1	3.550	-36	40	21	N/A	43
8	H	762	Type 2	3.550	-32	35	21	3.5	38
8	J	762	Type 2	3.550	-26	30	21	3.5	33
8	J1	762	Type 2	3.550	-24	28	21	3.5	31
8	M	762	Type 2	3.550	-24	27	21	3.5	30
8	N	762	Type 2	2.550	-24	26	21	3.5	29
8	P	762	Type 2	1.900	-24	25	21	3.5	28
9	A	762	Type 1	1.900	-46	48	22	N/A	51
9	B	762	Type 1	2.550	-50	53	21	N/A	56
9	C	762	Type 1	3.550	-49	53	21	N/A	56
9	D	762	Type 1	3.550	-46	49	21	N/A	52
9	E	762	Type 1	3.550	-42	45	21	N/A	48
9	F	762	Type 1	3.550	-37	41	20	N/A	44
9	G	762	Type 1	3.550	-33	36	20	N/A	39
9	H	762	Type 2	3.550	-28	32	20	3.5	35
9	J	762	Type 2	3.550	-24	27	21	3.5	30
9	K	762	Type 2	3.550	-21	24	20	3.5	27
9	M	762	Type 2	3.550	-20	23	20	3.5	26
9	N	762	Type 2	2.550	-20	22	20	3.5	25
9	P	762	Type 2	1.900	-20	22	20	3.5	25
10	A	762	Type 1	1.900	-44	46	21	N/A	49
10	B	762	Type 1	2.550	-42	45	20	N/A	48
10	C	762	Type 1	3.550	-40	44	20	N/A	47
10	D	762	Type 1	3.550	-39	43	20	N/A	46
10	E	762	Type 1	3.550	-38	42	19	N/A	45
10	F	762	Type 1	3.550	-36	40	19	N/A	43
10	G	762	Type 1	3.550	-32	35	18	N/A	38
10	H	914	Type 2	3.550	-27	31	18	3.5	34
10	J	914	Type 2	3.550	-23	26	19	3.5	29
10	K	914	Type 2	3.550	-20	23	19	3.5	26
10	L	914	Type 2	3.550	-18	22	19	3.5	25
10	M	762	Type 2	3.550	-17	21	20	3.5	24
10	N	762	Type 2	2.550	-17	20	20	3.5	23
10	P	762	Type 2	1.900	-17	19	20	3.5	22

NOTE: FABRICATED PILE LENGTH INCLUDES A 3m CUT-OFF ALLOWANCE

SOUTH JETTY PILES									
BAY LINE	BAY LINE	PILE DIA	PILE TYPE	ELEVATION TOP OF PILE	DESIGN TOE ELEVATION	DESIGN PILE LENGTH	DESIGN COATING LENGTH	SOCKET LENGTH	FABRICATED PILE LENGTH
11	A	762	Type 1	1.900	-44	46	20	49	49
11	B	762	Type 1	2.550	-46	49	19	52	52
11	C	914	Type 1	3.550	-44	48	19	51	51
11	C1	914	Type 1	3.550	-42	46	18	49	49
11	D1	914	Type 1	3.550	-39	43	16	46	46
12	A	762	Type 1	1.900	-44	46	21	49	49
12	B	762	Type 1	2.550	-47	49	19	52	52
12	C	914	Type 1	3.550	-46	49	18	52	52
12	C1	914	Type 1	3.550	-43	46	17	49	49
12	D1	914	Type 1	3.550	-39	43	15	46	46
13	A	762	Type 1	1.900	-43	45	20	48	48
13	B	762	Type 1	2.550	-45	47	19	50	50
13	C	914	Type 1	3.550	-44	47	17	50	50
13	C1	914	Type 1	3.550	-41	44	15	47	47
13	D1	914	Type 1	3.550	-37	41	14	44	44
14	A	762	Type 1	1.900	-42	44	19	47	47
14	B	762	Type 1	2.550	-43	45	18	48	48
14	C	914	Type 1	3.550	-42	45	18	48	48
14	C1	914	Type 1	3.550	-38	42	16	45	45
14	D1	914	Type 1	3.550	-35	38	14	41	41
15	A	762	Type 1	1.900	-42	44	19	47	47
15	B	762	Type 1	2.550	-41	44	18	47	47
15	C	914	Type 1	3.550	-40	43	17	46	46
15	C1	914	Type 1	3.550	-36	40	16	43	43
15	D1	914	Type 1	3.550	-33	36	14	39	39
16	A	762	Type 1	1.900	-41	42	19	45	45
16	B	762	Type 1	2.550	-39	42	18	45	45
16	C	914	Type 1	3.550	-38	41	18	44	44
16	C1	914	Type 1	3.550	-34	37	17	40	40
16	D1	914	Type 1	3.550	-31	35	16	38	38
17	A	762	Type 1	1.900	-39	41	19	44	44
17	B	762	Type 1	2.550	-37	40	18	43	43
17	C	914	Type 1	3.550	-36	39	18	42	42
17	C1	914	Type 1	3.550	-34	37			



SECTION 1
SCALE 1: 20 S07,S08,S09,S10

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

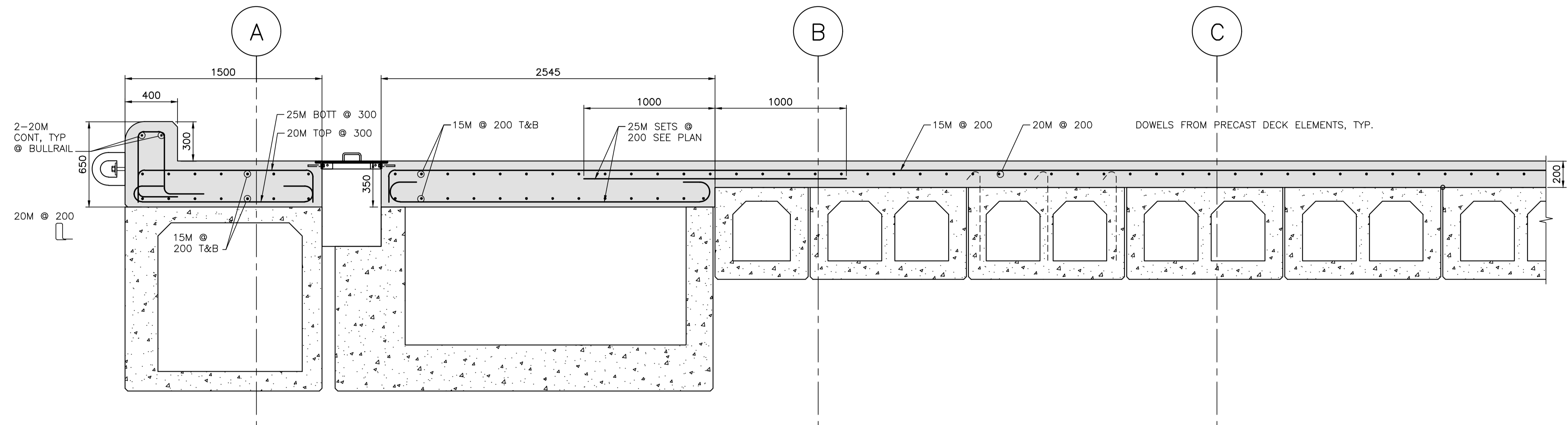
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

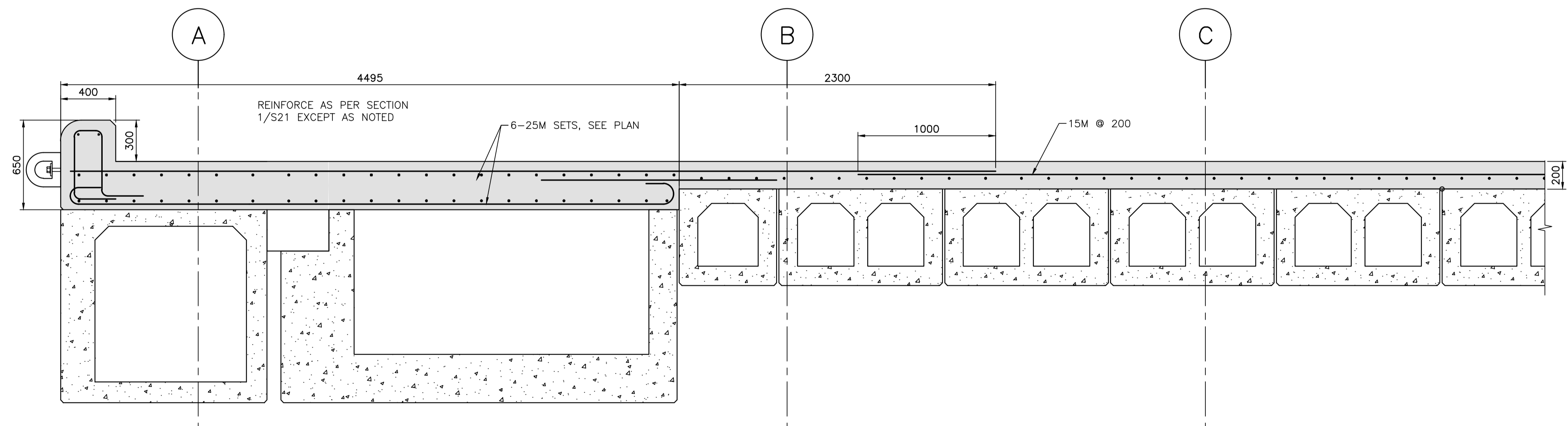
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL FAUL

Drawing title/Titre du dessin
**WEST JETTY
TYPICAL REINFORCEMENT
AT 100 TON BOLLARDS**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S20	2



SECTION 1
SCALE 1: 20
S07,S08,S09,S10



SECTION 2
SCALE 1: 20
S07,S08,S09,S10

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

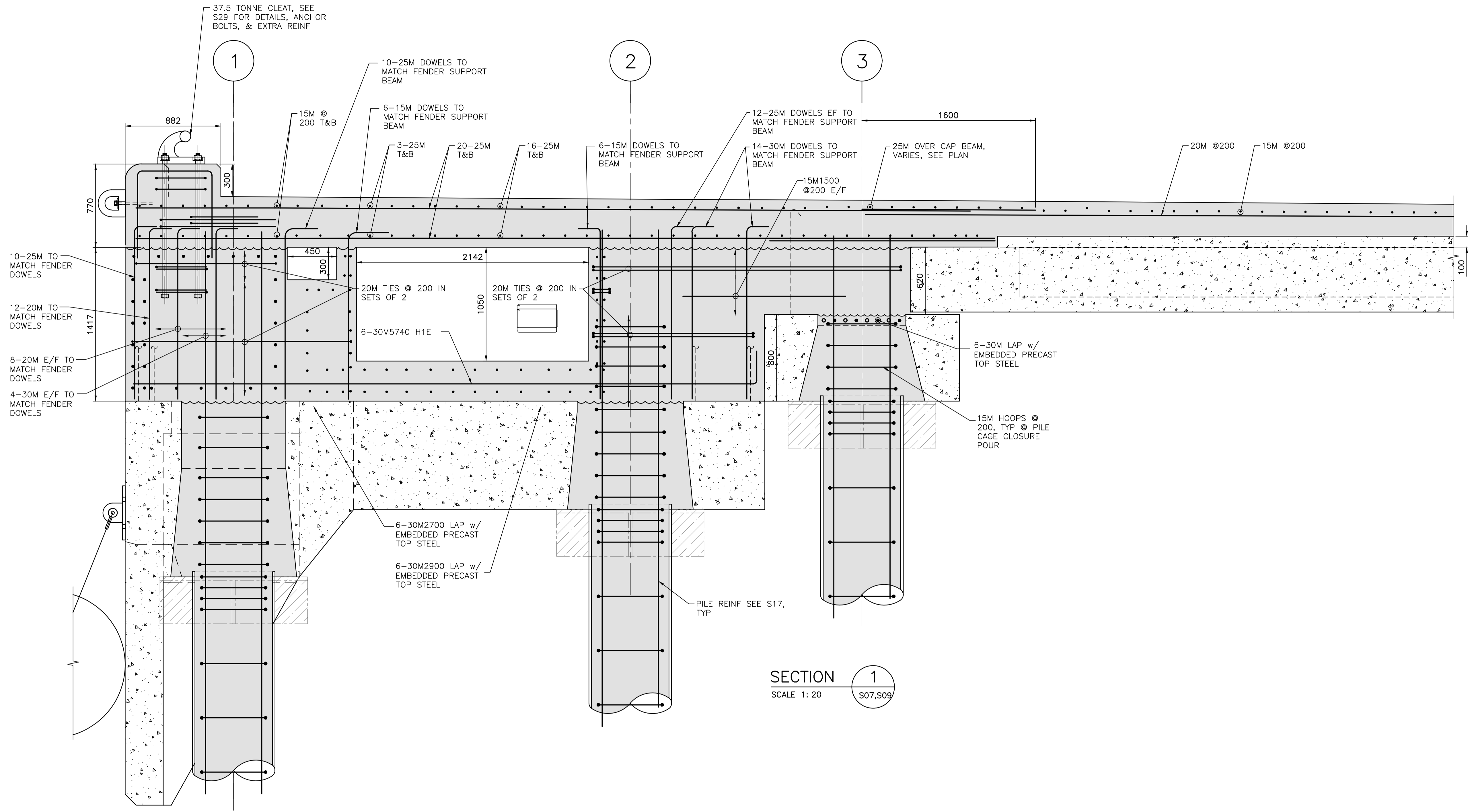
Drawn by/Dessiné par
BOG

PWCS Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**WEST JETTY
TYPICAL REINFORCEMENT**

Project No./No. du projet R.026729.002	Sheet/Feuille S21	Revision no./La Révision no. 2
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SECTION 1
SCALE 1: 20
S07,S09

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

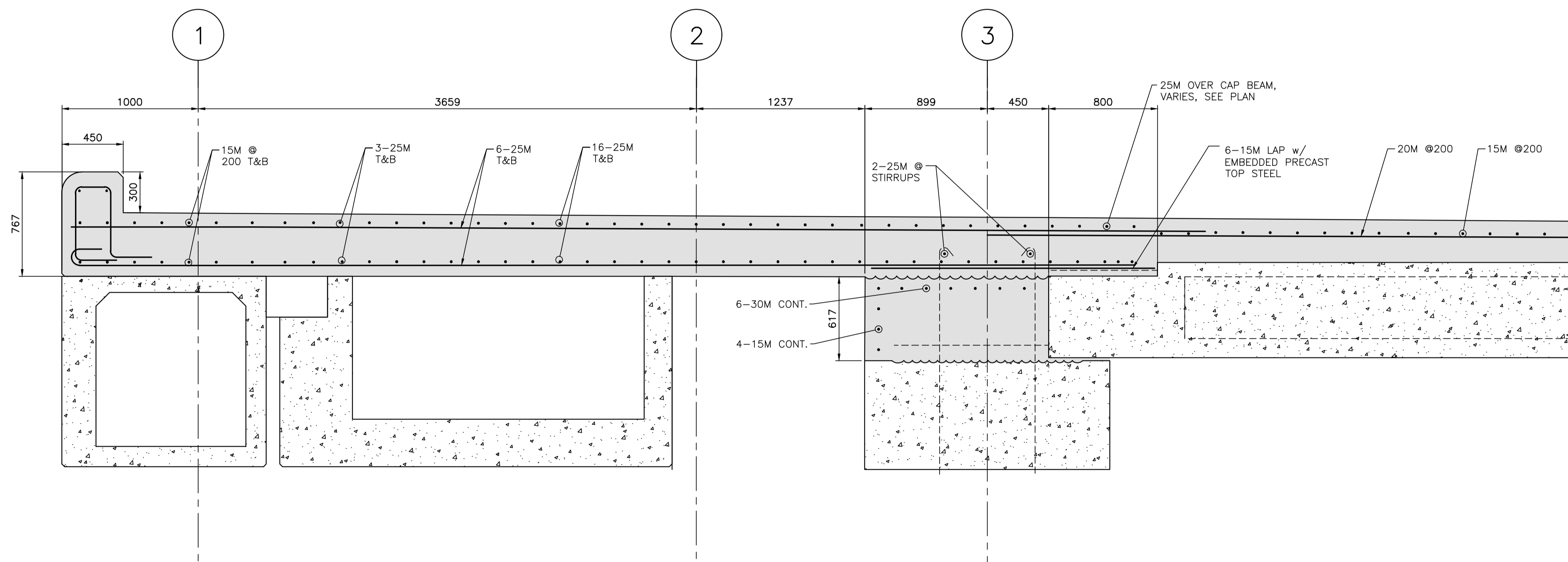
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL FAUL

Drawing title/Titre du dessin

**WEST JETTY
TYPICAL REINFORCEMENT
AT CLEAT**

NOTES:
1. FOR NOTES SEE DWG. G01.

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S22	2



SECTION 1
SCALE 1: 20
S07,S09

NOTES:
1. FOR NOTES SEE DWG. G1.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

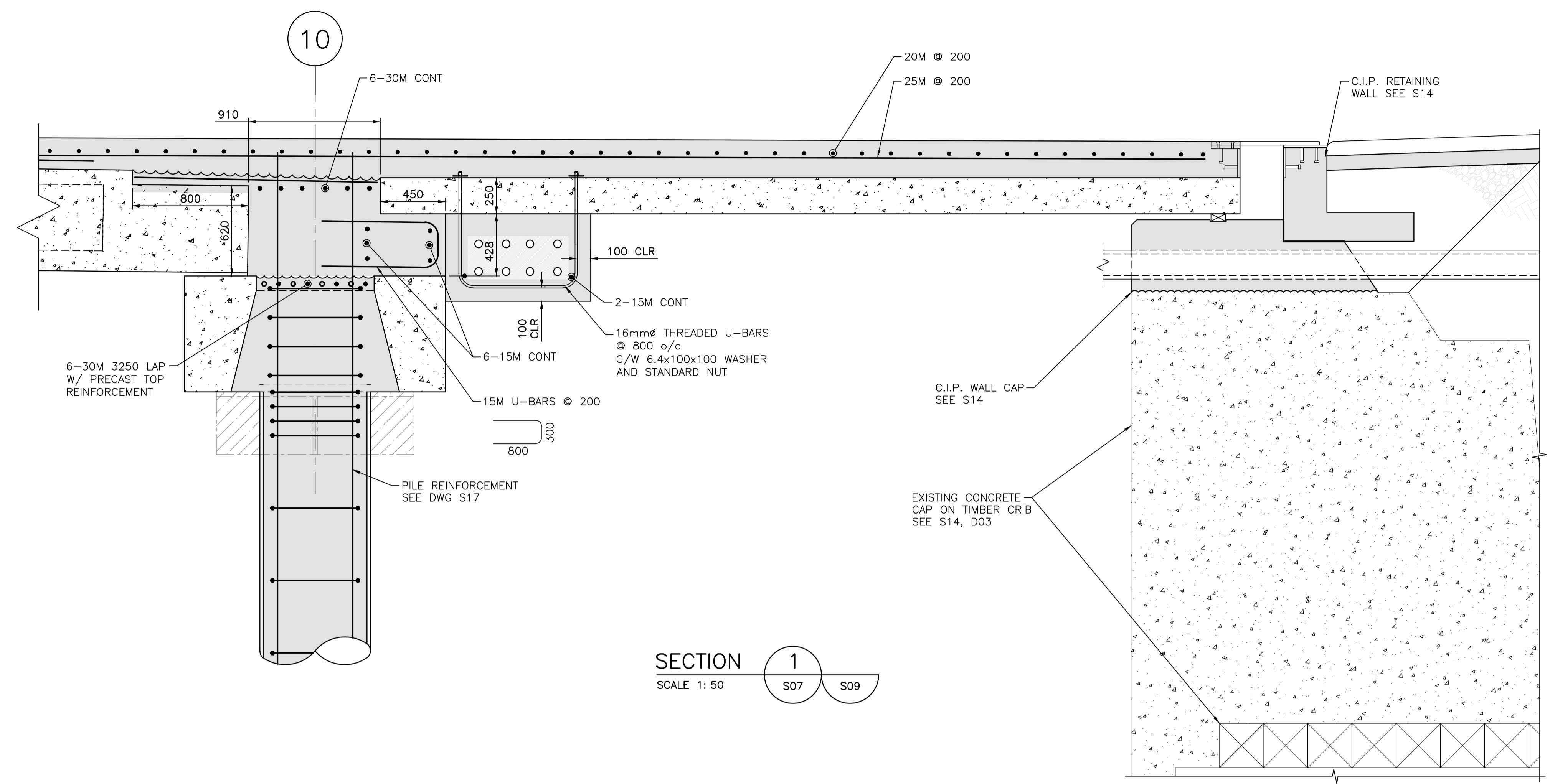
Drawn by/Dessiné par
BOG

PWGC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

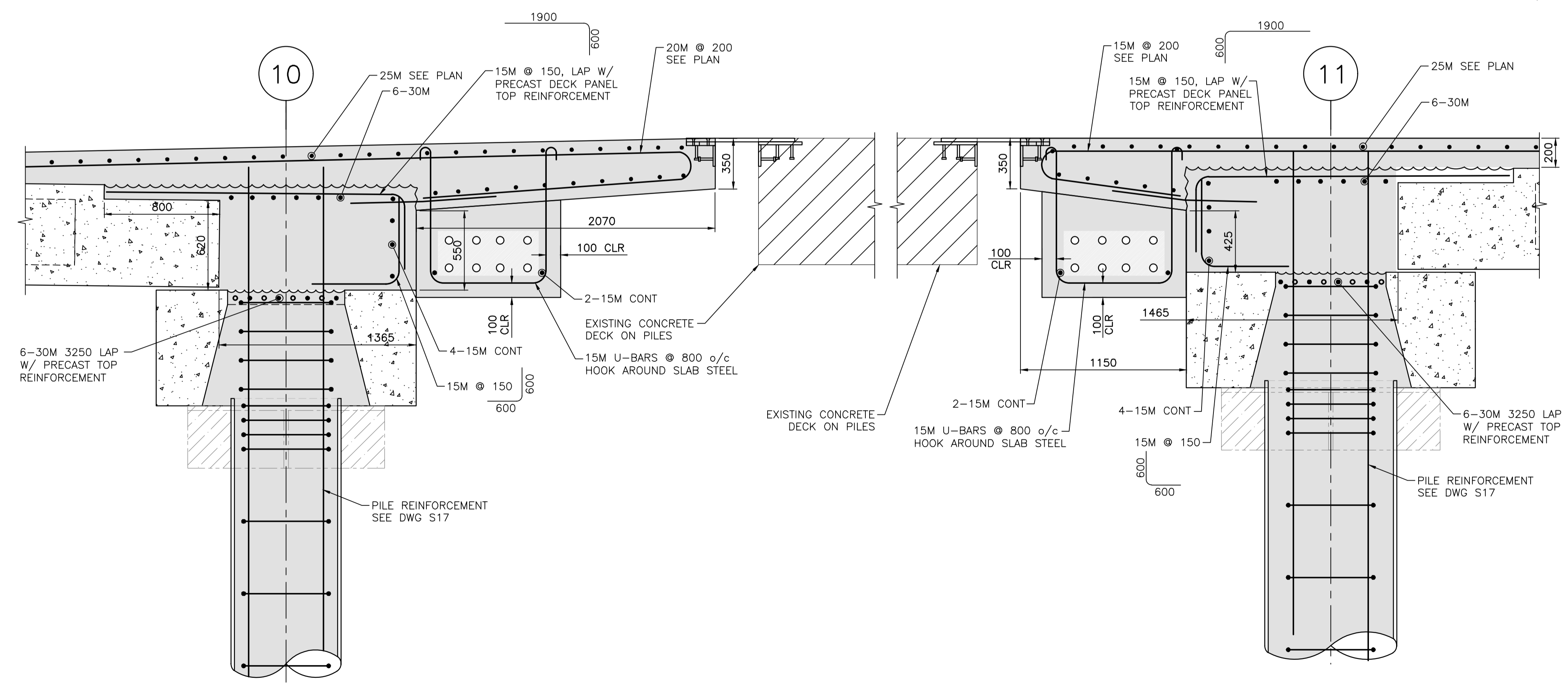
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL FAUL

Drawing title/Titre du dessin
**WEST JETTY
TYPICAL REINFORCEMENT
AT CLEAT**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S23	2



SECTION 1
SCALE 1: 50



SECTION 2
SCALE 1: 50

SECTION 3
SCALE 1: 50

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

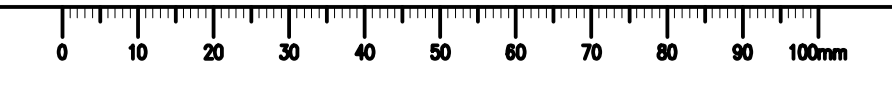
Drawn by/Dessiné par
BOG

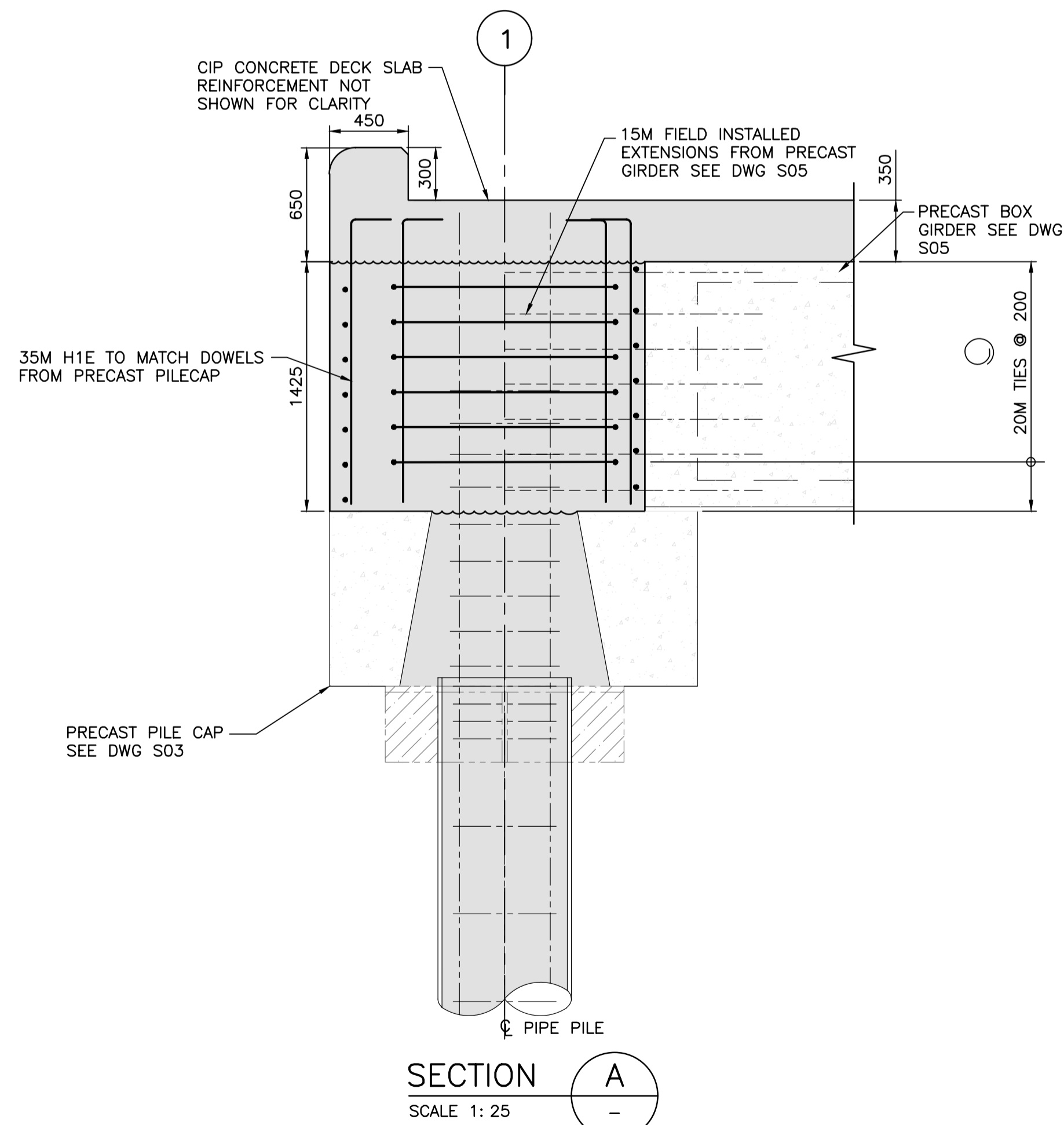
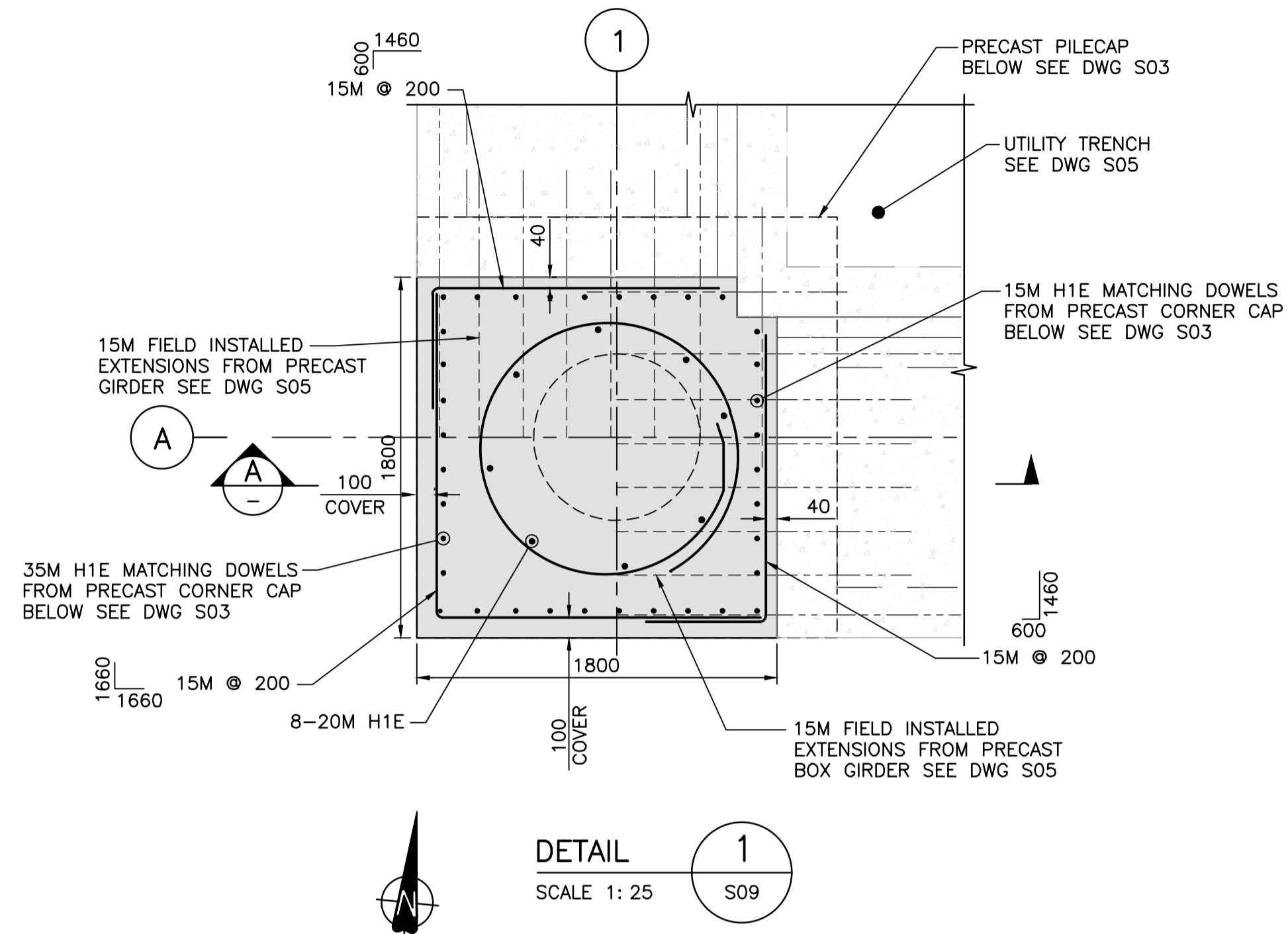
PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL FAUL

Drawing title/Titre du dessin
WEST JETTY SECTIONS

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S24	2





NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

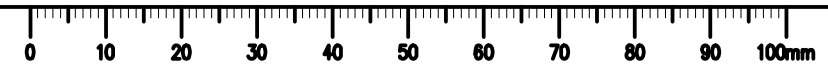
Drawn by/Dessiné par
BOG

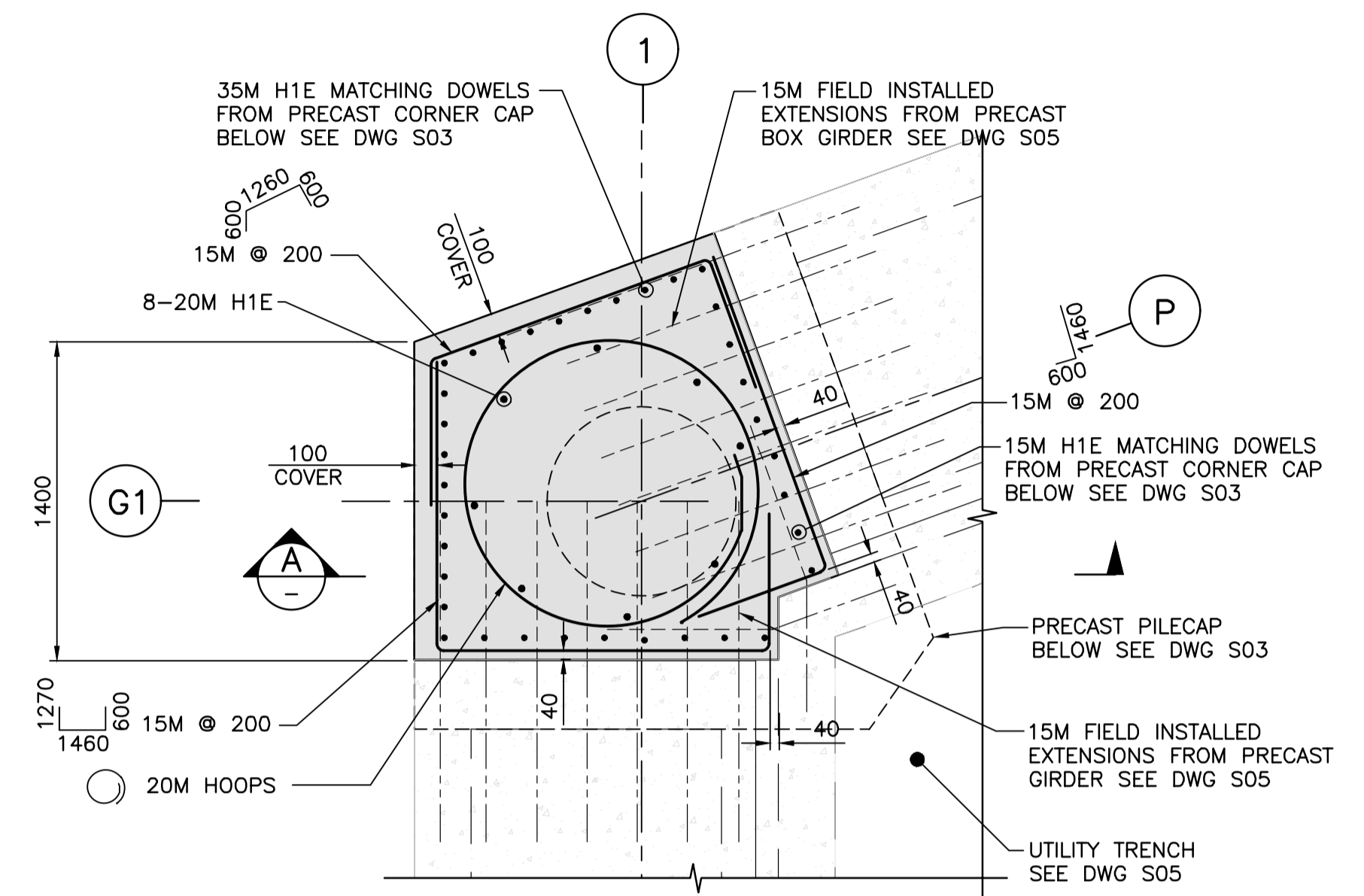
PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

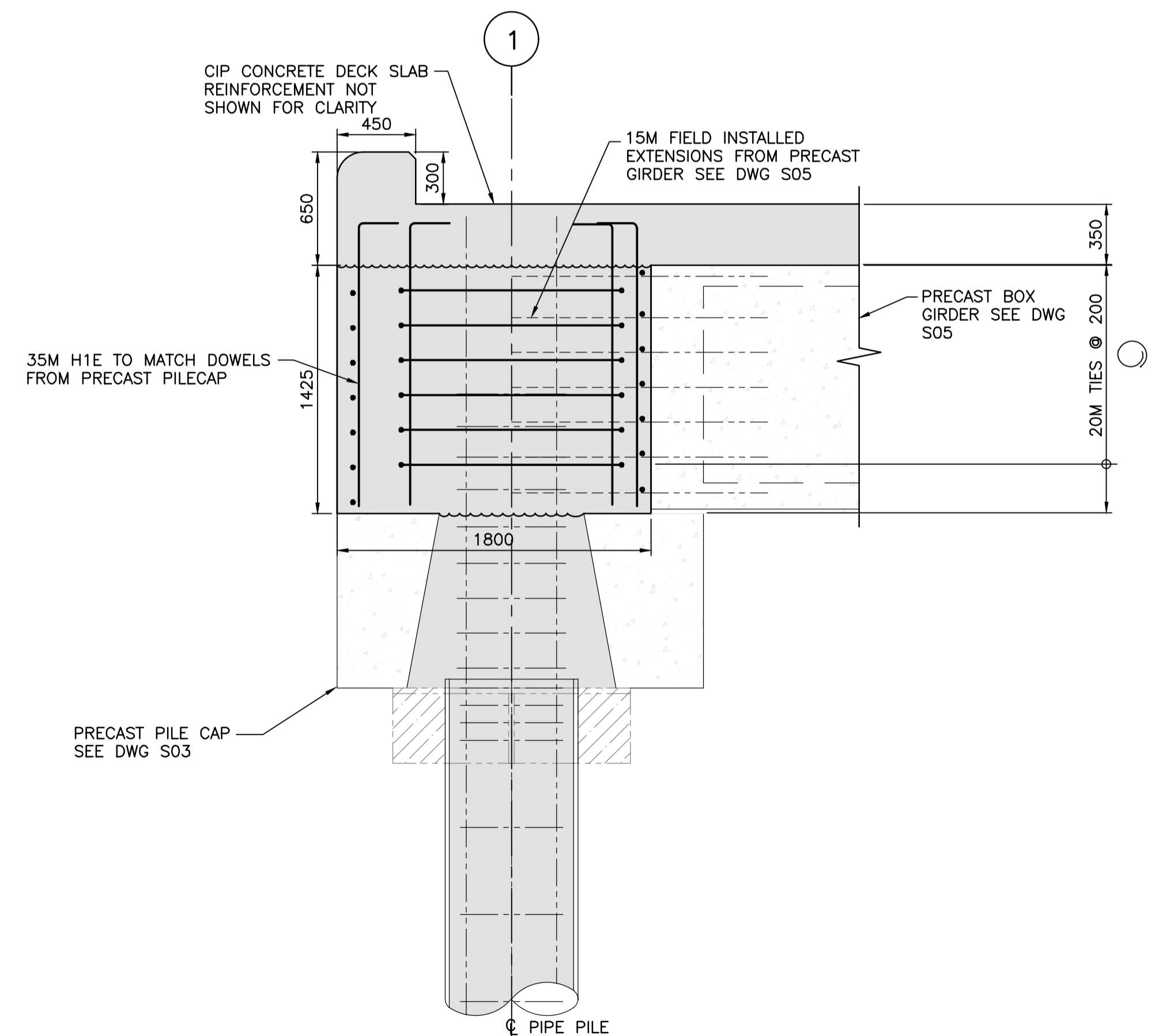
Drawing title/Titre du dessin
**WEST JETTY DECK
CLOSURE AT BAYLINE 1 & A**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S25	2





DETAIL 1
SCALE 1: 25
S09



SECTION A
SCALE 1: 25

NOTES:
1. FOR NOTES SEE DWG. G1.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

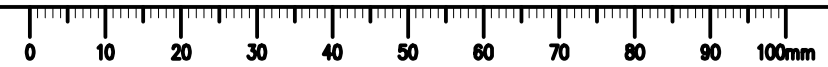
PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

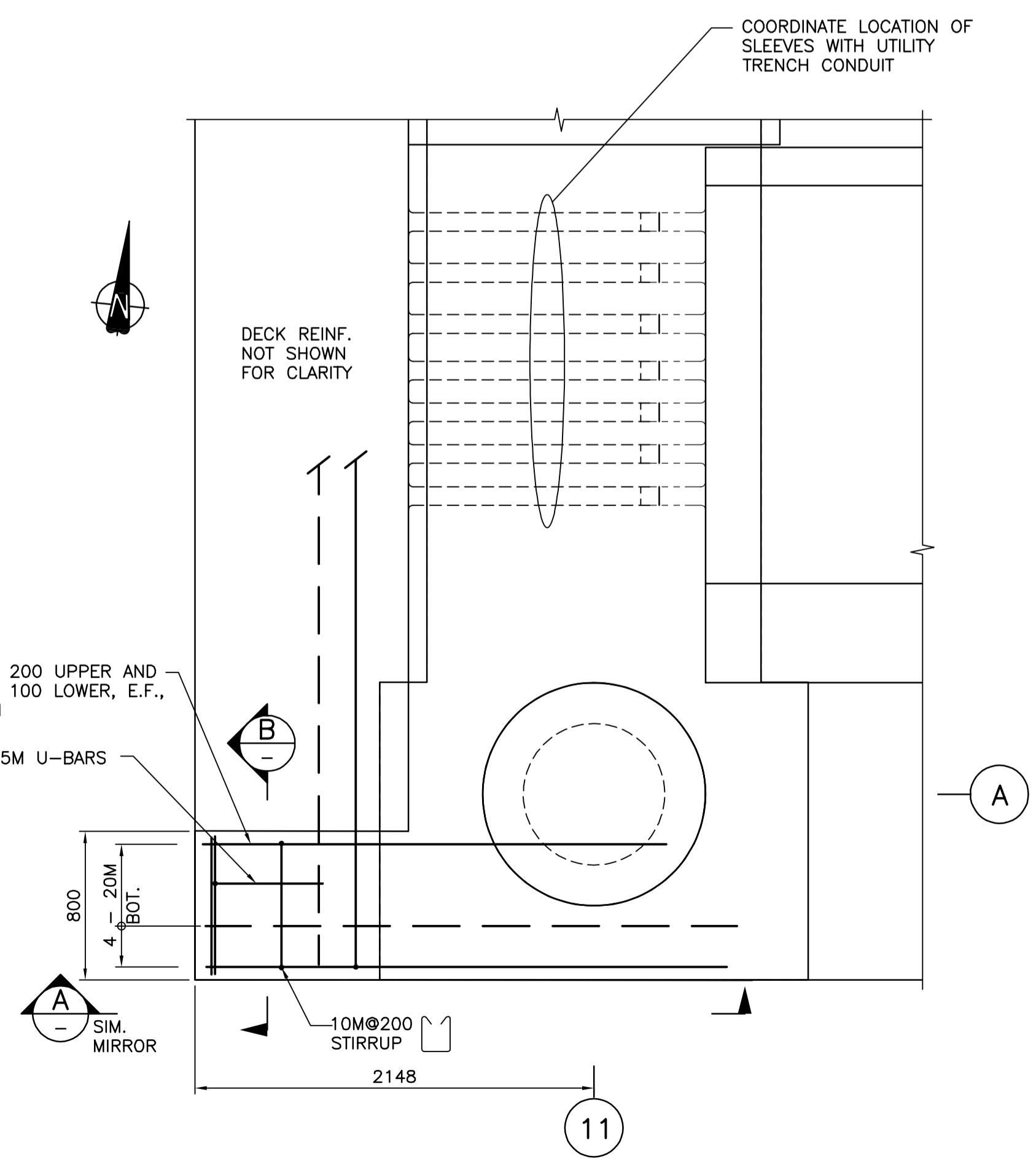
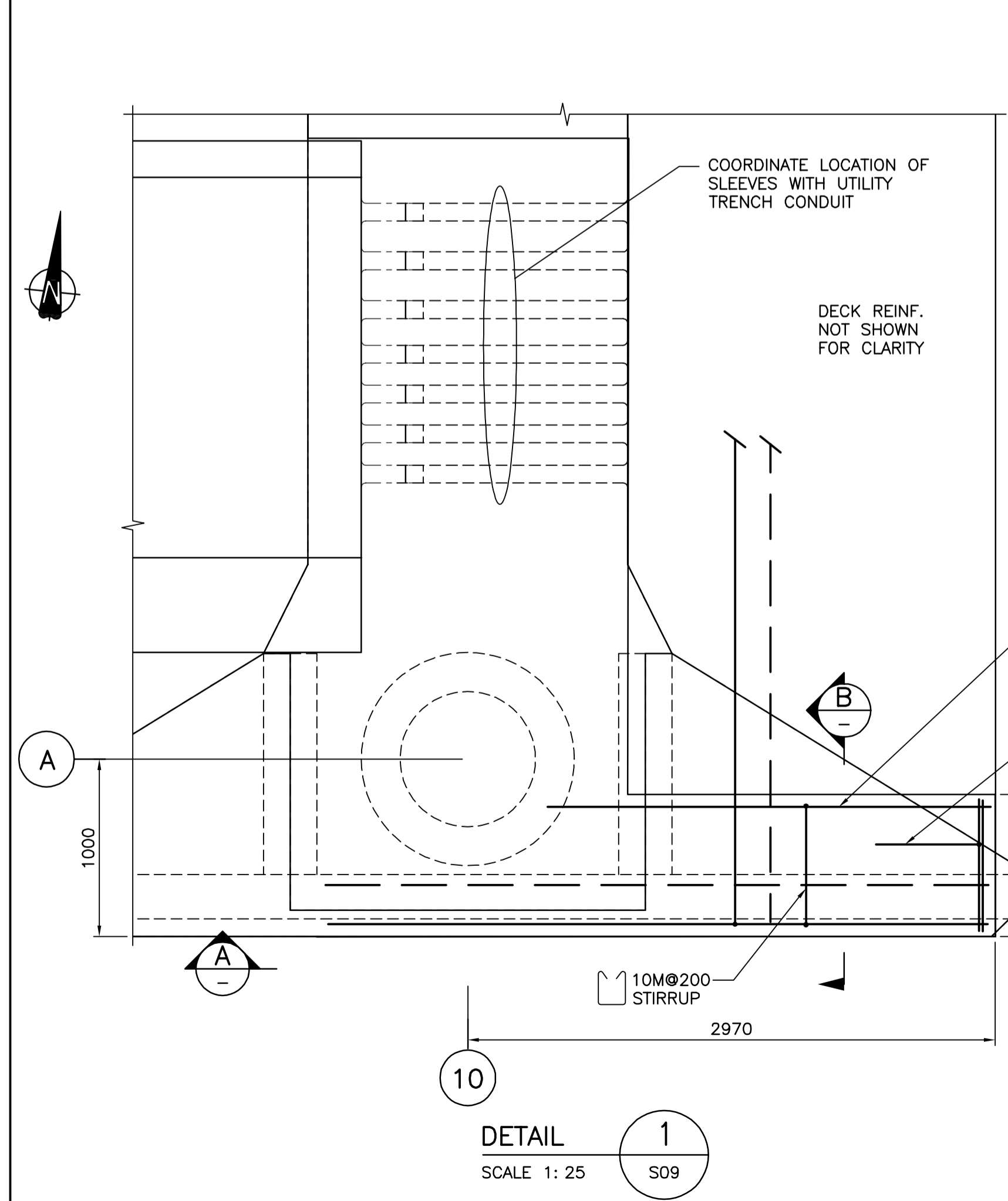
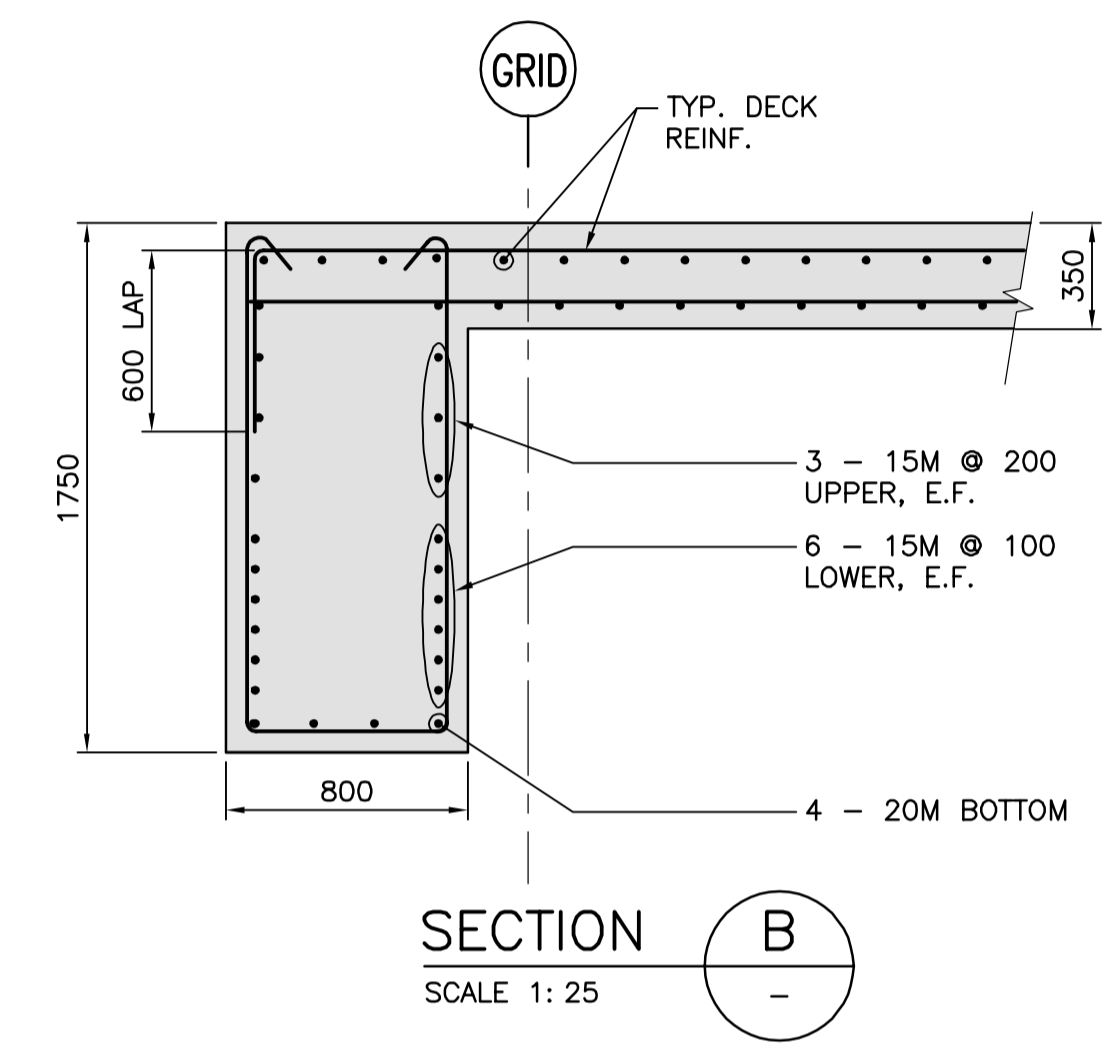
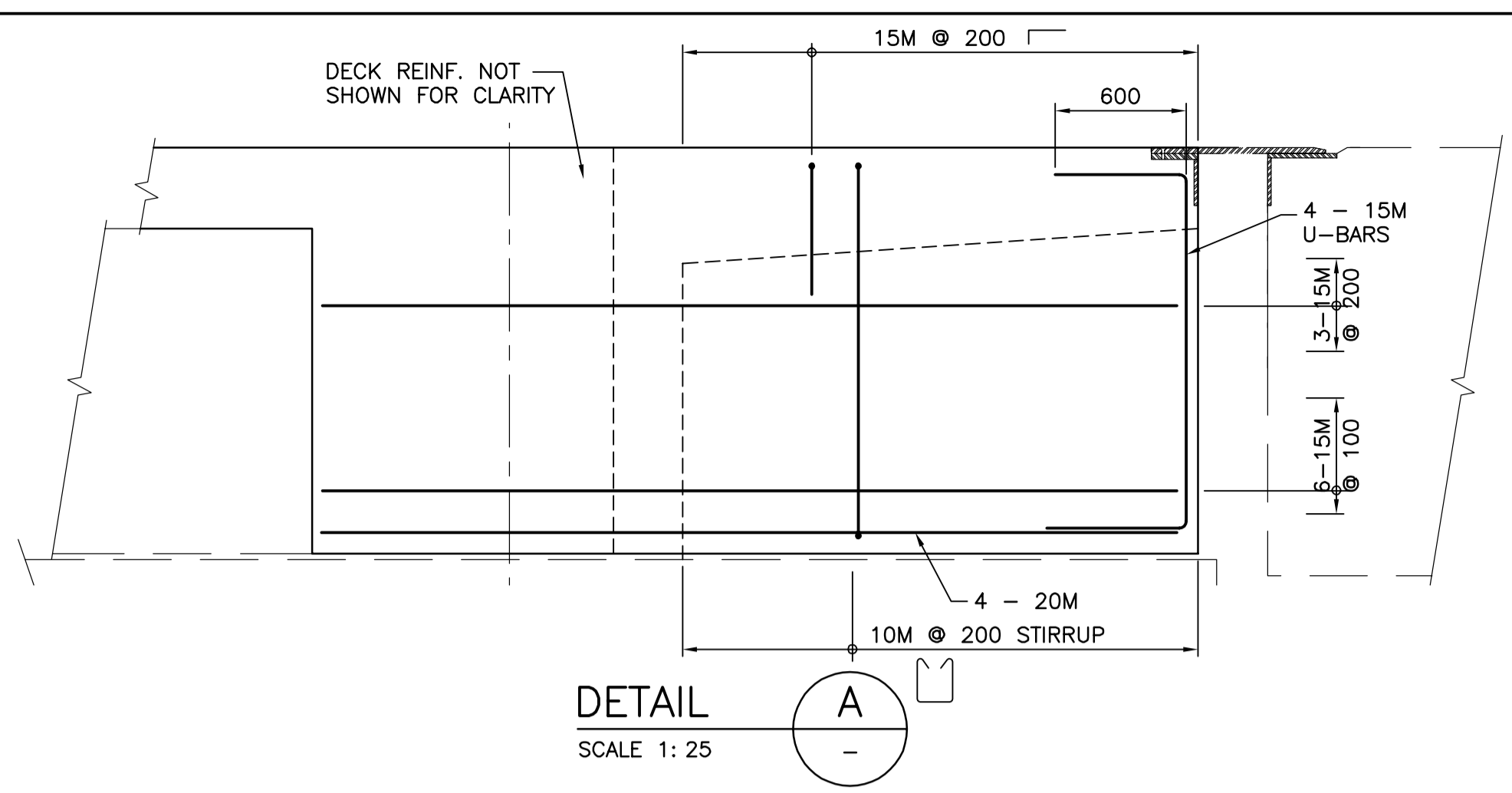
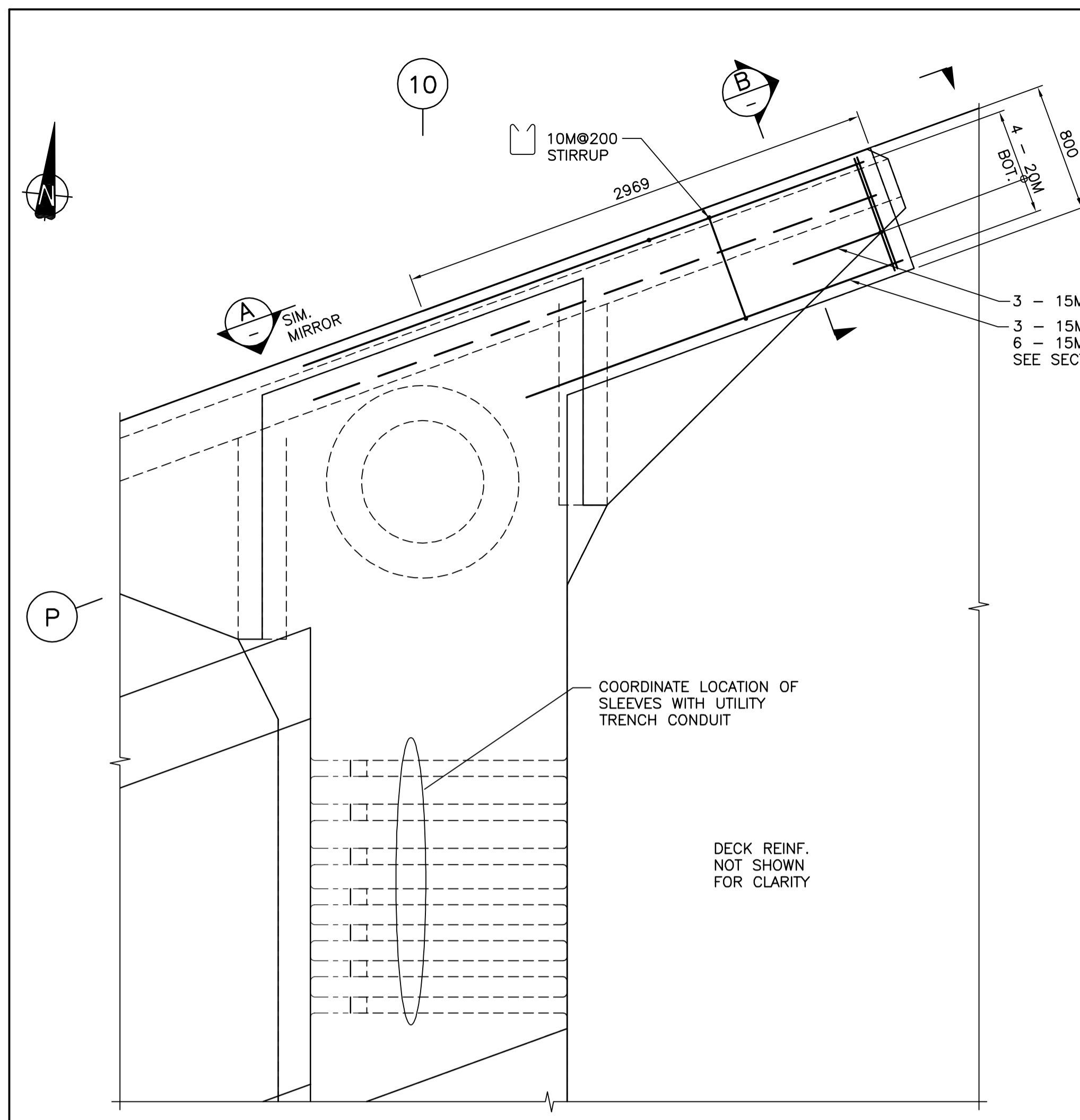
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin

**WEST JETTY DECK
CLOSURE AT BAYLINE 1 & P**

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	S26	2





NOTES:
1. FOR NOTES SEE DWG. G01.



Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

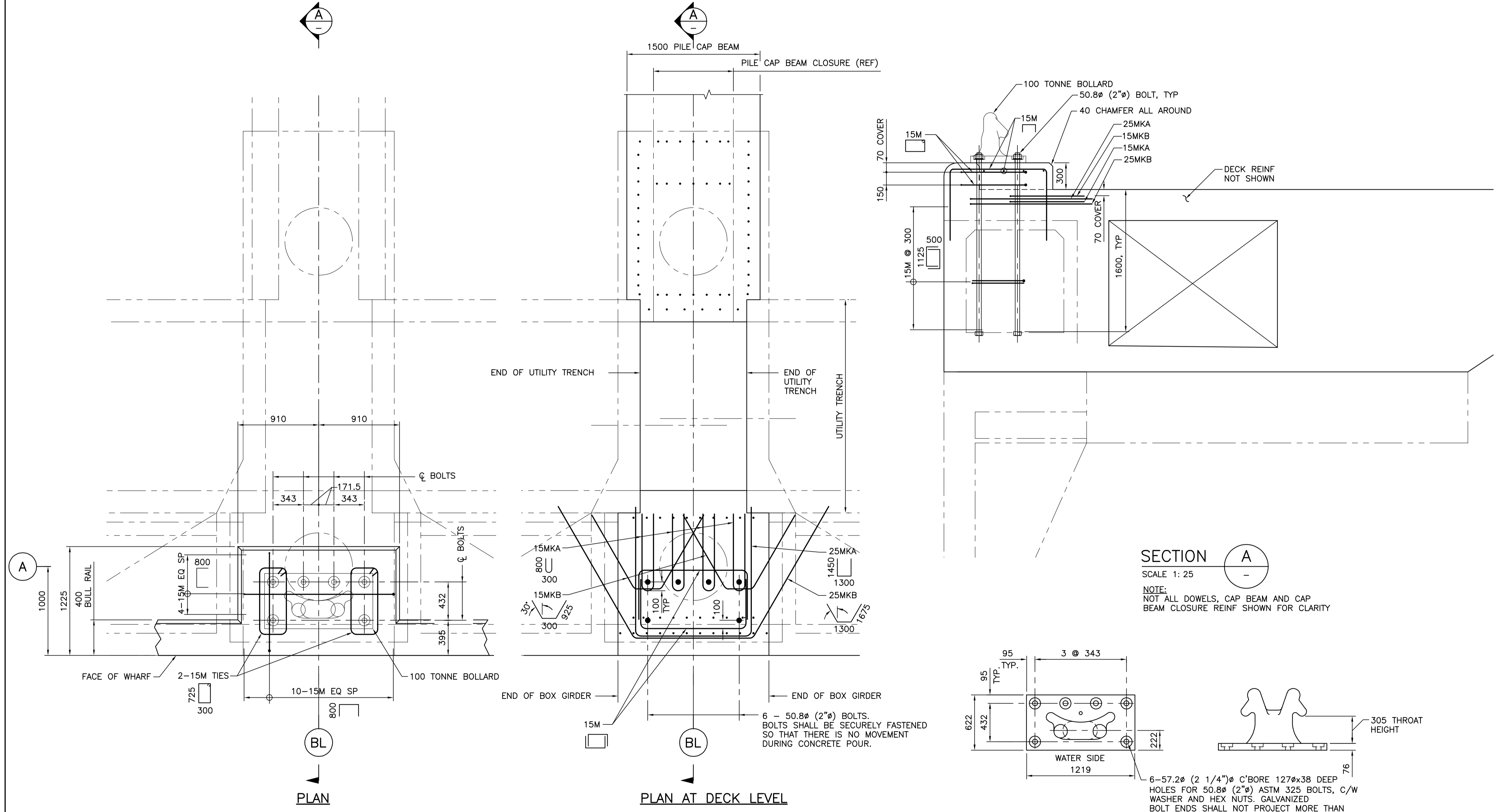
Drawn by/Dessiné par
BOG

PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
WEST JETTY CLOSURE POUR DETAILS REINFORCING

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S27	2



TYPICAL 100 TONNE MOORING BOLLARD PLANS

100 TONNE MOORING BOLLARD

1:25
MODEL NUMBER A-19 BY ELLIOTT STEEL LTD.
14 - TOTAL REQUIRED

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

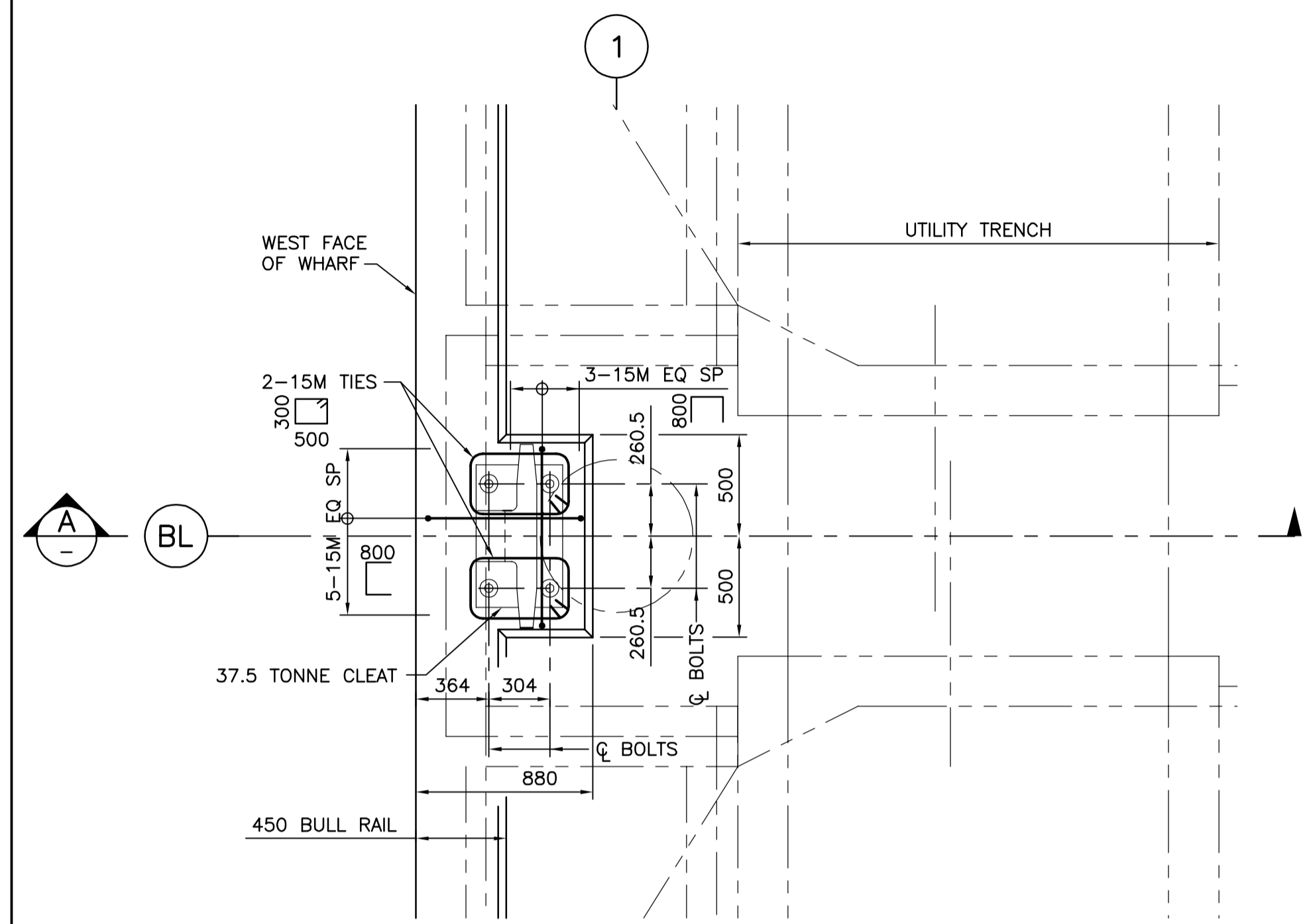
Drawn by/Dessiné par
BOG

PWSSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

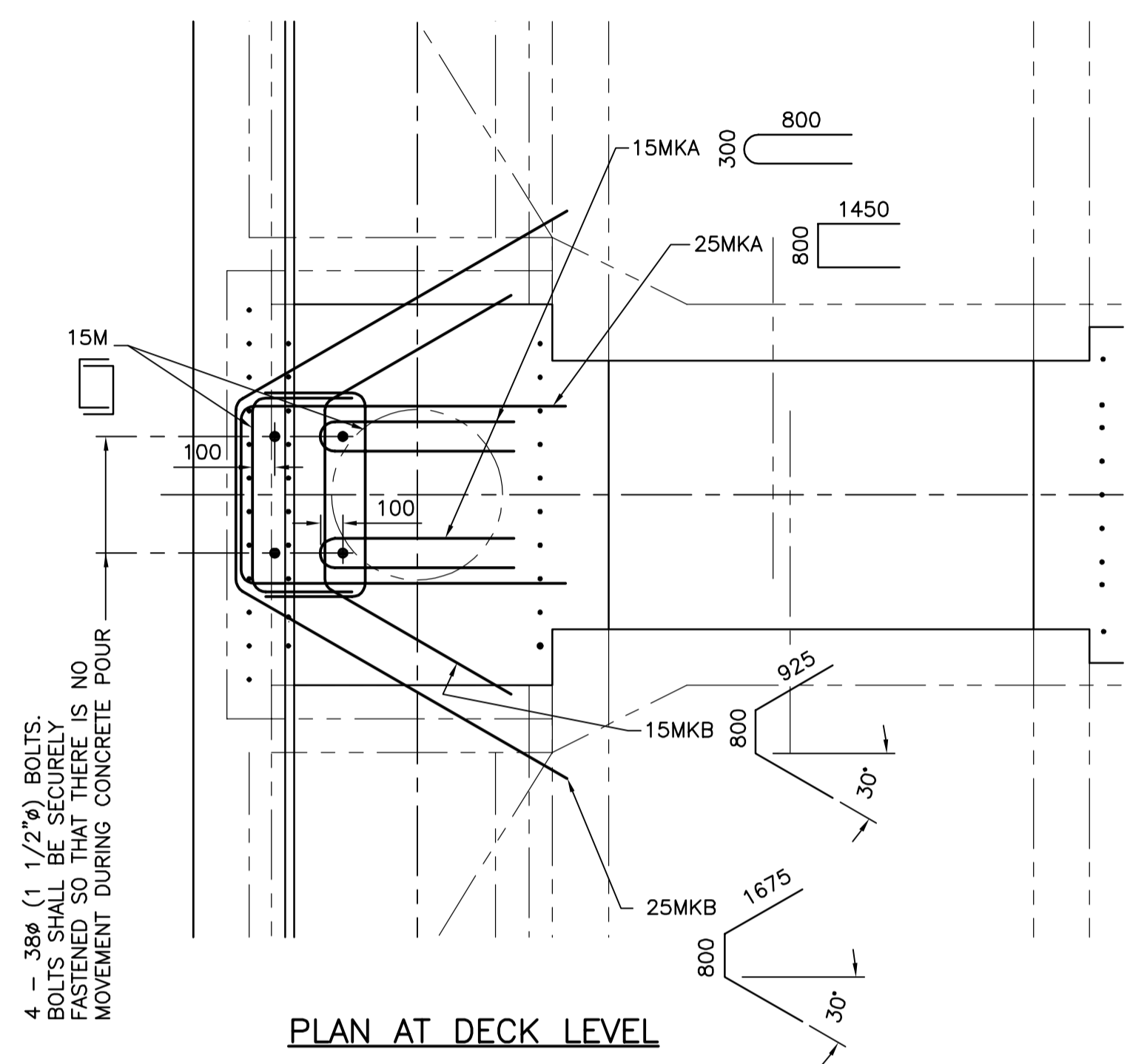
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST AND SOUTH JETTY DECK
100 TONNE BOLLARD
TYPICAL DETAILS**

Project No./No. du projet R.026729.002	Sheet/ S28	Revision no./ 2
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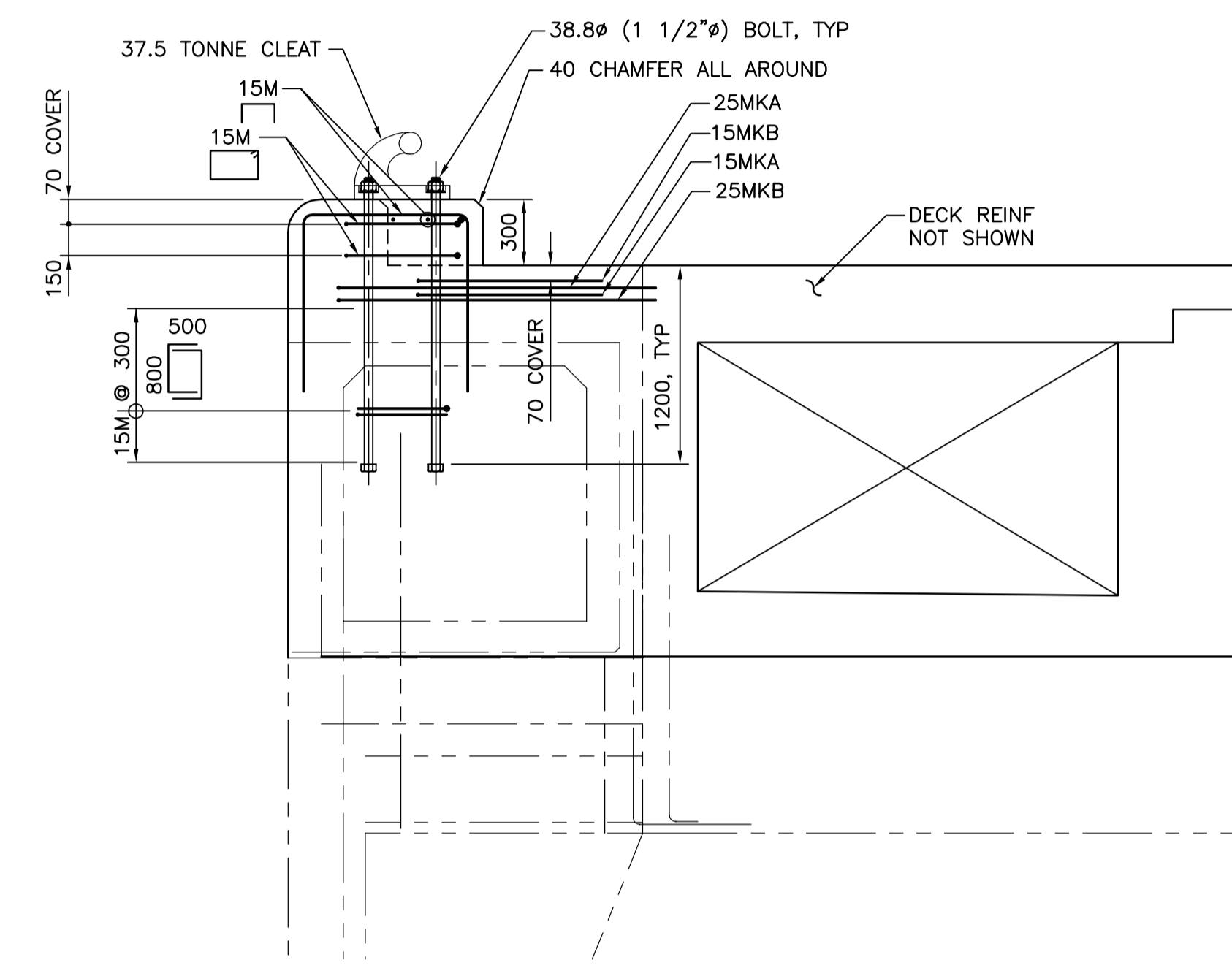


TYPICAL 37.5 TONNE CLEAT PLAN
1:25



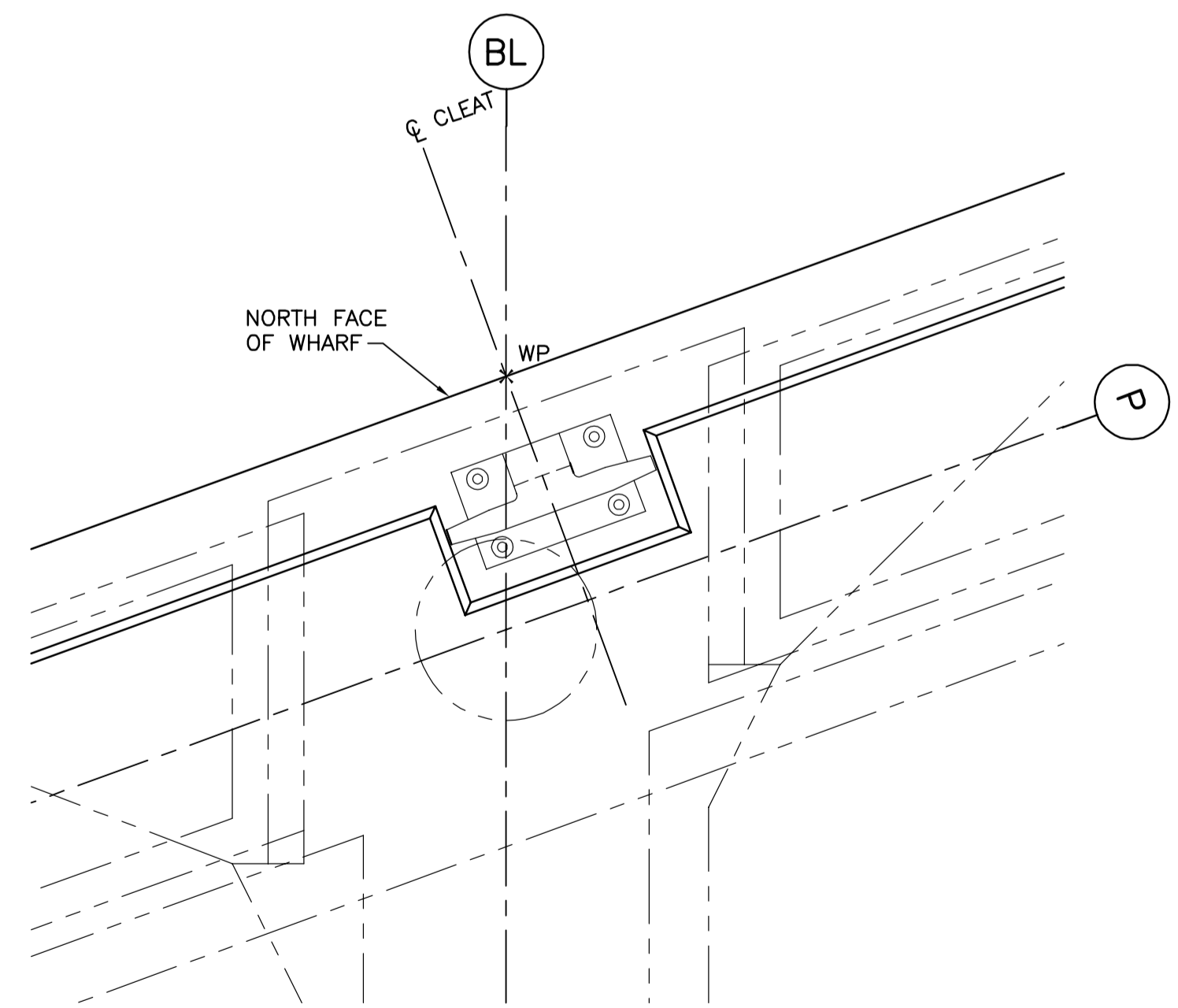
PLAN AT DECK LEVEL

4 - 38ø (1 1/2") BOLTS. BOLTS SHALL BE SECURELY FASTENED SO THAT THERE IS NO MOVEMENT DURING CONCRETE POUR



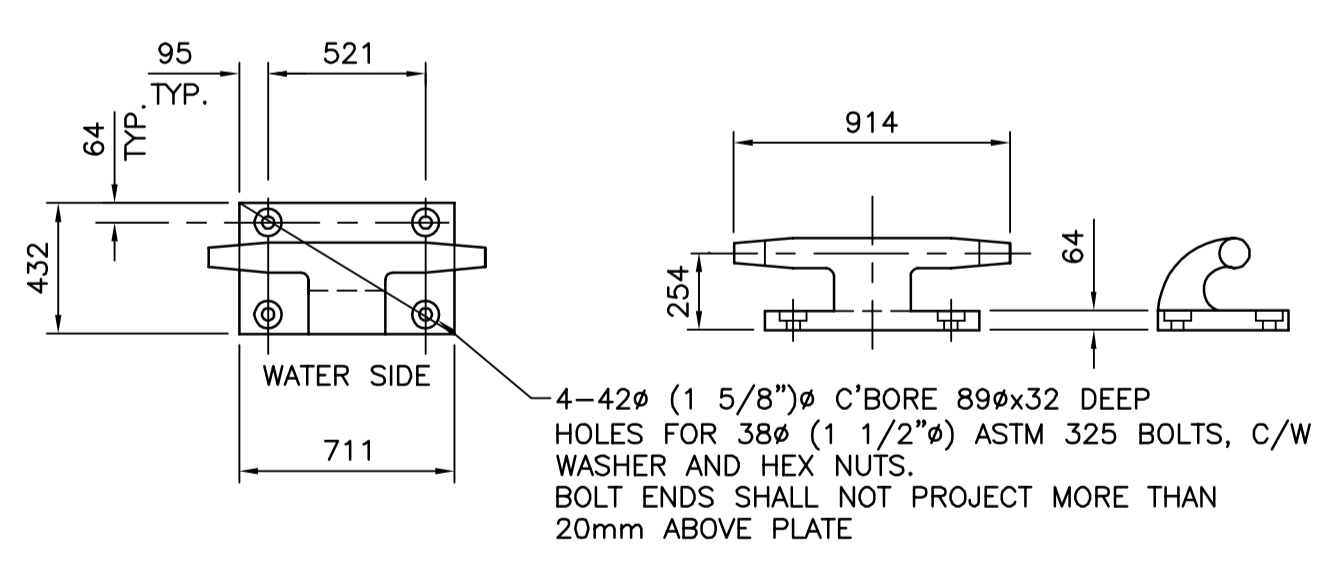
SECTION A
SCALE 1: 25

NOTE:
NOT ALL DOWELS, CAP BEAM AND CAP BEAM CLOSURE REINF SHOWN FOR CLARITY



TYPICAL 37.5 TONNE CLEAT NORTH WALL PLAN
1:25

NOTE:
DETAILS AND REINFORCING SIMILAR DETAIL 6 THIS DWG.



37.5 TONNE CLEAT
1:25
MODEL NUMBER B-2X BY ELLIOTT STEEL LTD.
12 - REQUIRED

4-42ø (1 5/8")ø C'BORE 89øx32 DEEP HOLES FOR 38ø (1 1/2")ø ASTM 325 BOLTS, C/W WASHER AND HEX NUTS. BOLT ENDS SHALL NOT PROJECT MORE THAN 20mm ABOVE PLATE

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessine par
BOG

PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

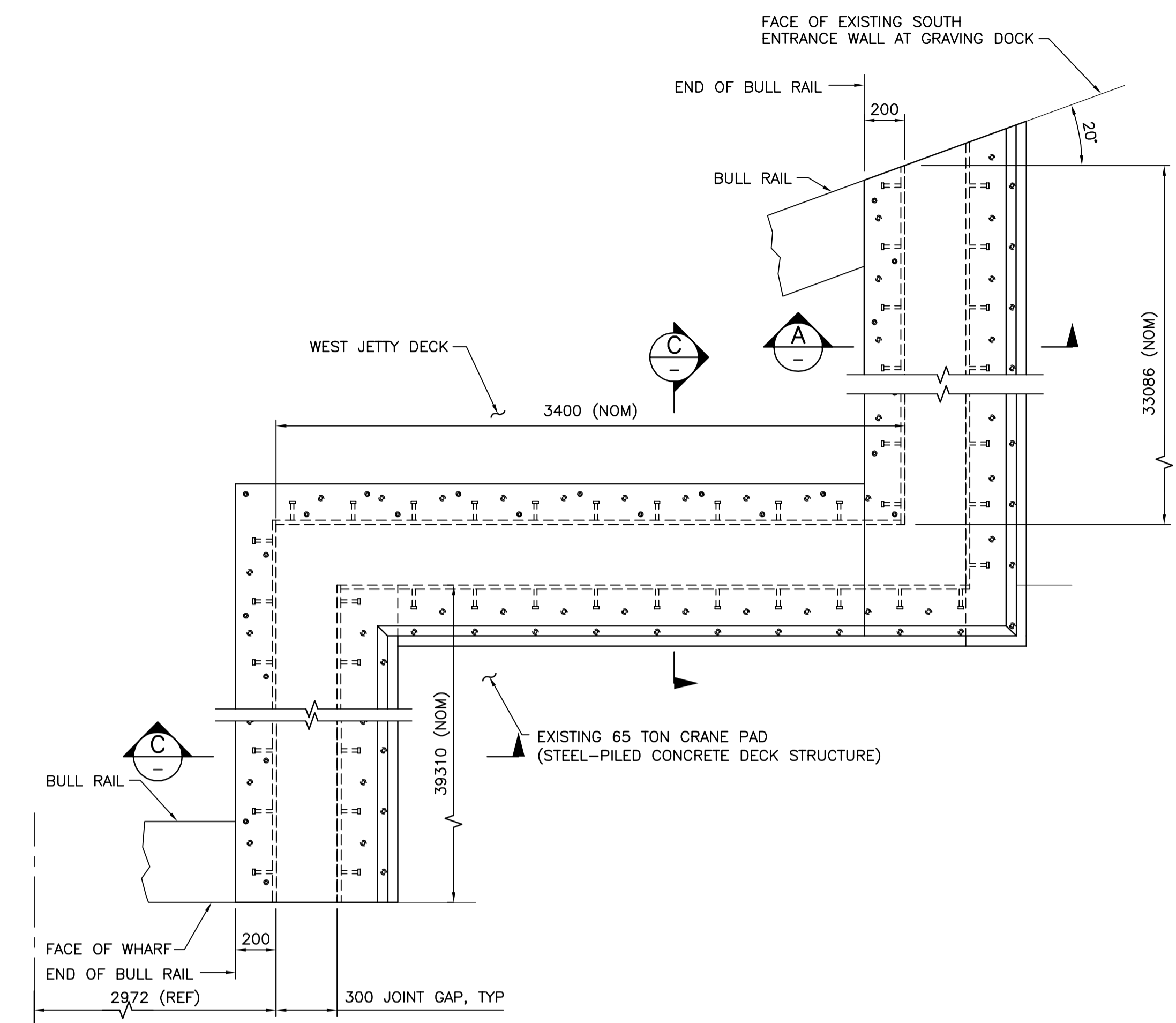
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
WEST JETTY DECK 37.5 TONNE CLEAT

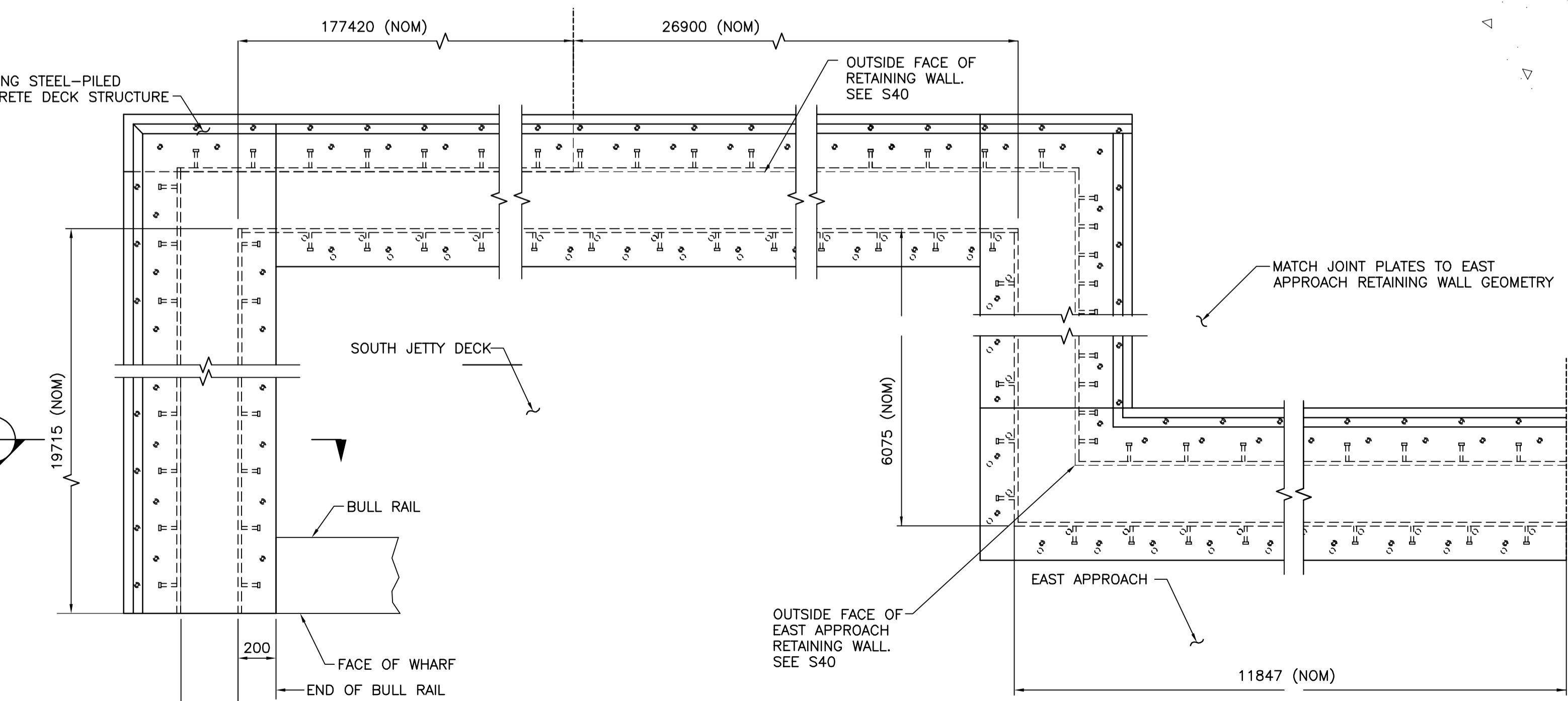
Project No./No. du projet R.026792.002	Sheet/ S29	Revision no./ 2
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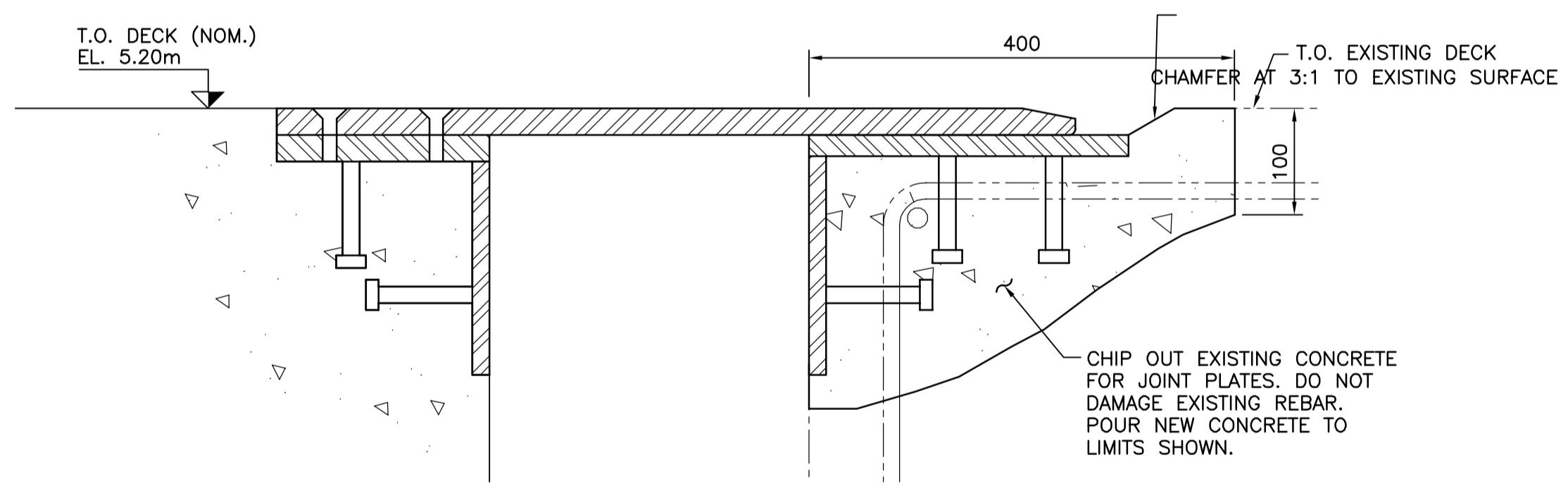
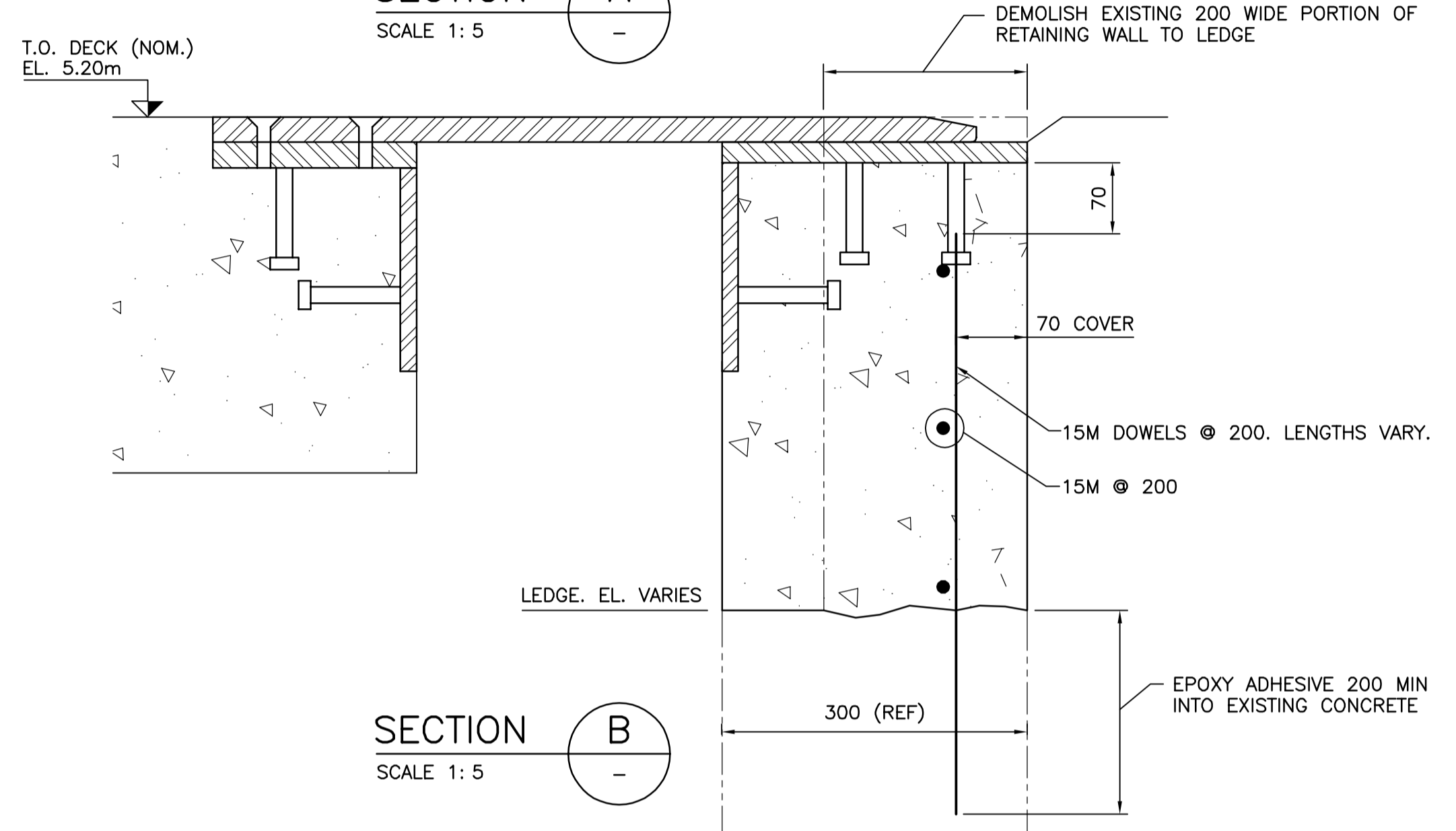
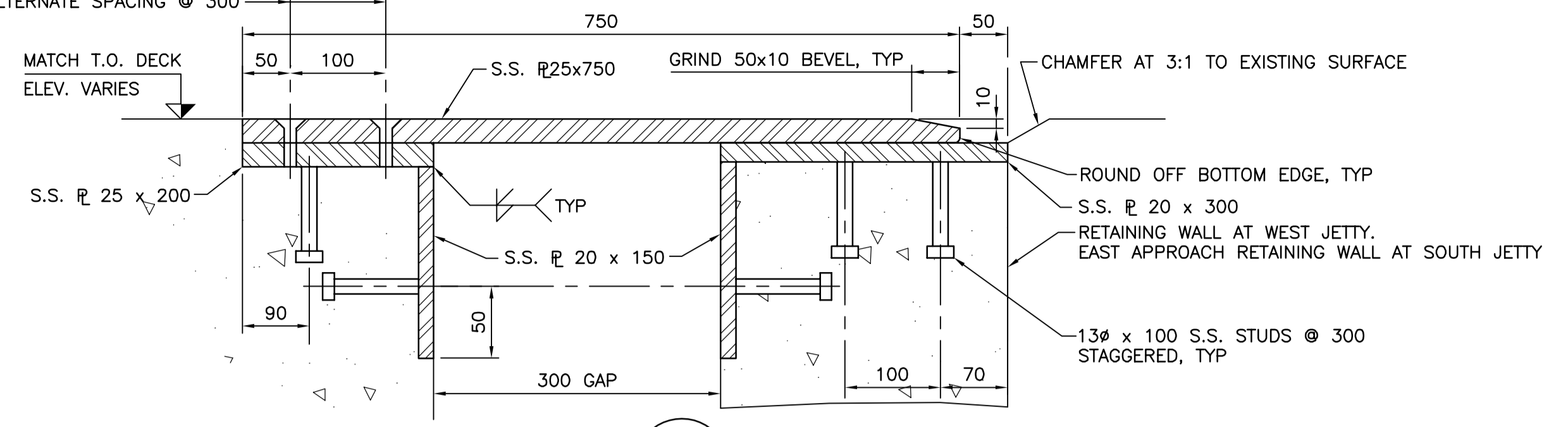
DRILL 14# RECESSED HOLES IN R25x750. DRILL AND TAP HOLES IN R25x200 FOR S.S. M12 FLAT SCREWS. ALTERNATE SPACING @ 300



WEST JETTY SEISMIC MOVEMENT JOINT
1:20



SOUTH JETTY SEISMIC MOVEMENT JOINT
1:20



- NOTES:**
- FOR S.S. (STAINLESS STEEL) NOTES SEE G01.
 - GROUNDING OF SEISMIC MOVEMENT JOINT NOT REQUIRED.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

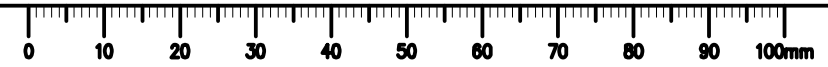
Drawn by/Dessine par
BOG

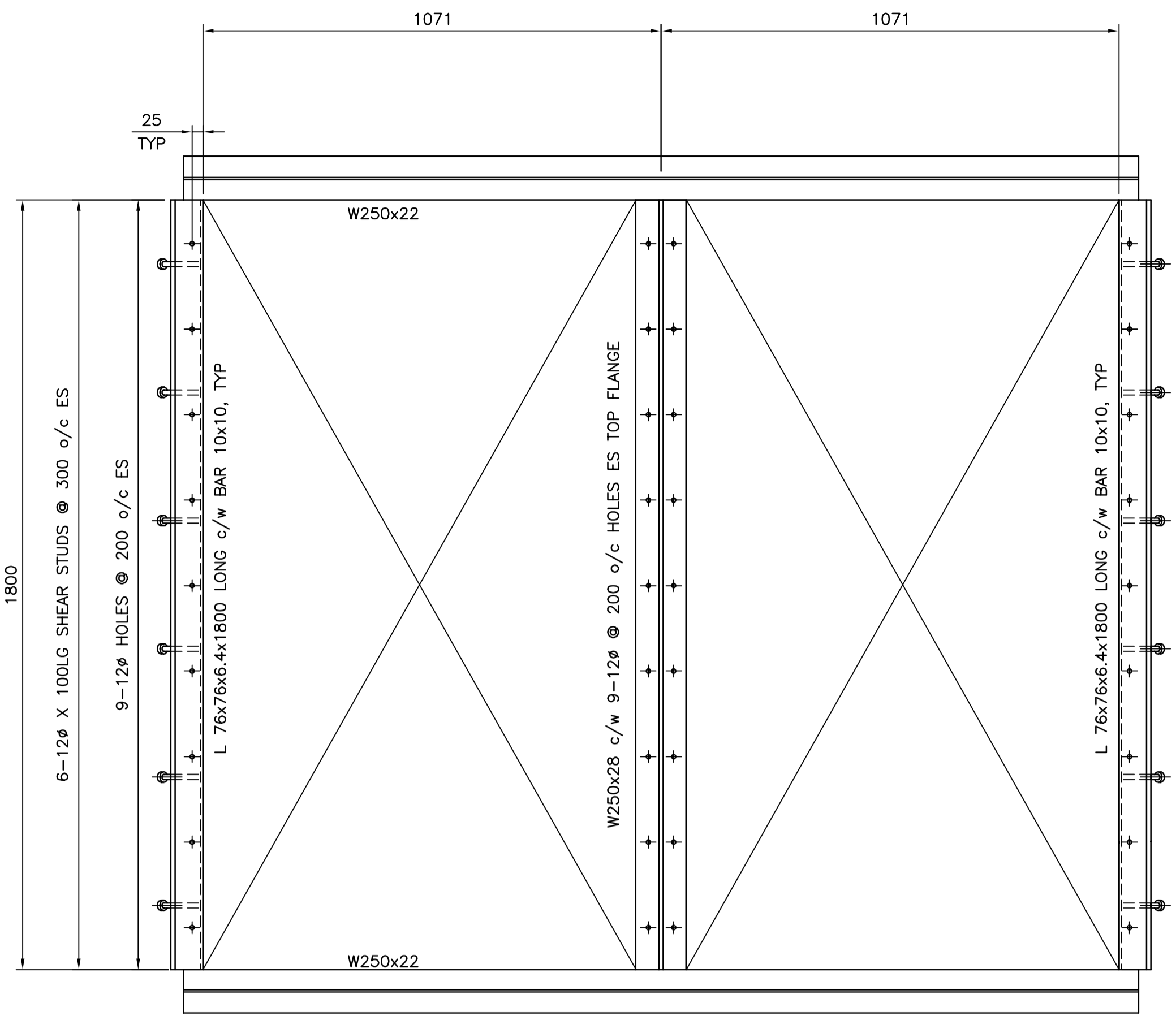
PWSSC Project Manager/Administrateur de Projets TPSSC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
WEST AND SOUTH JETTY SEISMIC MOVEMENT JOINT

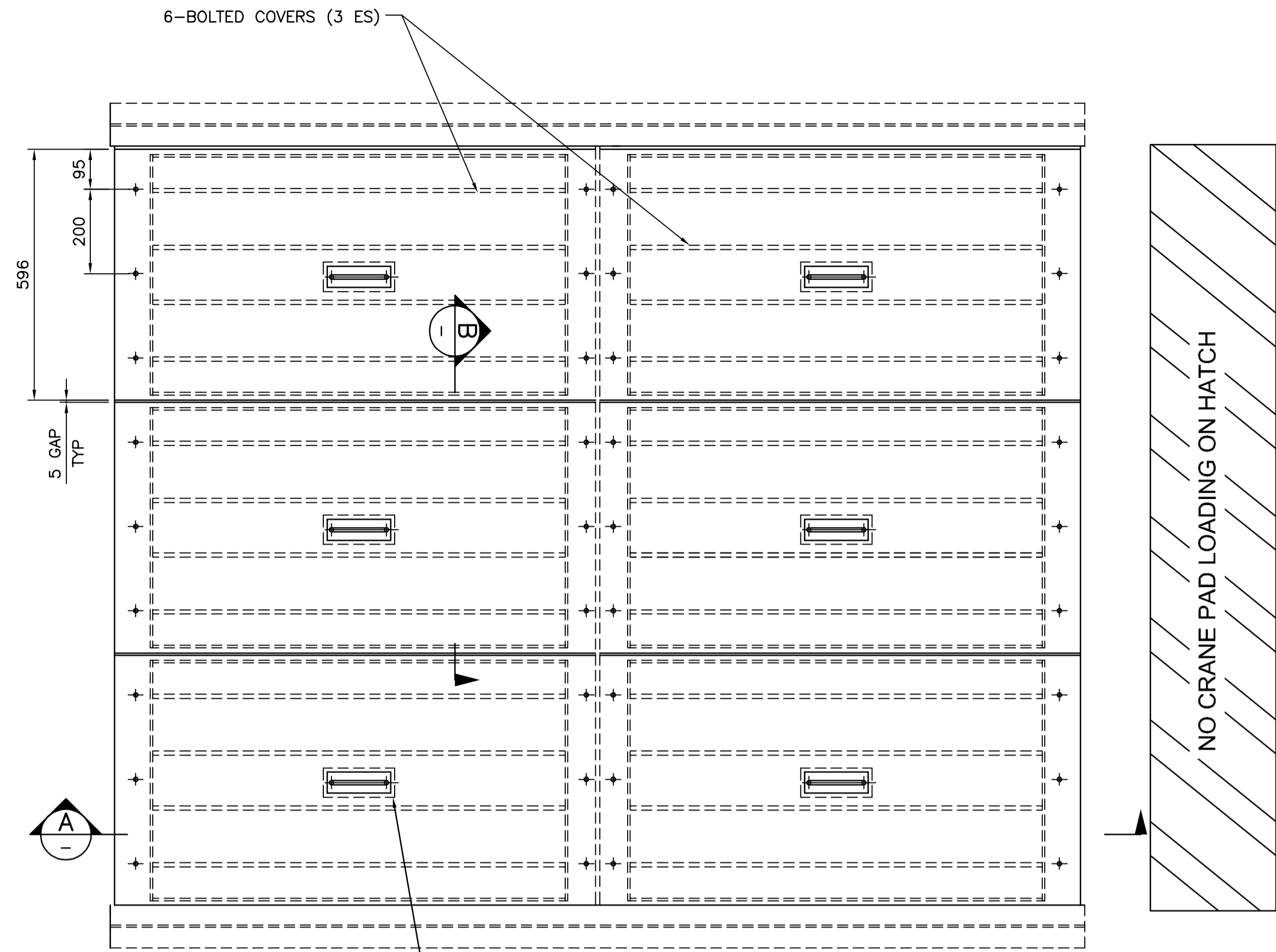
Project No./No. du projet	Sheet/	Revision no./
R.026729.002	S41	2





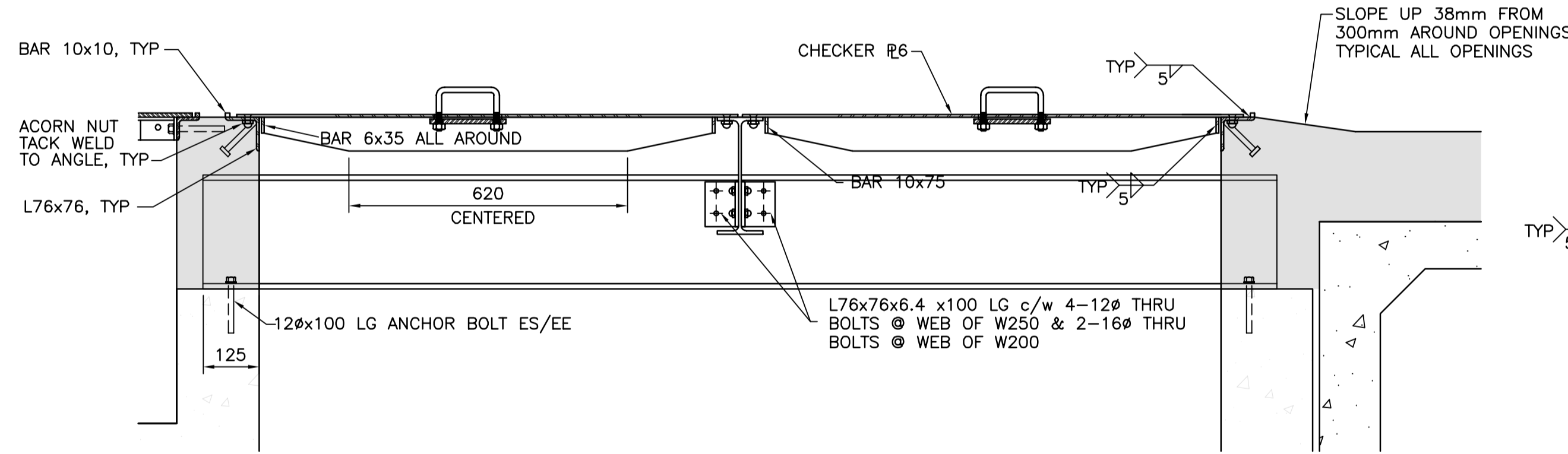
UTILITY TRENCH ACCESS HATCH FRAME

PLAN 1:10

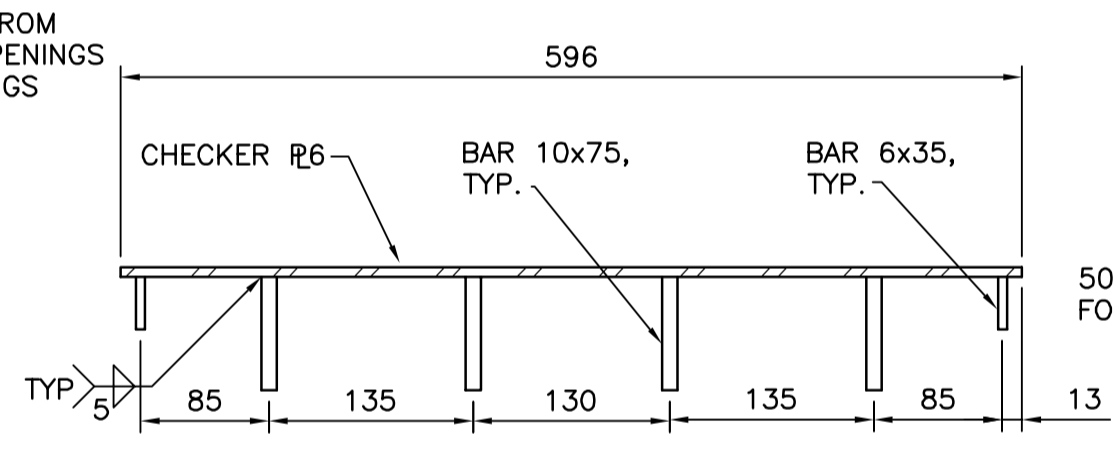


UTILITY TRENCH ACCESS HATCH COVER

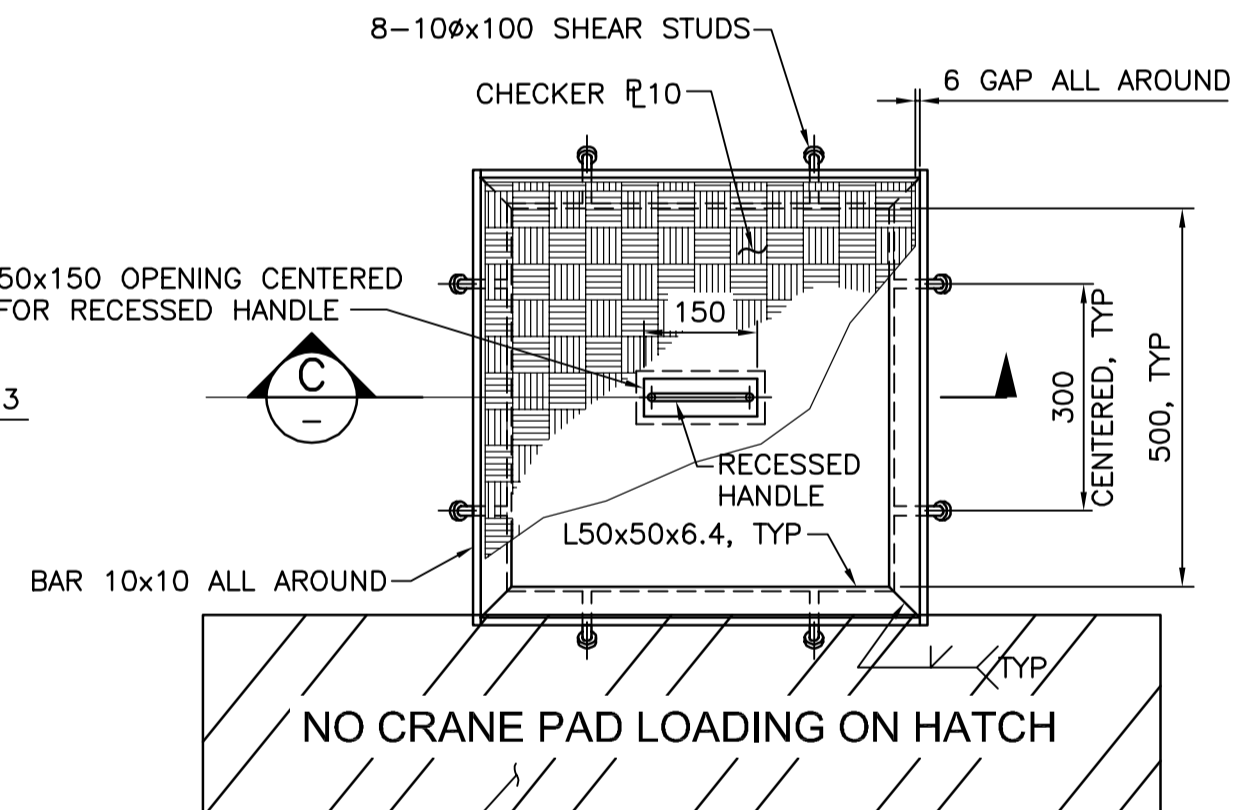
PLAN 1:10



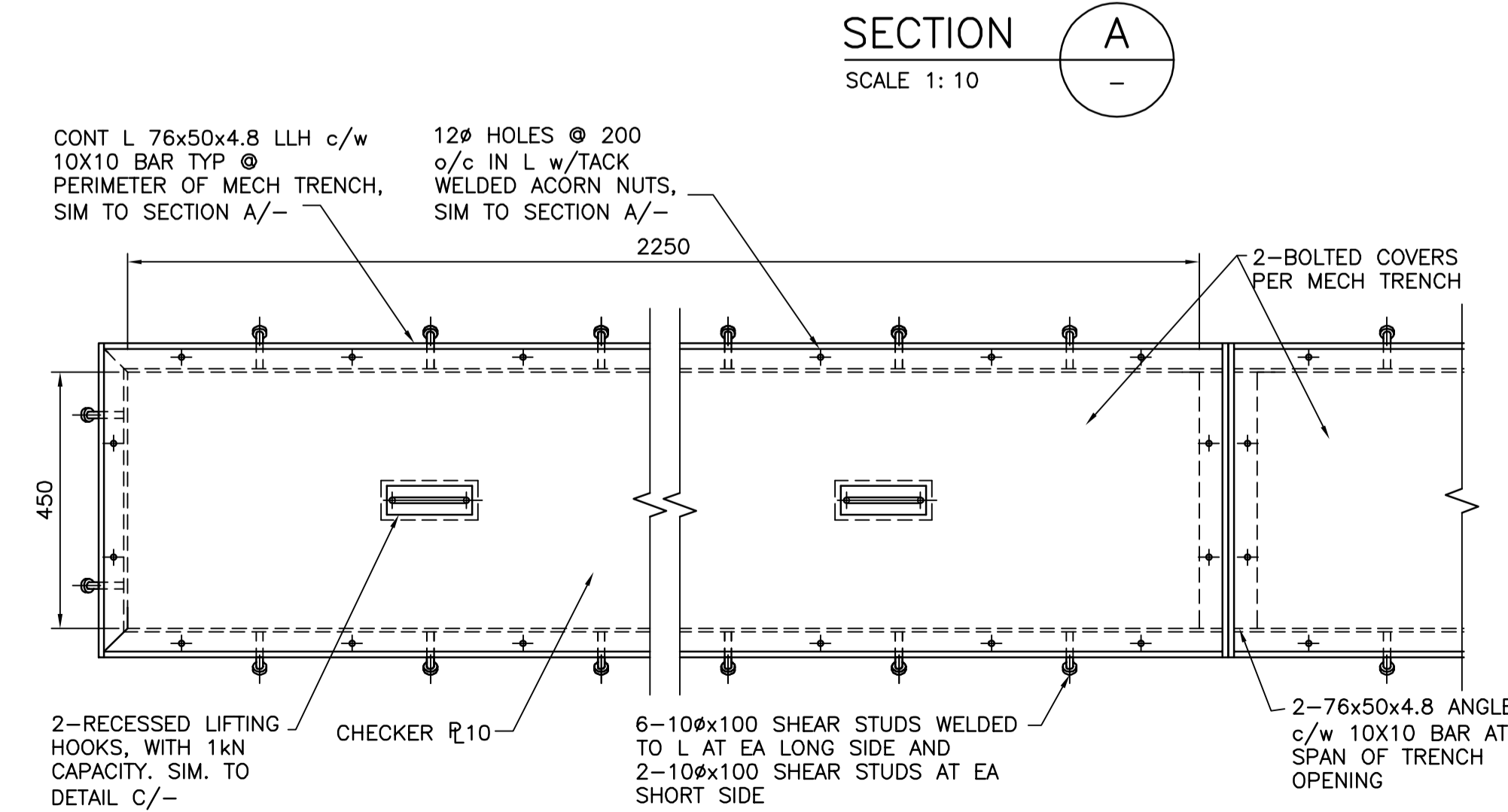
SECTION A SCALE 1:10



SECTION B SCALE 1:5

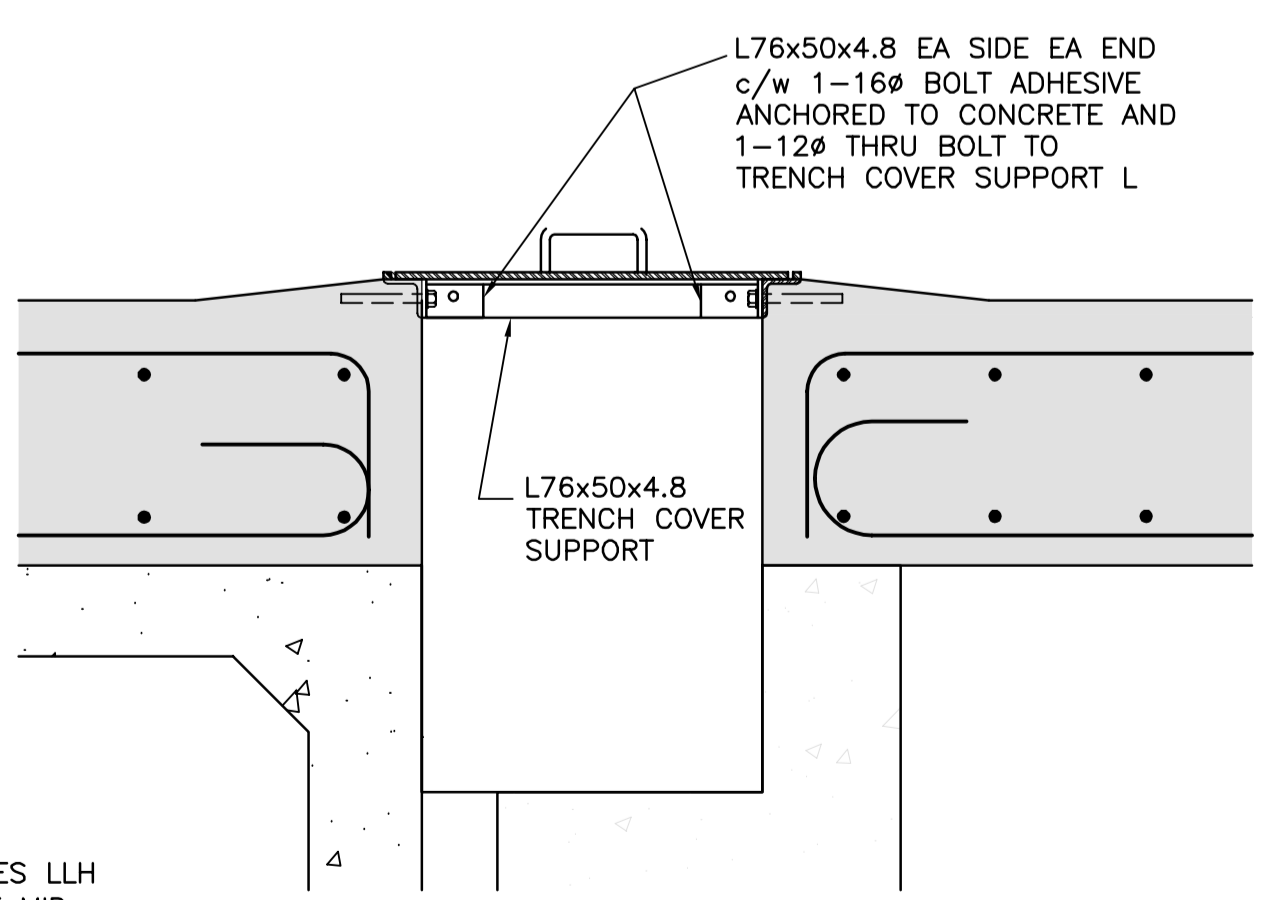


SECTION C SCALE 1:5

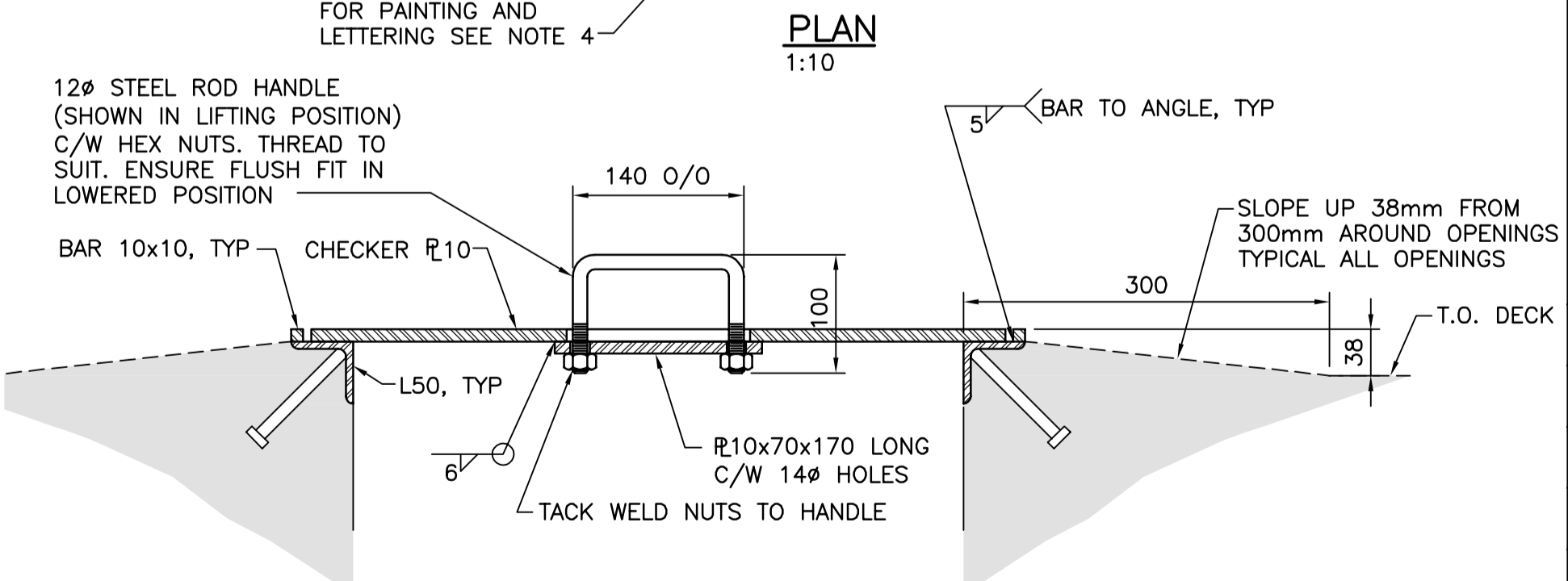


MECHANICAL TRENCH COVER

PLAN 1:10



SECTION D SCALE 1:5



FIRE BOAT CONNECTION COVER

1 - REQUIRED

NOTES:

- FOR NOTES SEE DWG G01.
- ALL FABRICATED STEEL SHALL BE HOT DIP GALVANIZED.
- COVERS ARE DESIGNED FOR APRON LIVE LOADS AS SPECIFIED ON DWG G01 EXCEPT MOBILE CRANE LOADING.
- PAINT TO BE YELLOW TRAFFIC PAINT PER BC MOT STANDARD SPECIFICATIONS. RED LETTERING TO CONFORM TO BC BUILDING CODE REQUIREMENTS FOR EXIT SIGNS.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

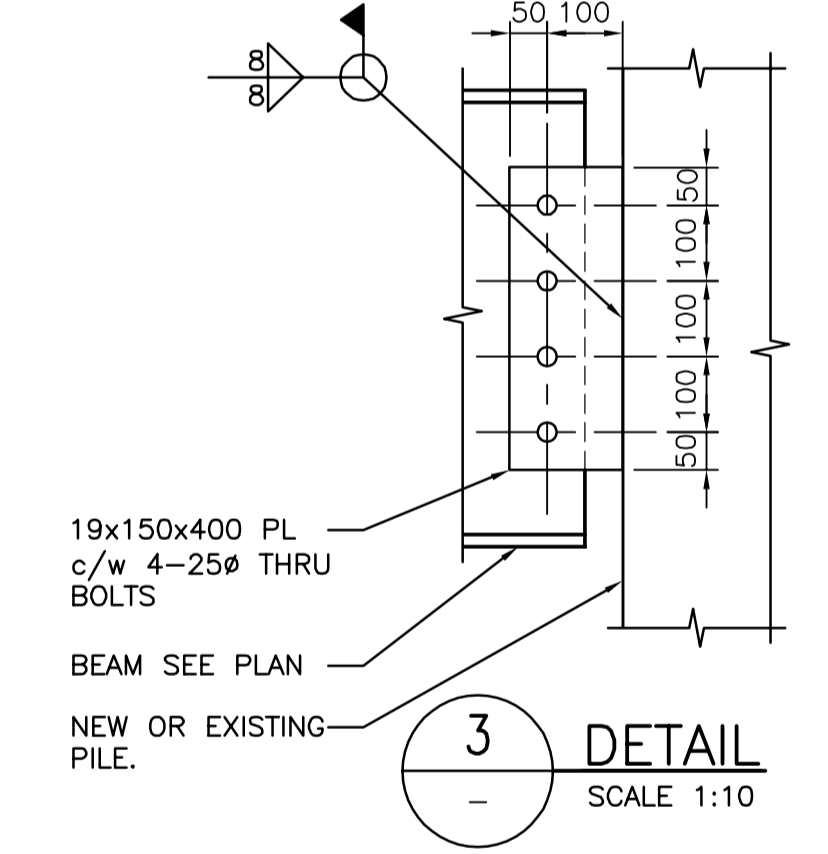
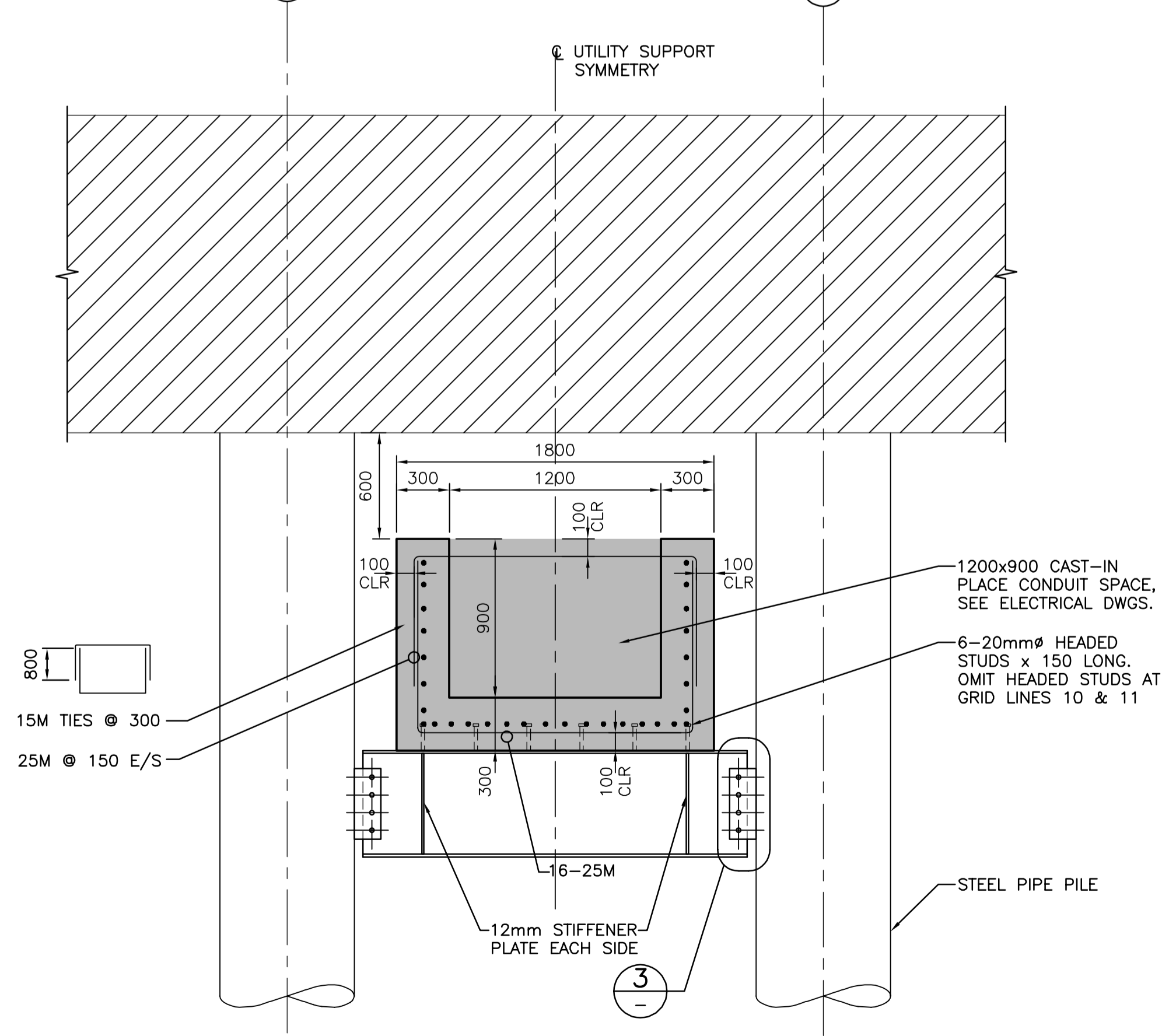
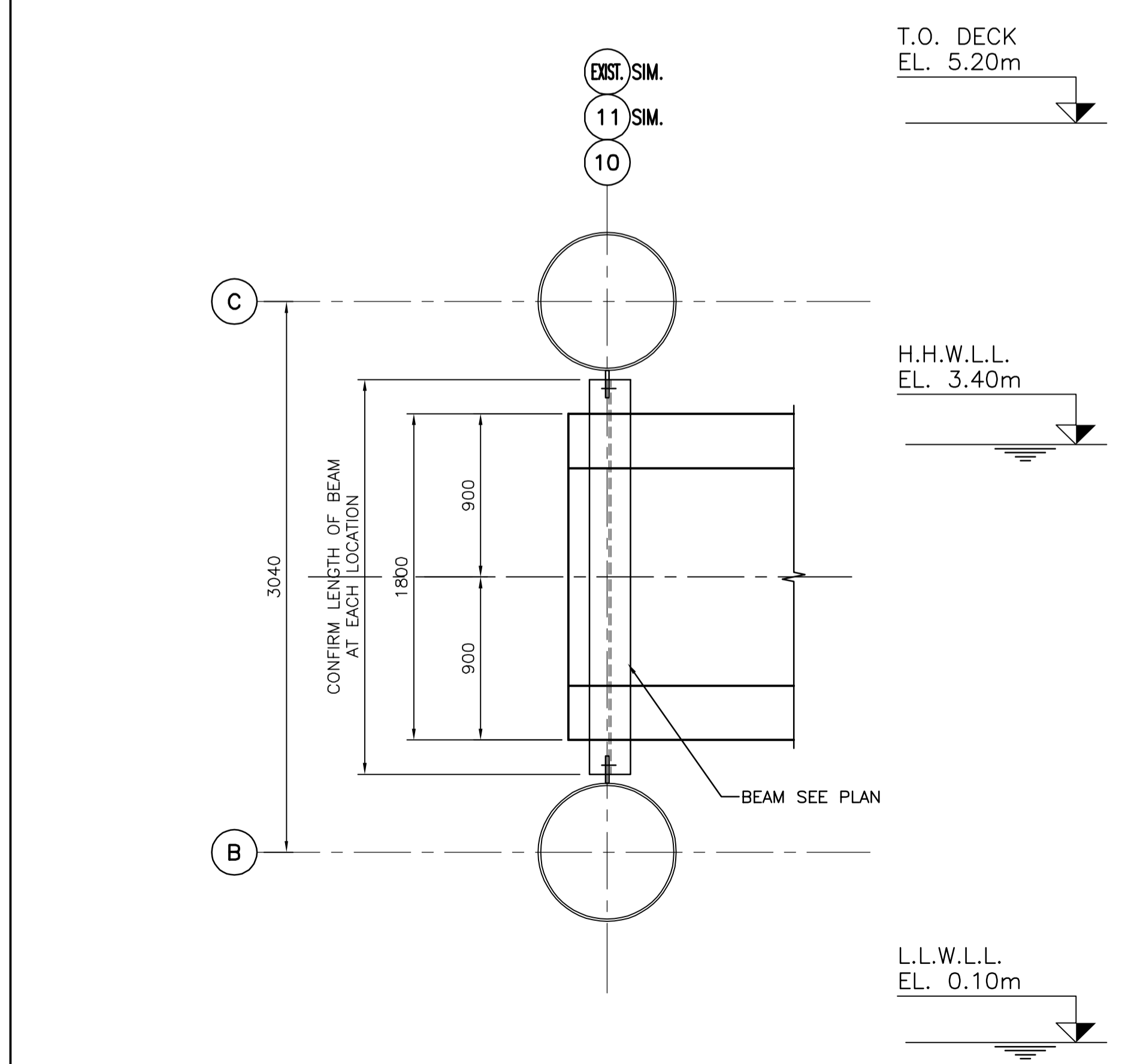
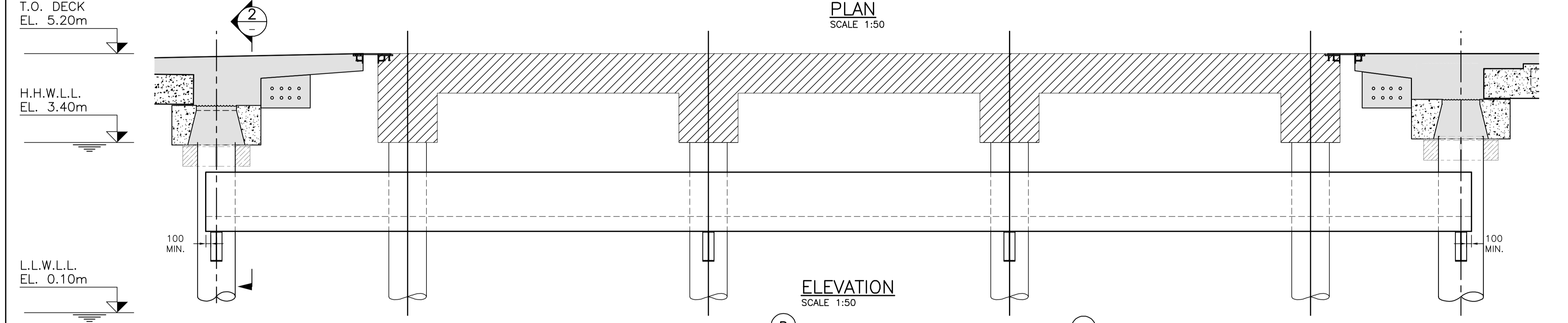
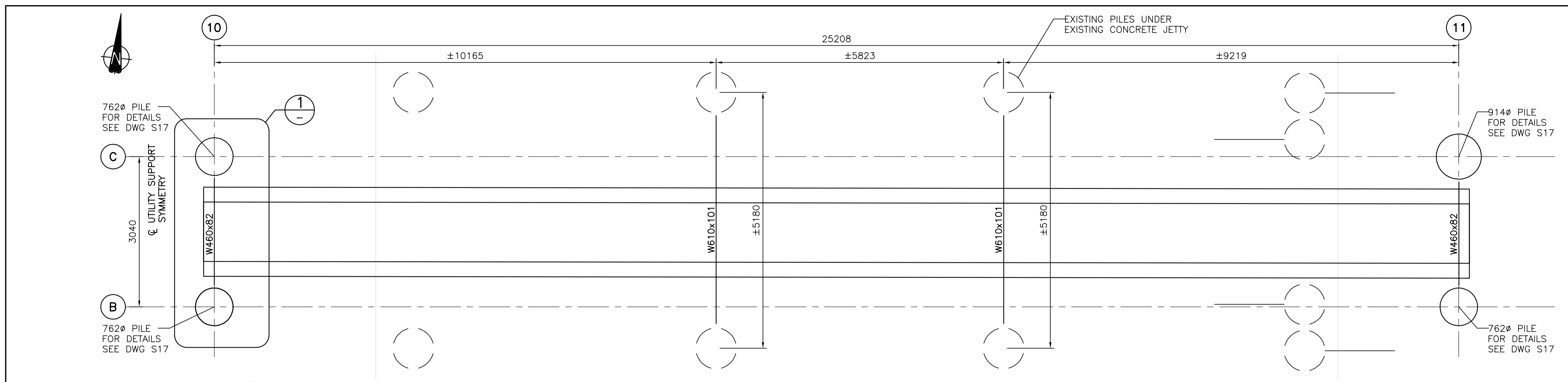
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST AND SOUTH JETTY DECK
UTILITY TRENCH ACCESS COVER &
FIRE BOAT CONNECTION COVER**

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.026729.002	S42	2



- NOTE:
1. AT EXISTING PILE, CLEAN TO BARE STEEL AT WELD LOCATIONS
 2. PAINT ALL CLEANED AND WELDED AREAS IN ACCORDANCE WITH SPECIFICATIONS

NOTES:

1. FOR NOTES SEE DWG. G01.
2. ALL ITEMS ARE TO BE HOT DIP GALVANIZED AFTER FABRICATION.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

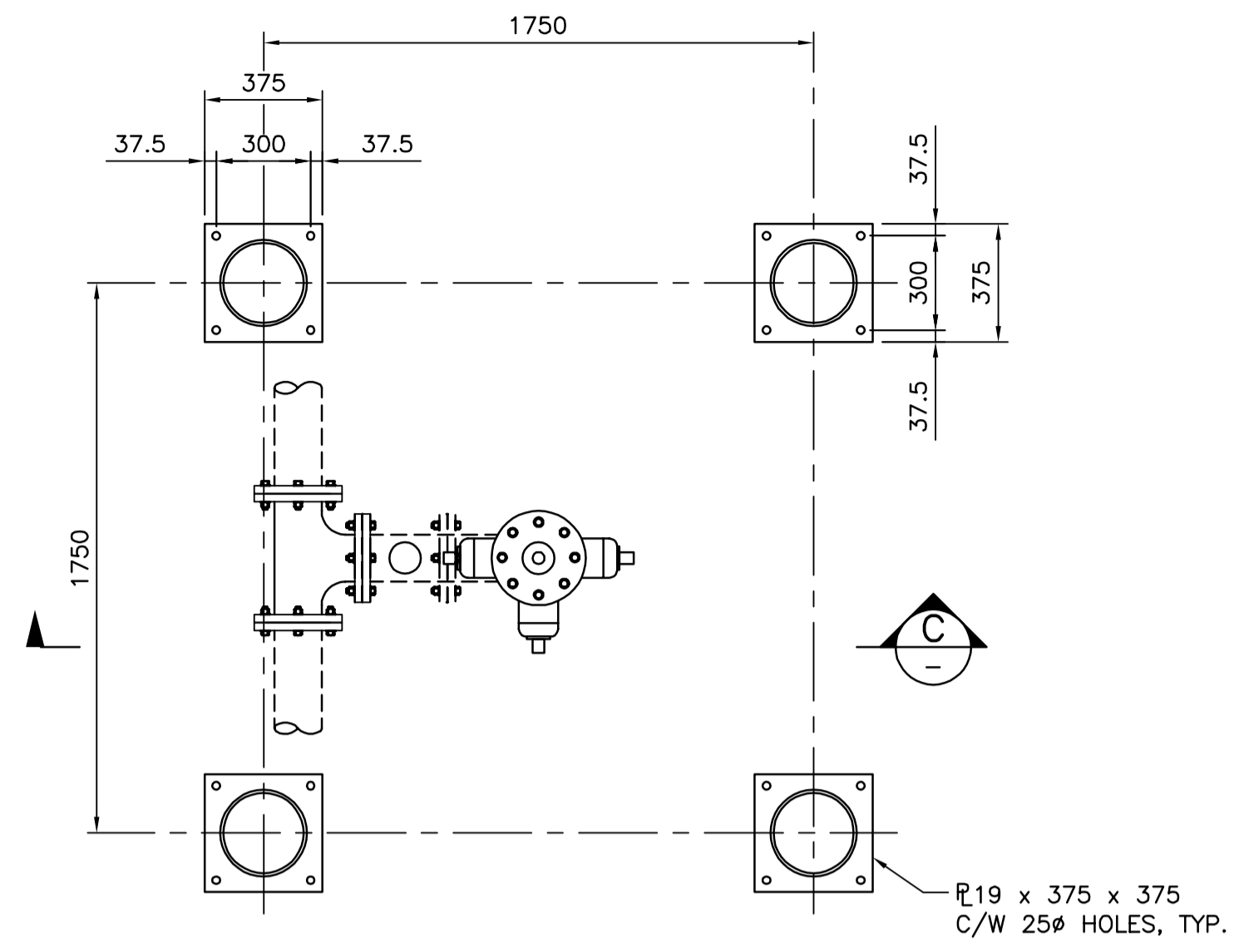
Drawn by/Dessine par
BOG

PWSSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

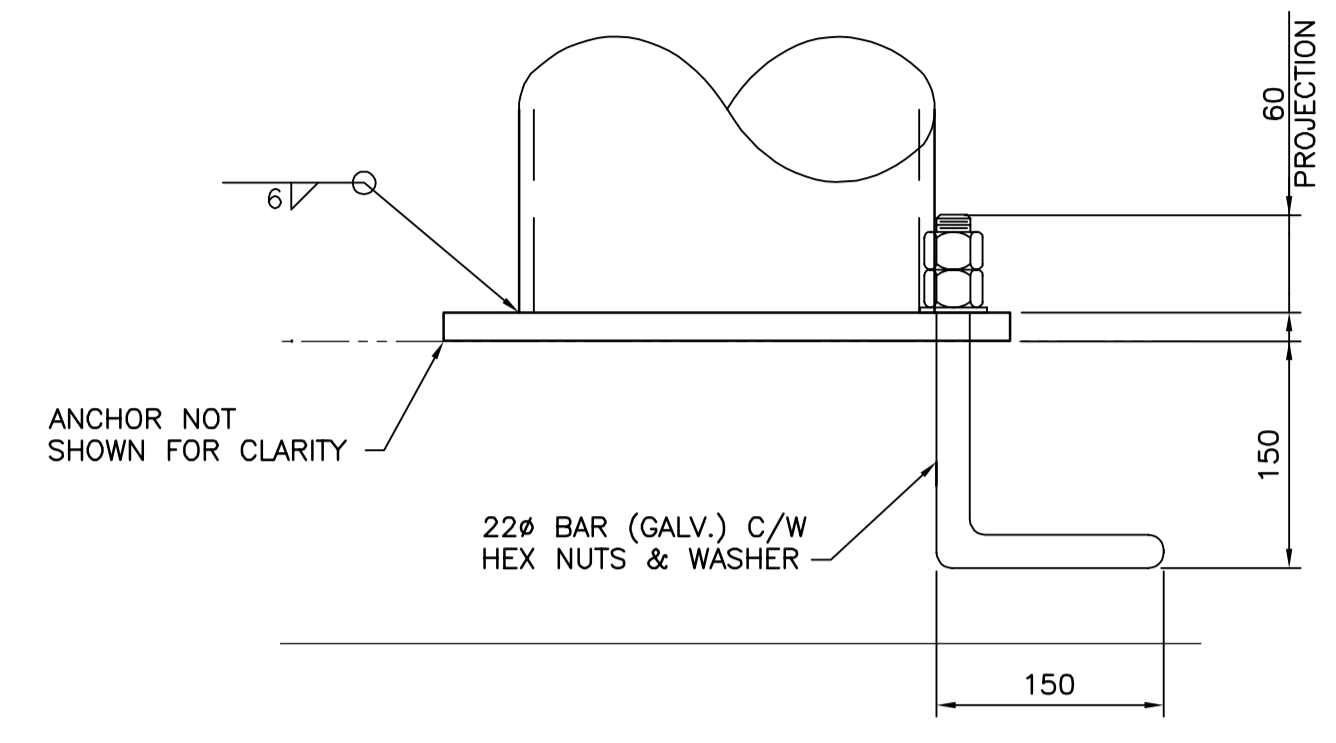
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST JETTY
UTILITY SUPPORT
BELOW EXISTING STRUCTURE**

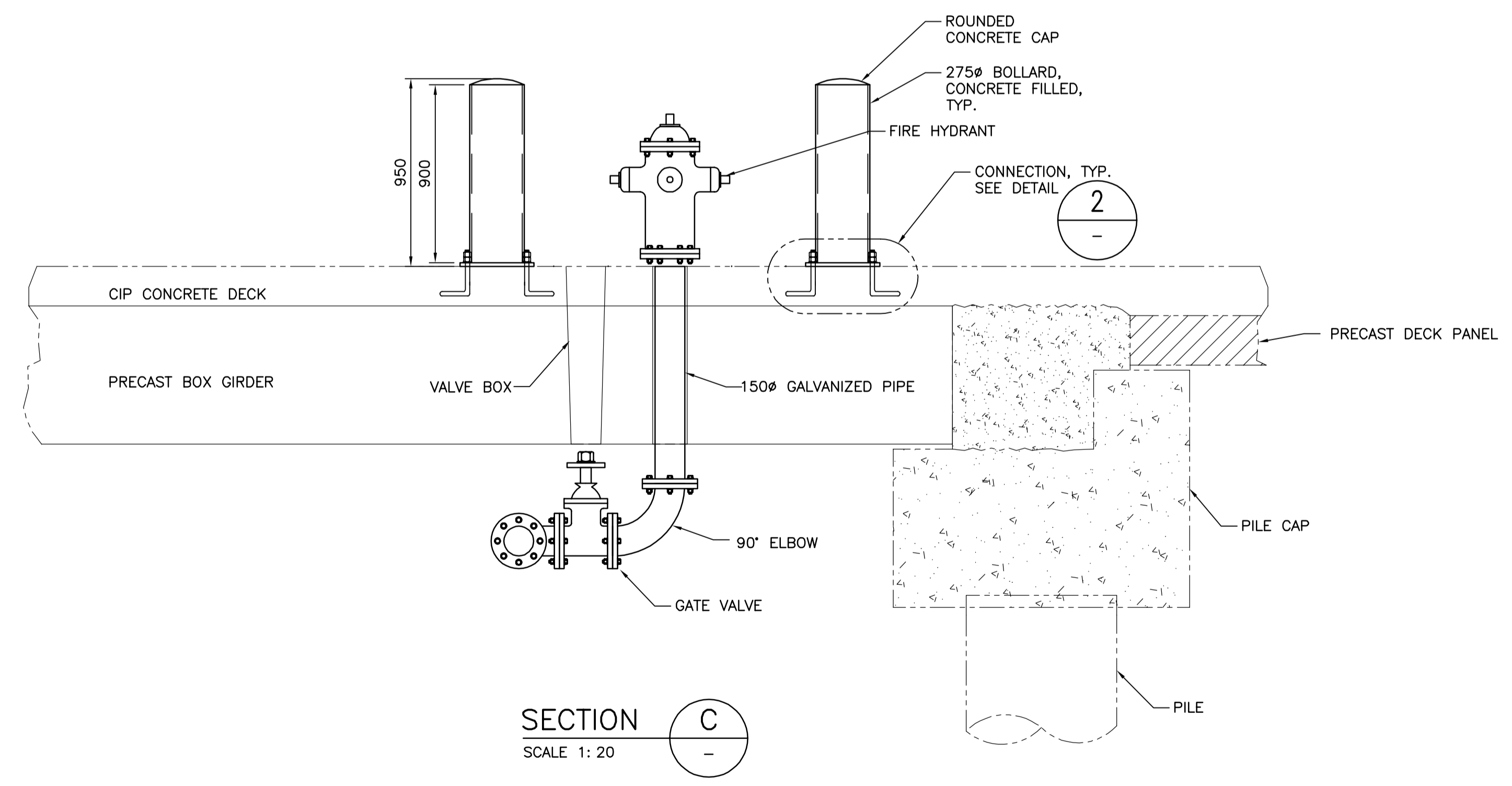
Project No./No. du projet R.026729.002	Sheet/Fauille S44	Revision no./ Le Révision no. 2
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DETAIL 1
SCALE 1: 20



DETAIL 2
SCALE 1: 5



SECTION C
SCALE 1: 20

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

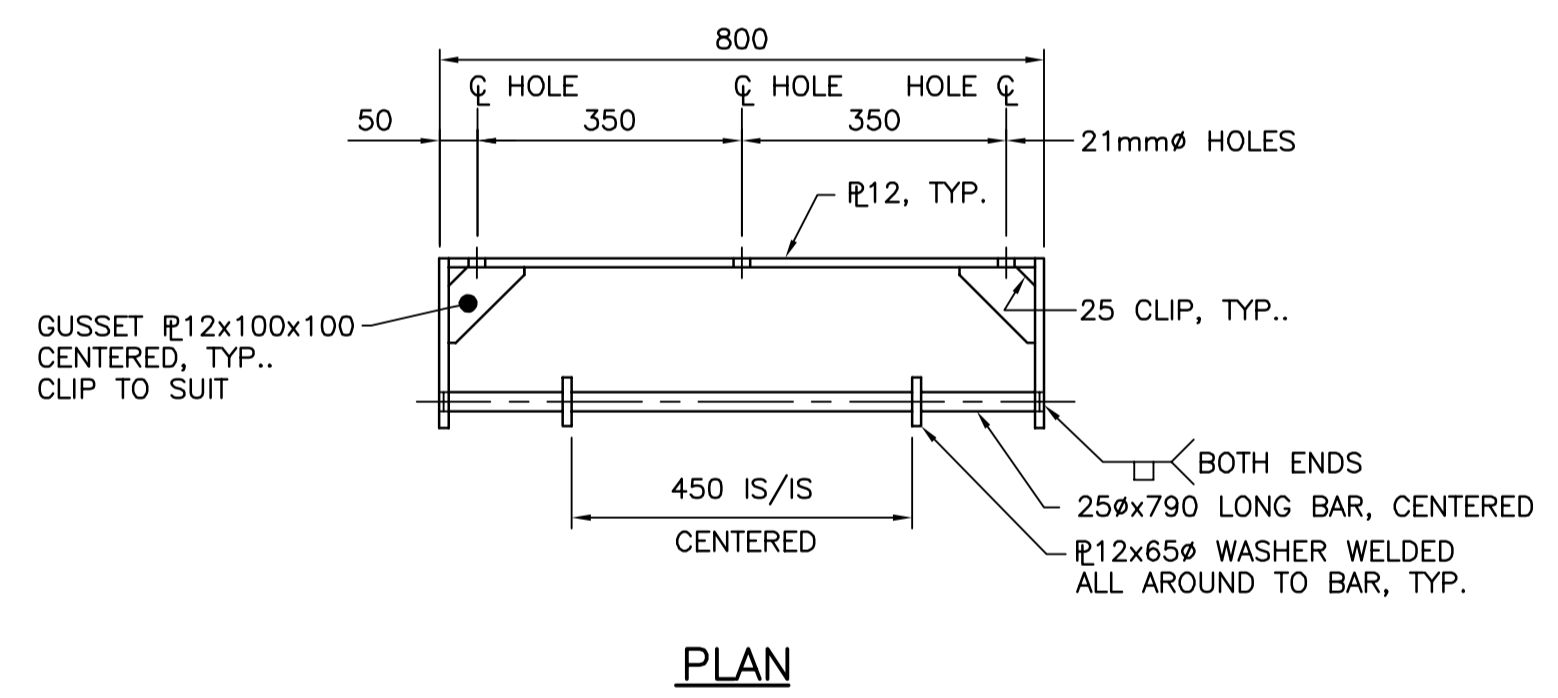
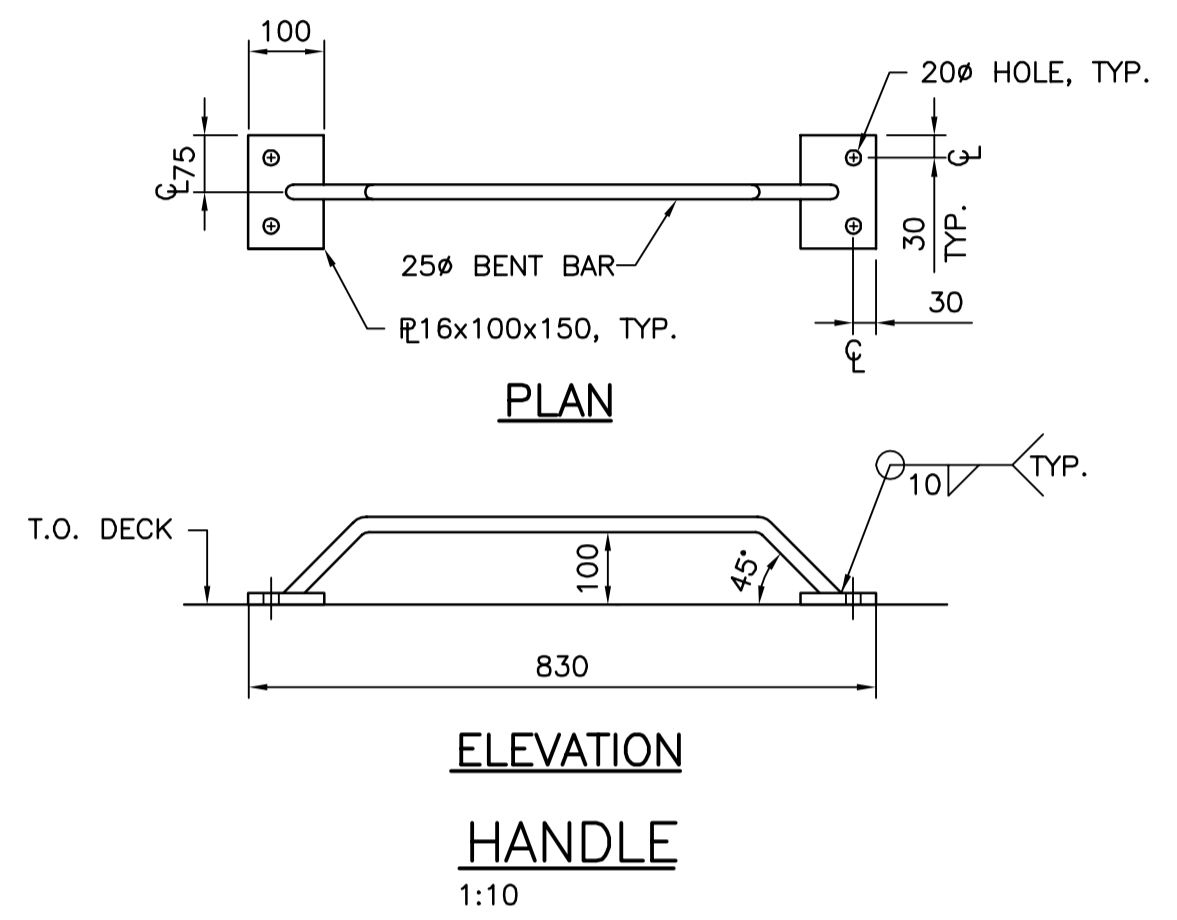
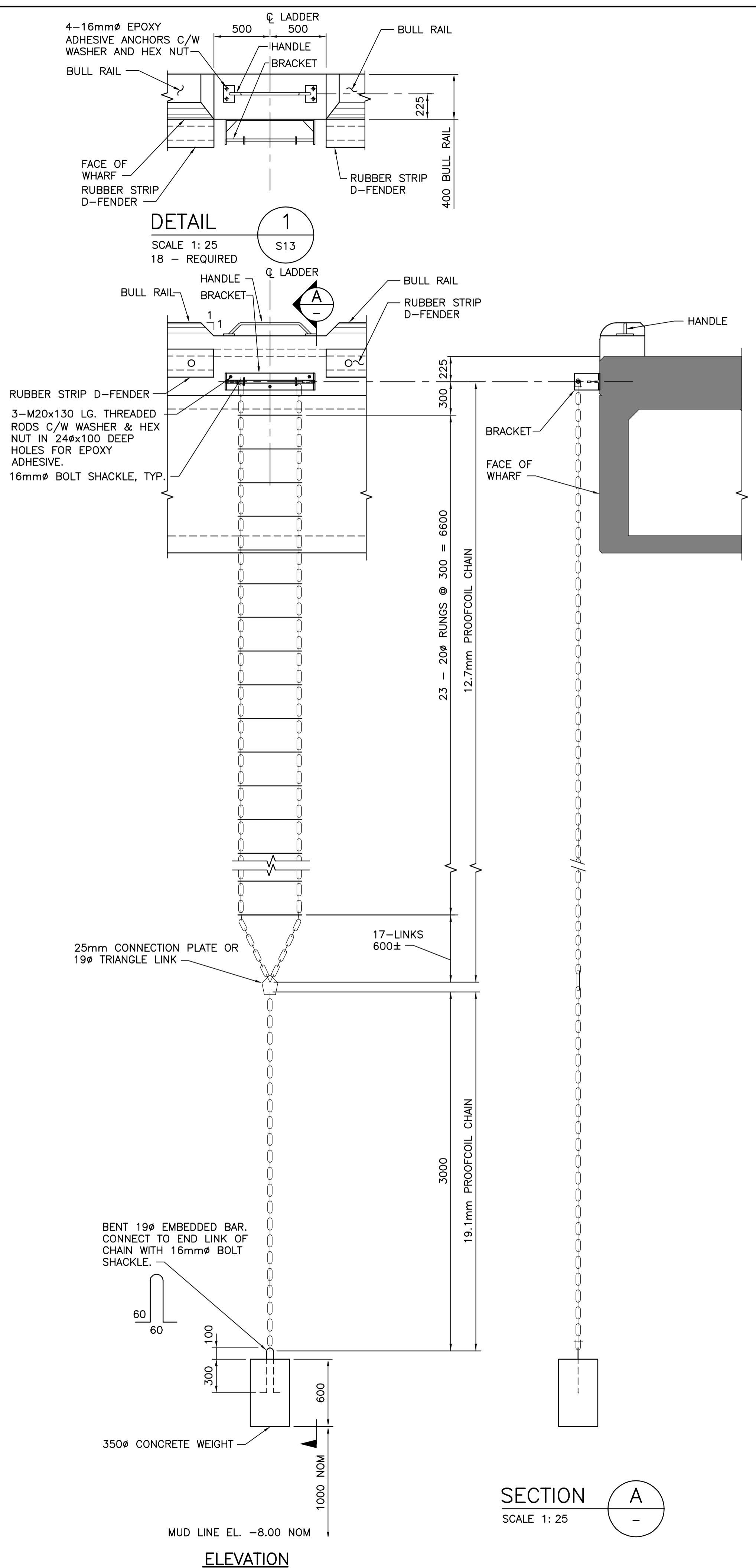
PWSSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin

**WEST JETTY
FIRE HYDRANT DETAILS**

Project No./No. du projet R.026729.002	Sheet/ S45	Revision no./ 2
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BRACKET
1:10
NOTE:
ALL WELDS SHALL BE 6mm CONTINUOUS FILLET ALL AROUND U.N.O.

- NOTES:**
1. FOR NOTES SEE DWG G01.
2. ALL FABRICATED STEEL SHALL BE HOT DIP GALVANIZED.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/Client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

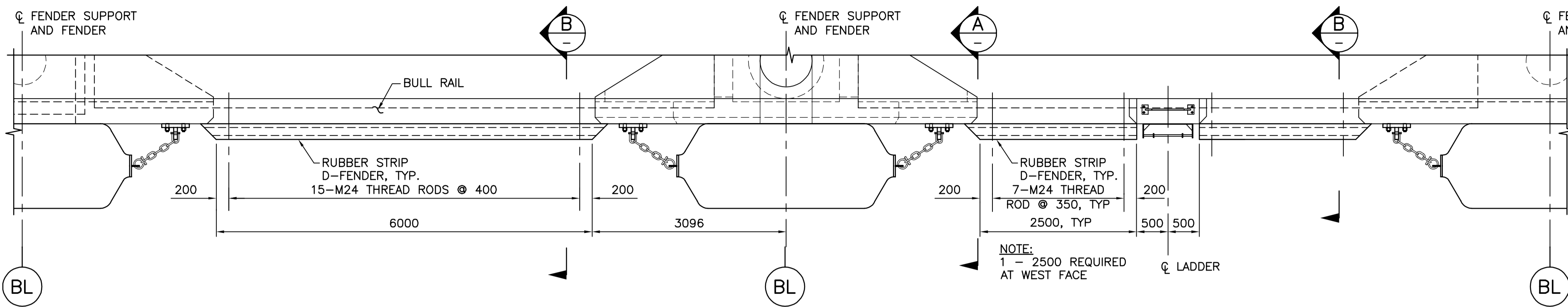
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

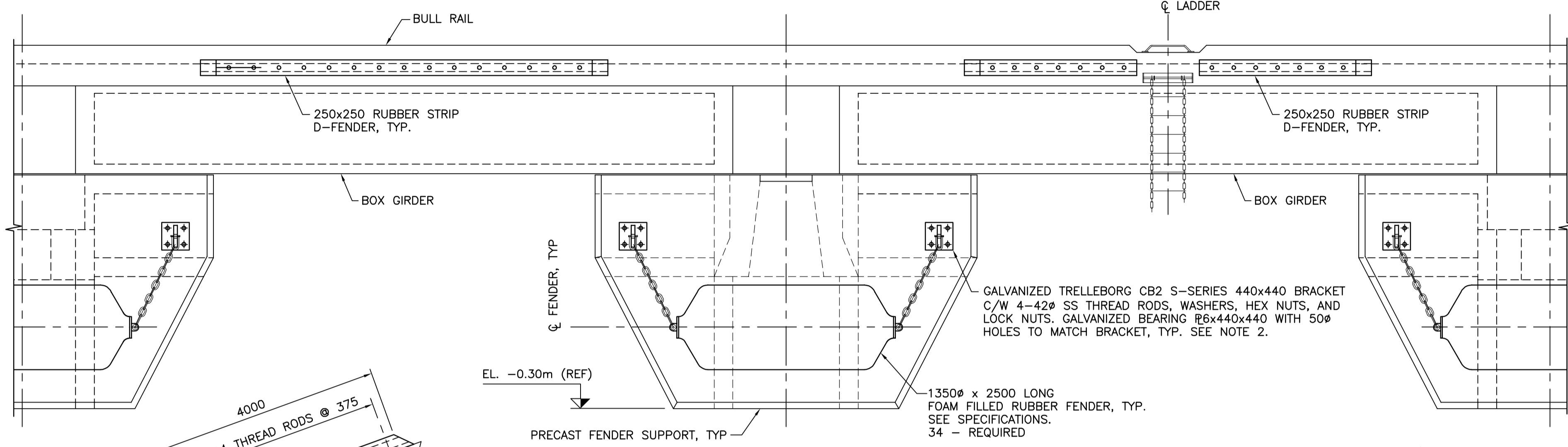
Consultant Signature Only
Designed by/Concept par: KU, TW
Drawn by/Dessiné par: BOG
PWGSC Project Manager/Administrateur de Projets TPSGC: PATRICK TRUONG
Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: PREETIPAL PAUL

Drawing title/Titre du dessin
WEST AND SOUTH JETTY DECK CHAIN LADDER

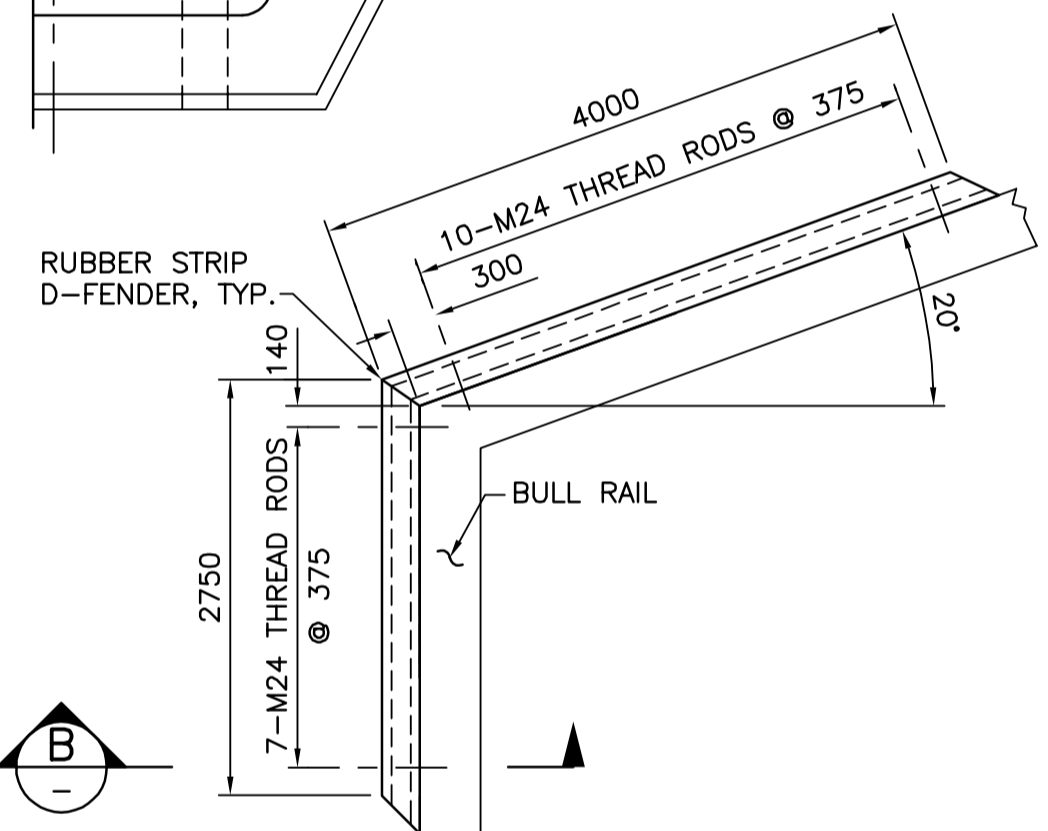
Project No./No. du projet	Sheet/	Revision no./
R.026729.002	S46	2



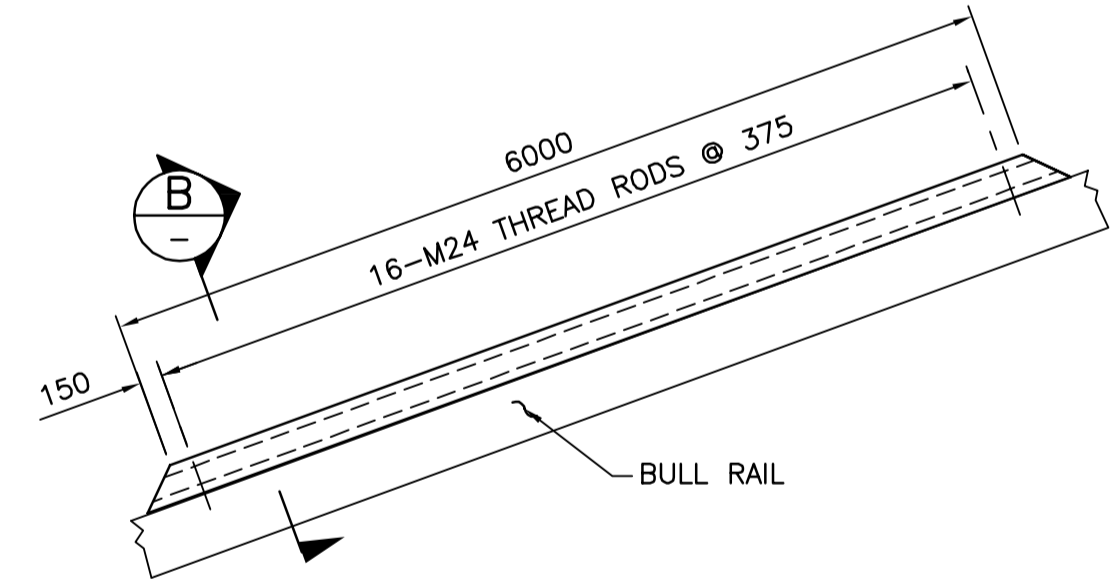
DETAIL 1
SCALE 1:50
S13



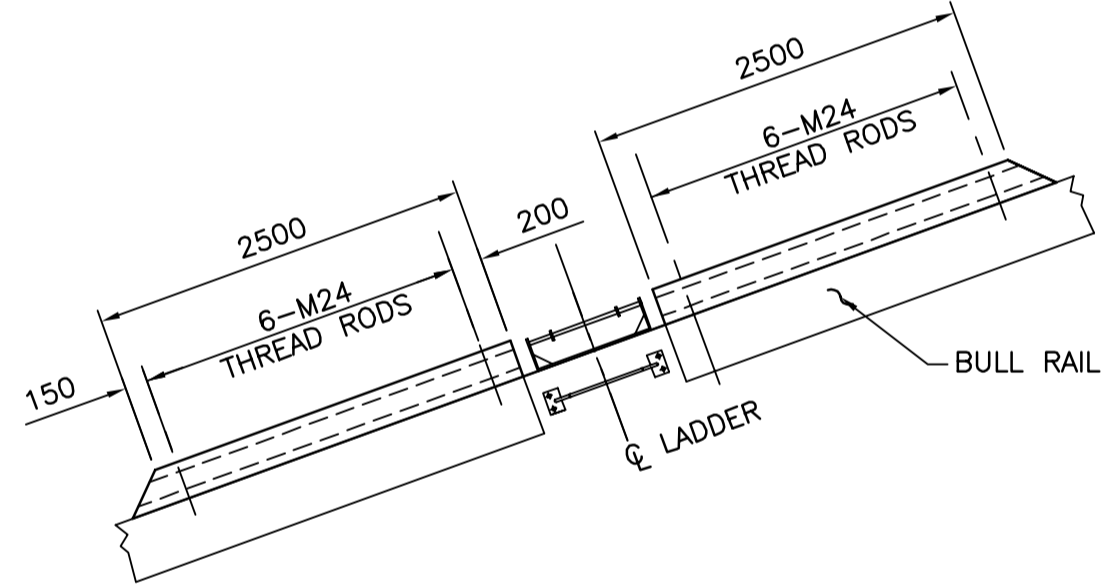
ELEVATION
1:50



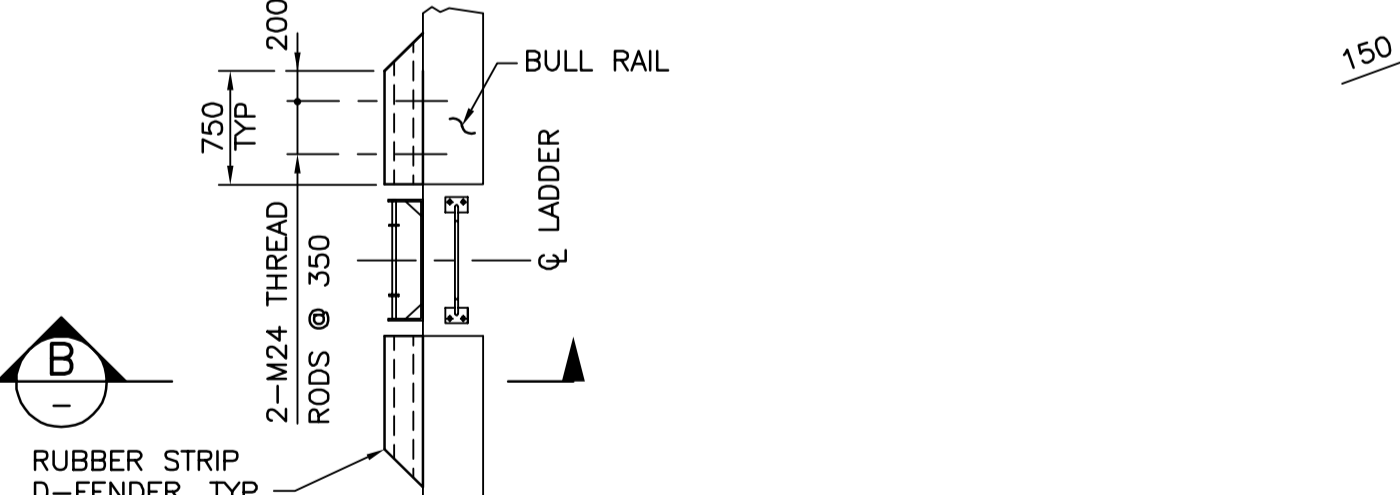
NW CORNER RUBBER STRIP D-FENDER
1:50



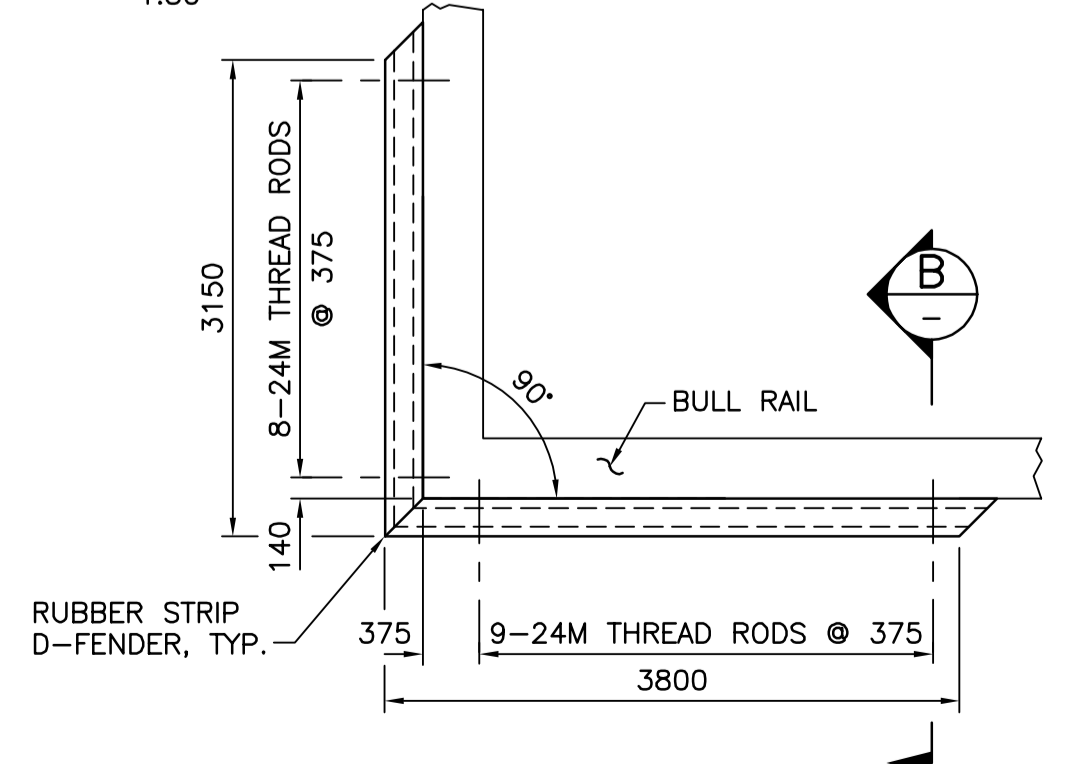
NORTH RUBBER STRIP D-FENDER
1:50



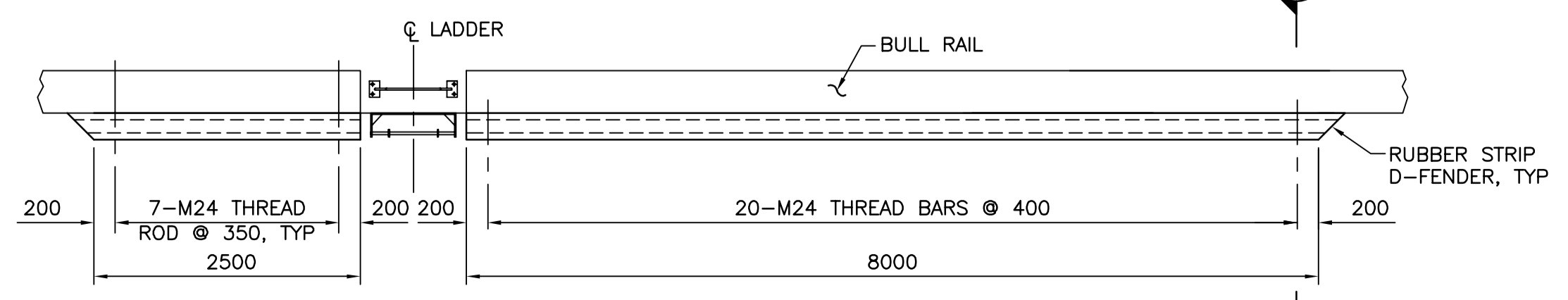
NORTH RUBBER STRIP D-FENDER AT LADDERS
1:50



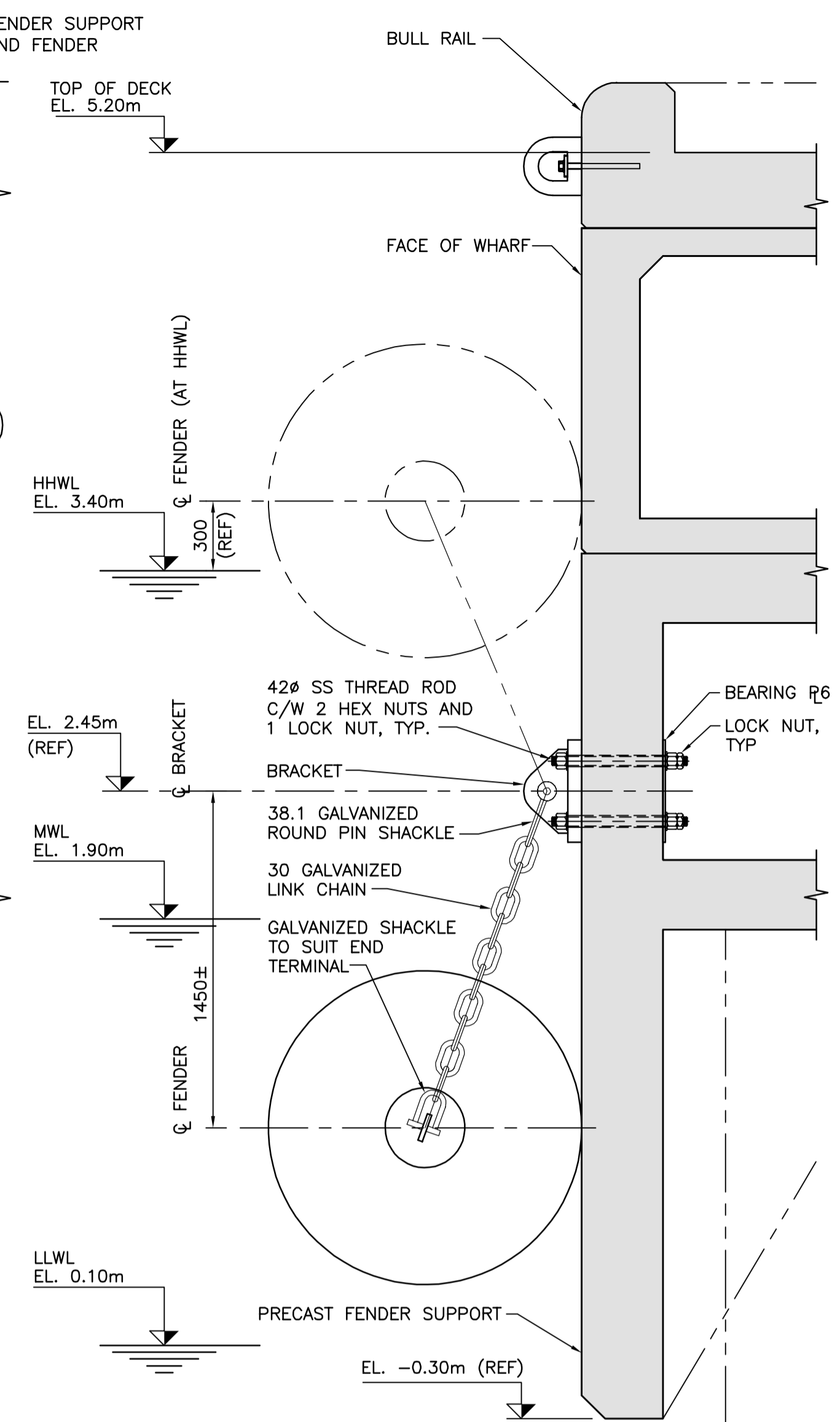
RUBBER STRIP D-FENDERS AT WEST FACE LADDERS
1:50



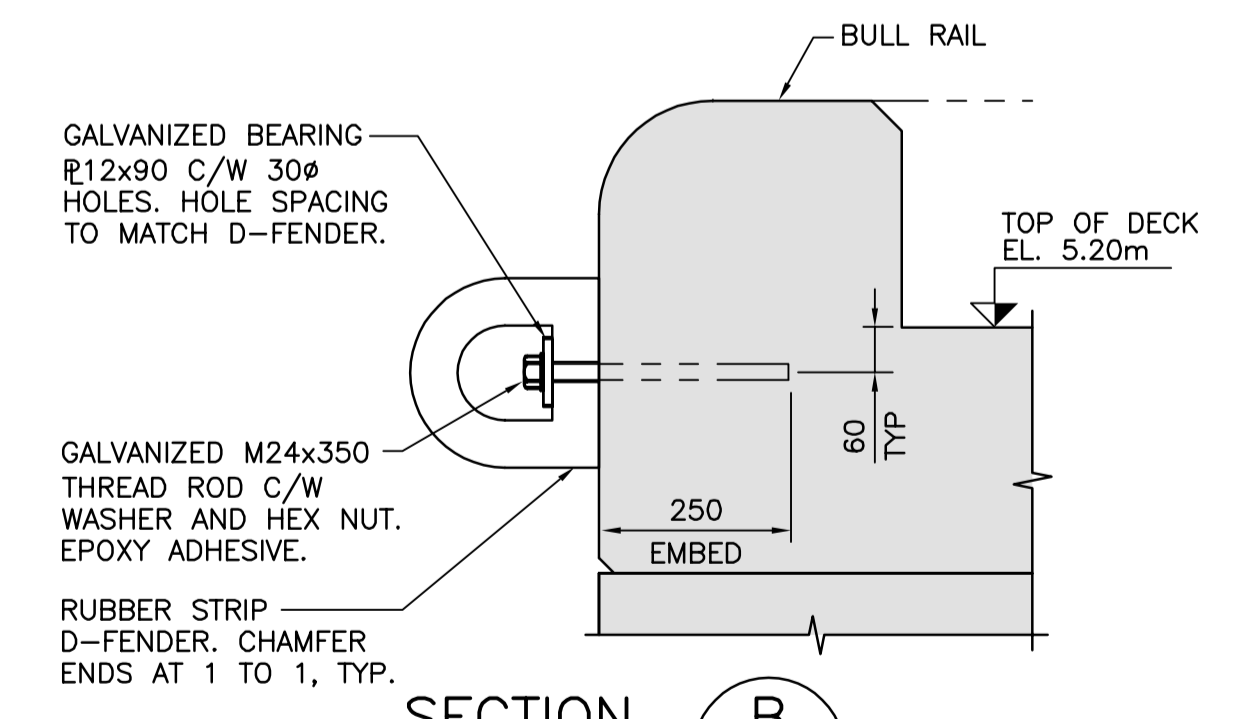
SW CORNER RUBBER STRIP D-FENDER
1:50



EAST END RUBBER STRIP D-FENDER
1:50



SECTION A
SCALE 1:20



SECTION B
SCALE 1:10

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - TORQUE FENDER BRACKET THREAD ROD TO 60% YIELD PRIOR TO APPLYING LOCK NUT. APPLY EPOXY TO THREADS.

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES Pacific Region / SERVICES IMMOBILIERS Région de Pacifique

HEROLD ENGINEERING

HEL JOB FILE: 3191-008

PROFESSIONAL S.J. SCOTT # 28809 2017-03-14

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/18

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

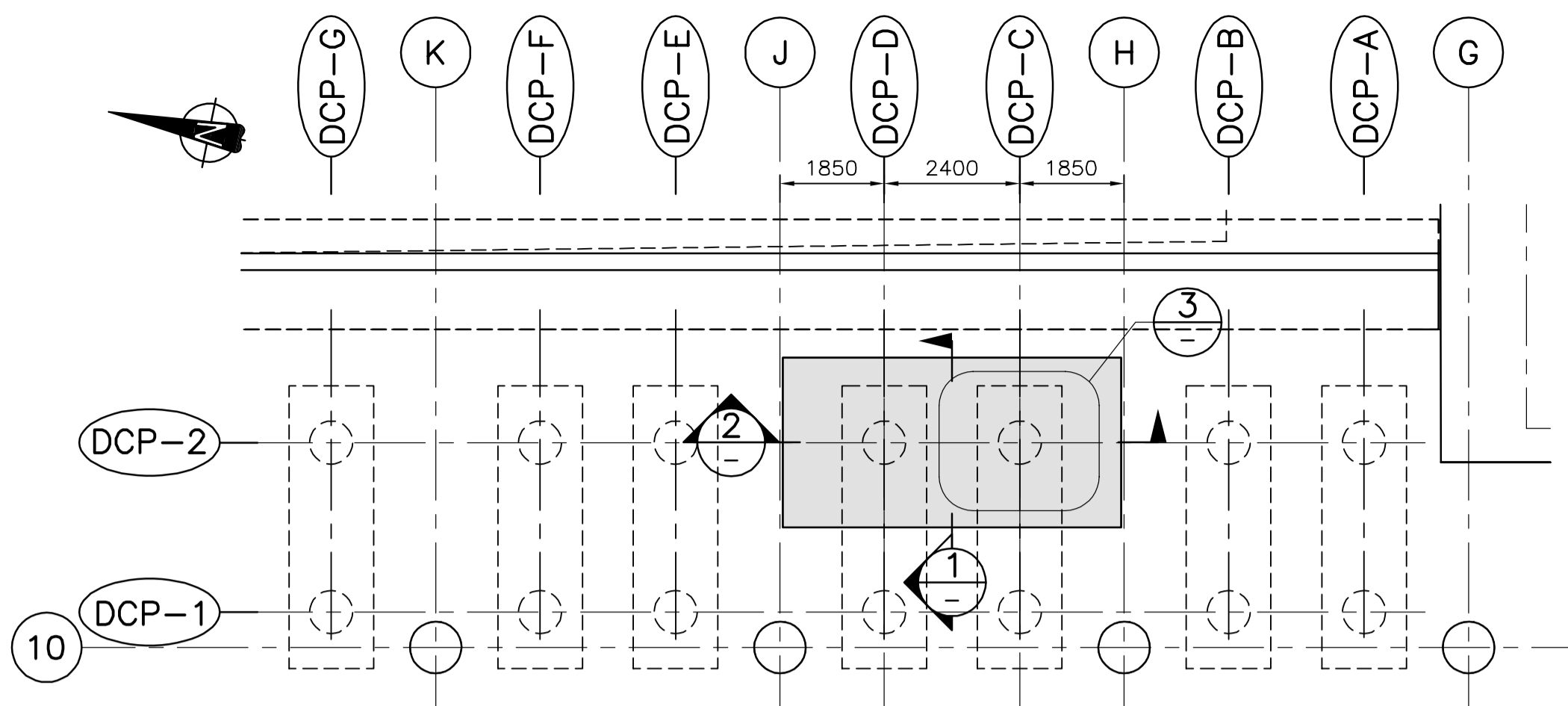
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

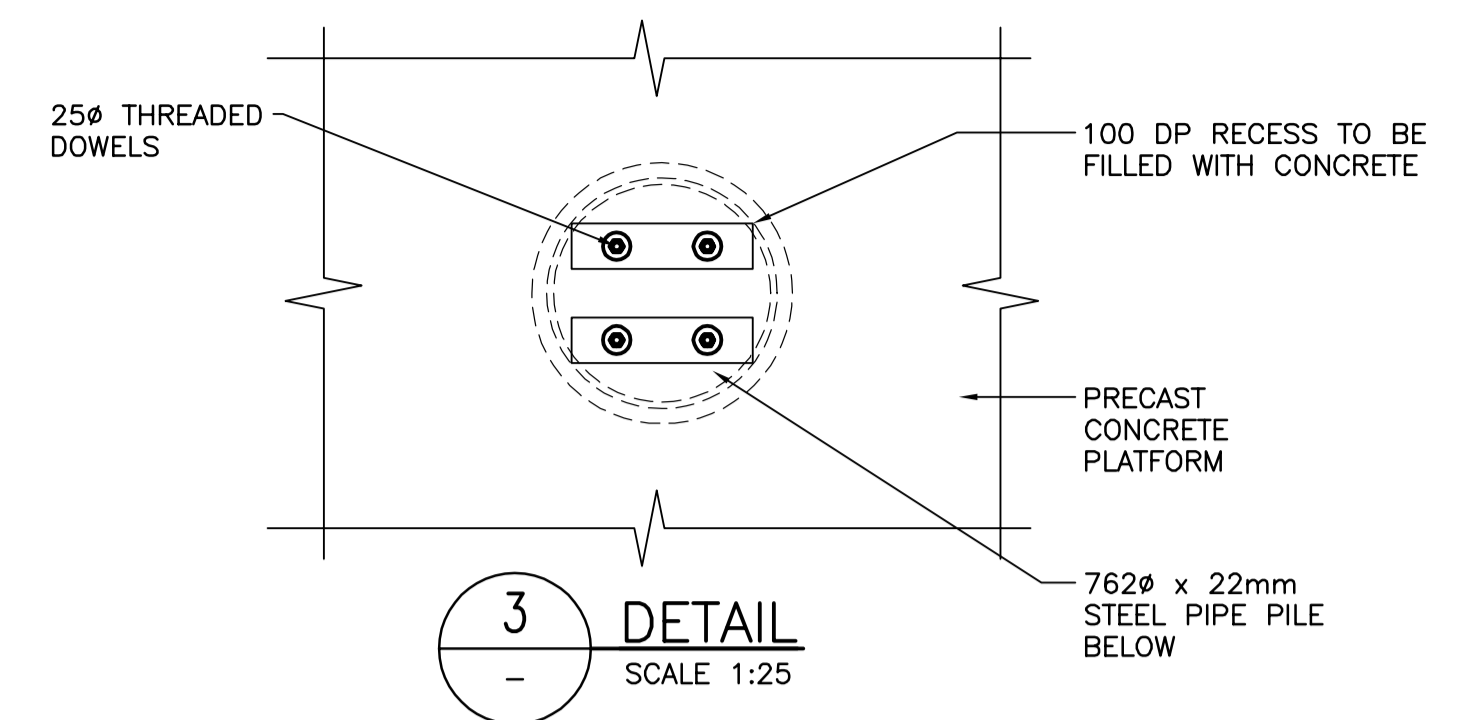
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
WEST AND SOUTH JETTY DECK FENDERING

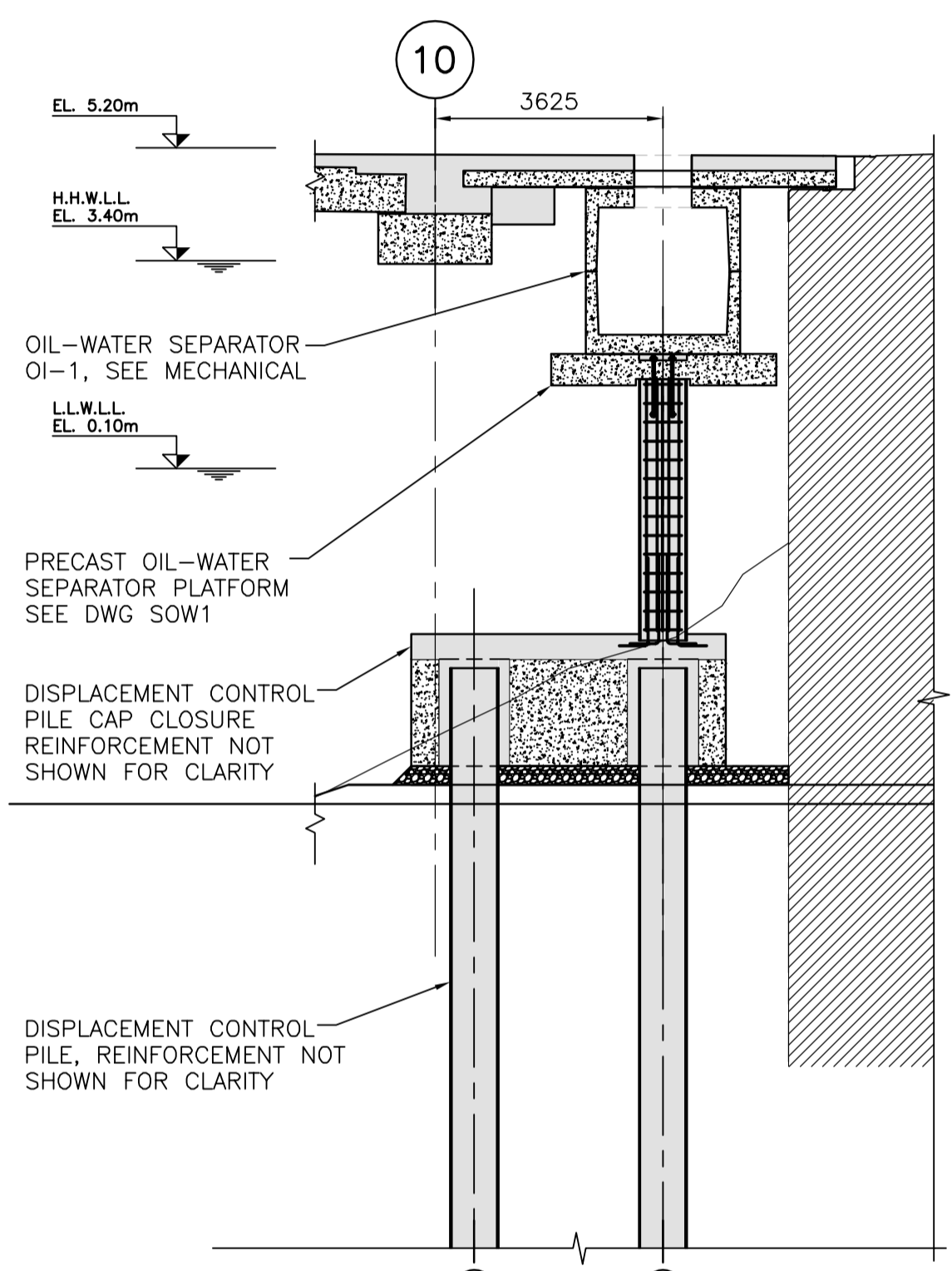
Project No./No. du projet R.026729.002	Sheet/Feuille S47	Revision no./Le Révision no. 2
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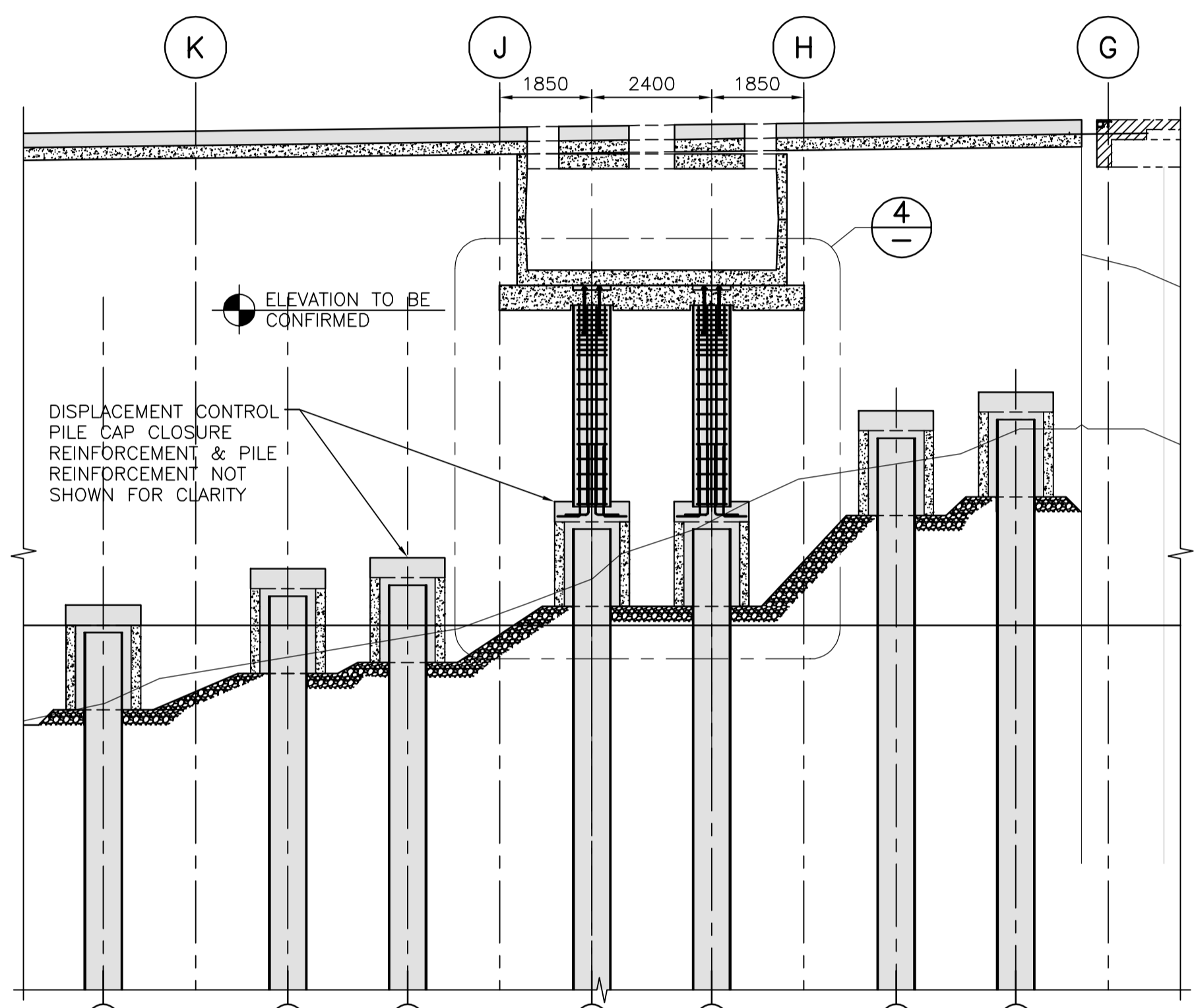
PLAN - WEST JETTY OIL-WATER SEPARATOR SUPPORT
1:100



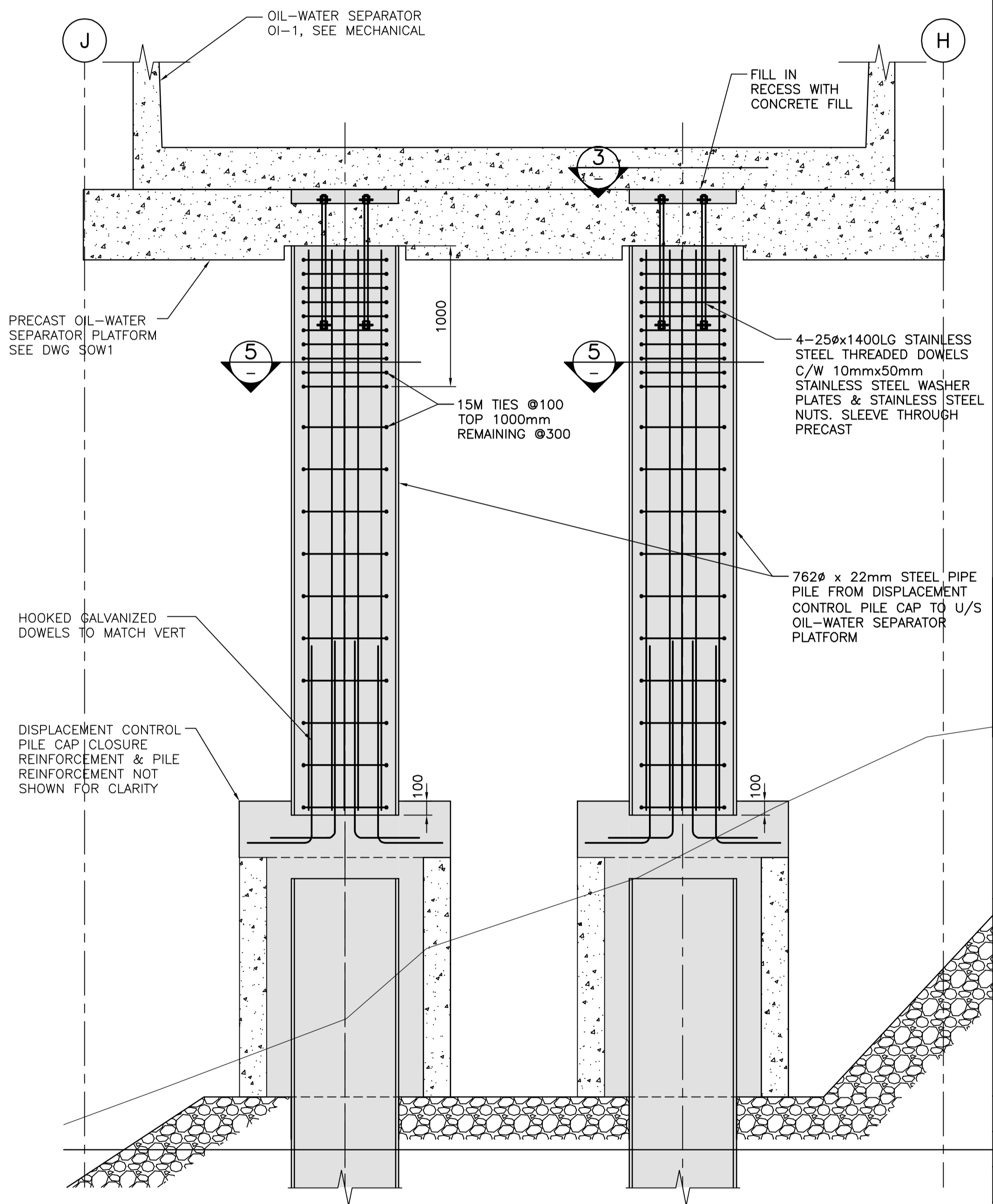
DETAIL 3
SCALE 1:25



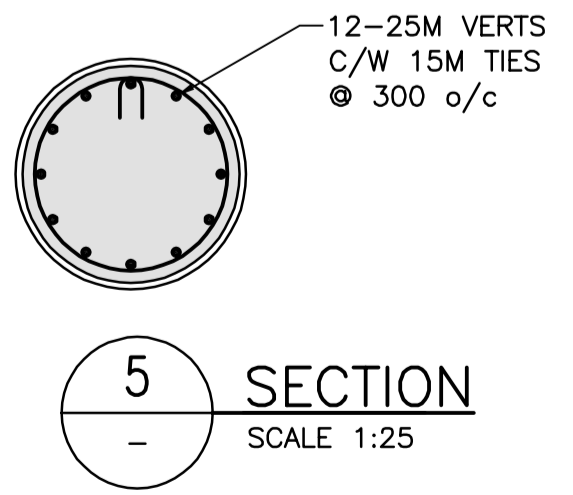
SECTION 1
SCALE 1:100



SECTION 2
SCALE 1:100



DETAIL 4
SCALE 1:25



SECTION 5
SCALE 1:25

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - INSTALL DISPLACEMENT PILE CAPS AFTER INSTALLATION OF PILE LINES 9 & 10 PILES THROUGH F.
 - DISPLACEMENT CONTROL PILE CAP CLOSURE CONCRETE TO BE PLACED BY TREMIE METHOD, SEE SPECIFICATIONS.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

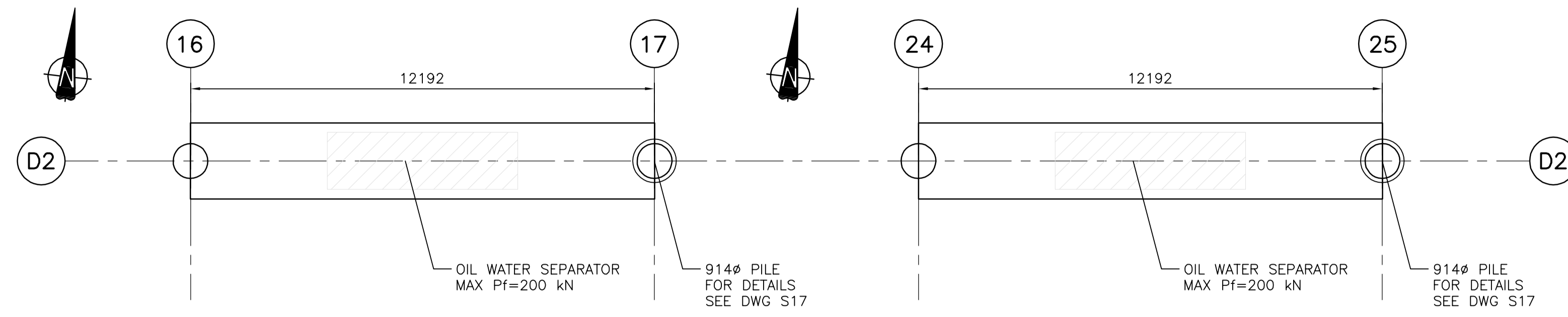
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par: KU, TW
Drawn by/Dessiné par: BOG
PWGSC Project Manager/Administrateur de Projets TPSGC: PATRICK TRUONG
Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: PREETIPAL PAUL

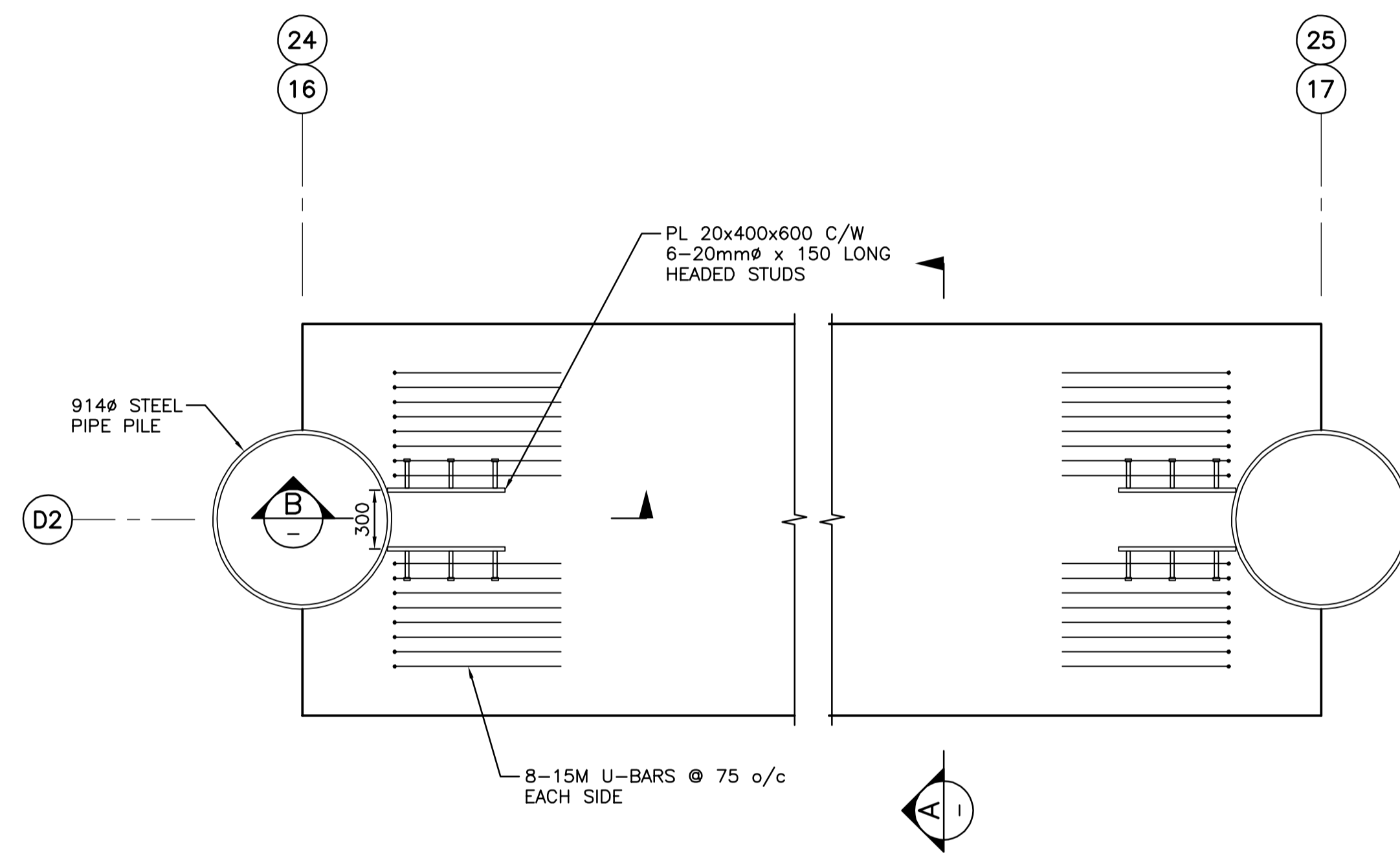
Drawing title/Titre du dessin
WEST JETTY OIL-WATER SEPARATOR OI-1 SUPPORT DETAILS

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S48	2

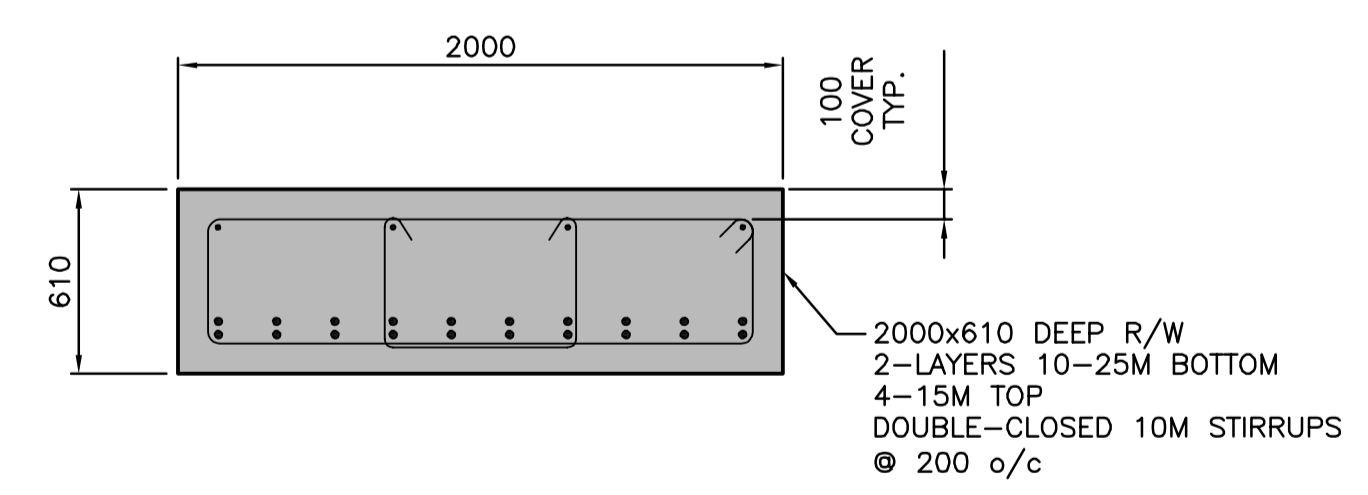


PLAN - SOUTH JETTY OIL-WATER INTERCEPTOR OI-2 SUPPORT
1:100

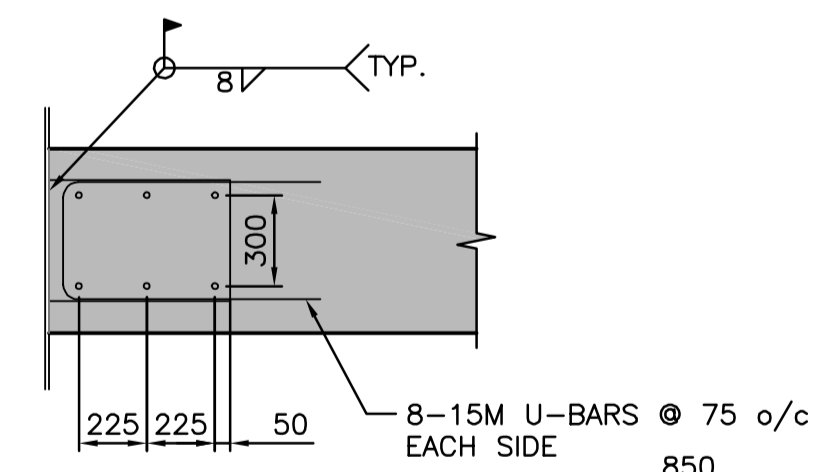
PLAN - SOUTH JETTY OIL-WATER INTERCEPTOR OI-3 SUPPORT
1:100



PLAN
SCALE 1:25



A SECTION
SCALE 1:25



B SECTION
SCALE 1:25

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/Client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

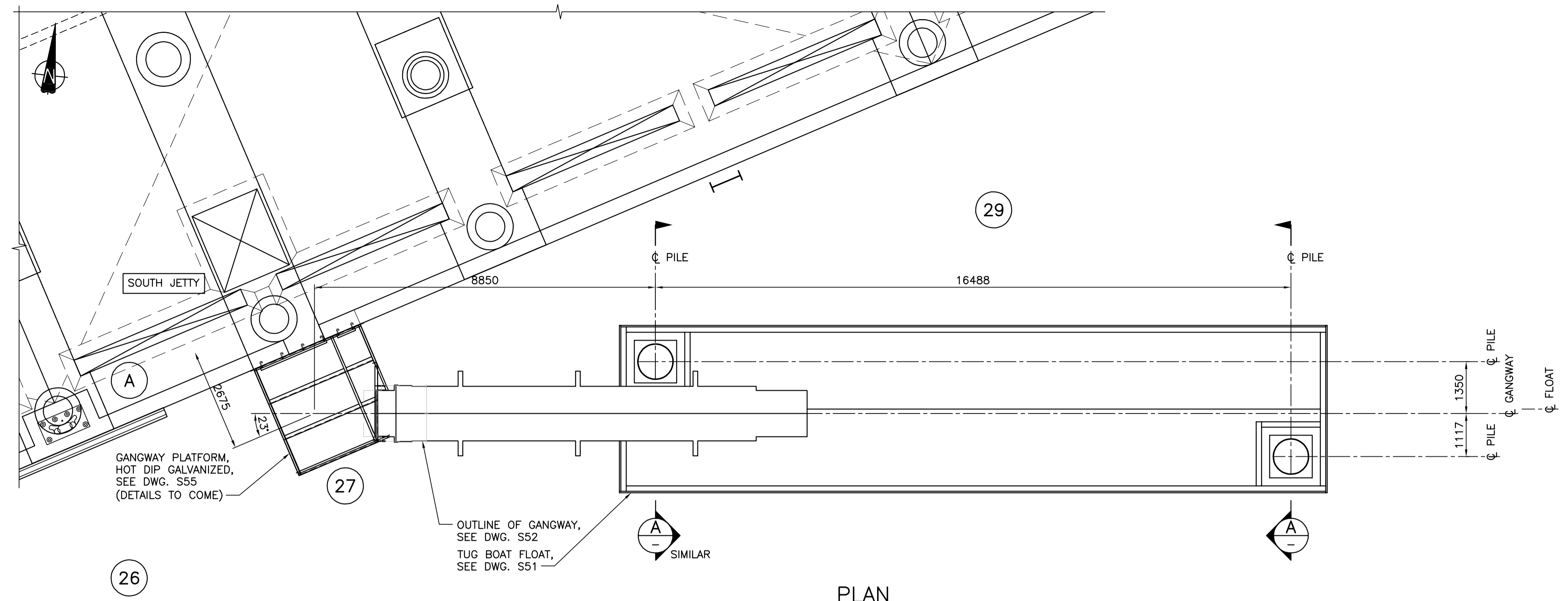
Drawn by/Dessiné par
BOG

PWGS Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

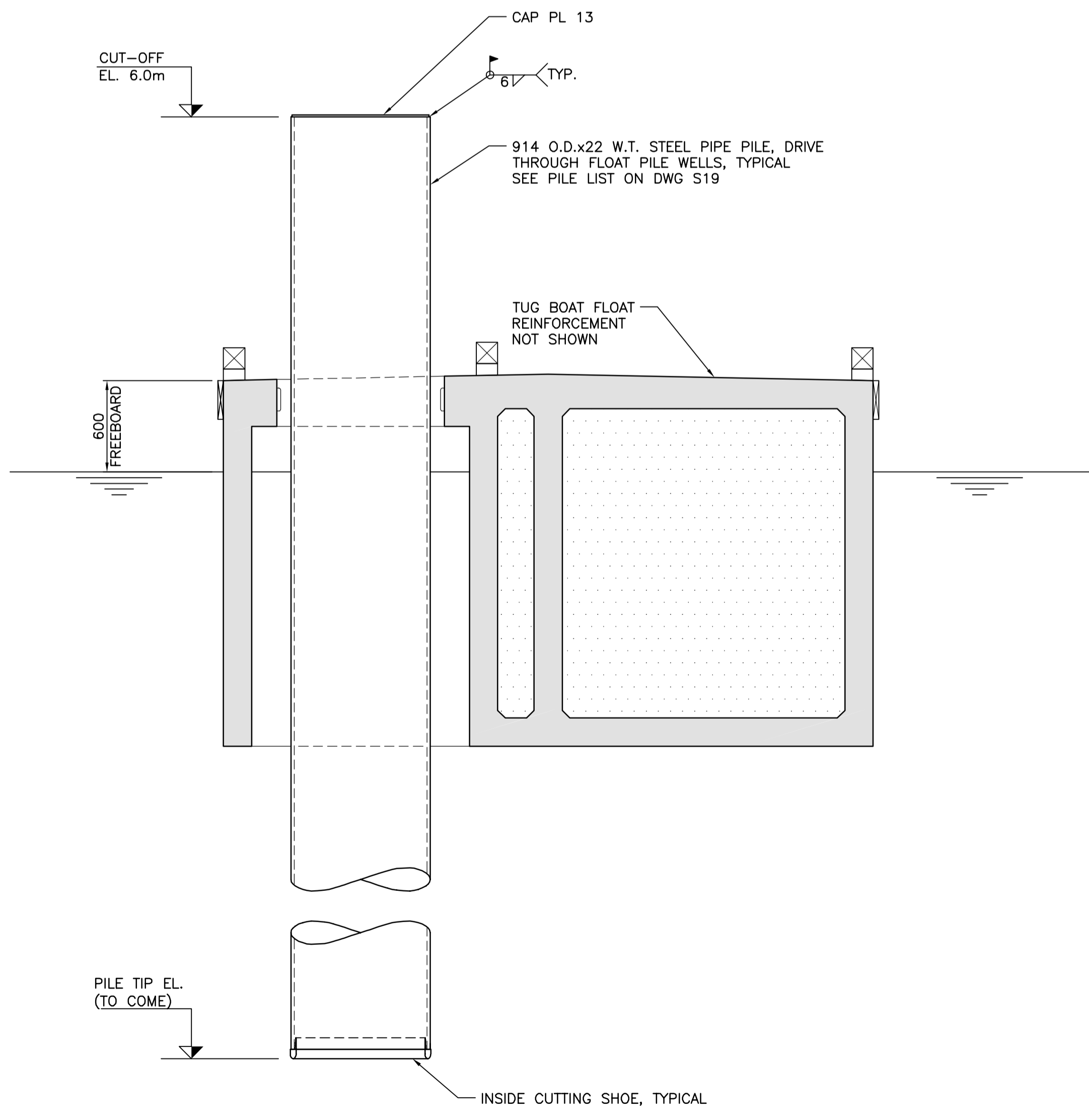
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**SOUTH JETTY
OIL-WATER SEPARATORS
OI-2 & OI-3
C.I.P. BEAM**

Project No./No. du projet R.026729.002	Sheet/Feuille S49	Revision no./ La Révision no. 2
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PLAN
SCALE 1:75



SECTION
SCALE 1:25

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

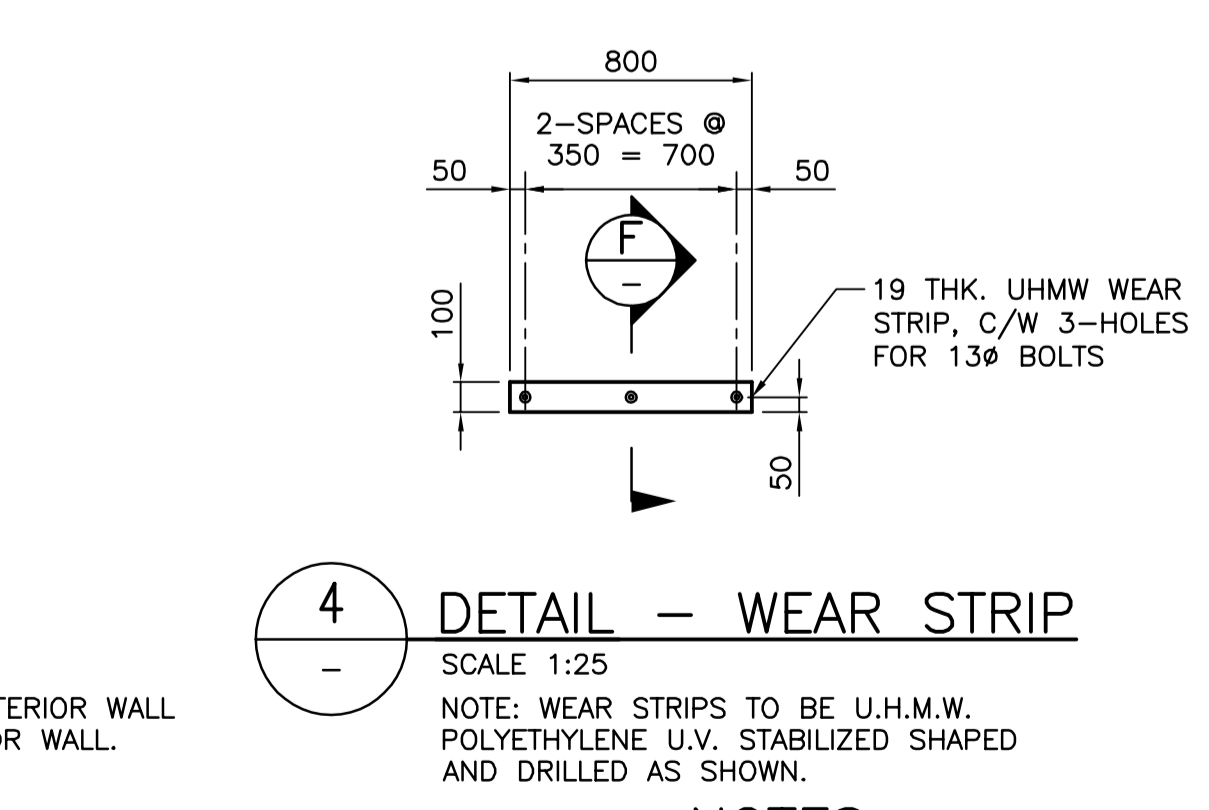
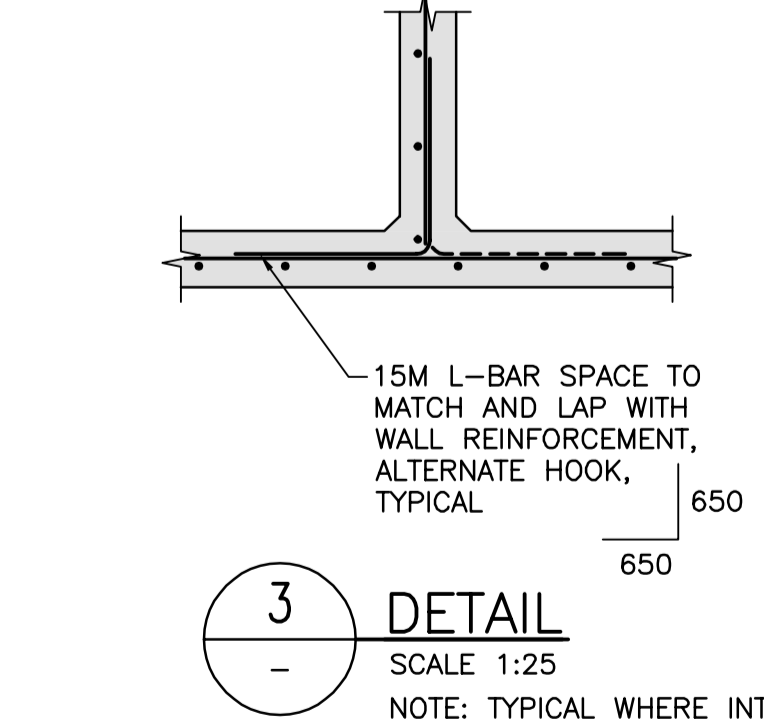
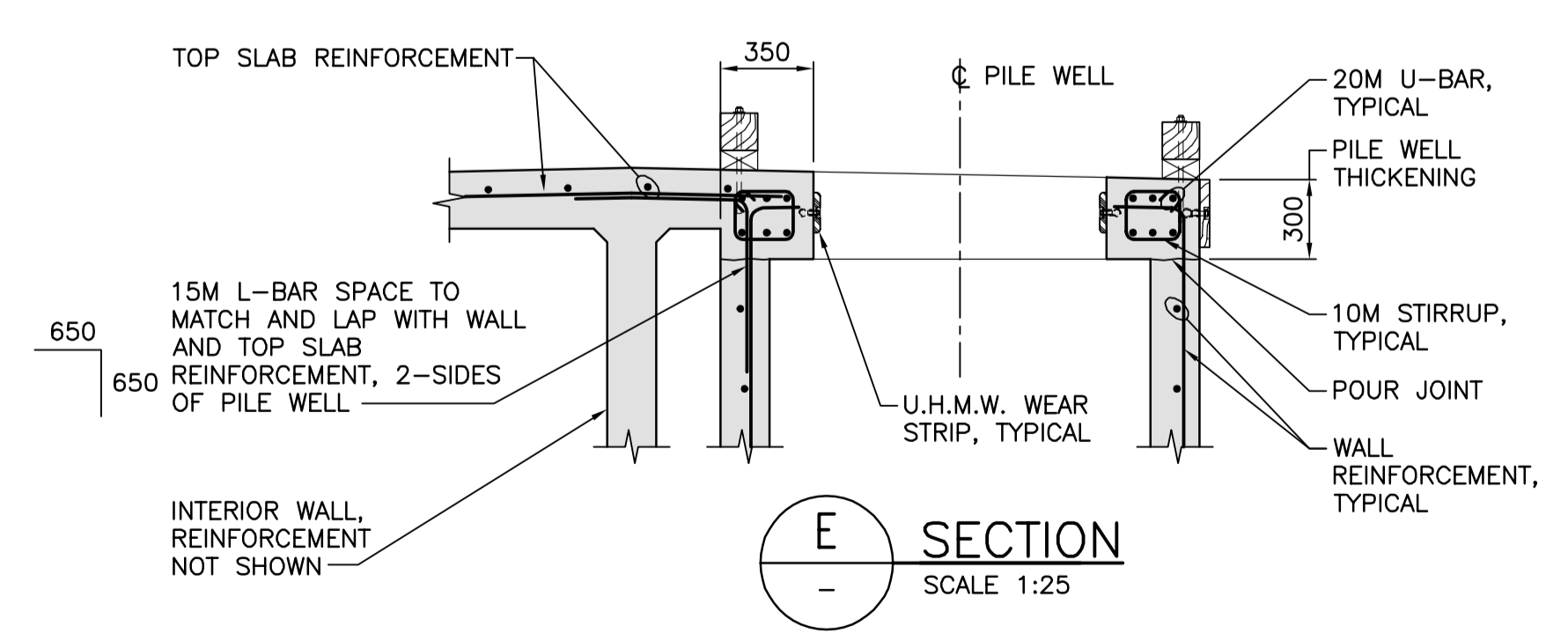
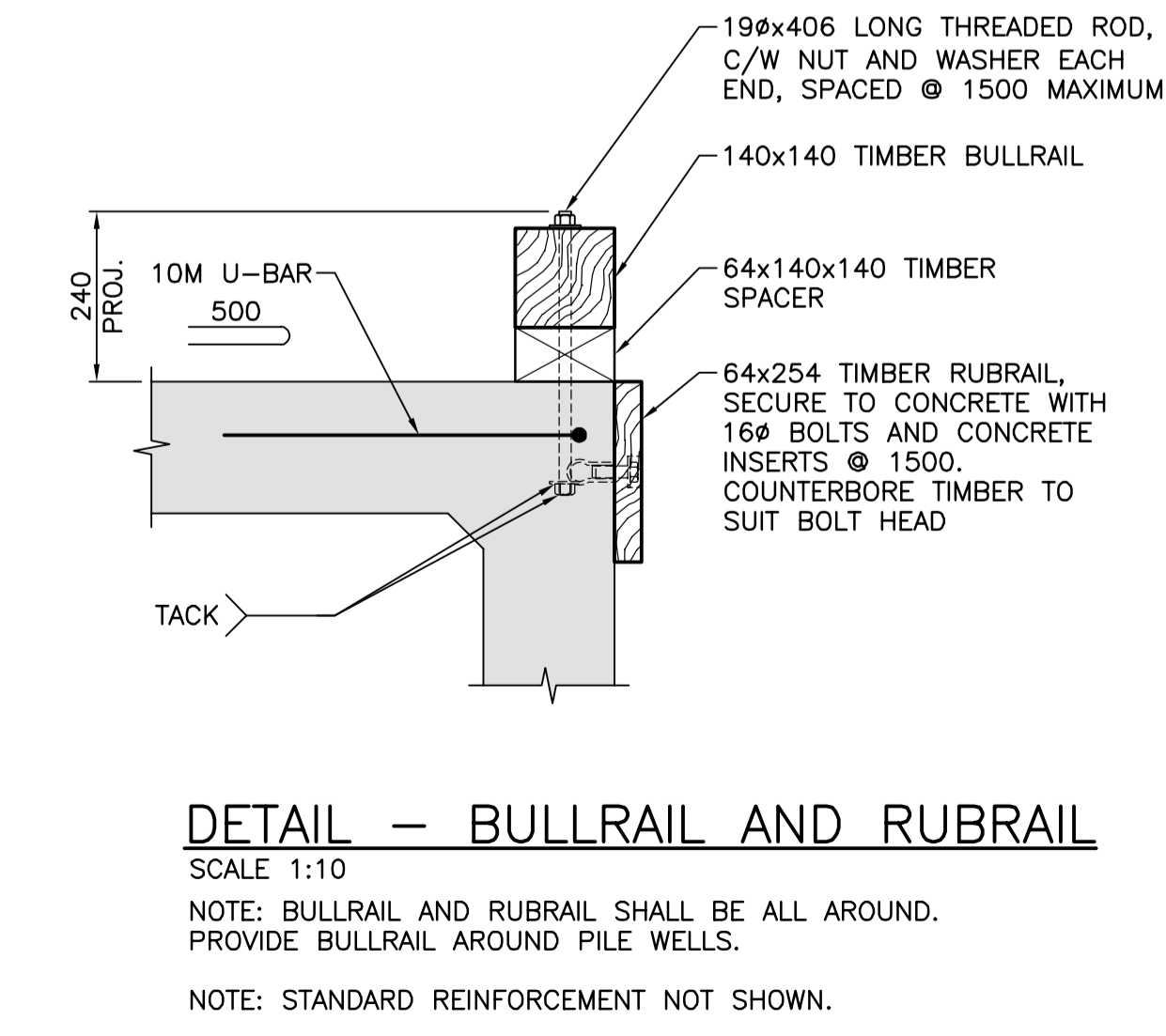
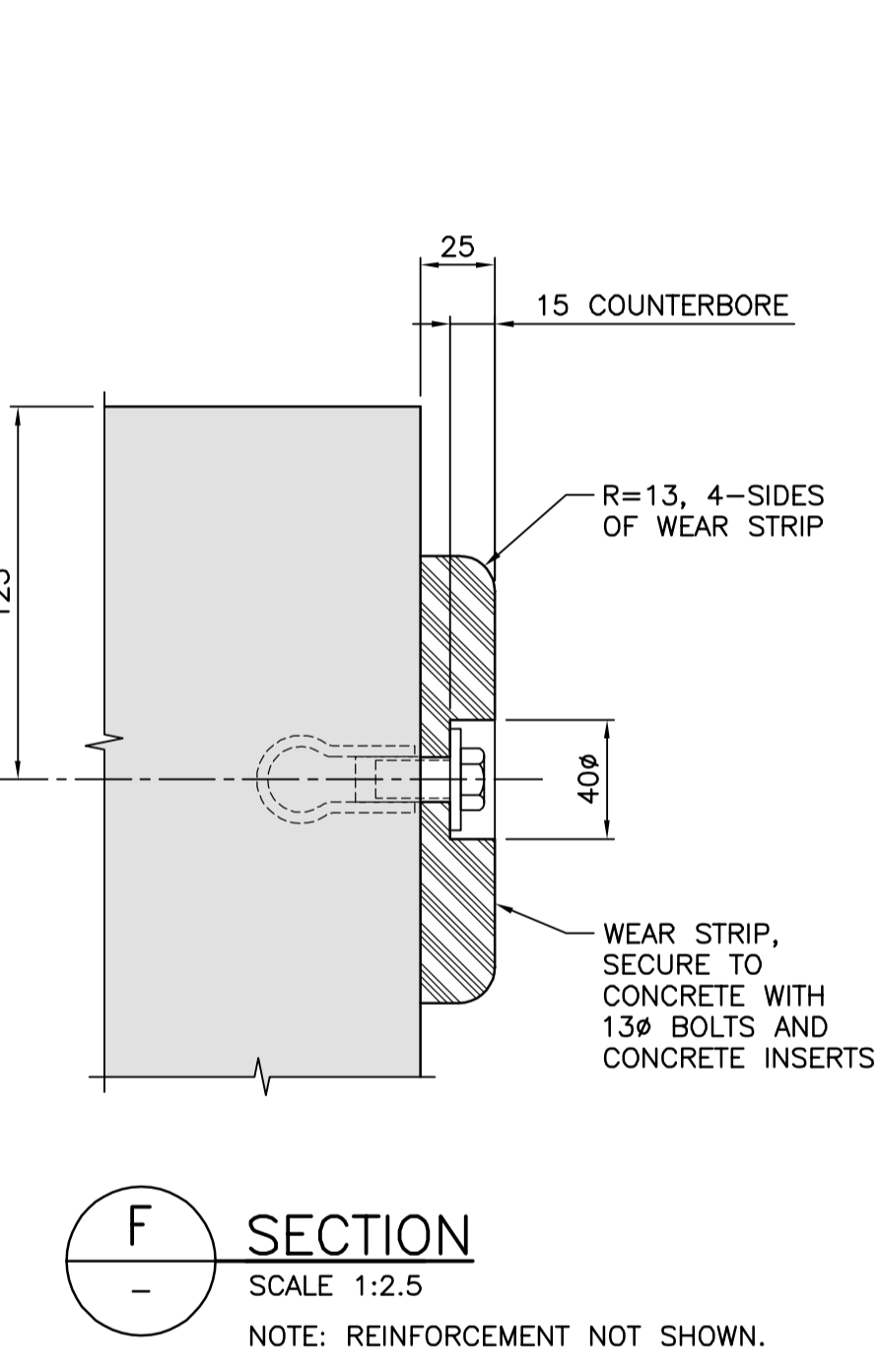
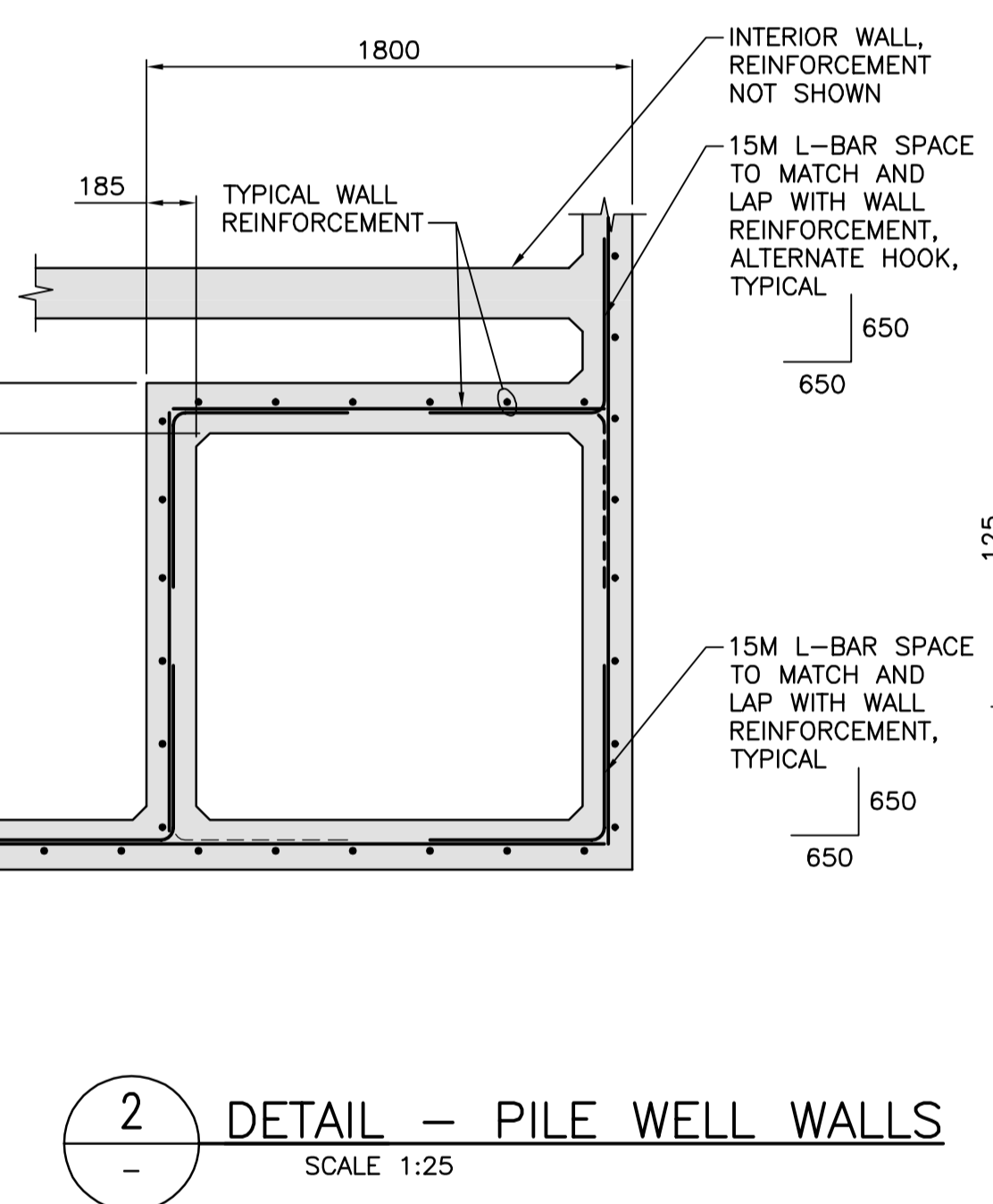
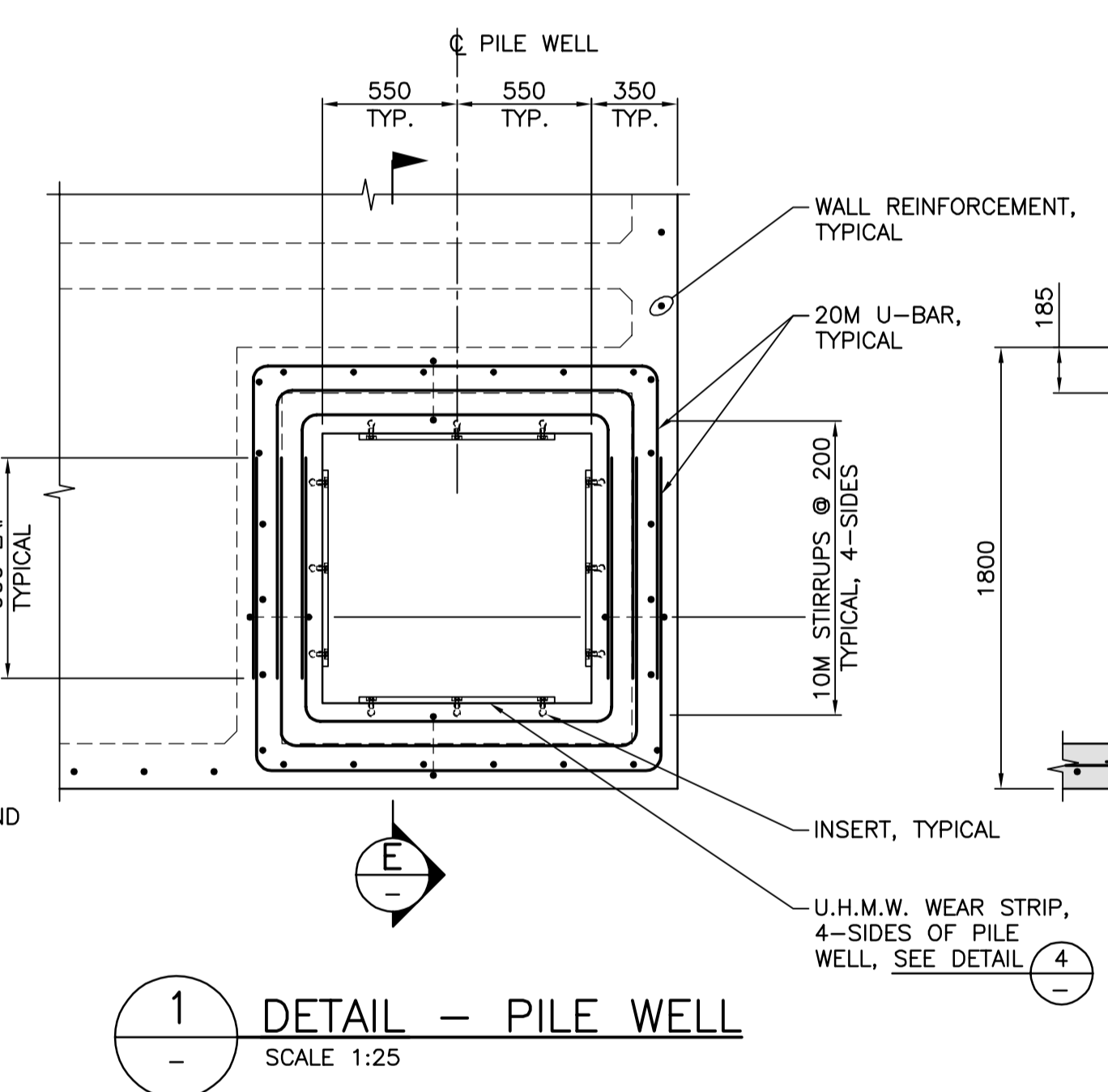
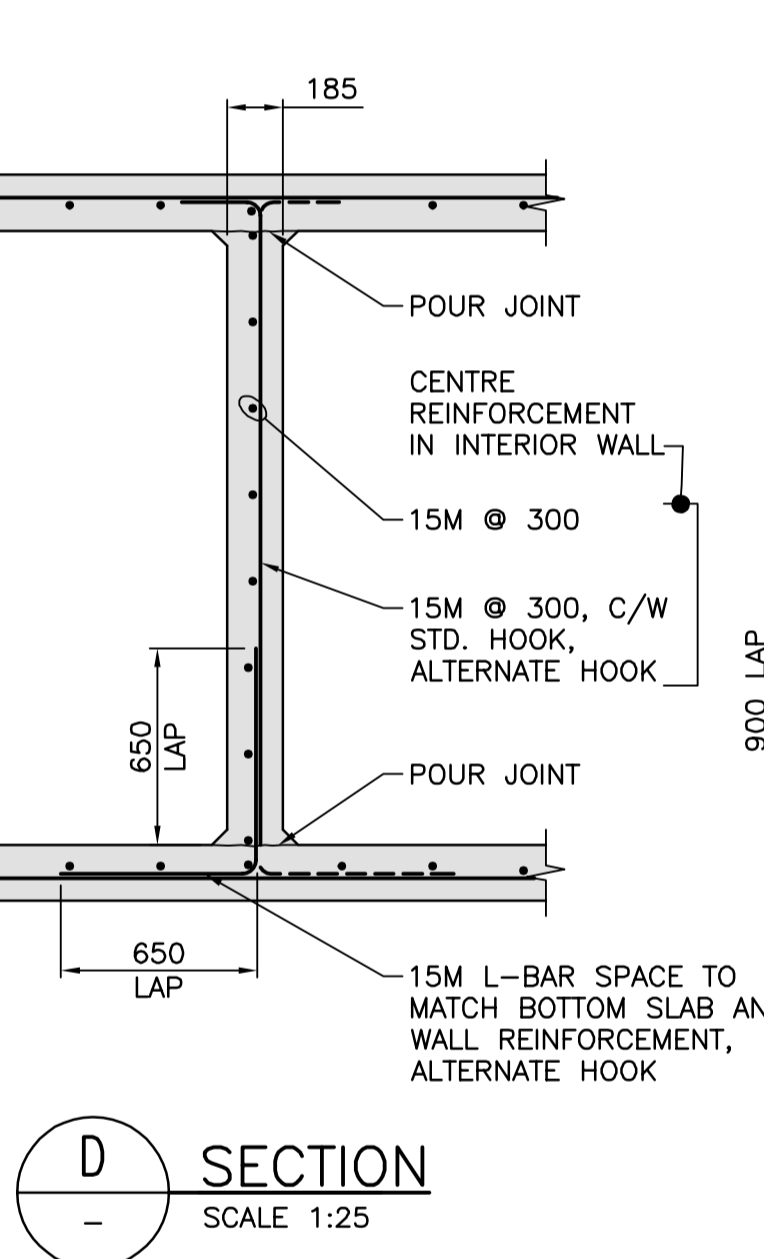
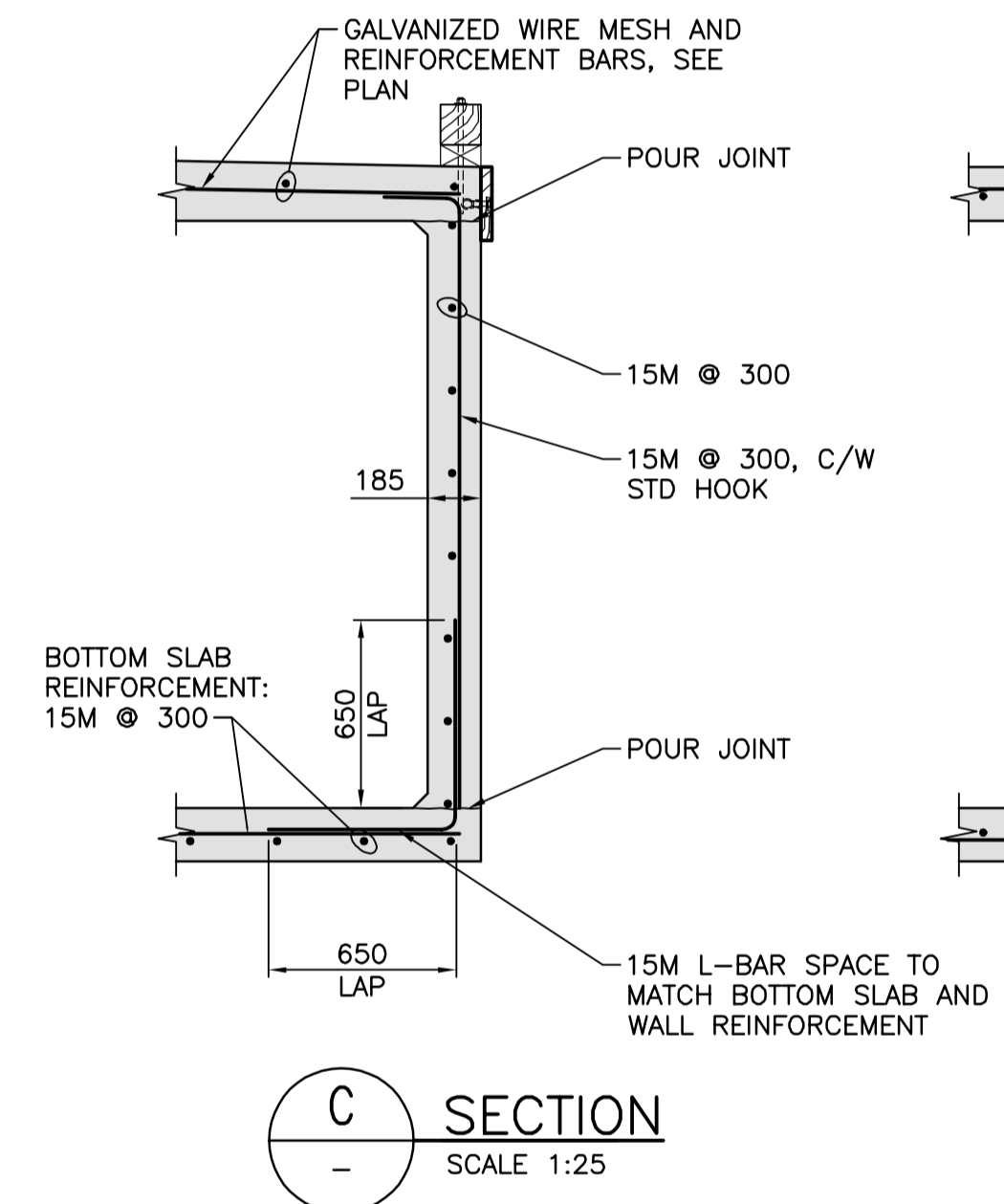
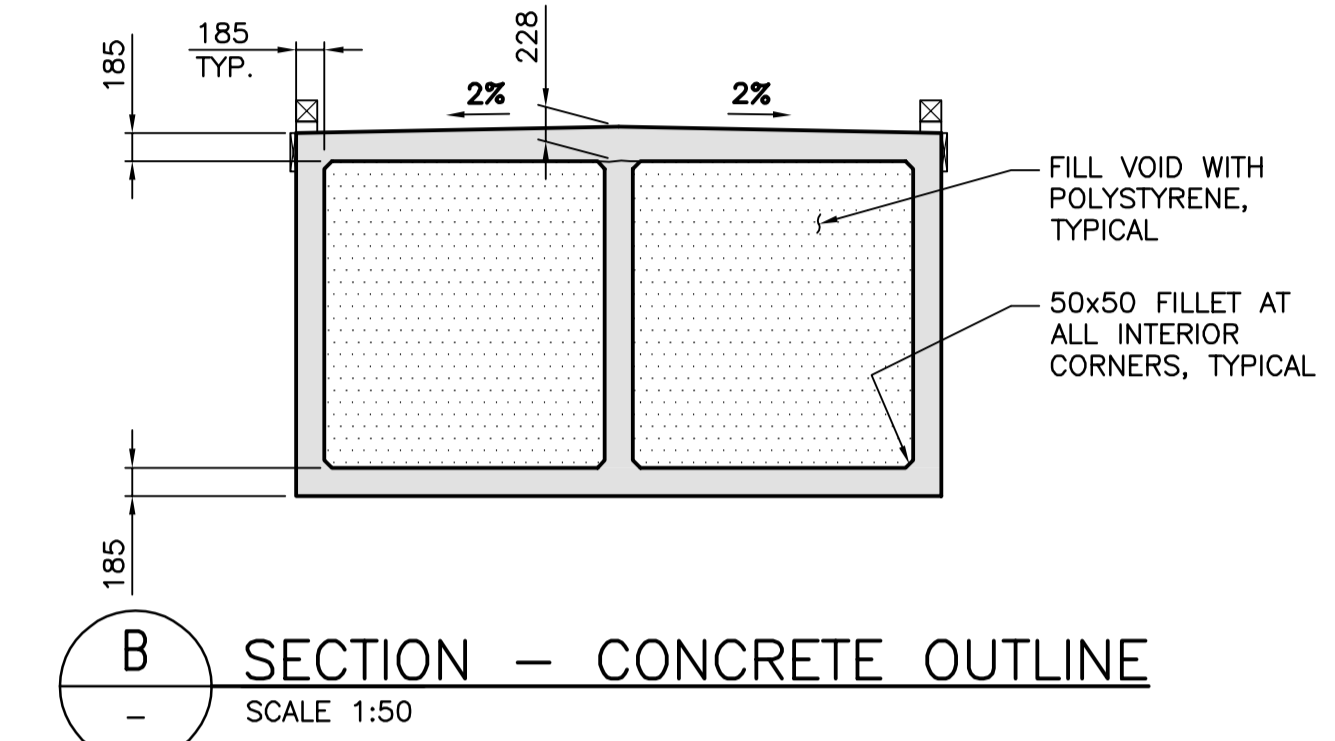
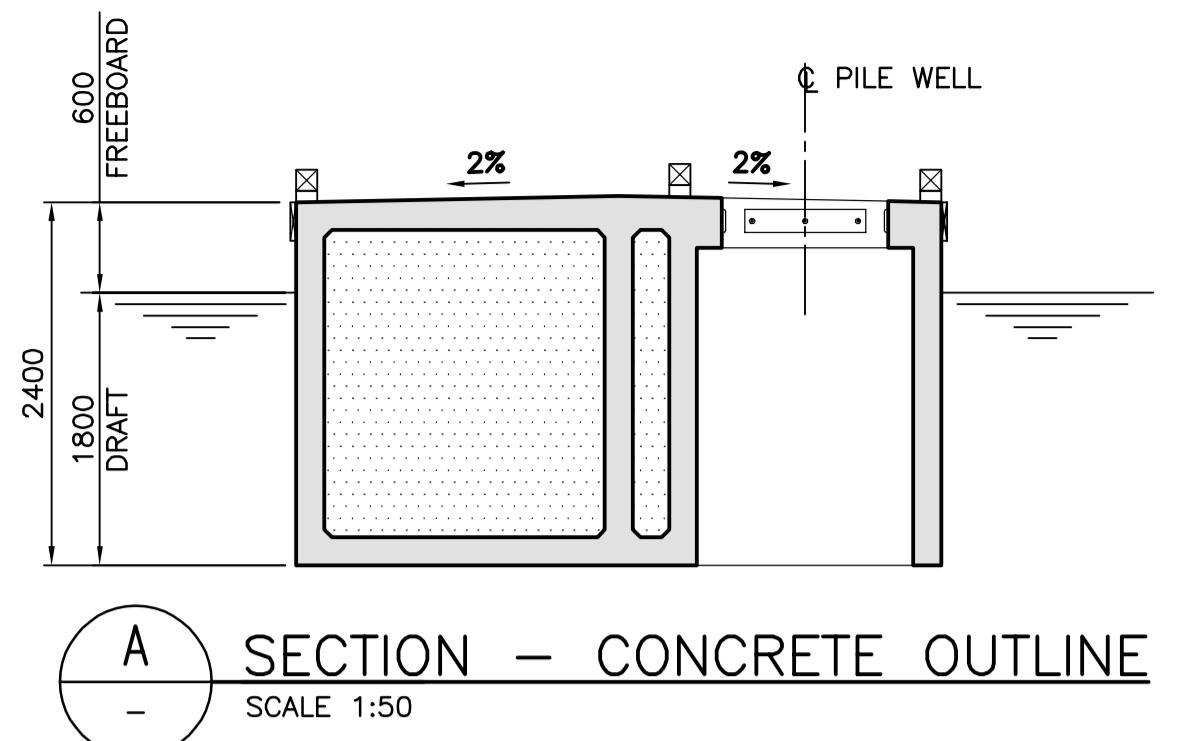
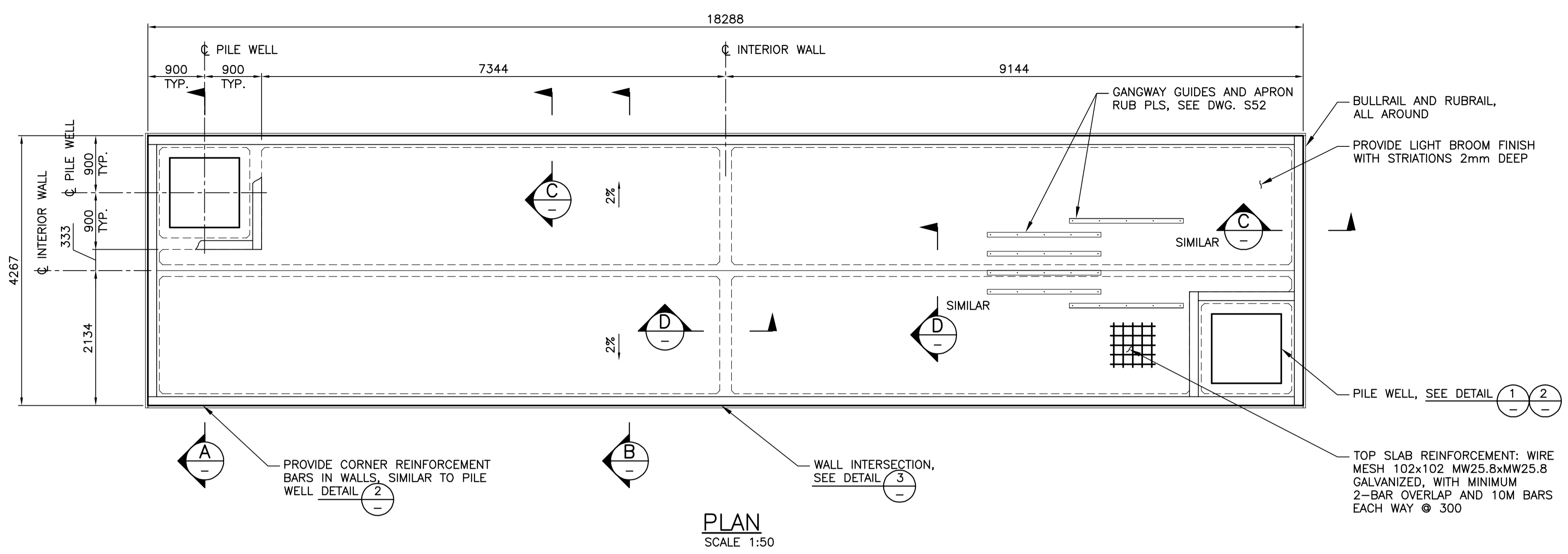
Drawn by/Dessiné par
BOG

PWGS Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**TUG BOAT FLOAT
PLAN & SECTION**

Project No./No. du projet R.026729.002	Sheet/Feuille S50	Revision no./Le Révision no. 2
--	-----------------------------	--



NOTES:
1. FOR NOTES SEE DWG. G1.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/Client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

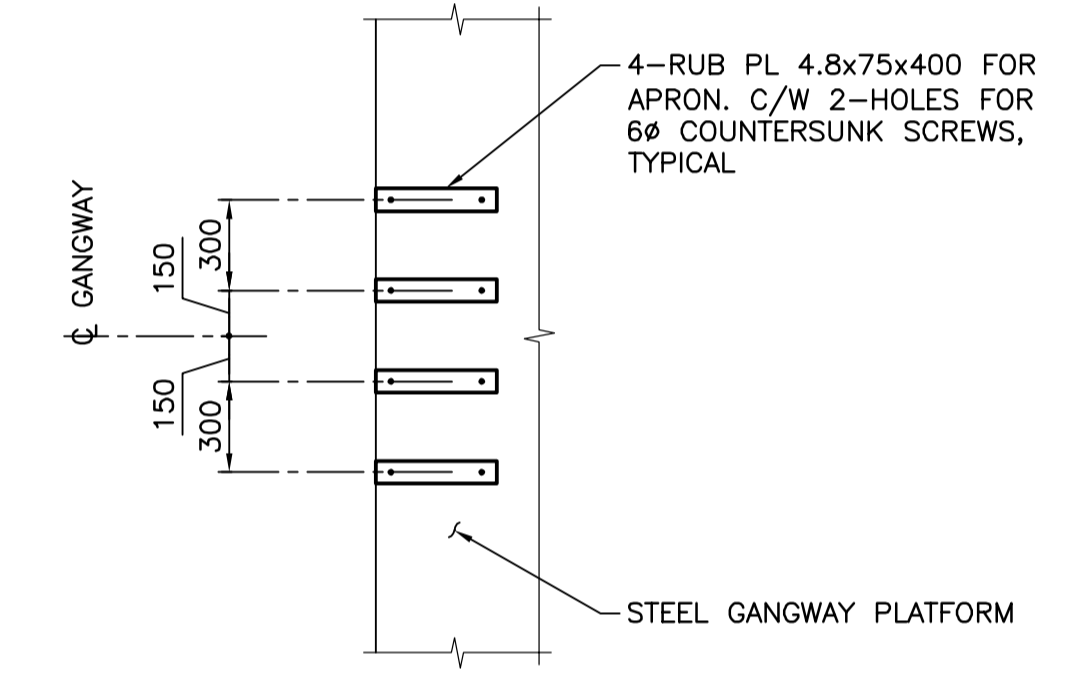
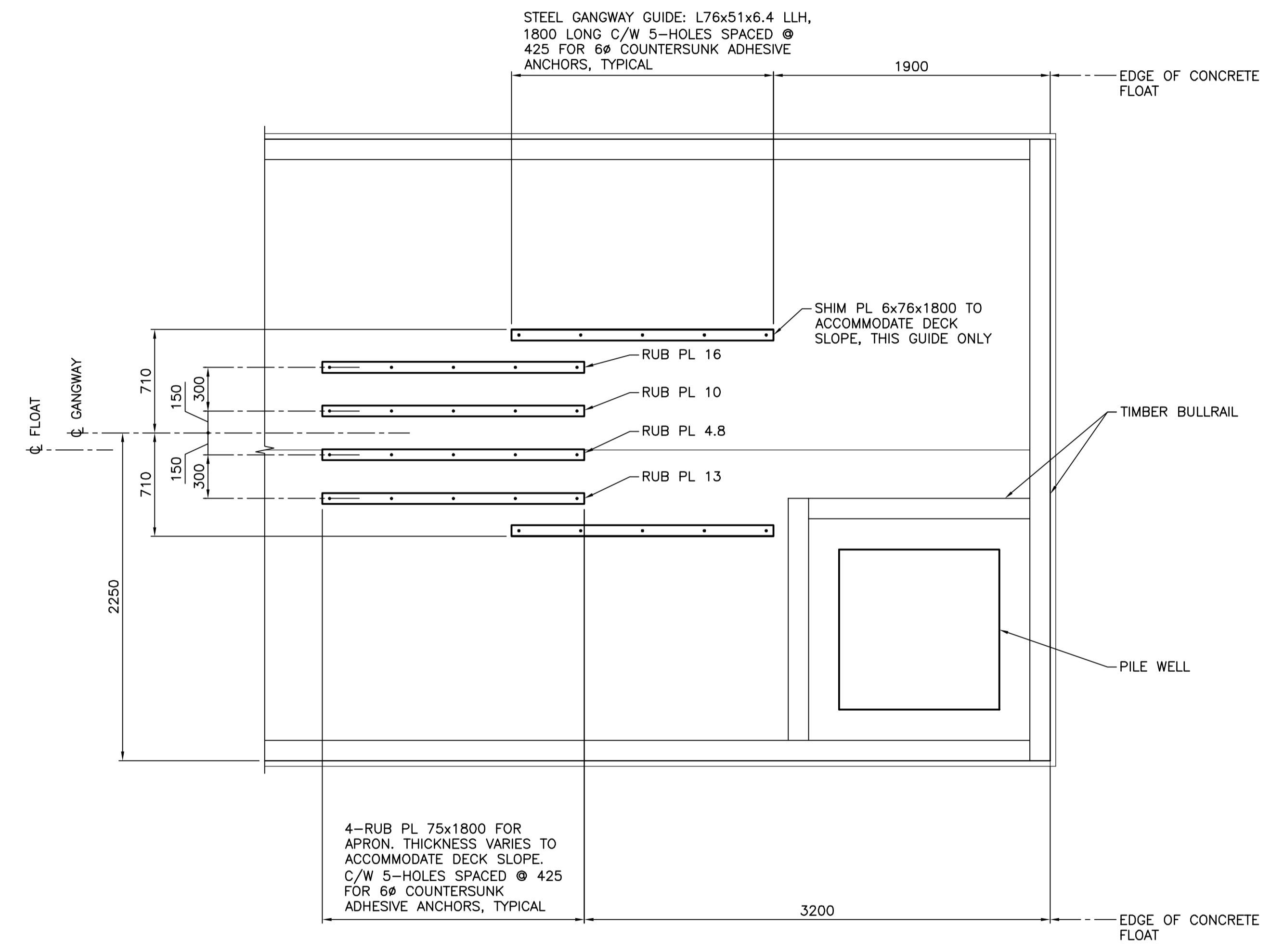
Project Title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
JJMC
PWGSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing Title/Titre du dessin
TUG BOAT FLOAT - SHEET 1

Project No./No. du projet	Sheet/Feuille	Revision no./Le Révision no.
R.026729.002	S51	2



PLAN - GANGWAY HARDWARE
SCALE 1:25

PLAN - GANGWAY HARDWARE
SCALE 1:25
NOTE: CONFIRM ALL DIMENSIONS IN FIELD PRIOR TO GANGWAY INSTALLATION.

NOTES:
1. FOR NOTES SEE DWG. G1.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

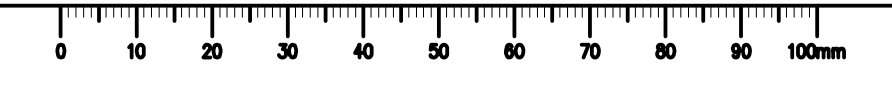
Drawn by/Dessiné par
JJMC

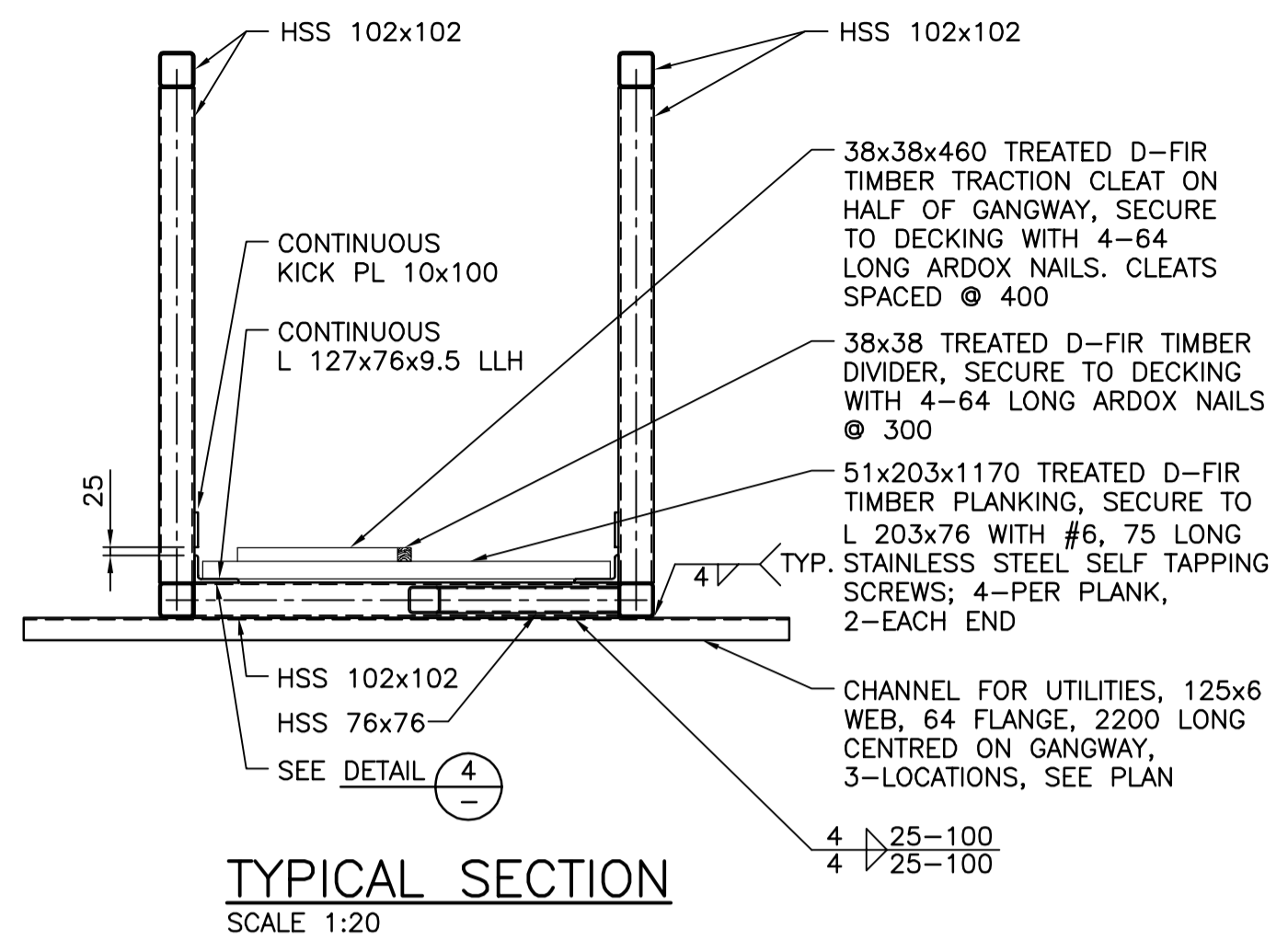
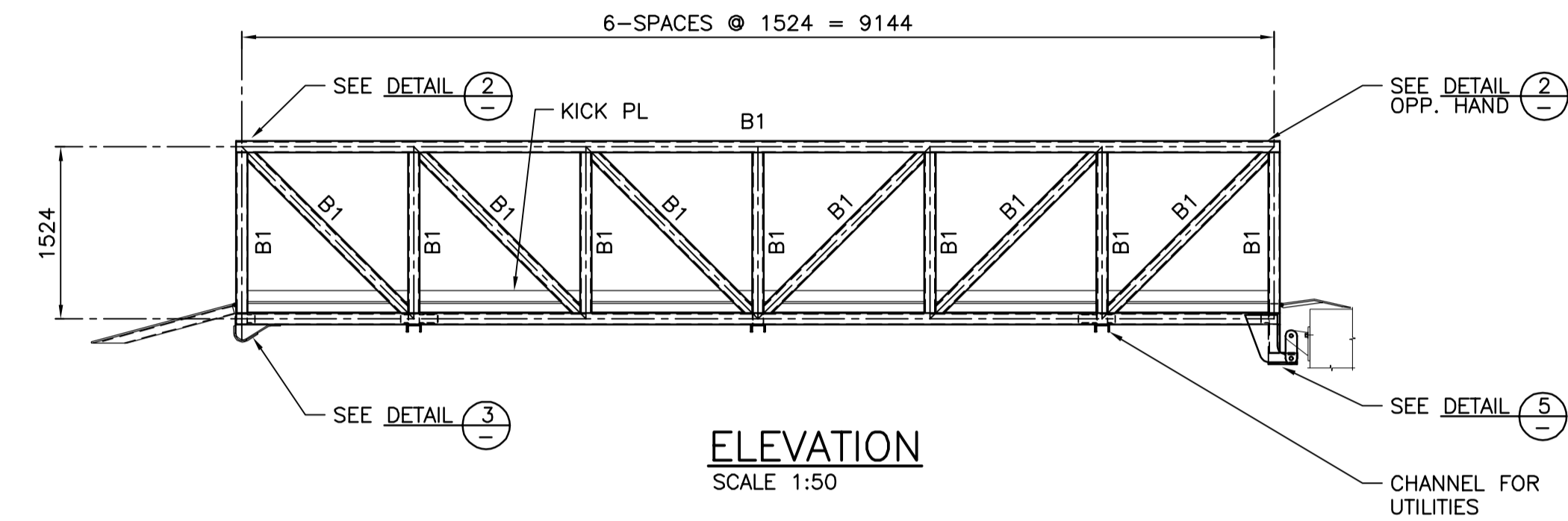
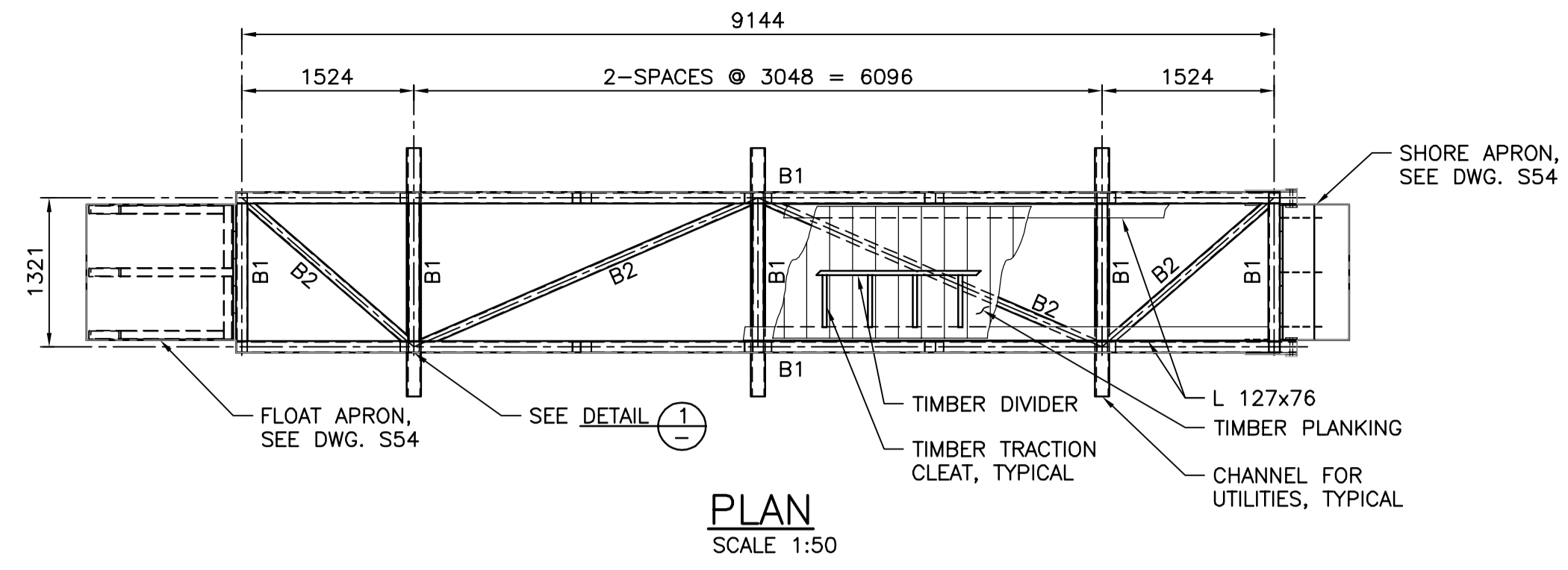
PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
TUG BOAT FLOAT - SHEET 2

Project No./No. du projet	Sheet/Feuille	Revision no./Le Révision no.
R.026729.002	S52	2

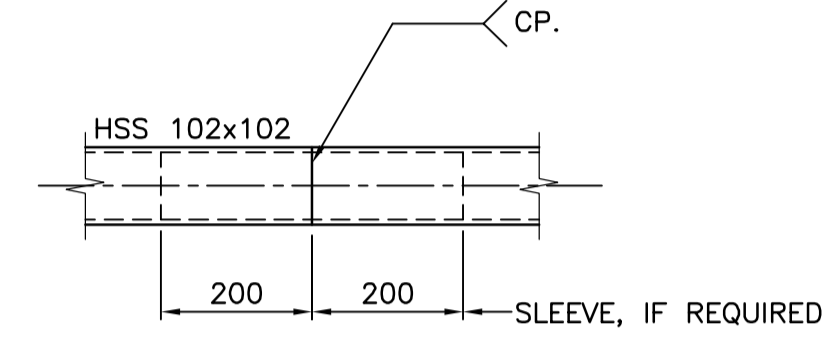




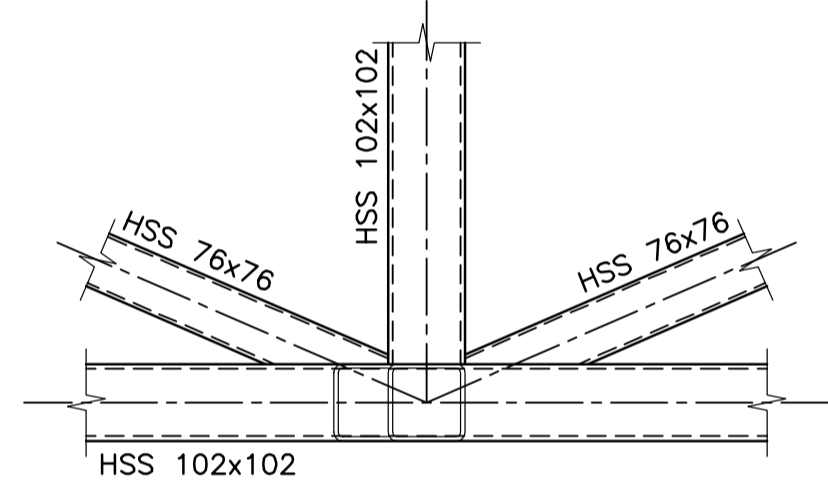
NOTE: INSTALL PEEL AND STICK FLASHING BETWEEN TREATED TIMBER PLANKING AND ALUMINUM ANGLES.

MEMBER SCHEDULE:

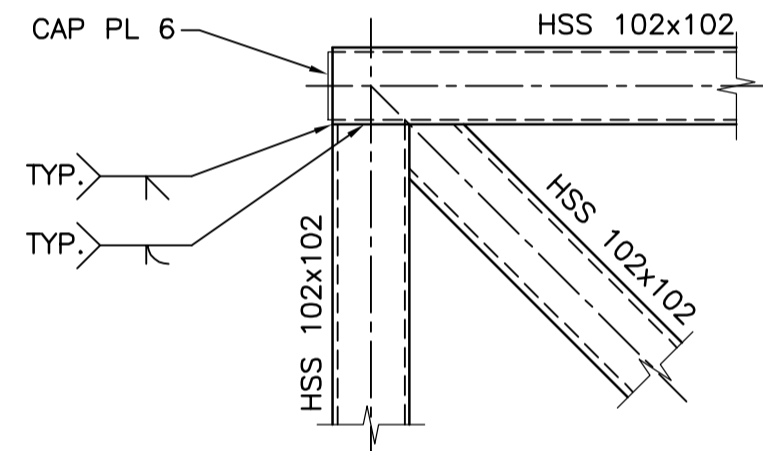
B1 - HSS 102x102x6.4
B2 - HSS 76x76x4.8



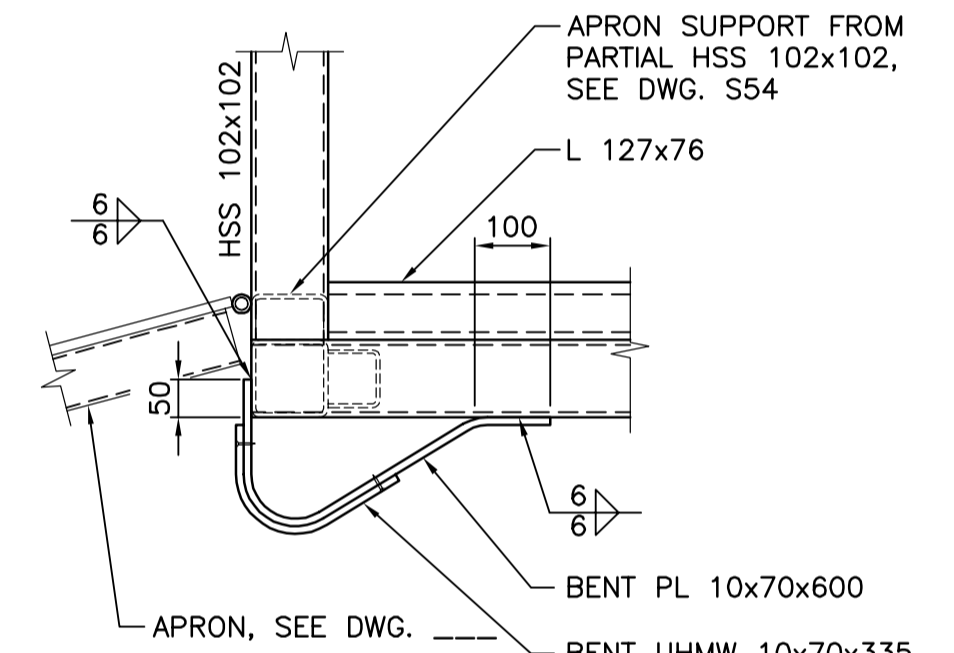
CHORD SPLICE DETAIL
SCALE 1:10



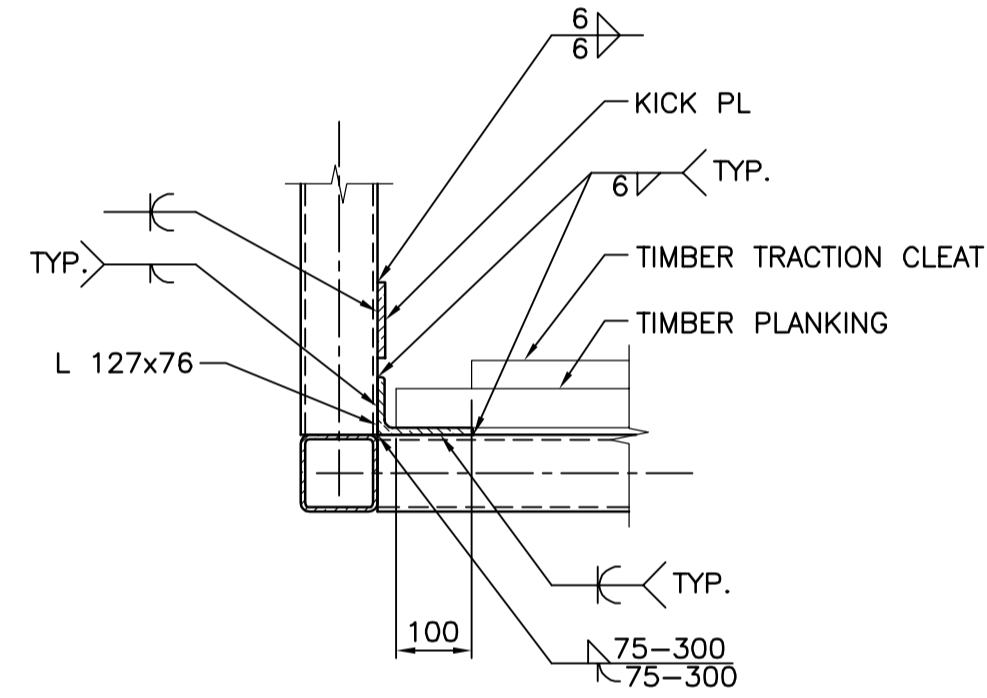
1 DETAIL
SCALE 1:10



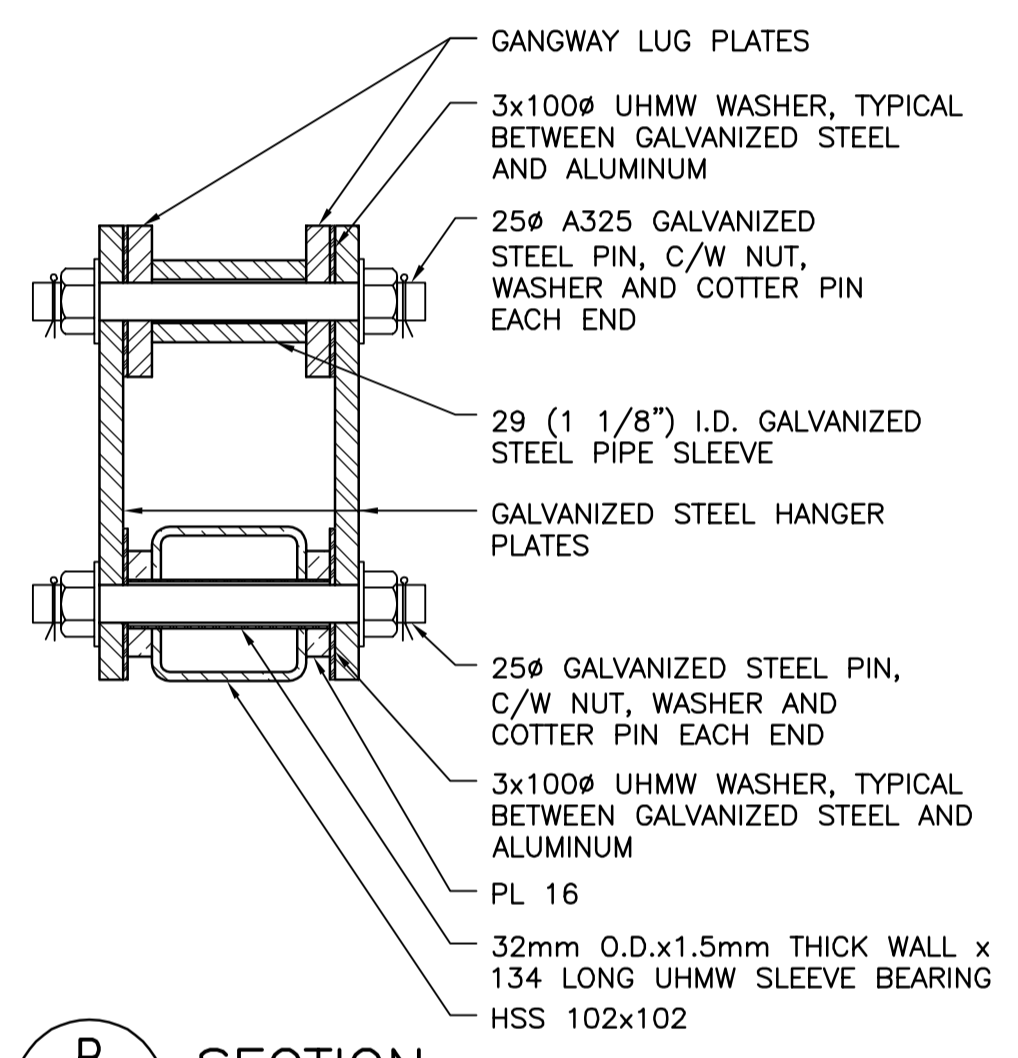
2 DETAIL
SCALE 1:10



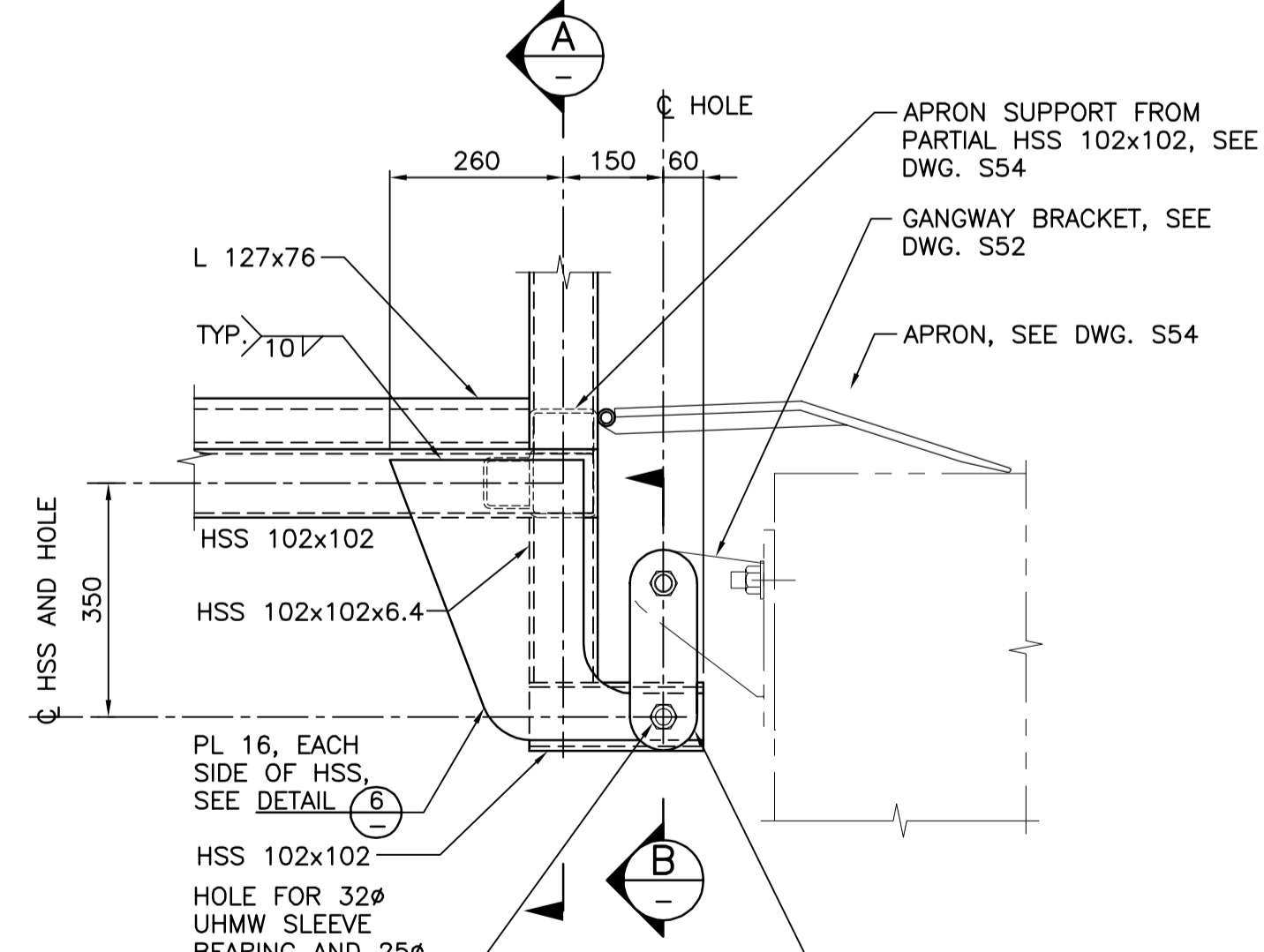
3 DETAIL
SCALE 1:10



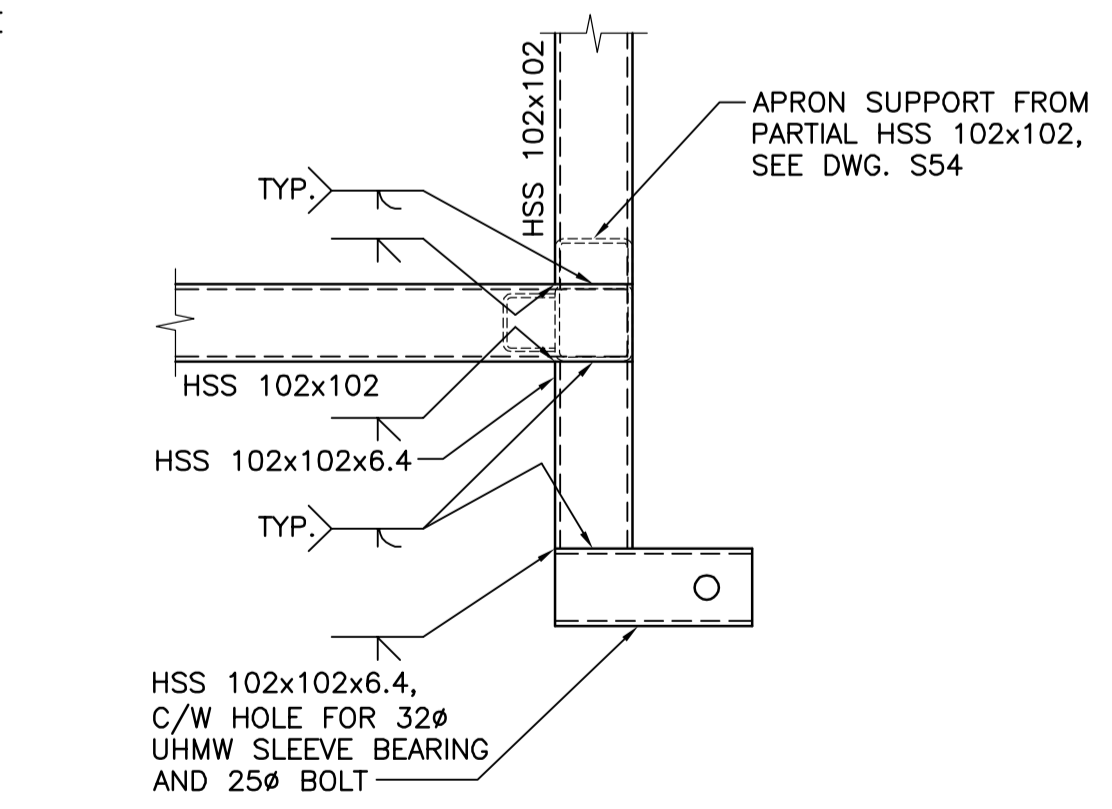
4 DETAIL
SCALE 1:10



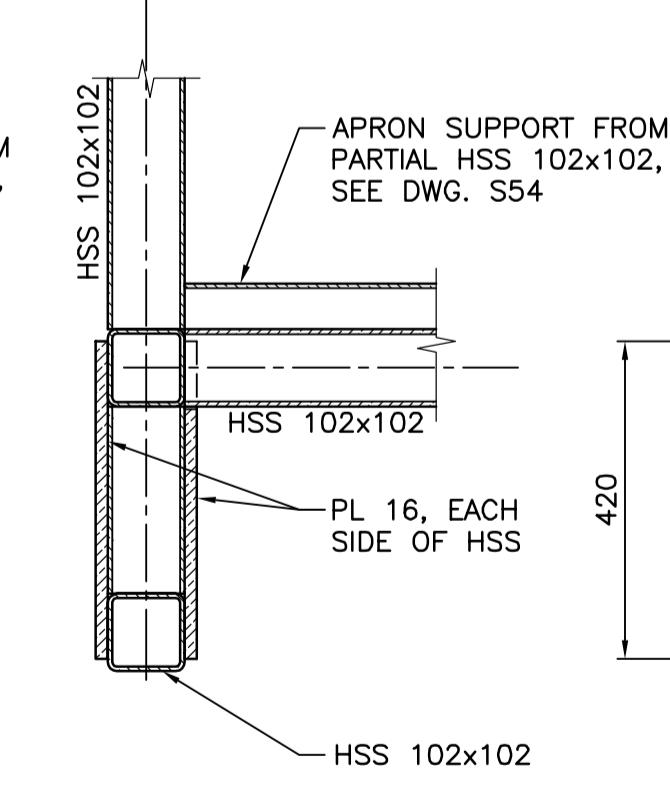
B SECTION
SCALE 1:5



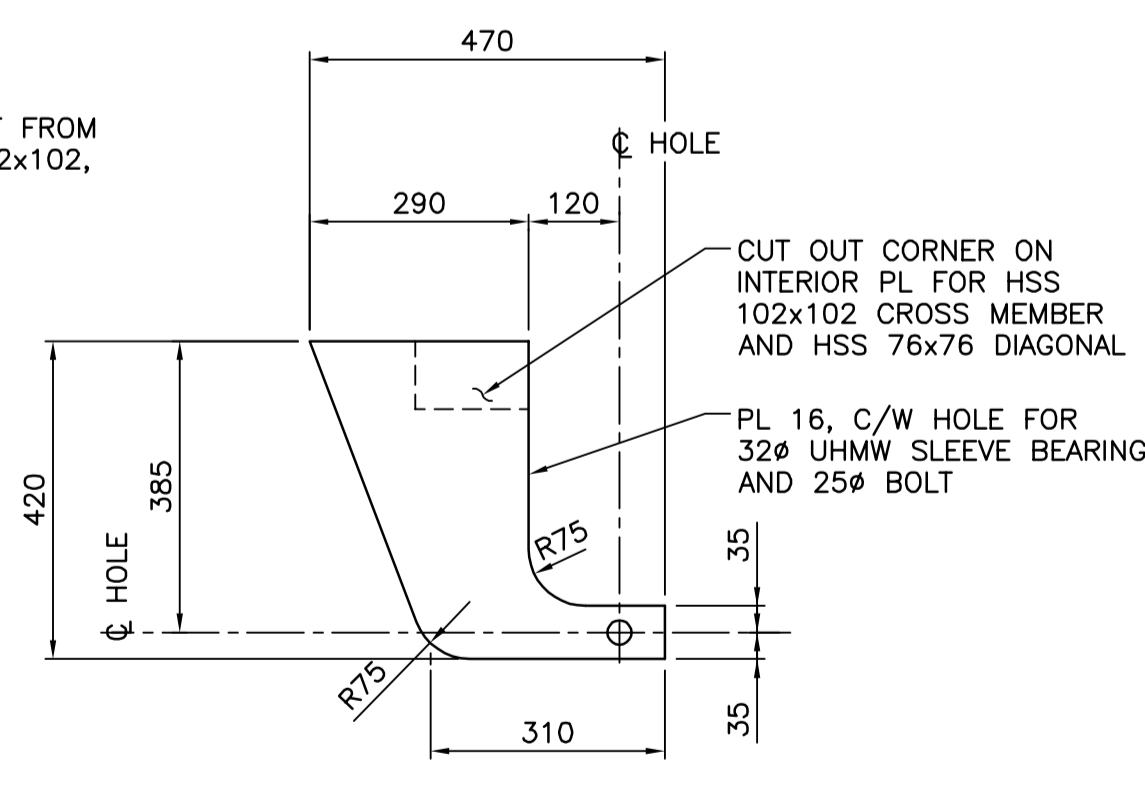
5 DETAIL
SCALE 1:10



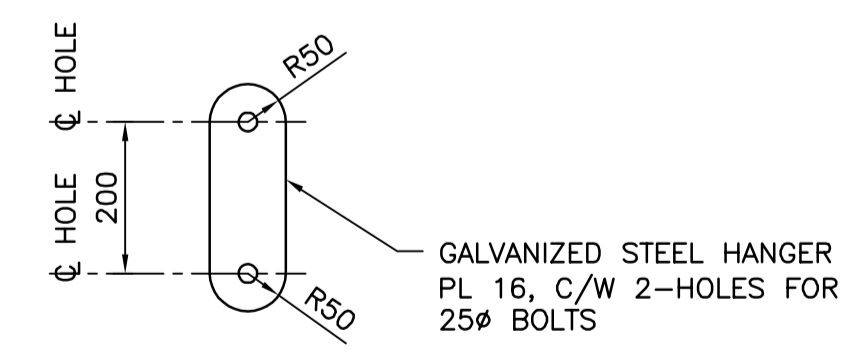
5 DETAIL - WELDING DETAIL
SCALE 1:10



A SECTION
SCALE 1:10



6 DETAIL
SCALE 1:10



7 DETAIL
SCALE 1:10

- NOTES:**
- FOR NOTES SEE DWG. G1.
 - ALL MATERIAL TO BE ALUMINUM, UNLESS NOTED OTHERWISE.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

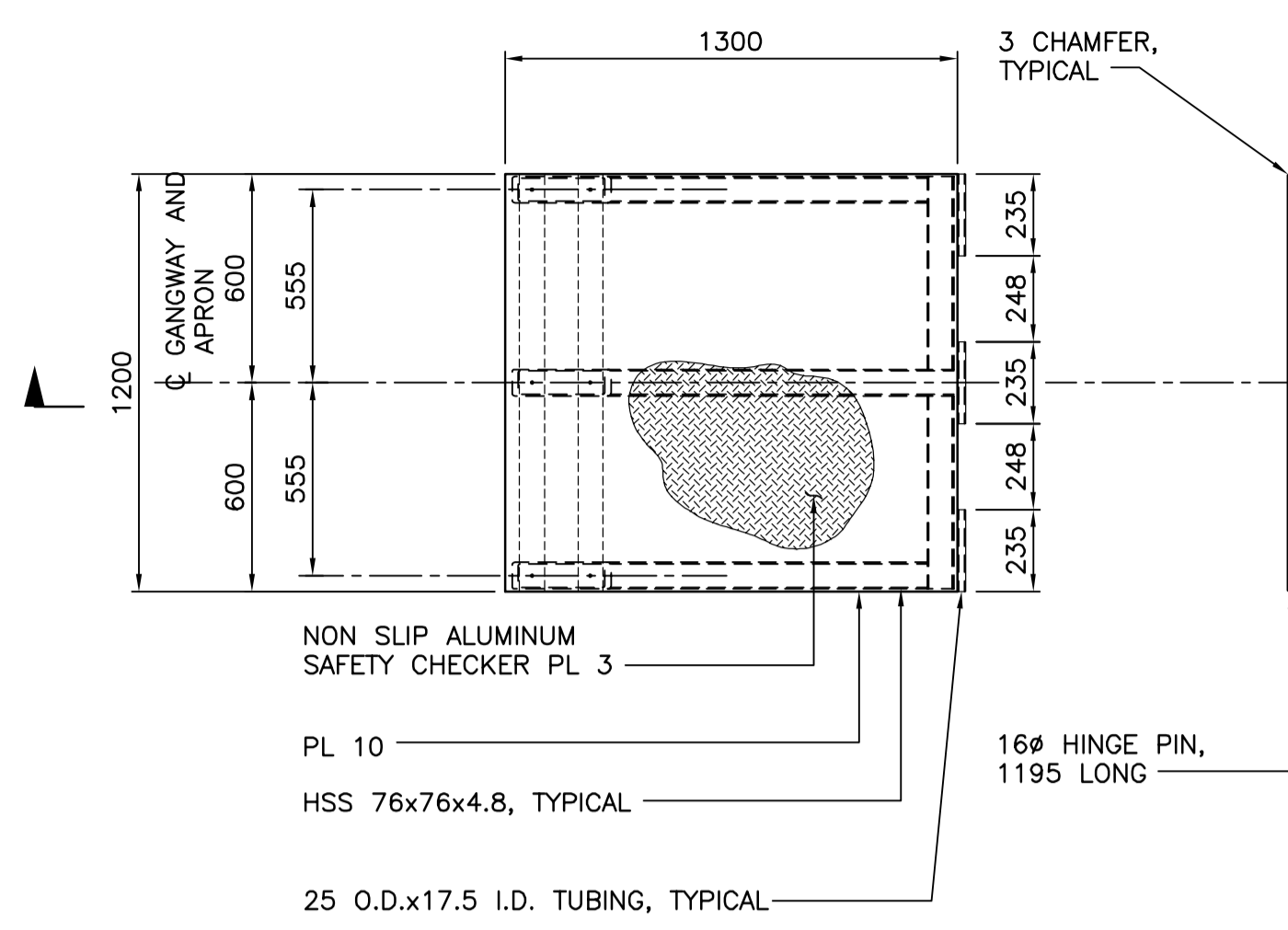
Drawn by/Dessiné par
JJMC

PWSSC Project Manager/Administrateur de Projets TPSSC
PATRICK TRUONG

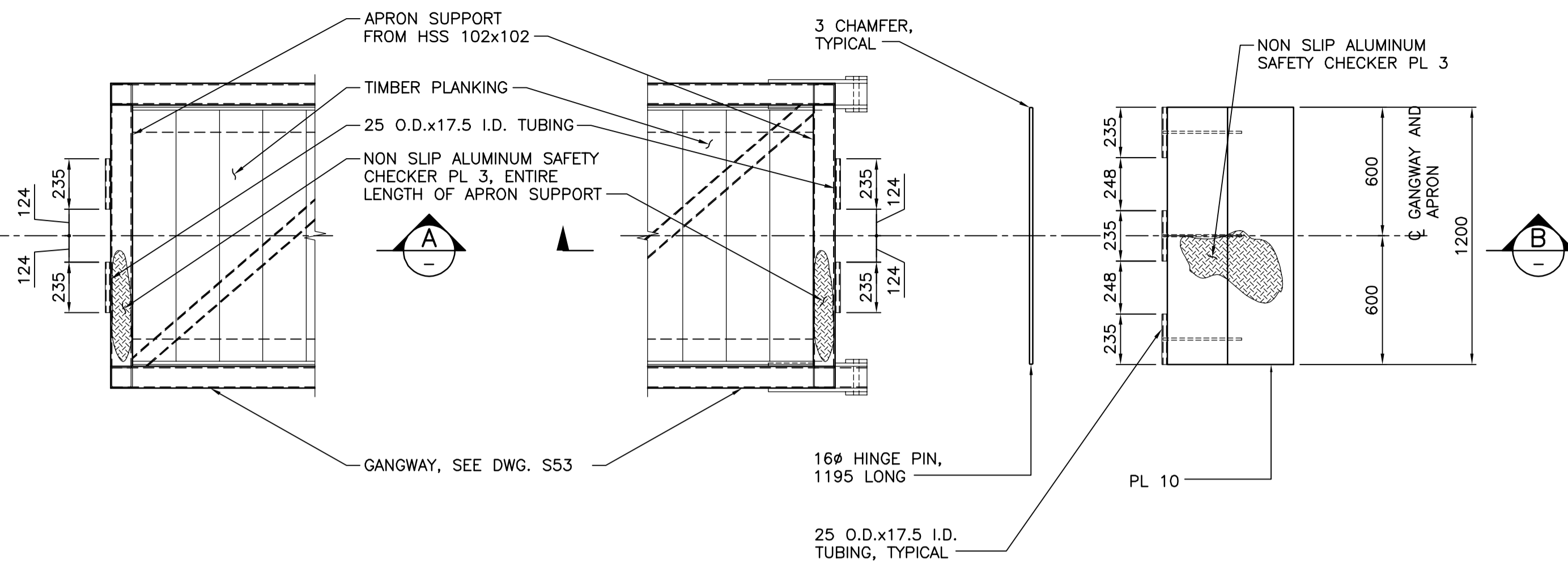
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
TUG BOAT FLOAT GANGWAY

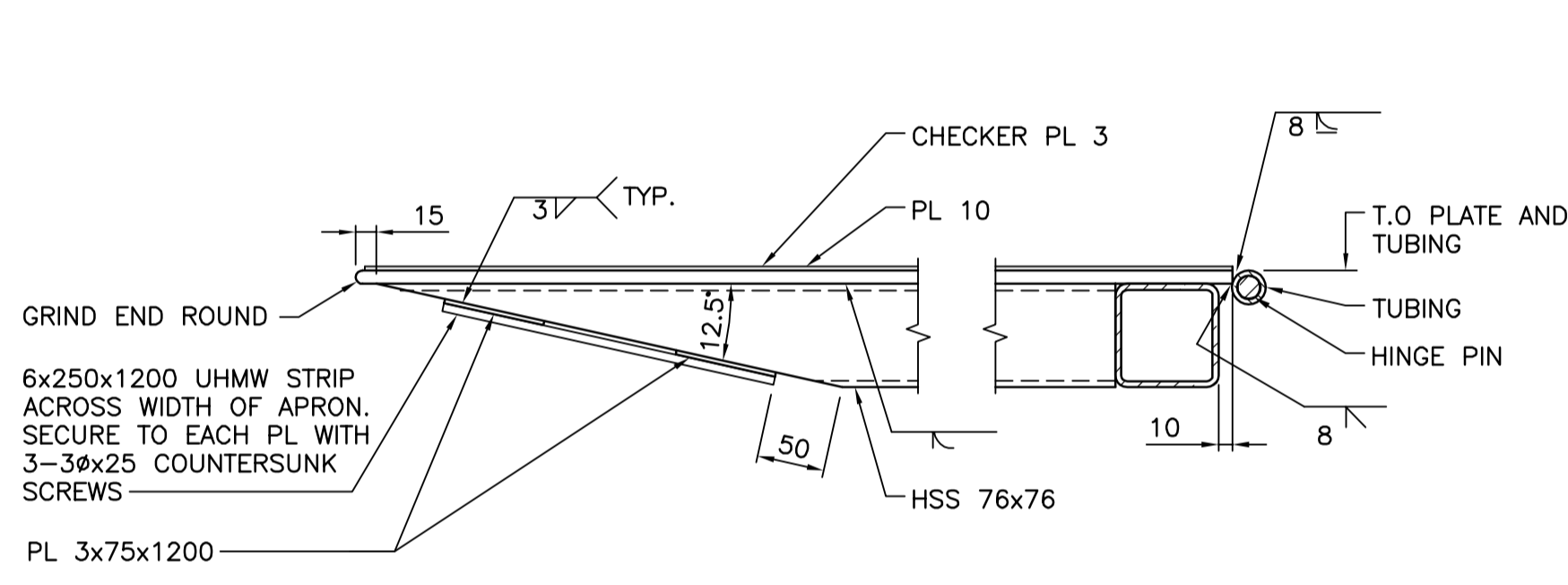
Project No./No. du projet R.026729.002	Sheet/Fauille S53	Revision no./ La Révision no. 2
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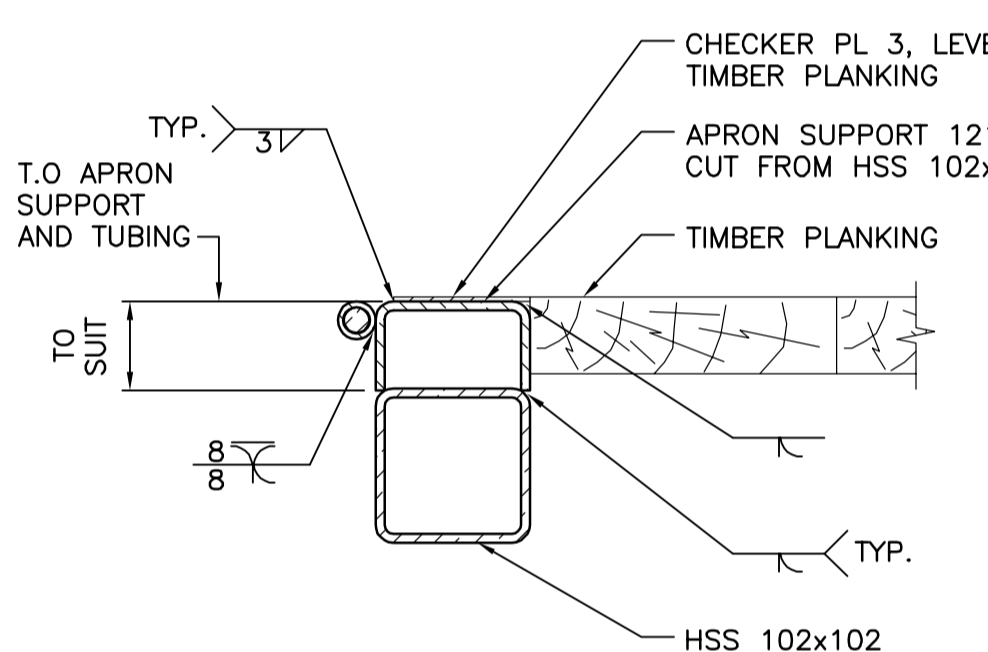
EXPLODED PLAN - RAMP APRON
SCALE 1:20



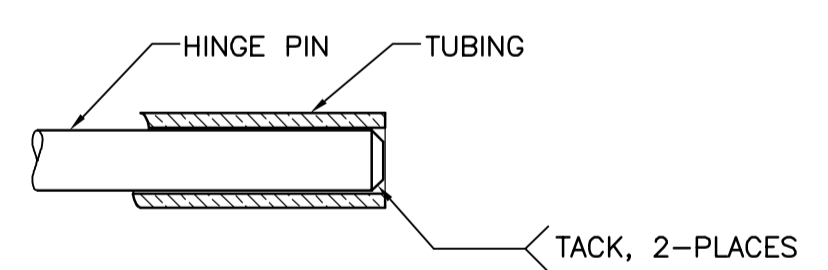
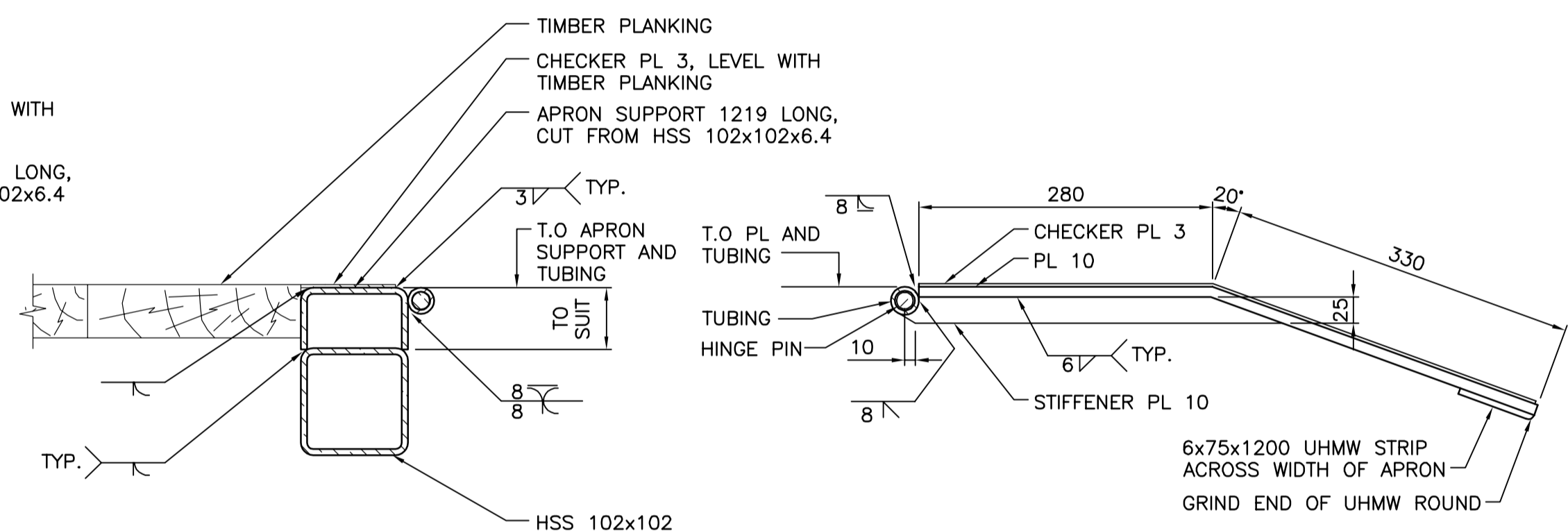
EXPLODED PLAN - SHORE APRON
SCALE 1:20



A SECTION
SCALE 1:5
NOTE: LUBRICATE HINGE PINS THOROUGHLY WITH APPROVED LUBRICANT BEFORE INSTALLATION



B SECTION
SCALE 1:5
NOTE: LUBRICATE HINGE PINS THOROUGHLY WITH APPROVED LUBRICANT BEFORE INSTALLATION



HINGE PIN RETENTION
SCALE 1:2

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/15

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
JJMC

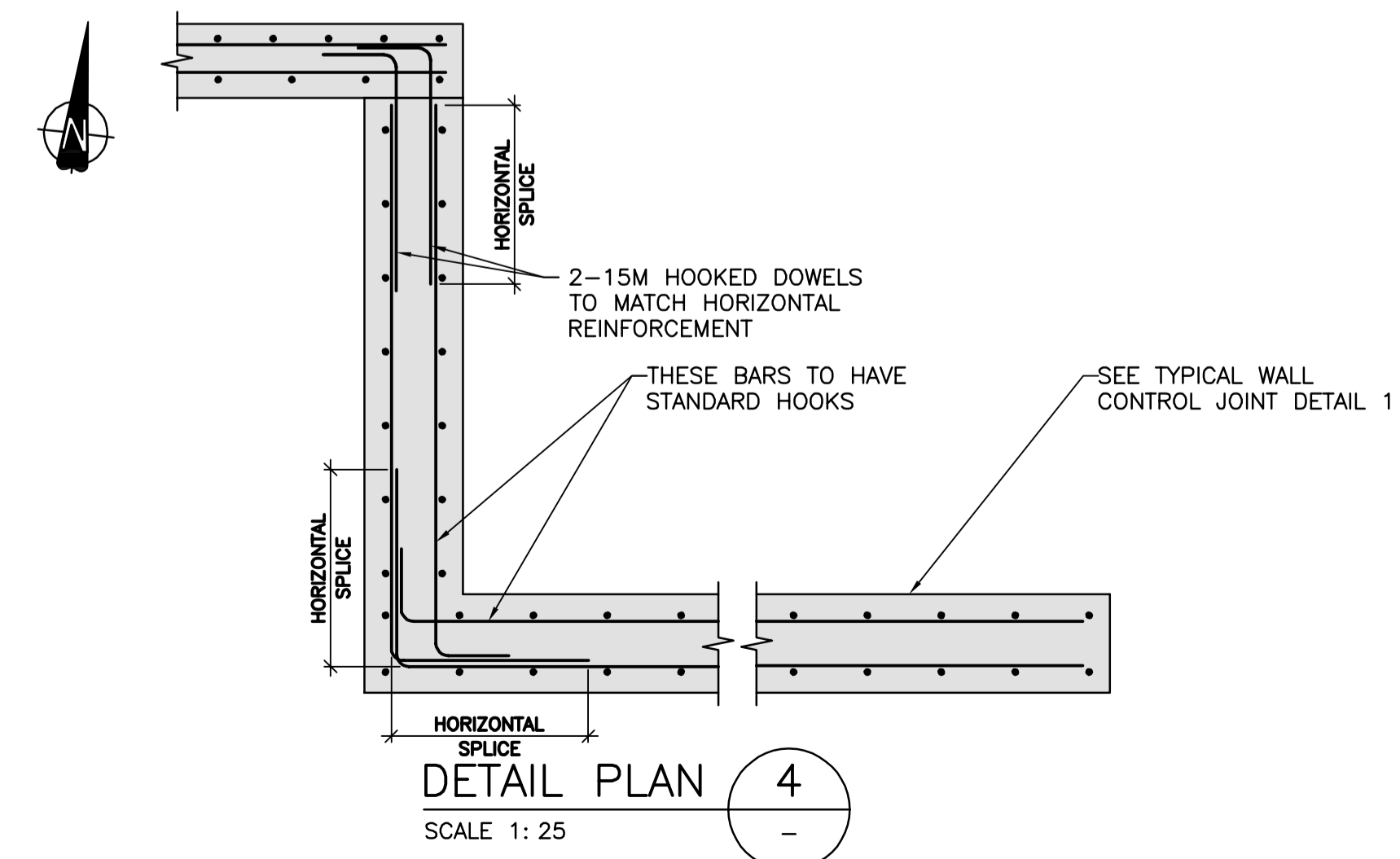
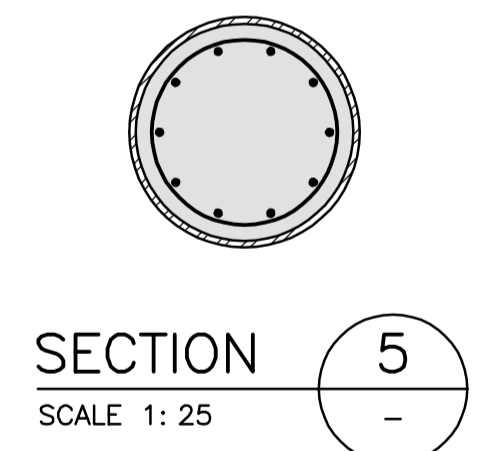
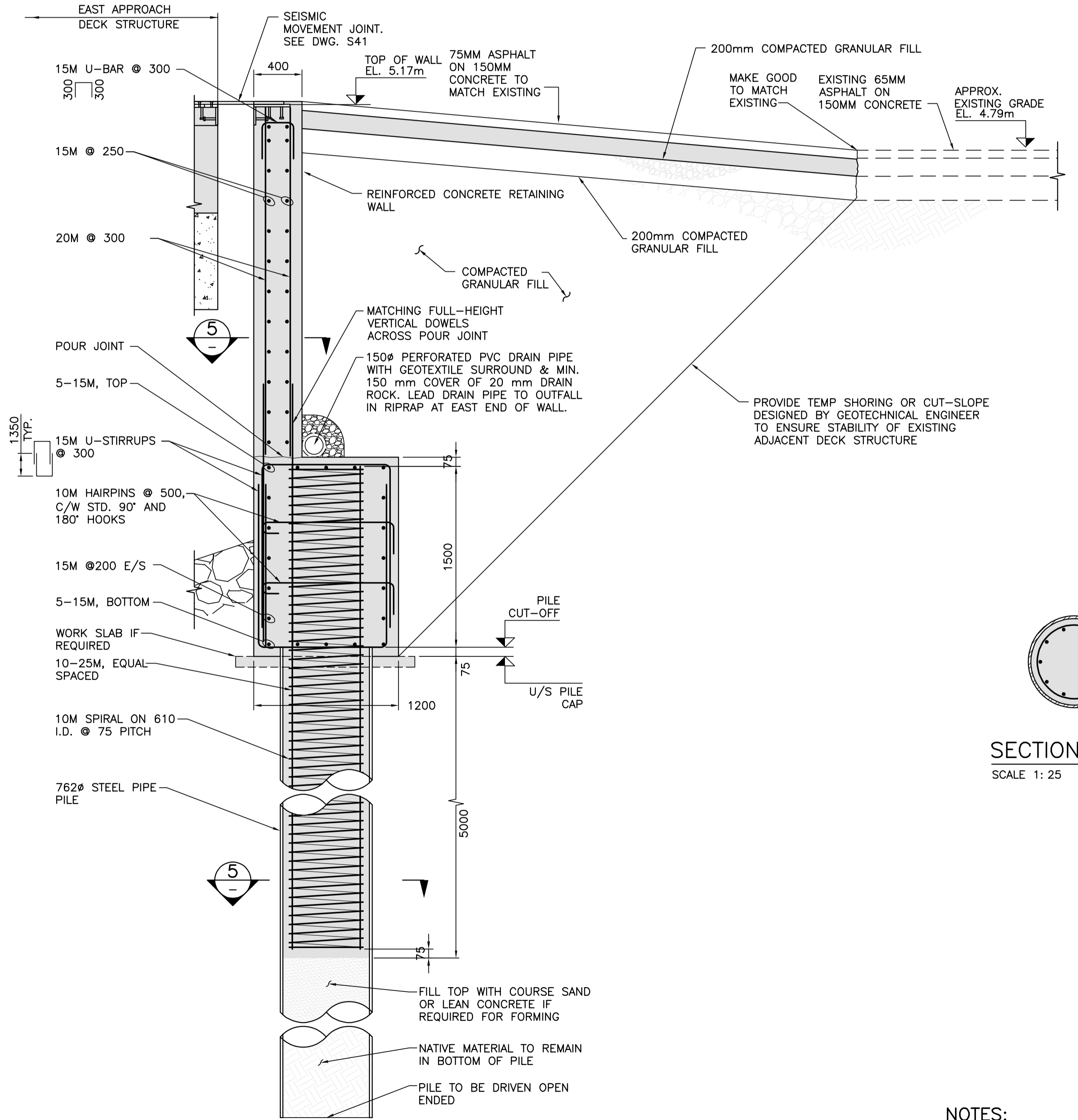
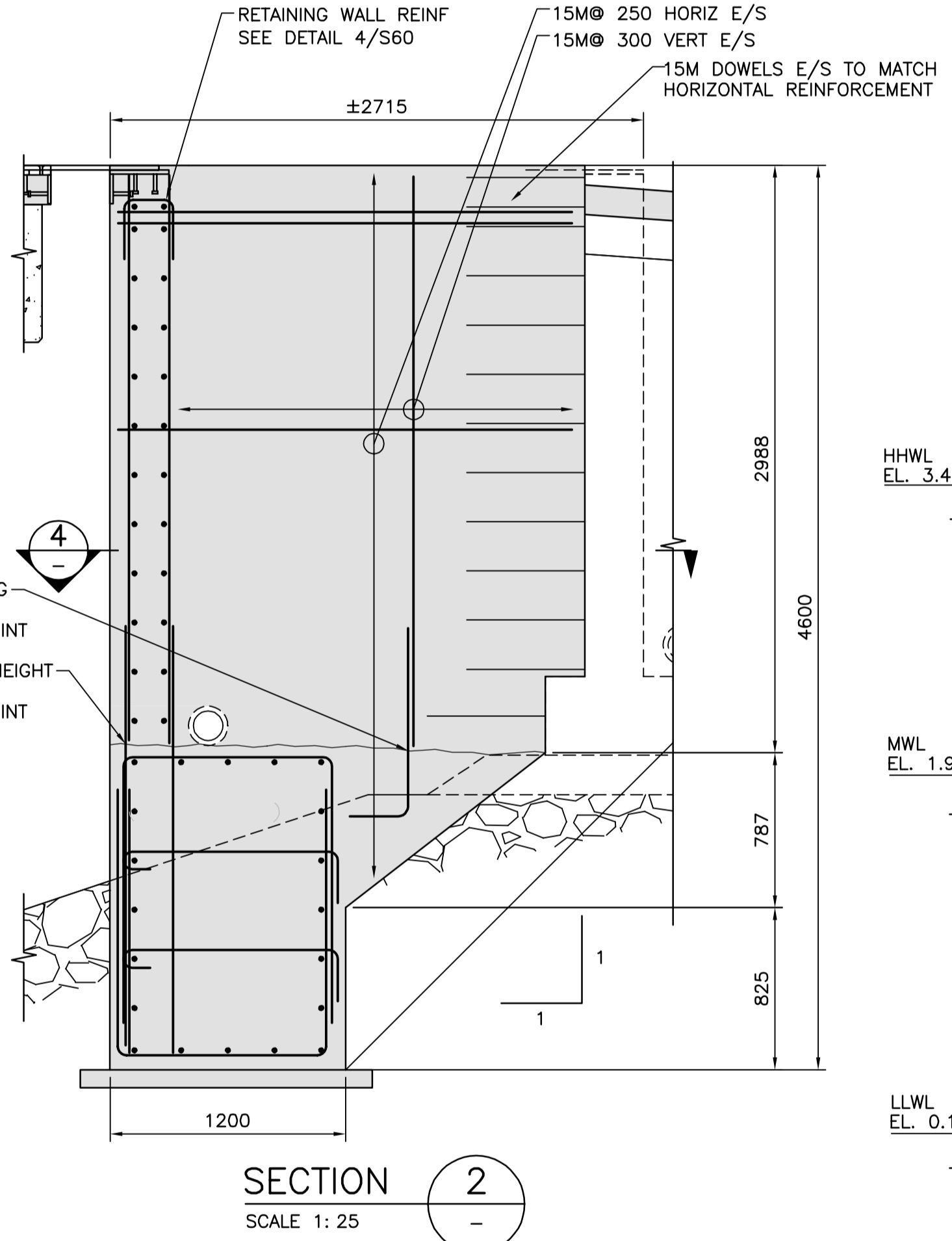
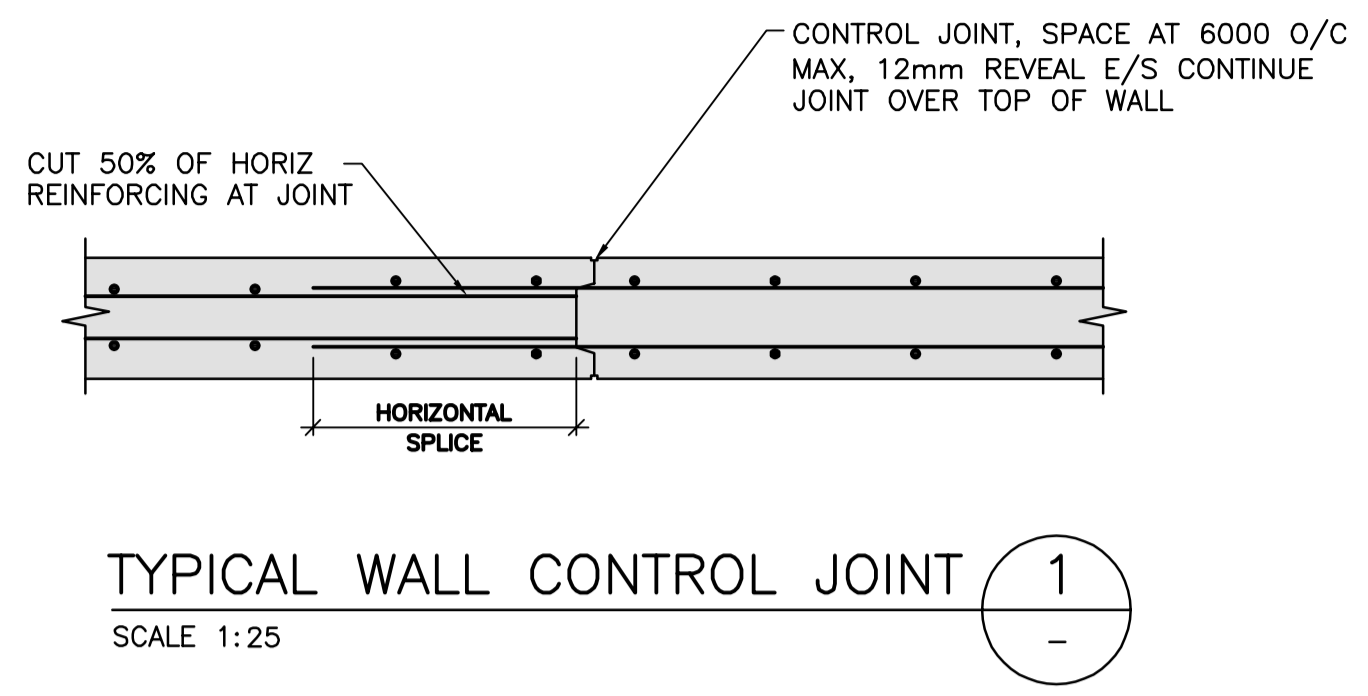
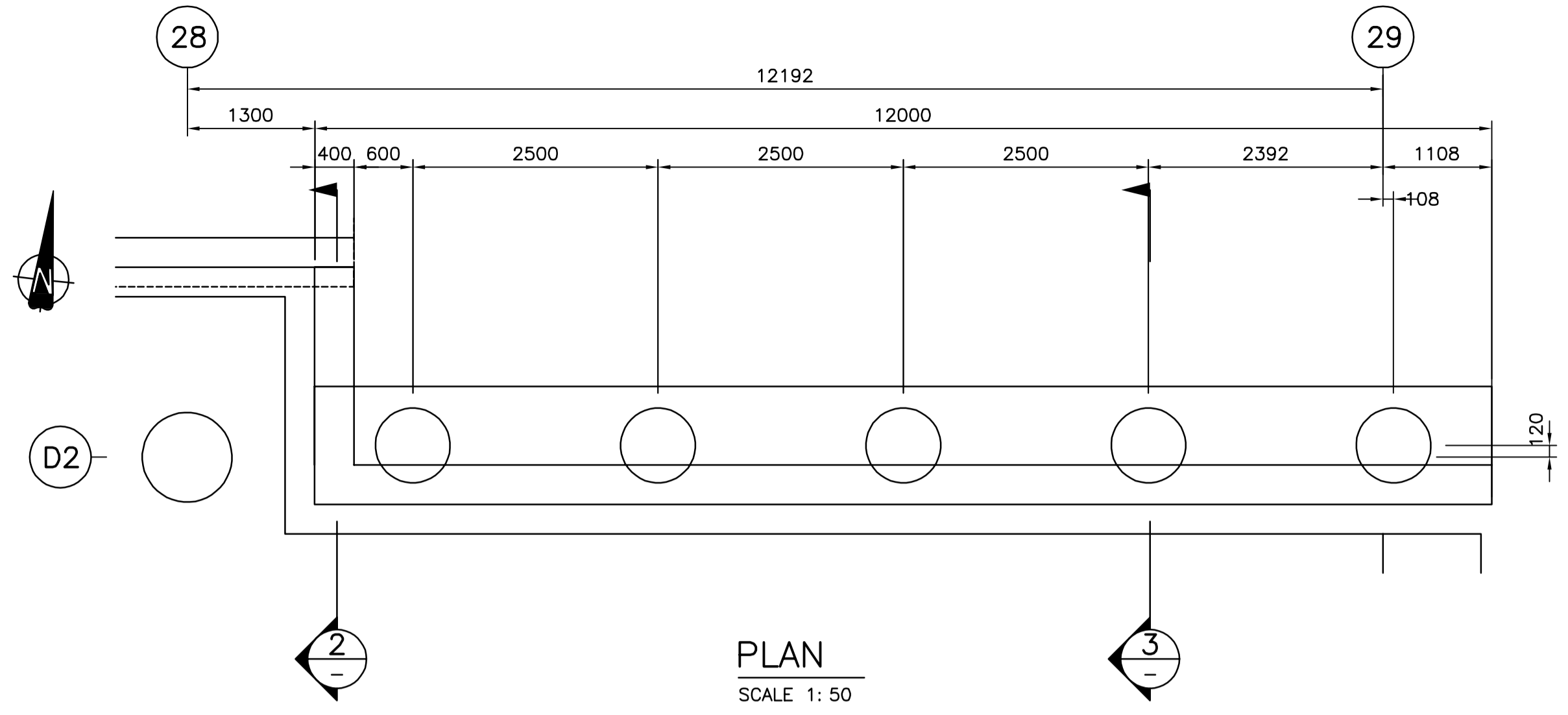
PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
TUG BOAT FLOAT APRON DETAILS

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S54	2

- NOTES:**
- FOR NOTES SEE DWG. G1.
 - ALL MATERIAL TO BE ALUMINUM, UNLESS NOTED OTHERWISE.



- NOTES:**
- FOR NOTES SEE DWG. G01.
 - CONTRACTOR TO REVIEW S13 FOR PILE INSTALLATION SEQUENCE

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/Client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

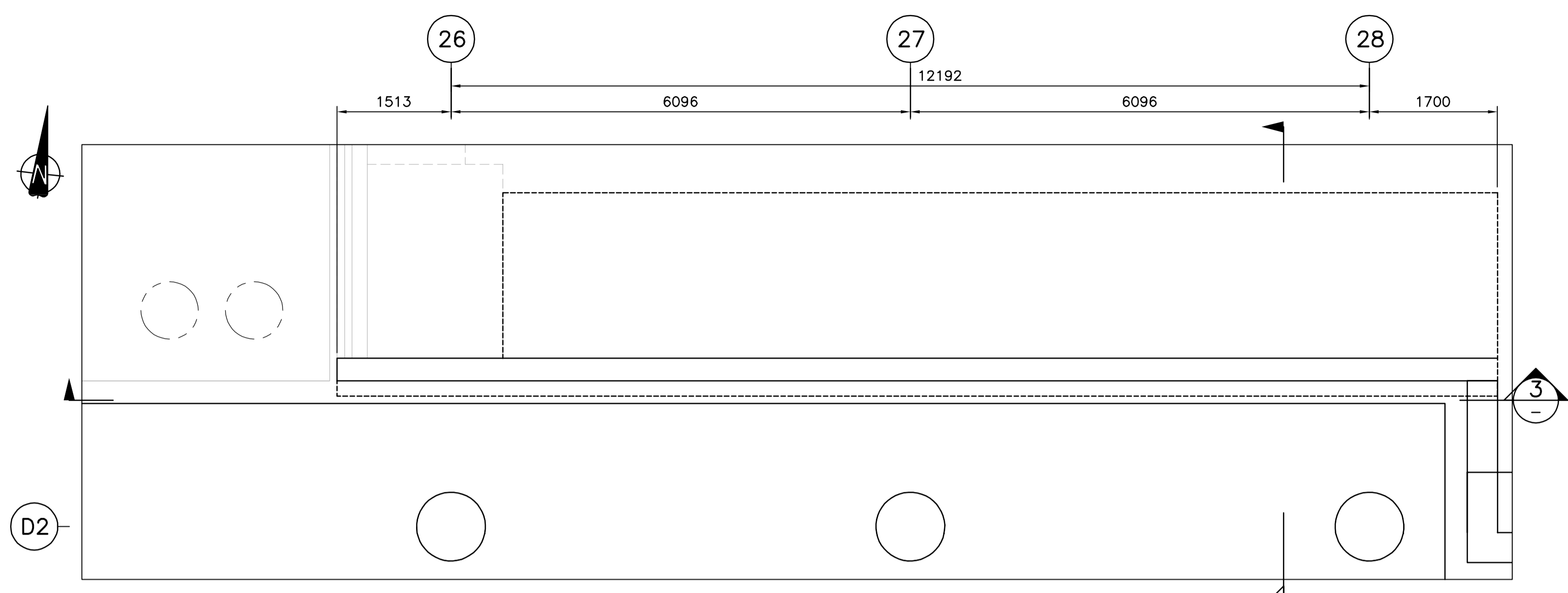
Project Title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

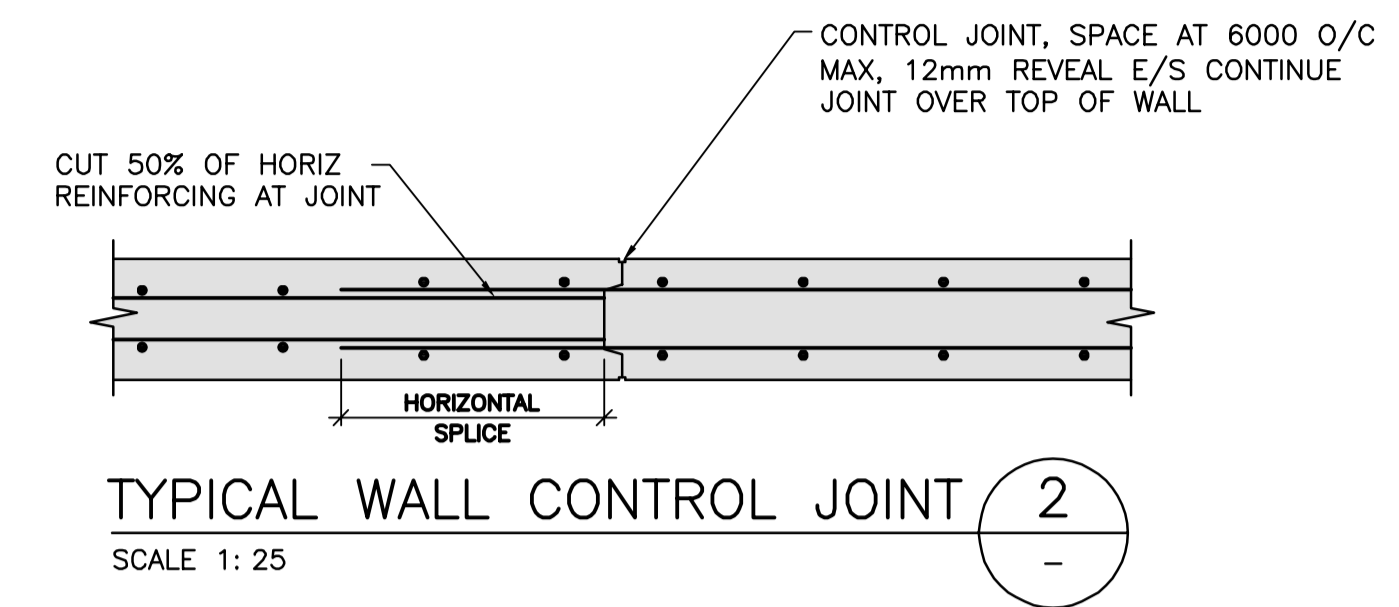
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG
PWGSC Project Manager/Administrateur de Projets TPSCC
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing Title/Titre du dessin
EAST APPROACH RETAINING WALL ON PILES

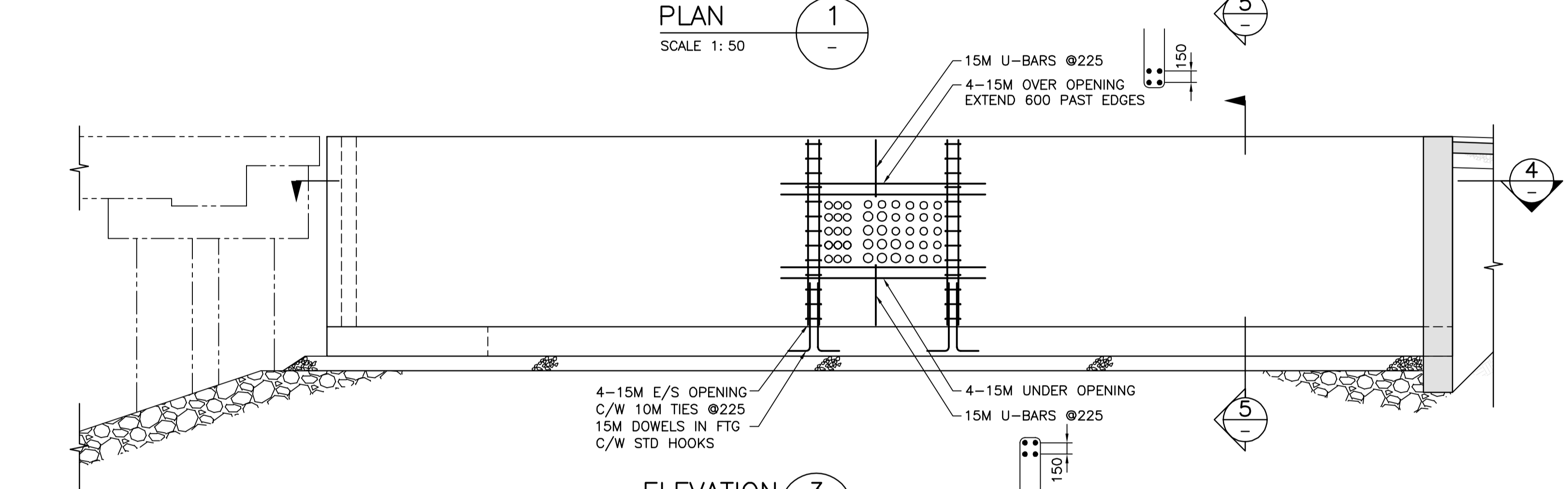
Project No./No. du projet R.026729.002	Sheet/Feuille S60	Revision no./No. de la révision 2
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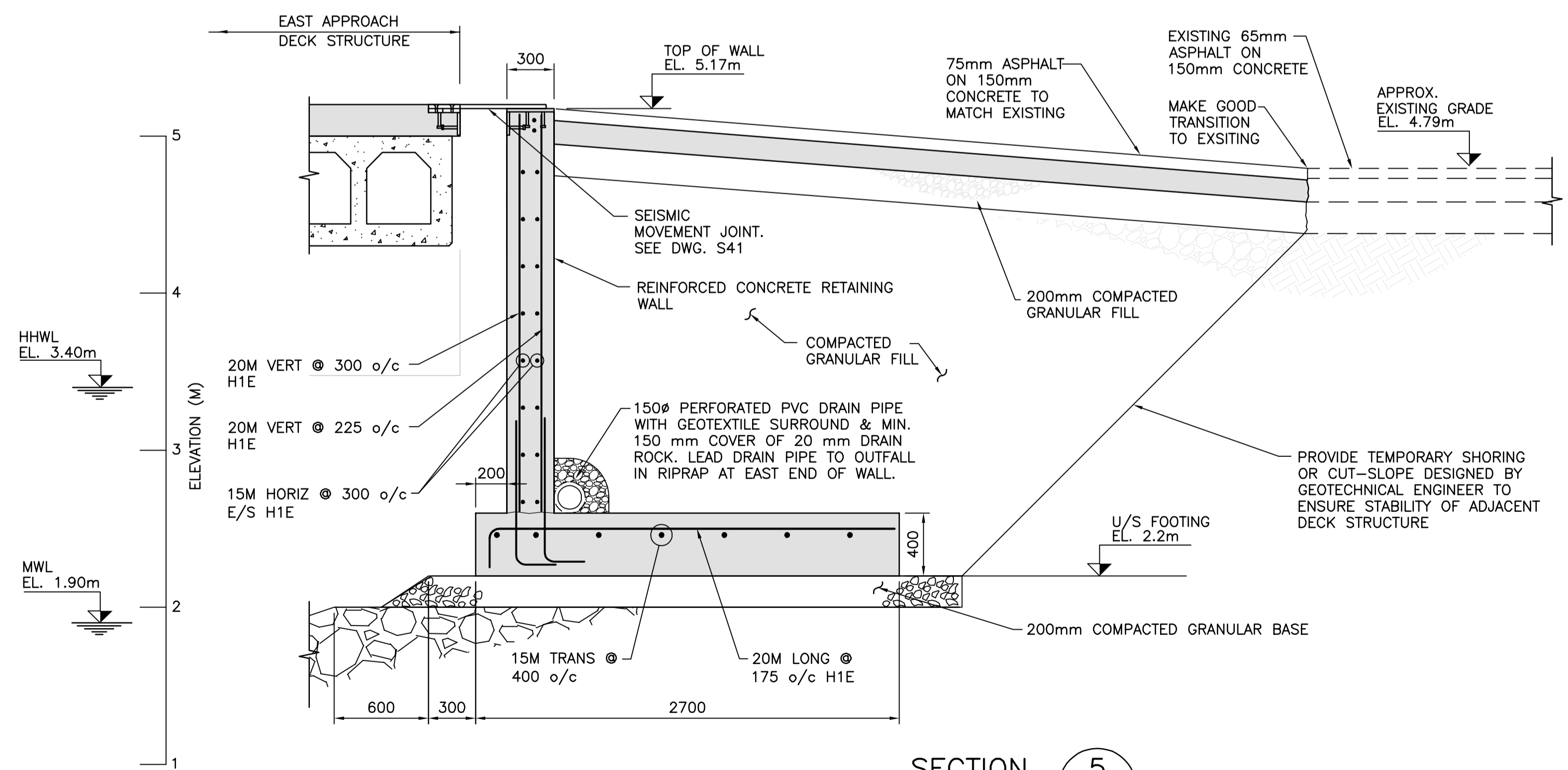
PLAN 1
SCALE 1: 50



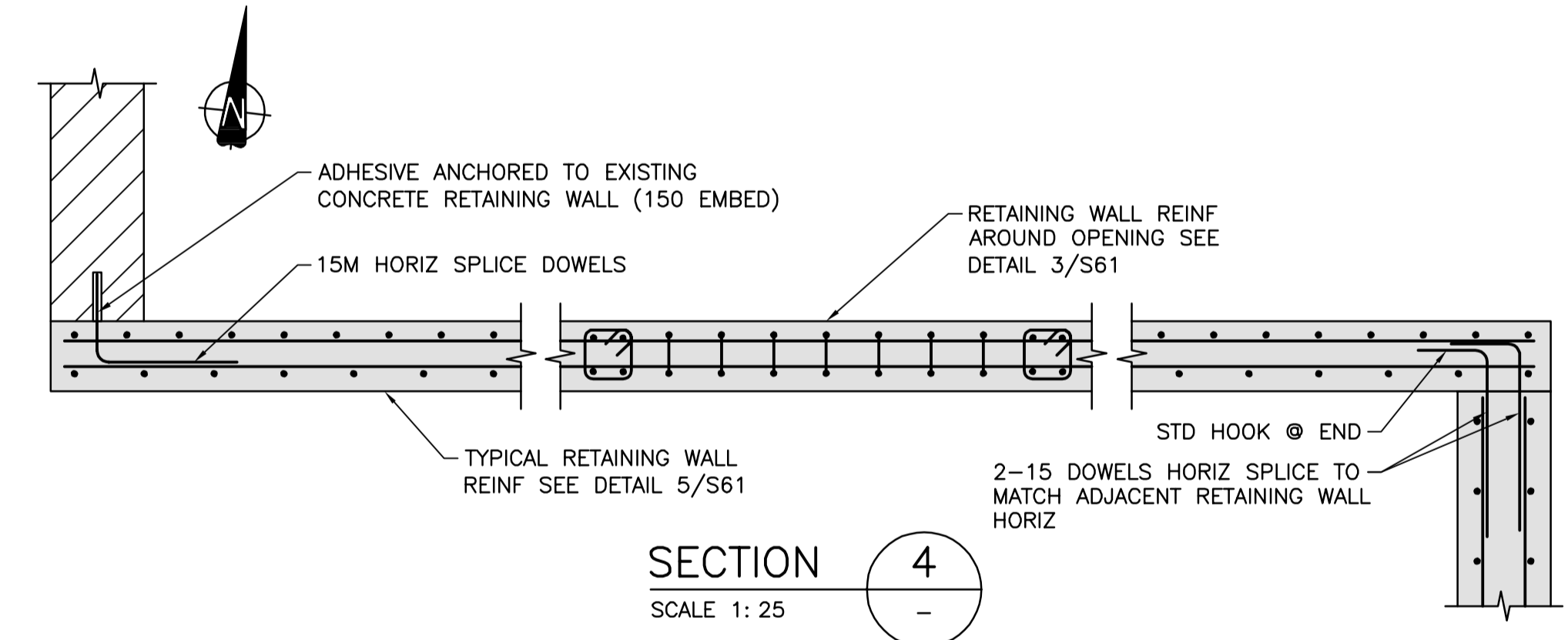
TYPICAL WALL CONTROL JOINT 2
SCALE 1: 25



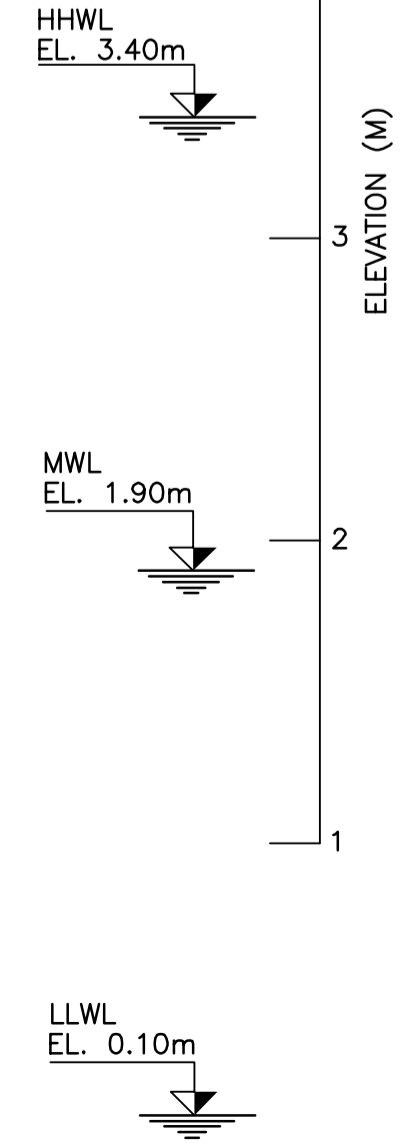
ELEVATION 3
SCALE 1: 50



SECTION 5
SCALE 1: 25



SECTION 4
SCALE 1: 25



- NOTES:**
- FOR NOTES SEE DWG. G01.
 - CONTRACTOR TO REVIEW S13 FOR PILE INSTALLATION SEQUENCE

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

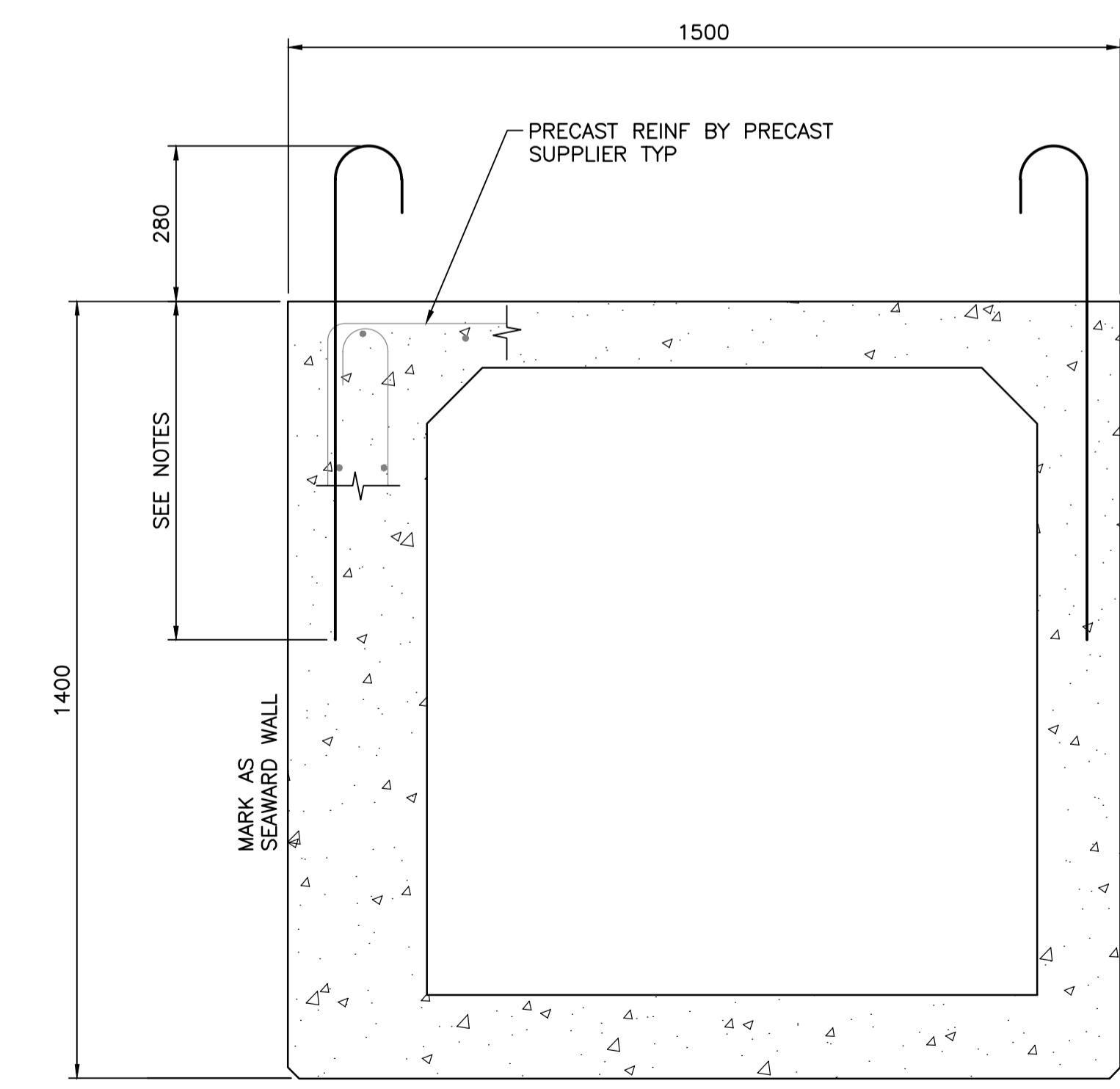
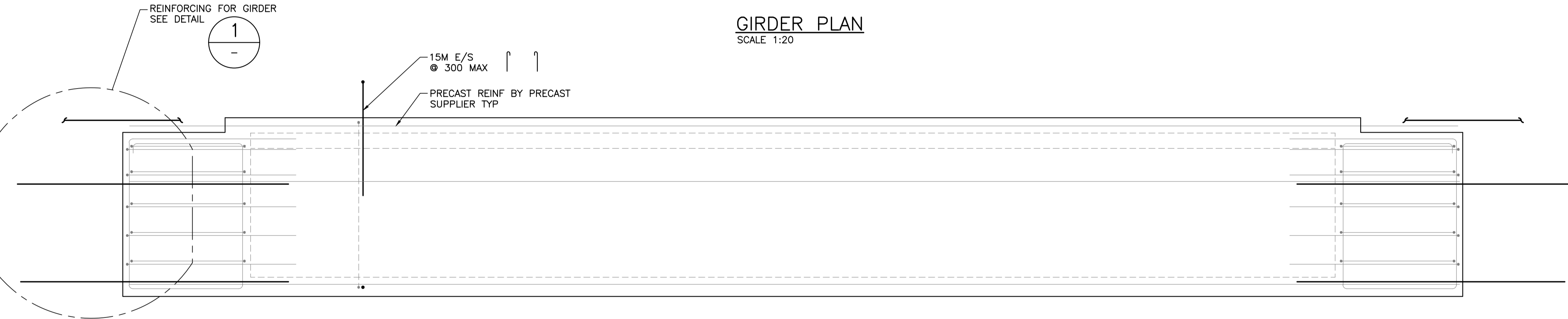
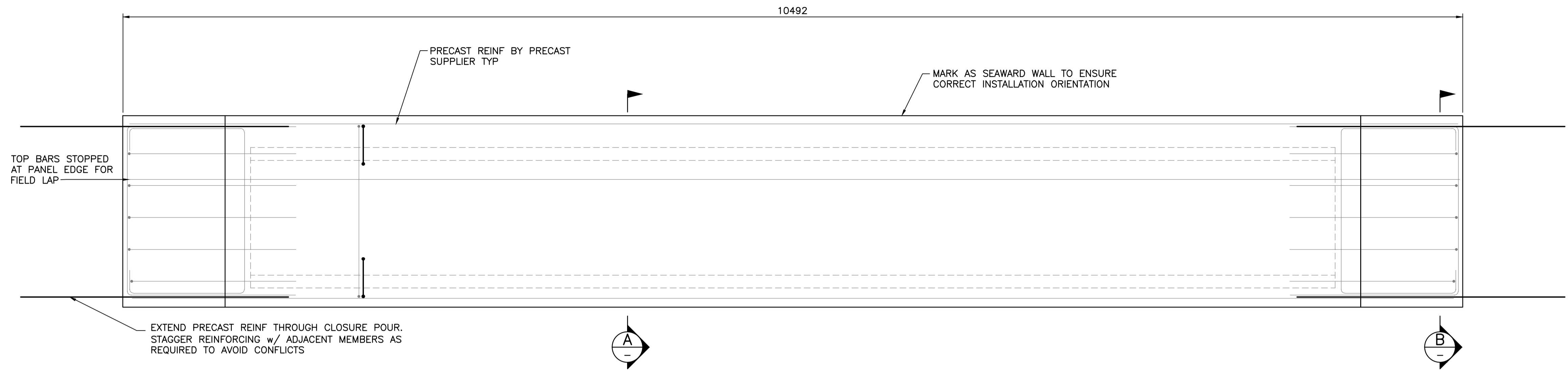
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets /PSGC
PATRICK TRUONG

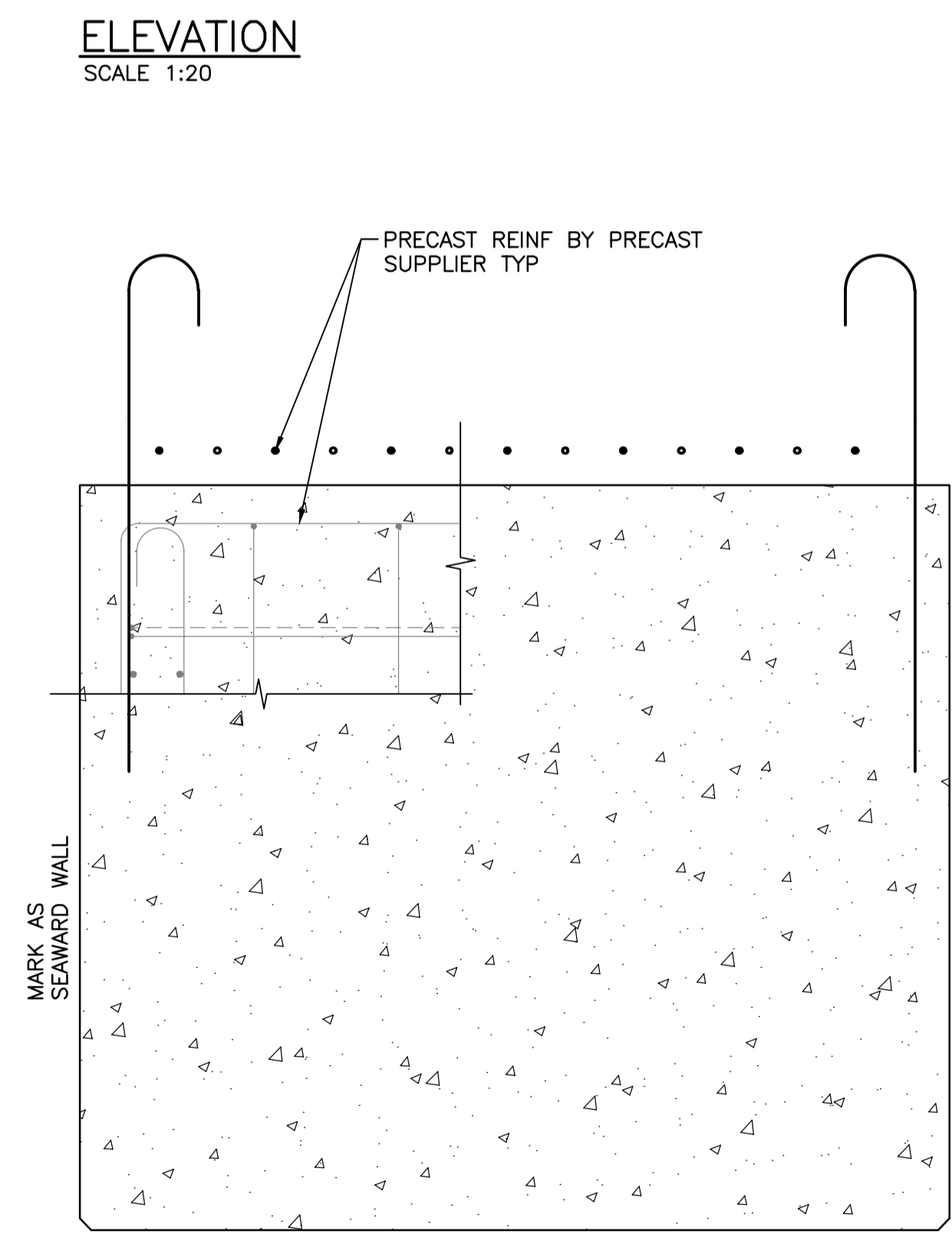
Regional Manager, Architectural and Engineering Services /
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
EAST APPROACH RETAINING WALL

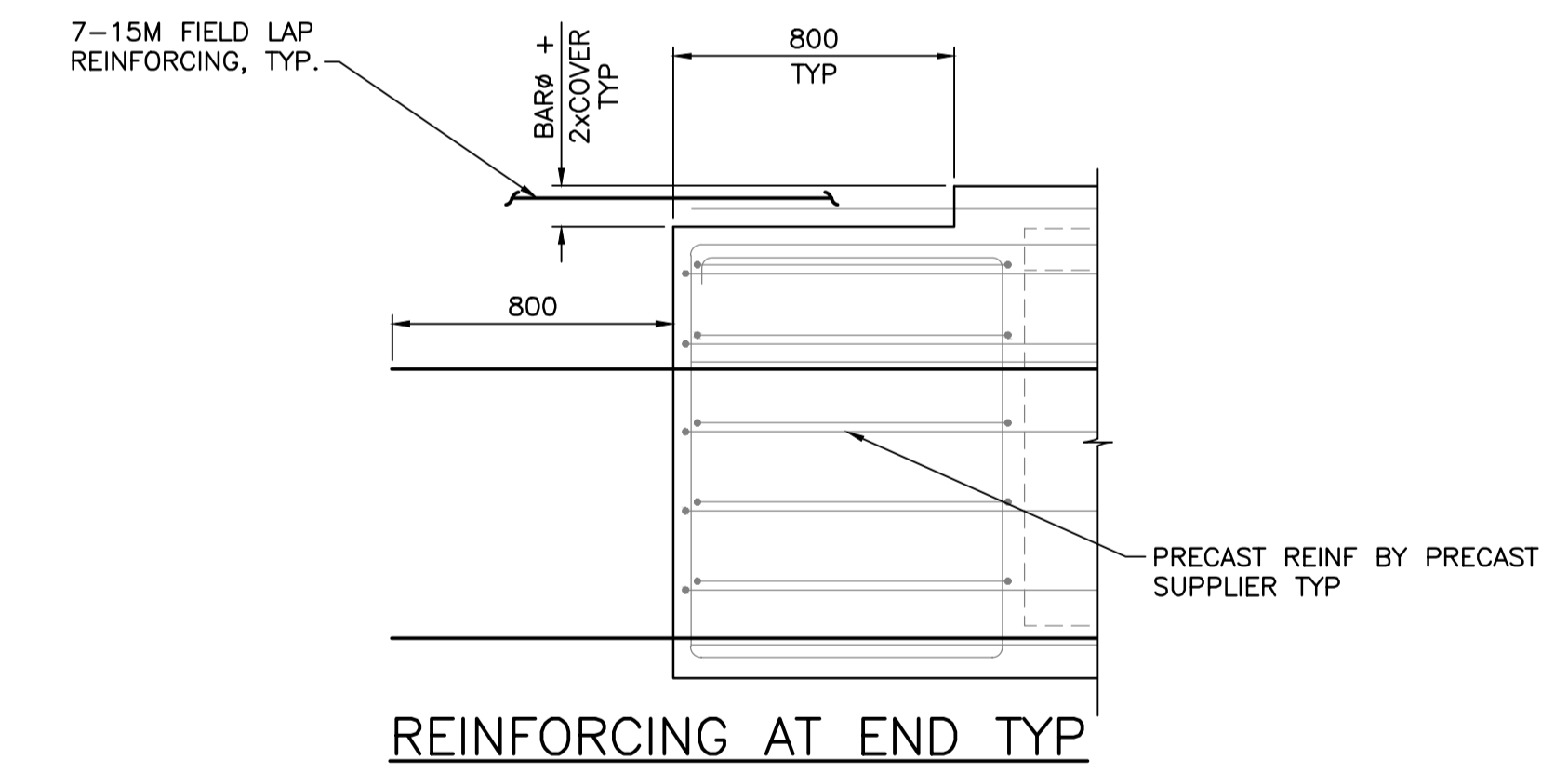
Project No./No. du projet	Sheet/Feuille	Revision no./No. de la revision
R.026729.002	S61	2



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10



1 REINFORCING AT END TYP
SCALE 1:20

PRECAST NOTES:

1. PRECAST DESIGN SHALL BE THE RESPONSIBILITY OF THE PRECAST SUPPLIER.
2. BOTTOM EDGES OF ALL PRECAST SHALL BE CHAMFERED 20 mm.
3. TOP SURFACE OF ALL PRECAST SHALL BE ROUGHENED TO 5mm AMPLITUDE
5. MAXIMUM WEIGHT PER PRECAST ELEMENT NOT TO EXCEED 14 kPa

NOTES:

1. FOR NOTES SEE DWG. G01.
2. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
3. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

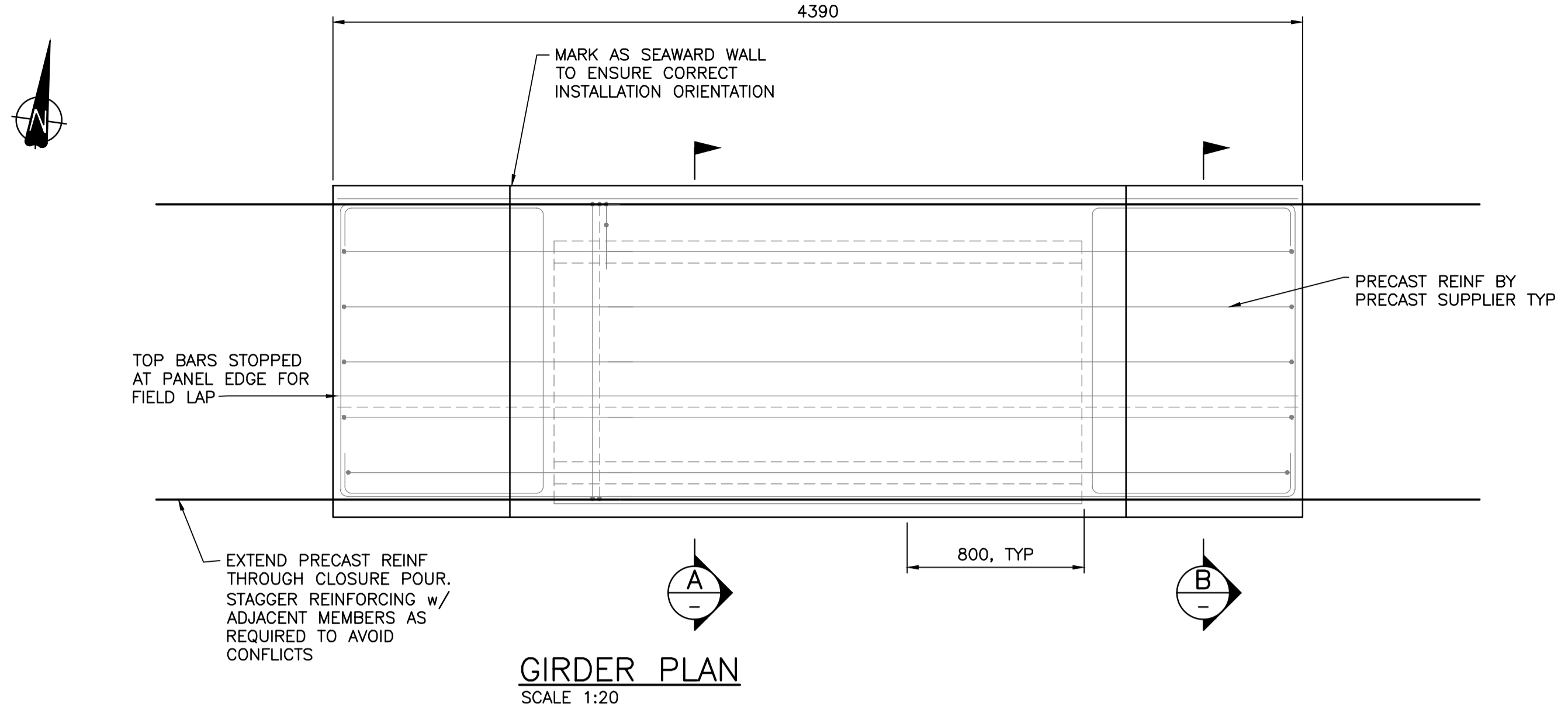
PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

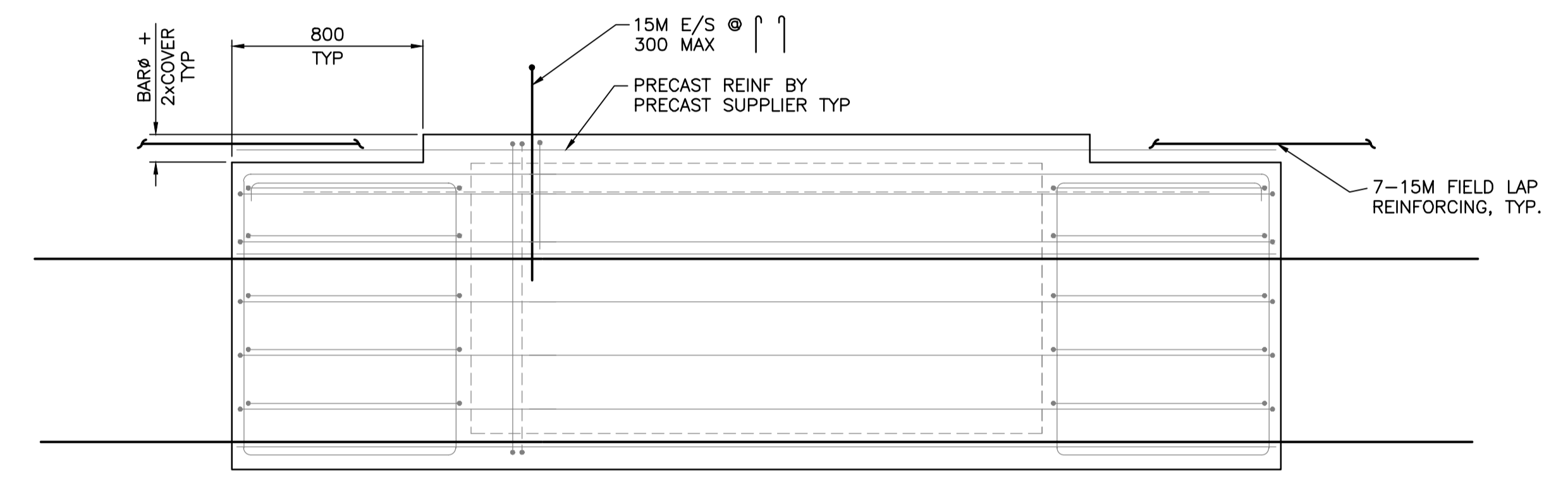
Drawing title/Titre du dessin

**PRECAST BOX GIRDER
BG1**

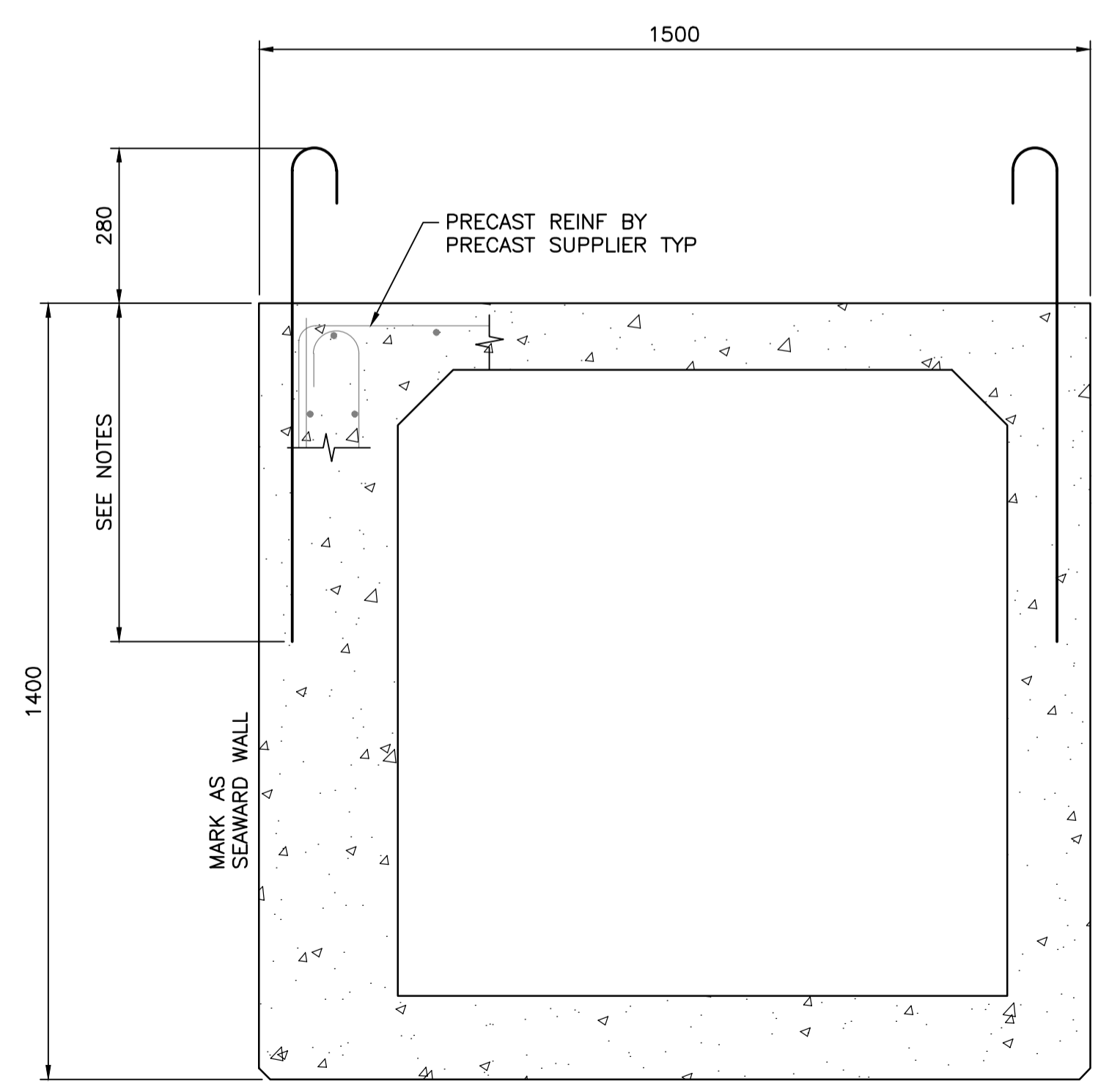
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S BG1	2



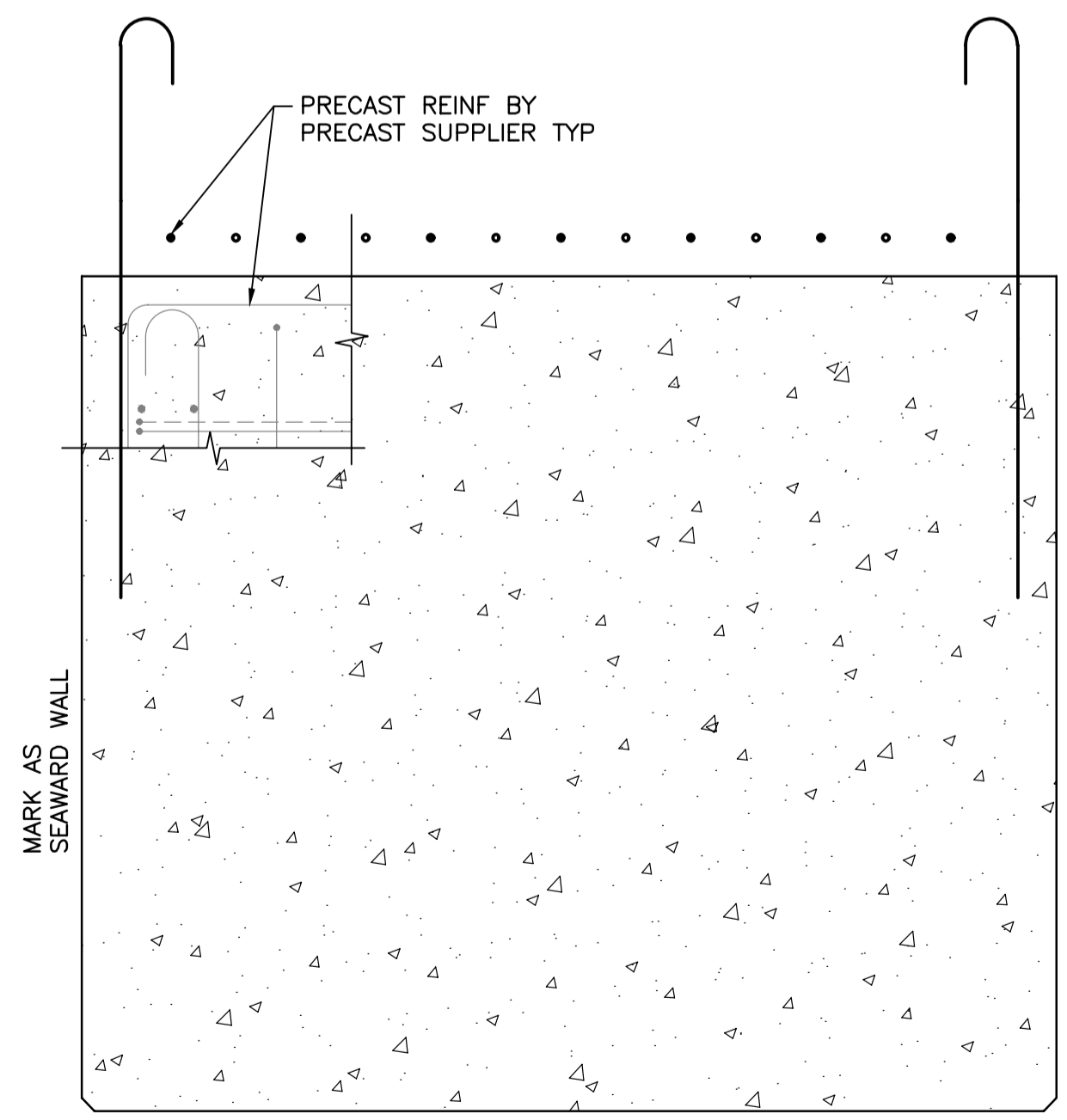
GIRDER PLAN
SCALE 1:20



ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

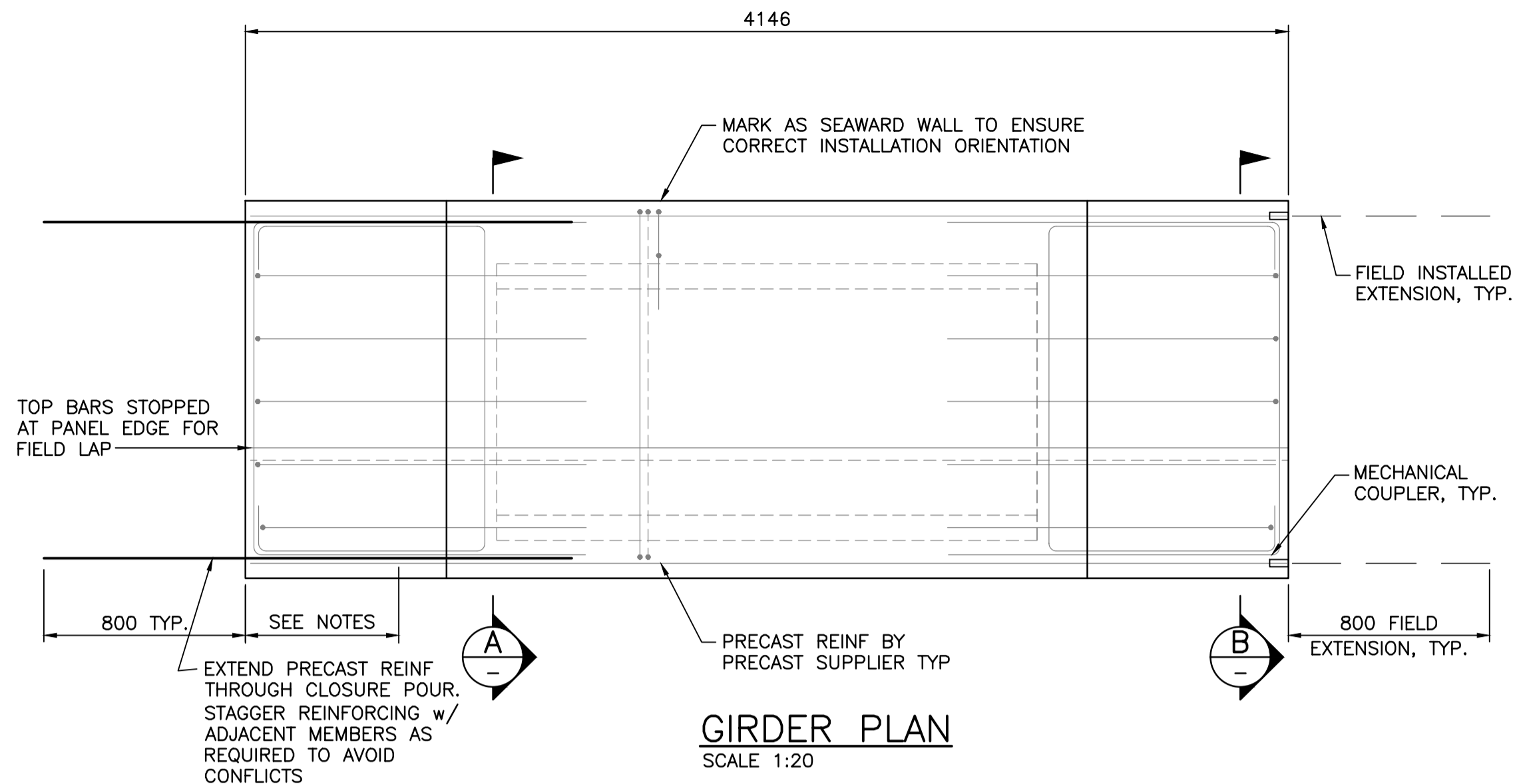
Drawn by/Dessiné par
BOG

PWGCSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

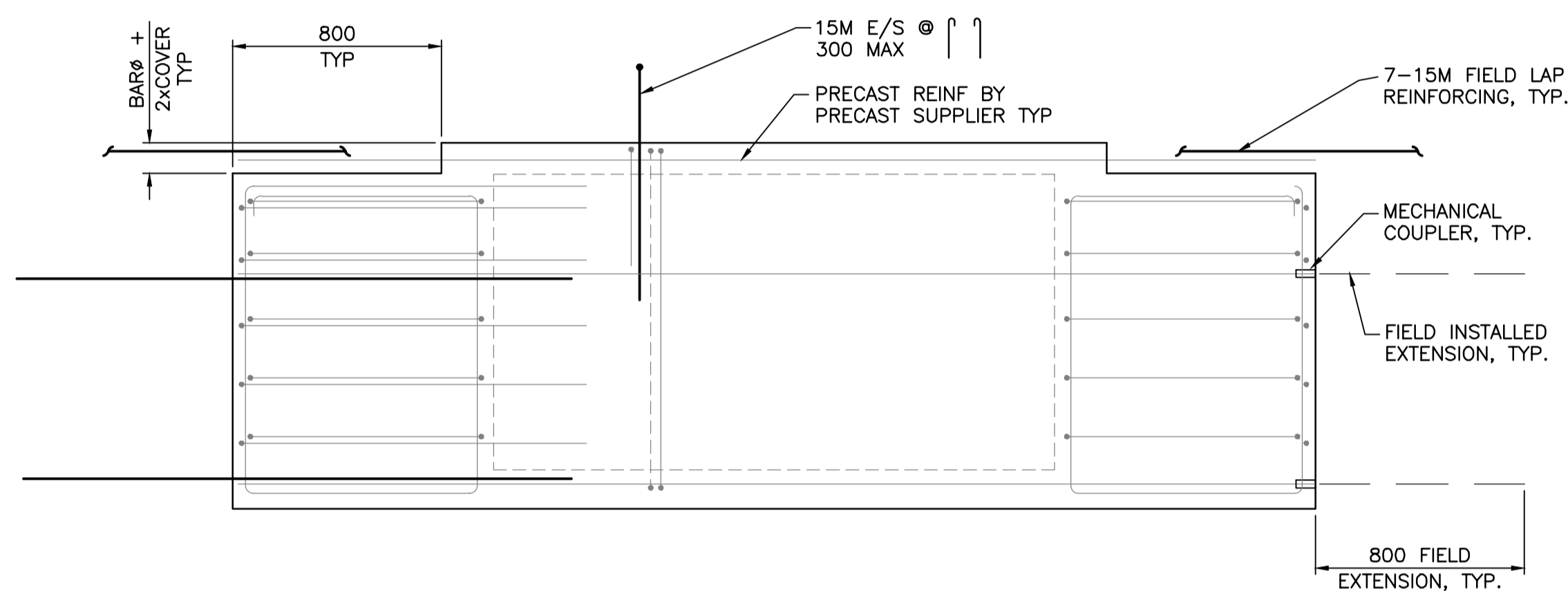
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST BOX GIRDER
BG2**

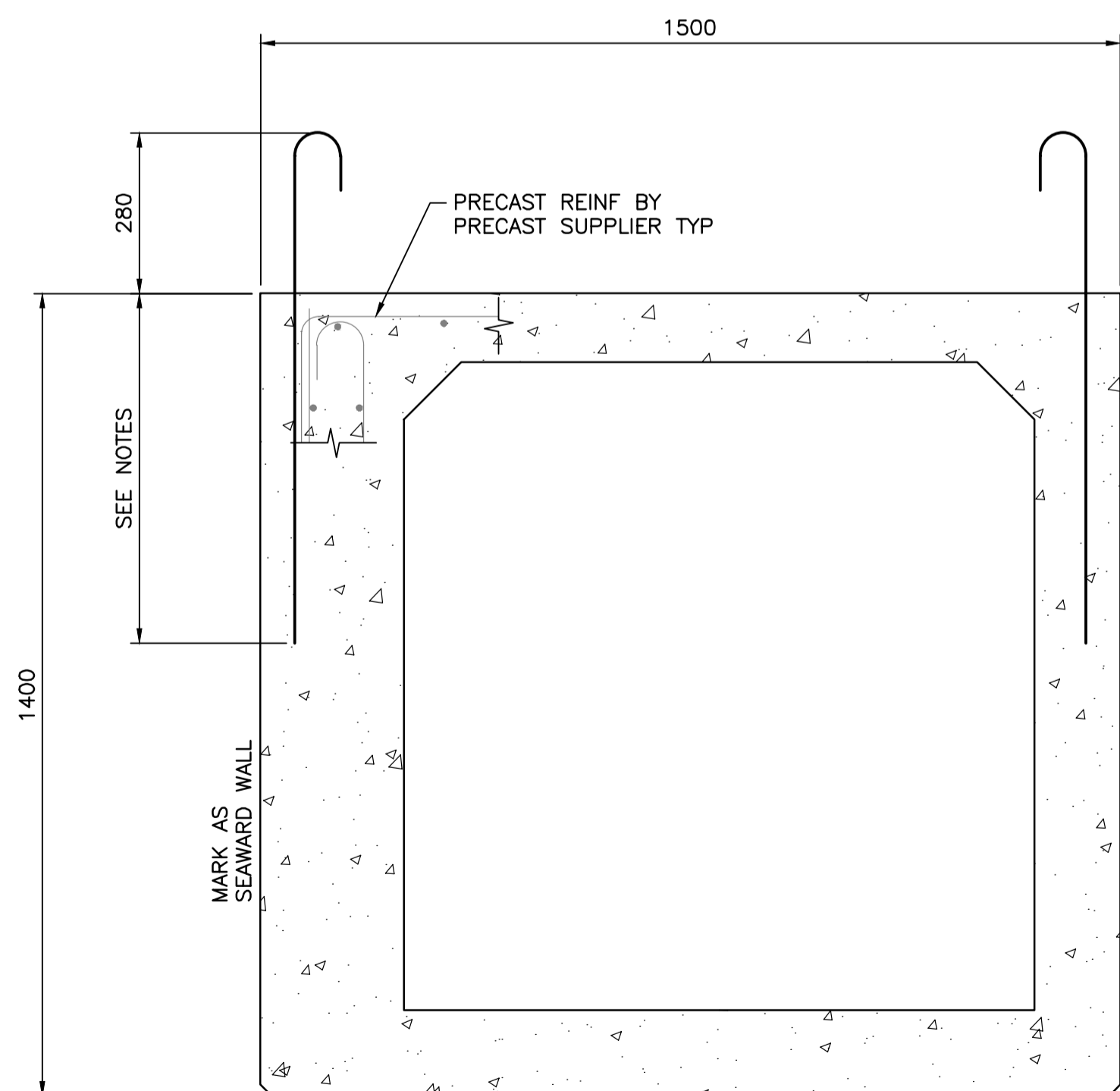
Project No./No. du projet R.026729.002	Sheet/Feuille S BG2	Revision no./ La Révision no. 2
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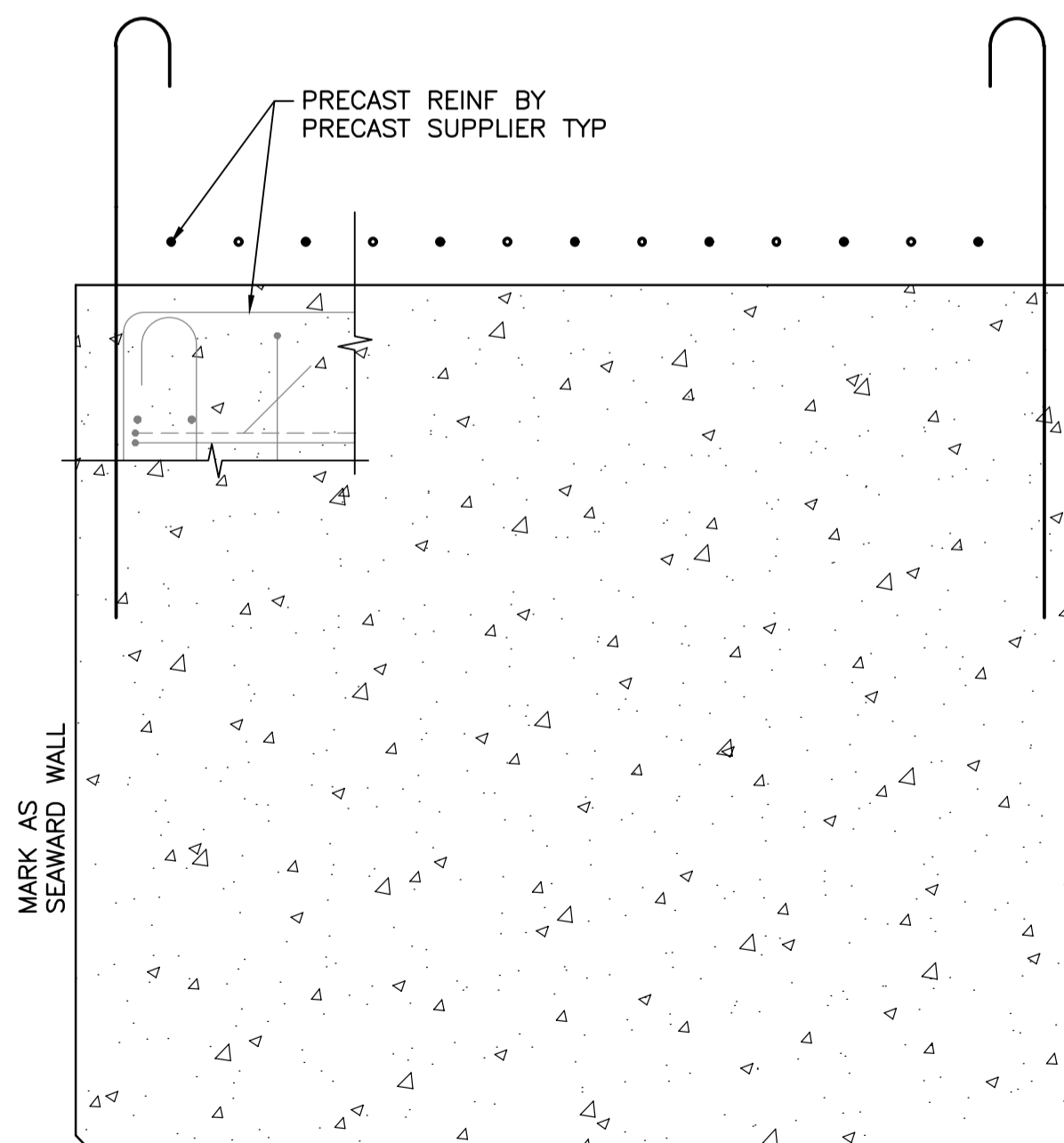
GIRDER PLAN
SCALE 1:20



ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

NOTES:

1. FOR NOTES SEE DWG. G01.
2. FOR PRECAST NOTES SEE DWG. SBG1.
3. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
4. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS



Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

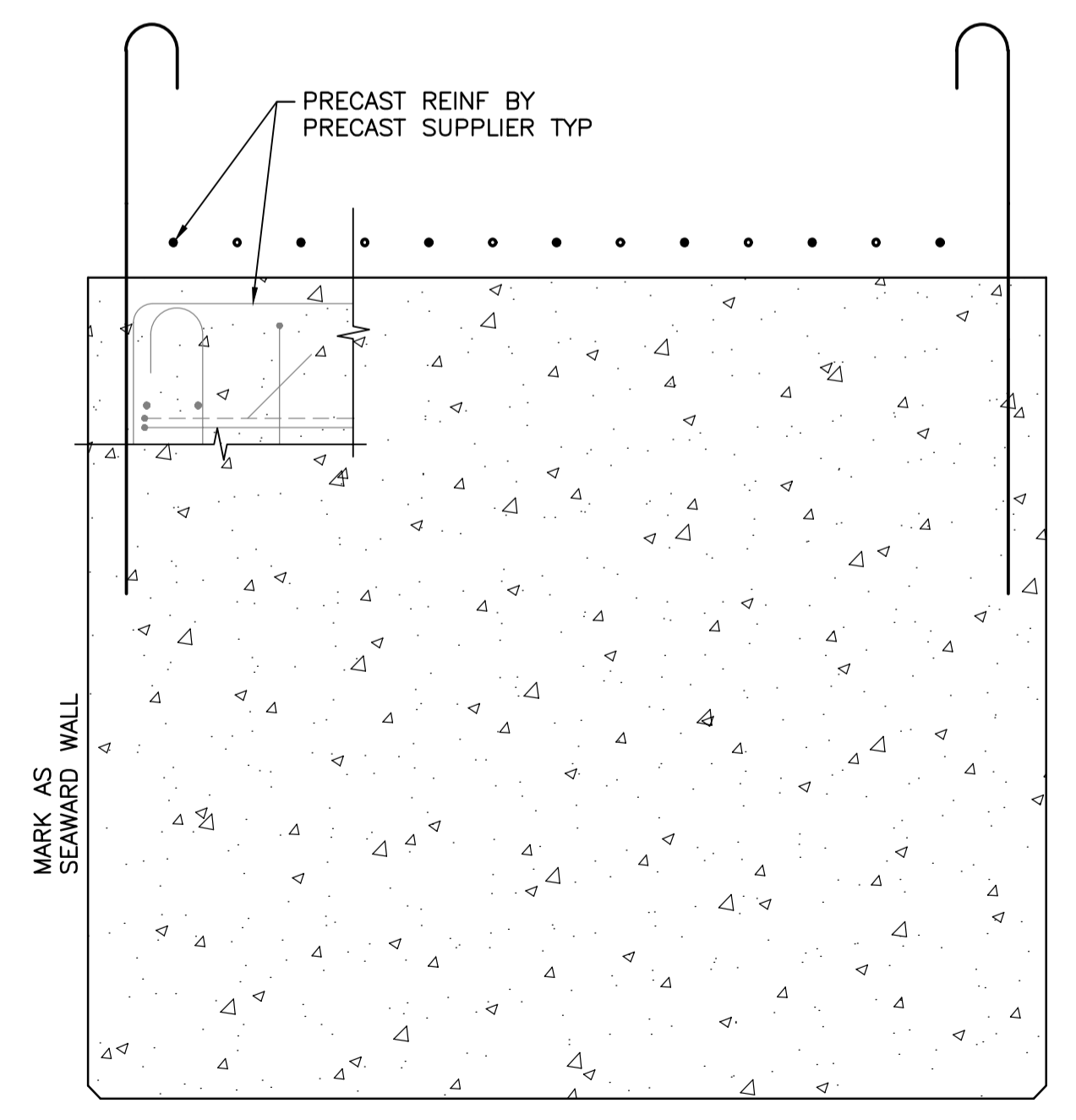
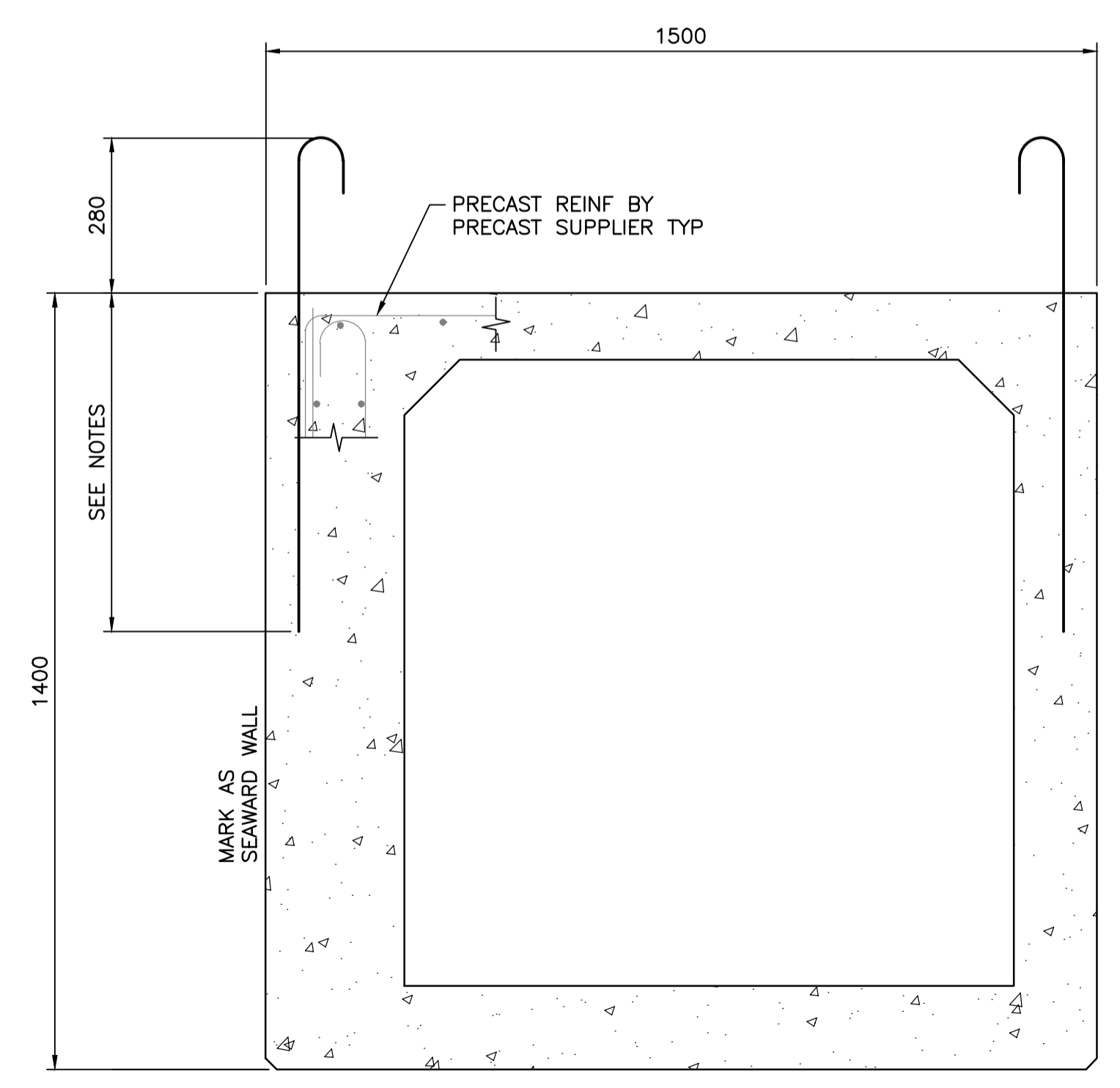
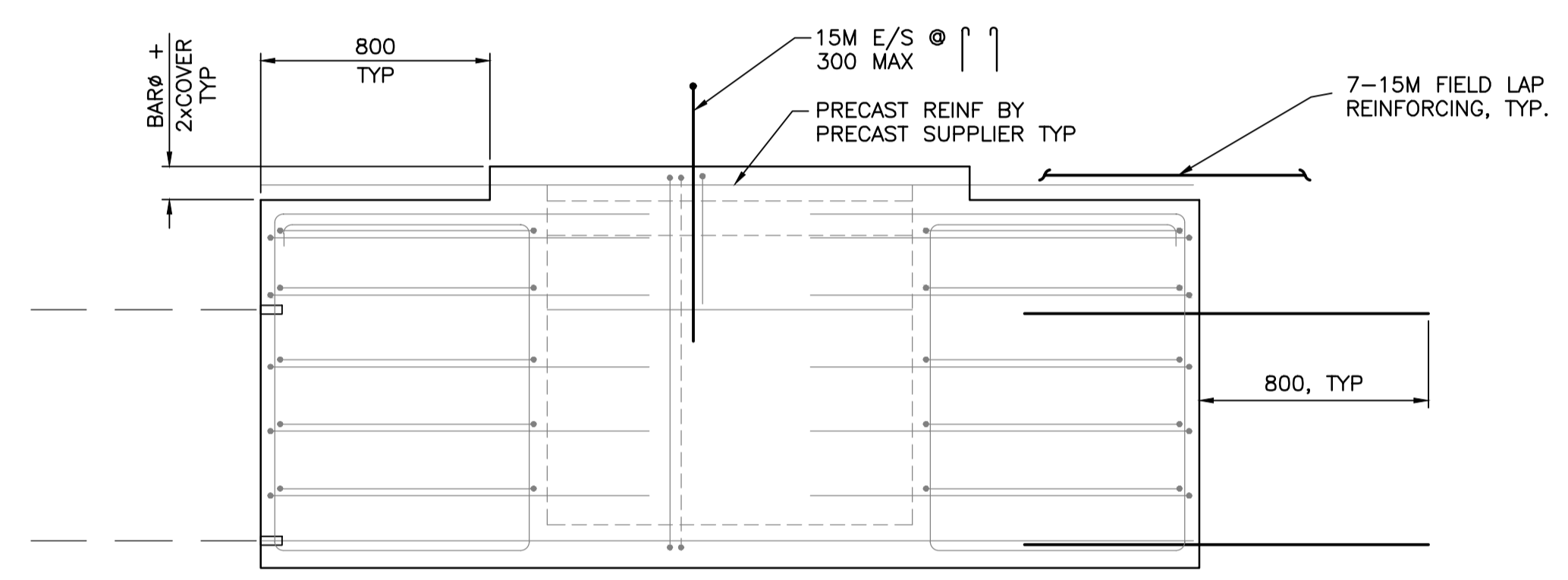
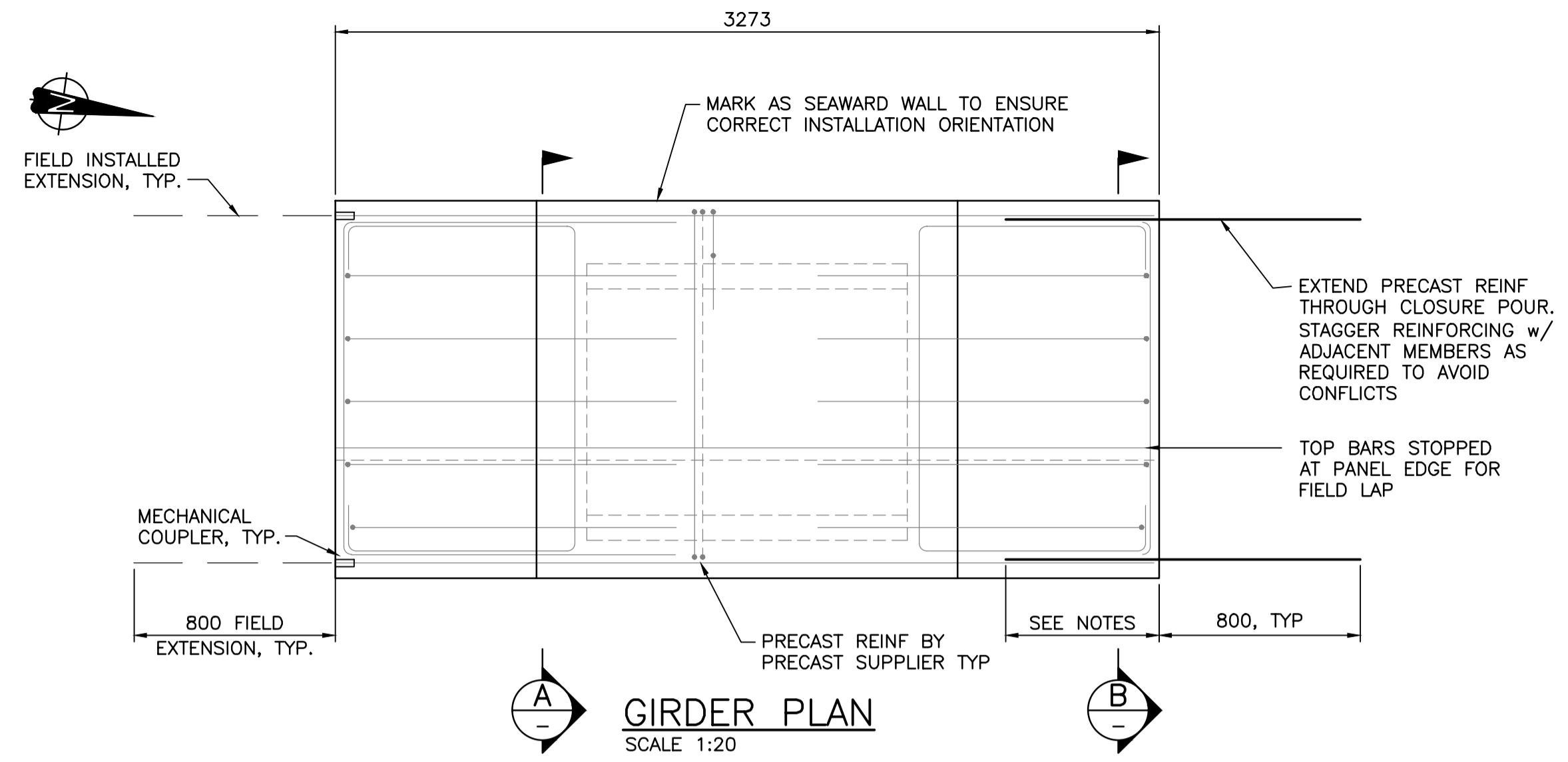
Drawn by/Dessiné par
BOG

PWGC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**PRECAST BOX GIRDER
BG3**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S BG3	2



- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
 KU, TW

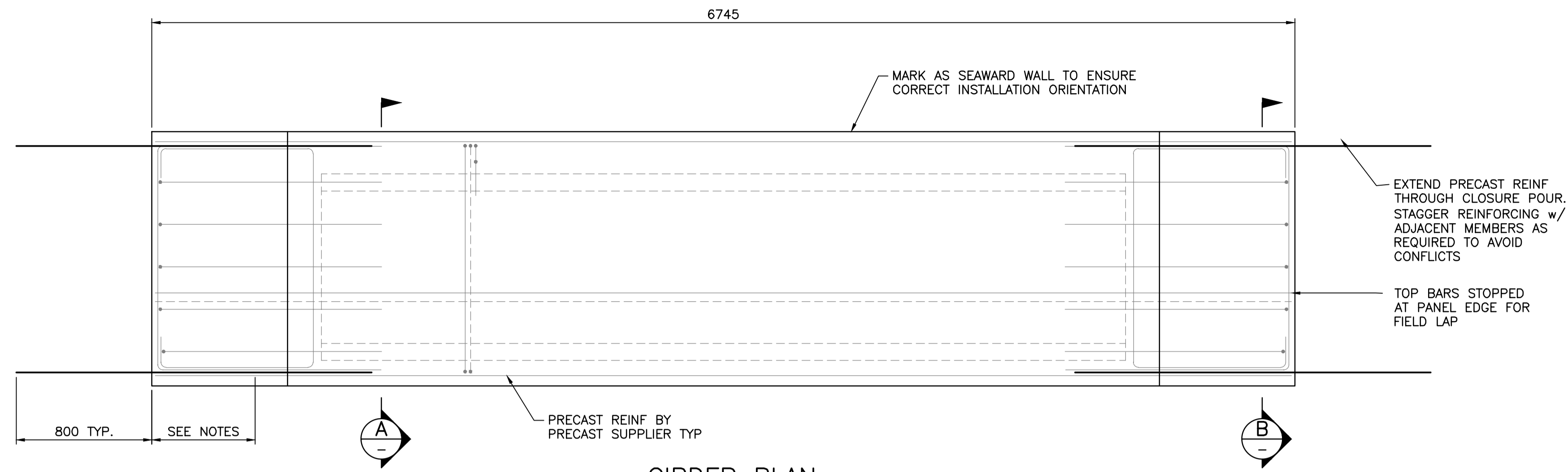
Drawn by/Dessiné par
 BOG

PWSC Project Manager/Administrateur de Projets TPSCG
 PATRICK TRUONG

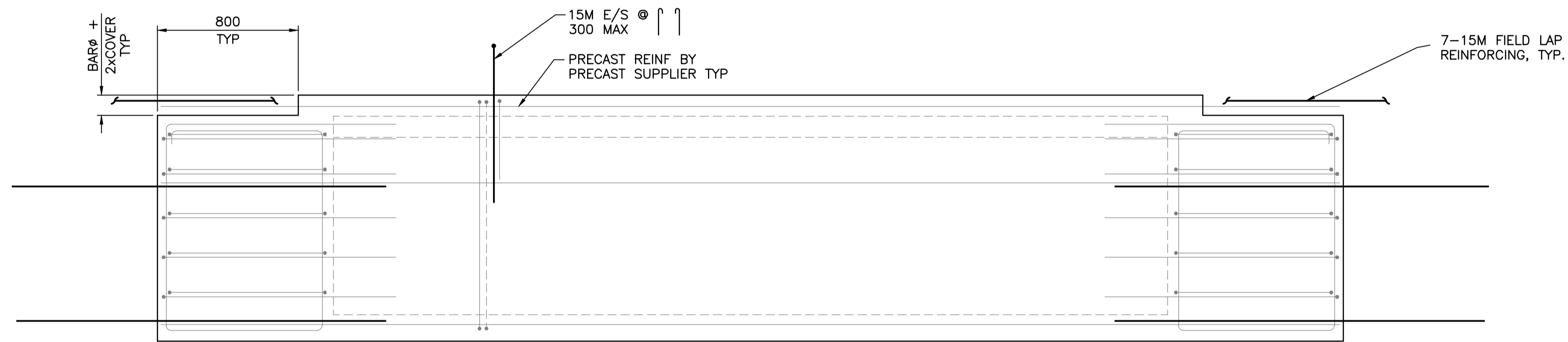
Regional Manager, Architectural and Engineering Services
 Regional Manager, Environmental Services
 PREETPAL PAUL

Drawing title/Titre du dessin
**PRECAST BOX GIRDER
 BG4**

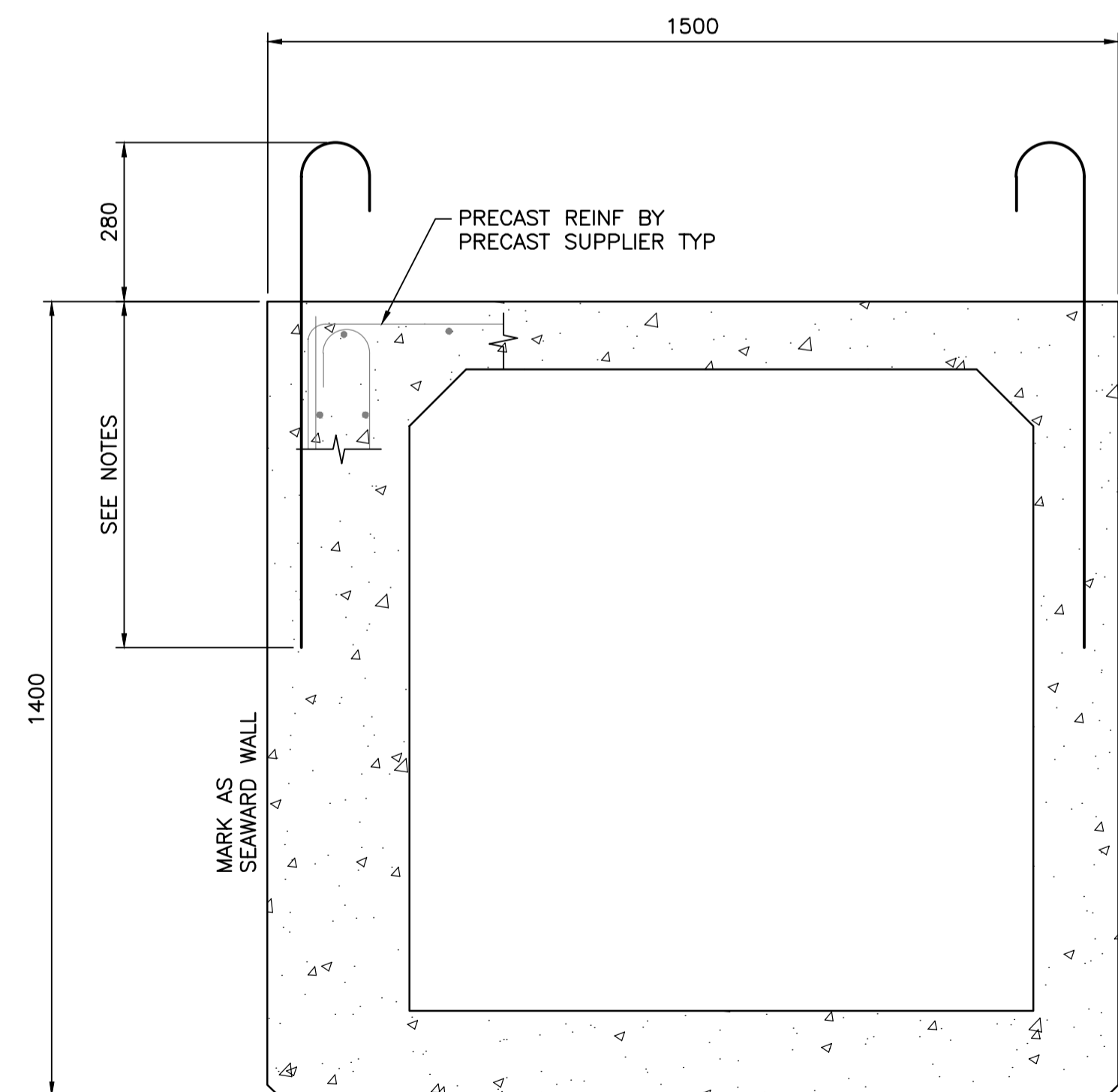
Project No./No. du projet R.026729.002	Sheet/Feuille S BG4	Revision no./La Révision no. 2
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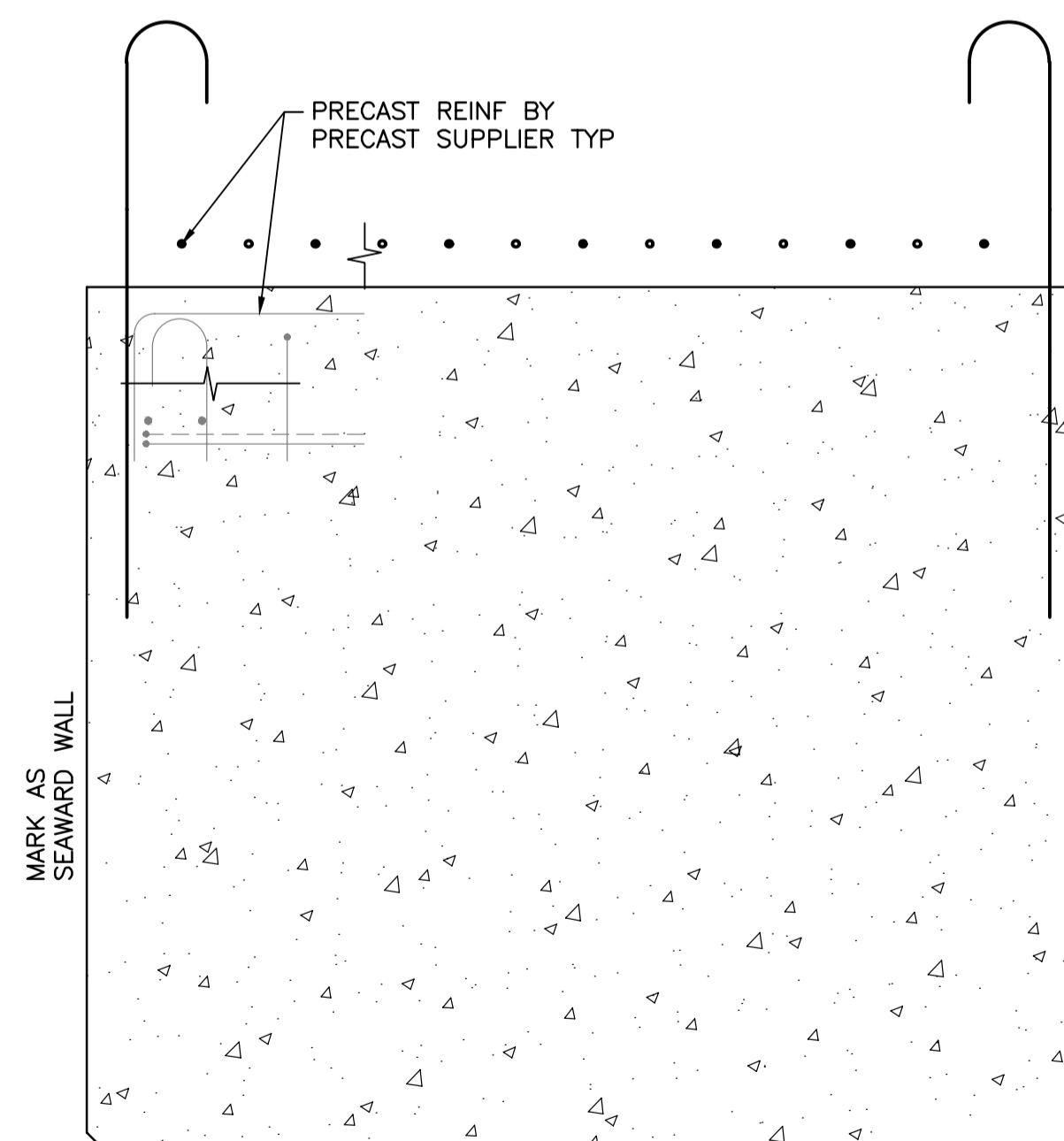
GIRDER PLAN
SCALE 1:20



ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S06.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

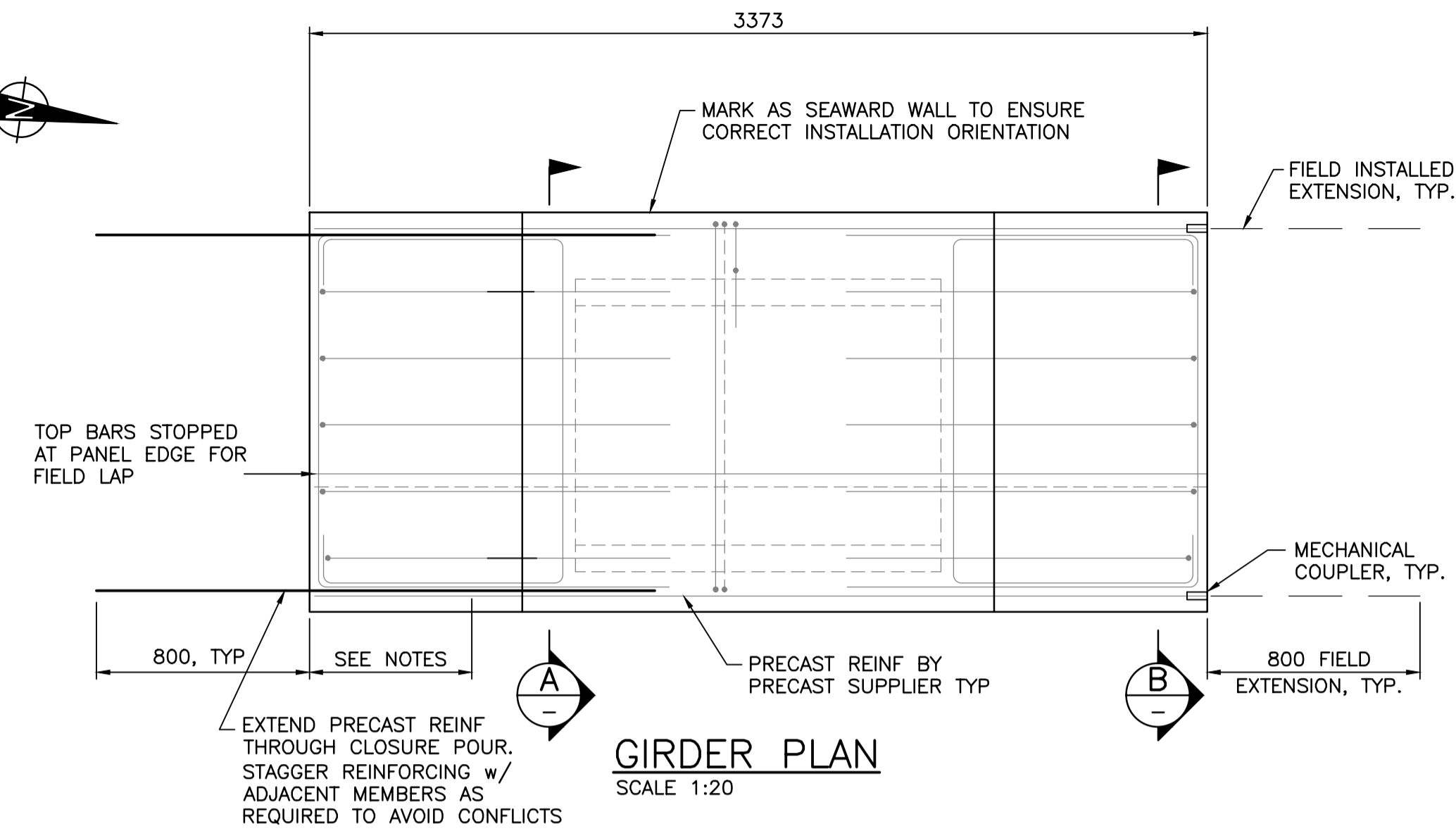
PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

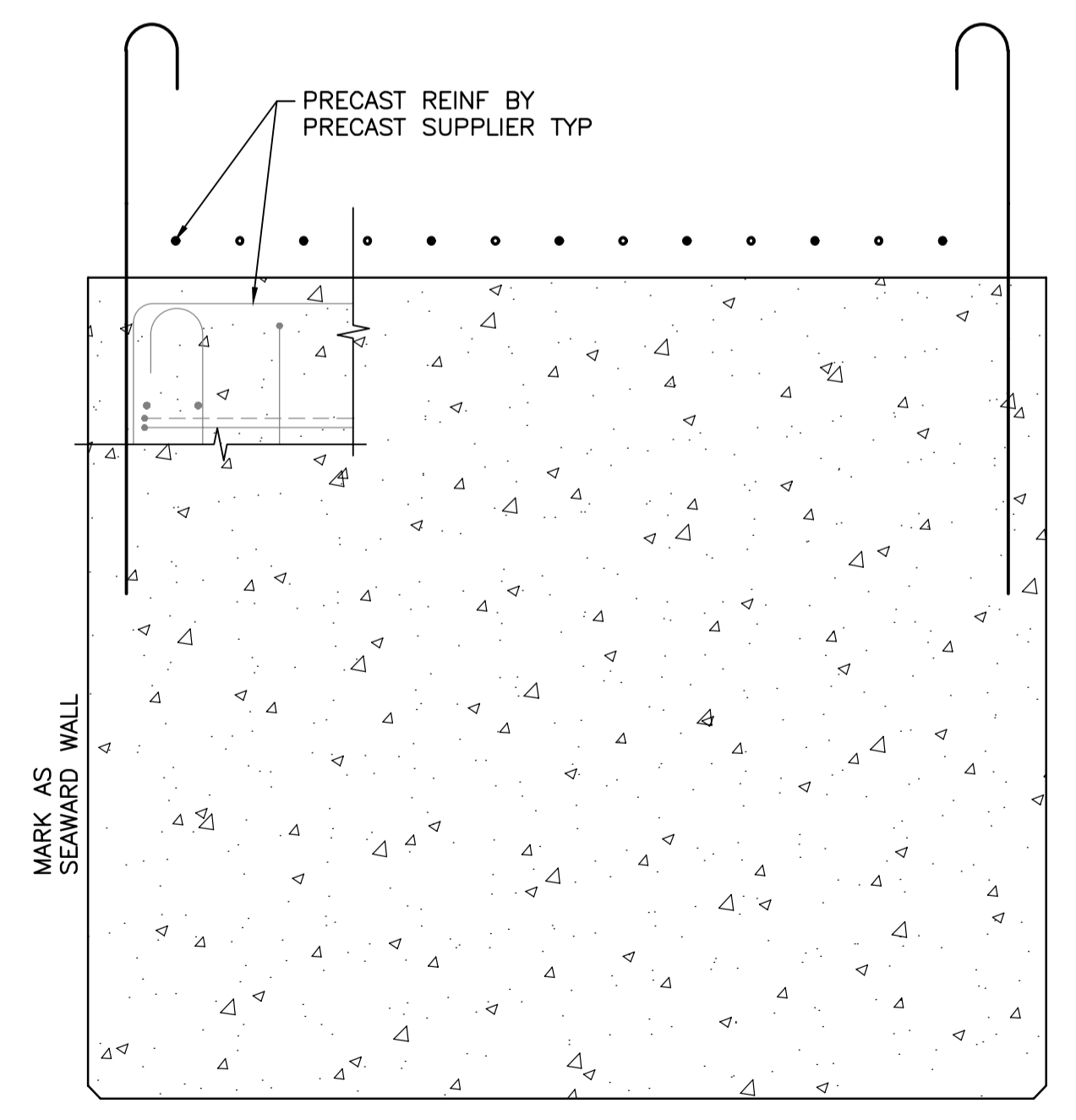
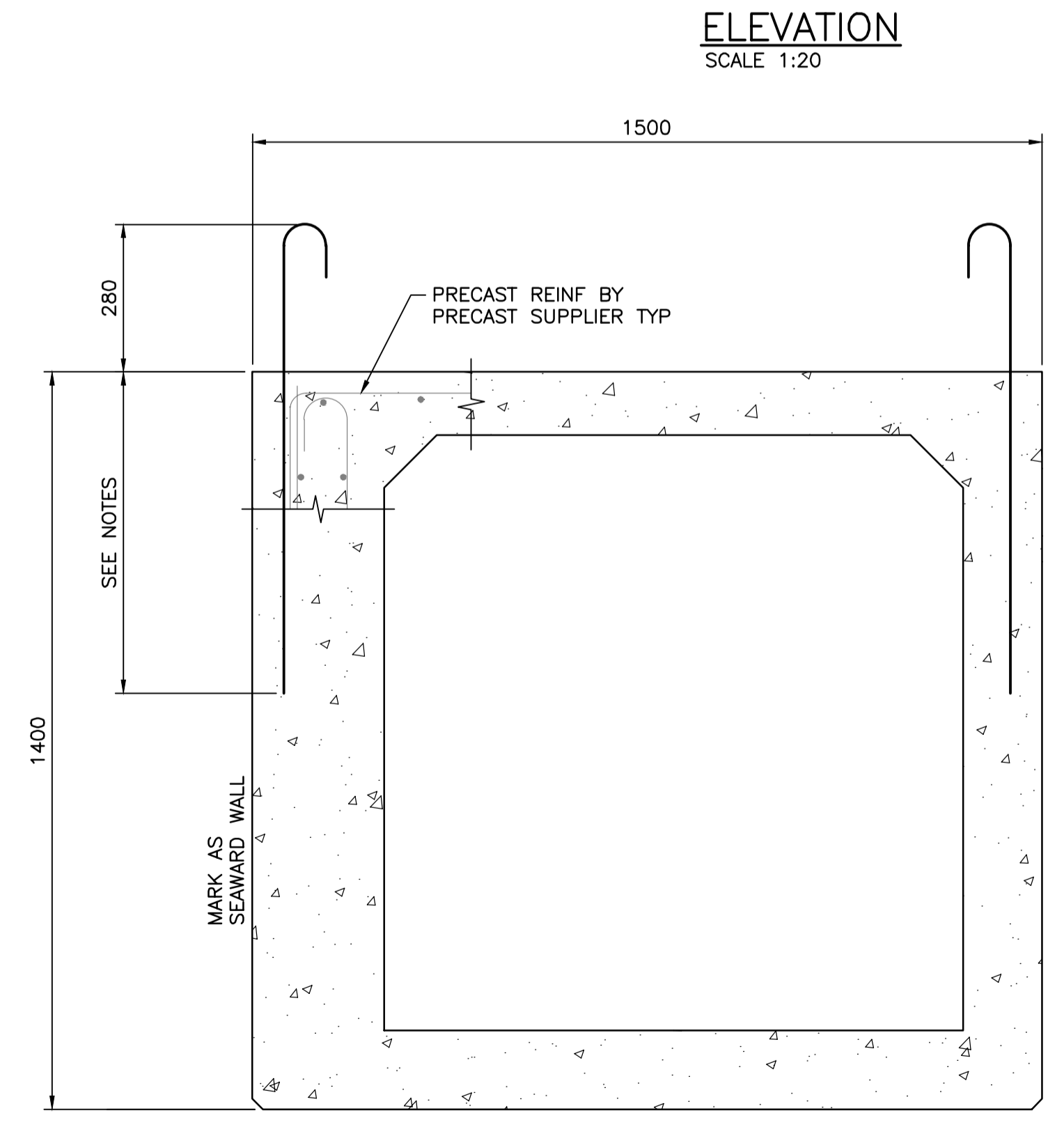
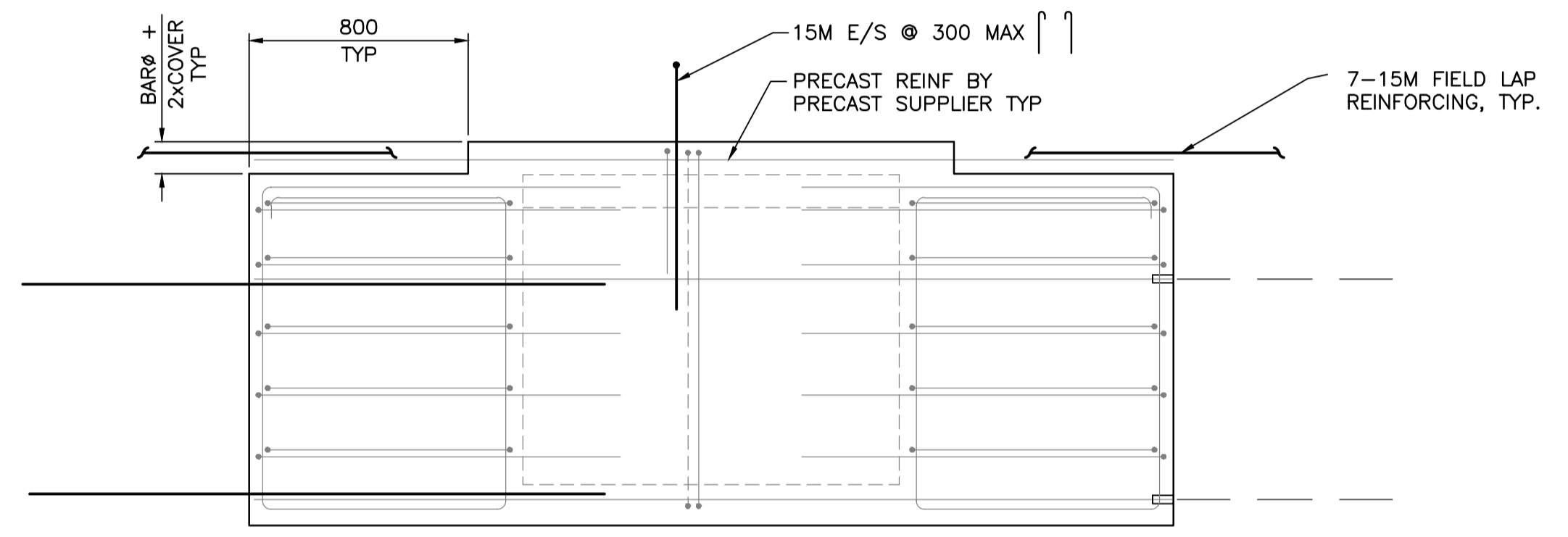
Drawing title/Titre du dessin

**PRECAST BOX GIRDER
BG5**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S BG5	2



TOP BARS STOPPED AT PANEL EDGE FOR FIELD LAP
EXTEND PRECAST REINF THROUGH CLOSURE POUR. STAGGER REINFORCING w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS



NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

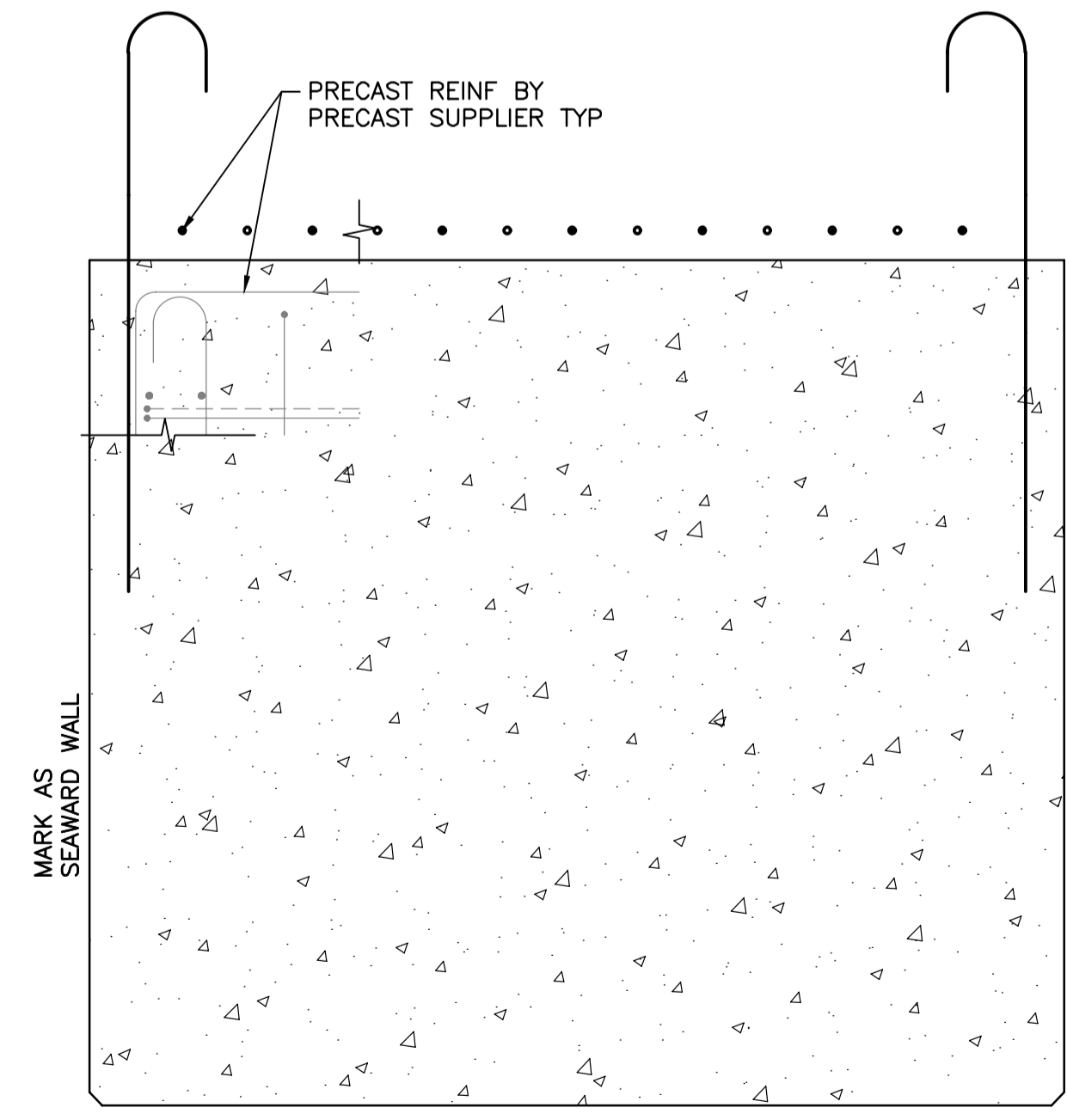
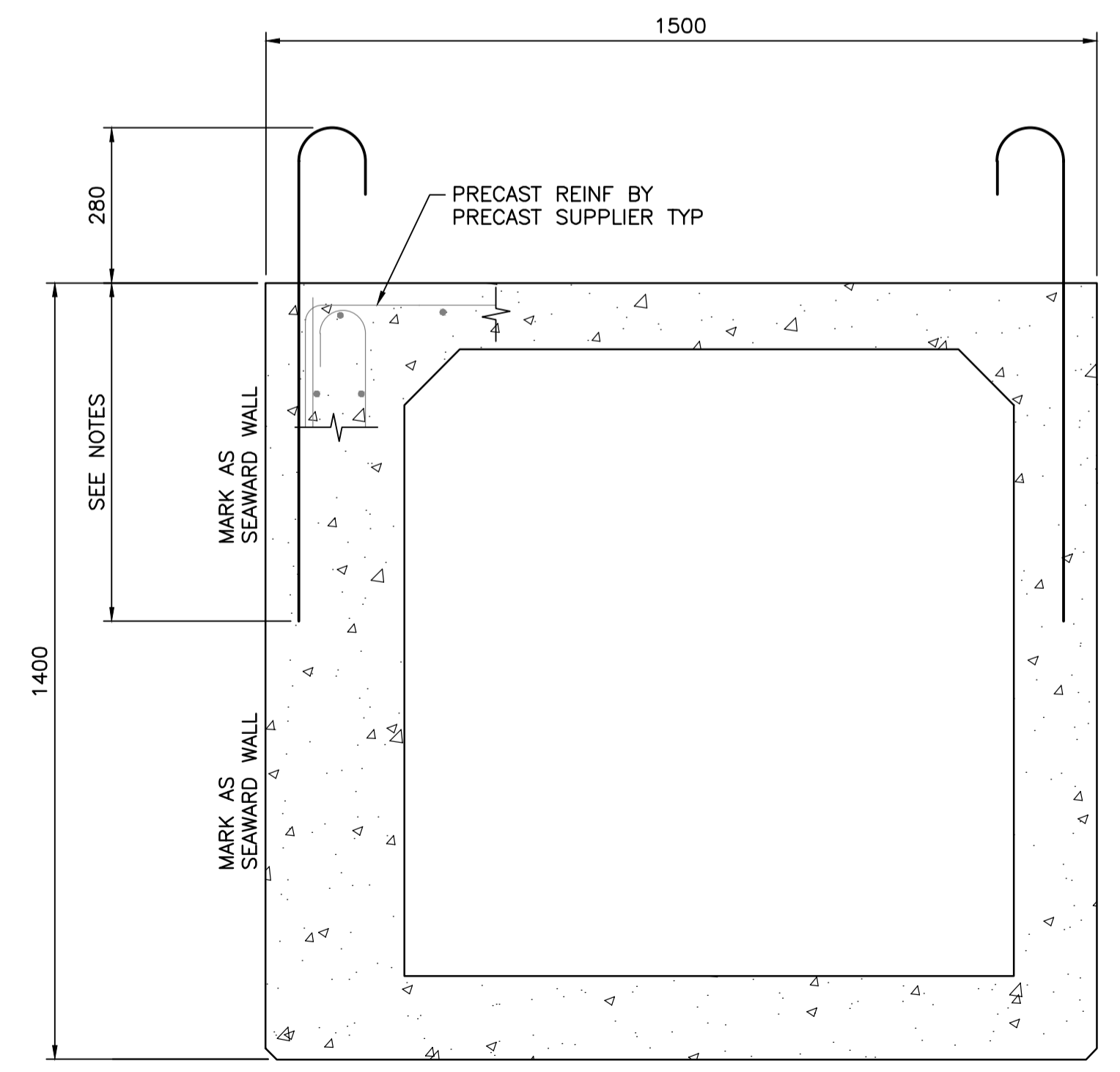
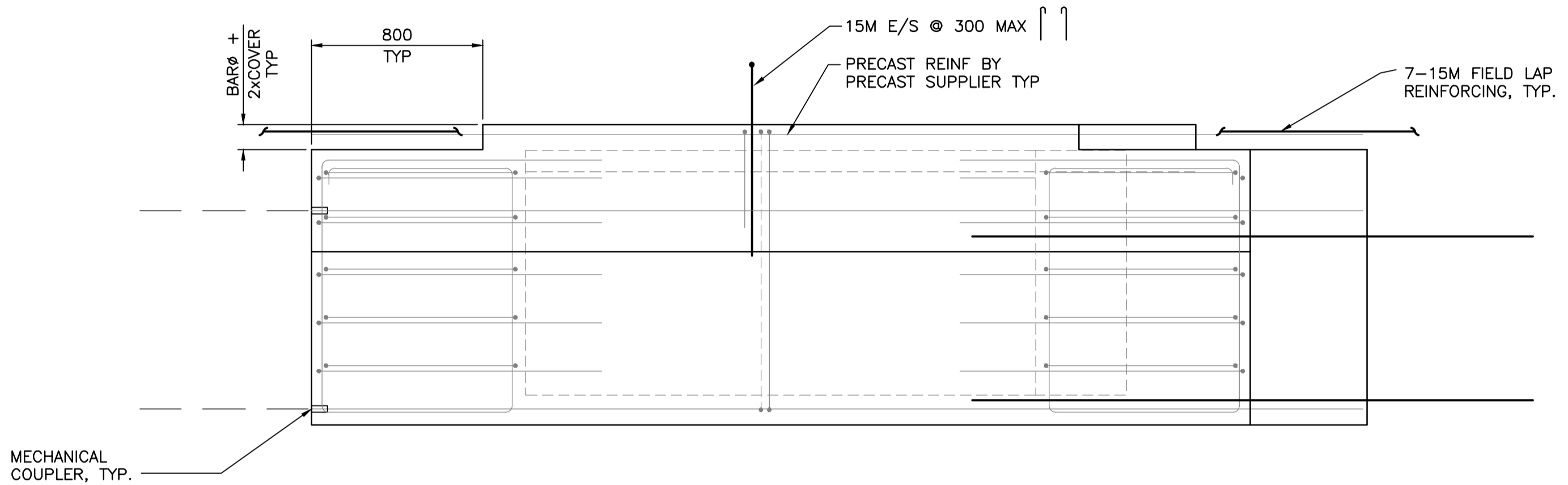
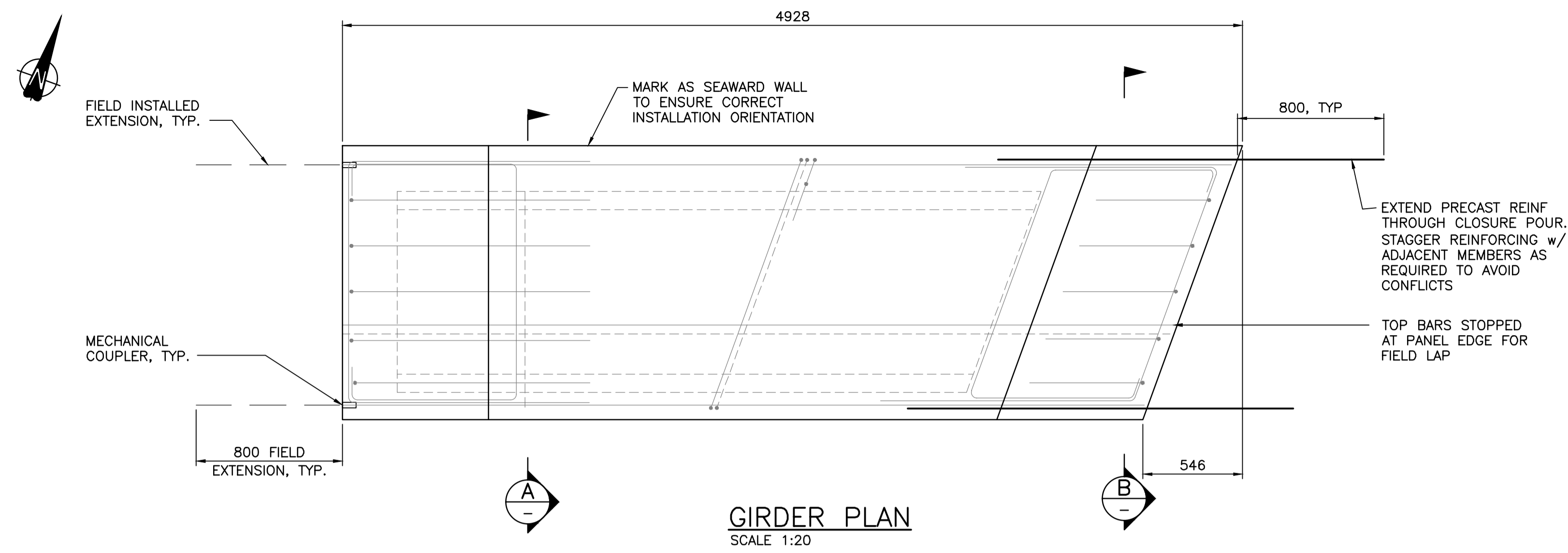
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**PRECAST BOX GIRDER
BG6**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S BG6	2



A TYP. SECTION
SCALE 1:10

B TYP. END SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S BG1.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

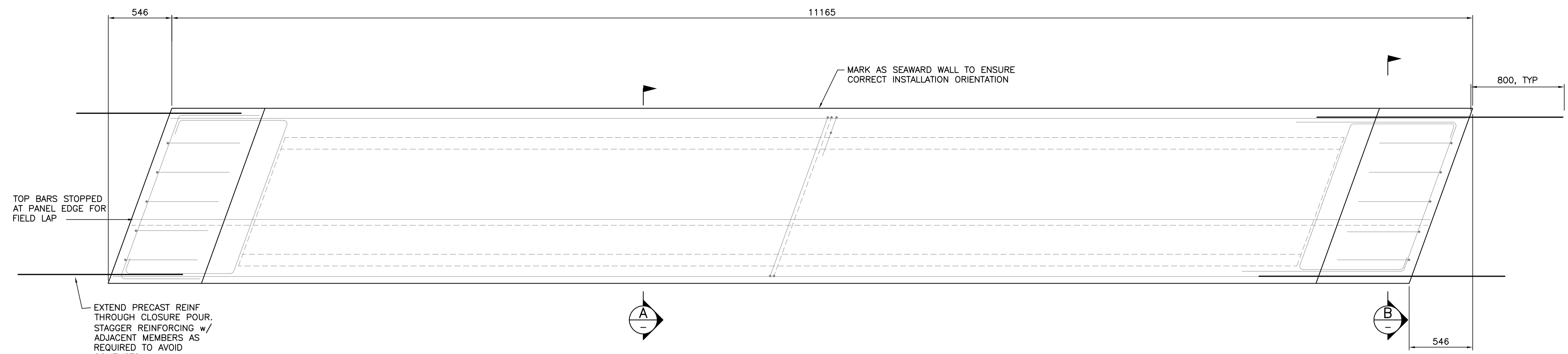
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

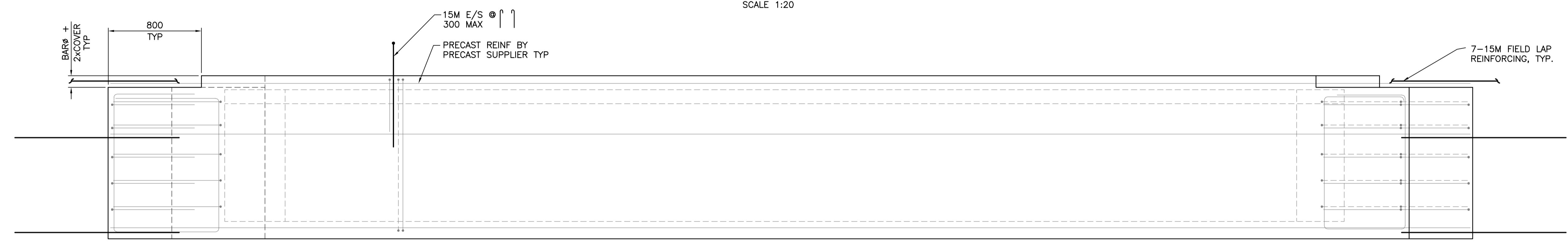
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**PRECAST BOX GIRDER
BG7**

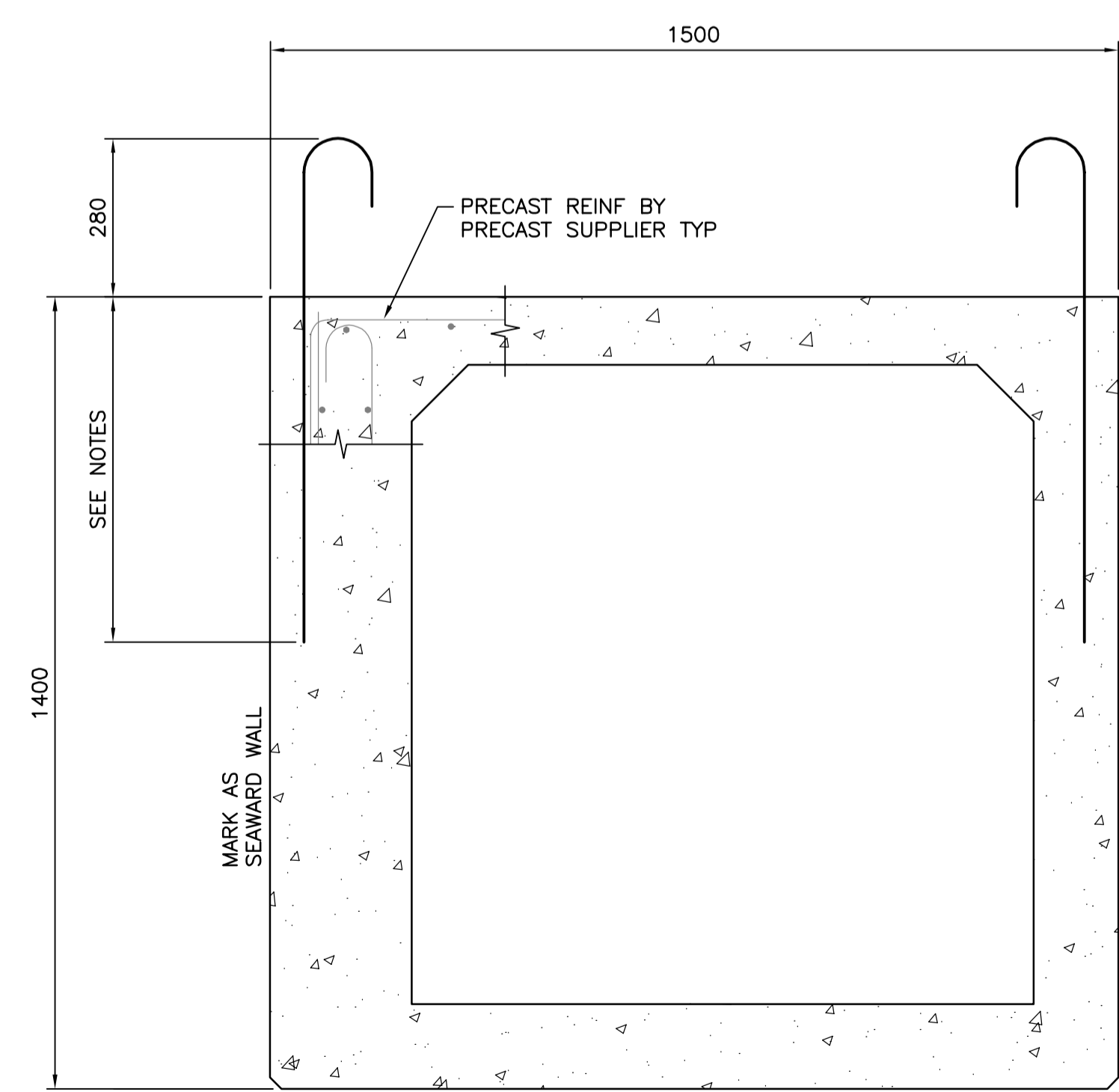
Project No./No. du projet R.026729.002	Sheet/Feuille S BG7	Revision no./La Révision no. 2
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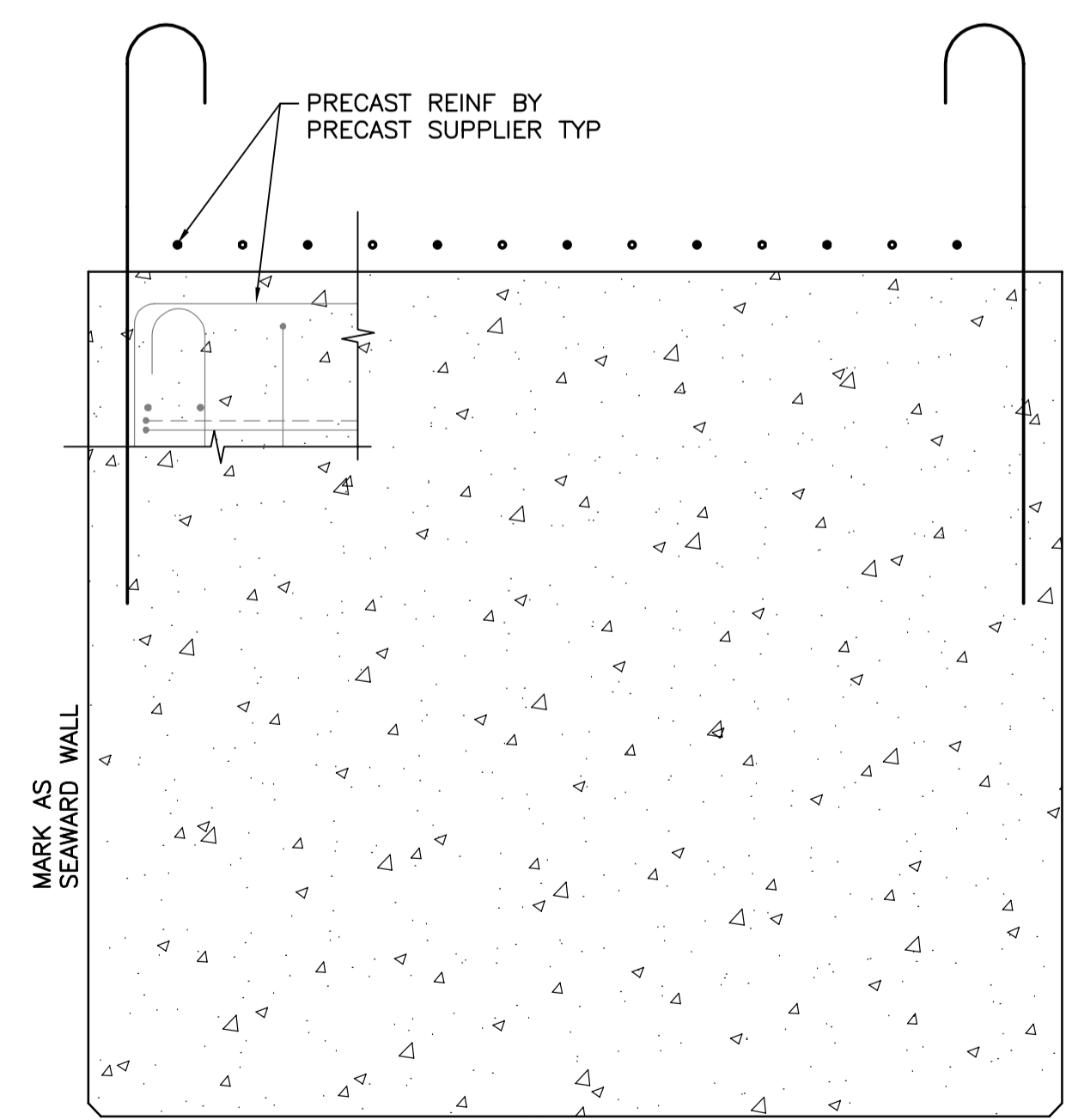
GIRDER PLAN
SCALE 1:20



ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S061.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

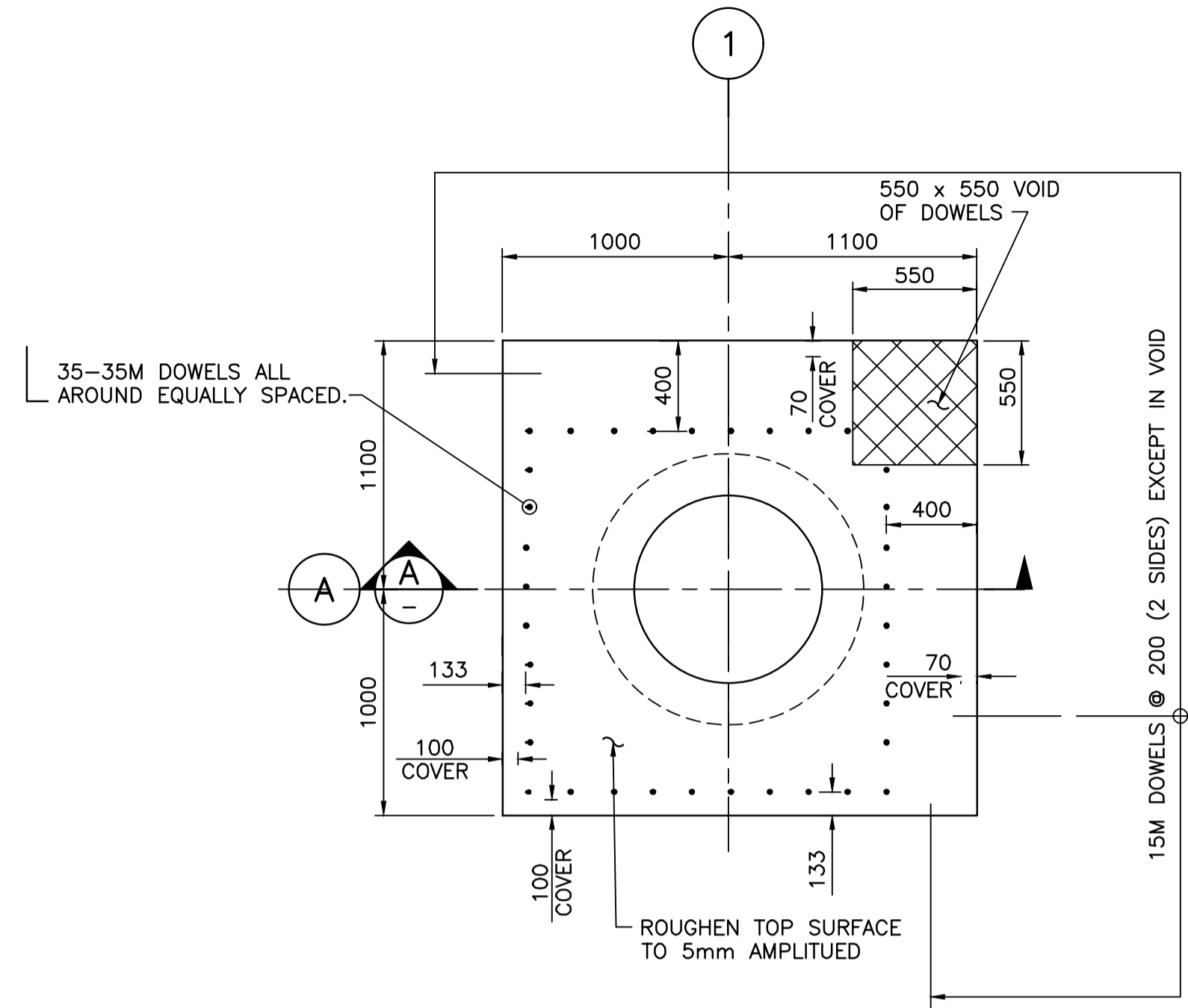
PWSSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

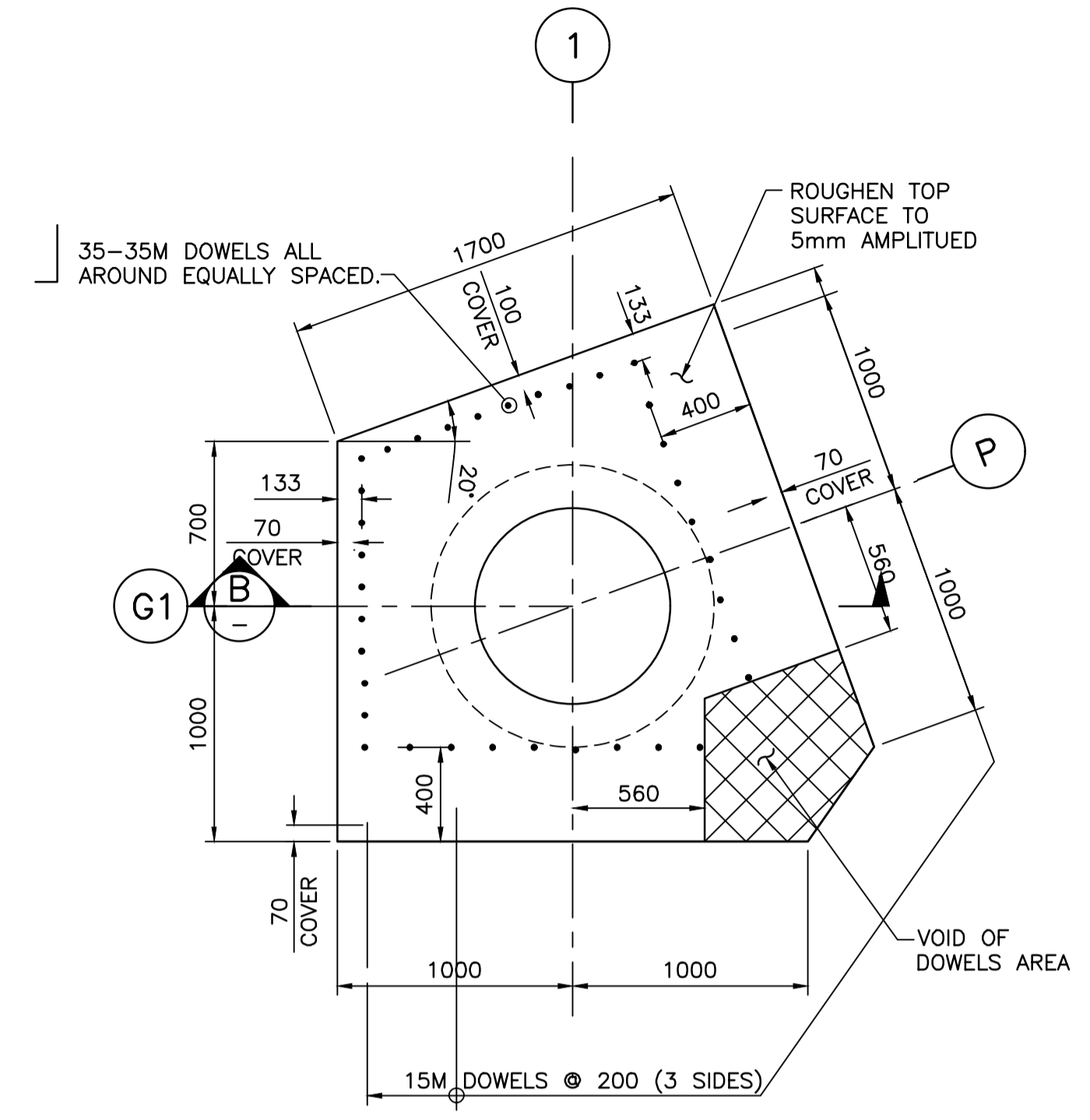
Drawing title/Titre du dessin

**PRECAST BOX GIRDER
BG8**

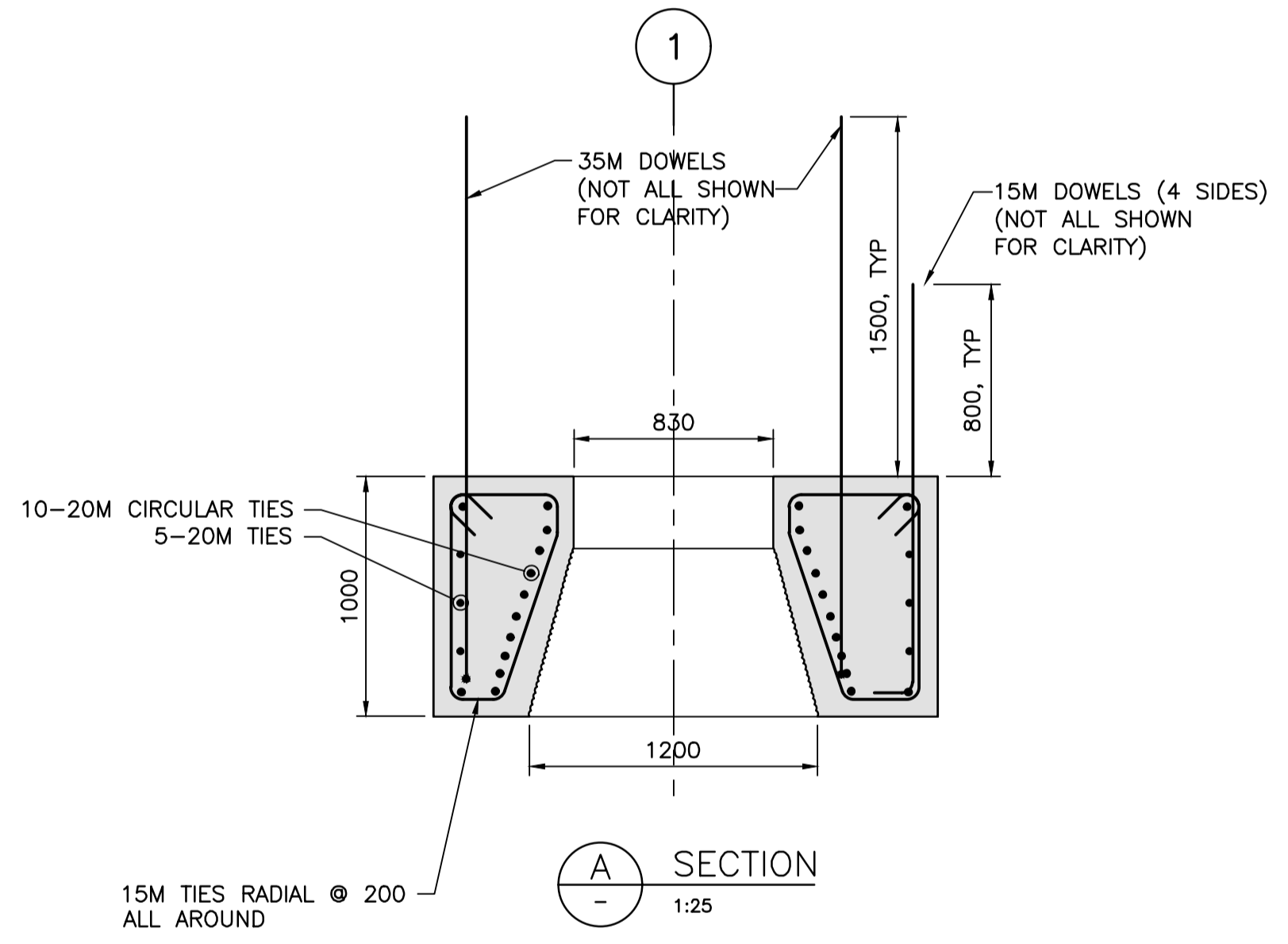
Project No./No. du projet R.026729.002	Sheet/Feuille S BG8	Revision no./ La Révision no. 2
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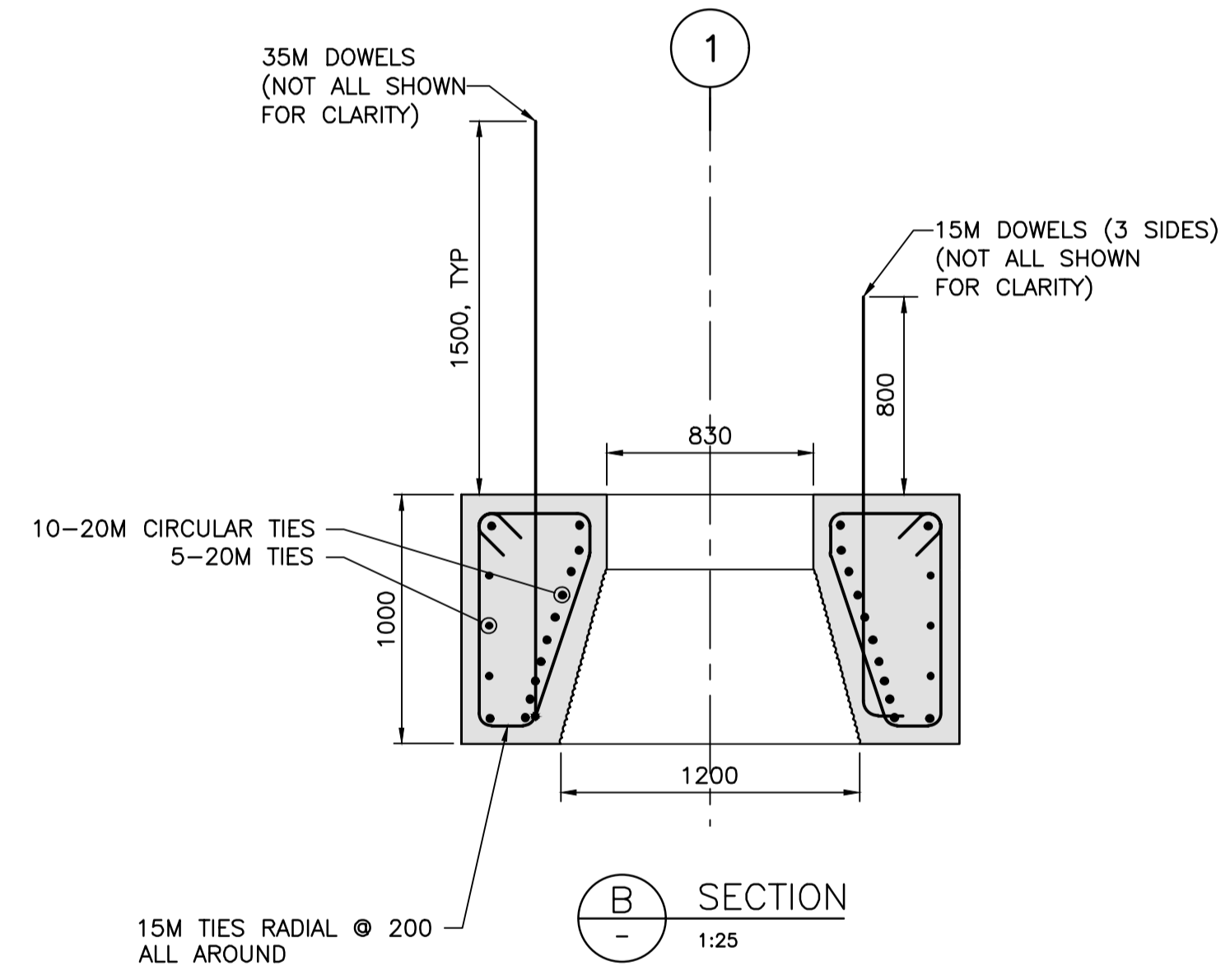
PLAN CC1
1:25



PLAN CC2
1:25



SECTION A
1:25



SECTION B
1:25

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

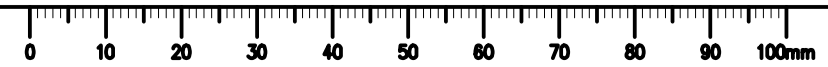
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BOG

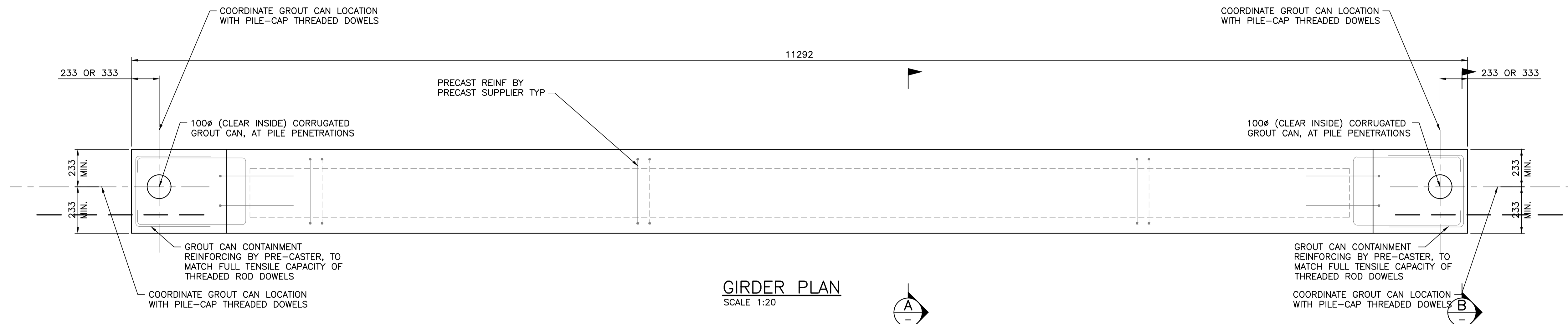
PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

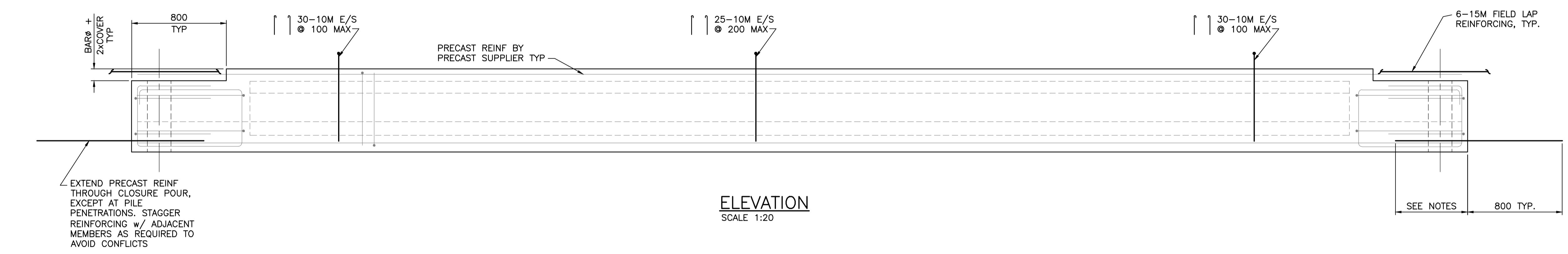
Drawing title/Titre du dessin
**PRECAST CORNER CAPS
CC1 & CC2**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S CC1-2	2

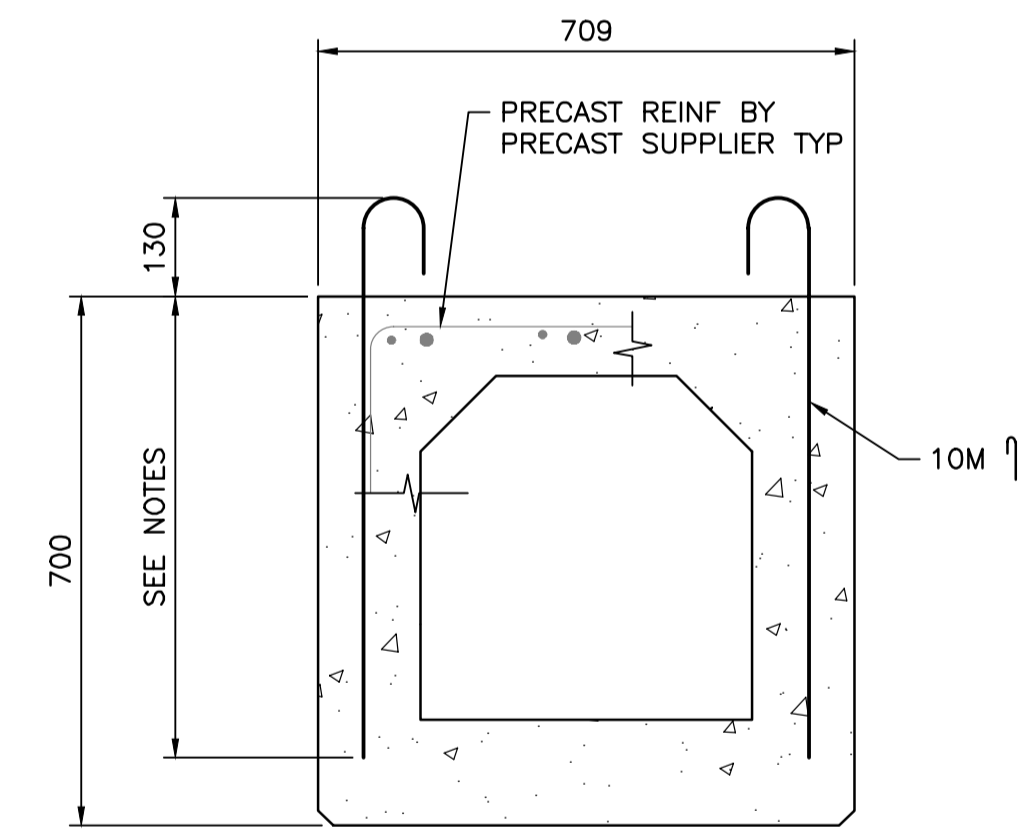




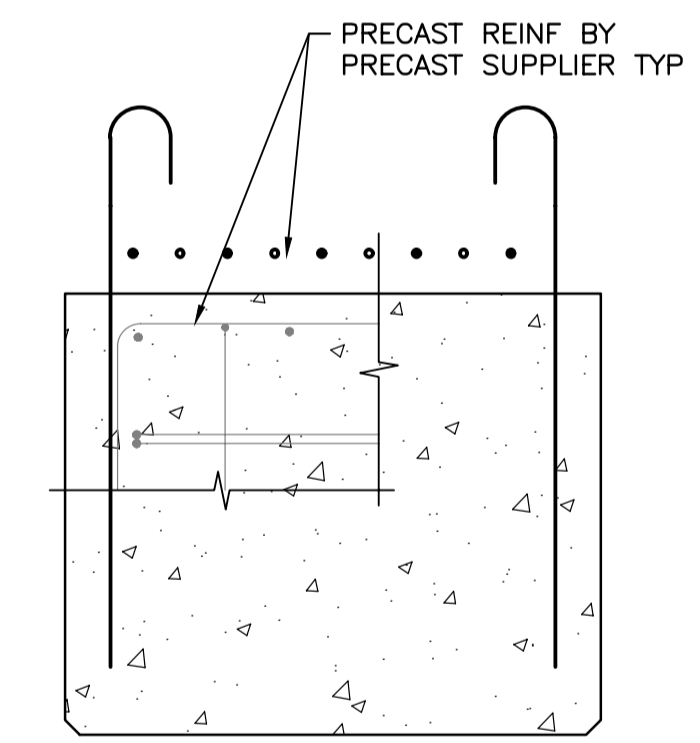
GIRDER PLAN
SCALE 1:20



ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S061.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS
- MAXIMUM WEIGHT PER PRECAST ELEMENT NOT TO EXCEED 14 kPa

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

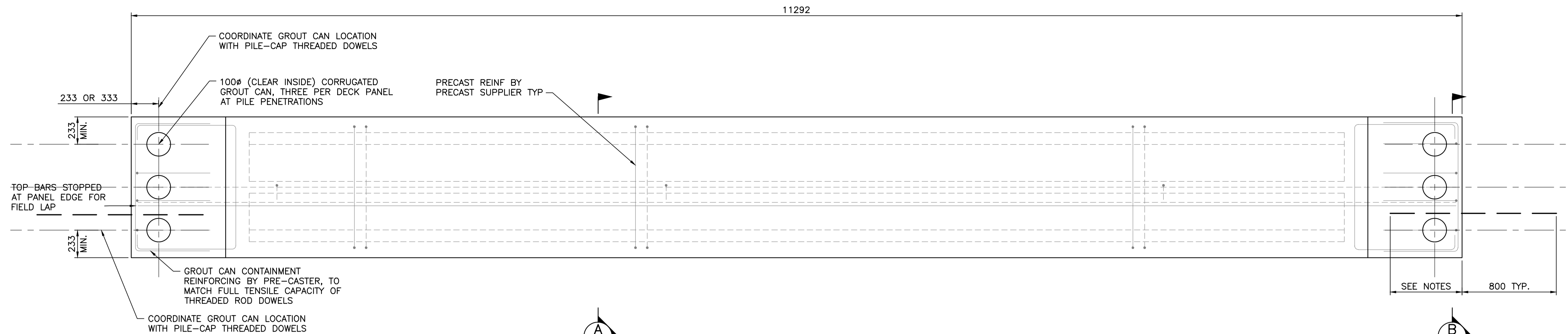
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG

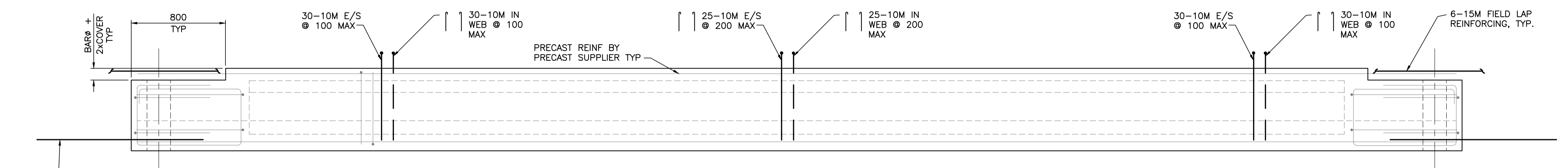
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**PRECAST DECK PANEL
DP1**

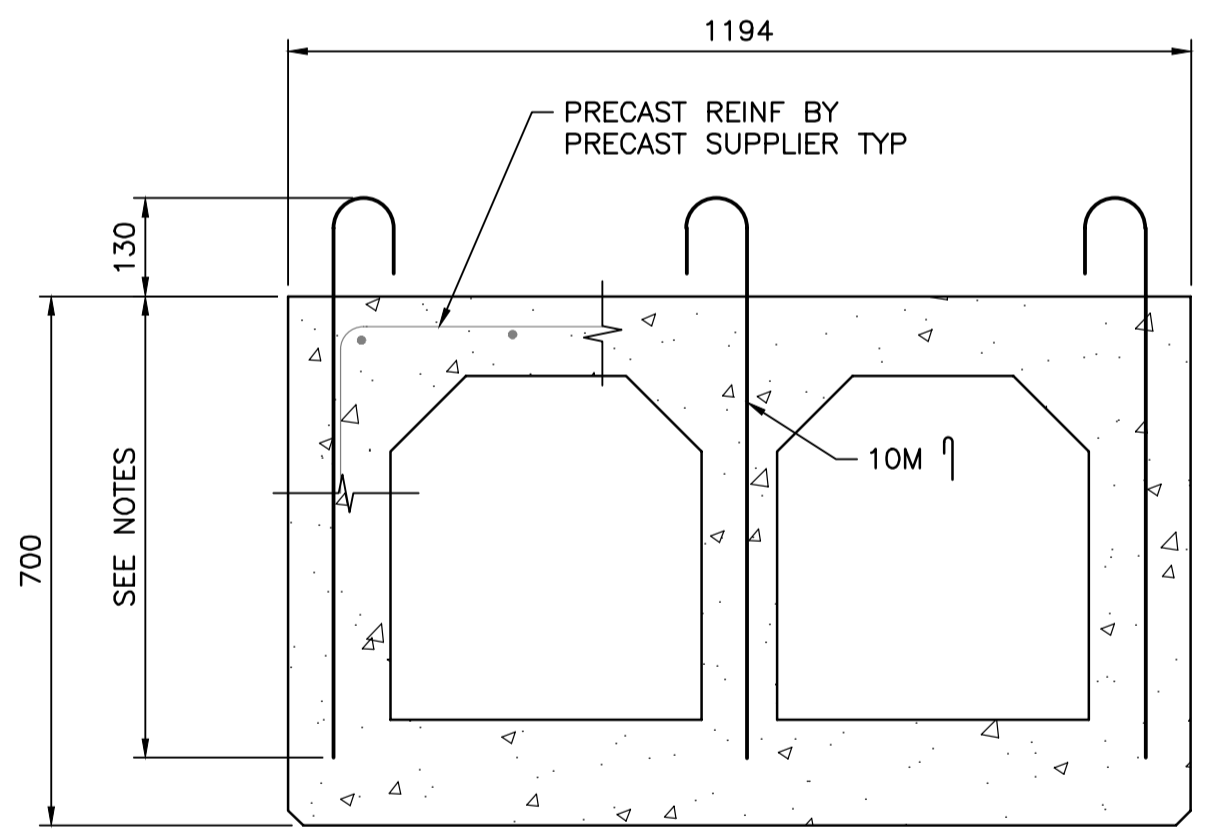
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S DP1	2



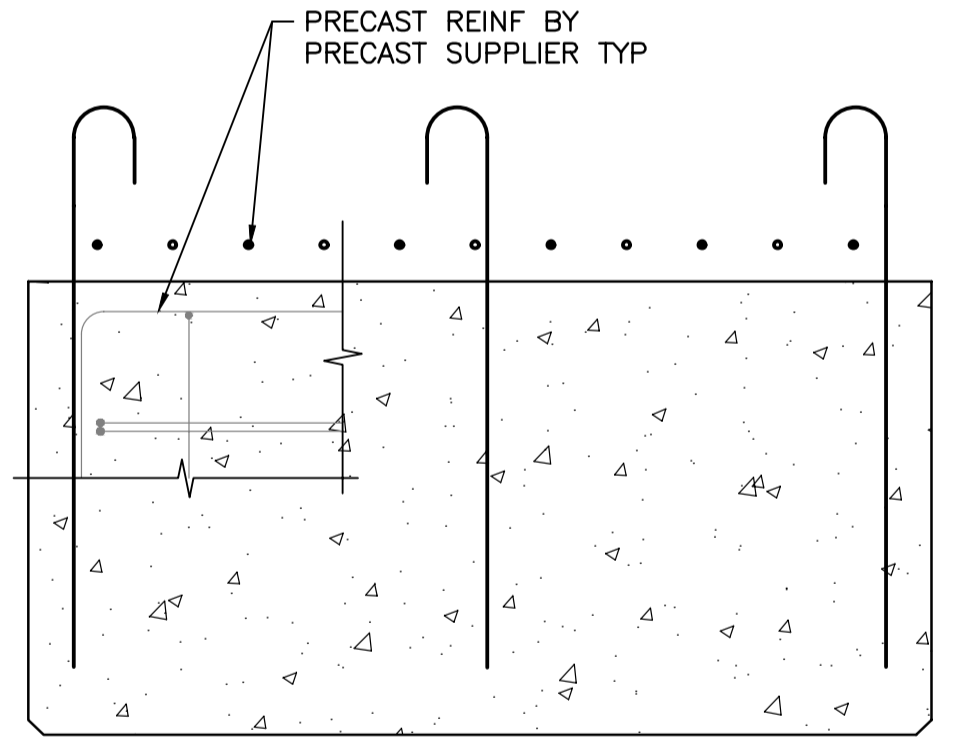
GIRDER PLAN
SCALE 1:20



ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR BOX PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS
- MAXIMUM WEIGHT PER PRECAST ELEMENT NOT TO EXCEED 14 kPa

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

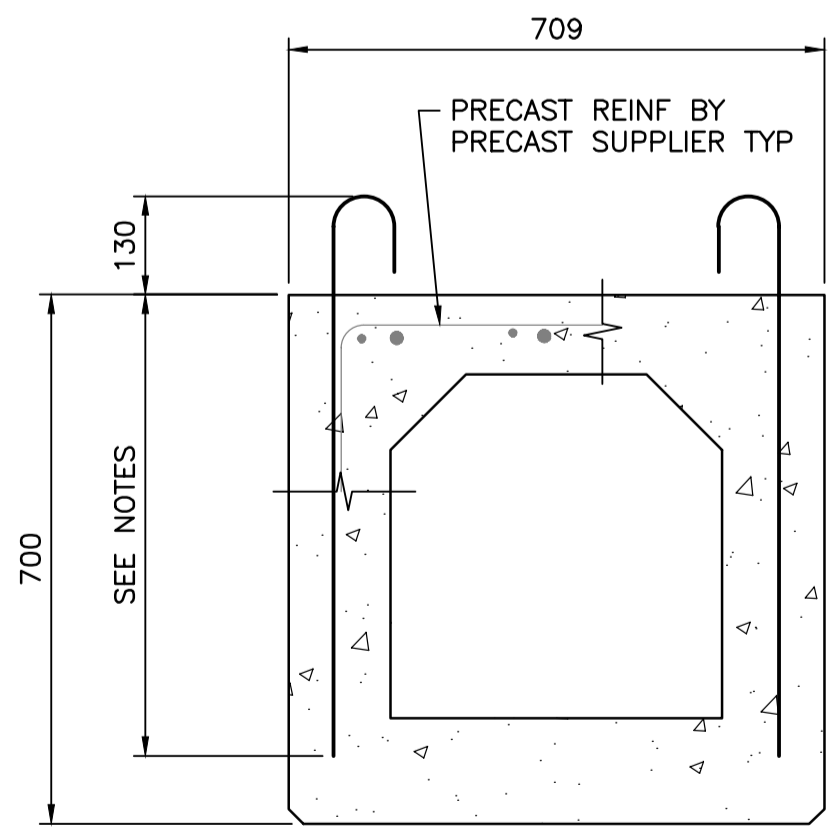
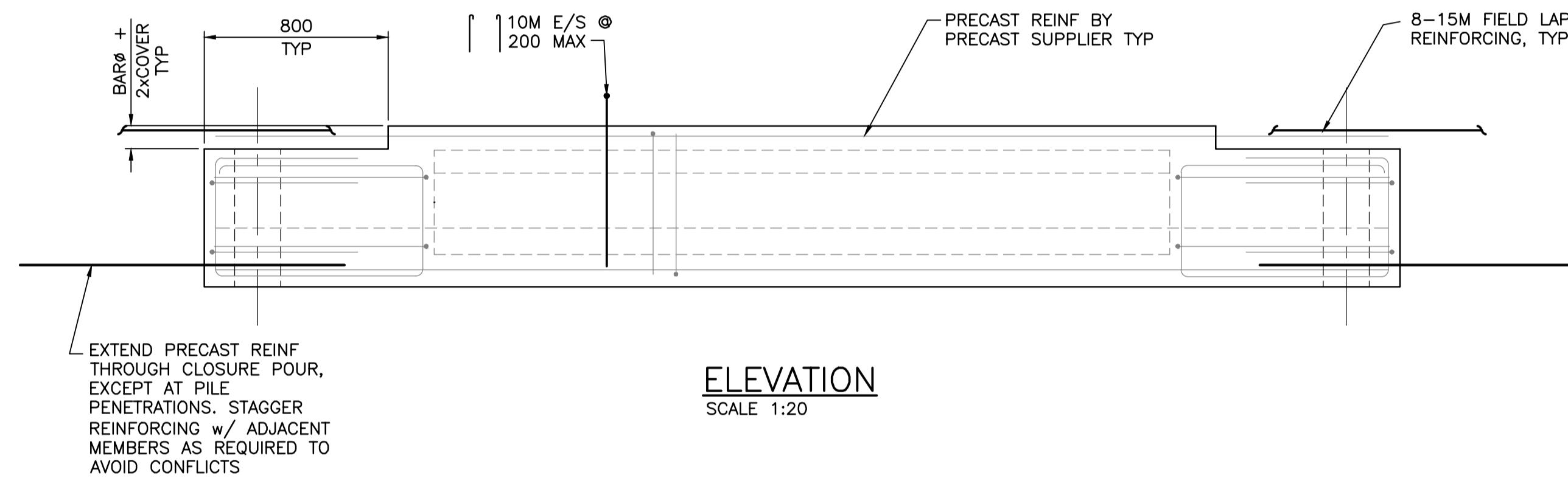
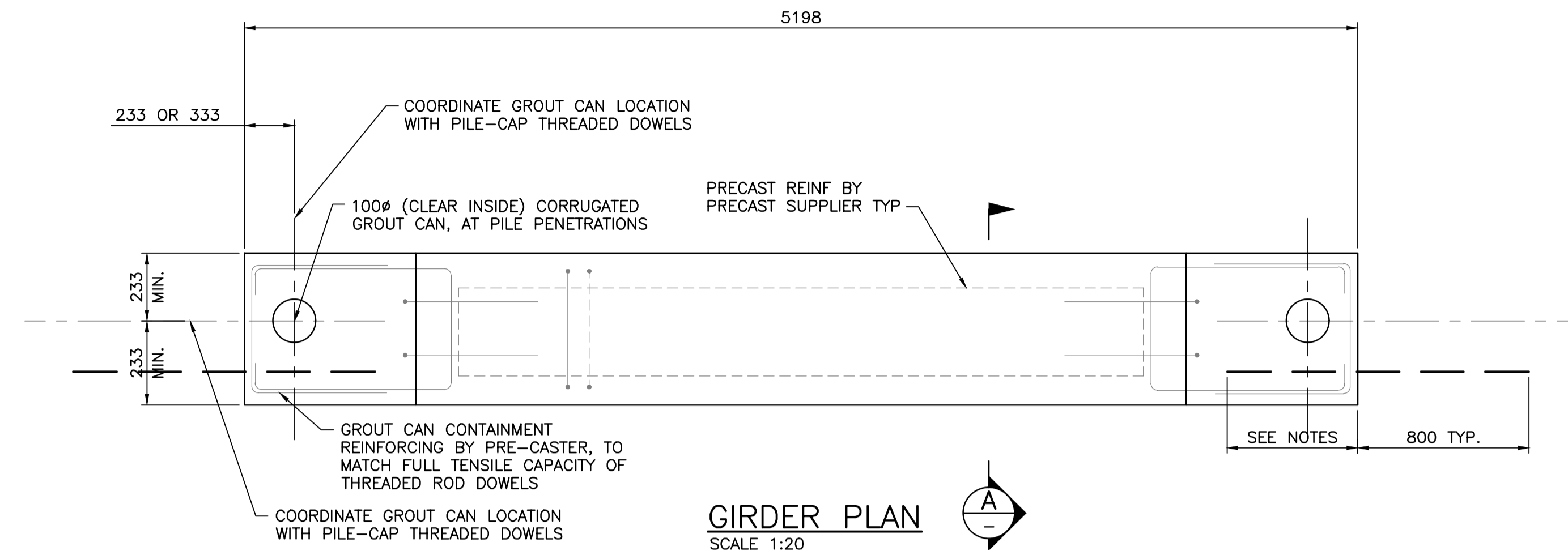
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

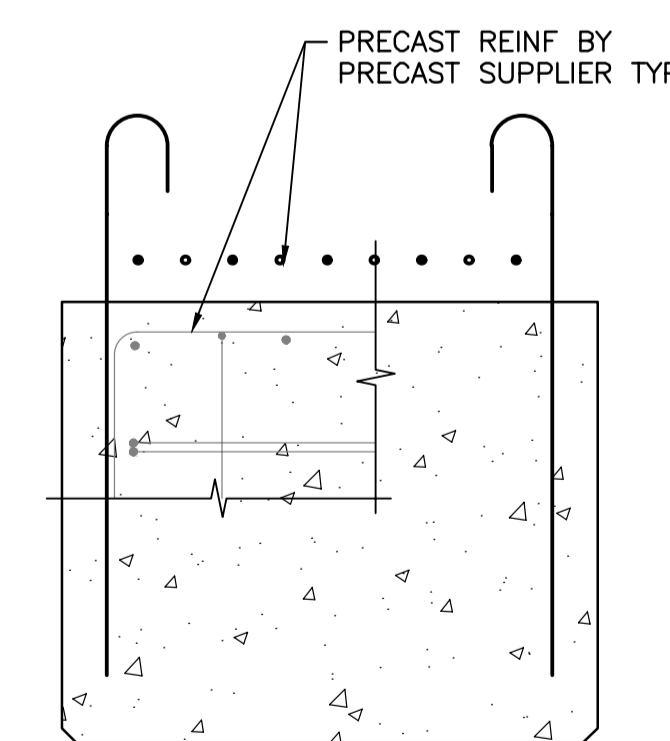
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST DECK PANEL
DP2**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S DP2	2



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S061.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS
- MAXIMUM WEIGHT PER PRECAST ELEMENT NOT TO EXCEED 14 kPa

Revision/Revision	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

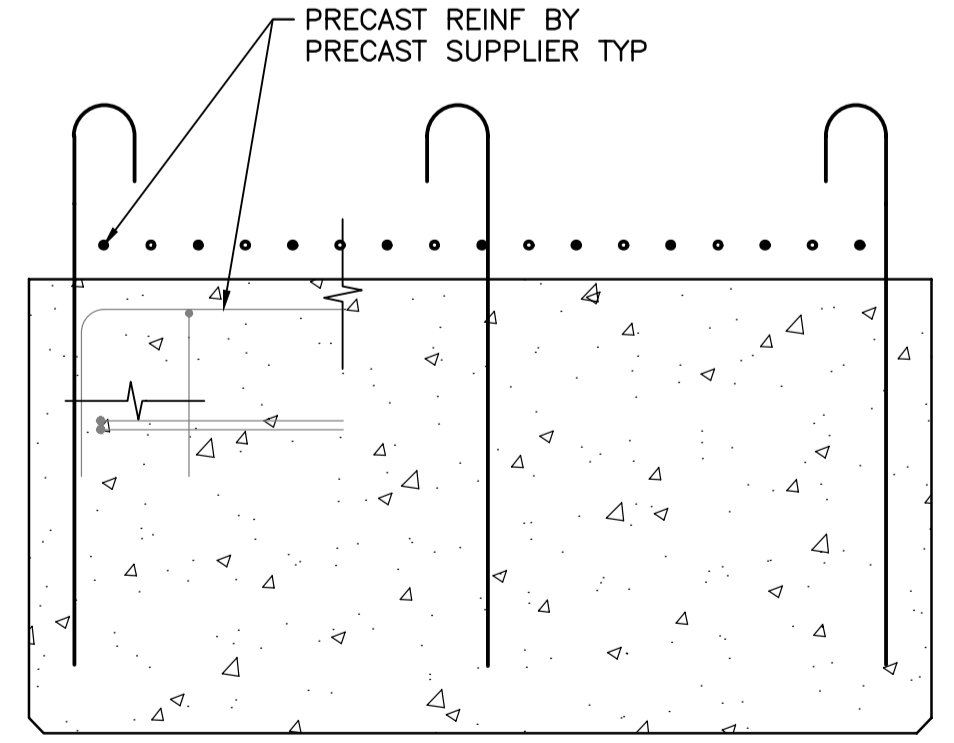
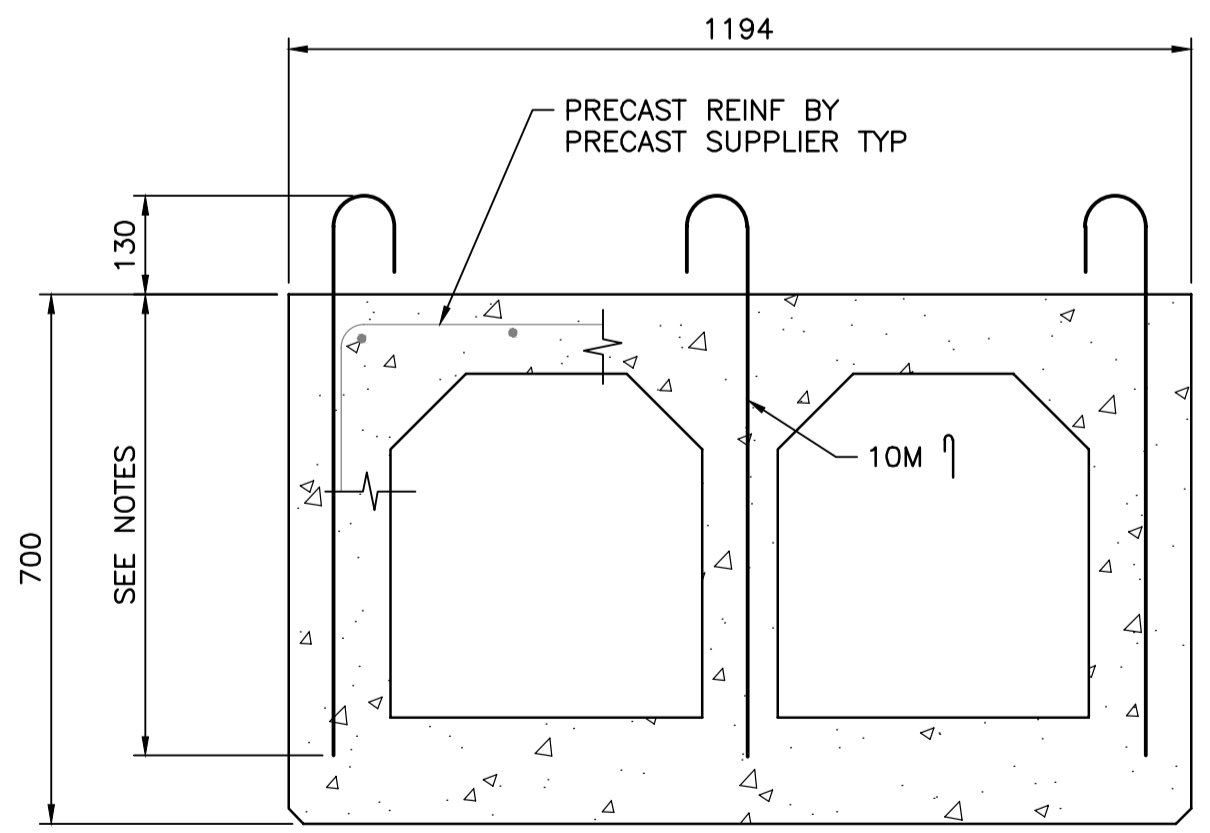
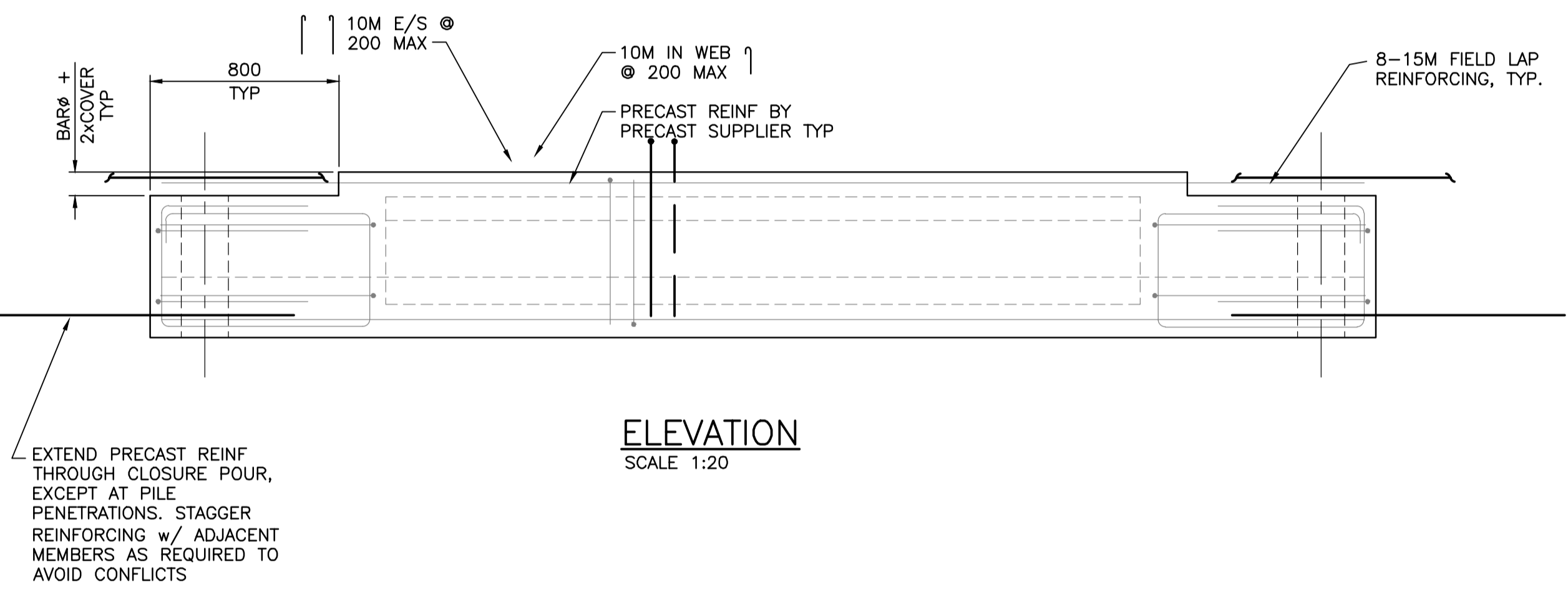
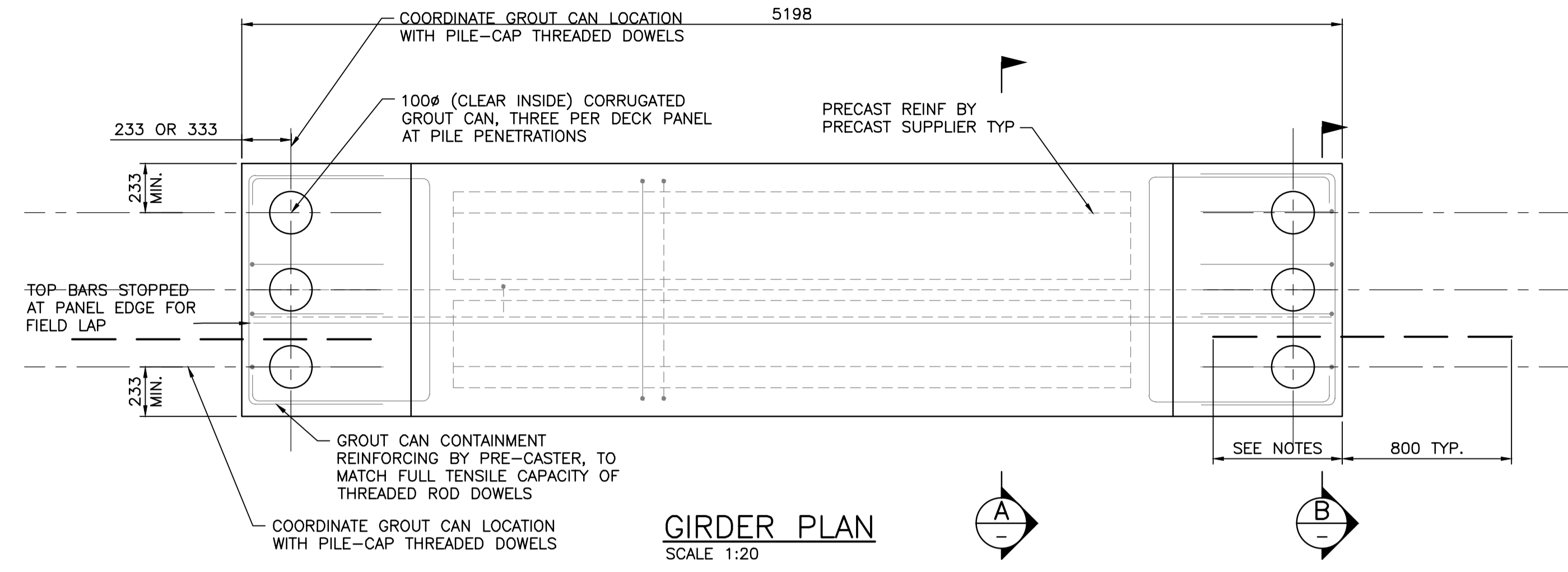
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST DECK PANEL
DP3**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S DP3	2



- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. S06.
 - REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS
 - MAXIMUM WEIGHT PER PRECAST ELEMENT NOT TO EXCEED 14 kPa

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

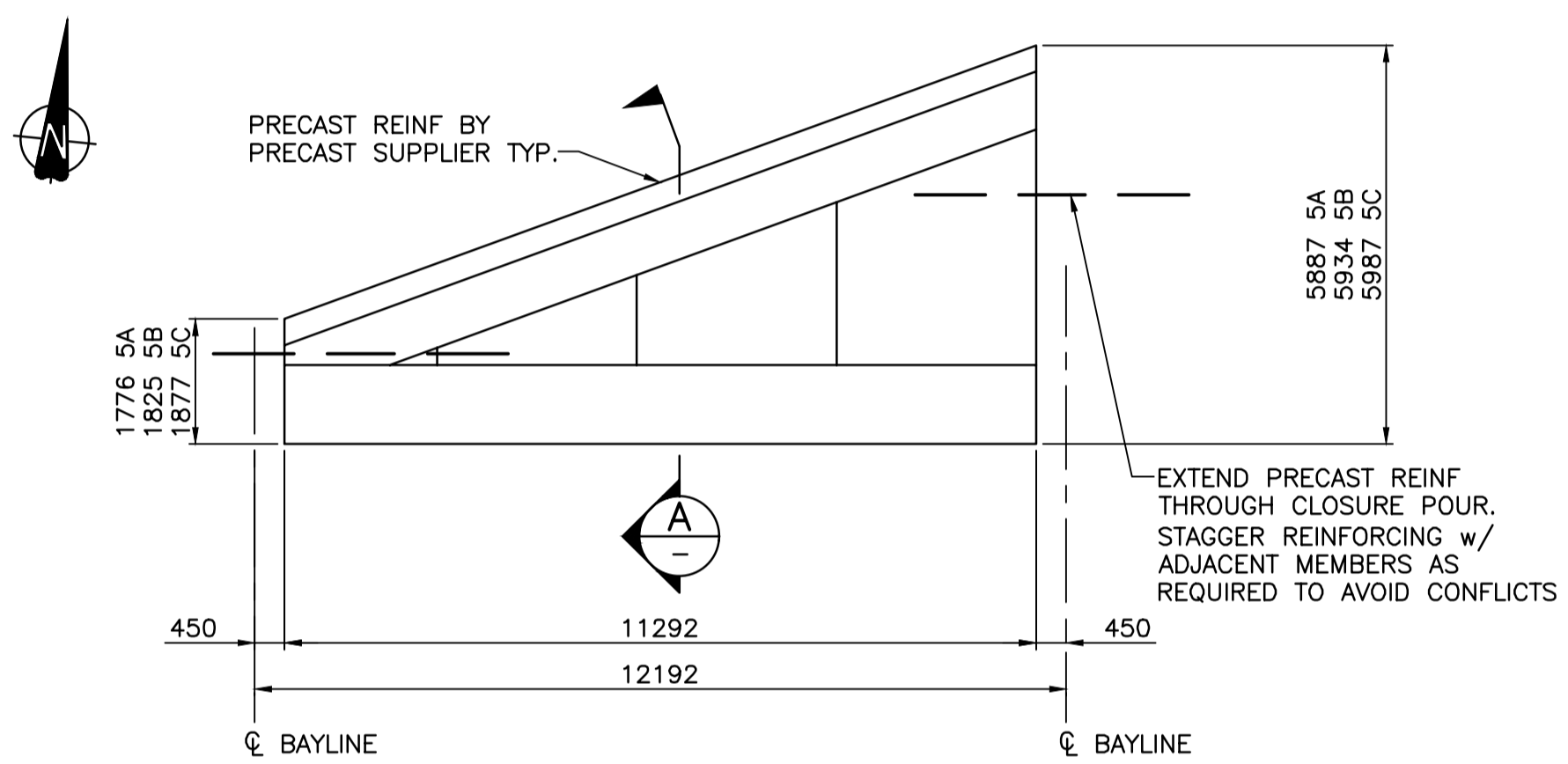
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

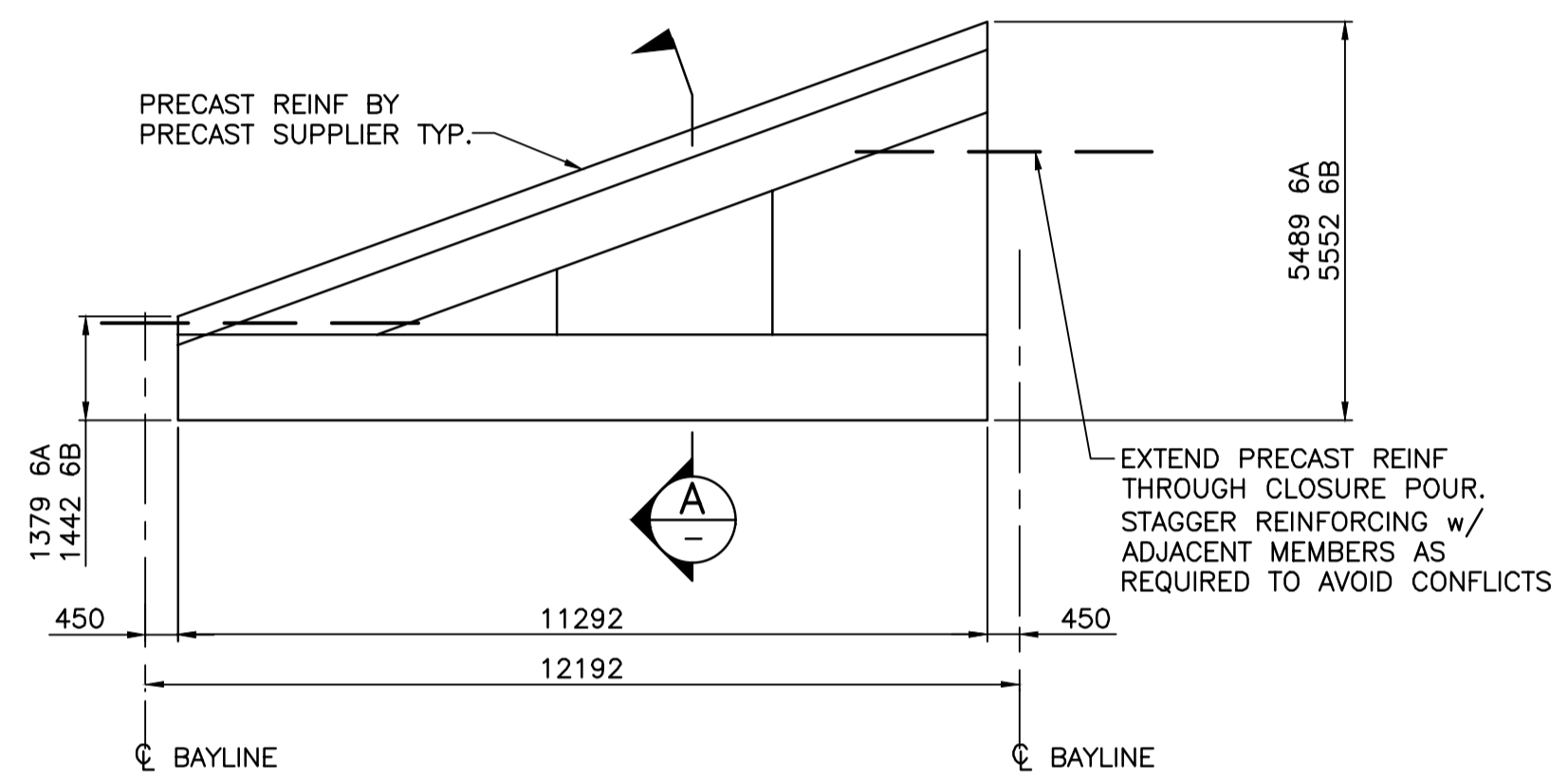
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST DECK PANEL
DP4**

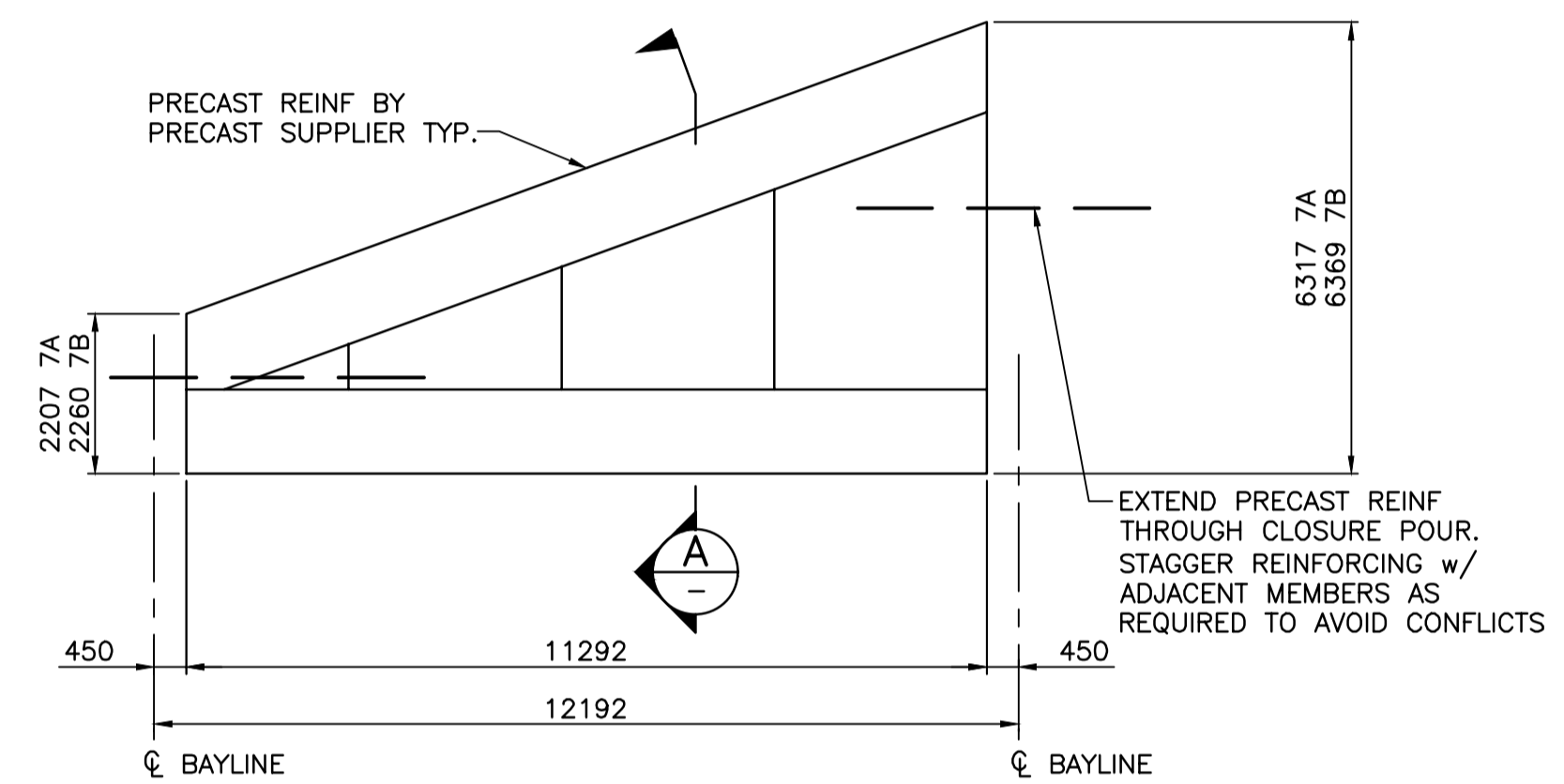
Project No./No. du projet R.026729.002	Sheet/Feuille S DP4	Revision no./ La Révision no. 2
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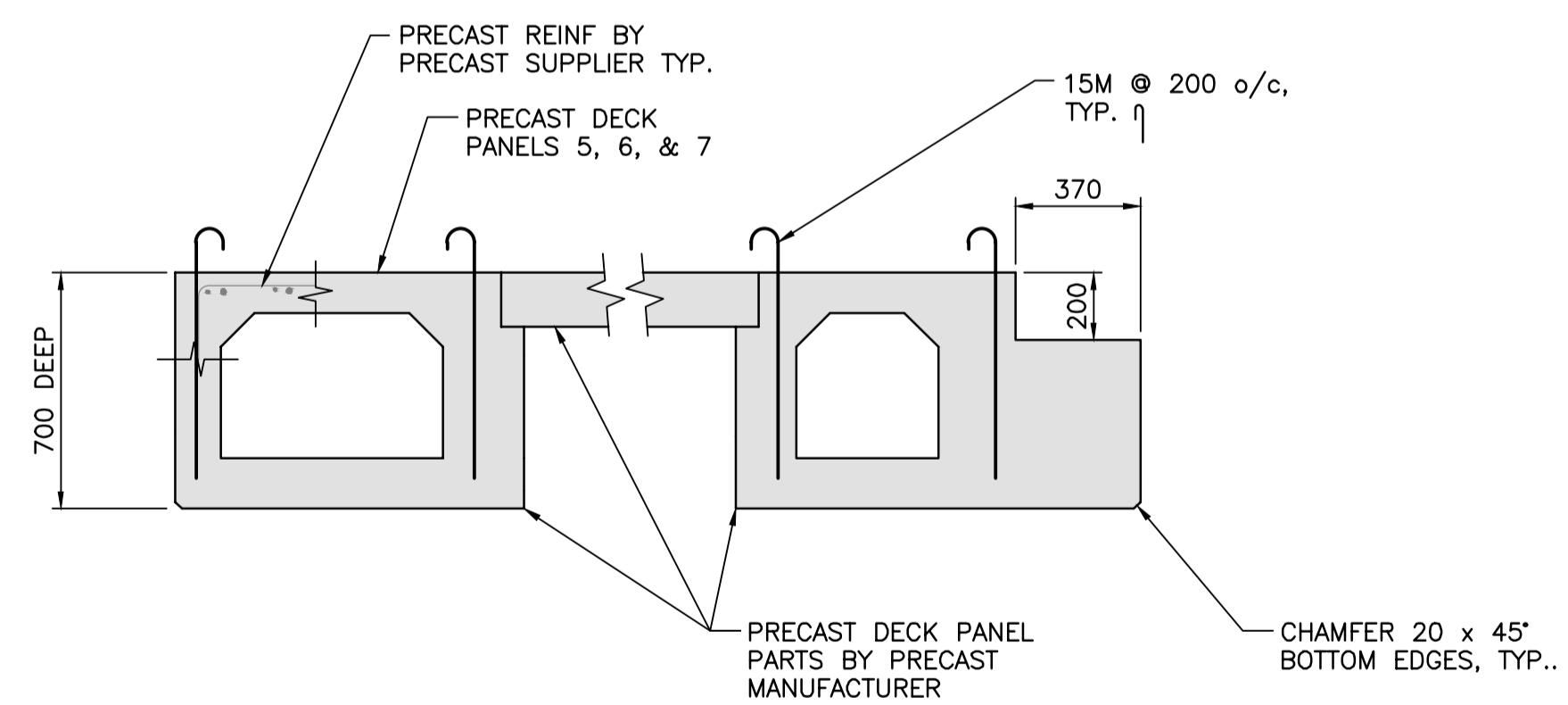
PRECAST DECK PANELS – DP 5A, 5B, 5C
SCALE NTS



PRECAST DECK PANELS – 6A, 6B
SCALE NTS



PRECAST DECK PANELS – 7A, 7B
SCALE NTS



SECTION A
SCALE 1: 20

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR WEST JETTY PRECAST LAYOUT, SEE DWG. S05
 - FOR PRECAST NOTES SEE DWG. S05

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

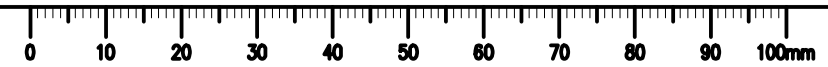
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

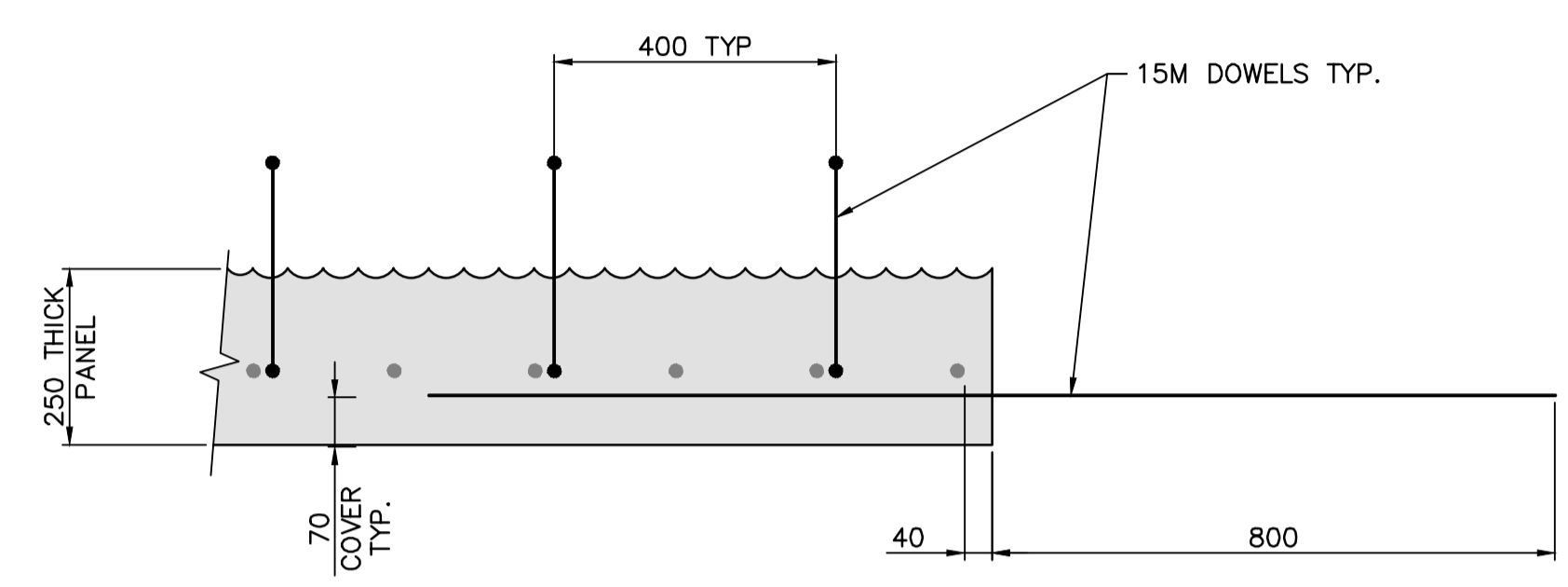
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG
PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

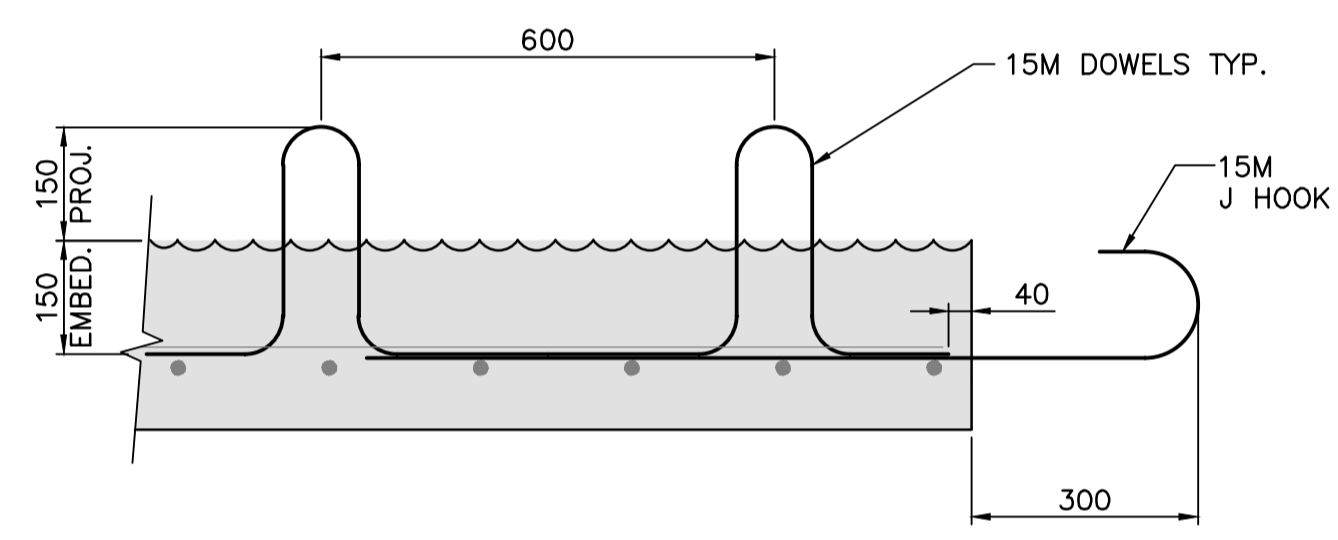
Drawing title/Titre du dessin
**WEST JETTY
PRECAST DECK PANELS
DP5, DP6 & DP7**

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	S DP5-7	2

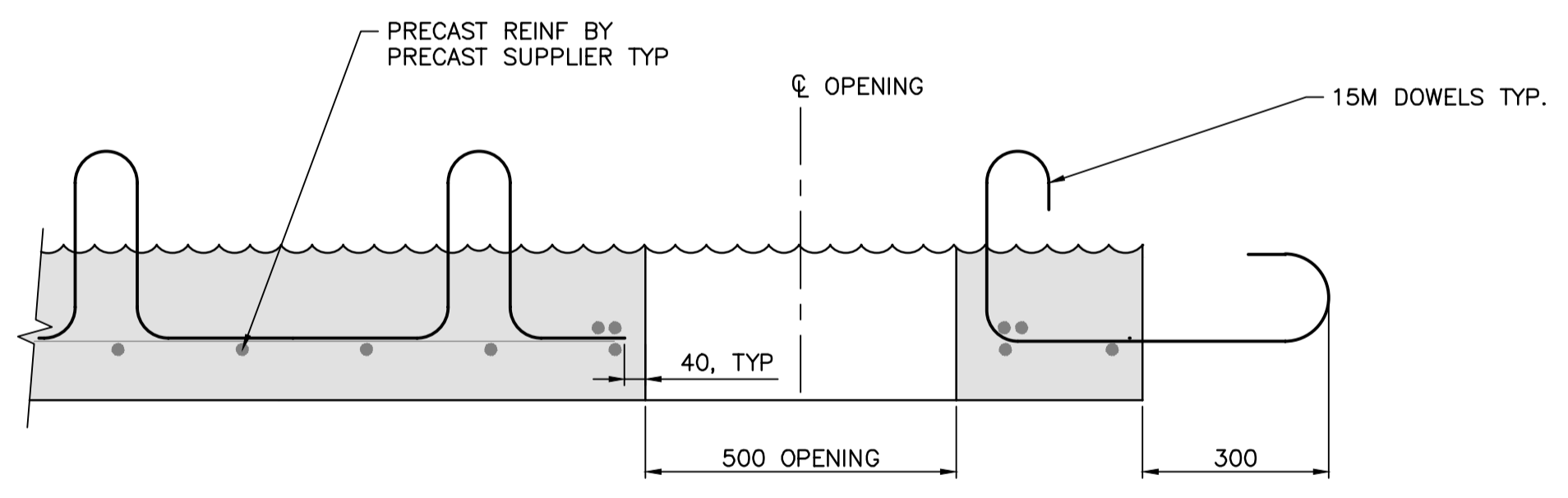




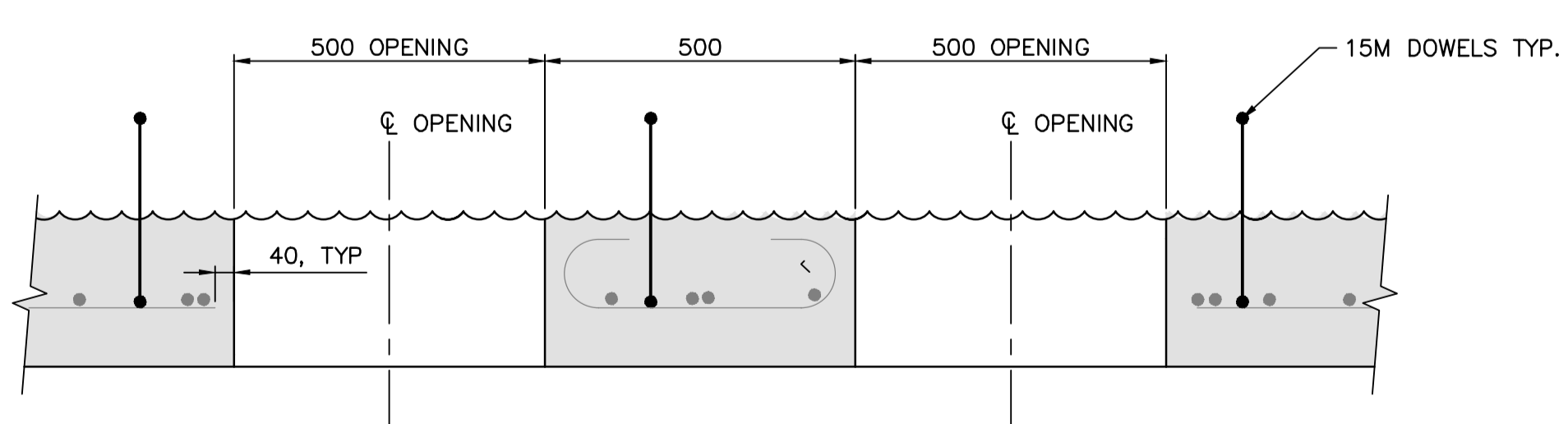
SECTION A
SCALE 1: 10



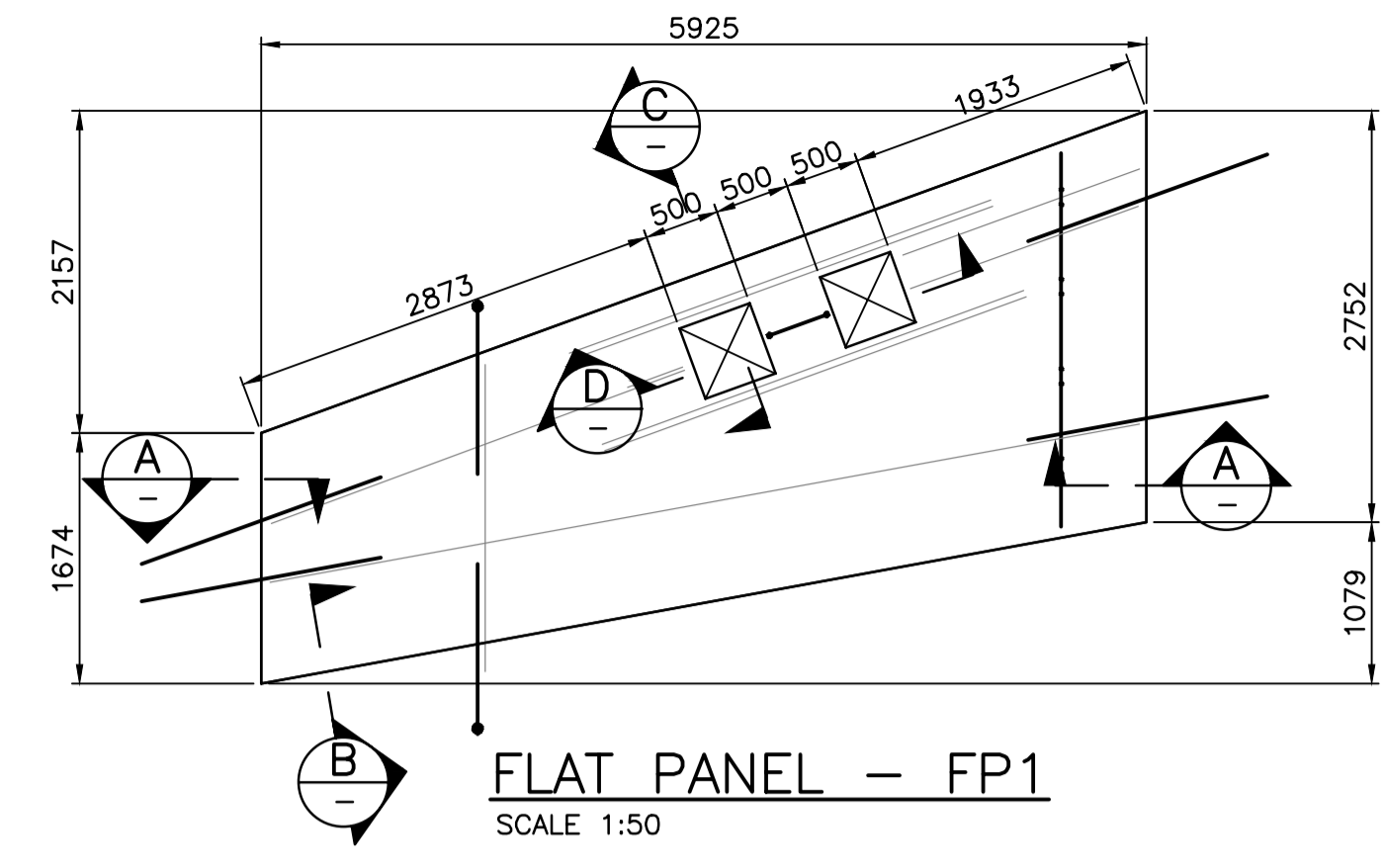
SECTION B
SCALE 1: 10



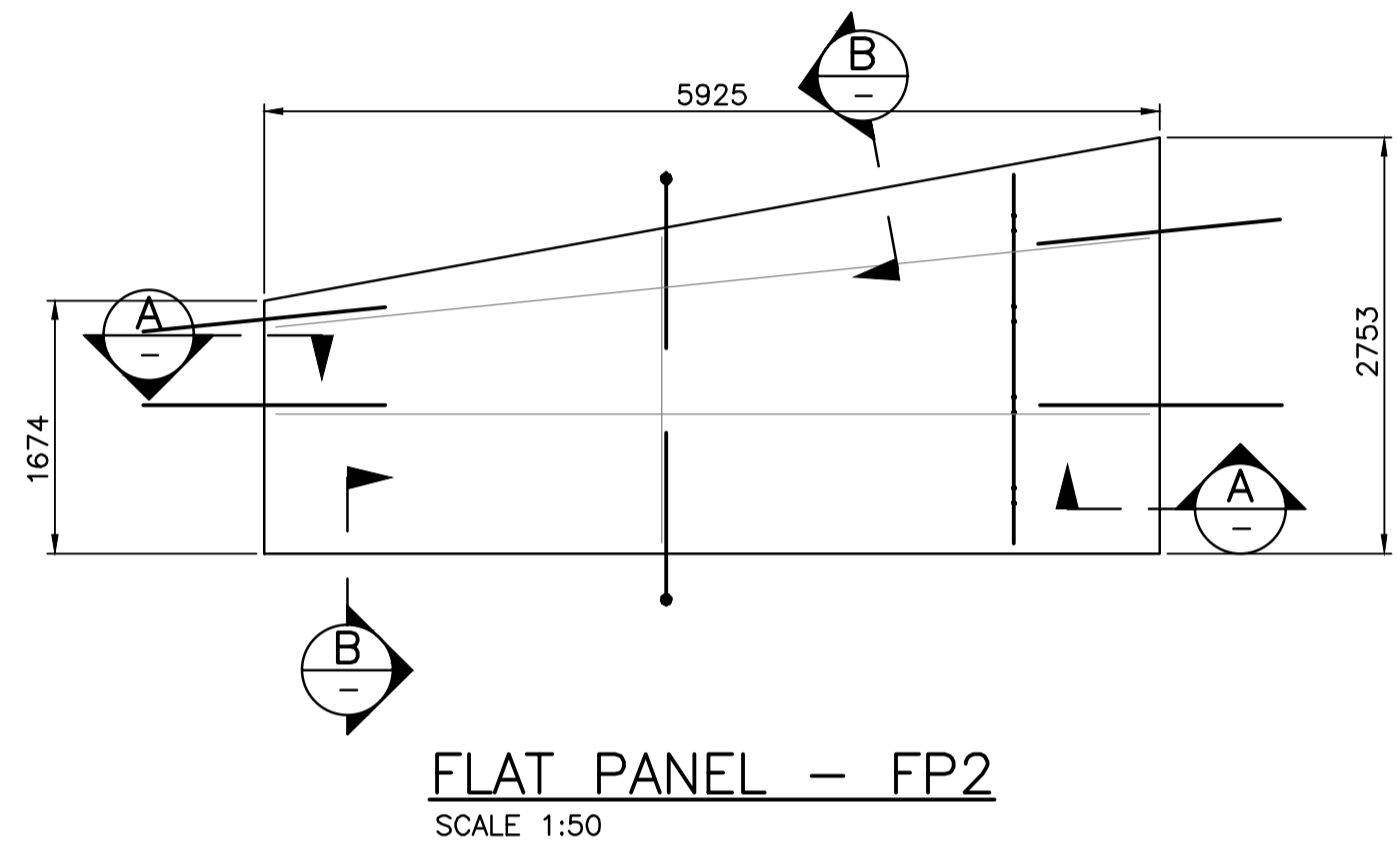
SECTION C
SCALE 1: 10



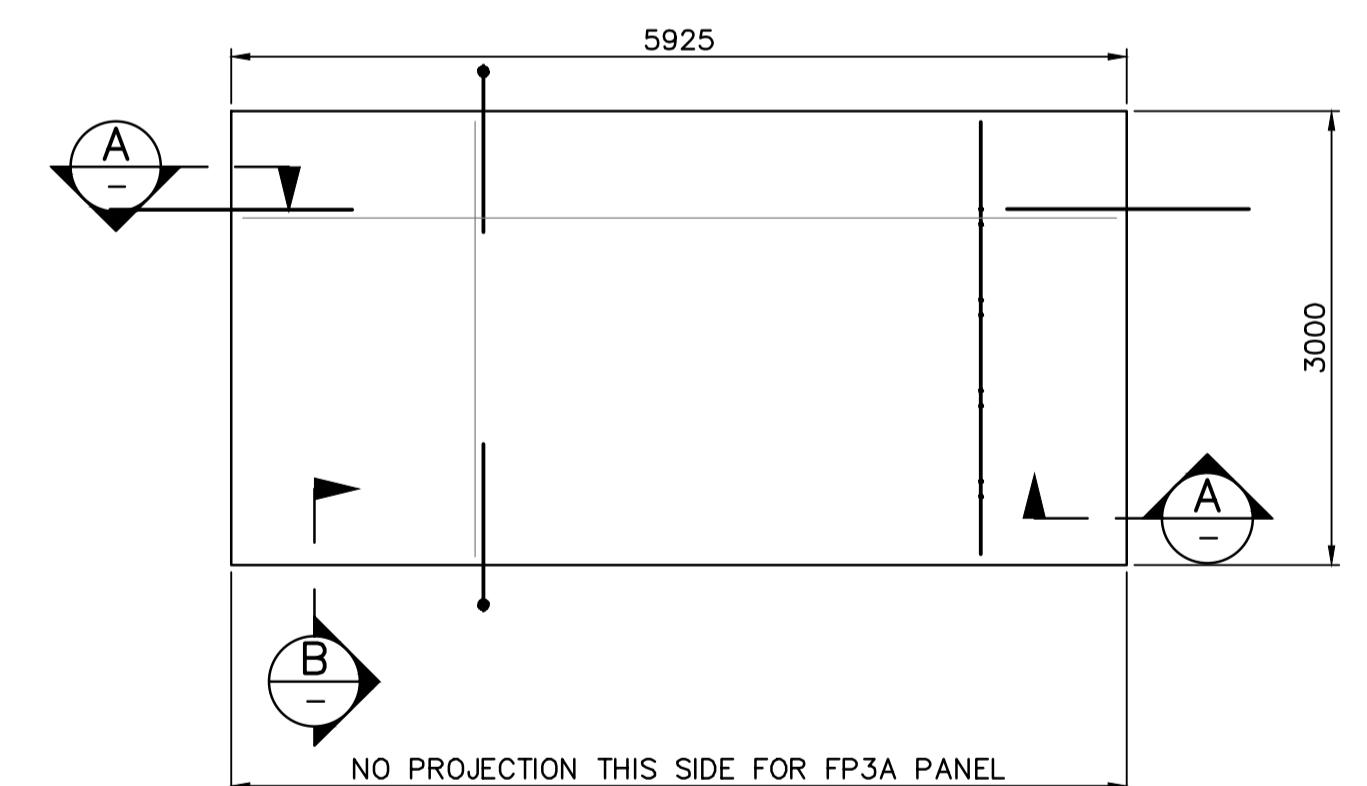
SECTION D
SCALE 1: 10



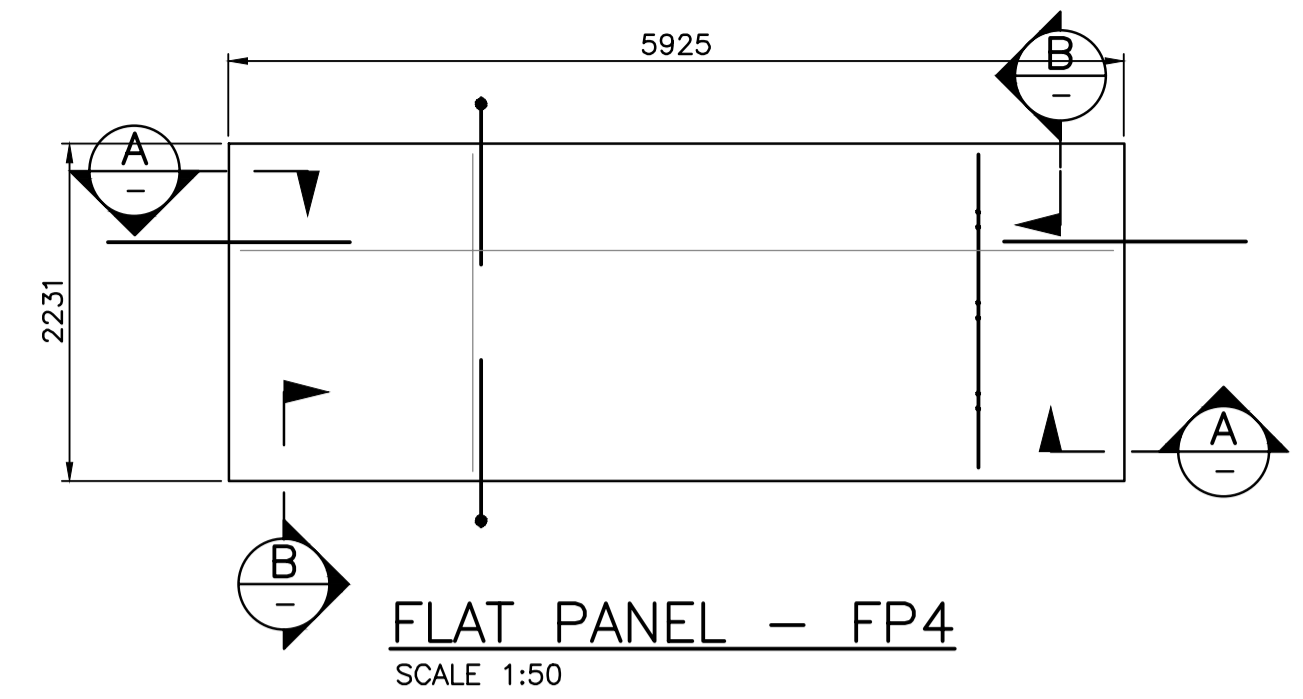
FLAT PANEL - FP1
SCALE 1:50



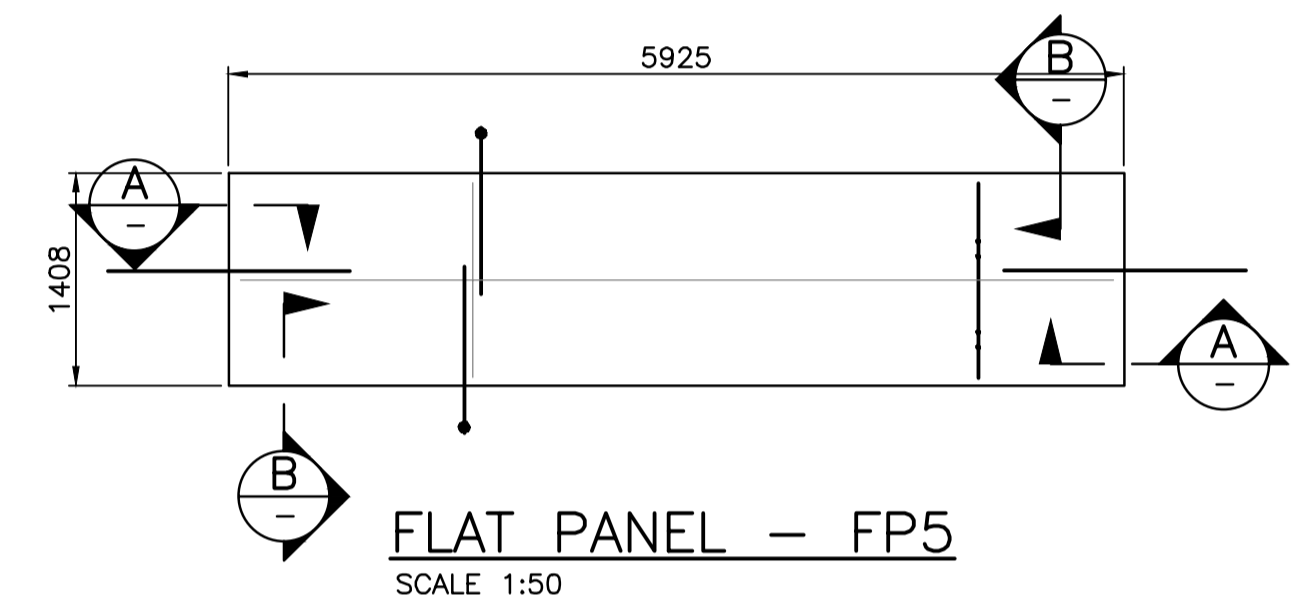
FLAT PANEL - FP2
SCALE 1:50



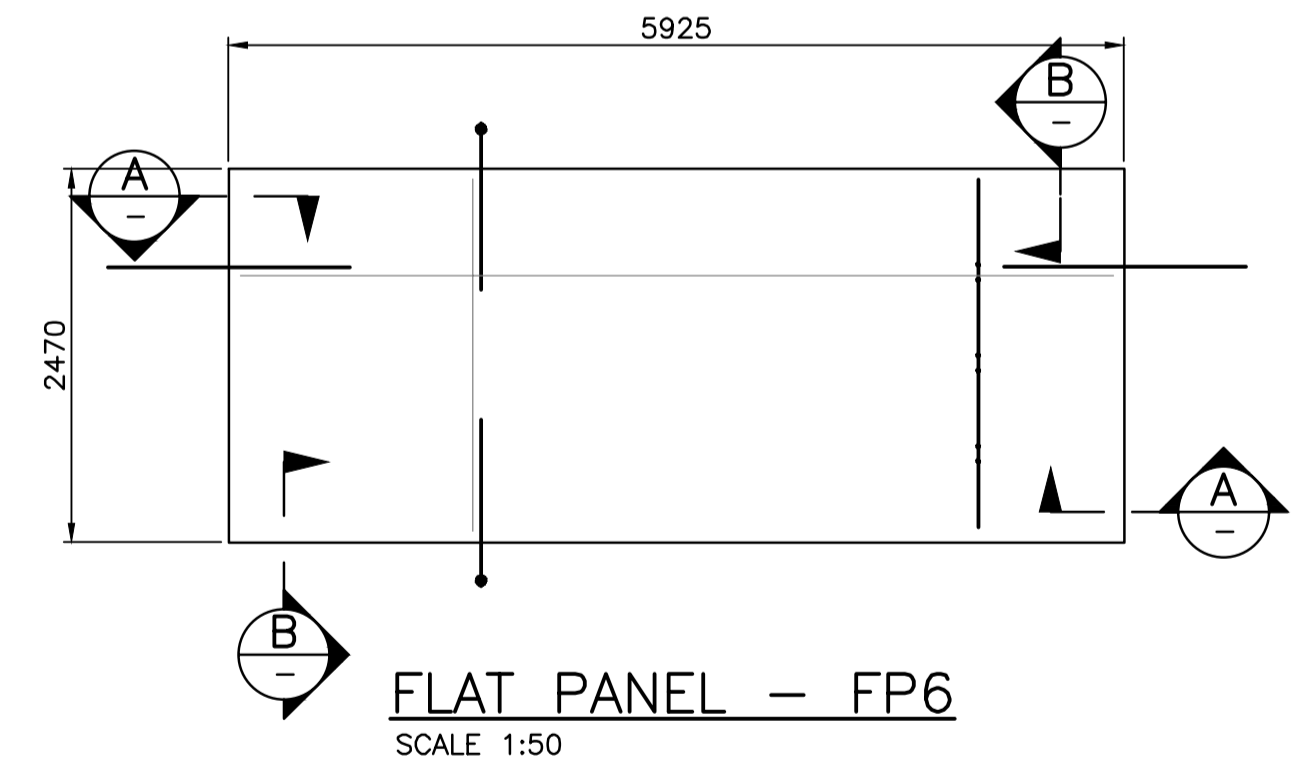
FLAT PANEL - FP3 & FP3A
SCALE 1:50



FLAT PANEL - FP4
SCALE 1:50



FLAT PANEL - FP5
SCALE 1:50



FLAT PANEL - FP6
SCALE 1:50

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR WEST JETTY PRECAST FLAT PANEL LAYOUT, SEE DWG. S05.
 - FOR PRECAST NOTES SEE DWG. SBG1.

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

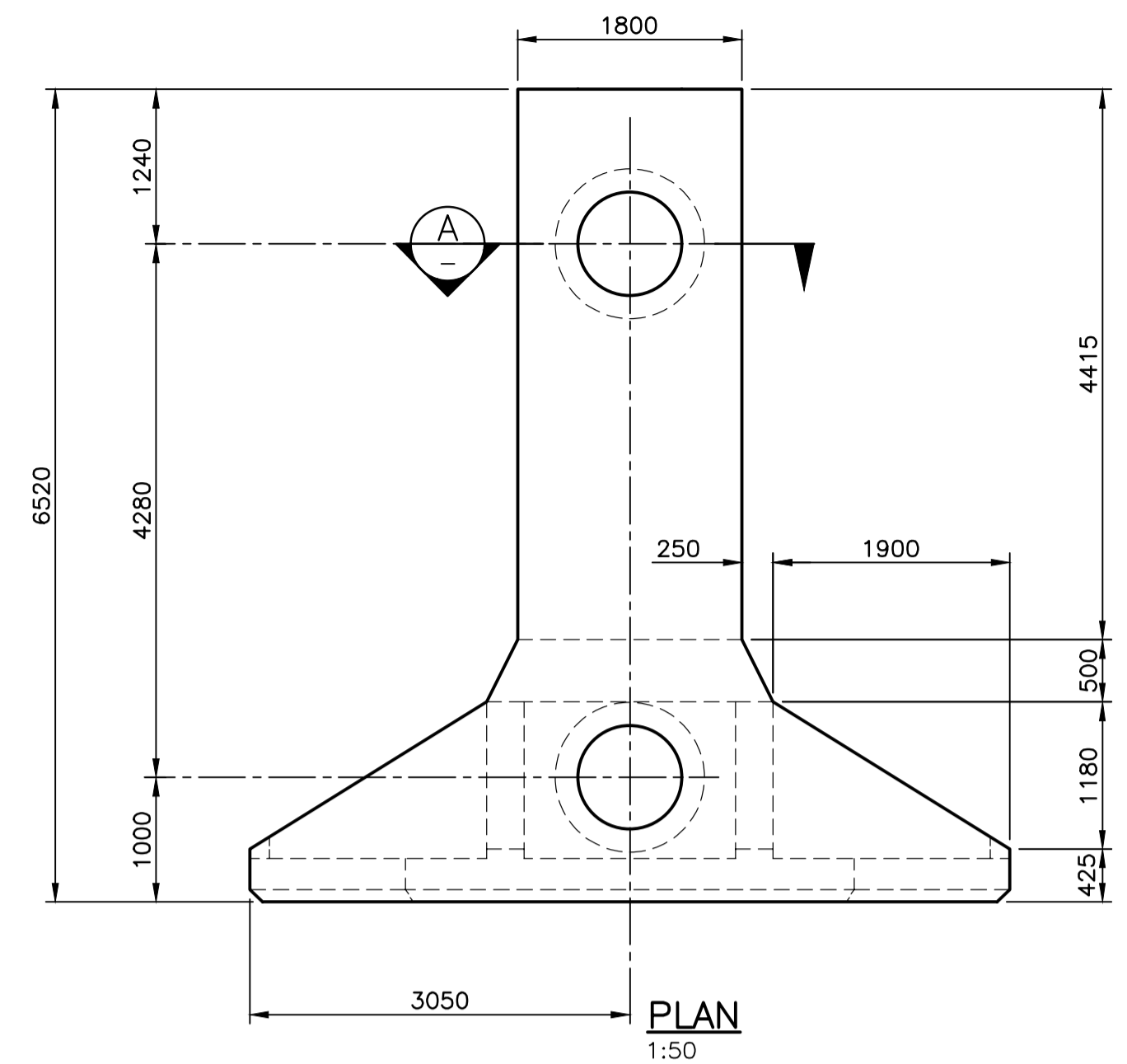
Designed by/Concept par
KU, TW
Drawn by/Dessine par
BOG

PWGS Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

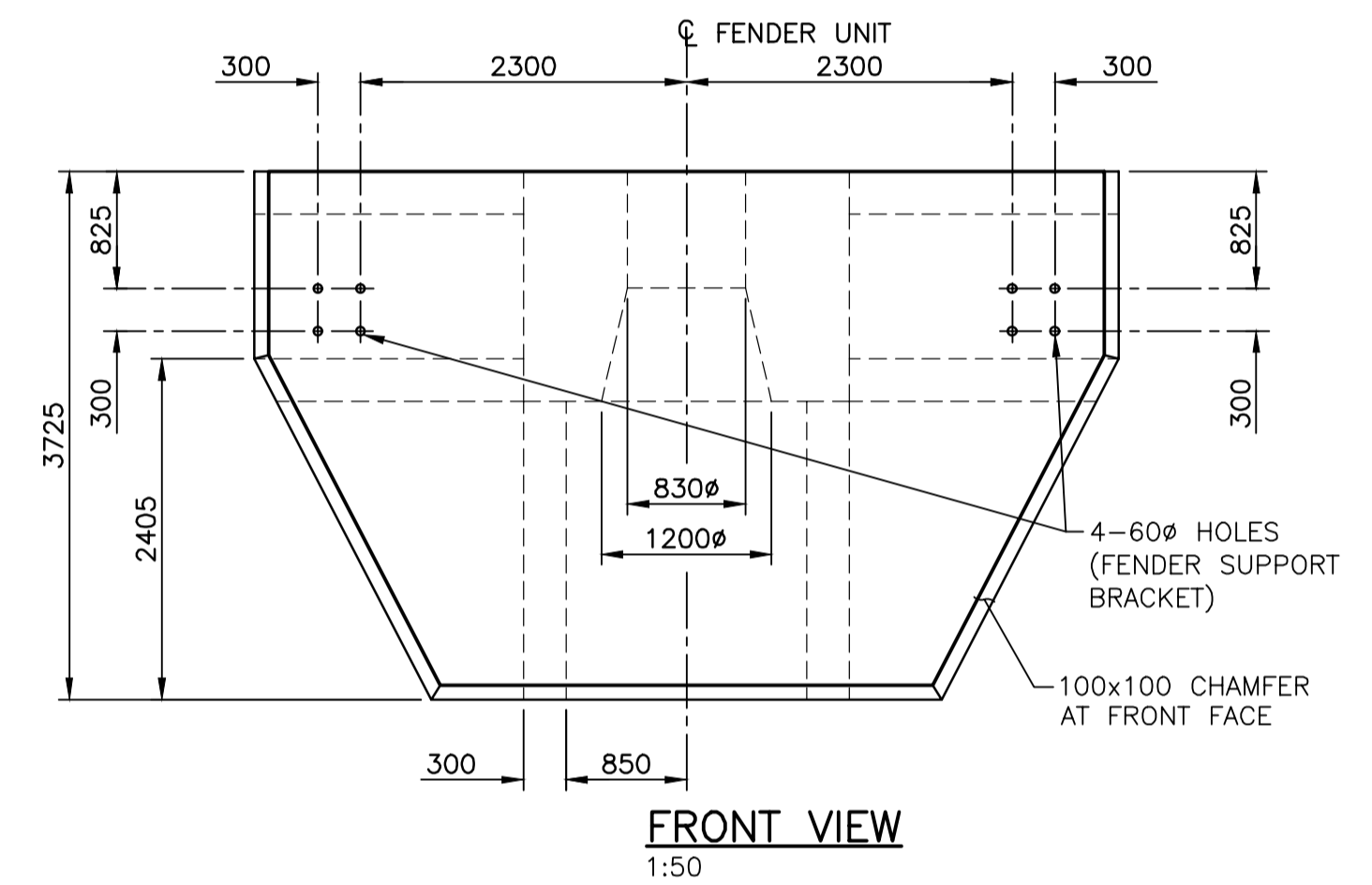
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST JETTY
PRECAST FLAT PANELS
FP1, FP2, FP3A, FP4, FP5, FP6**

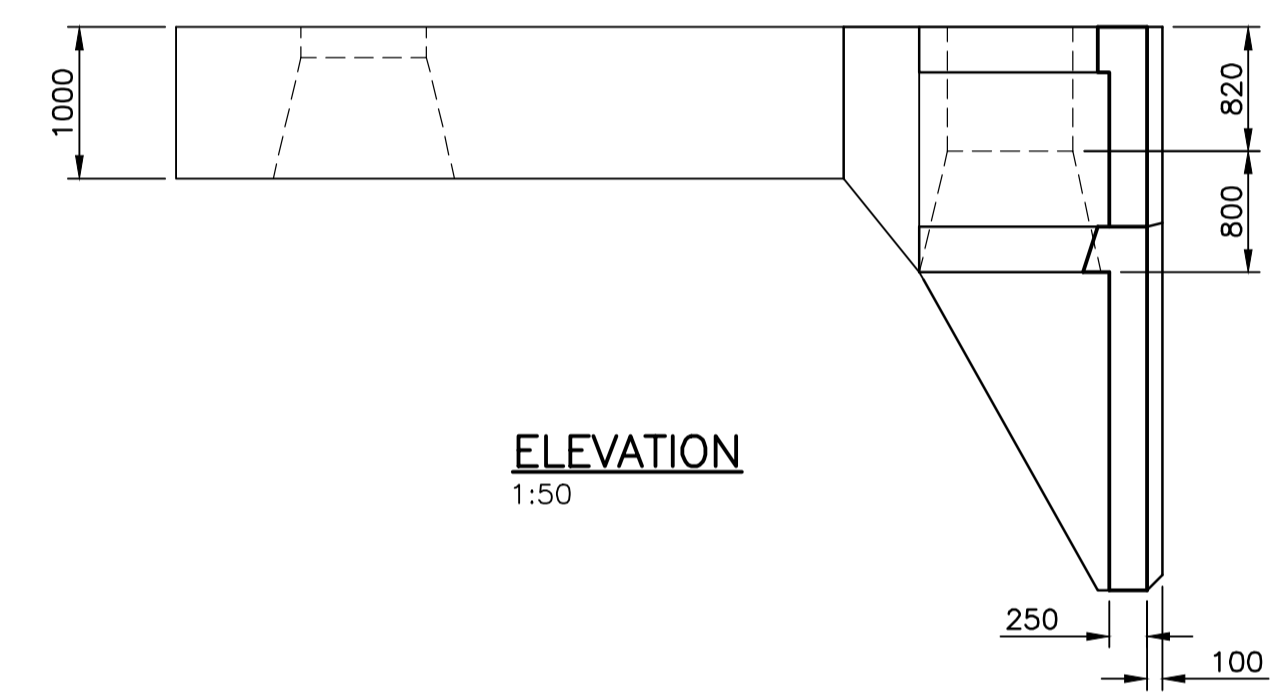
Project No./No. du projet	Sheet/	Revision no./
R.026729.002	S FP1-6	2



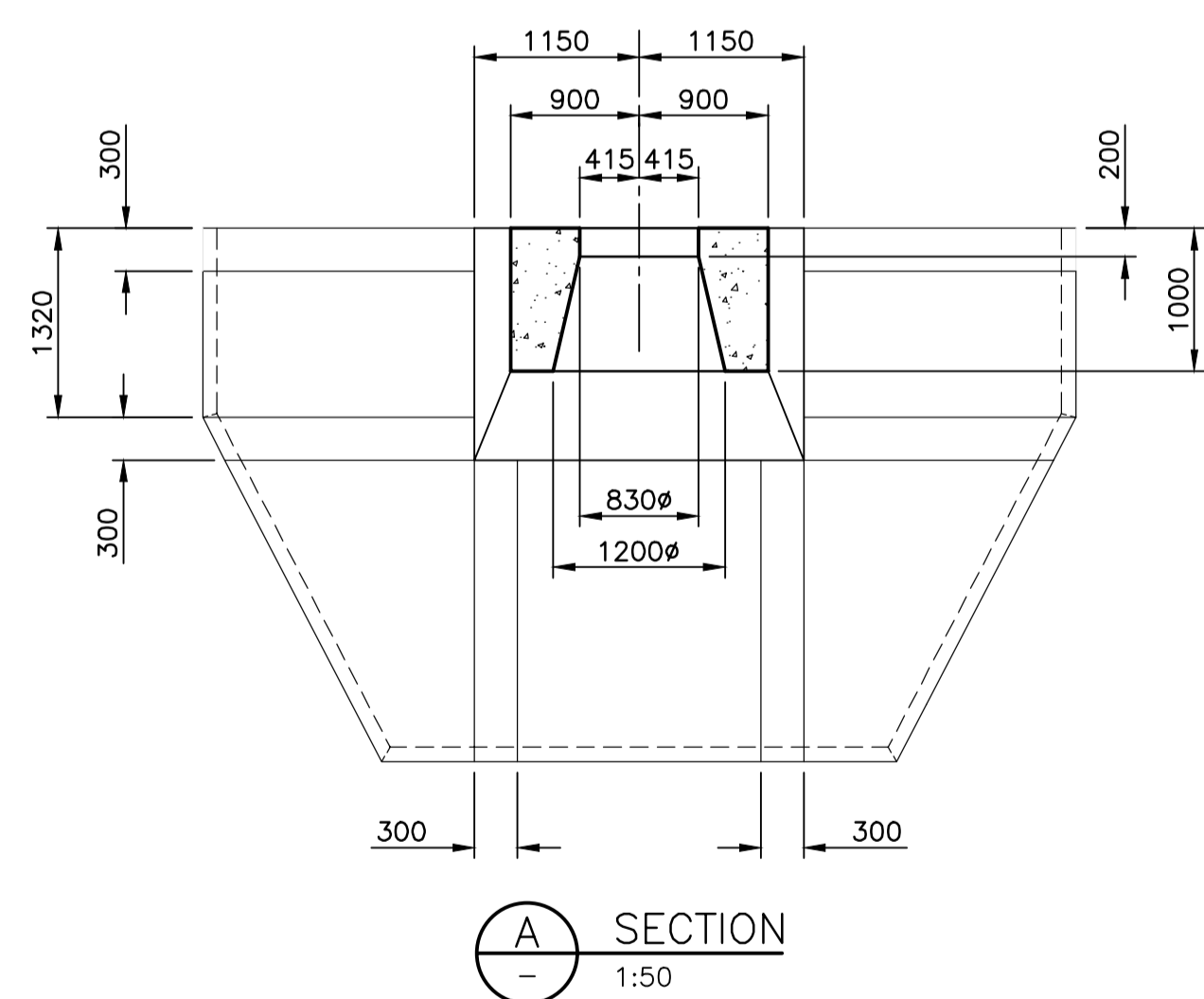
PLAN
1:50



FRONT VIEW
1:50



ELEVATION
1:50



SECTION A-A
1:50

Revision/	Description/	Date/
Revision	Description	Date
2	RE-ISSUED FOR TENDER	2017/03/05
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

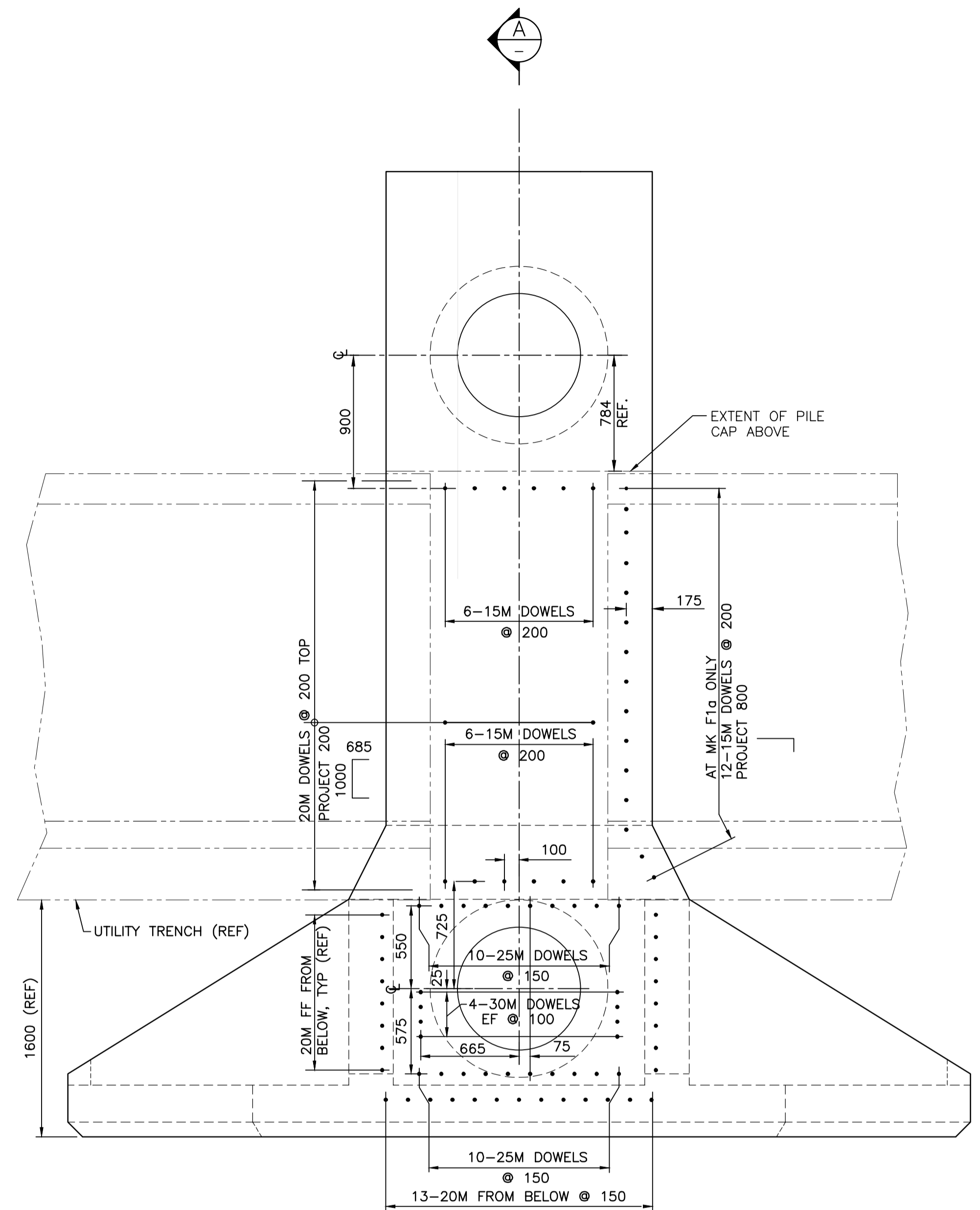
PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

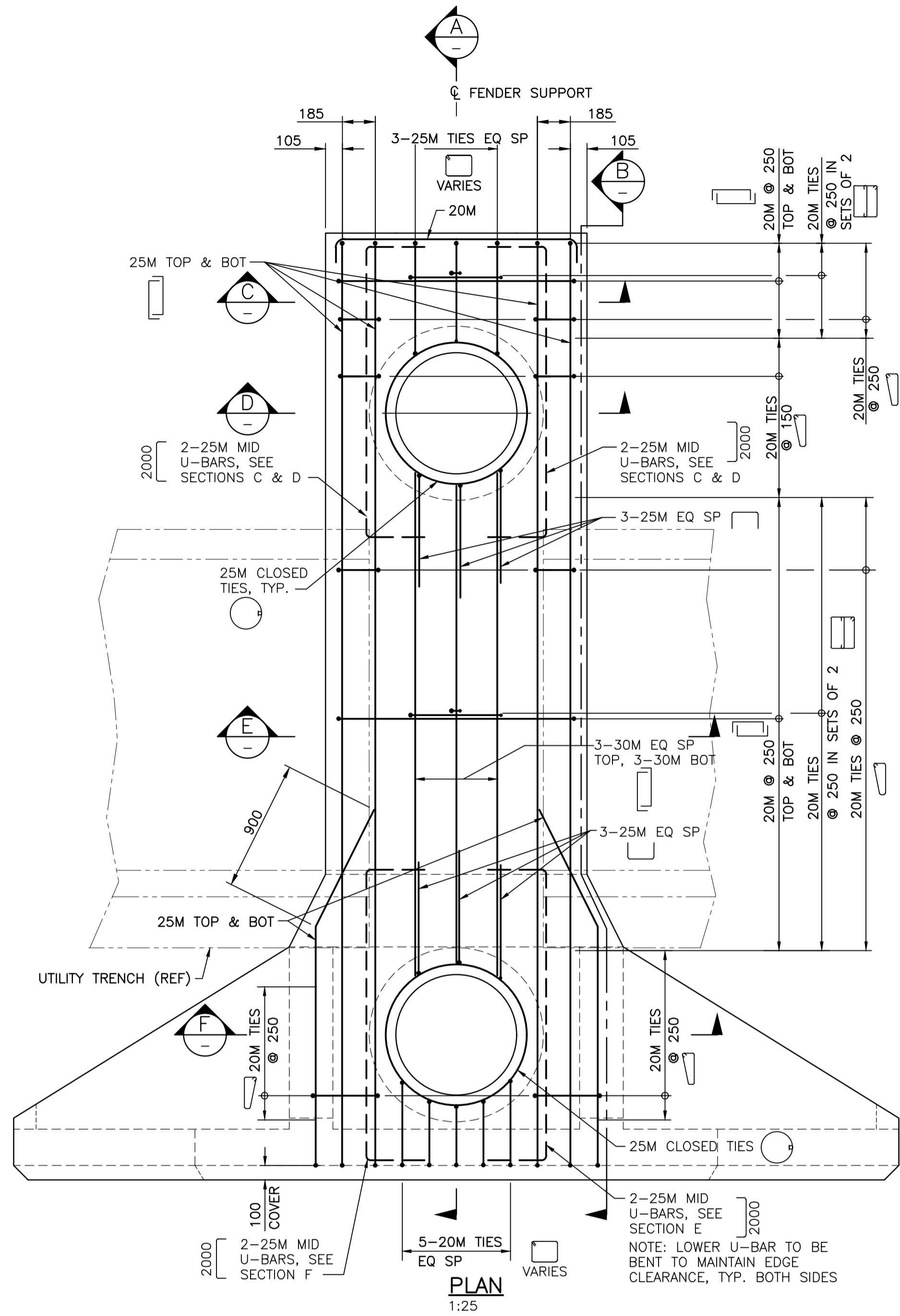
Drawing title/Titre du dessin
**PRECAST FENDER SUPPORT
FS1 SHEET 1 OF 3**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S FS1.1	2

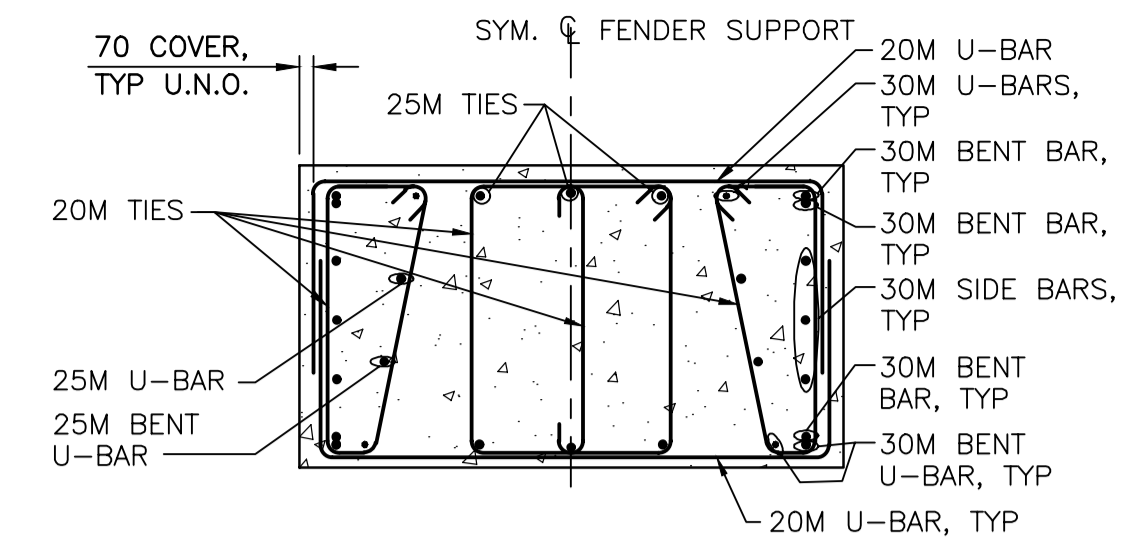
- NOTES:**
- FOR NOTES SEE DWG. G001.
 - FOR PRECAST NOTES SEE DWG SBG1



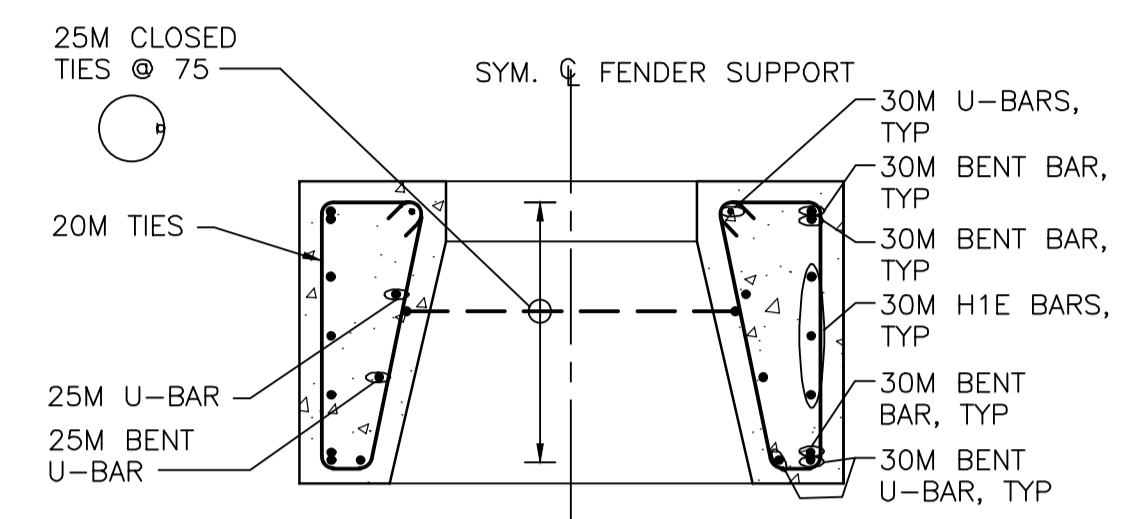
DOWEL PLAN
1:25
NOTE: STANDARD HOOKS NOT SHOWN FOR CLARITY



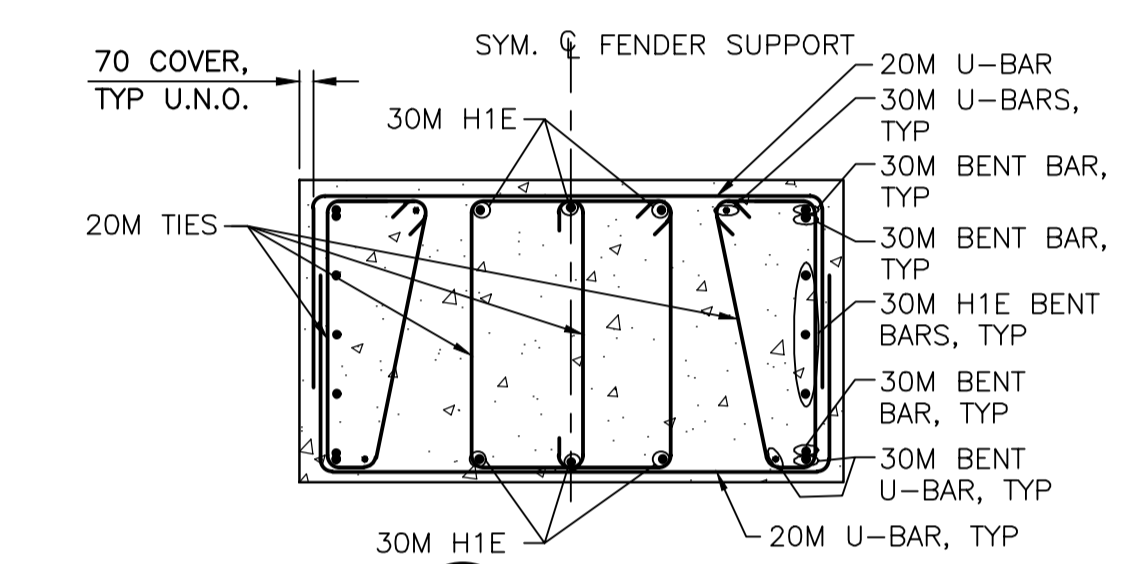
PLAN
1:25
NOTE: LOWER U-BAR TO BE BENT TO MAINTAIN EDGE CLEARANCE, TYP. BOTH SIDES



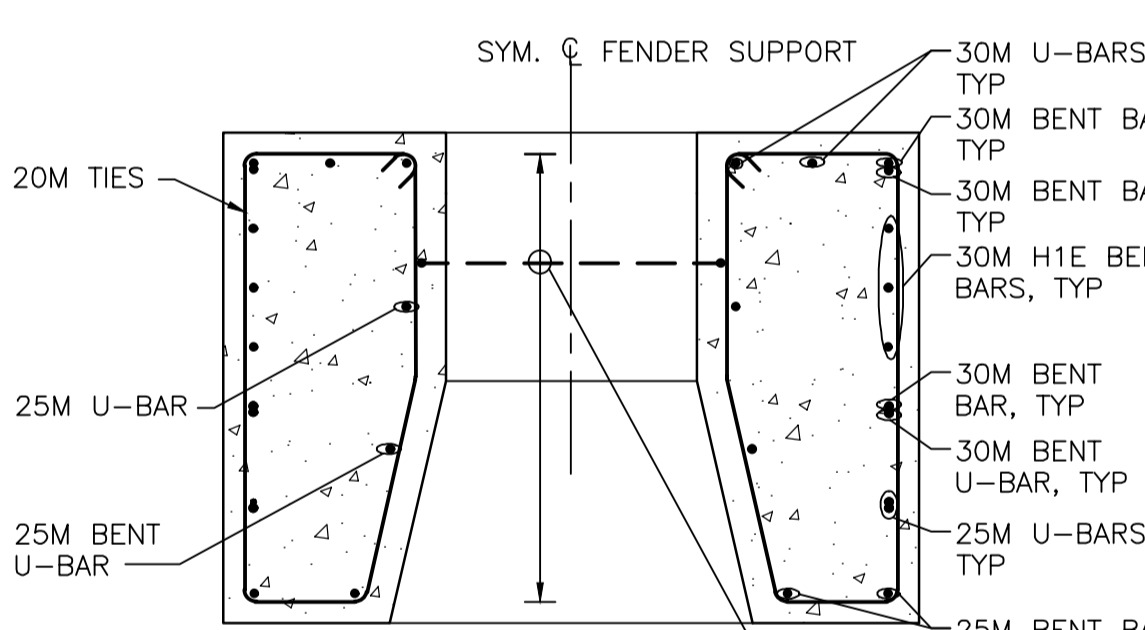
SECTION C
1:25



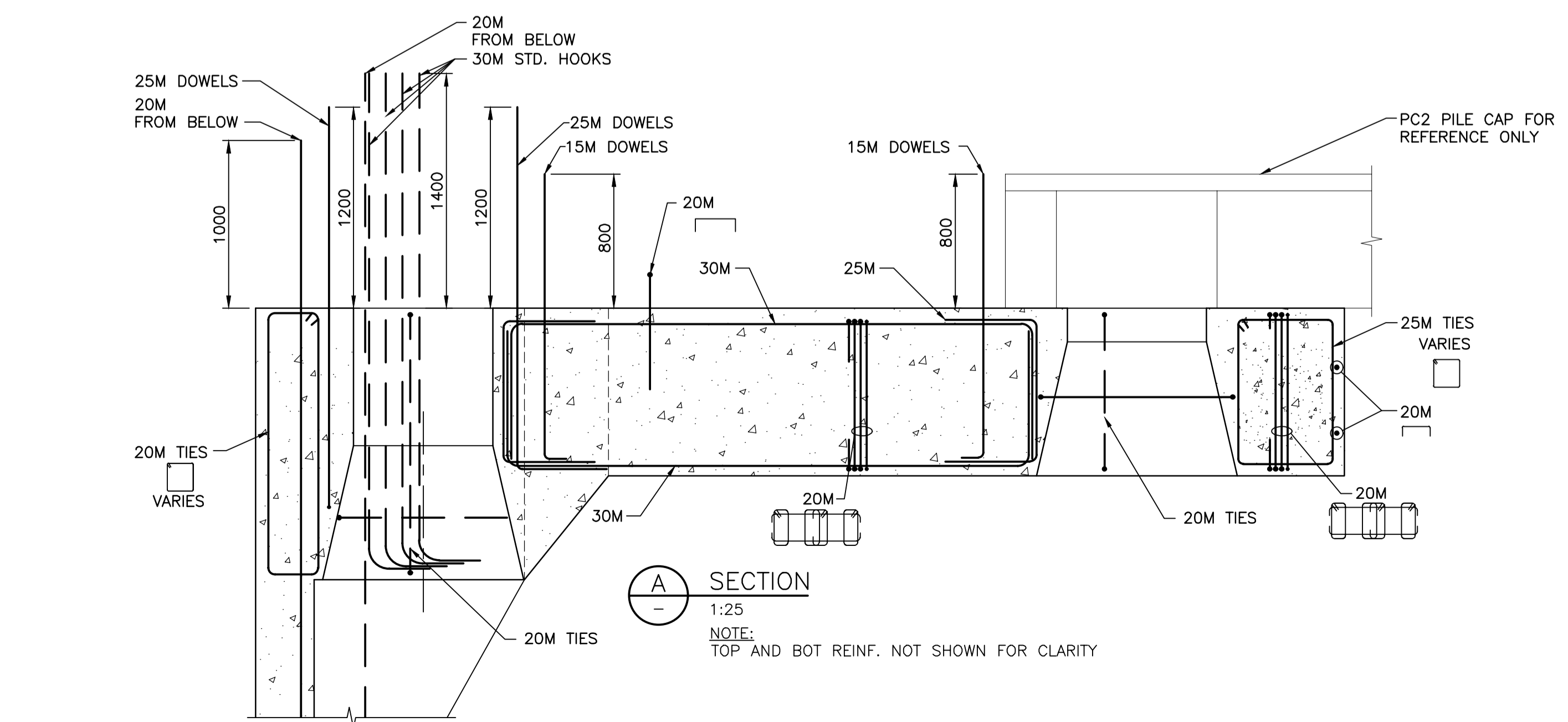
SECTION D
1:25



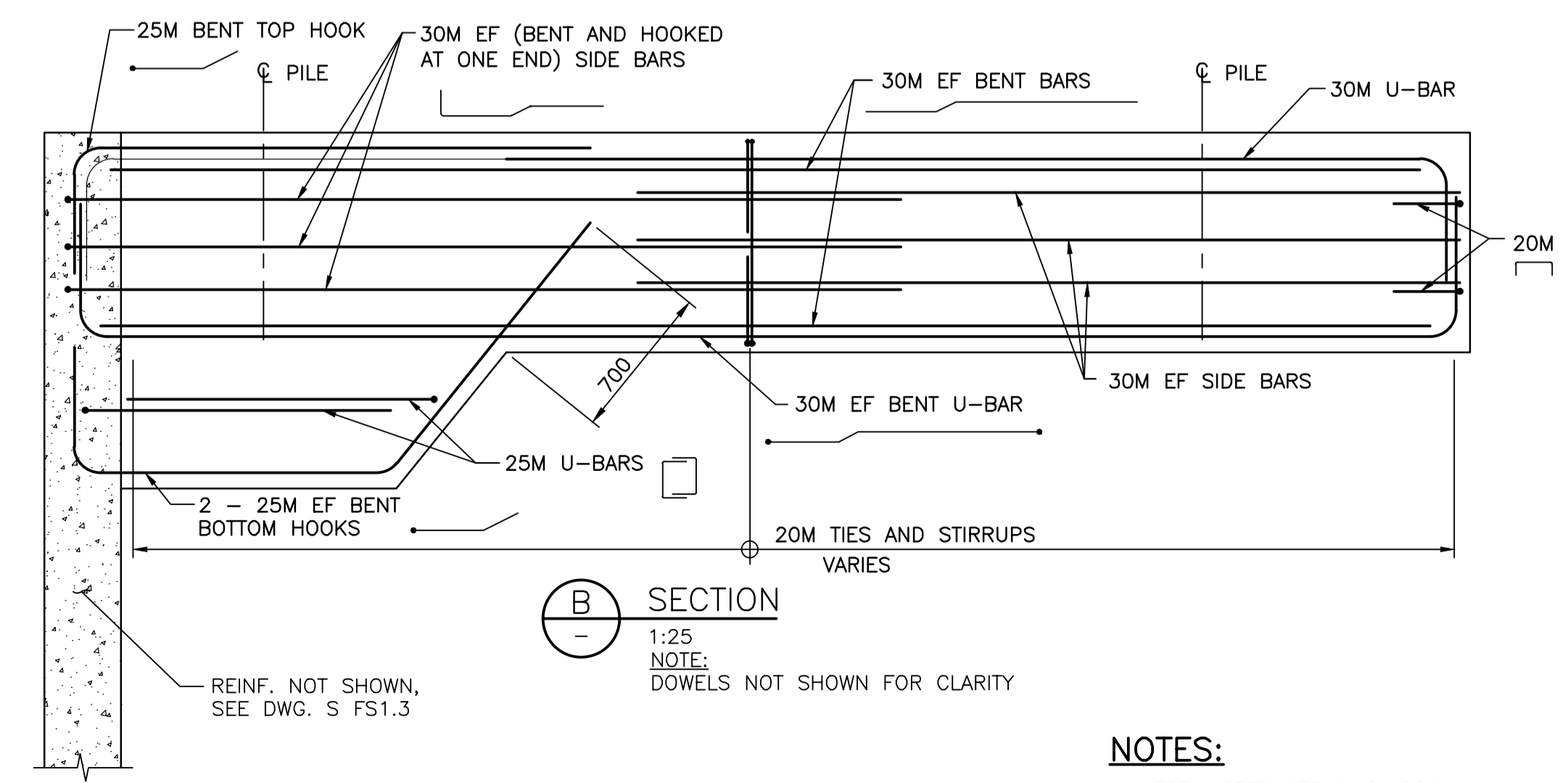
SECTION E
1:25
NOTE: DOWELS NOT SHOWN FOR CLARITY



SECTION F
1:25
NOTE: DOWELS NOT SHOWN FOR CLARITY



SECTION A
1:25
NOTE: TOP AND BOT REINF. NOT SHOWN FOR CLARITY



SECTION B
1:25
NOTE: DOWELS NOT SHOWN FOR CLARITY

- NOTES:**
- FOR NOTES SEE DWG. G001.
 - FOR PRECAST NOTES SEE DWG SBG1

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/05
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/09/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

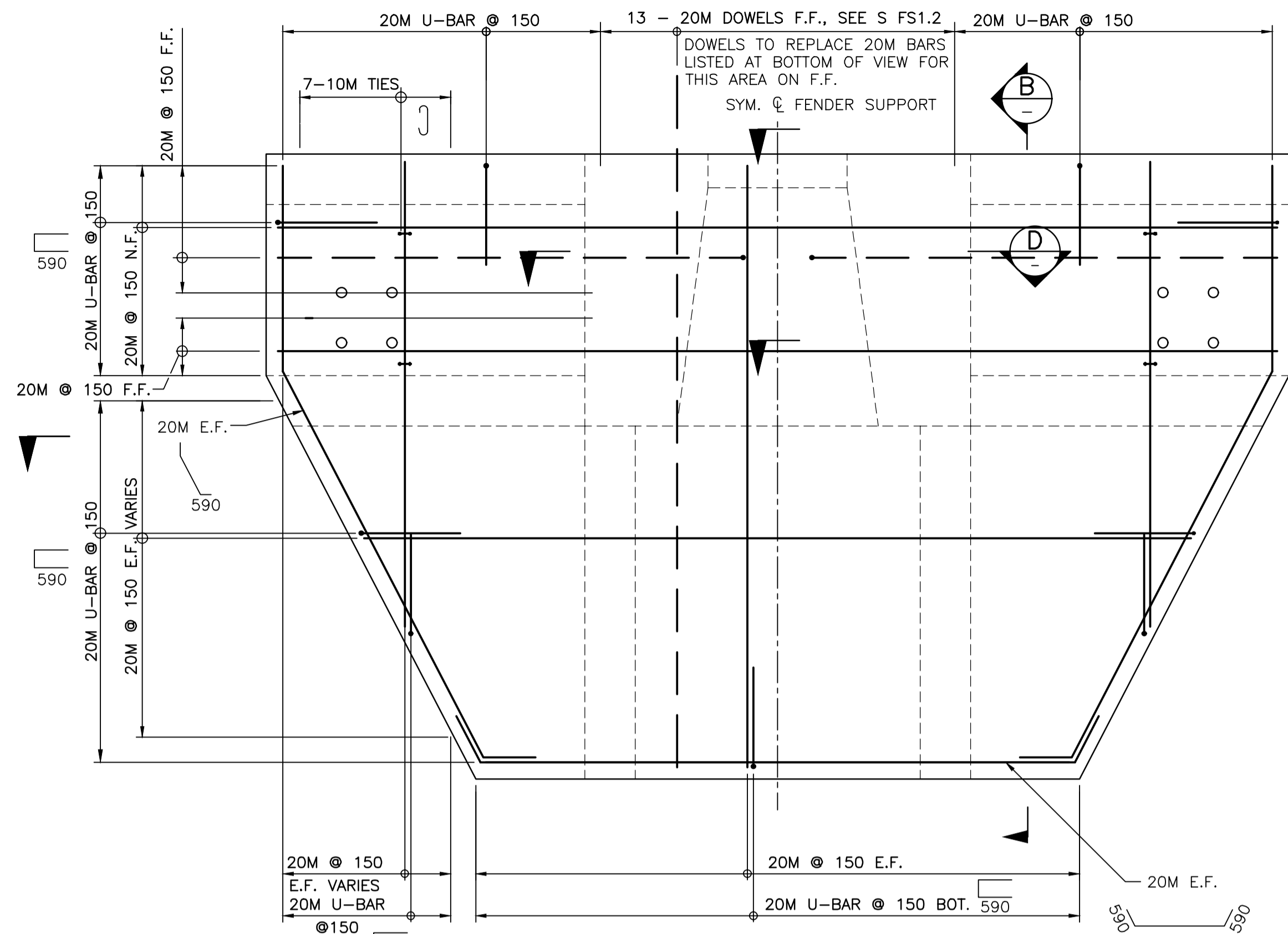
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

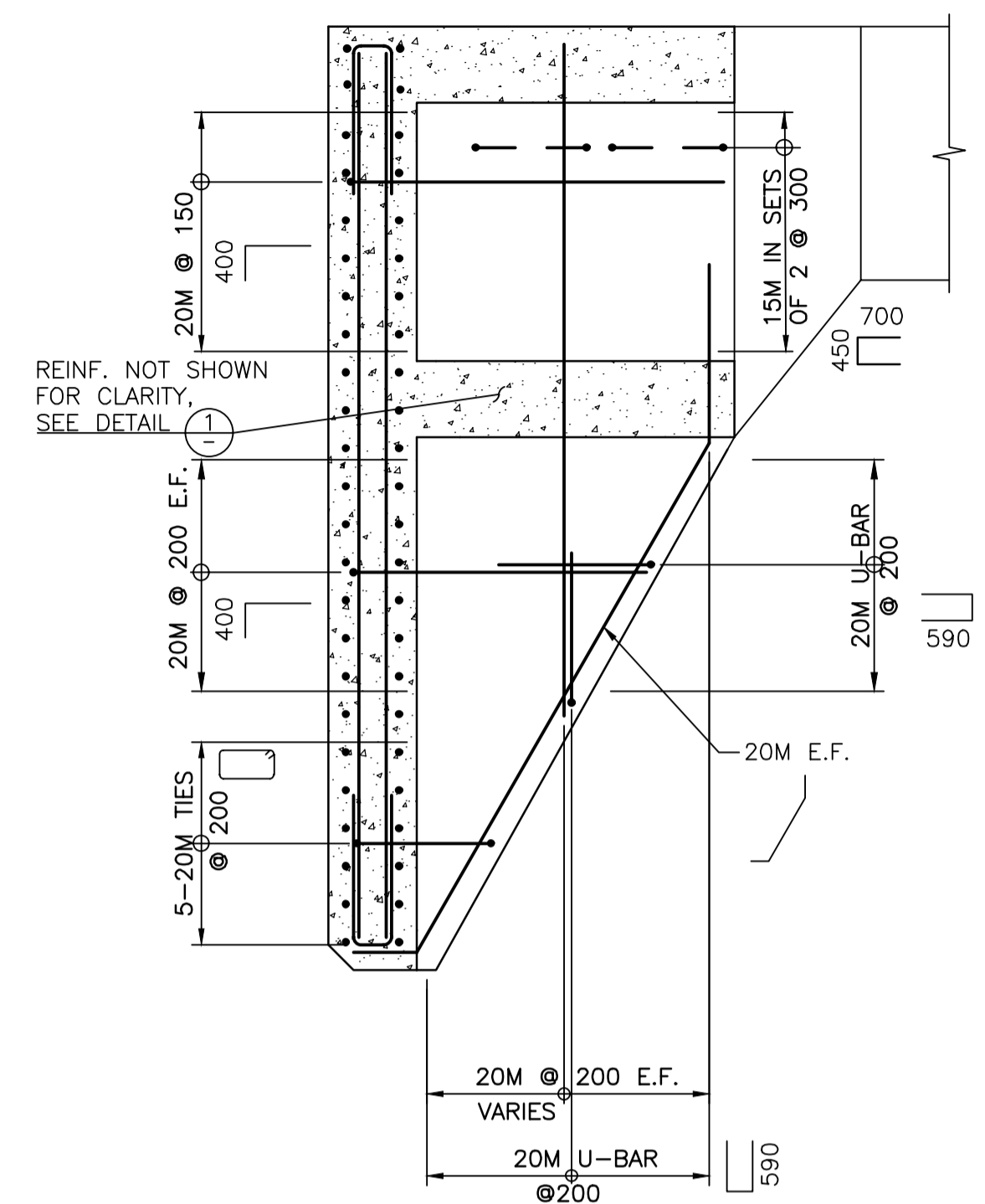
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST FENDER SUPPORT
FS1 SHEET 2 OF 3
REINFORCEMENT DETAILS**

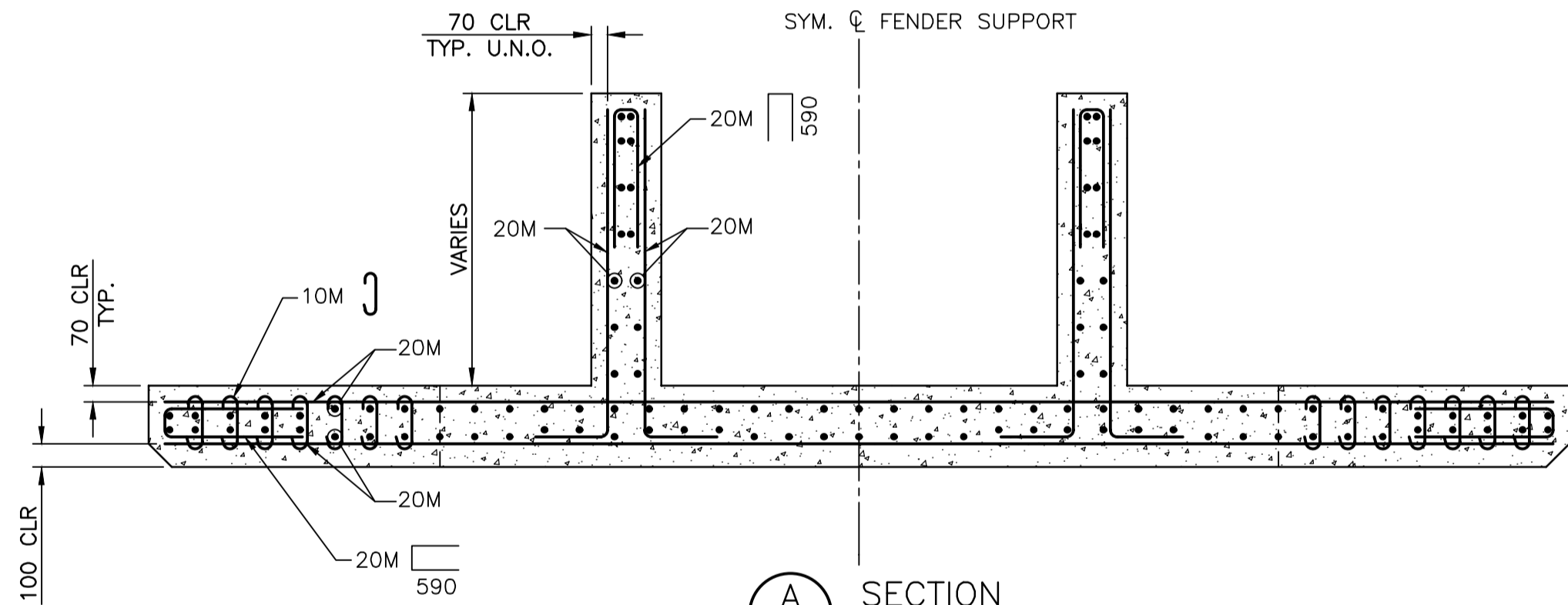
Project No./No. du projet R.026729.002	Sheet/Feuille S FS1.2	Revision no./ La Révision no. 2
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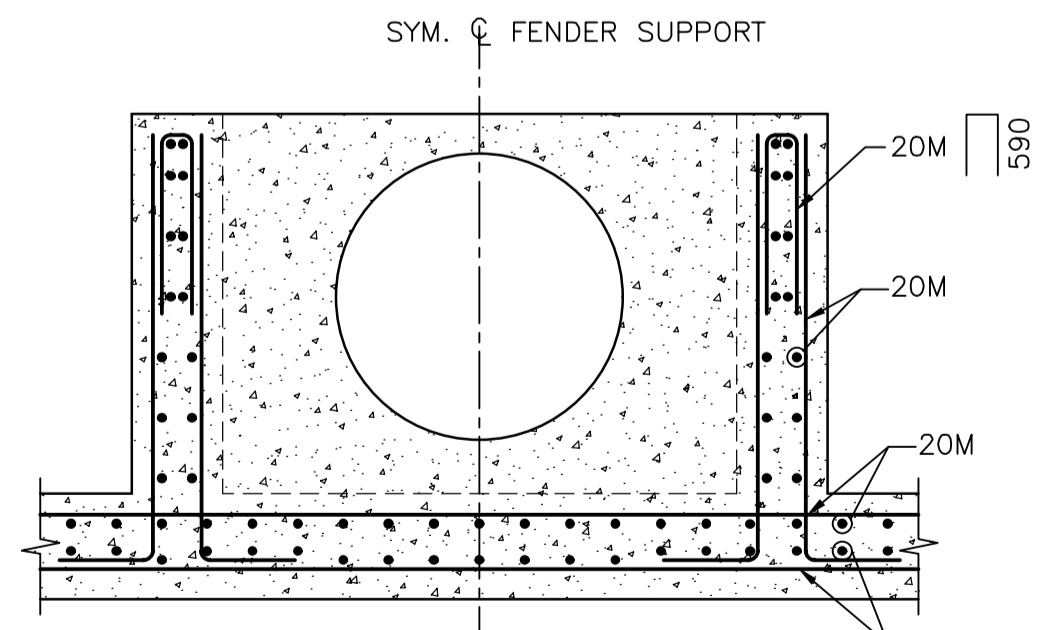
END VIEW
1:25
NOTE: 100 CHAMFER NOT SHOWN FOR CLARITY



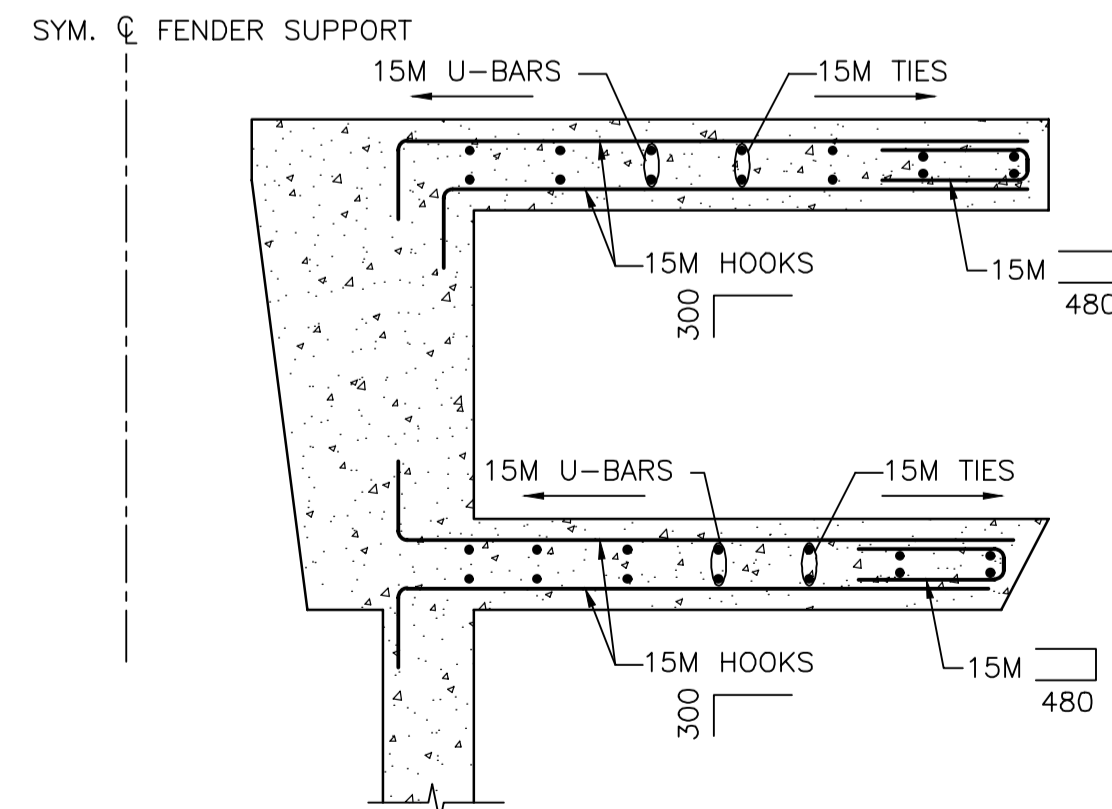
B SECTION
1:25



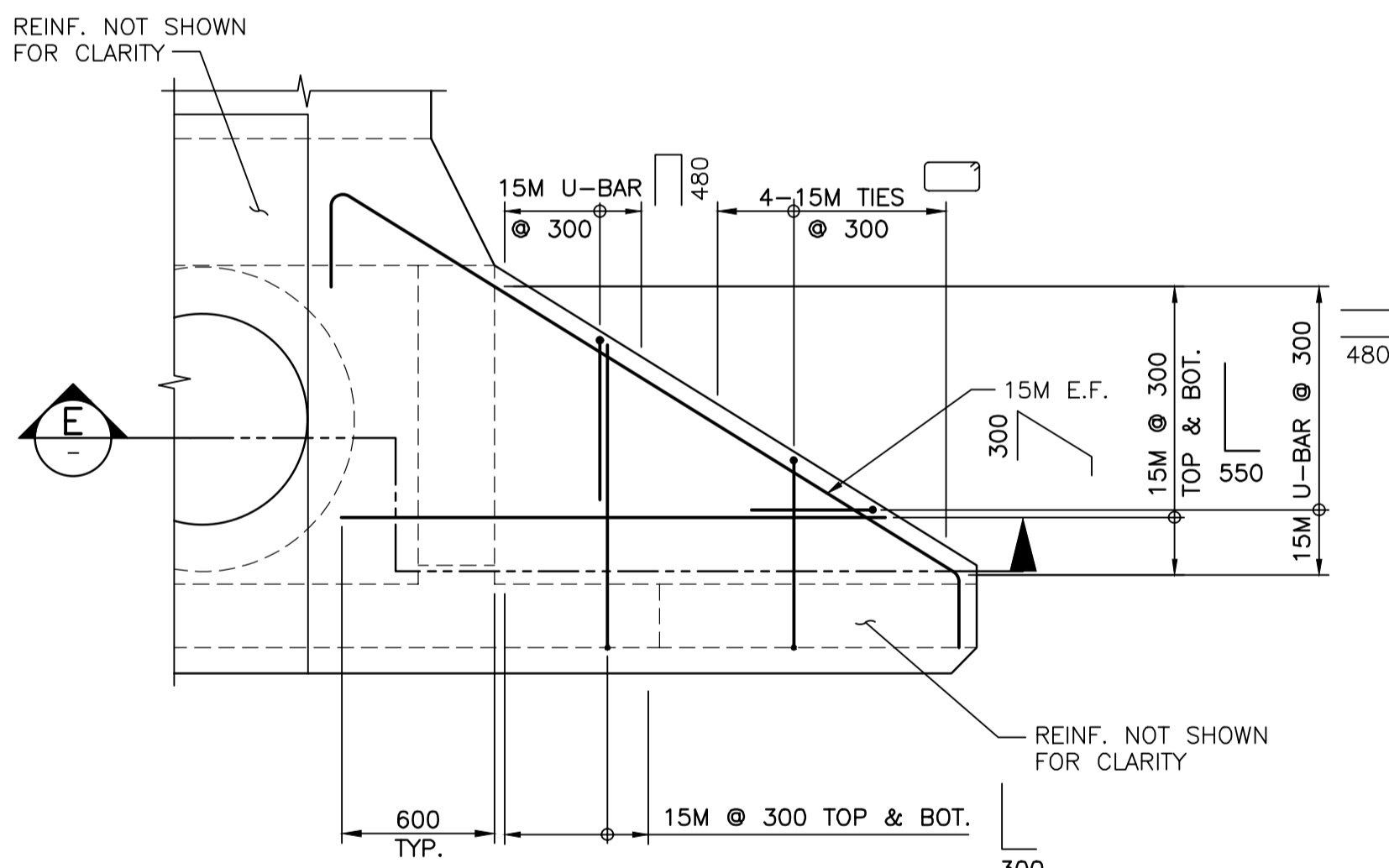
A SECTION
1:25



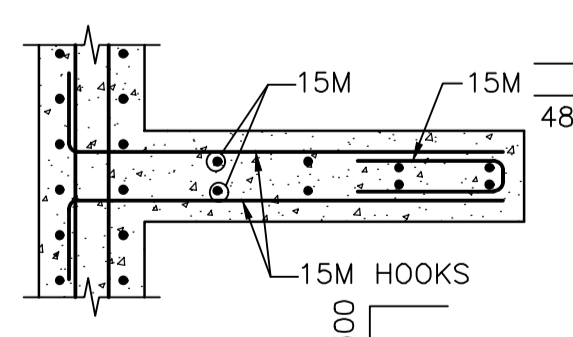
D SECTION
1:25



E SECTION
1:25



C SECTION
1:25



1 DETAIL
1:25

- NOTES:**
- FOR NOTES SEE DWG. G001.
 - FOR PRECAST NOTES SEE DWG SBG1

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	20170305
1	ISSUED FOR TENDER	20170127
A	ISSUED FOR 90% REVIEW	20160912

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

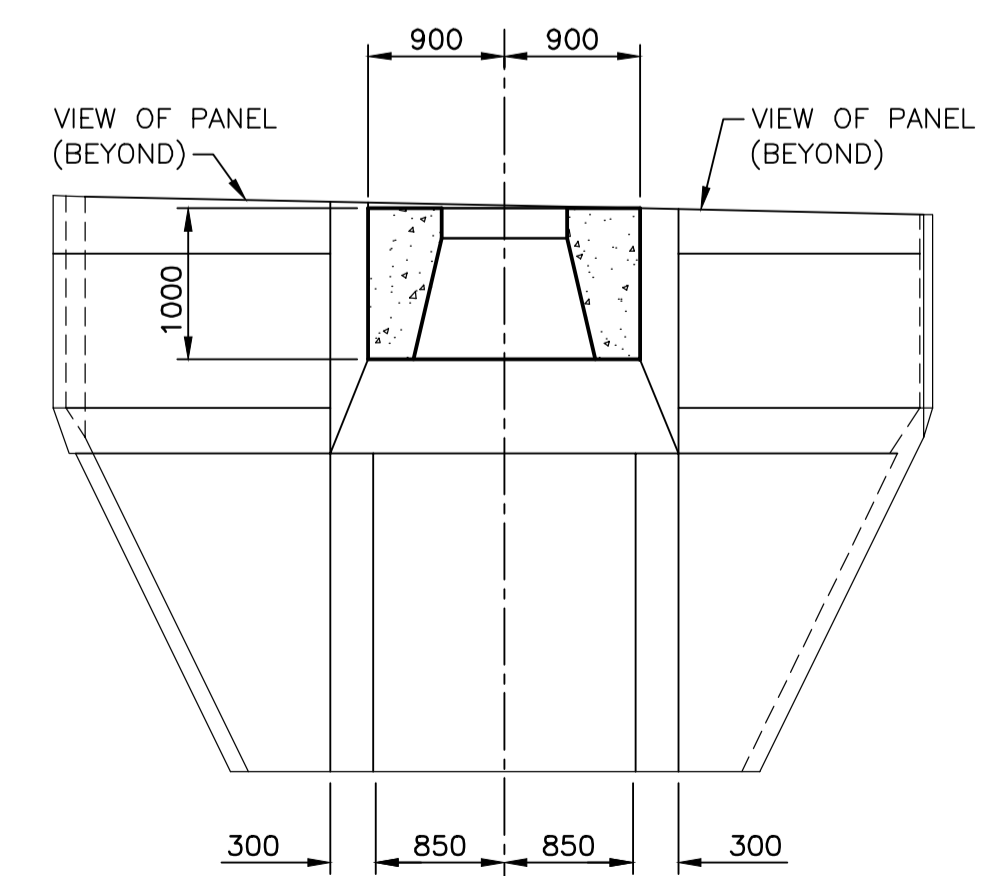
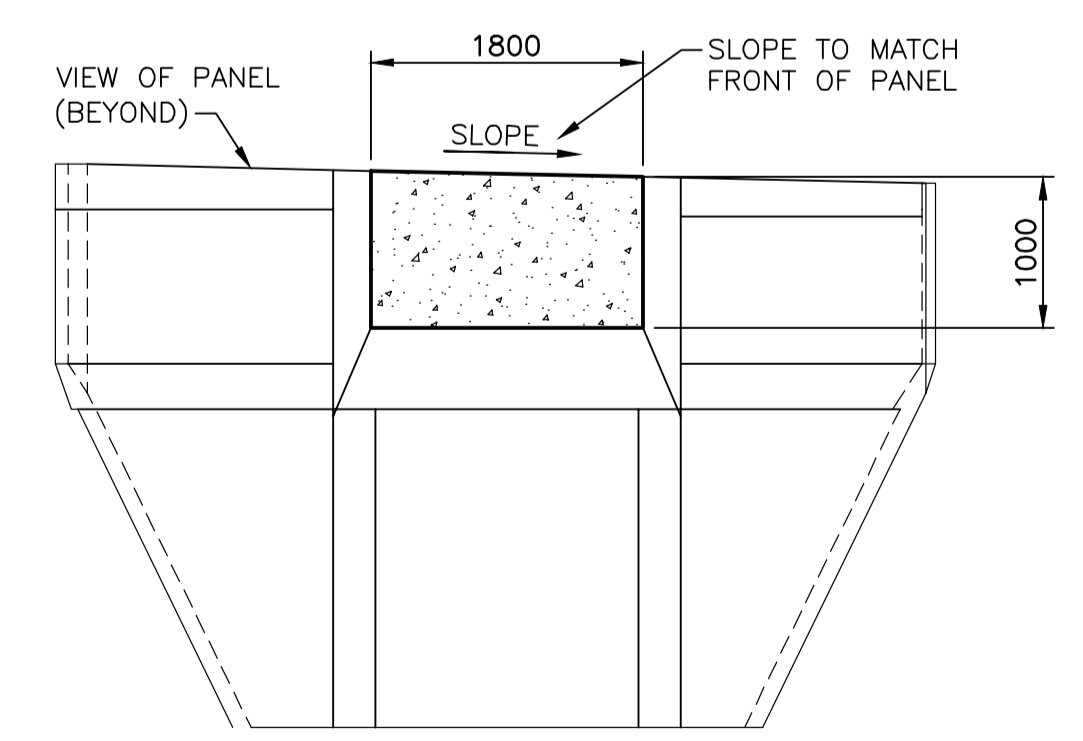
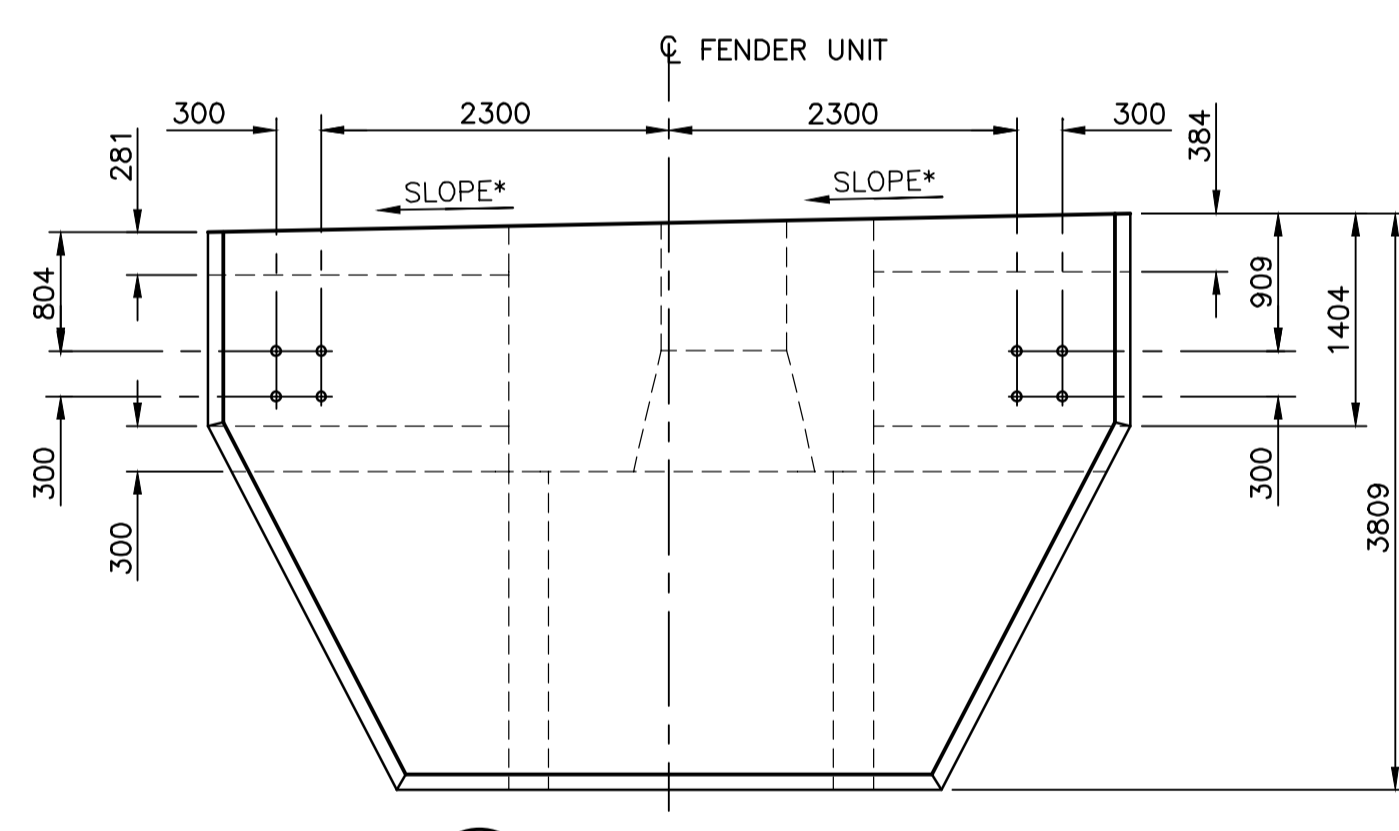
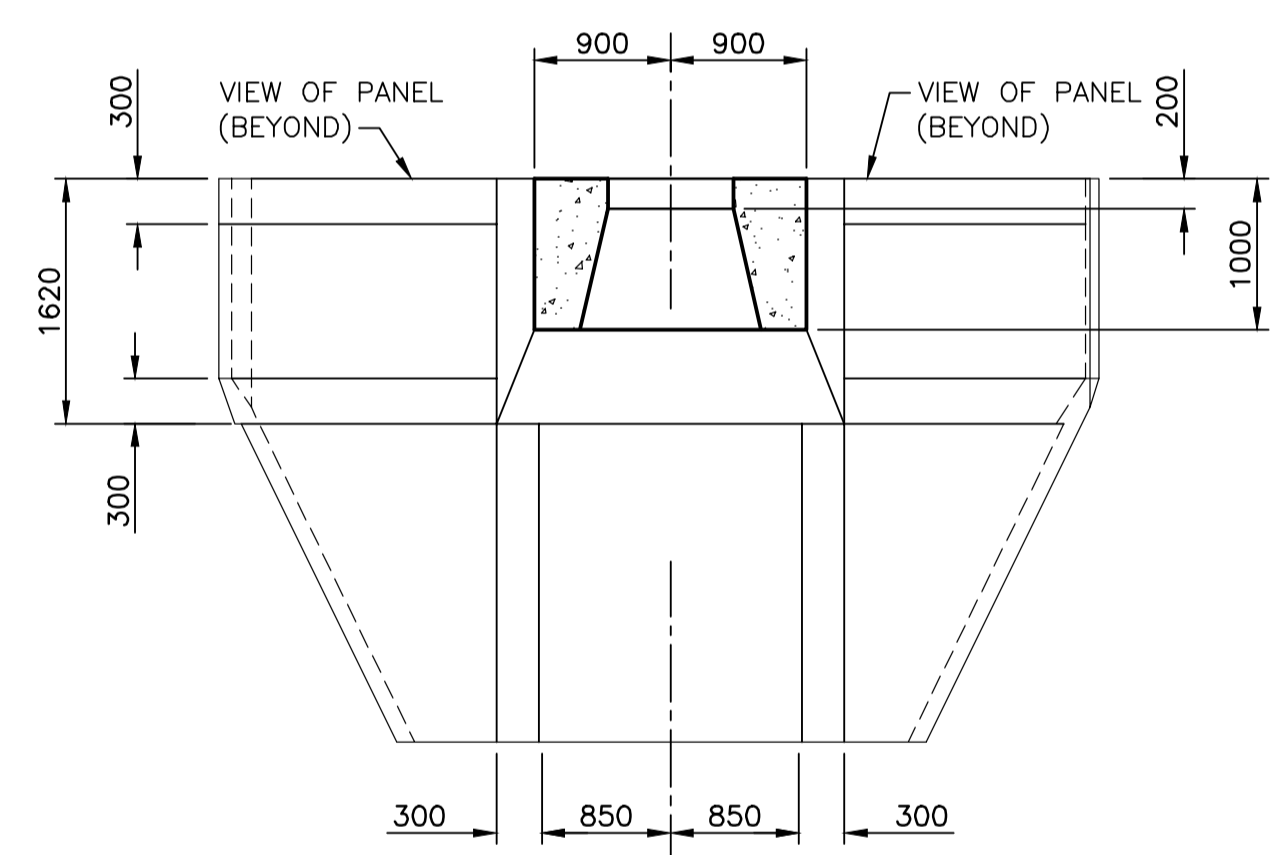
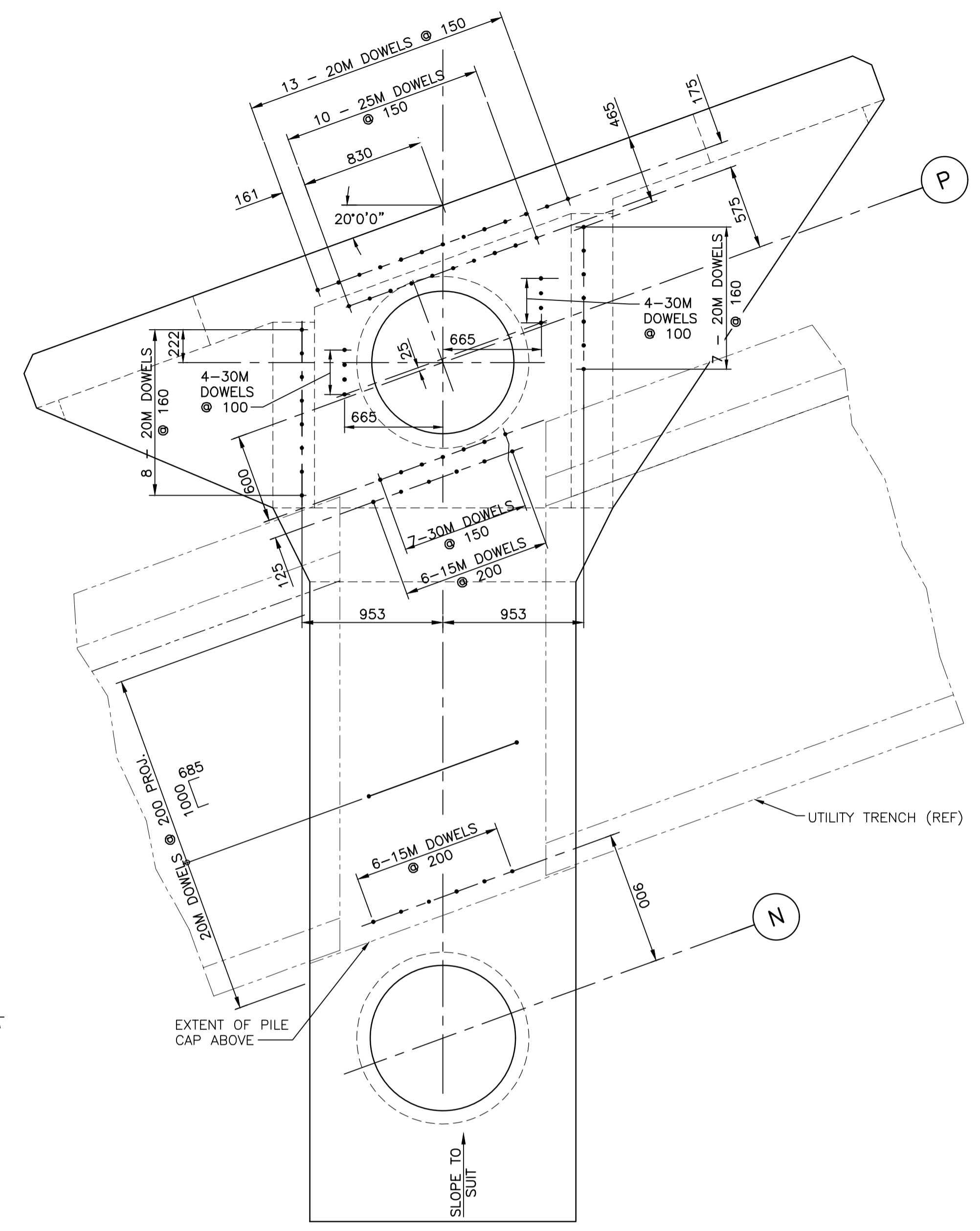
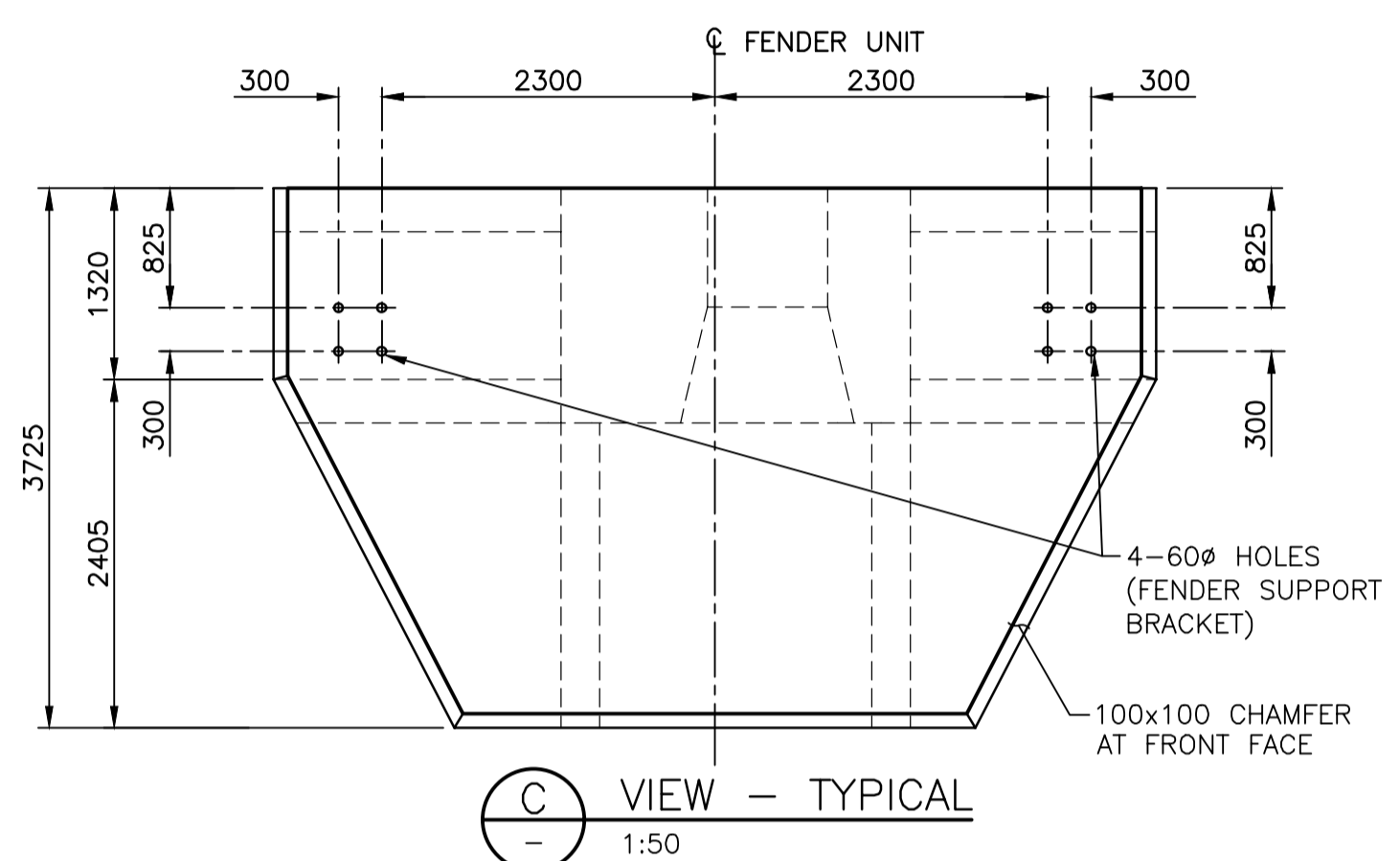
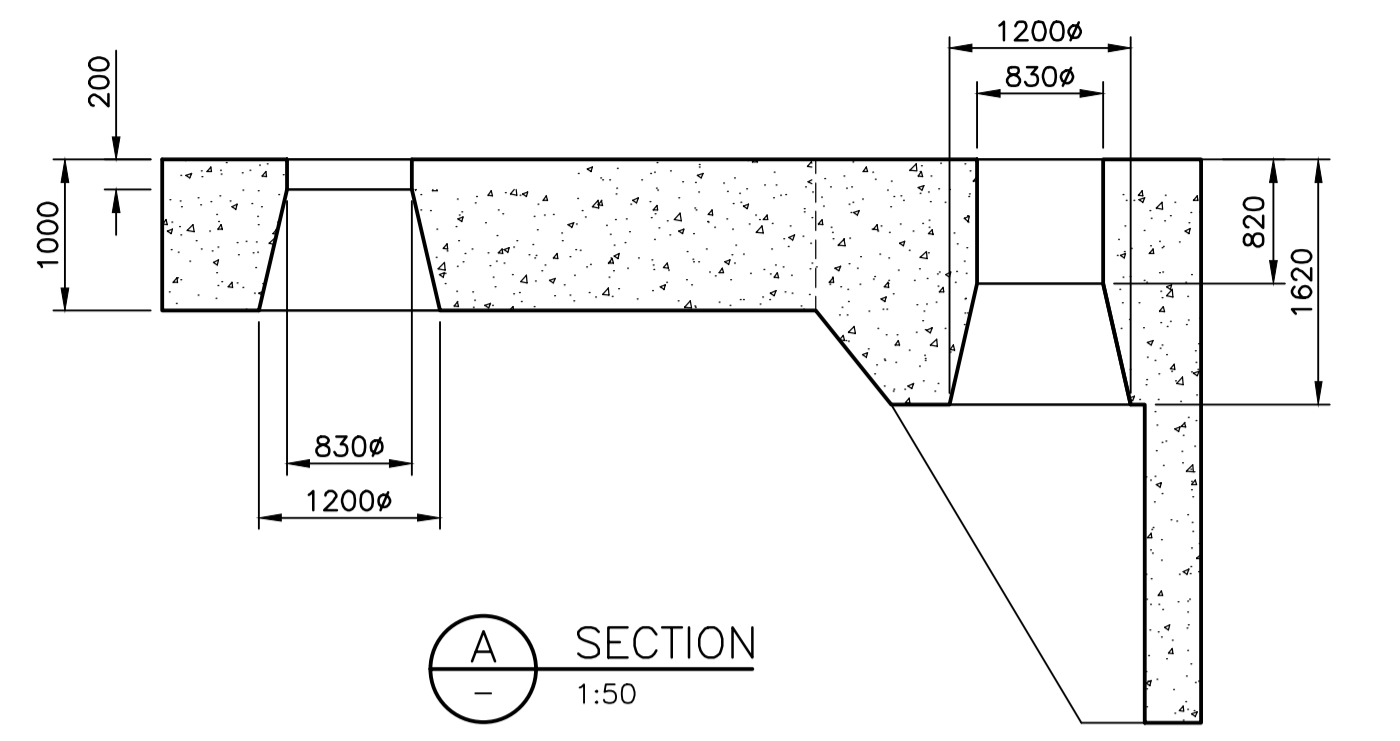
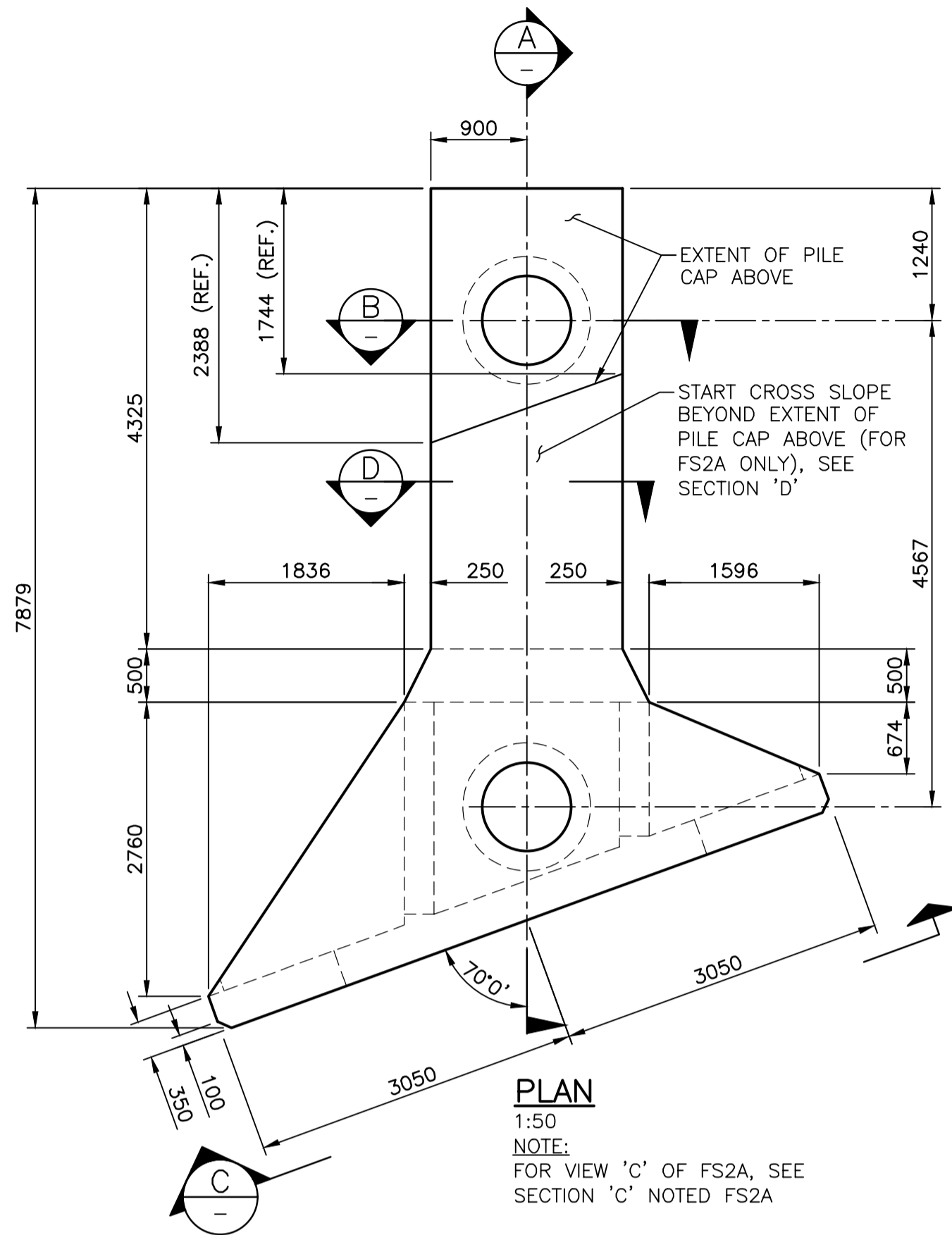
Drawn by/Dessine par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST FENDER SUPPORT
FS1 SHEET 3 OF 3
REINFORCEMENT DETAILS**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S FS1.3	2



- NOTES:**
- FOR NOTES SEE DWG. G001.
 - FOR PRECAST NOTES SEE DWG S BG1

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/05
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

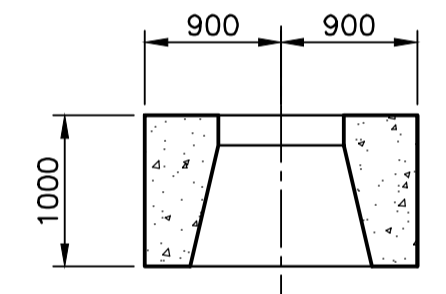
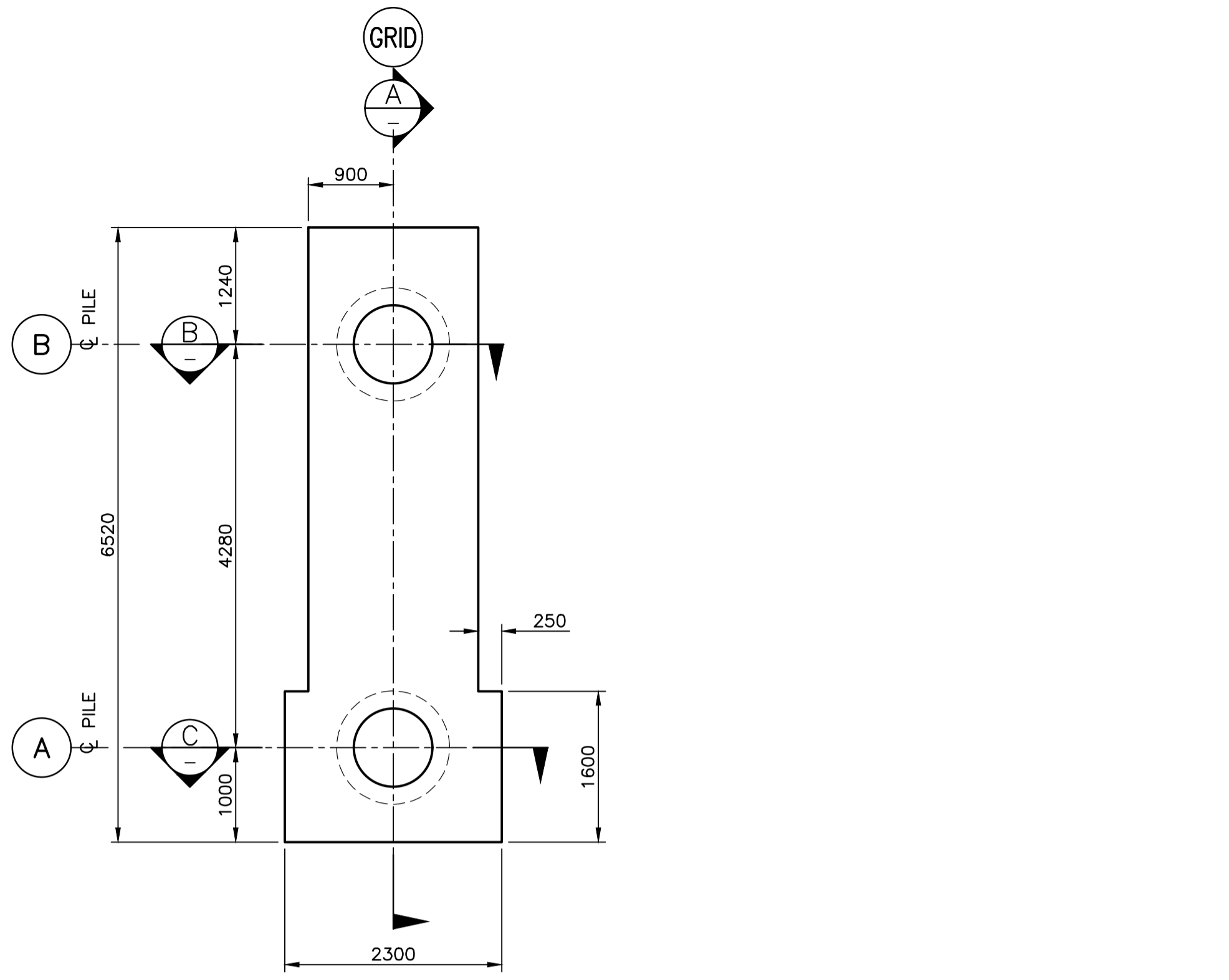
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

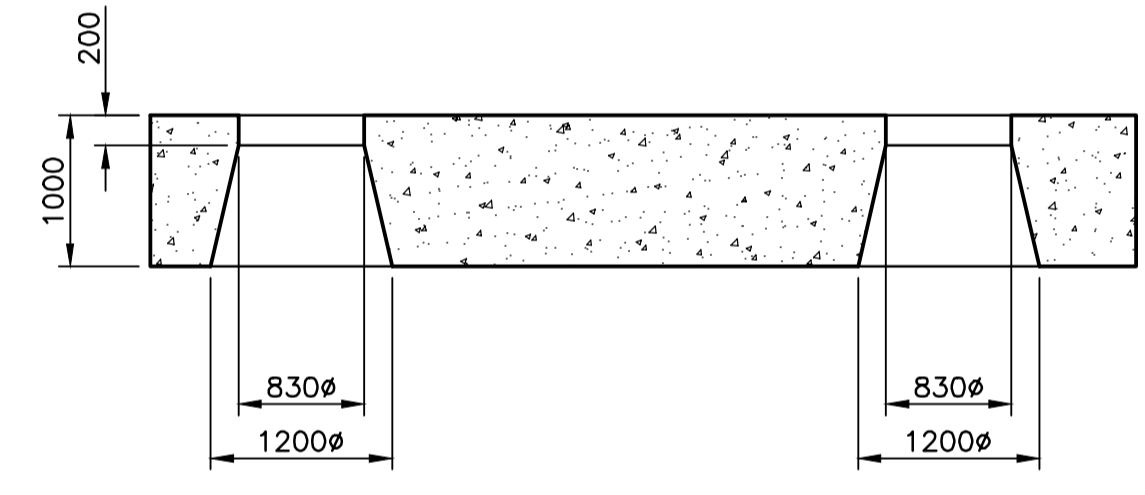
Consultant Signature Only
Designed by/Concept par: KU, TW
Drawn by/Dessiné par: BOG
PWSC Project Manager/Administrateur de Projets TPSCG: PATRICK TRUONG
Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: PREETIPAL PAUL

Drawing title/Titre du dessin
PRECAST FENDER SUPPORT FS2

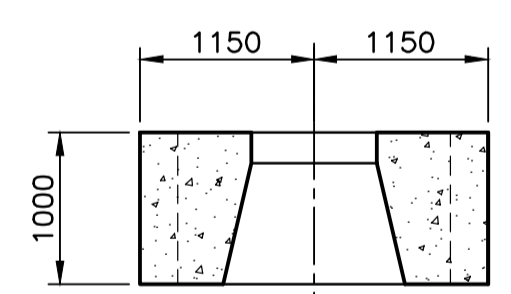
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S FS2.1	2



B SECTION
1:50



A SECTION
1:50



C SECTION
1:50

Revision/	Description/	Date/
Révision/	Description/	Date/
2	RE-ISSUED FOR TENDER	2017/03/05
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

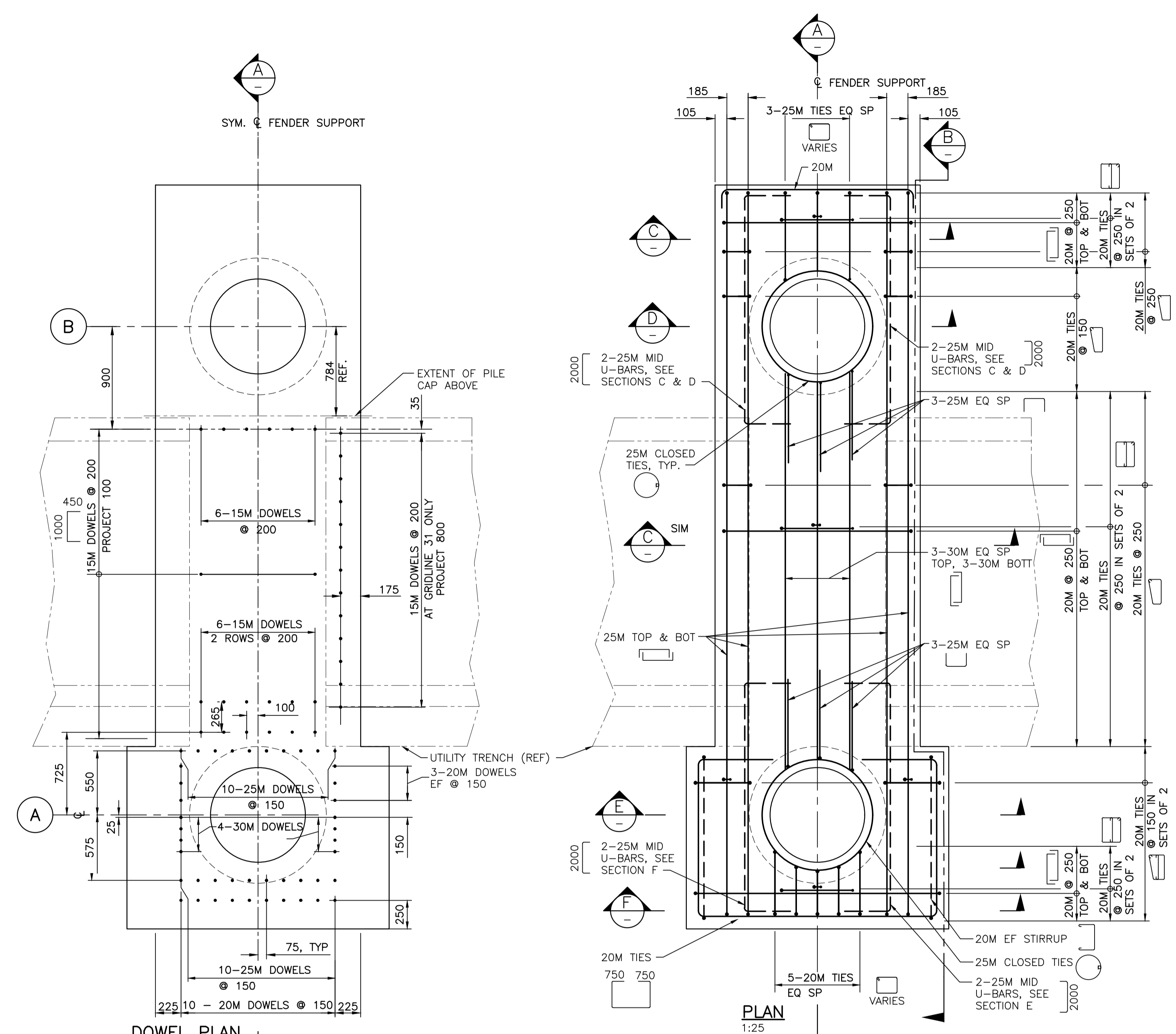
PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

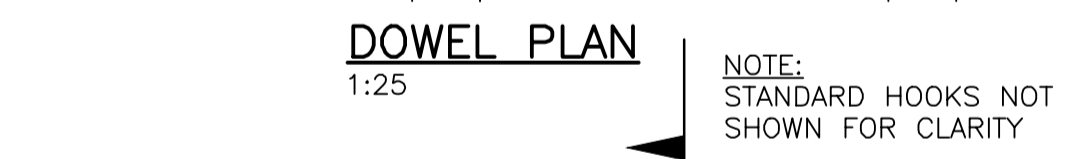
Drawing title/Titre du dessin
**PRECAST FENDER SUPPORT
FS3 SHEET 1 OF 2**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S FS3.1	2

- NOTES:**
- FOR NOTES SEE DWG. G001.
 - FOR PRECAST NOTES SEE DWG SBG1

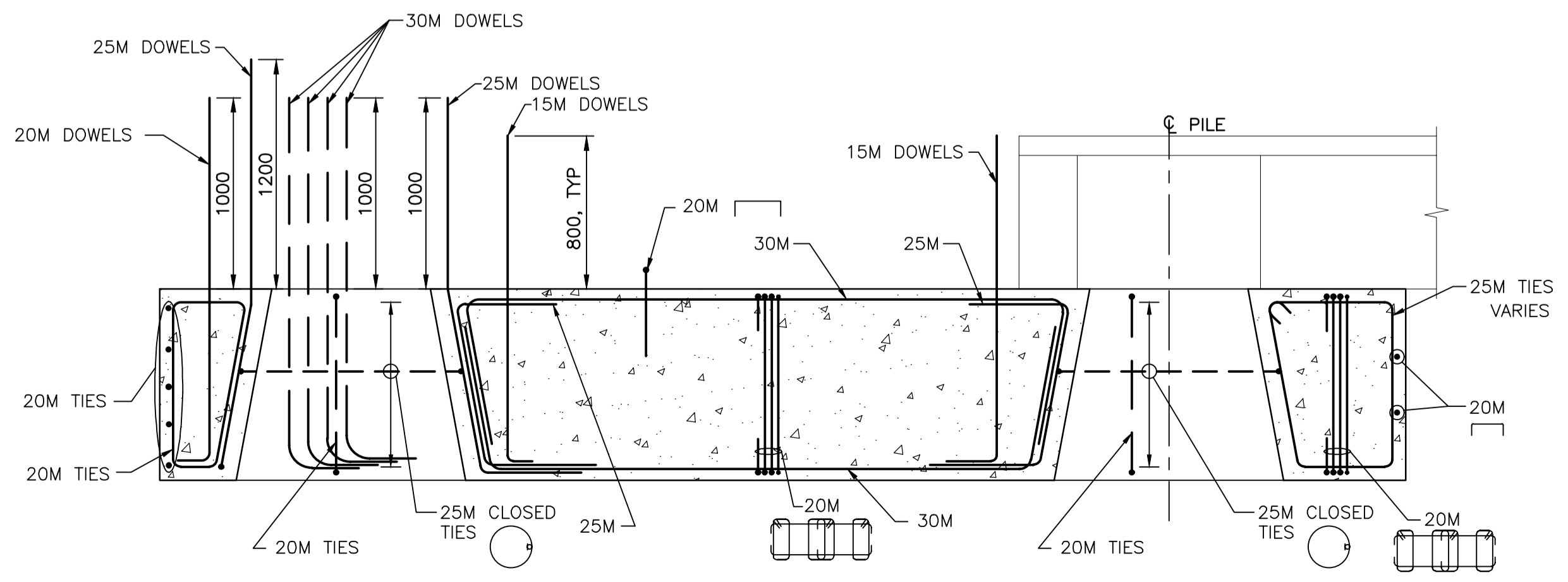


PLAN
1:25



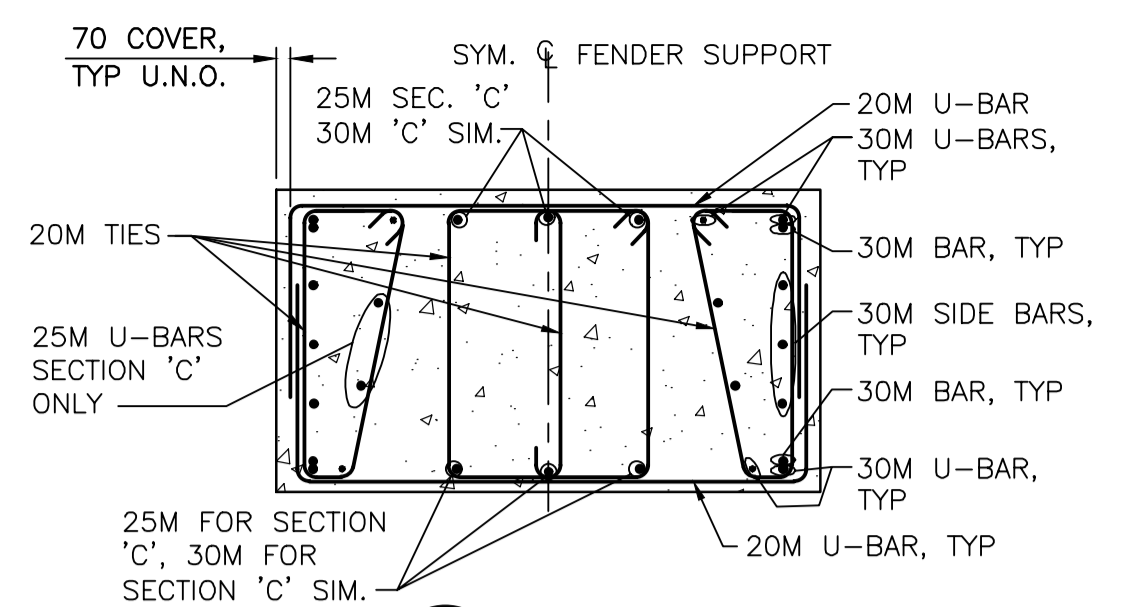
DOWEL PLAN
1:25

NOTE:
STANDARD HOOKS NOT SHOWN FOR CLARITY



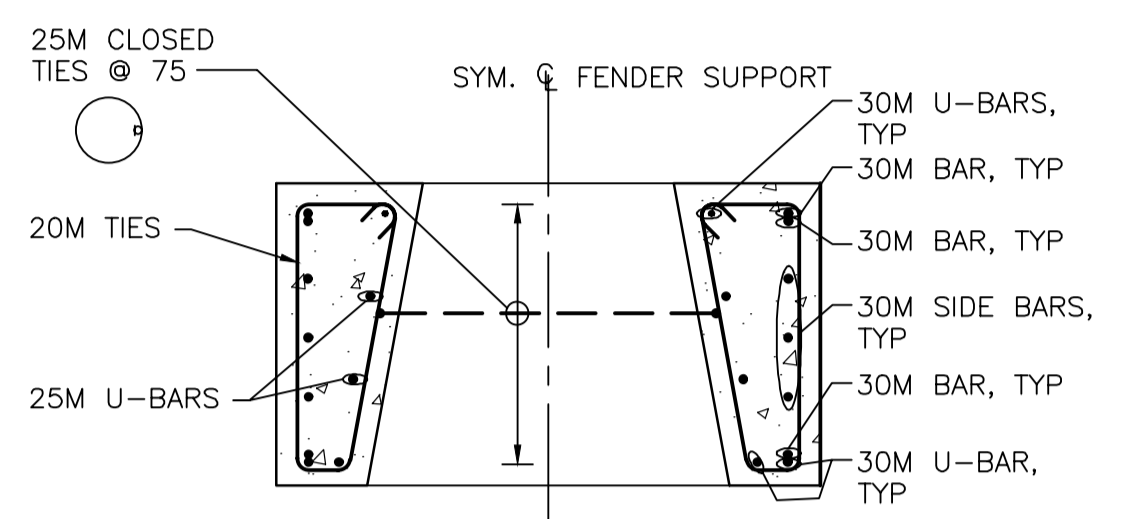
A SECTION
1:25

NOTE:
TOP AND BOT REINF. NOT SHOWN FOR CLARITY

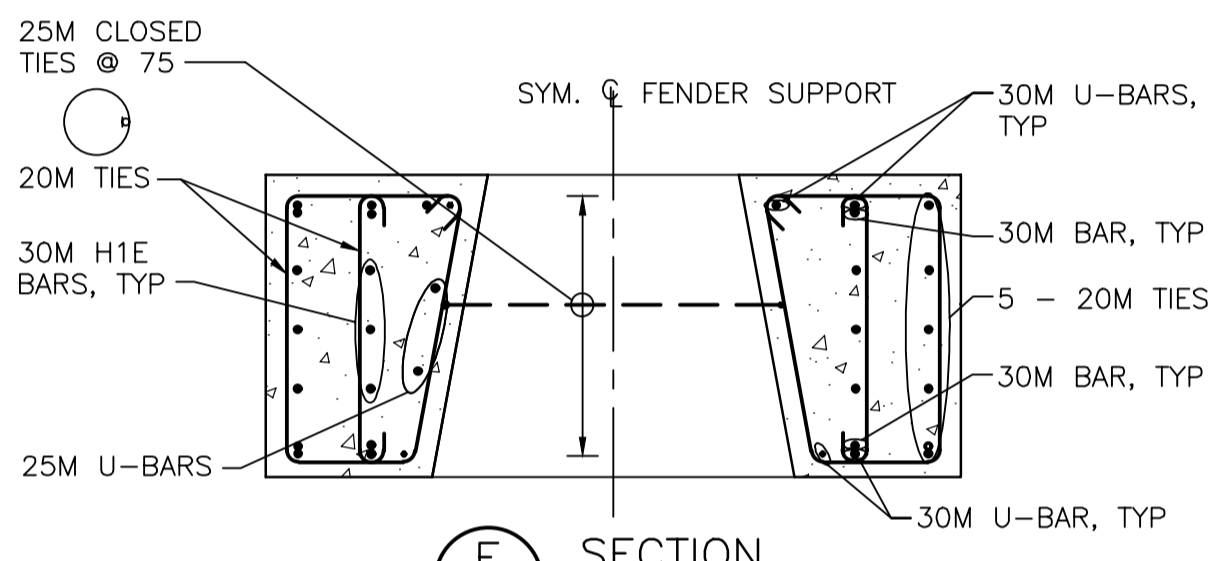


C SECTION
1:25

NOTE:
DOWELS NOT SHOWN FOR CLARITY

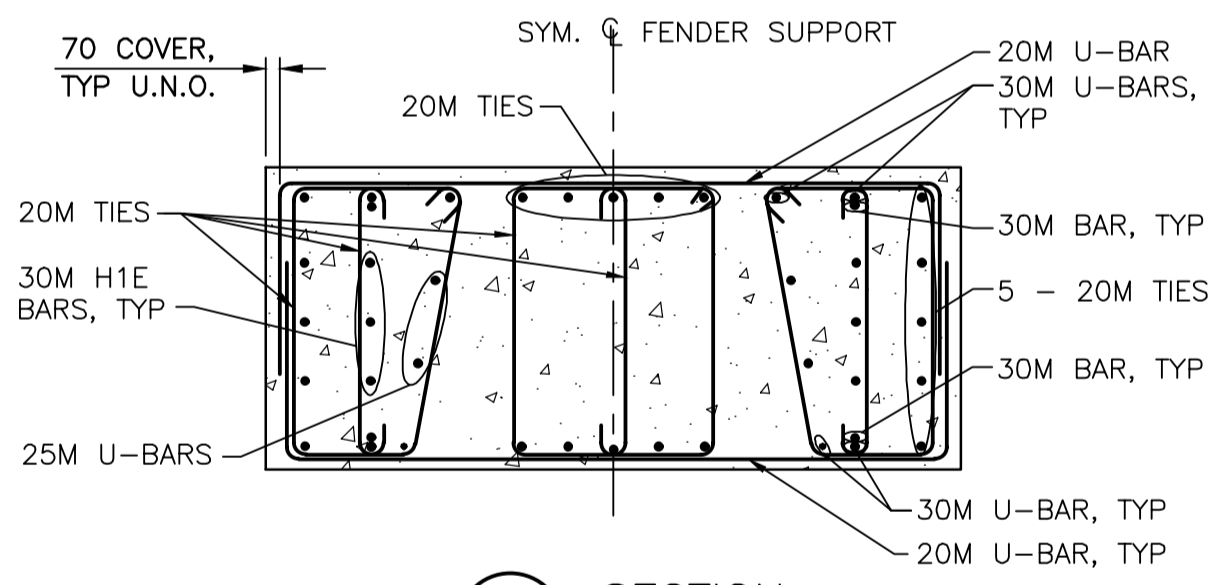


D SECTION
1:25



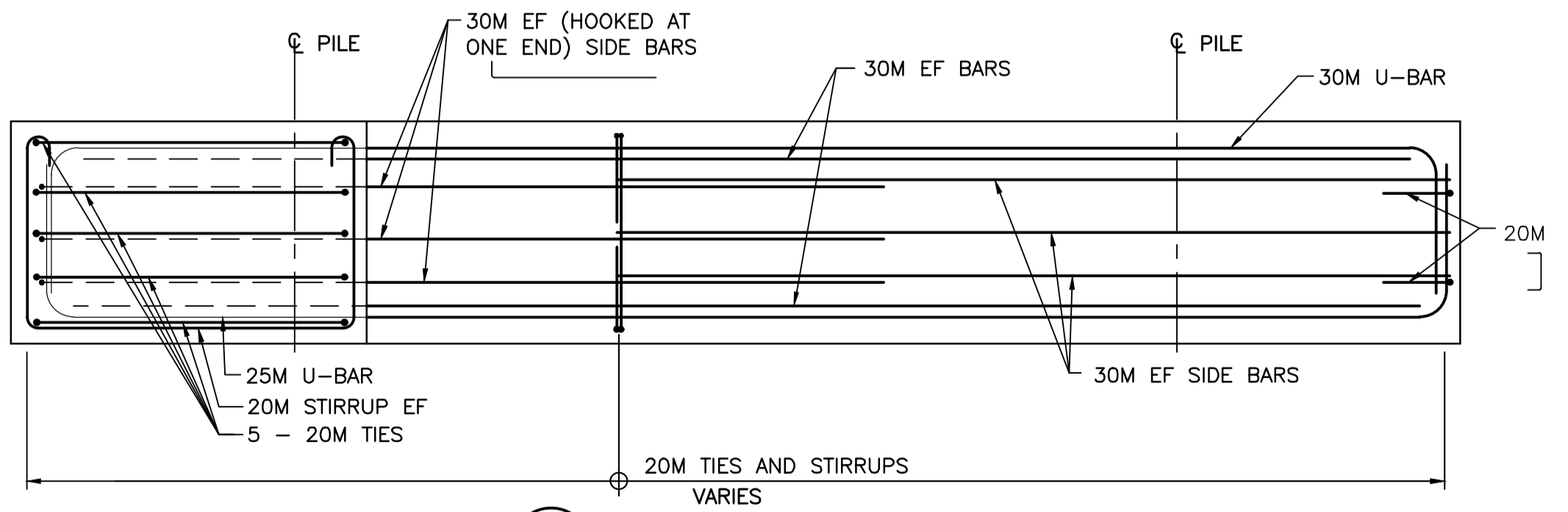
E SECTION
1:25

NOTE:
DOWELS NOT SHOWN FOR CLARITY



F SECTION
1:25

NOTE:
DOWELS NOT SHOWN FOR CLARITY



B SECTION
1:25

NOTE:
DOWELS NOT SHOWN FOR CLARITY

NOTES:

- FOR NOTES SEE DWG. G001.
- FOR PRECAST NOTES SEE DWG SBC1

Revision/	Description/Description	Date/Date
2	RESUBMITTED FOR TENDER	2017/03/05
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/09/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

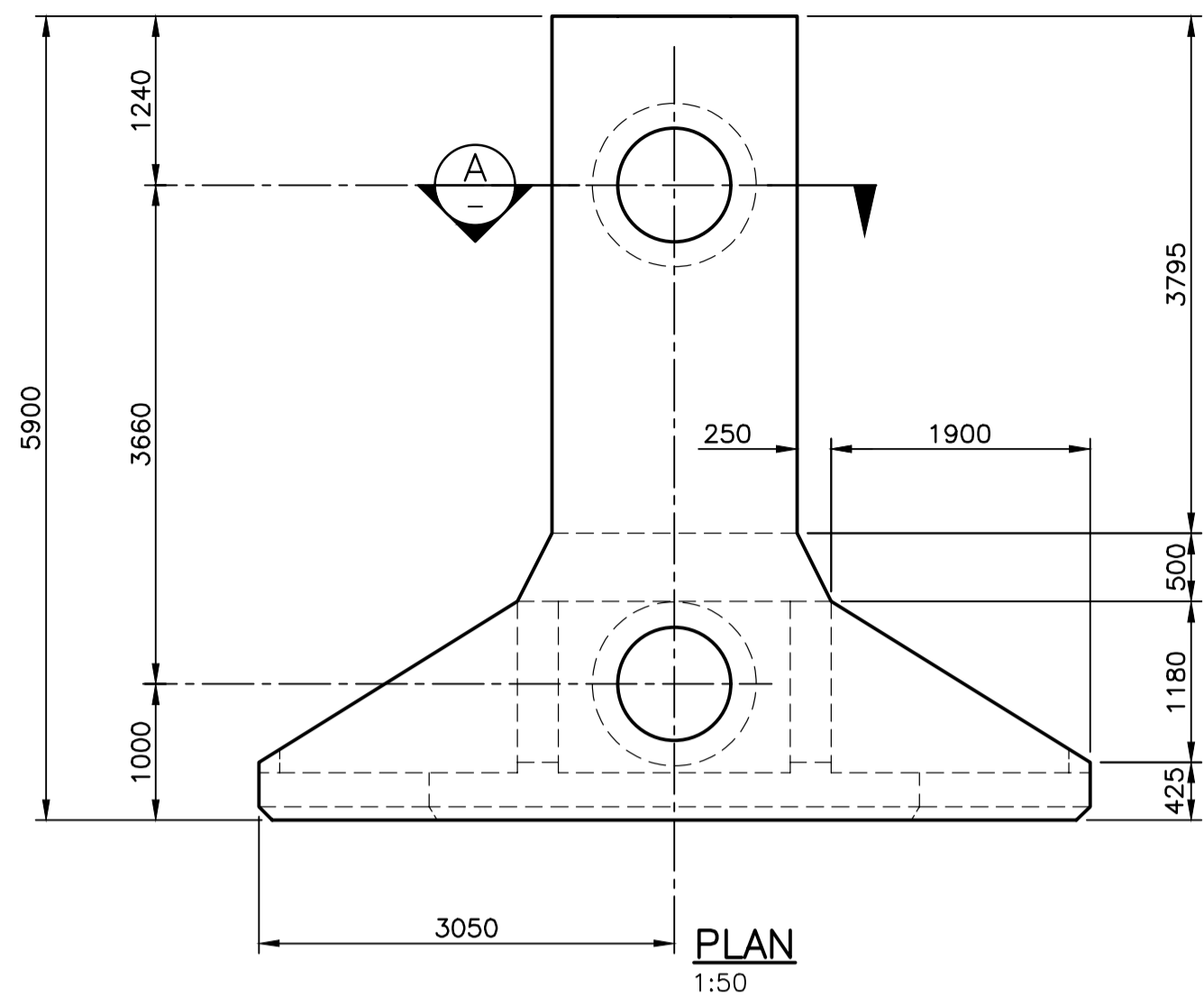
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

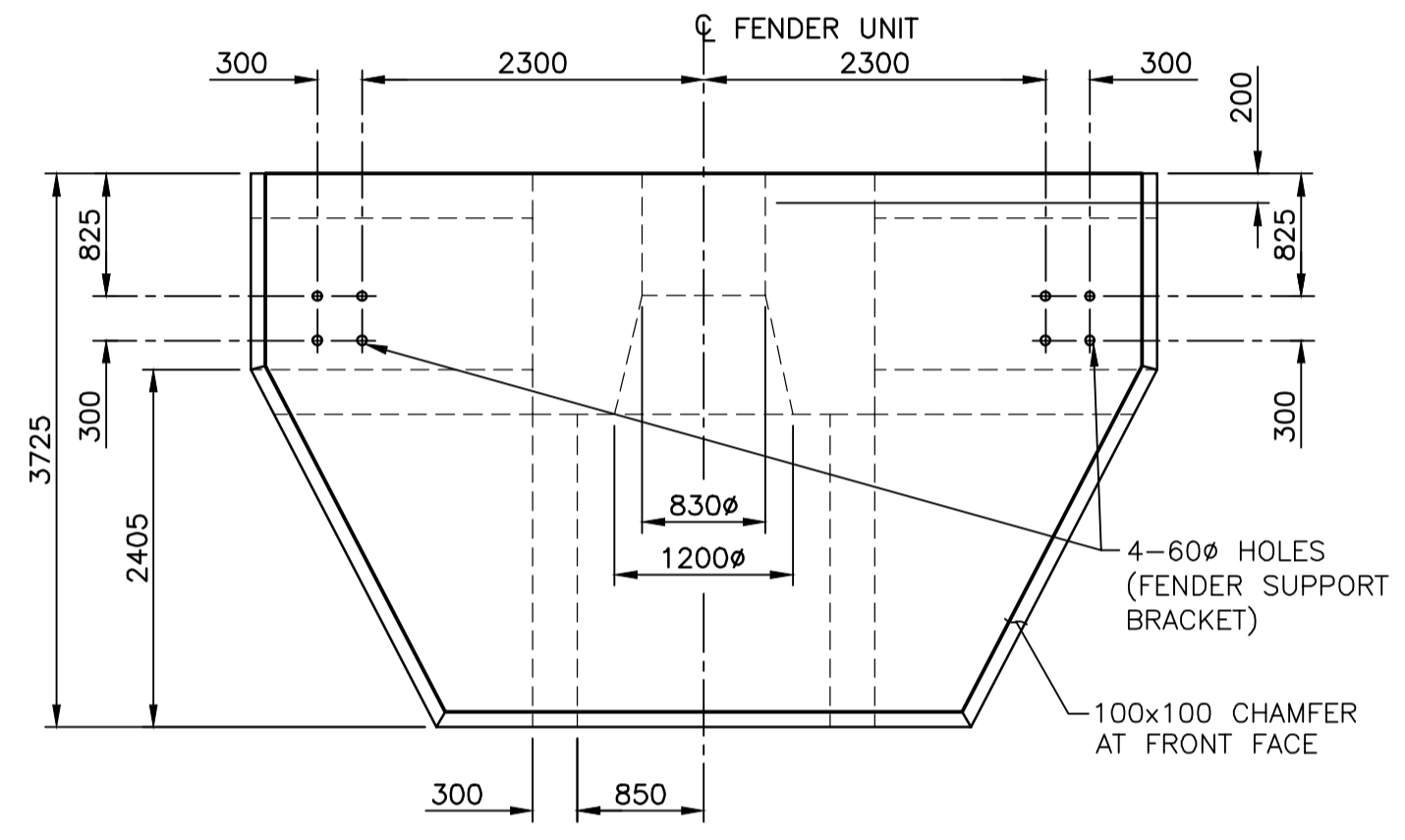
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST FENDER SUPPORT
FS3 SHEET 2 OF 2**

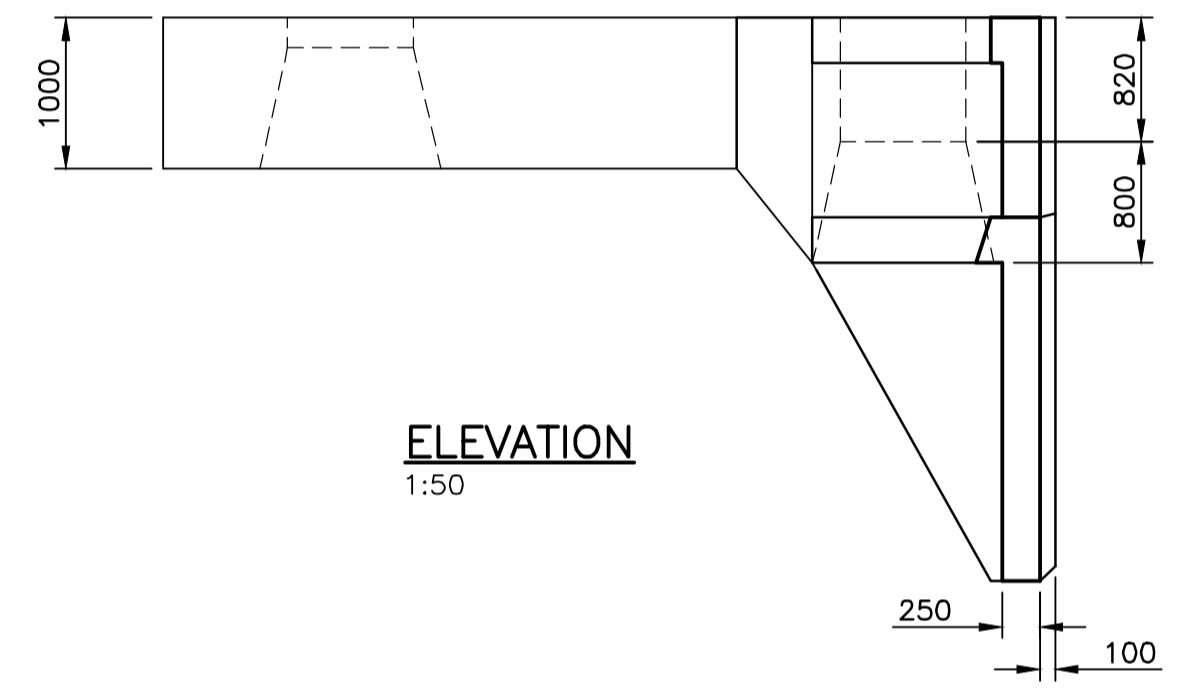
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S FS3.2	2



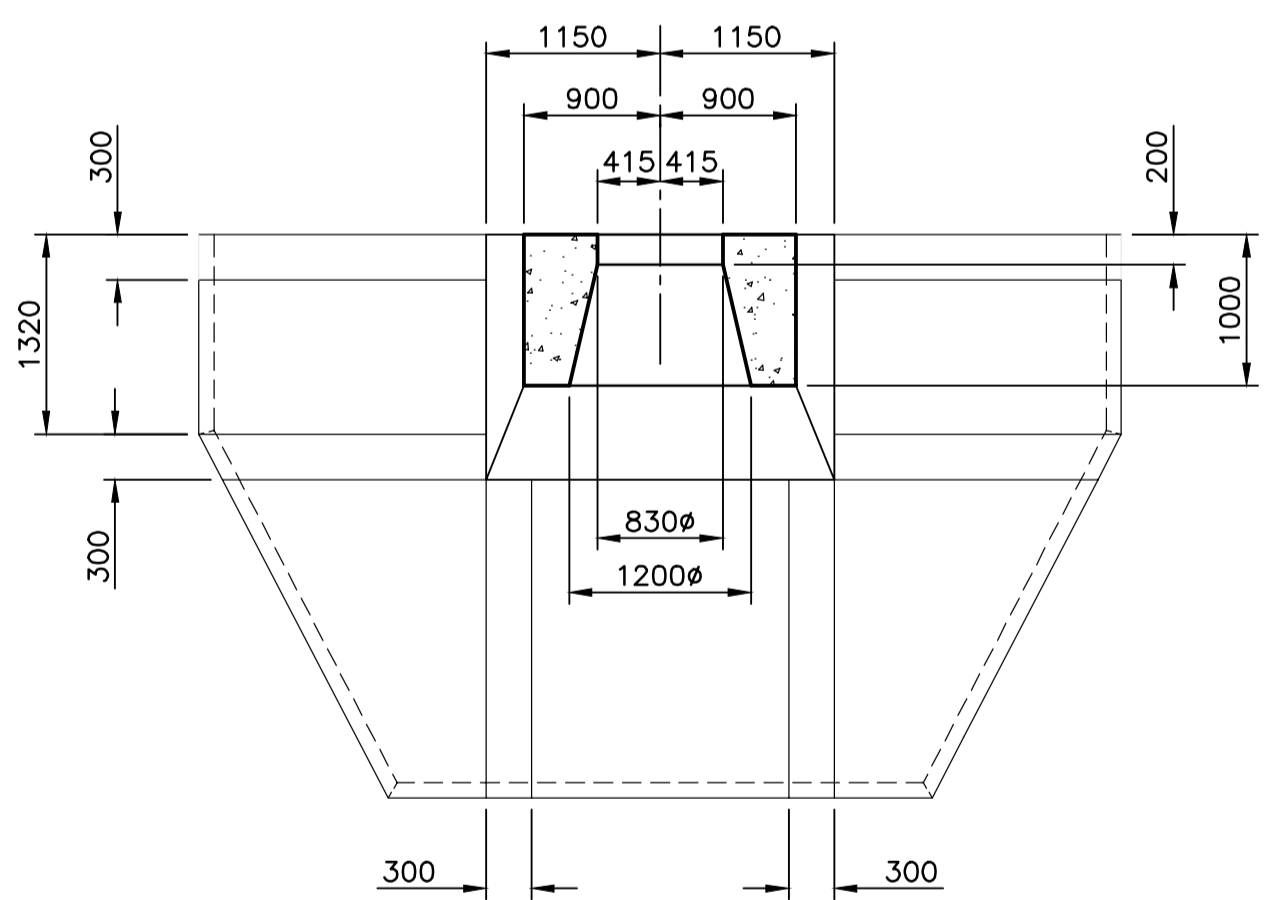
PLAN
1:50



FRONT VIEW
1:50



ELEVATION
1:50



SECTION A
1:50

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/05
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 90% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

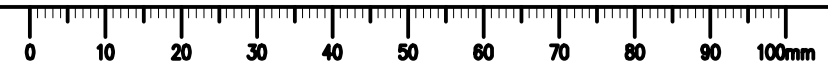
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

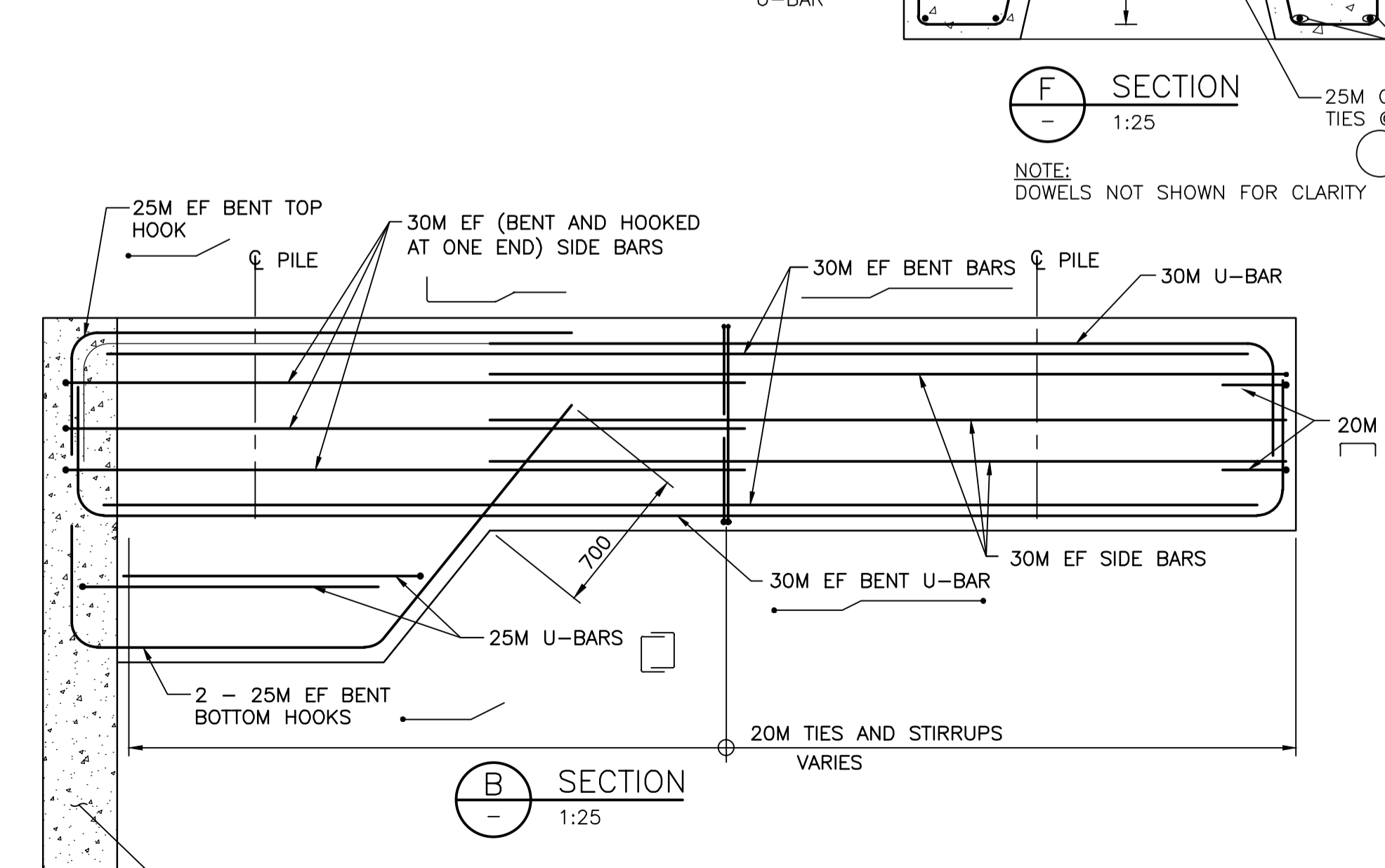
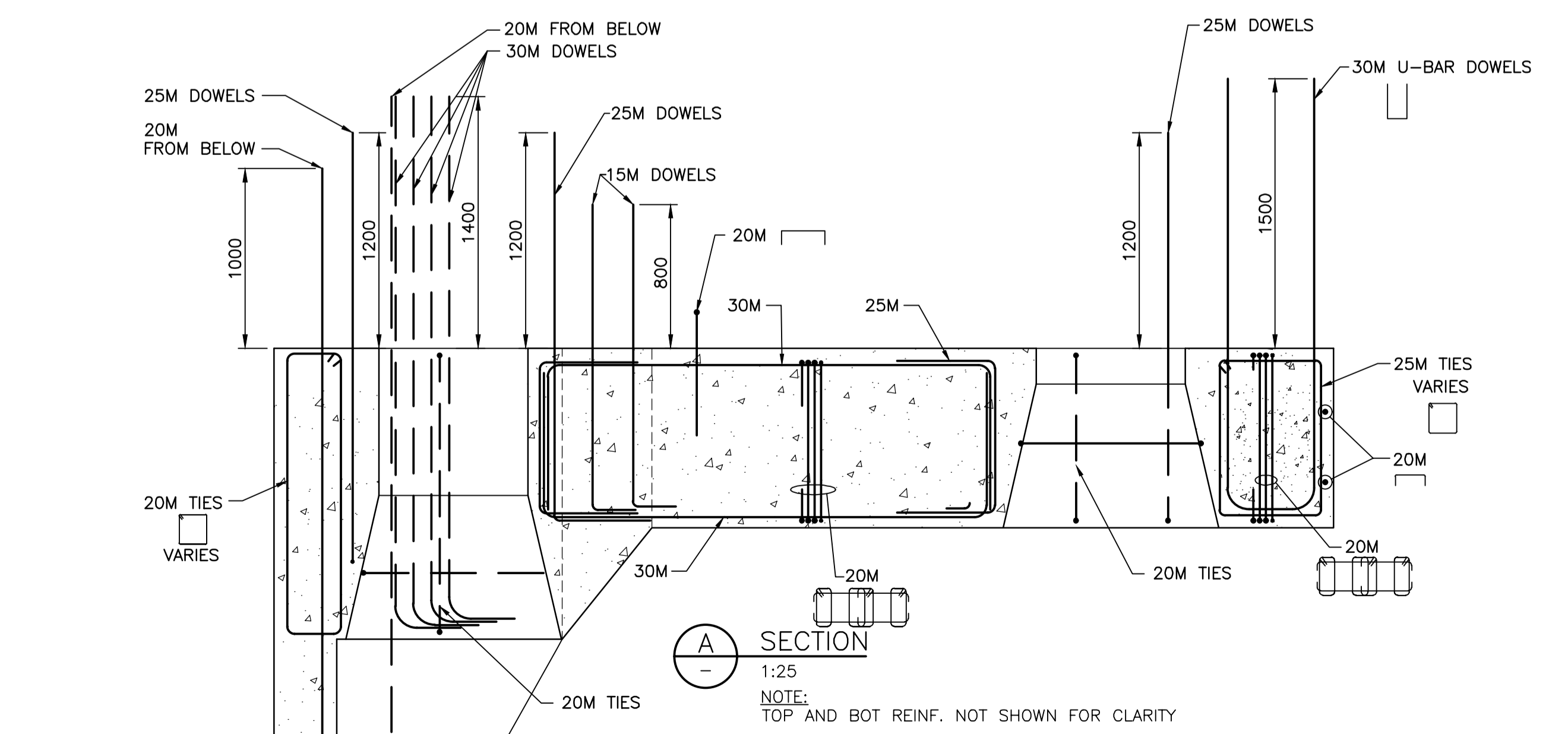
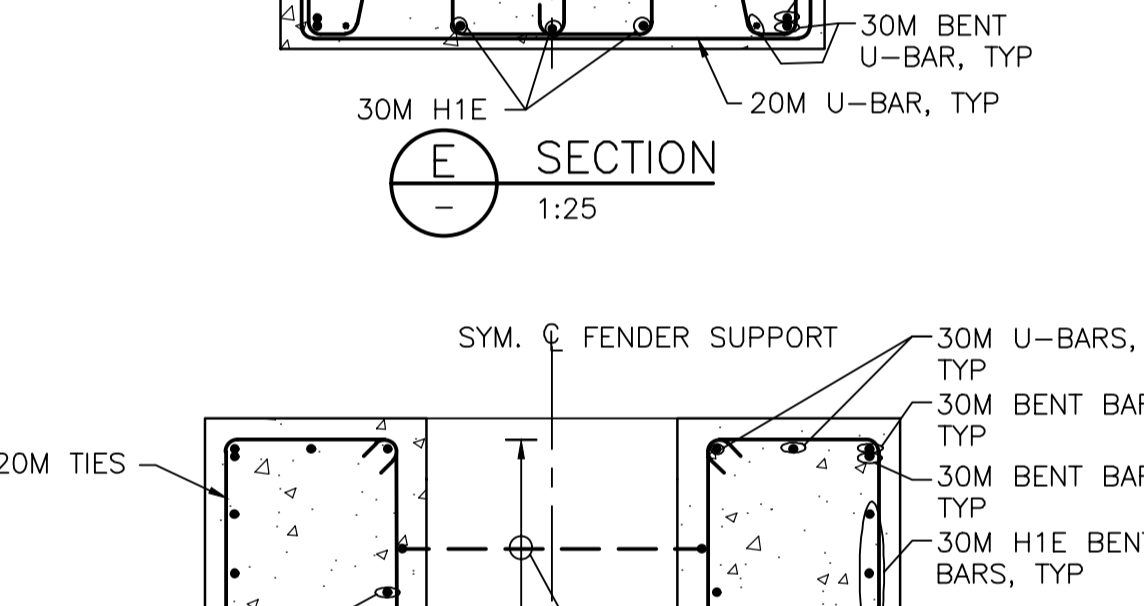
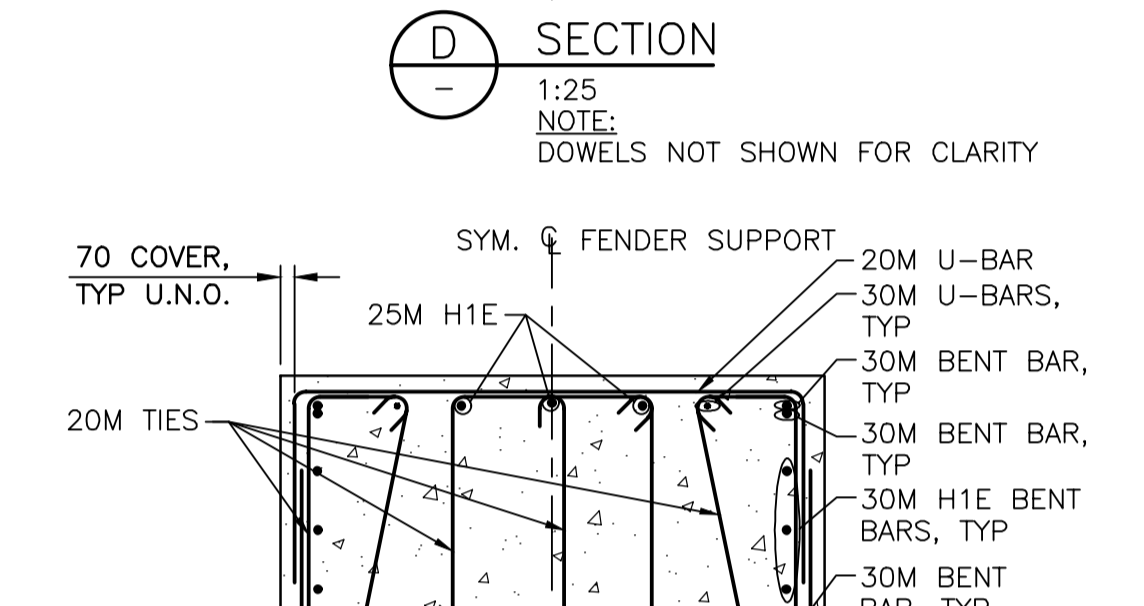
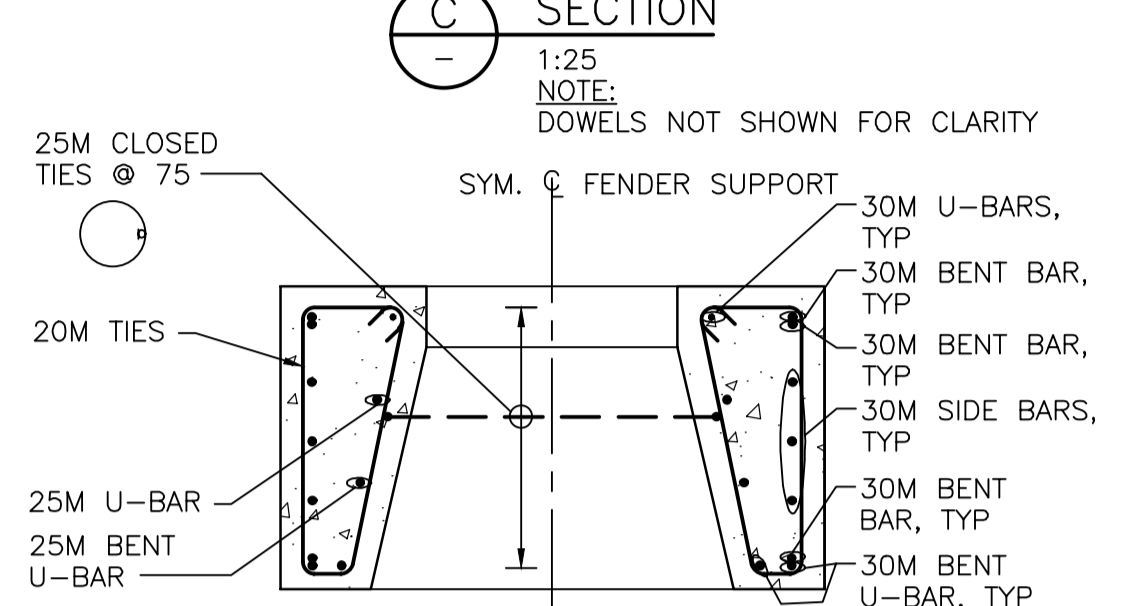
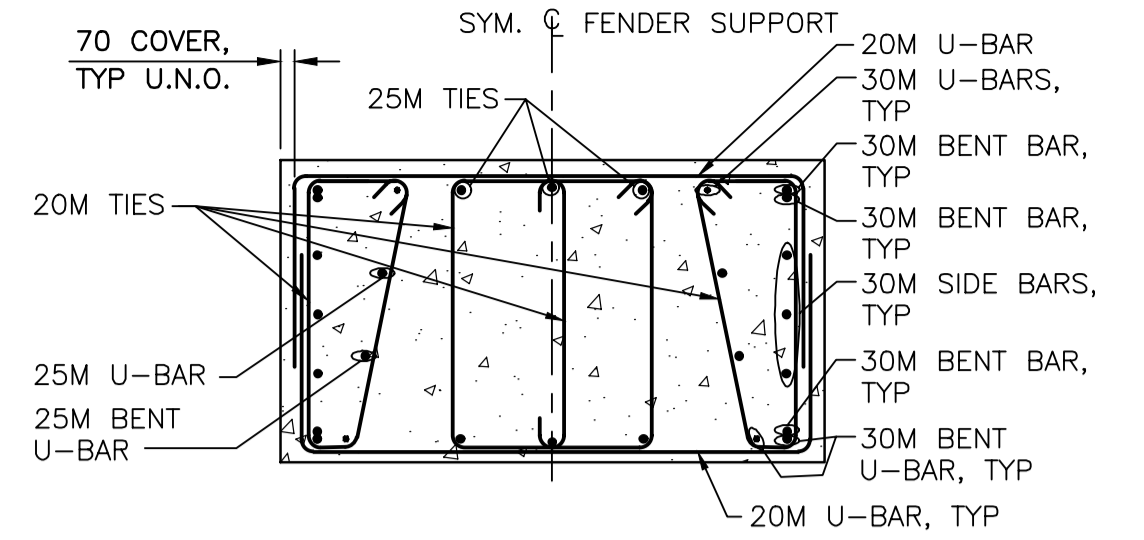
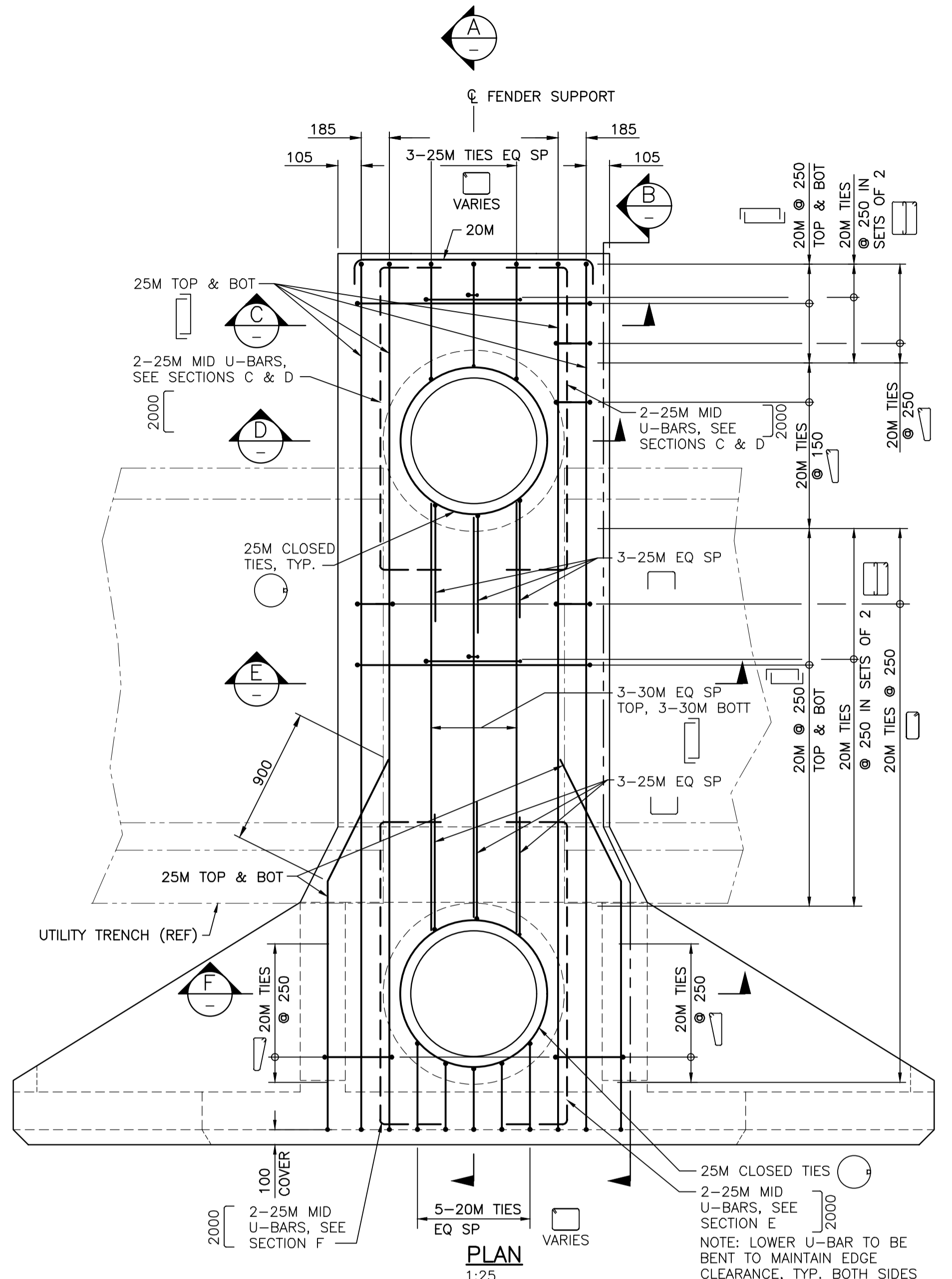
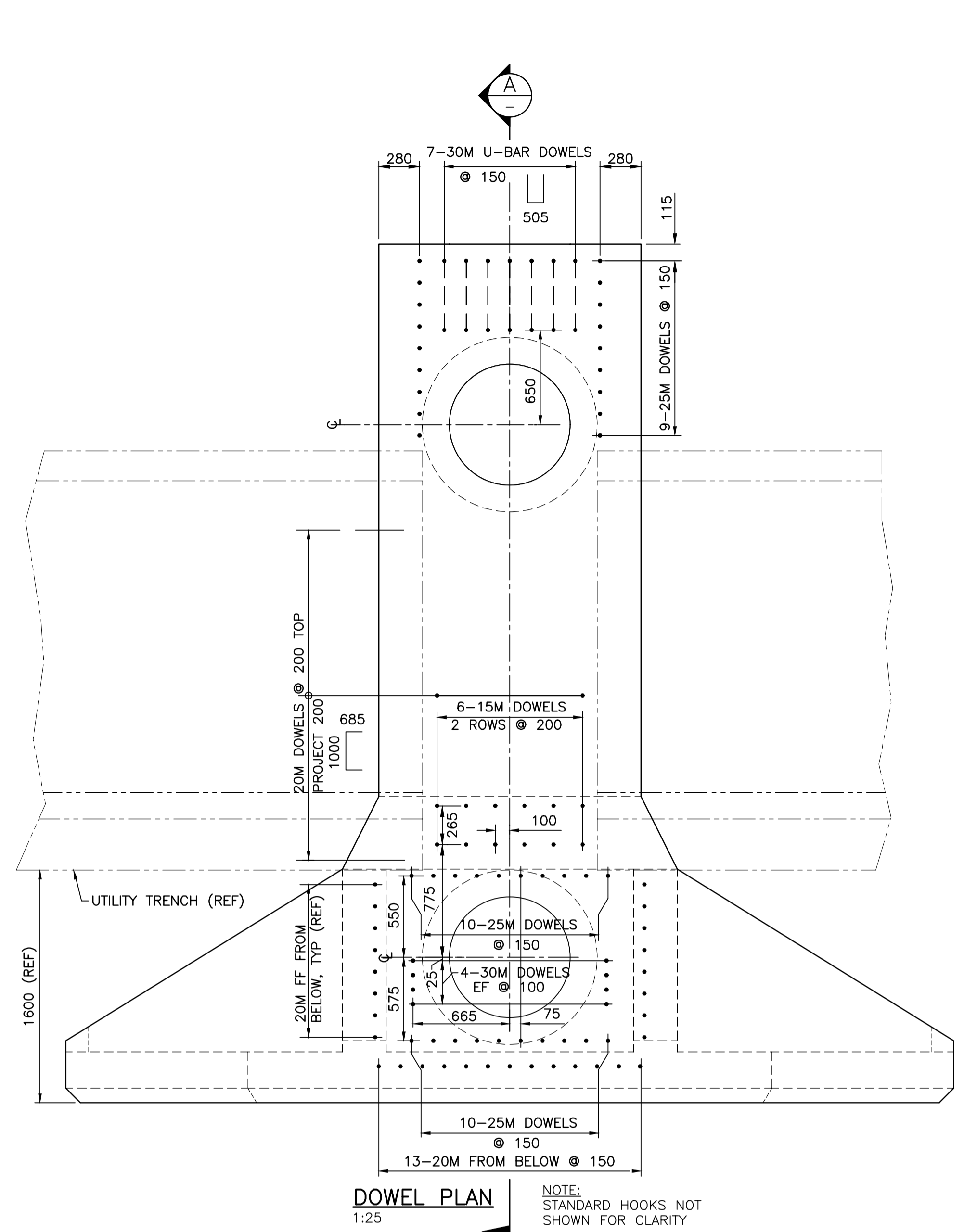
Drawing title/Titre du dessin
**PRECAST FENDER SUPPORT
FS4 SHEET 1 OF 2**

Project No./No. du projet	Sheet/Feuille	Revision no./Le Révision no.
R.026729.002	S FS4.1	2

NOTES:

- FOR NOTES SEE DWG. G001.
- FOR PRECAST NOTES SEE DWG SGB1





- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/05
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/09/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

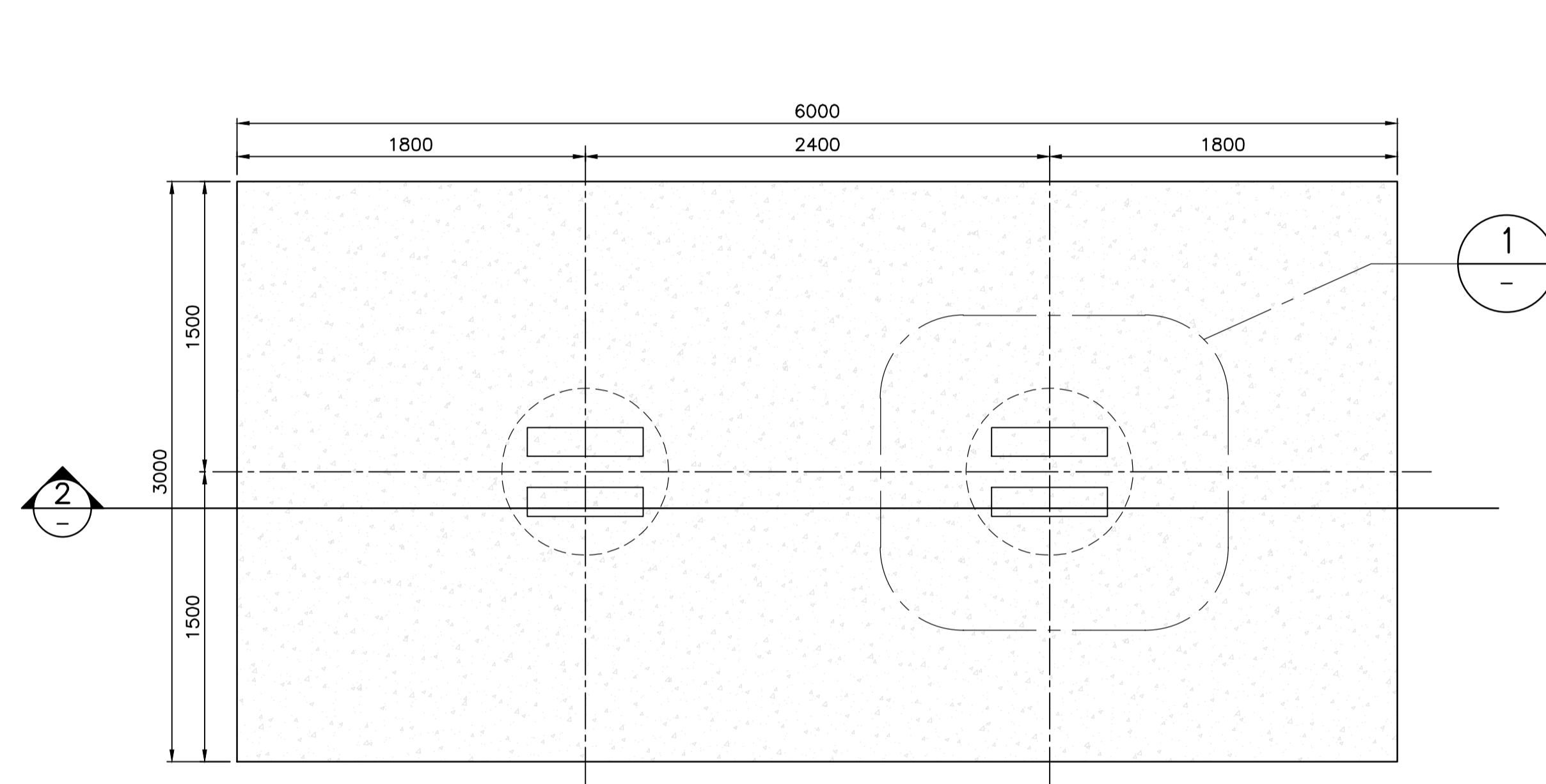
PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

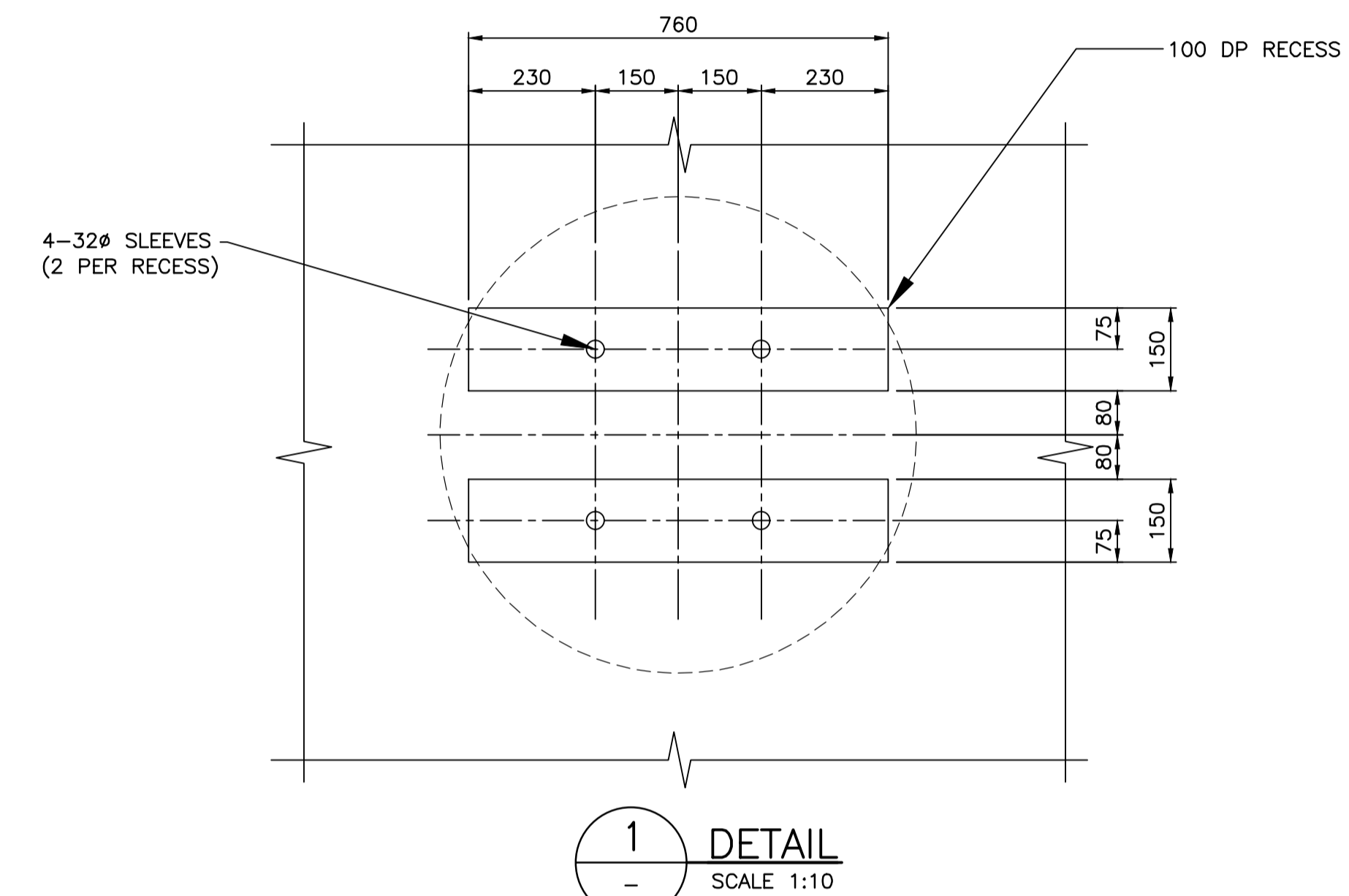
Drawing title/Titre du dessin

**PRECAST FENDER SUPPORT
FS4 SHEET 2 OF 2
REINFORCEMENT DETAILS**

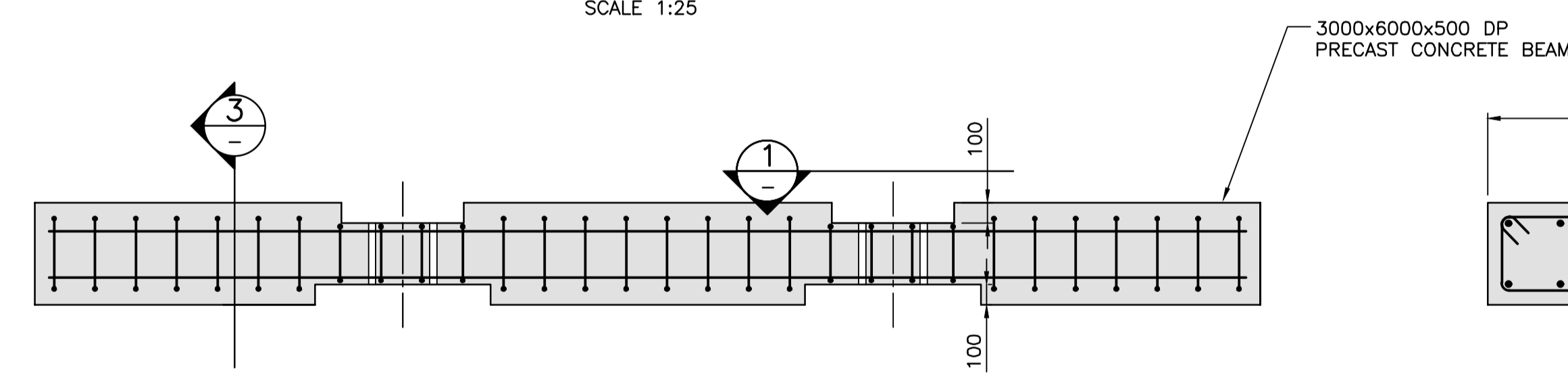
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S FS4.2	2



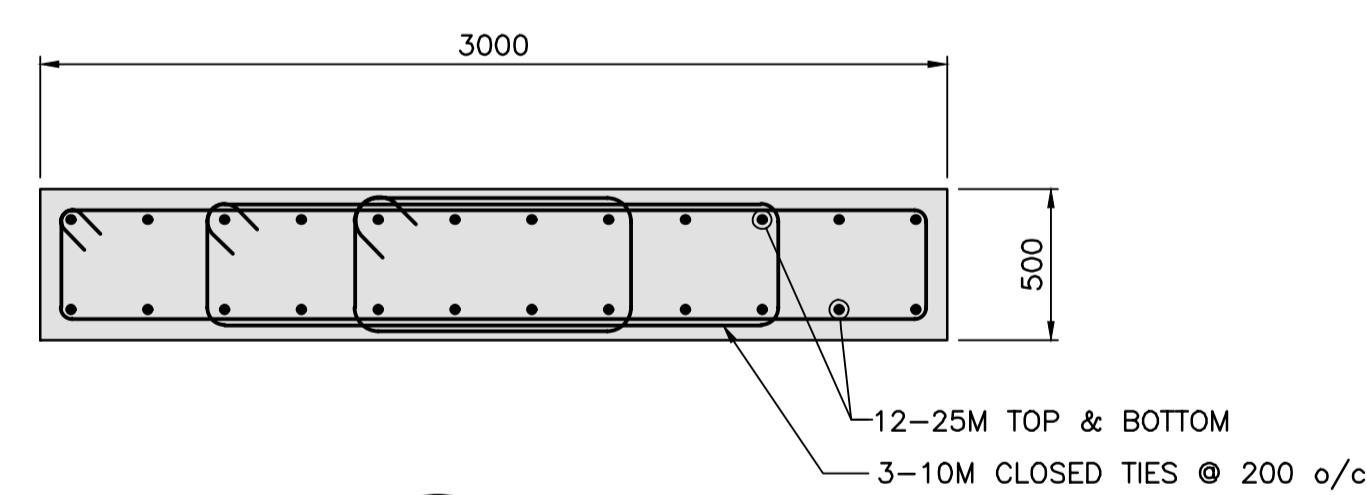
PLAN
SCALE 1:25



1 DETAIL
SCALE 1:10



2 SECTION
SCALE 1:25



3 SECTION
SCALE 1:25

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

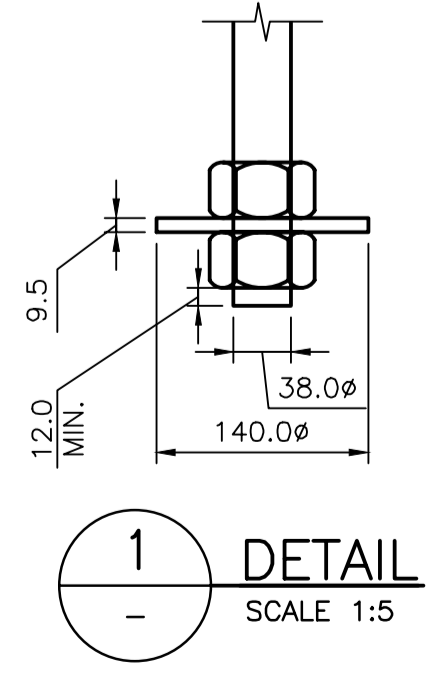
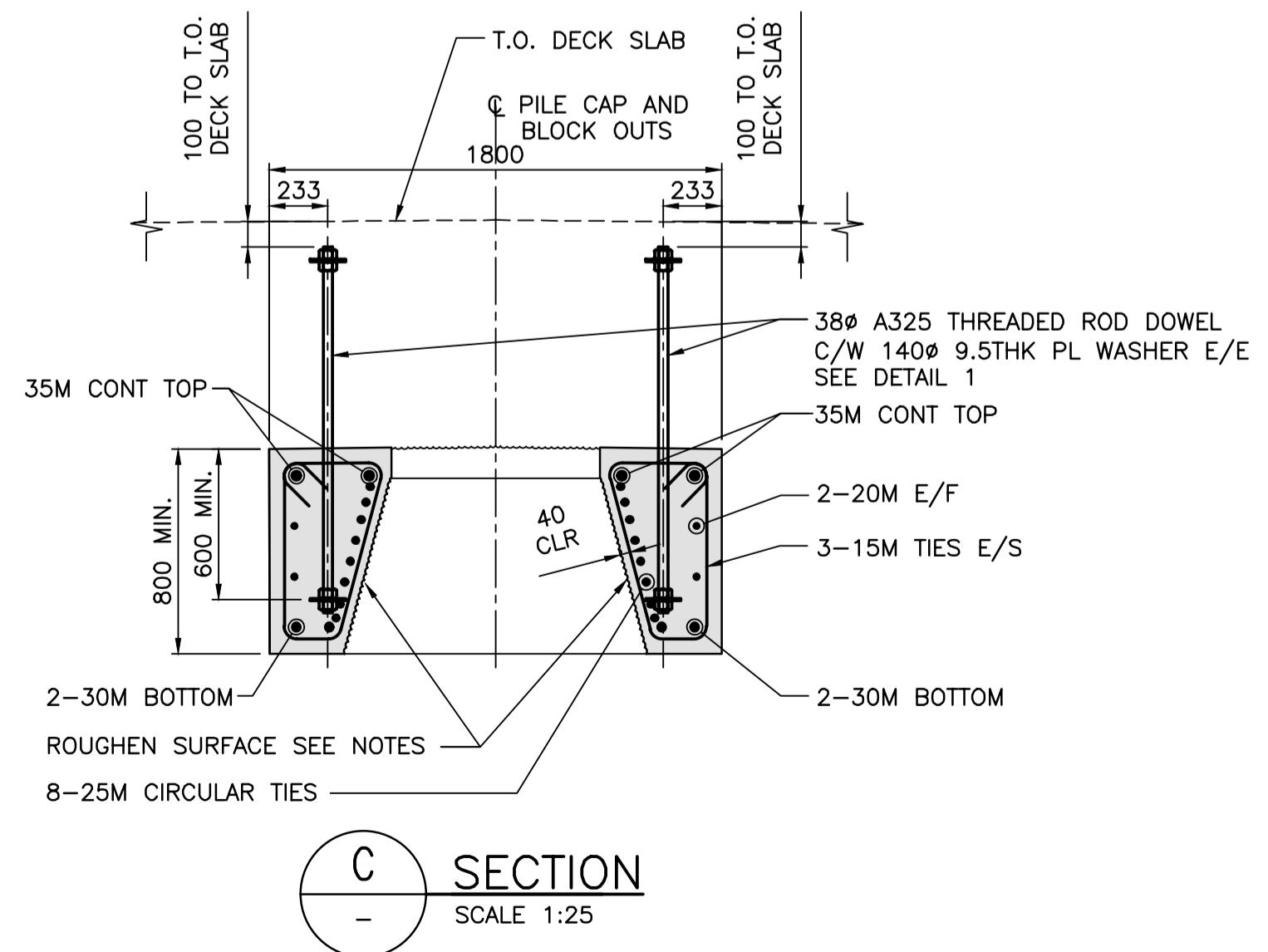
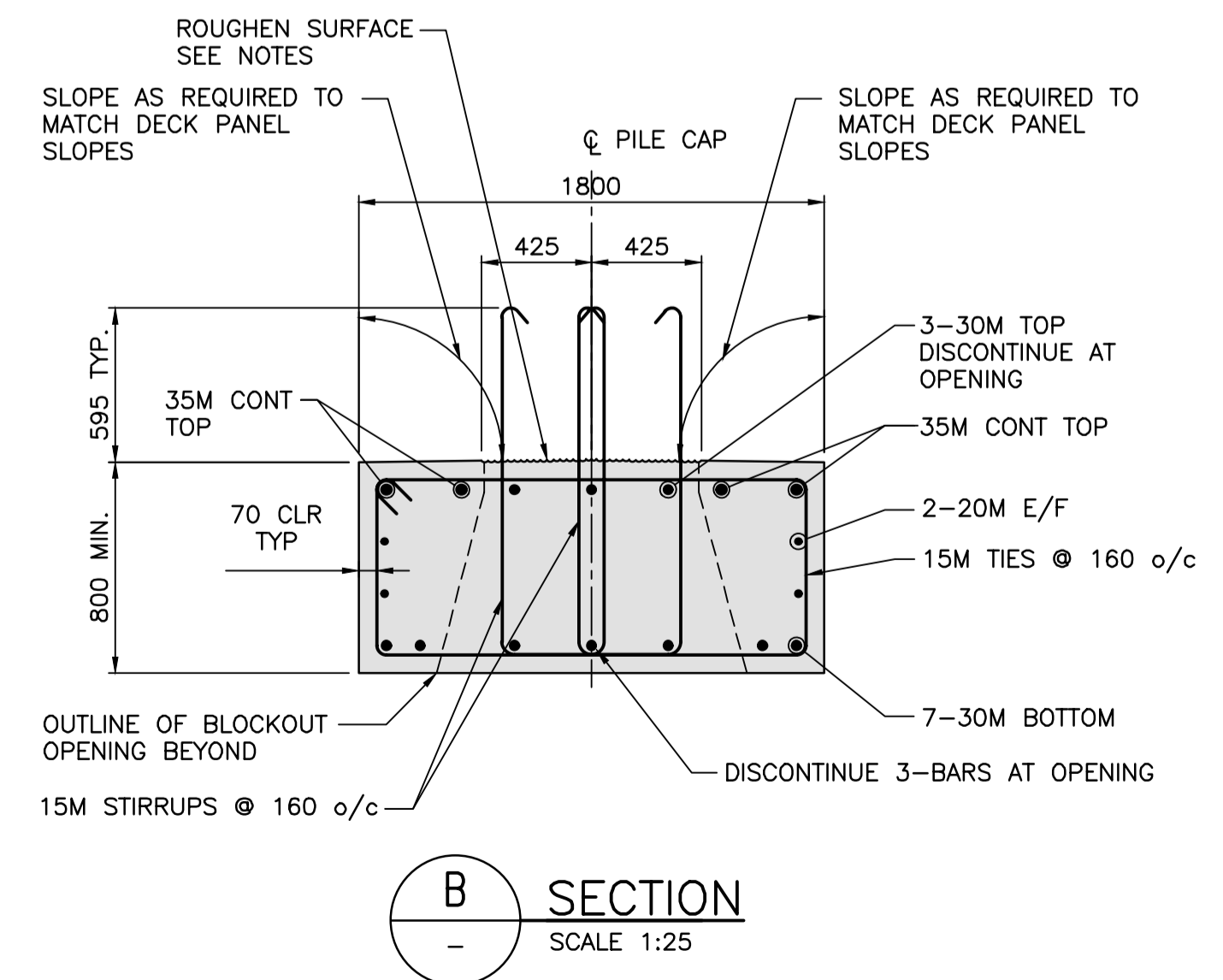
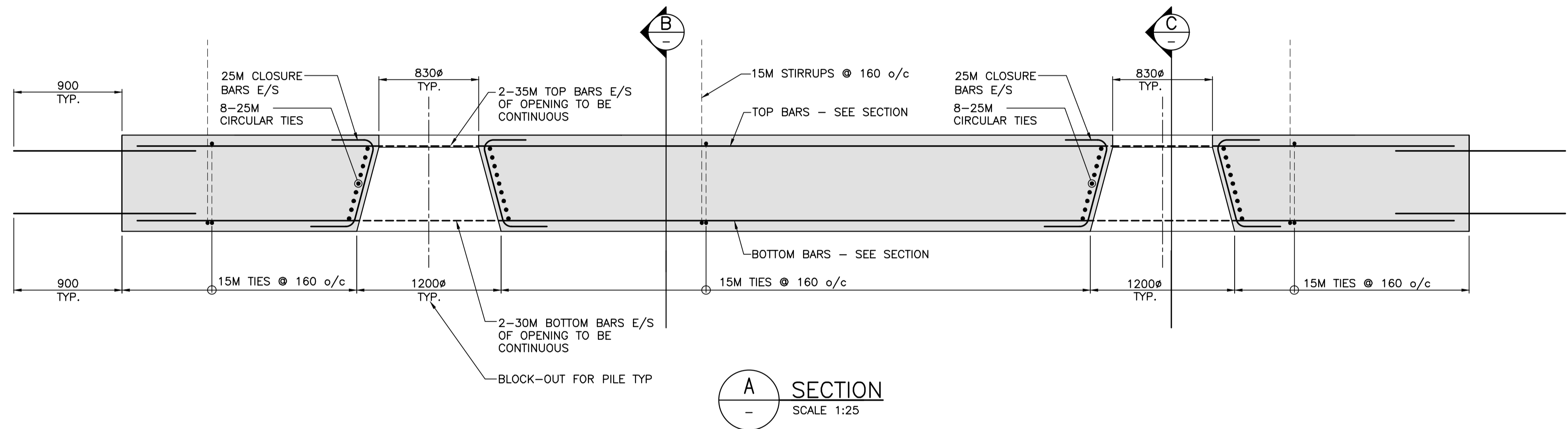
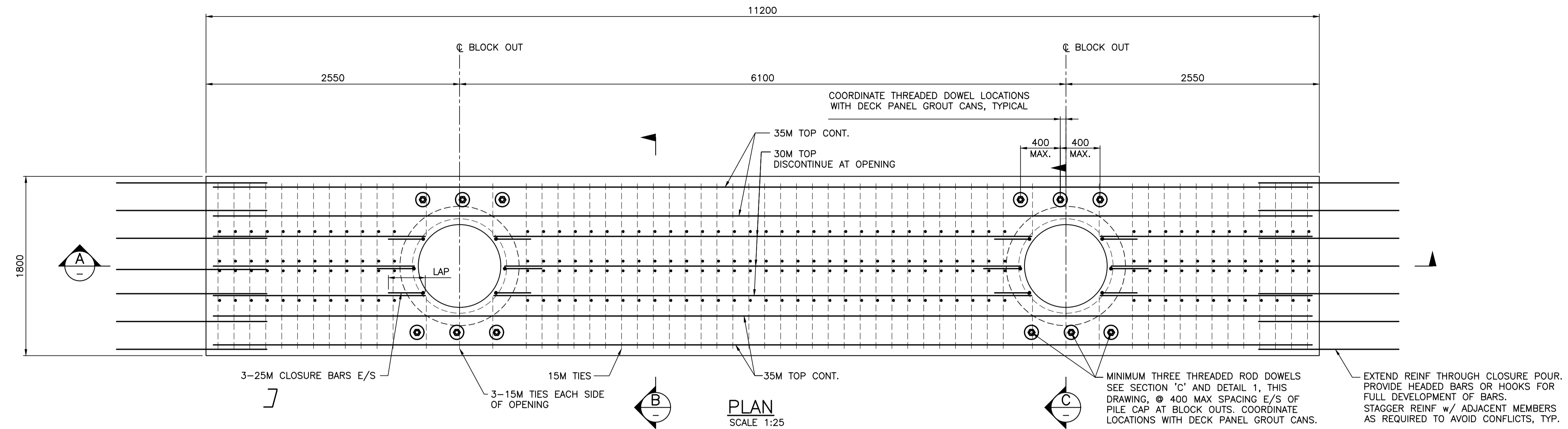
Drawing title/Titre du dessin
PRECAST OIL-WATER SEPARATOR PLATFORM OW1

Project No./No. du projet
R.026729.002

Sheet/Feuille
S OW1

Revision no./La Révision no.
2

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - MAXIMUM WEIGHT PER PRECAST ELEMENT NOT TO EXCEED 14 kPa



PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. S03.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

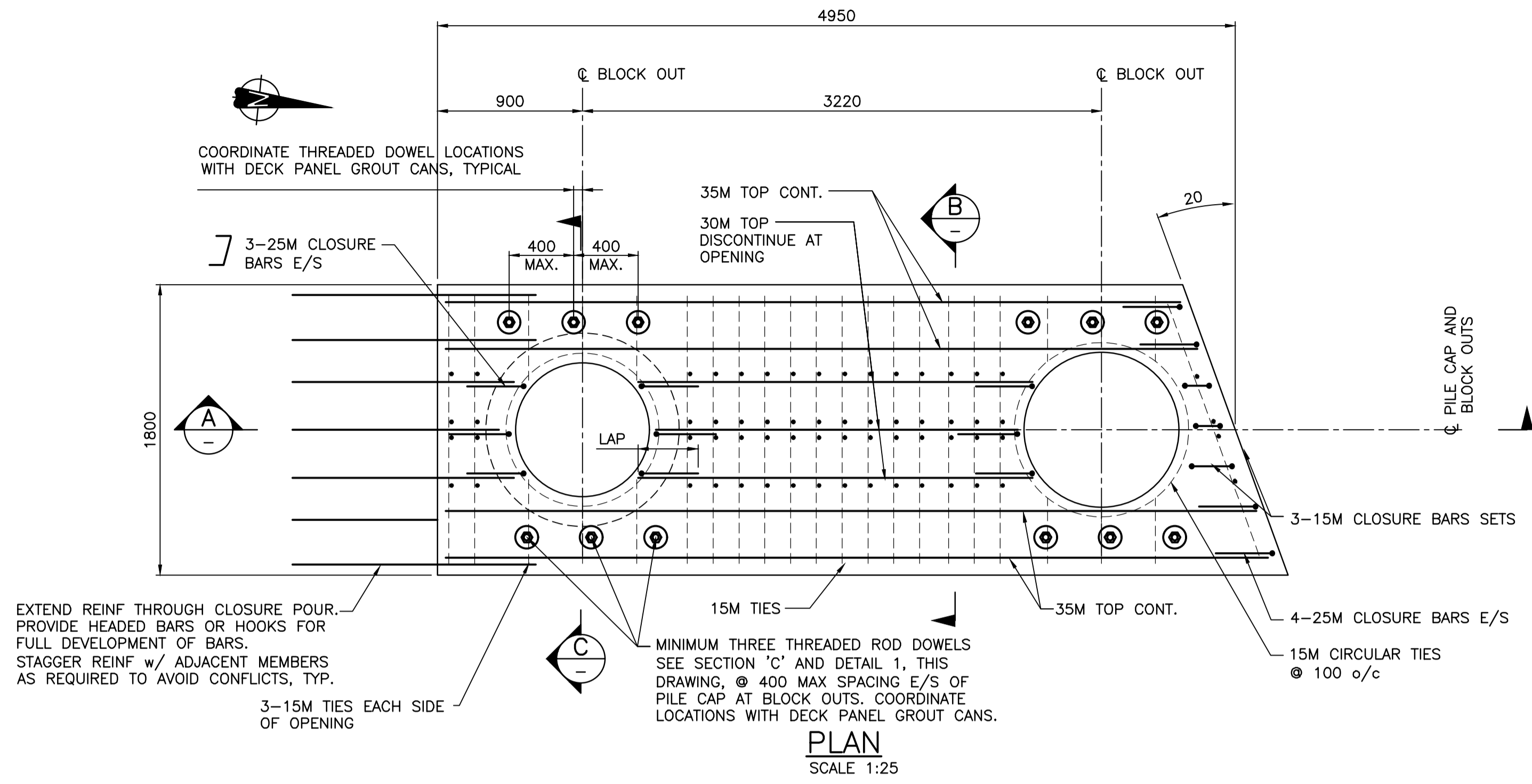
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL FAUL

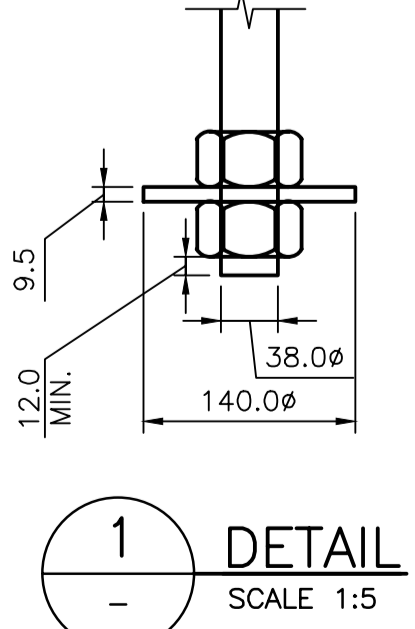
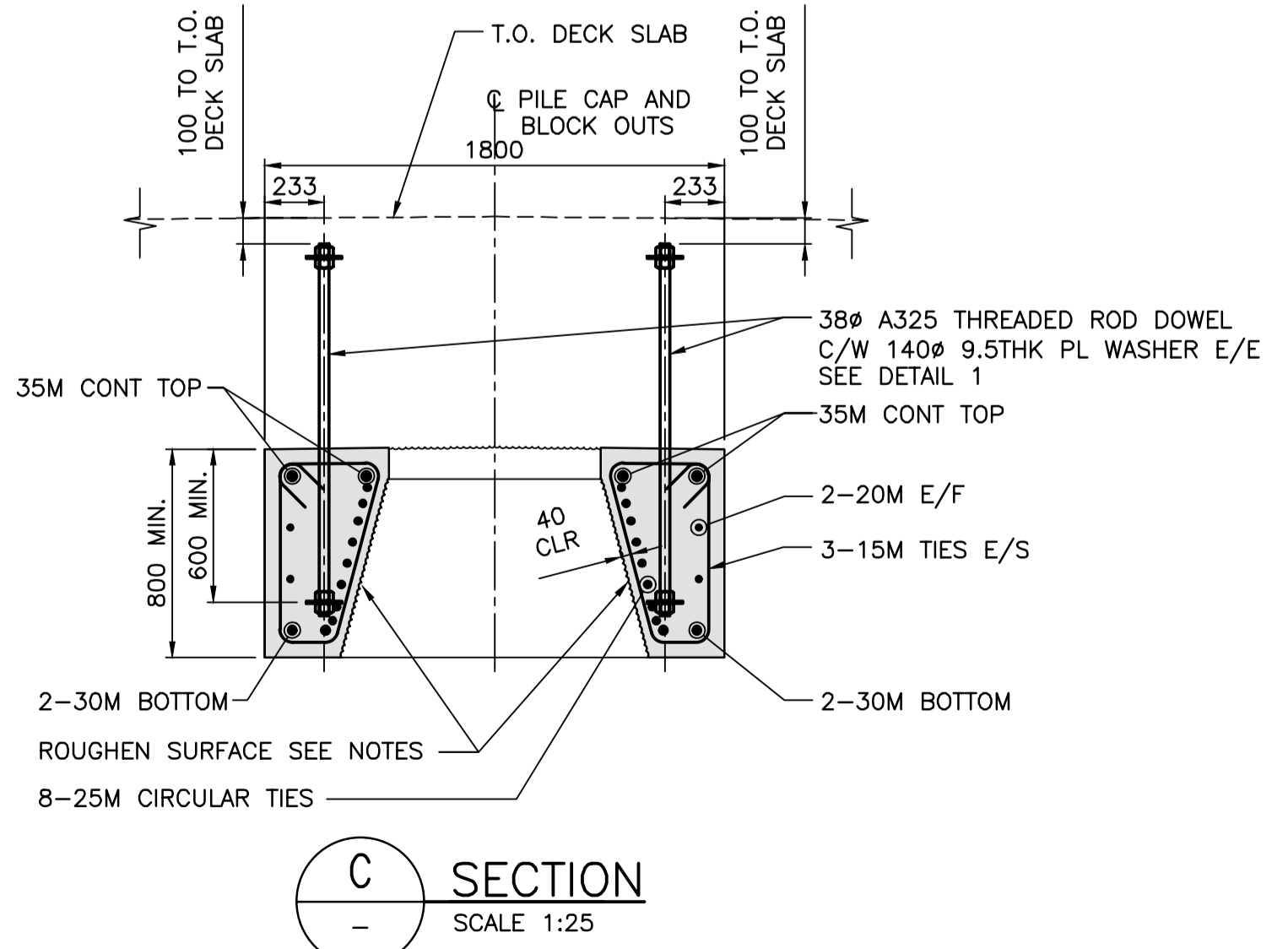
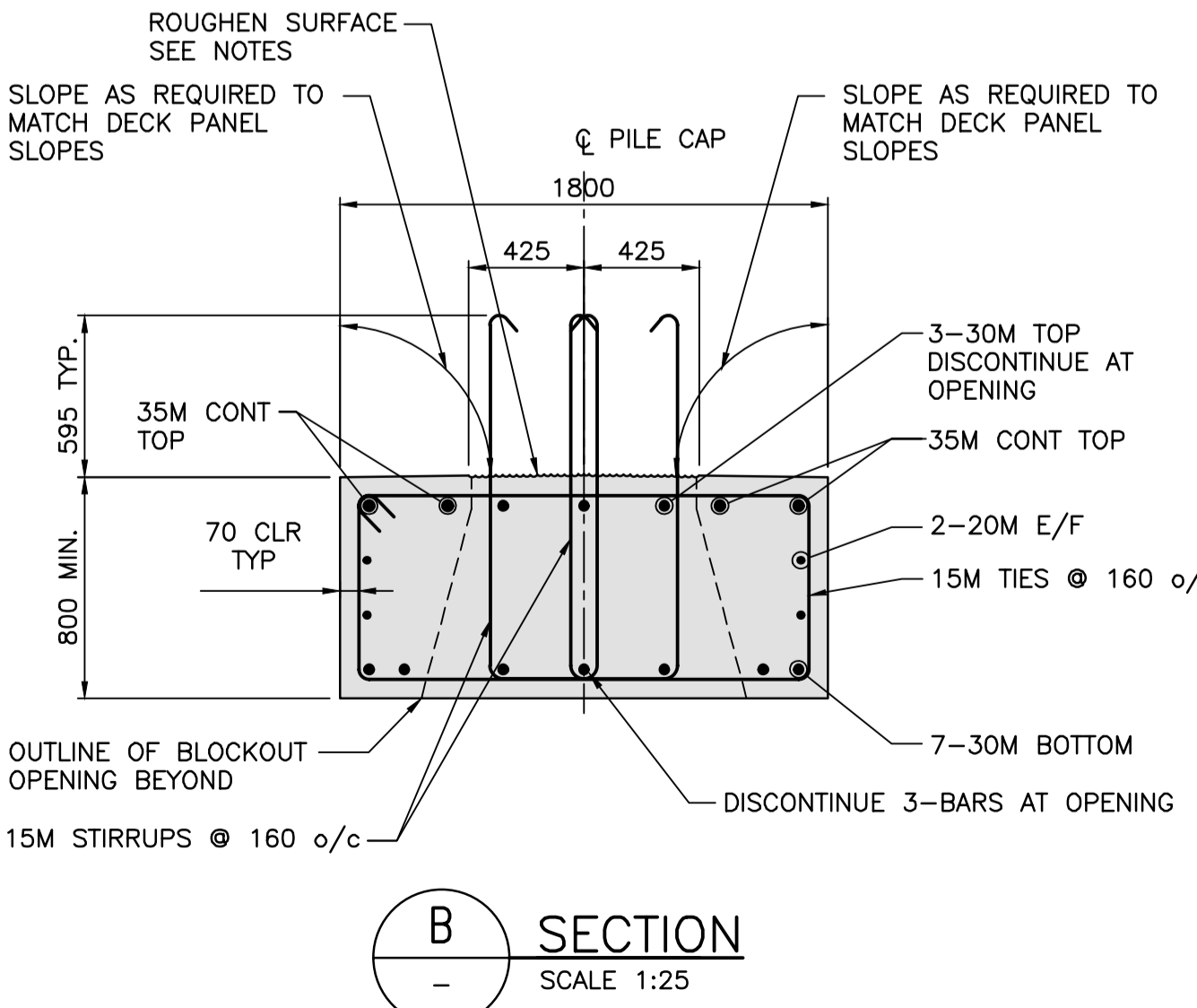
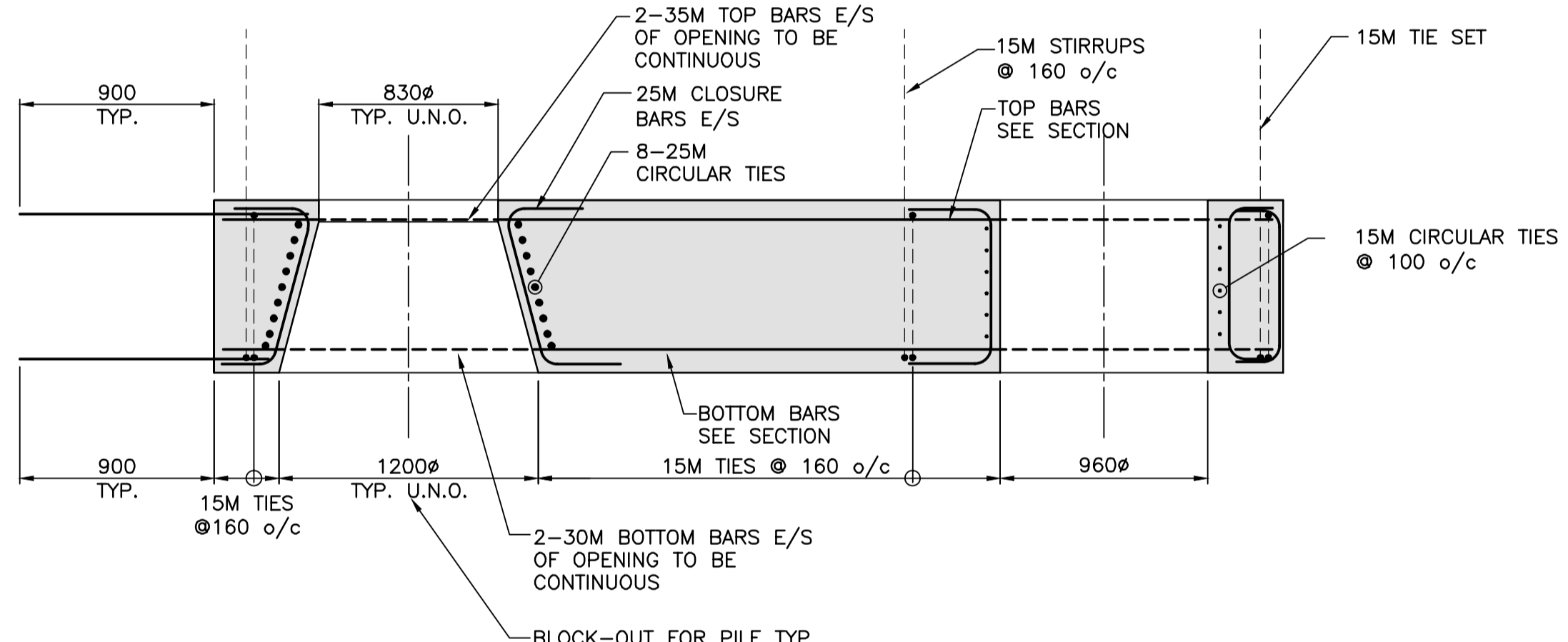
Drawing title/Titre du dessin
**PRECAST PILE CAP
PC1**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC1	2



EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1, THIS DRAWING. @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS.



PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

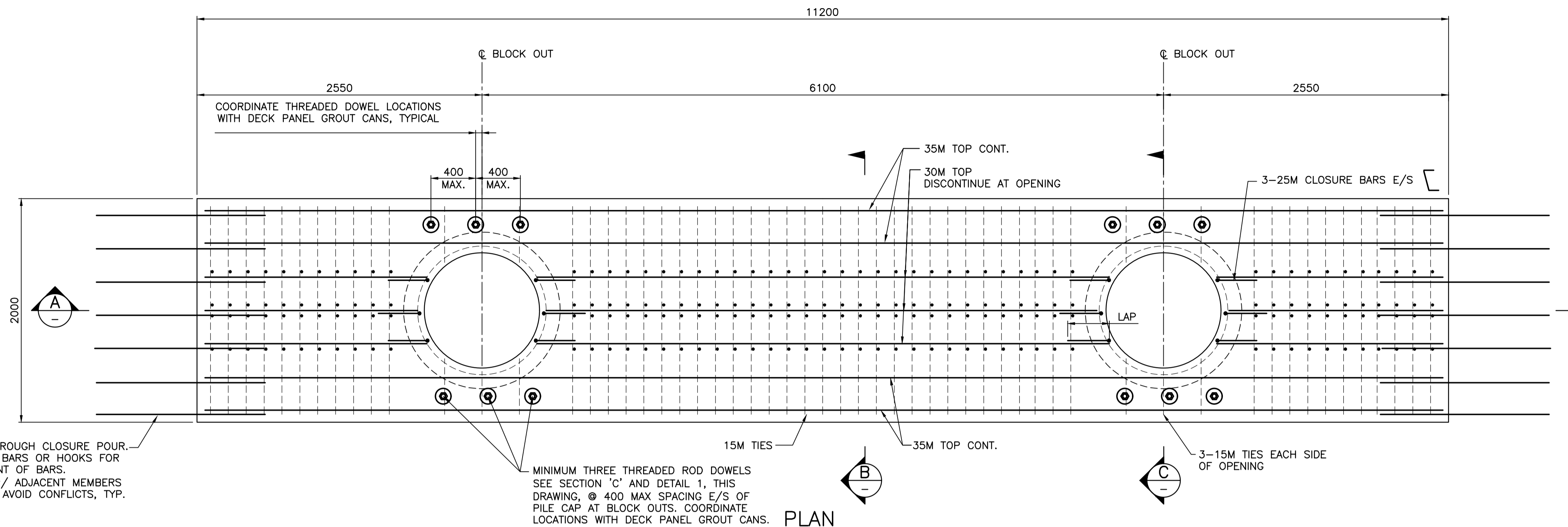
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par: KU, TW
Drawn by/Dessiné par: JJMC
PWSC Project Manager/Administrateur de Projets TPSCG: PATRICK TRUONG

Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: PREETIPAL PAUL

Drawing title/Titre du dessin
PRECAST PILE CAP PC10

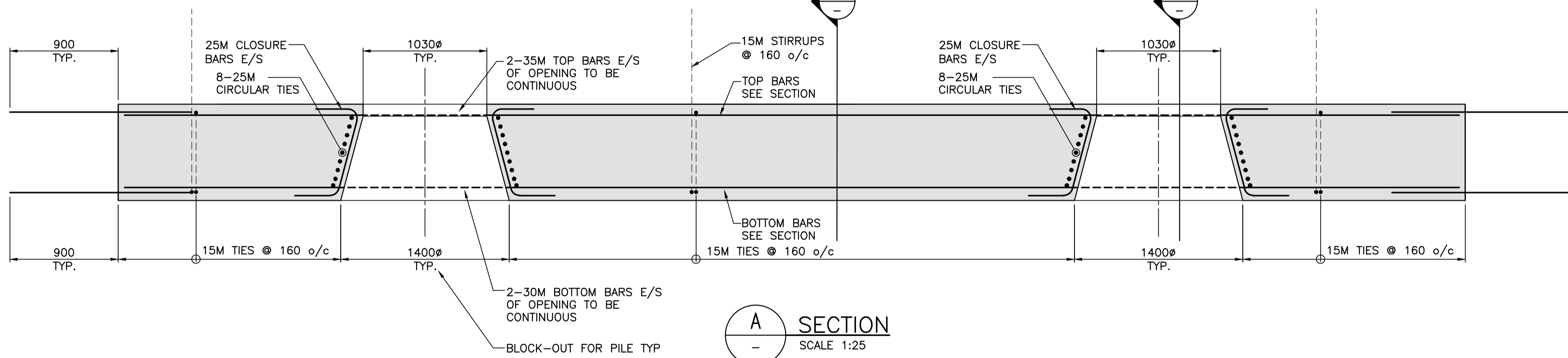
Project No./No. du projet	Sheet/Feuille	Revision no./Révision no.
R.026729.002	S PC10	2



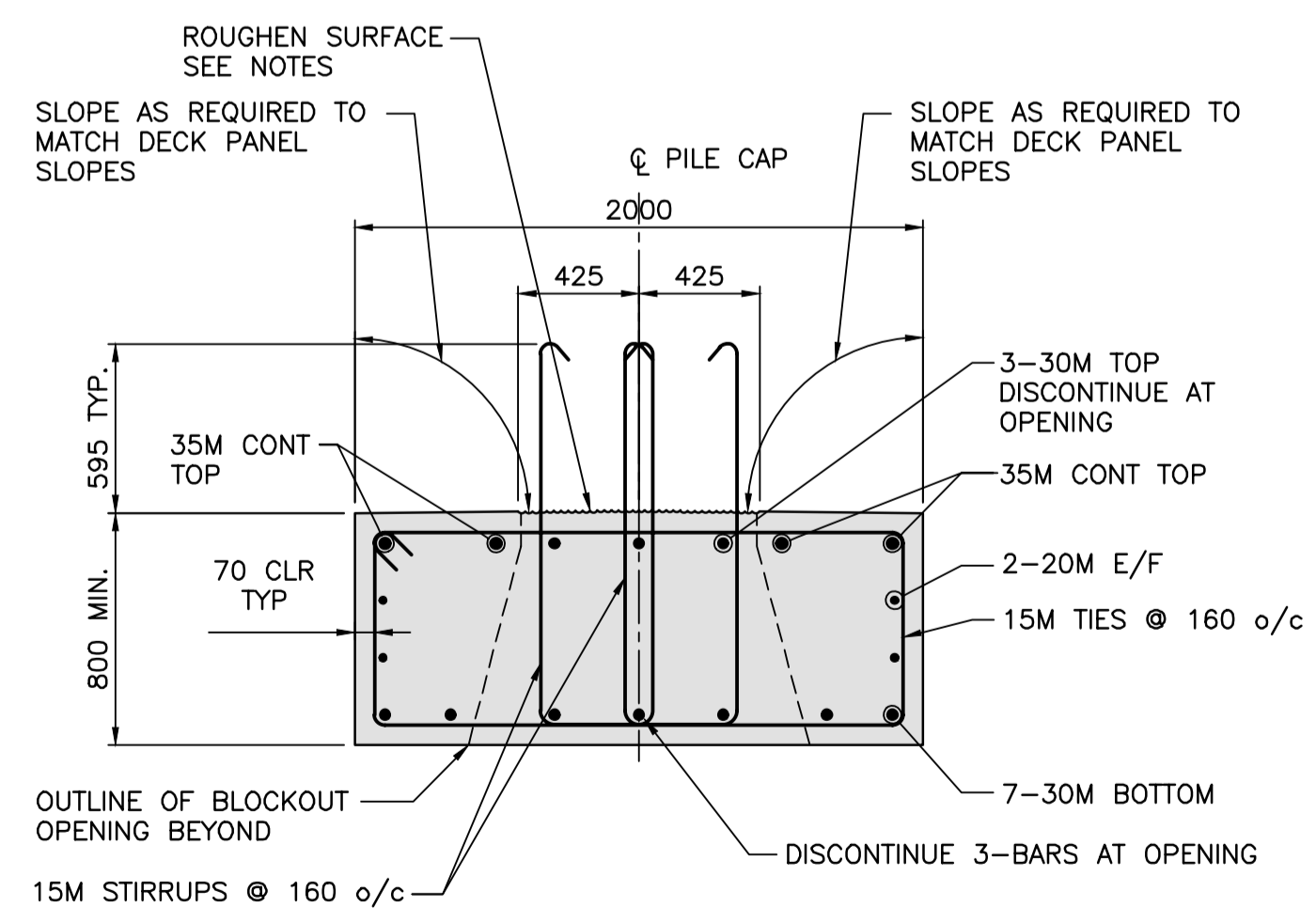
PLAN
SCALE 1:25

EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF W/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

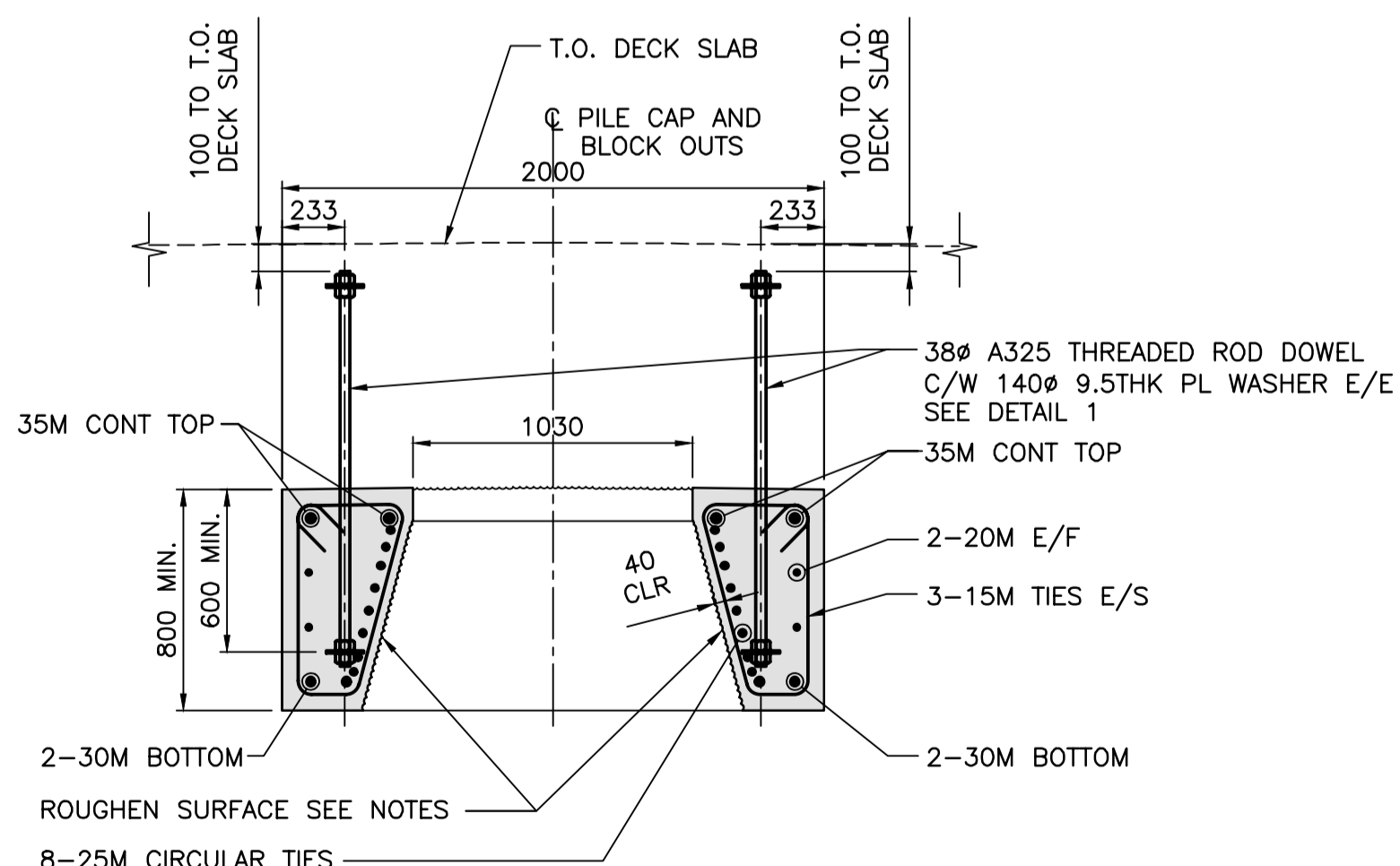
MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1, THIS DRAWING, @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS.



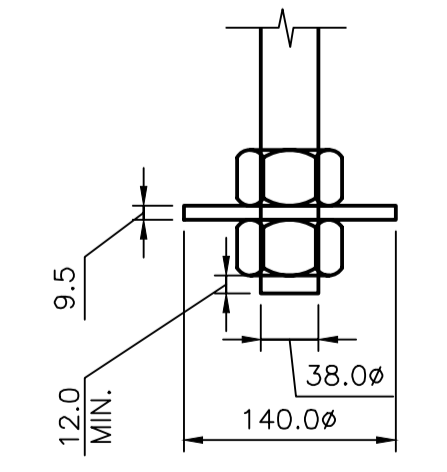
A SECTION
SCALE 1:25



B SECTION
SCALE 1:25



C SECTION
SCALE 1:25



1 DETAIL
SCALE 1:5

PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
- ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/10/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

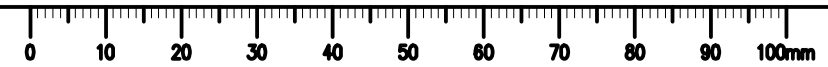
Drawn by/Dessiné par
BOG

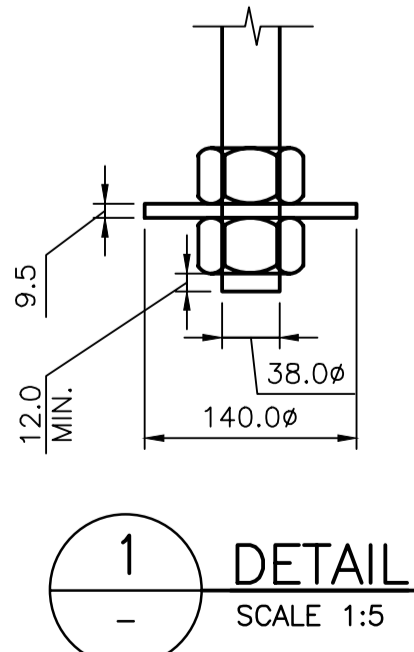
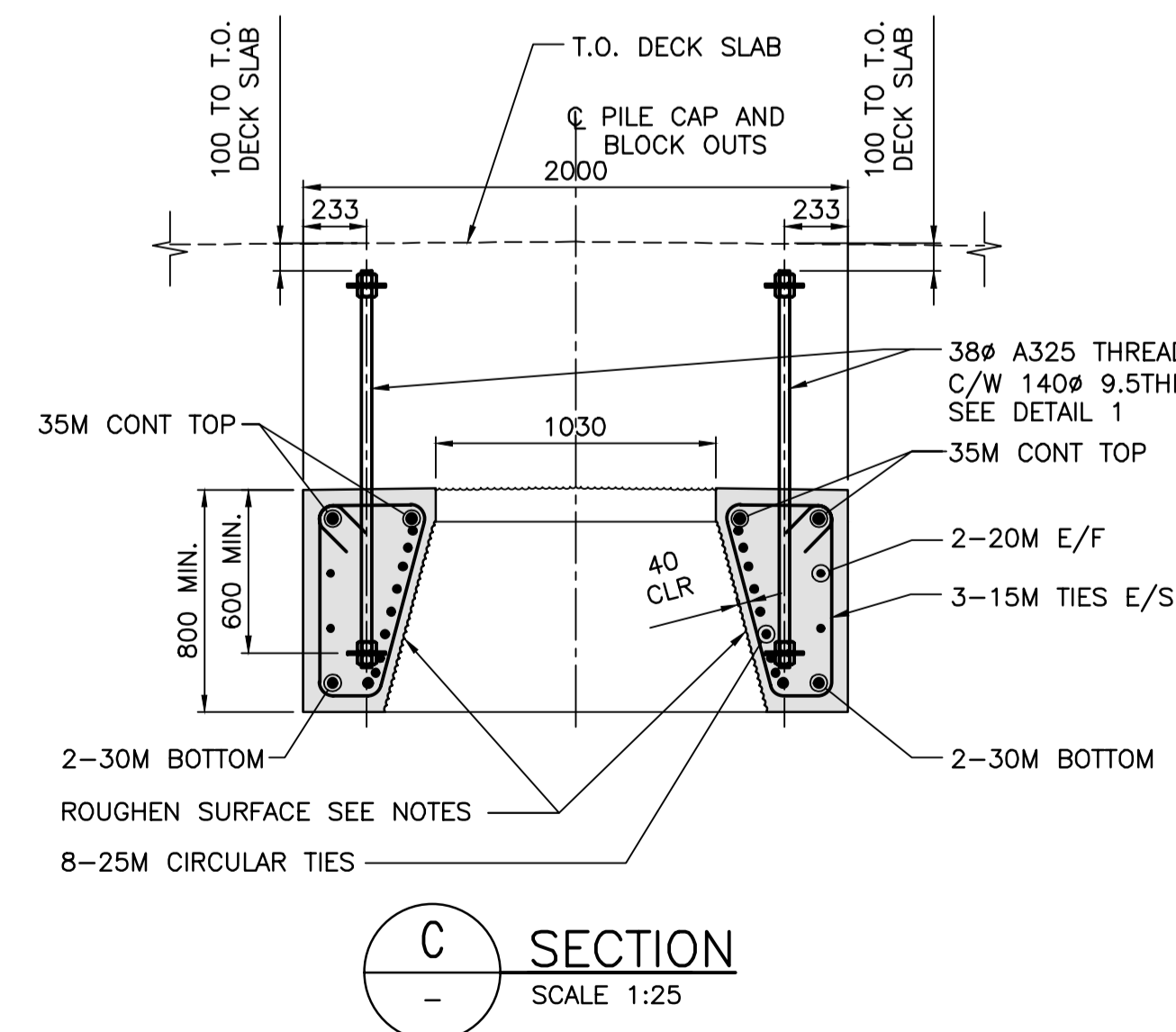
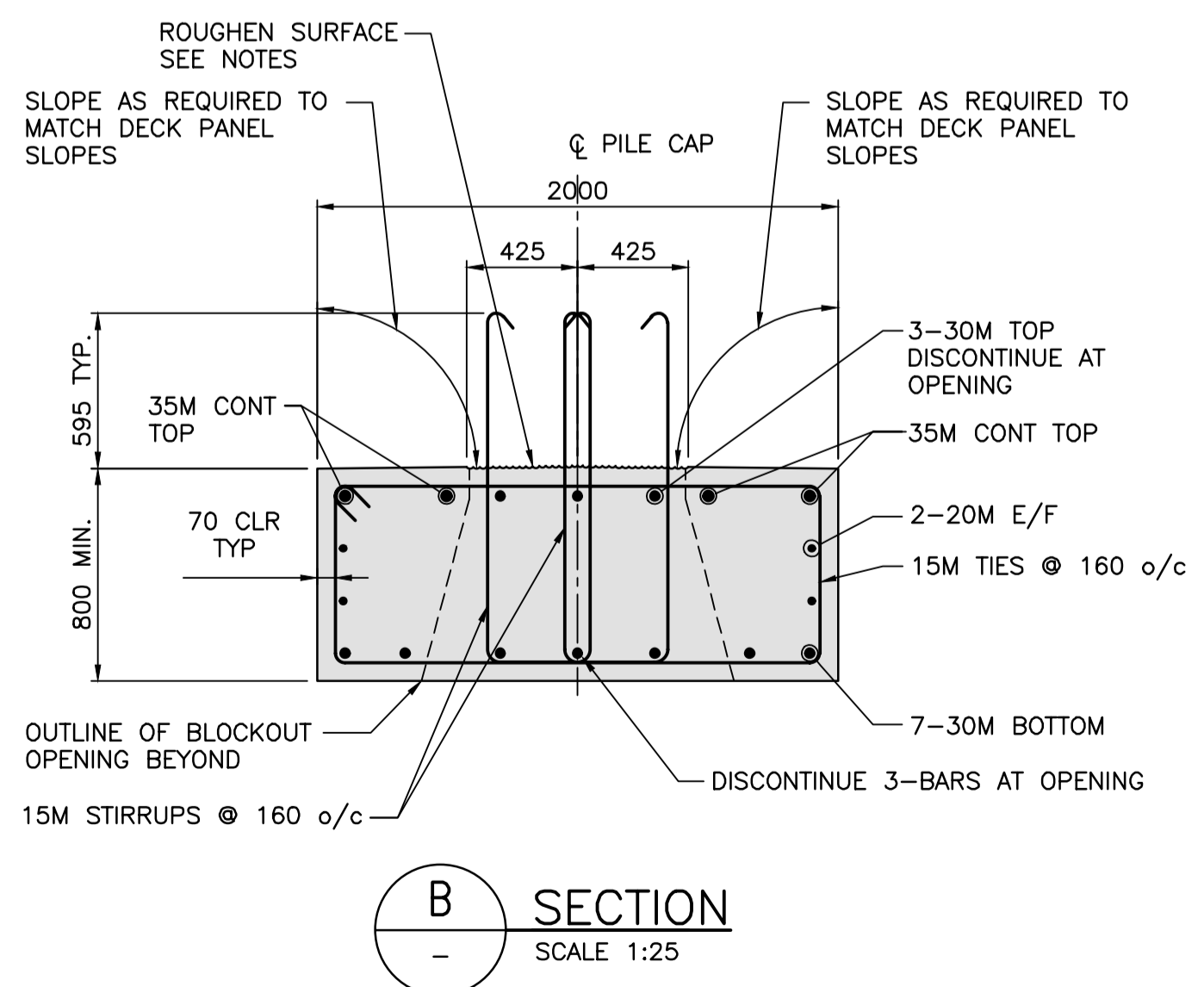
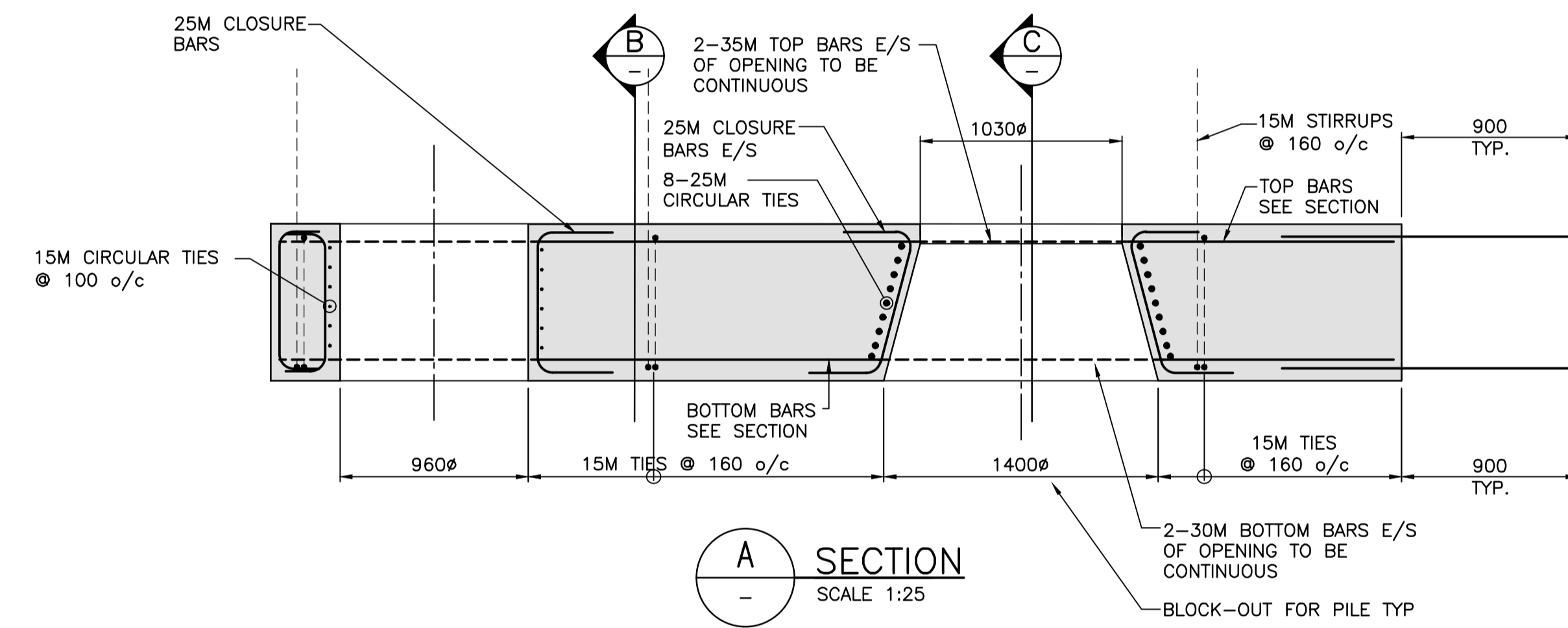
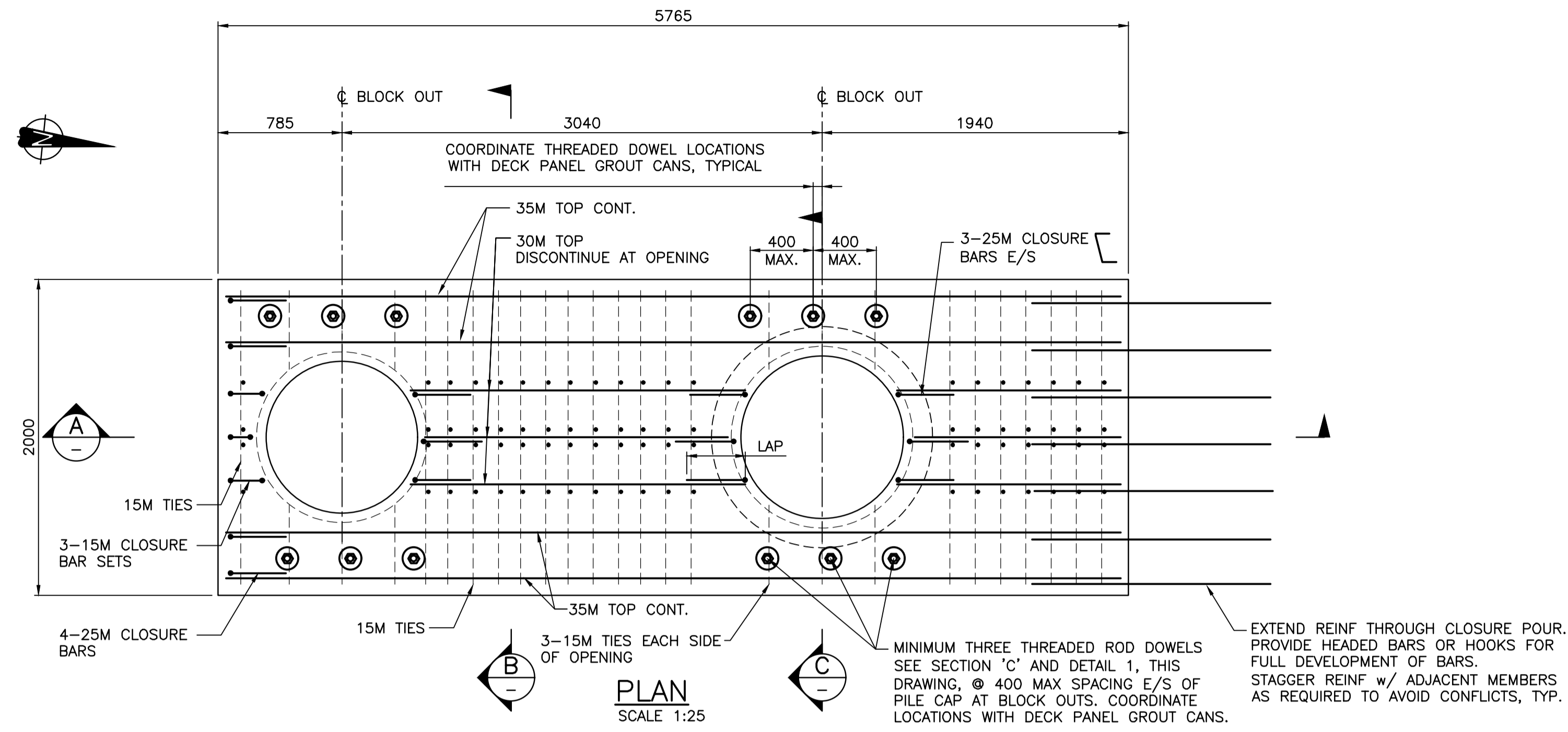
PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST PILE CAP
PC11**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC11	2





PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

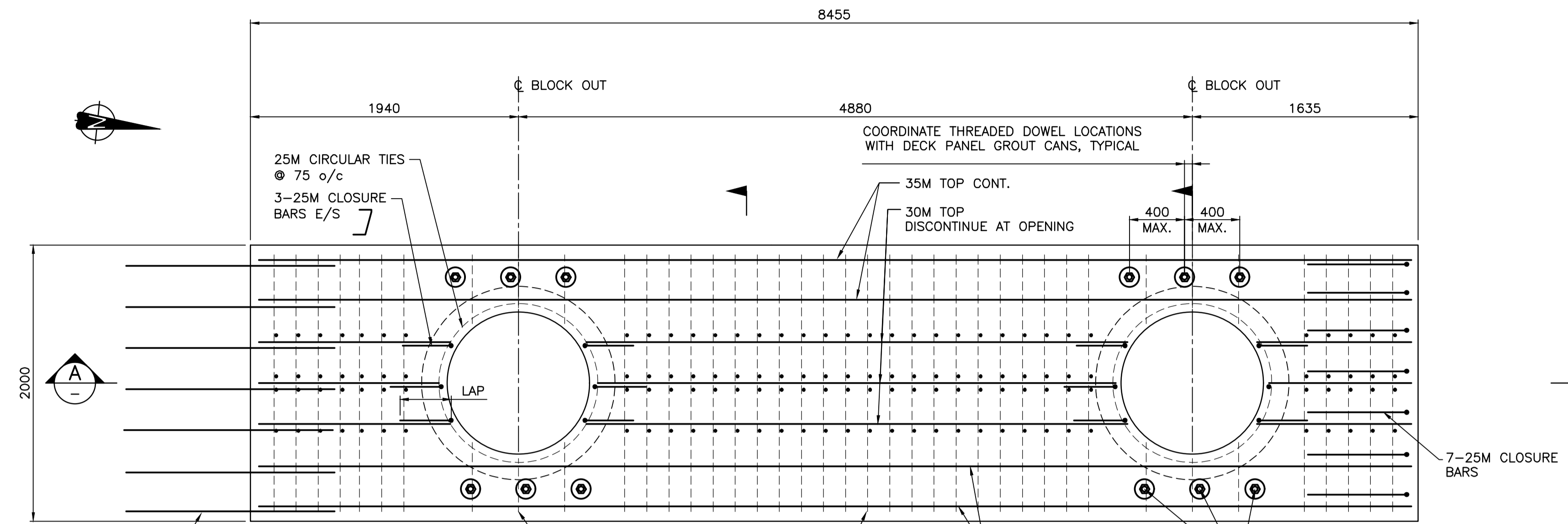
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

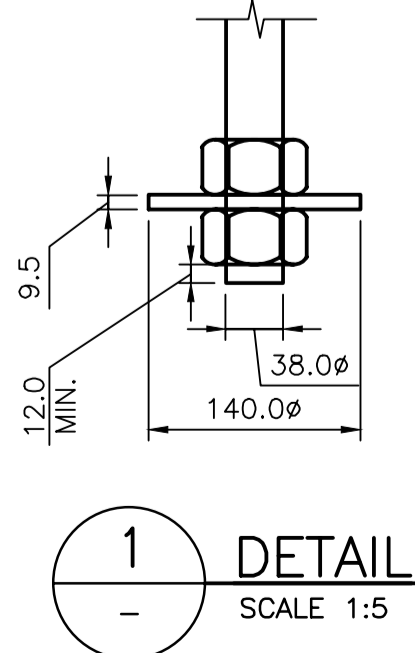
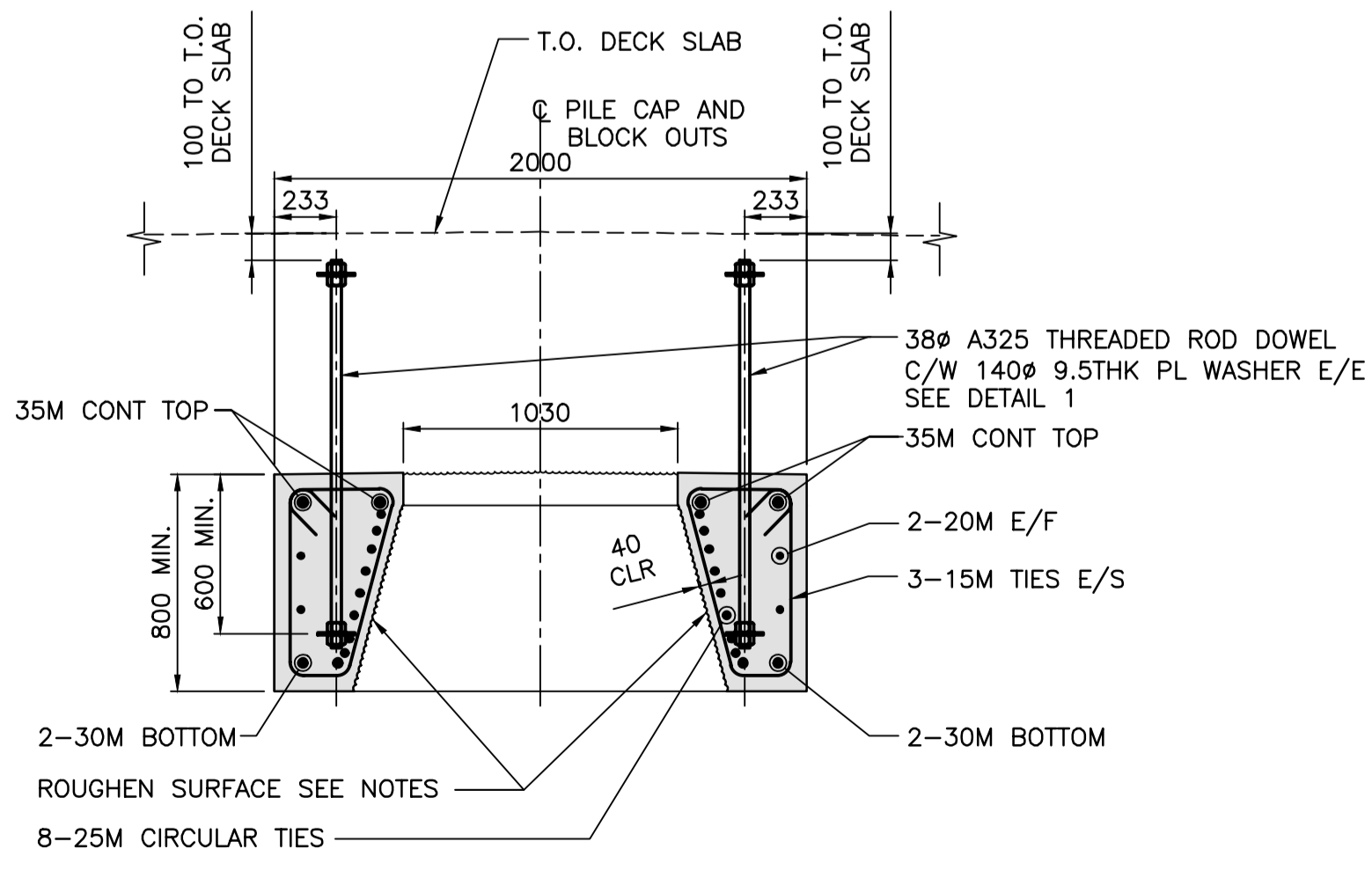
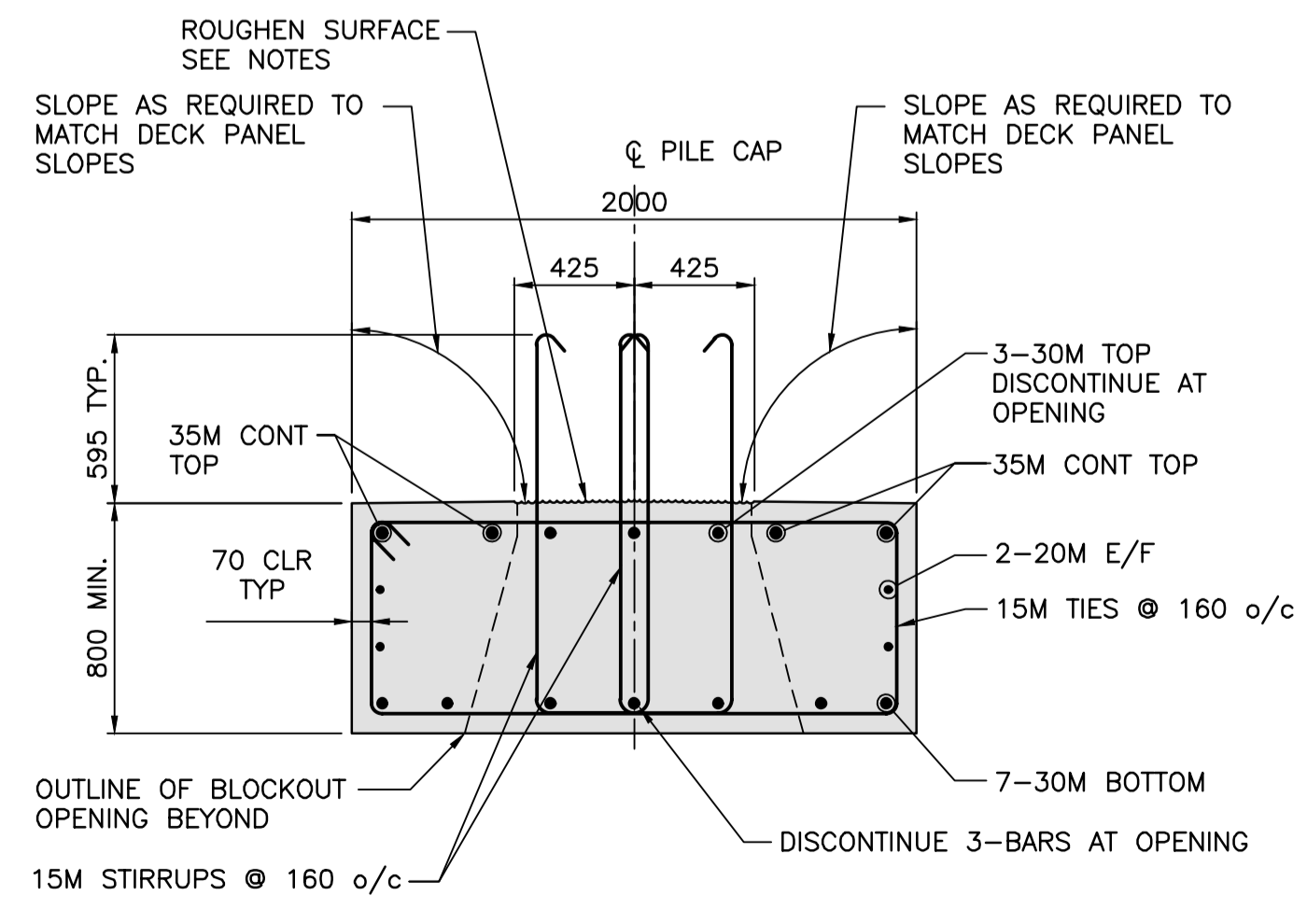
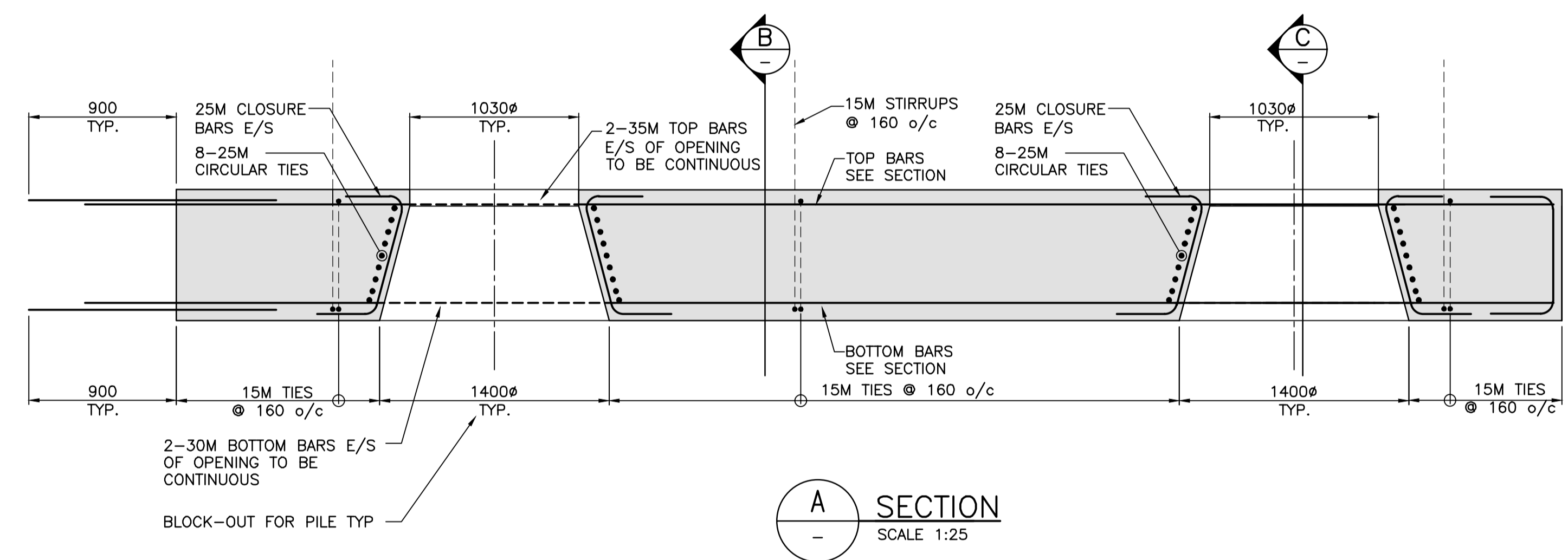
Drawing title/Titre du dessin
**PRECAST PILE CAP
PC12**

Project No./No. du projet	Sheet/Feuille	Revision no./Révision no.
R.026729.002	S PC12	2



EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1, THIS DRAWING, @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS. OMIT THREADED DOWELS AT PILE CAP ON GRID LINE 27



PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Revision	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

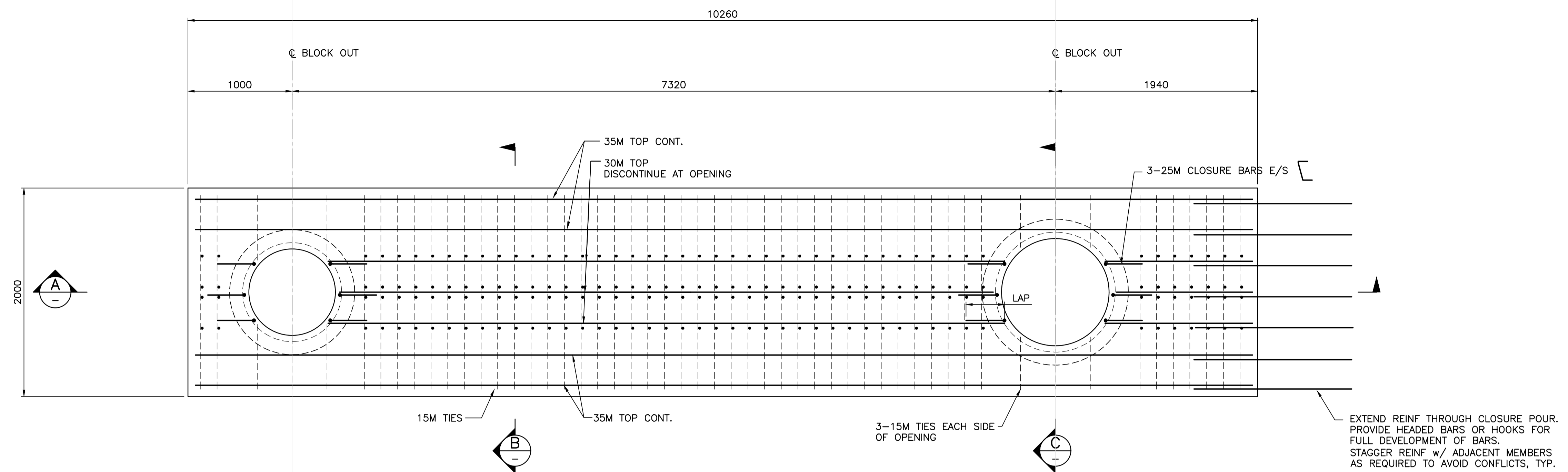
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

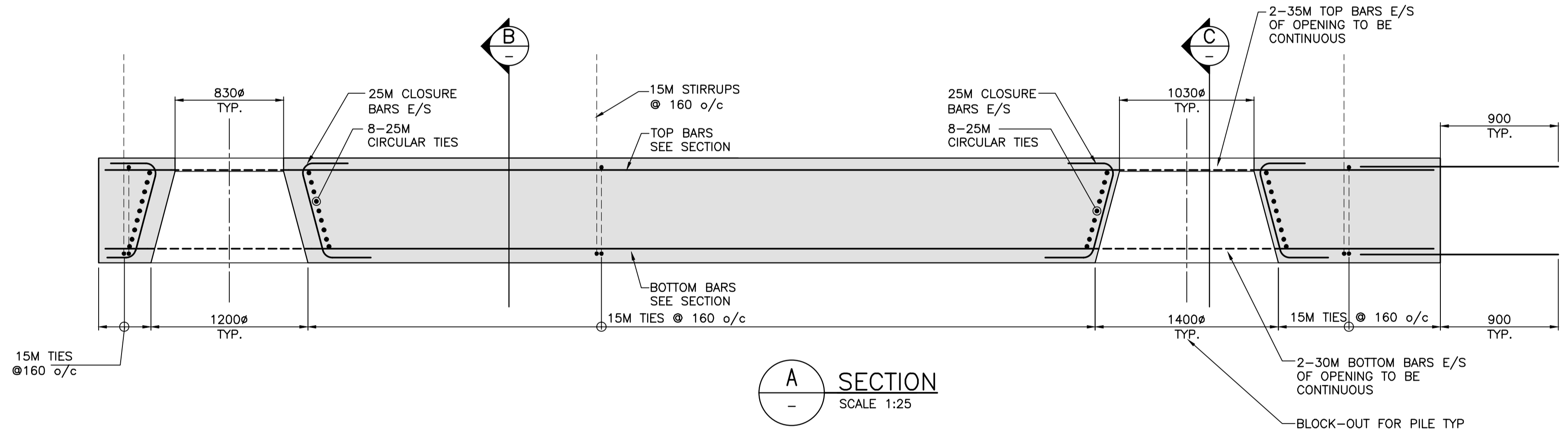
Drawing title/Titre du dessin
**PRECAST PILE CAP
PC13**

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.026729.002	S PC13	2

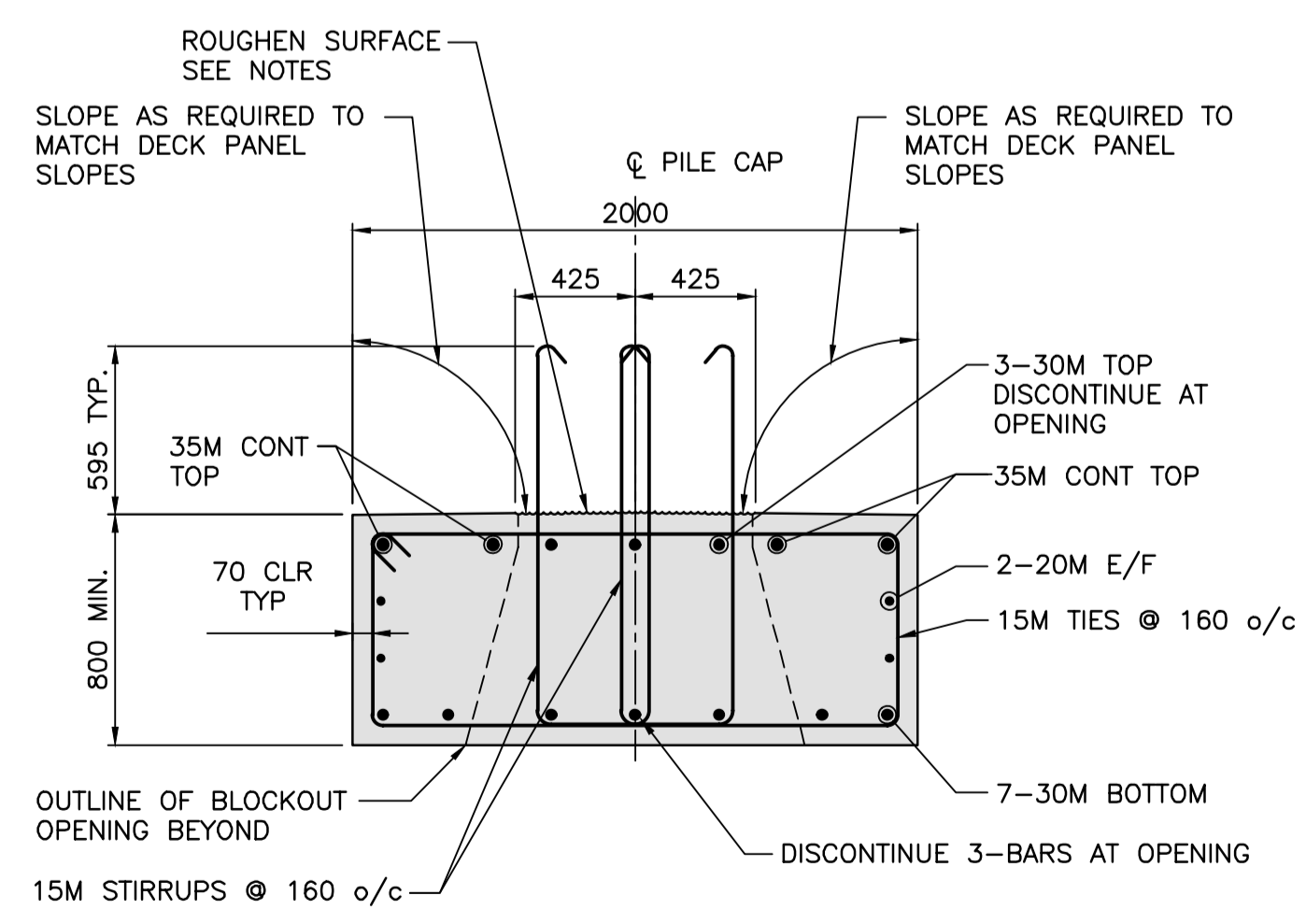


PLAN
SCALE 1:25

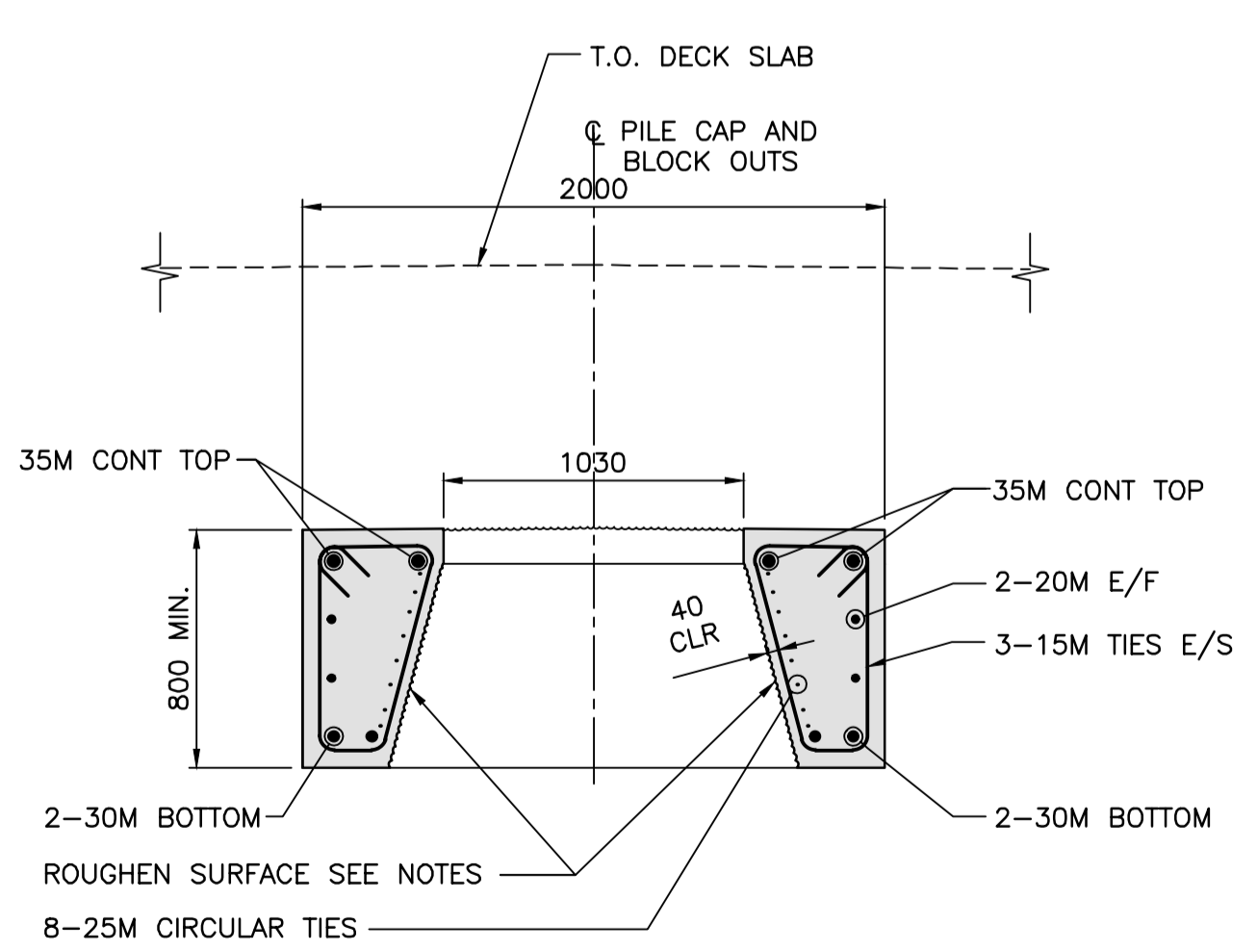
EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.



A SECTION
SCALE 1:25



B SECTION
SCALE 1:25



C SECTION
SCALE 1:25

PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
- ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

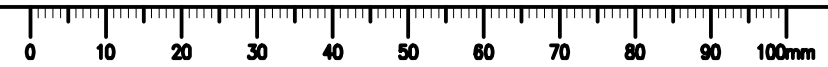
Drawn by/Dessiné par
BOG

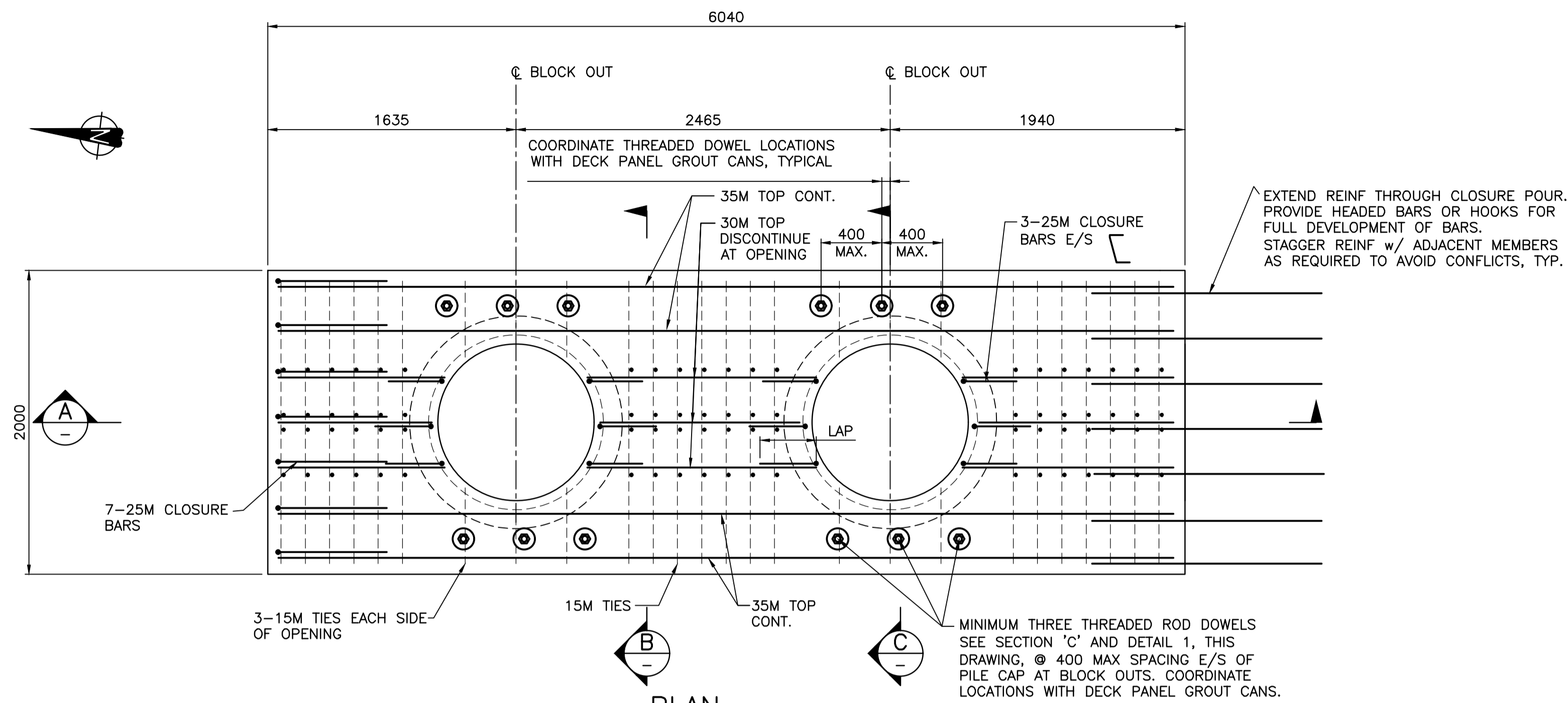
PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL FAUL

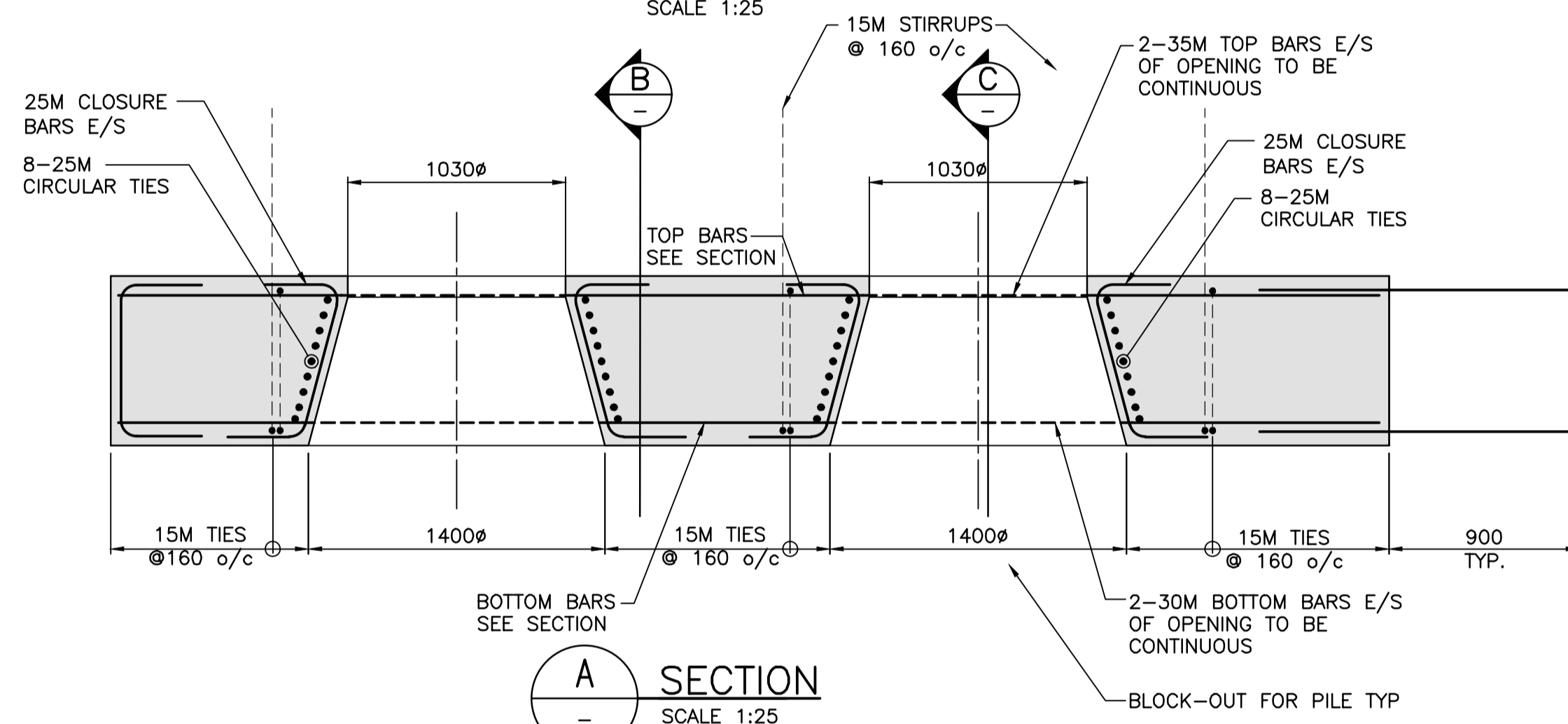
Drawing title/Titre du dessin
**PRECAST PILE CAP
PC14**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC14	2

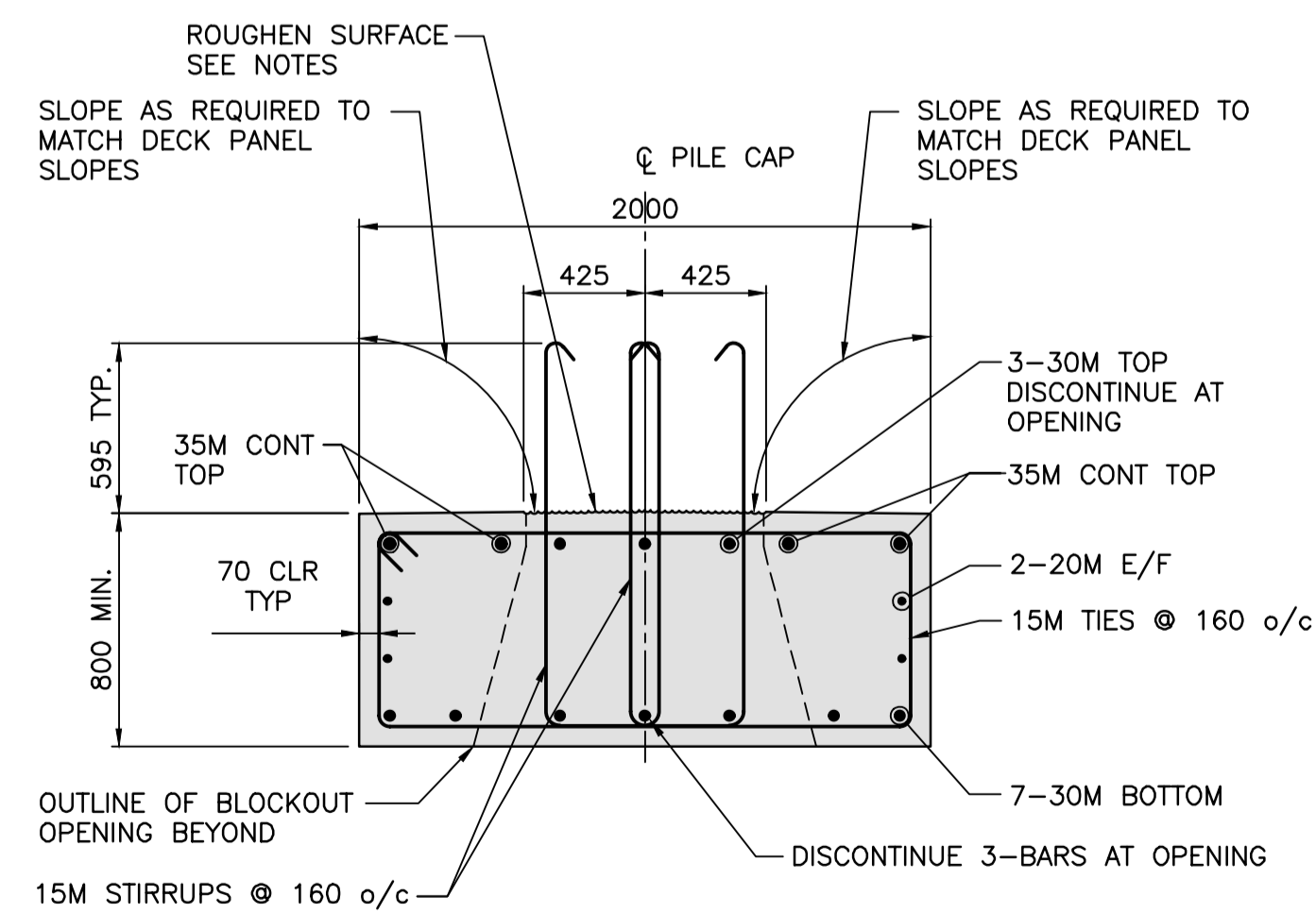




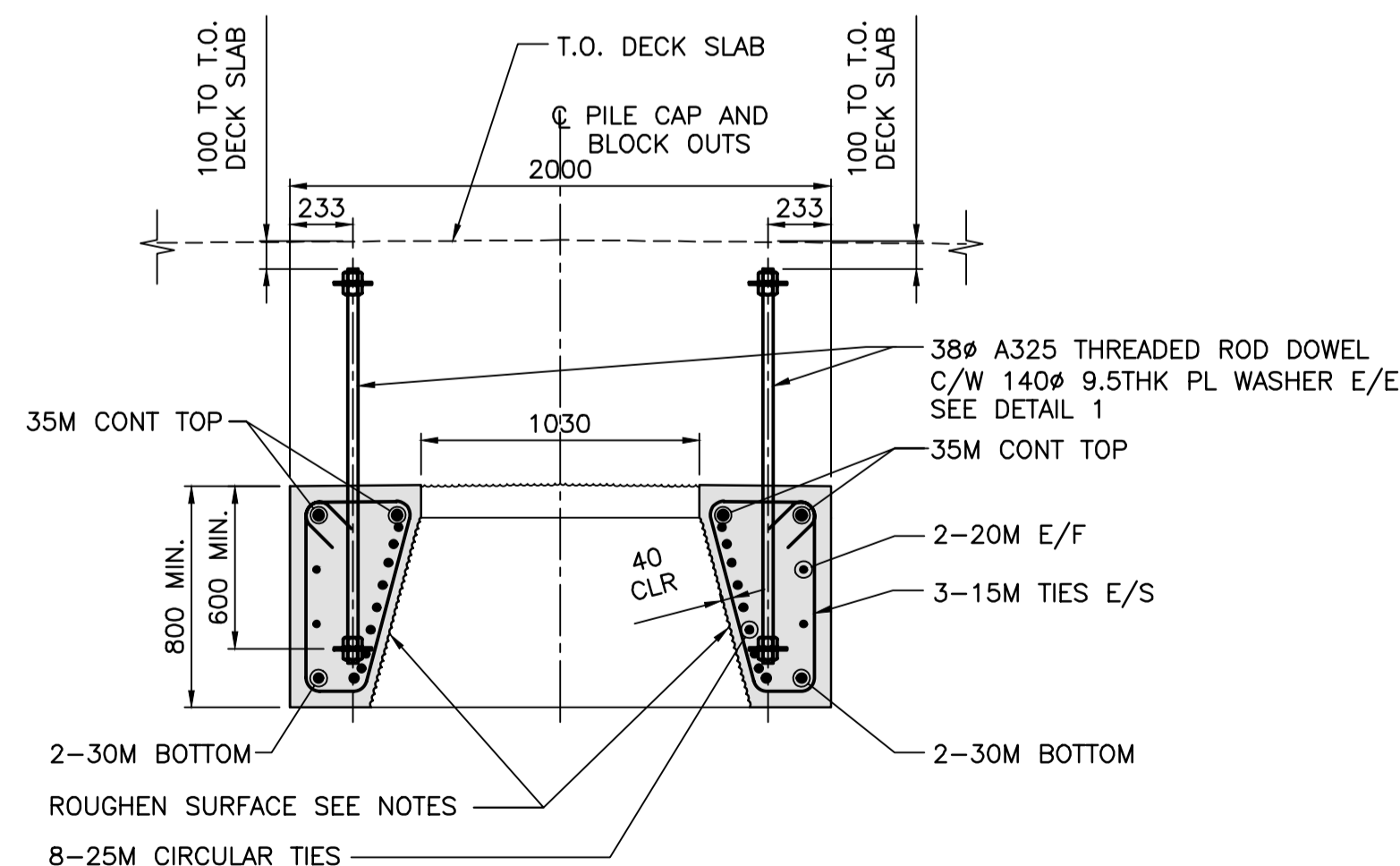
PLAN
SCALE 1:25



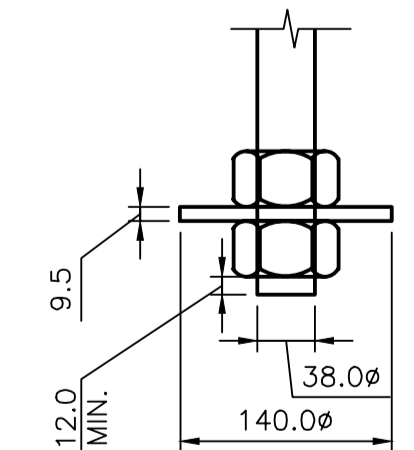
SECTION A
SCALE 1:25



SECTION B
SCALE 1:25



SECTION C
SCALE 1:25



1 DETAIL
SCALE 1:5

PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
- ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

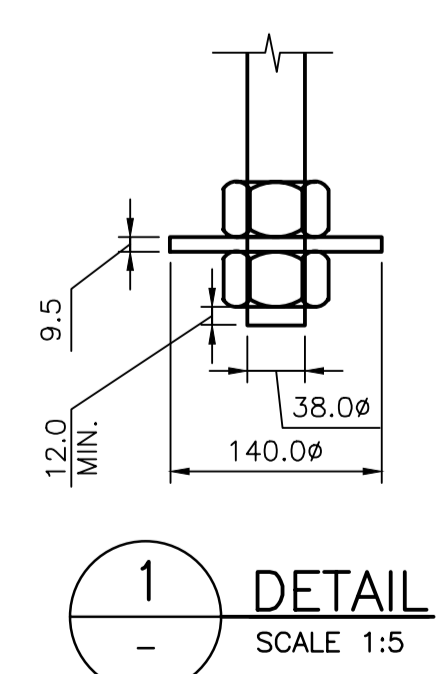
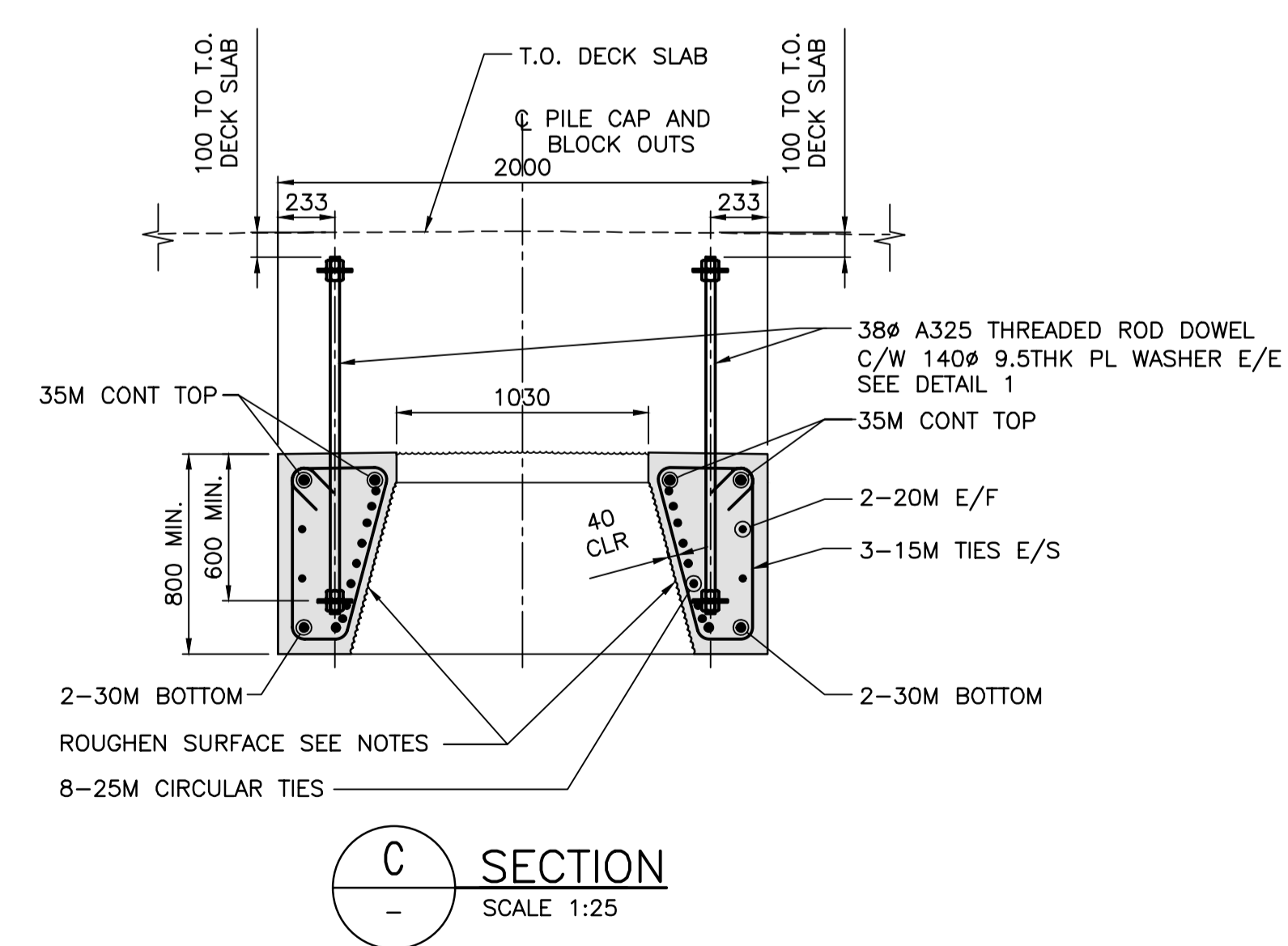
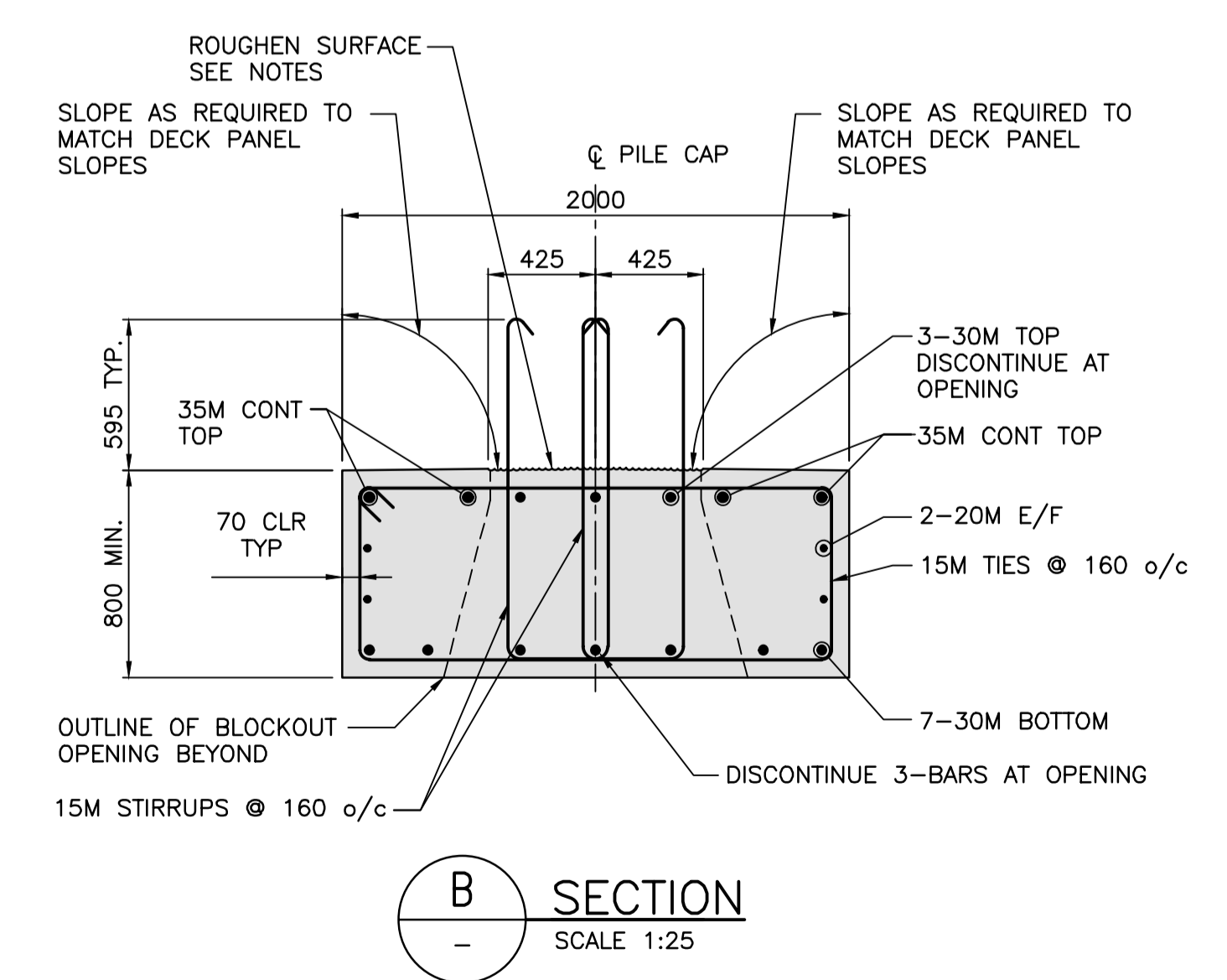
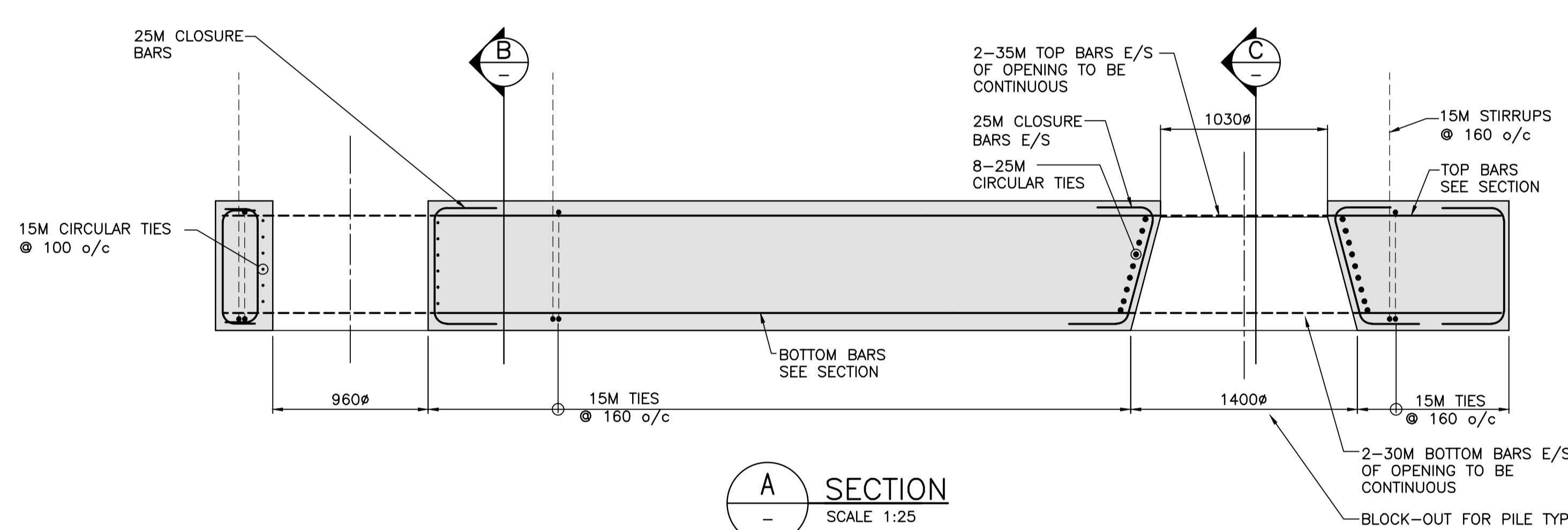
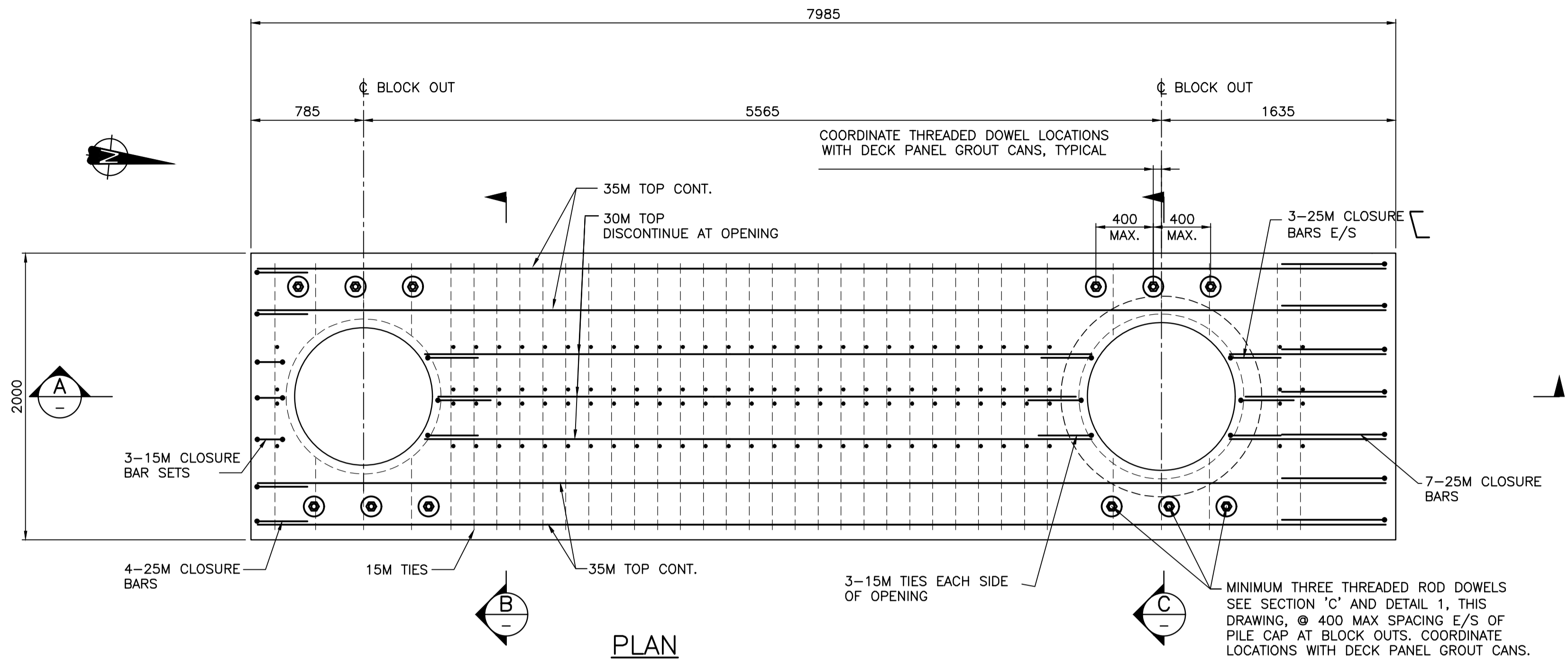
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST PILE CAP
PC15**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC15	2



PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

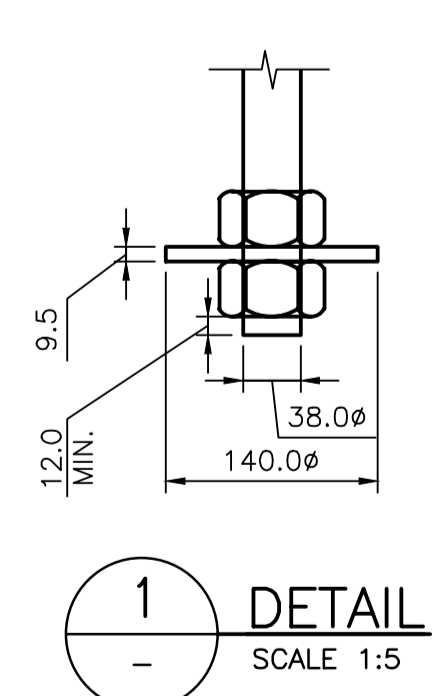
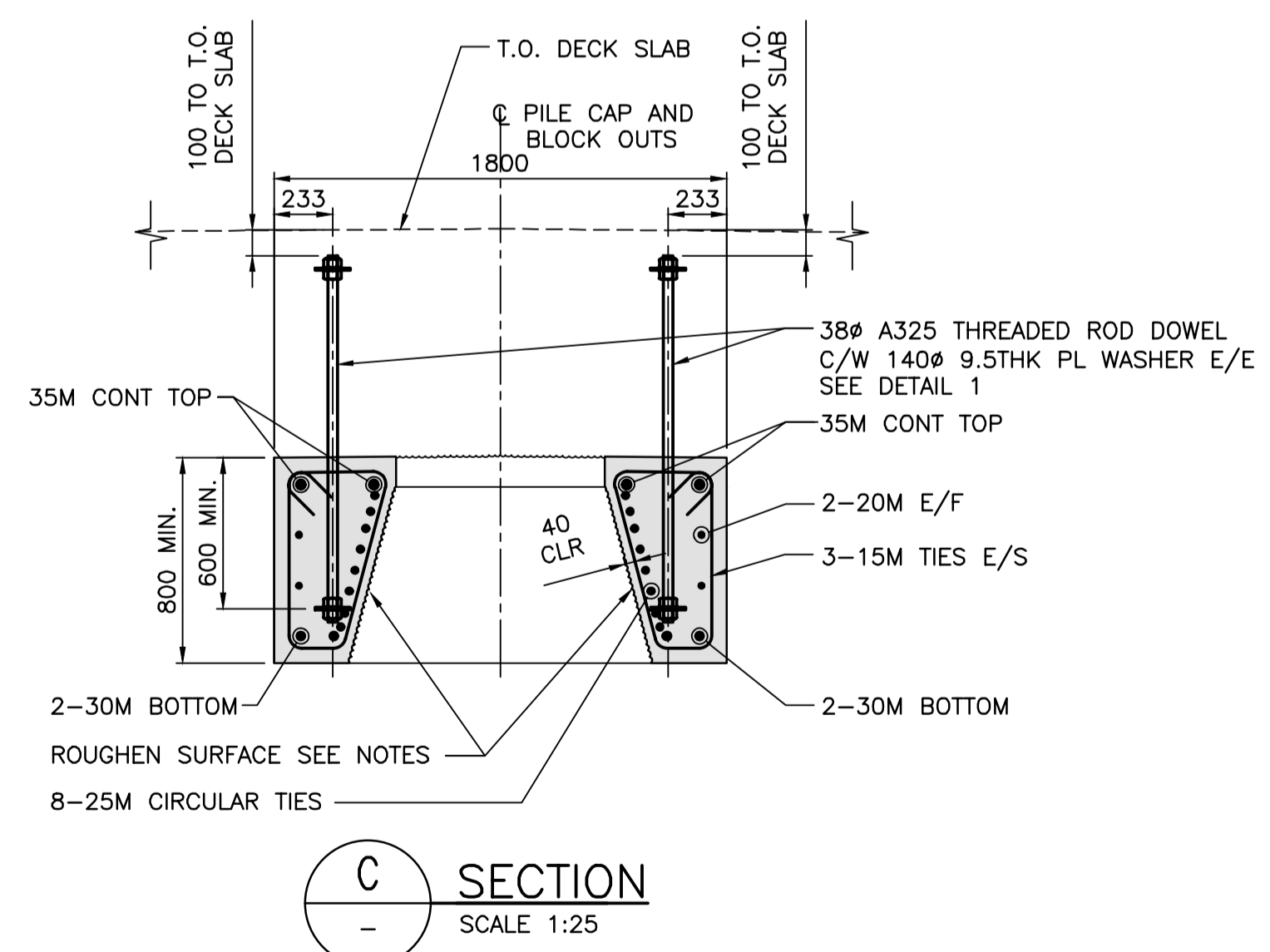
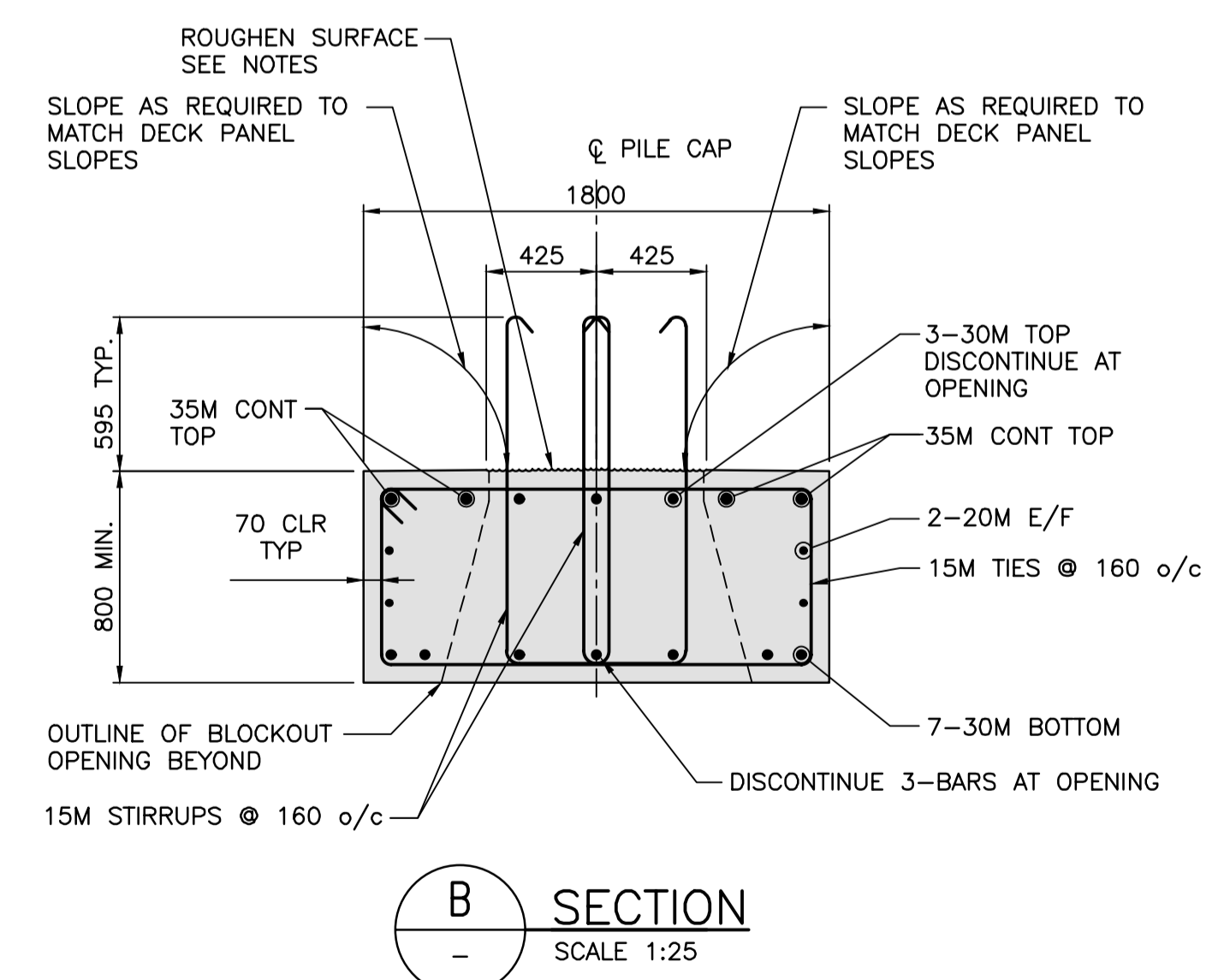
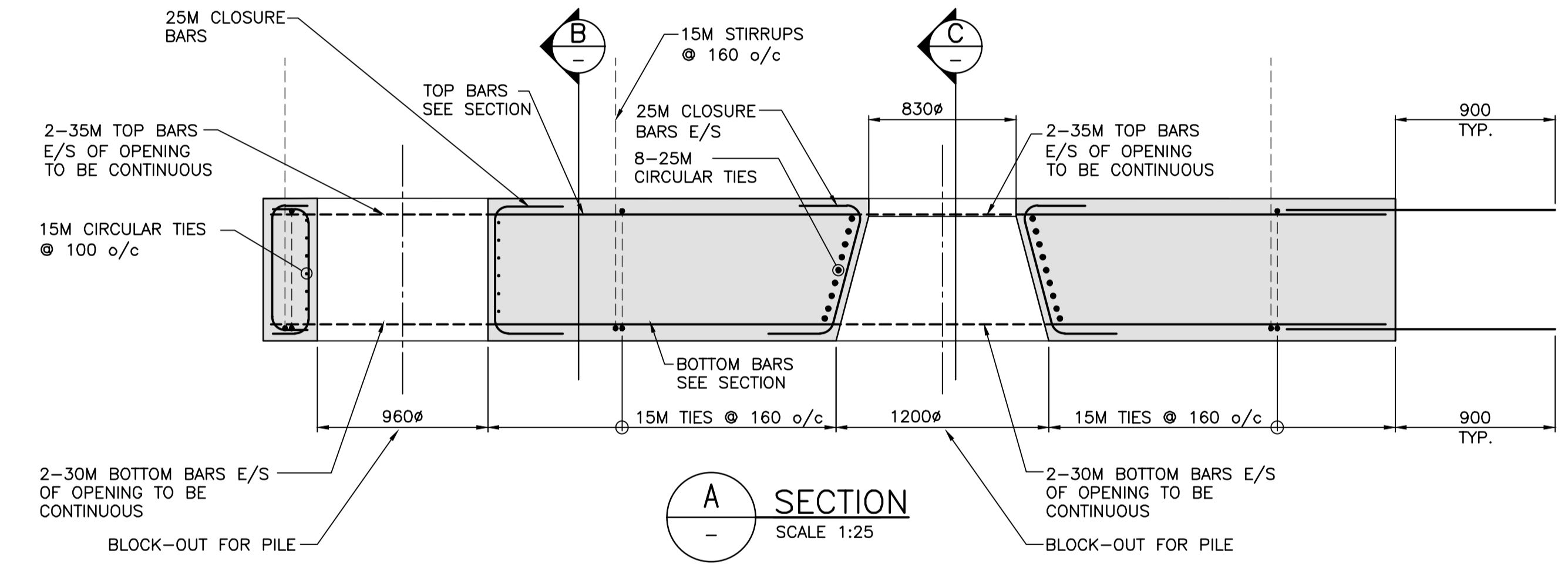
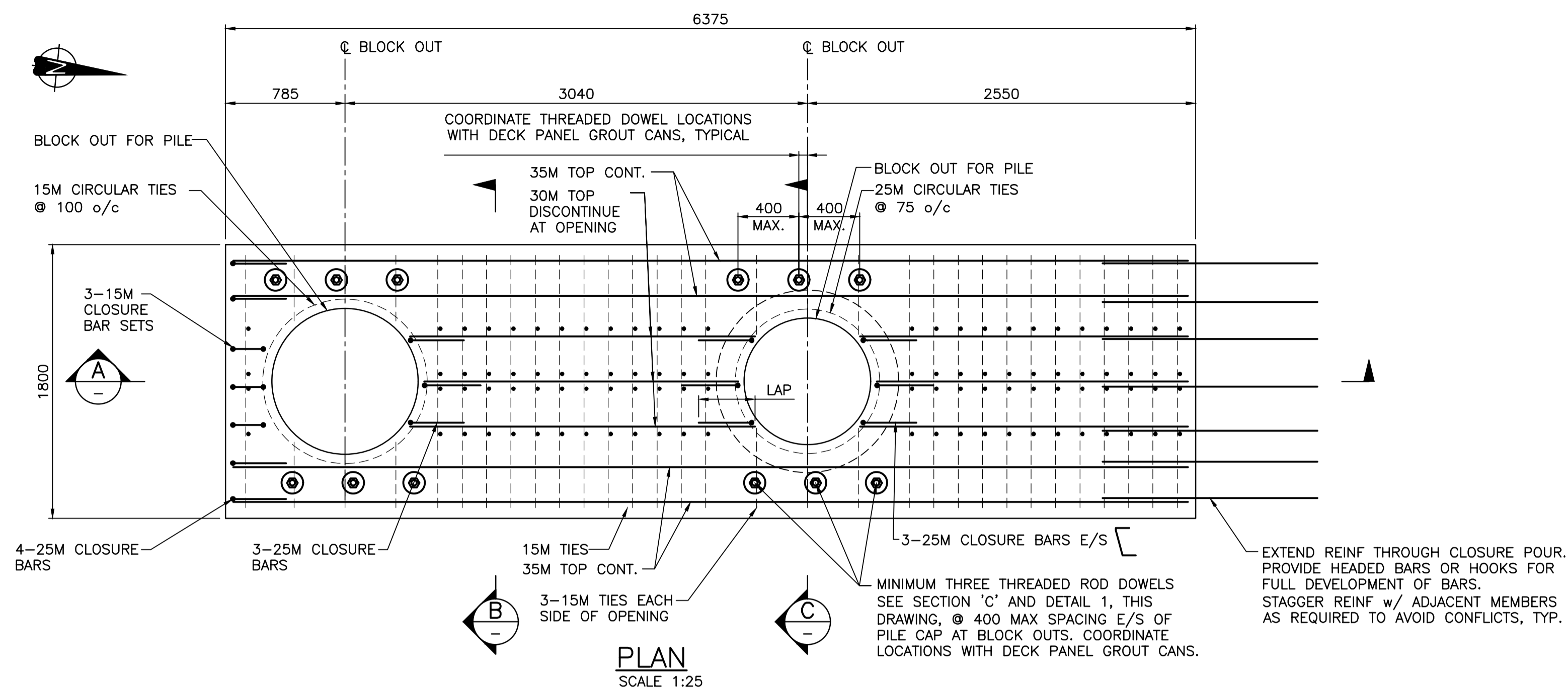
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST PILE CAP
PC16**

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
R.026729.002	S PC16	2



PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S03.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
- ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

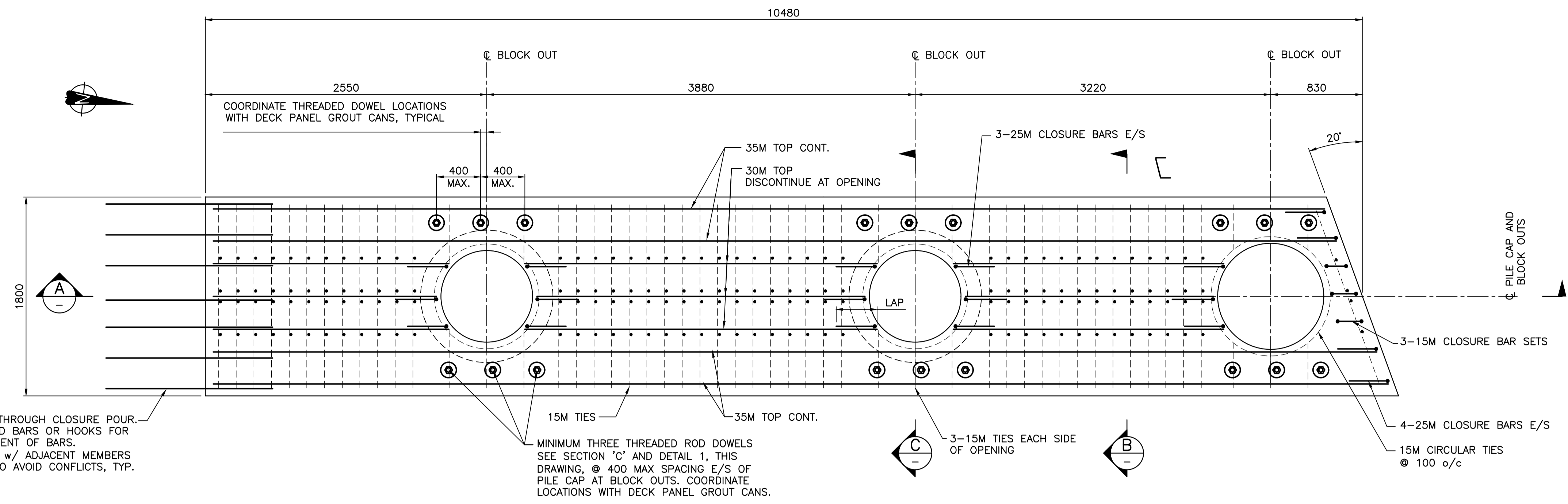
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST PILE CAP
PC2**

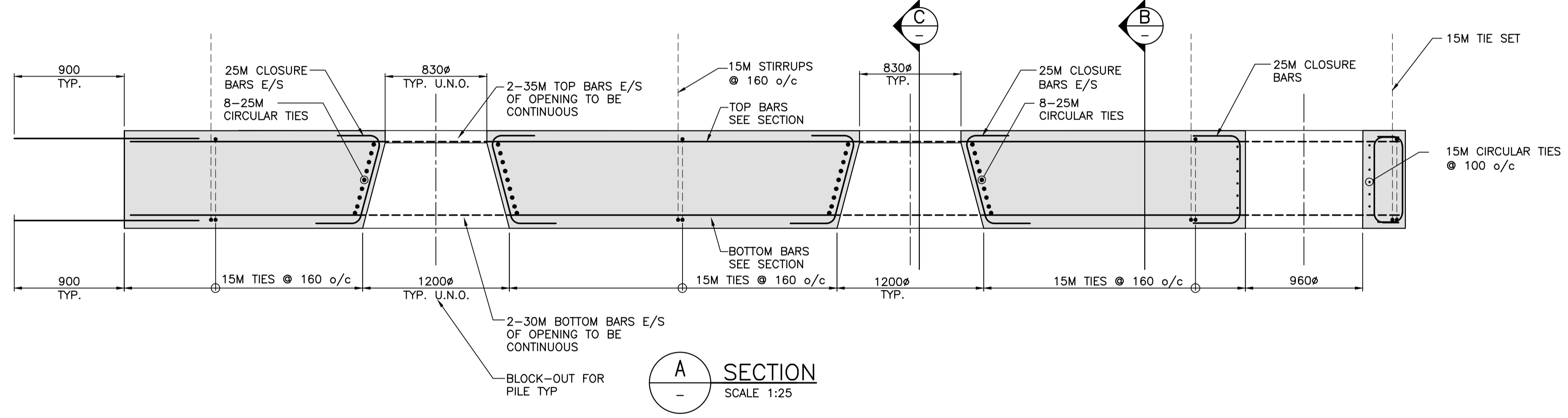
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC2	2



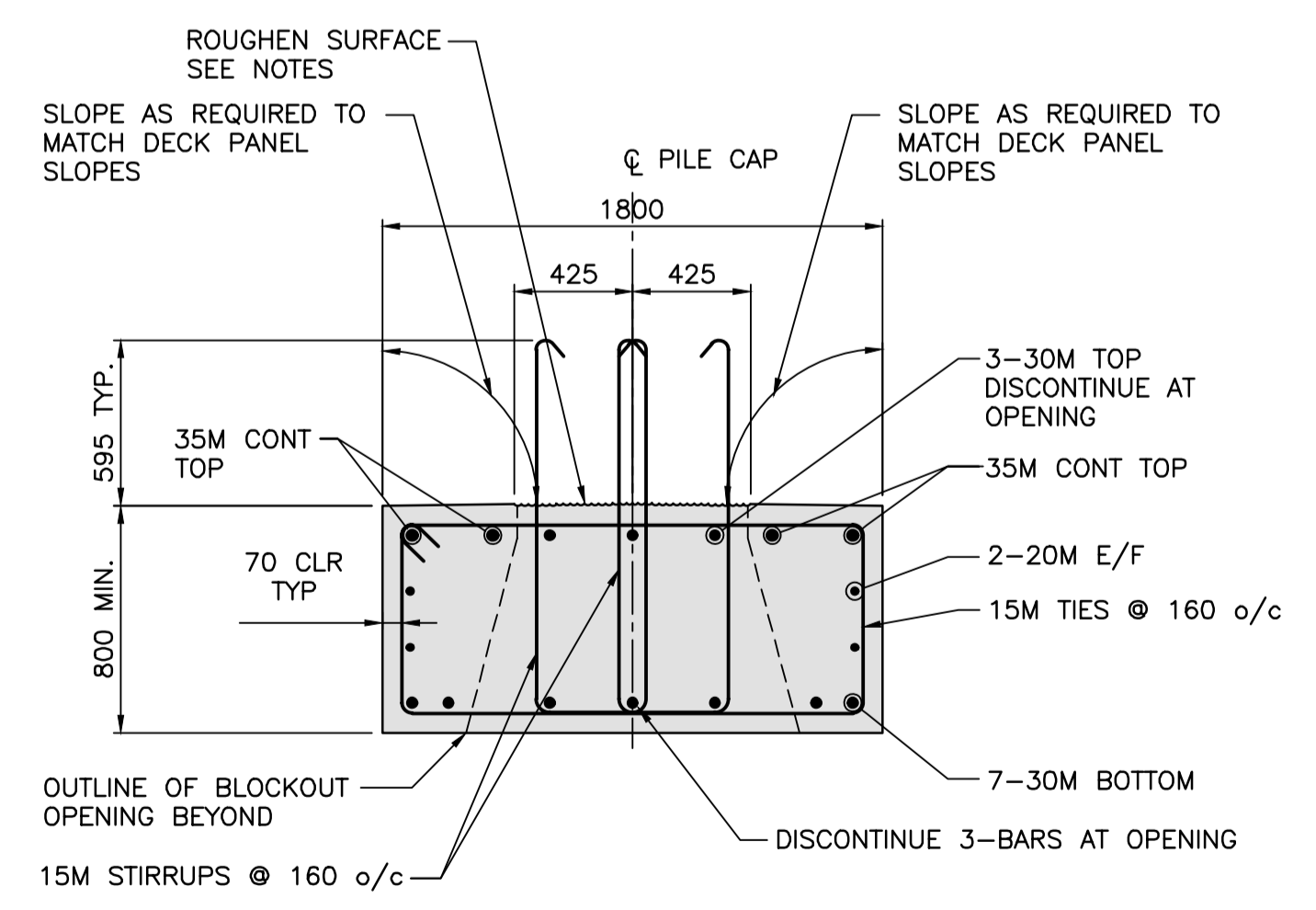
EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF W/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1. THIS DRAWING, @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS.

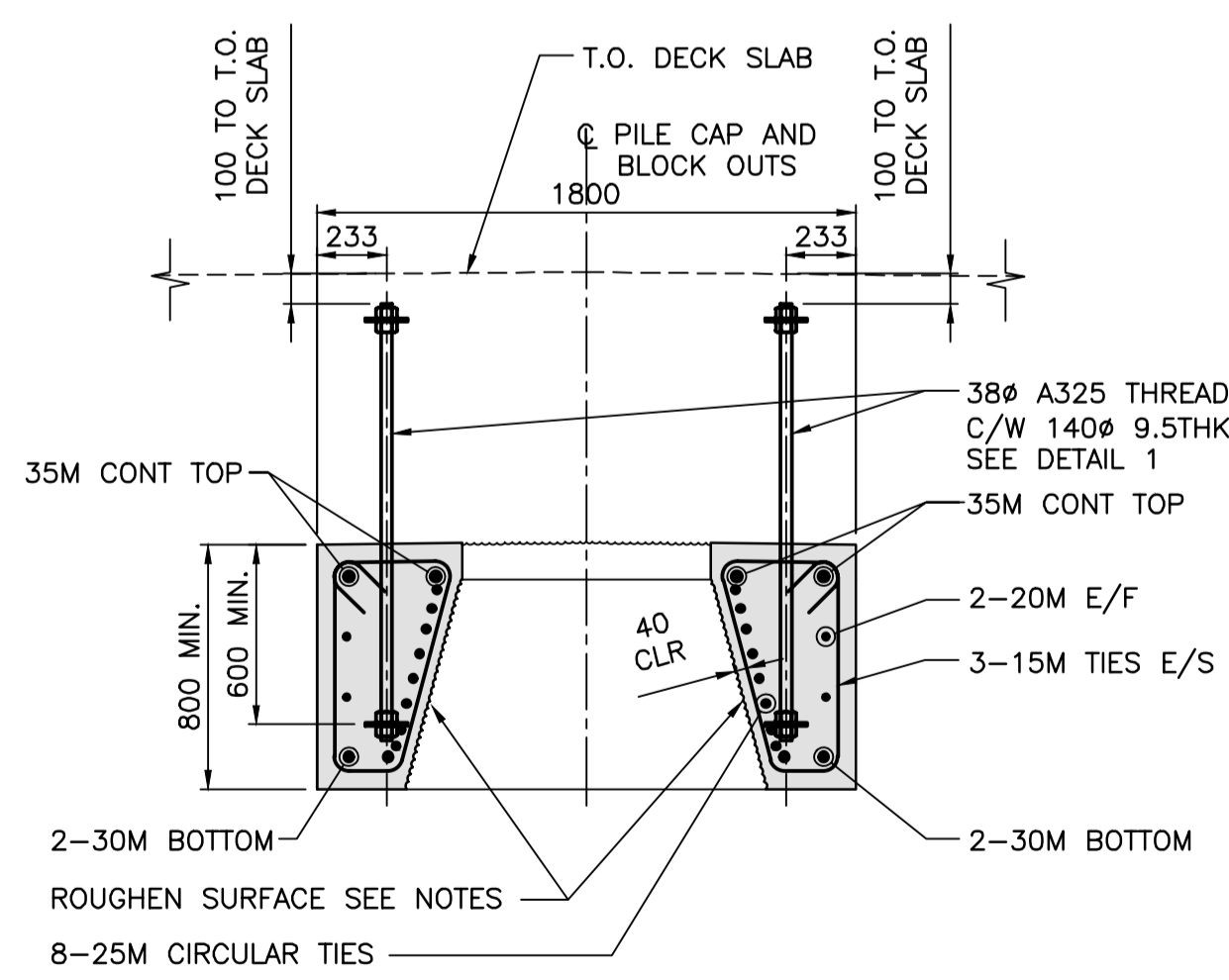
PLAN
SCALE 1:25



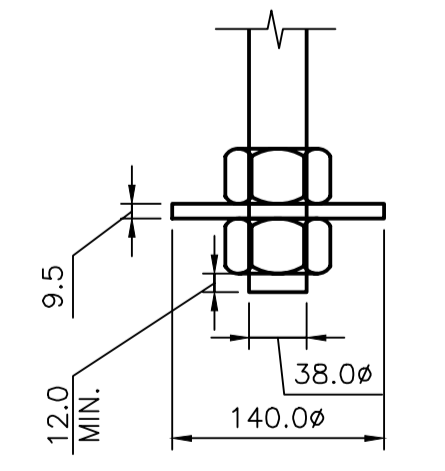
A SECTION
SCALE 1:25



B SECTION
SCALE 1:25



C SECTION
SCALE 1:25



1 DETAIL
SCALE 1:5

PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
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- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
- ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet: ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par: KU, TW

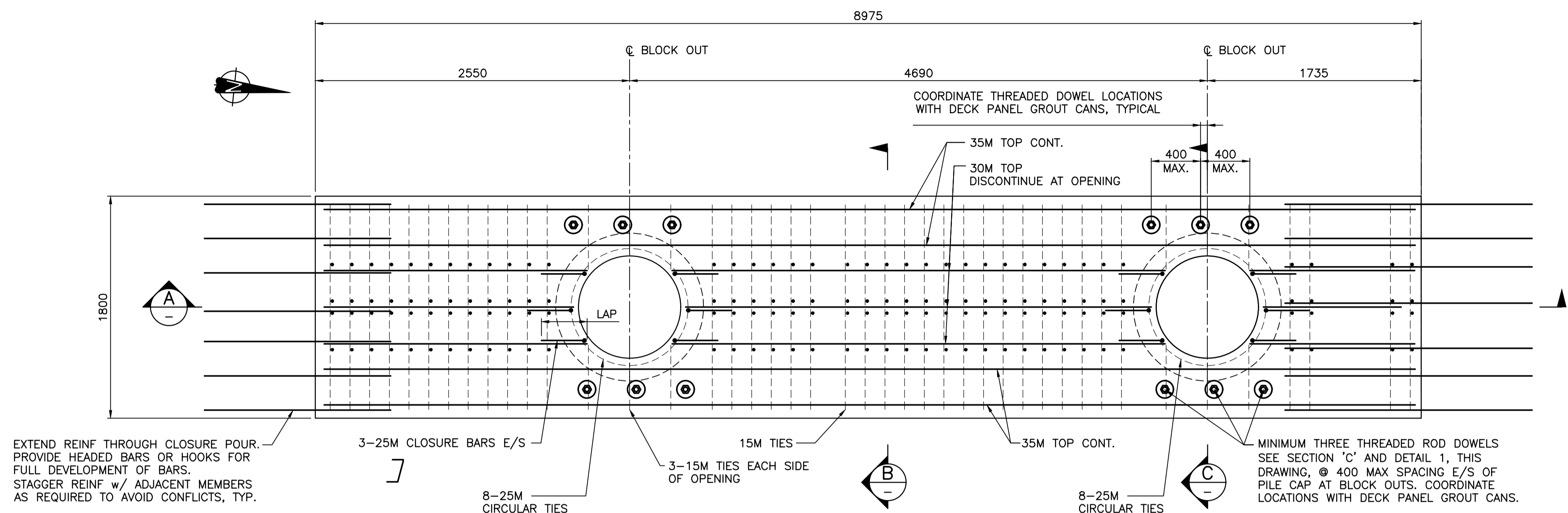
Drawn by/Dessiné par: BOG

PWGSC Project Manager/Administrateur de Projets TPSCG: PATRICK TRUONG

Regional Manager, Architectural and Engineering Services / Regional Manager, Environmental Services: PREETIPAL PAUL

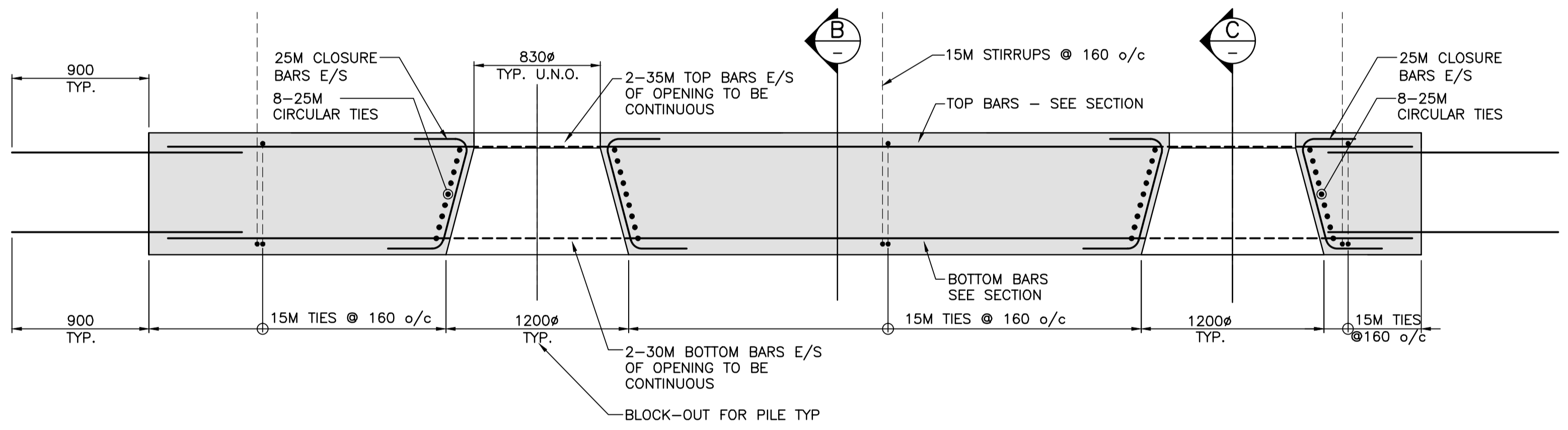
Drawing title/Titre du dessin: PRECAST PILE CAP PC3

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC3	2

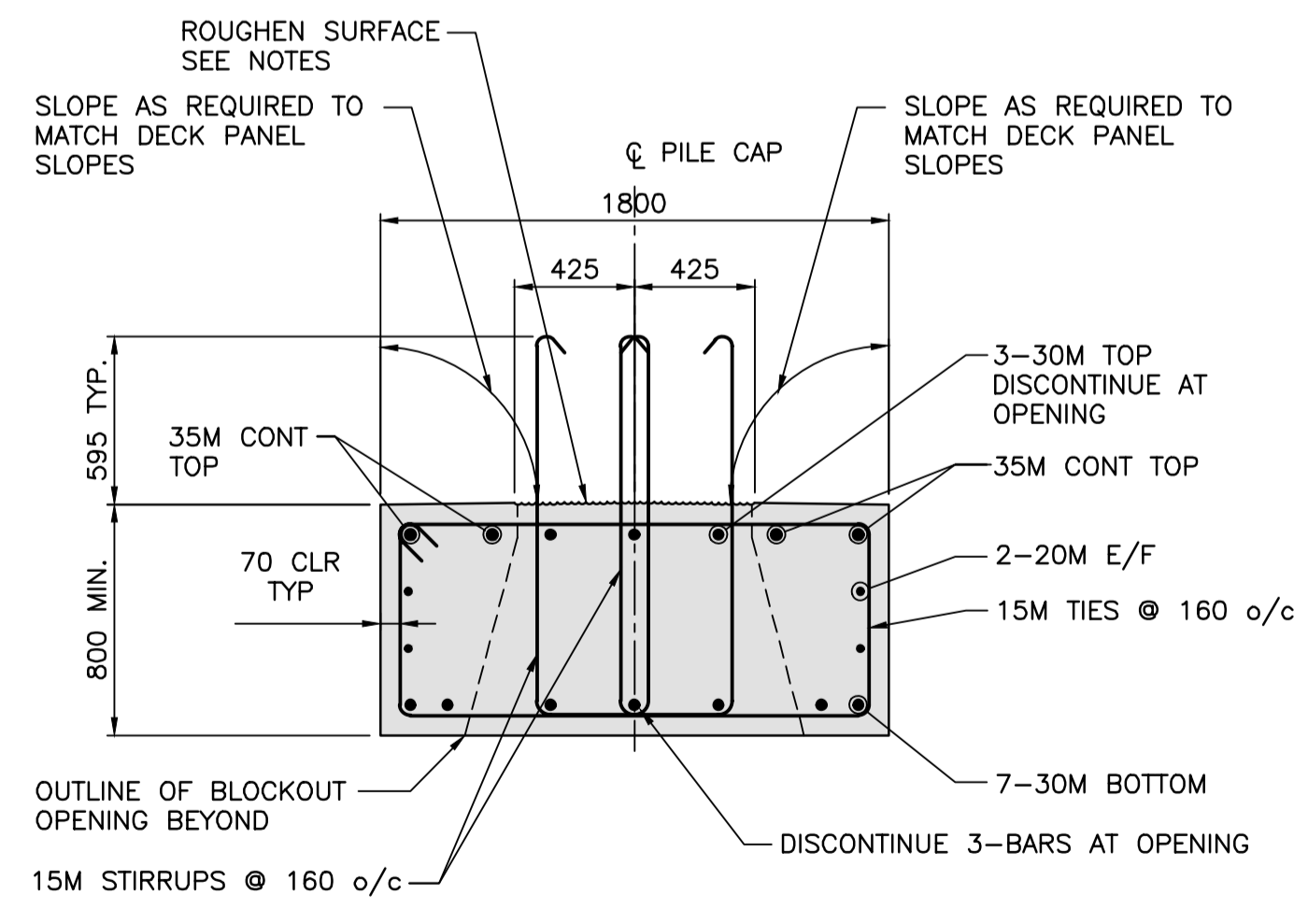


EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

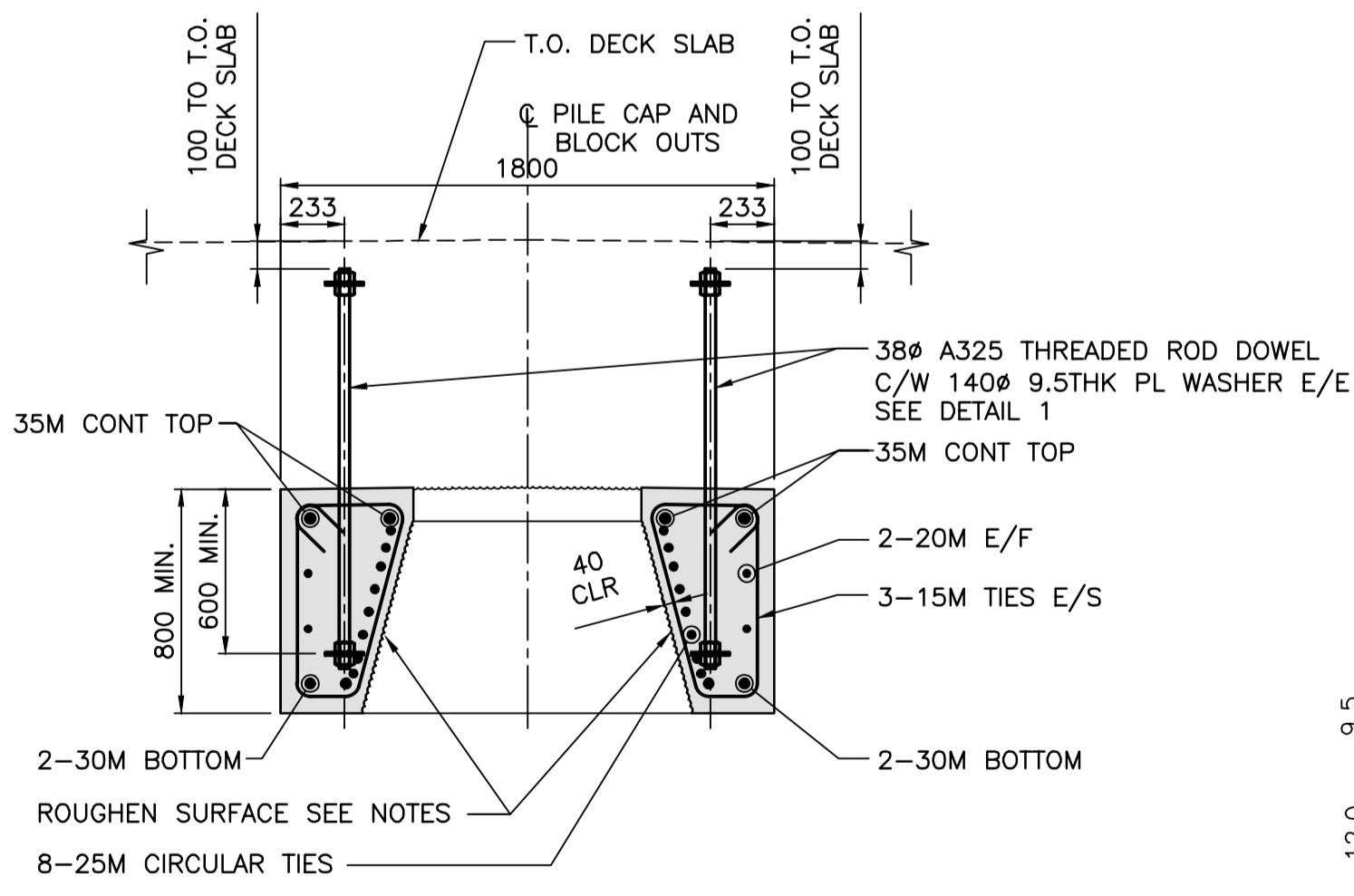
PLAN
SCALE 1:25



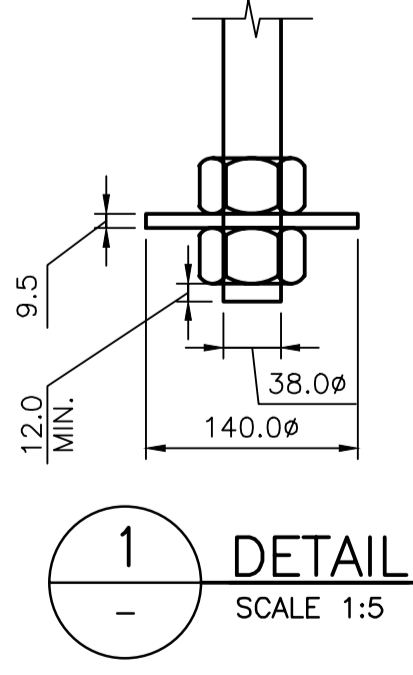
A SECTION
SCALE 1:25



B SECTION
SCALE 1:25



C SECTION
SCALE 1:25



1 DETAIL
SCALE 1:5

PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S03.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
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- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
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Revision/Retain	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

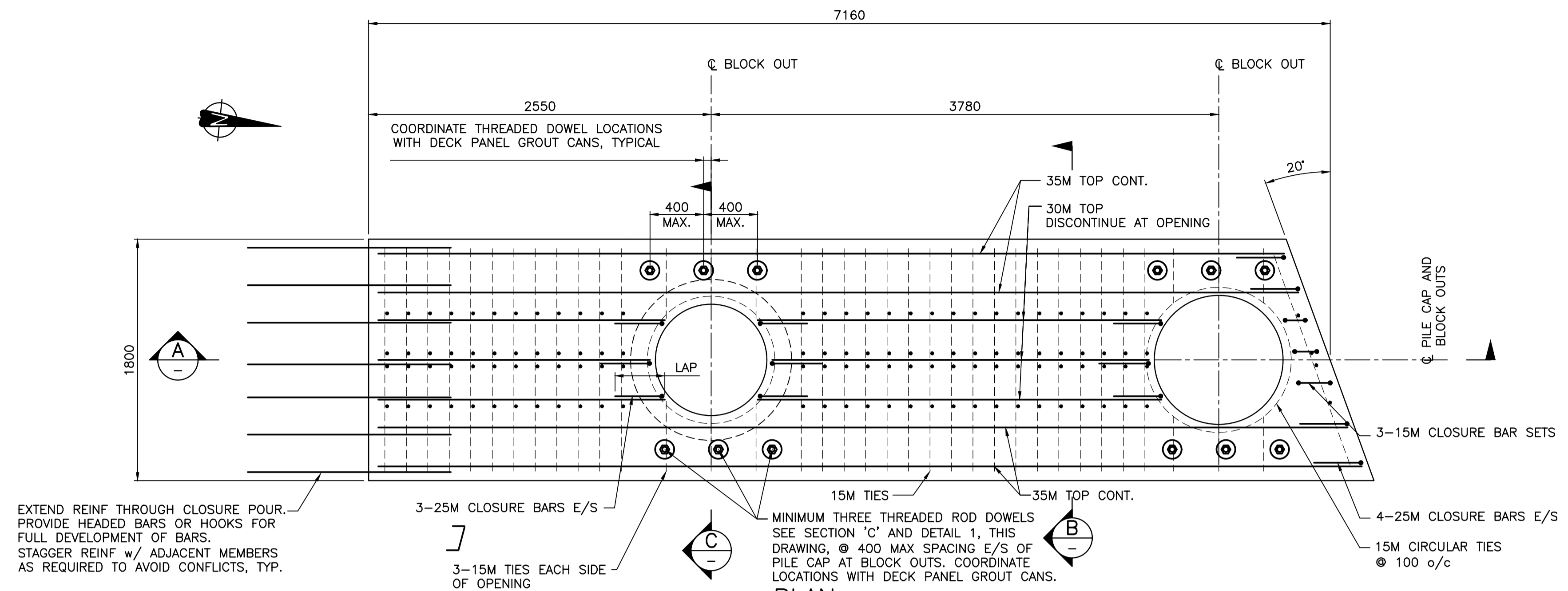
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

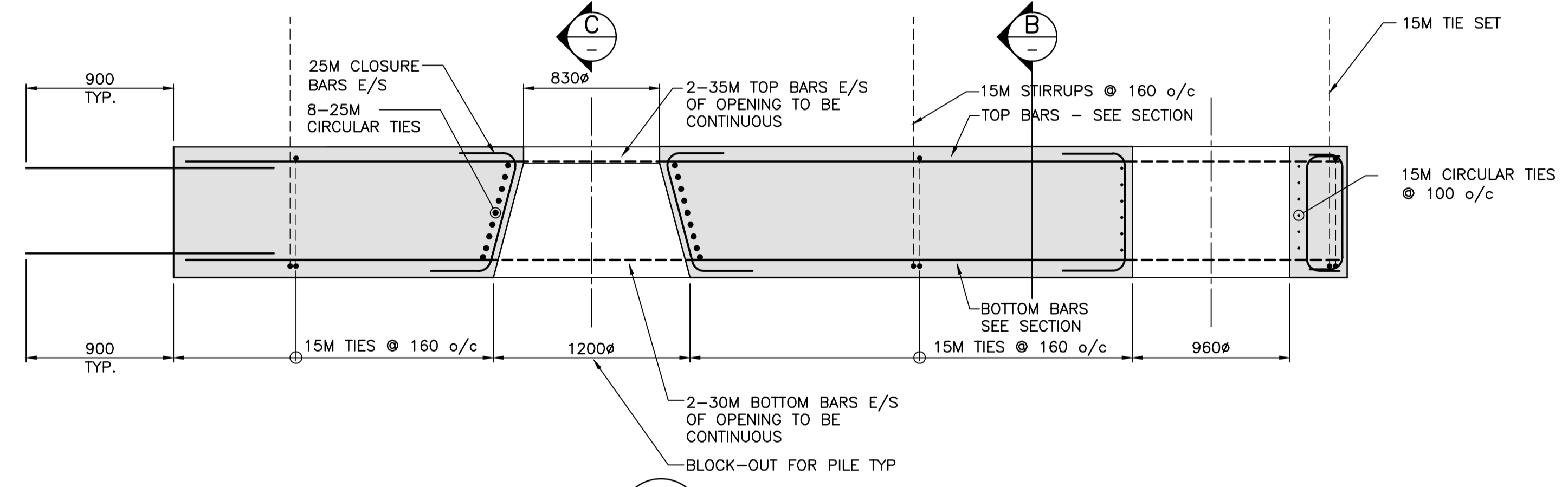
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST PILE CAP
PC4**

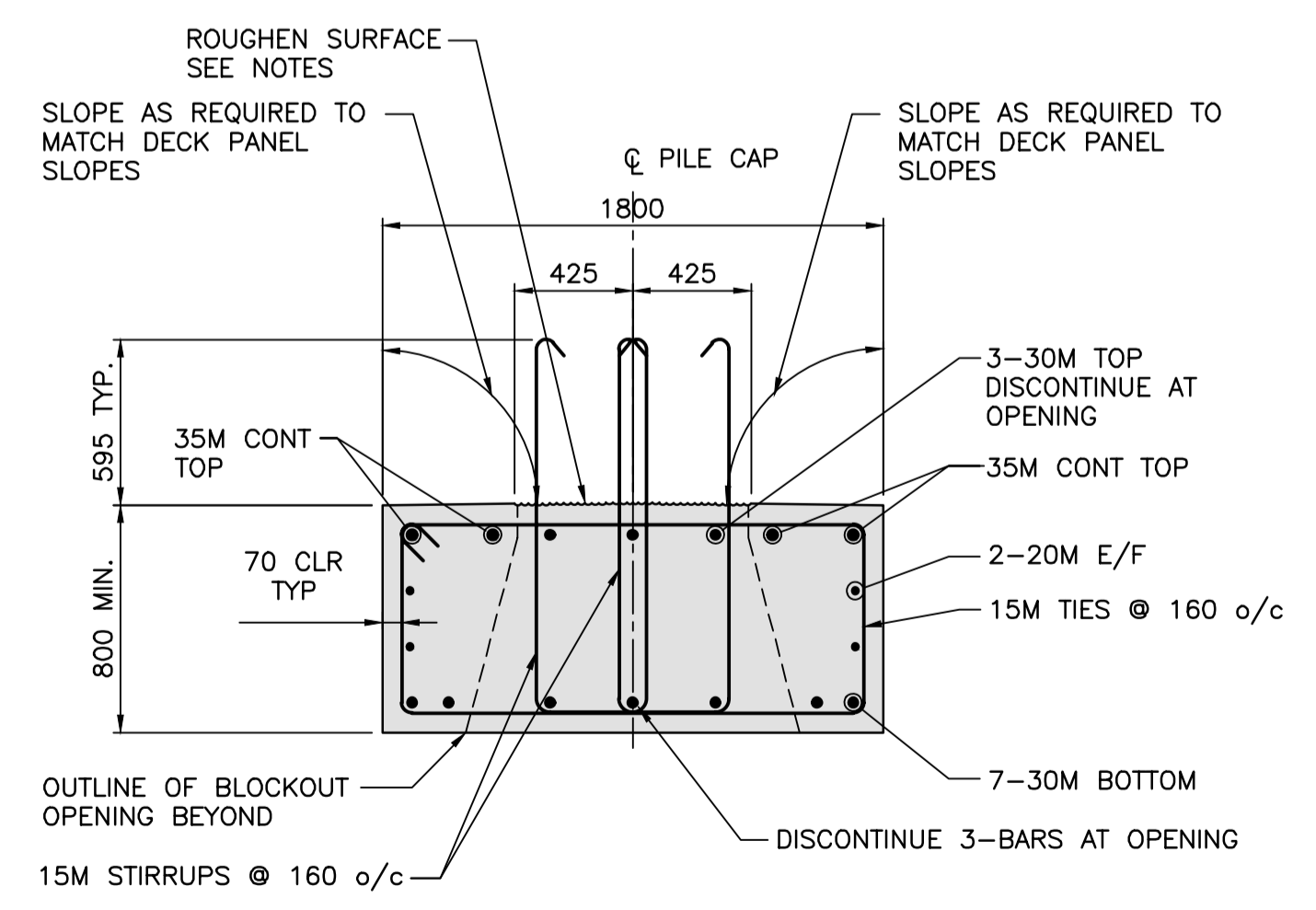
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC4	2



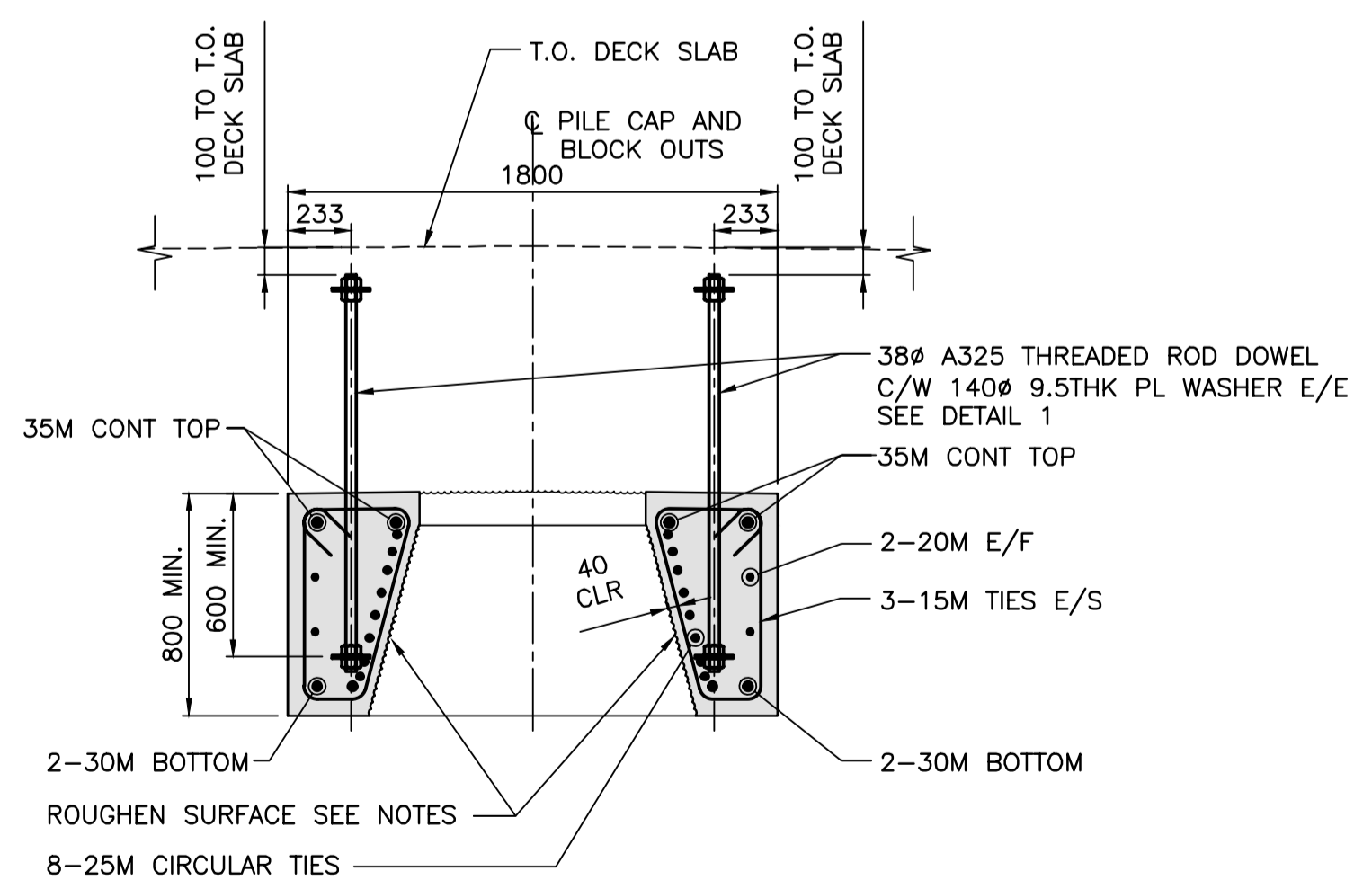
PLAN
SCALE 1:25



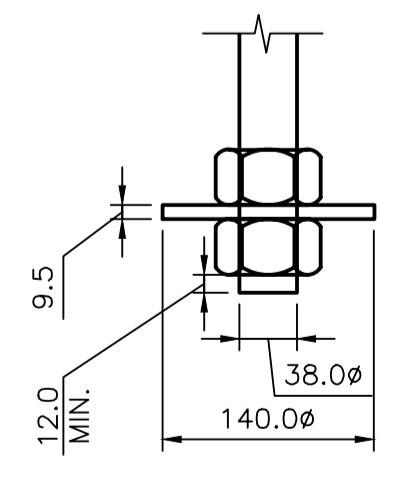
A SECTION
SCALE 1:25



B SECTION
SCALE 1:25



C SECTION
SCALE 1:25



1 DETAIL
SCALE 1:5

PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S03.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
- ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

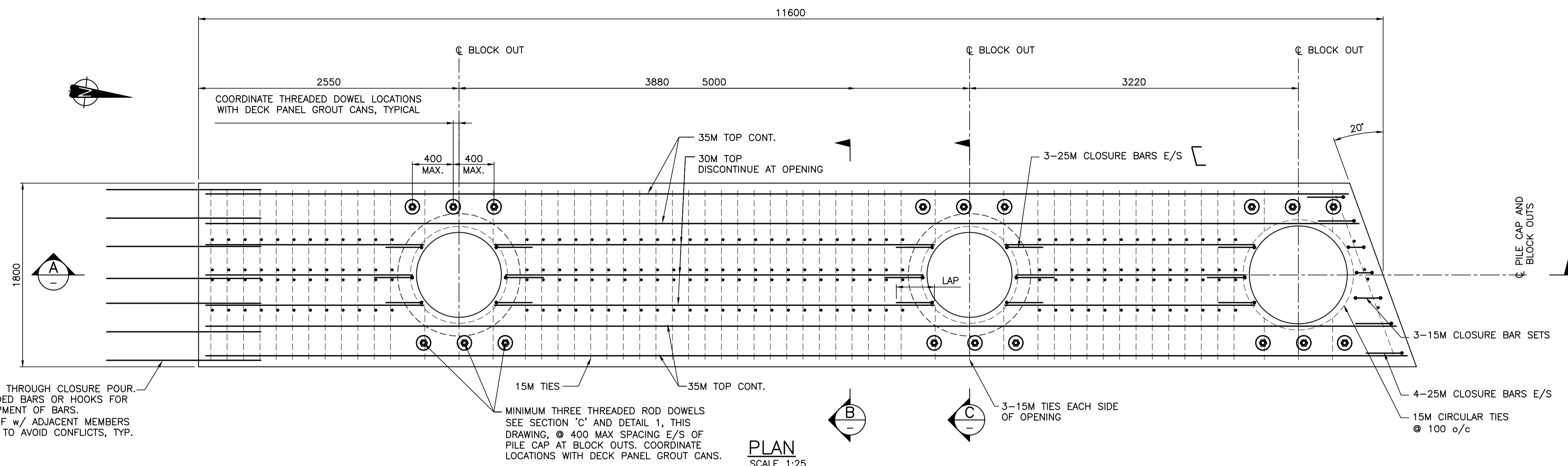
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

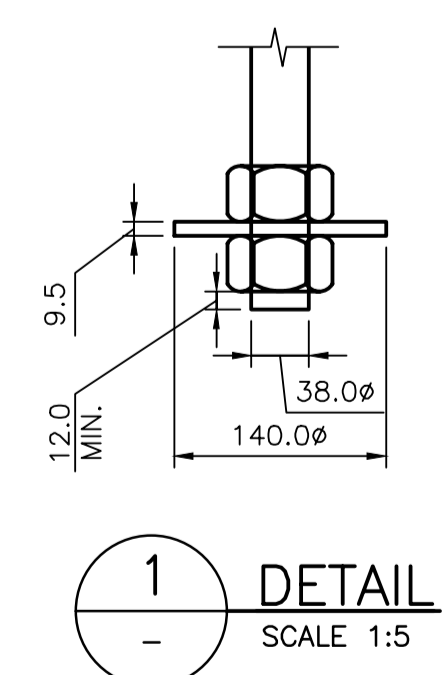
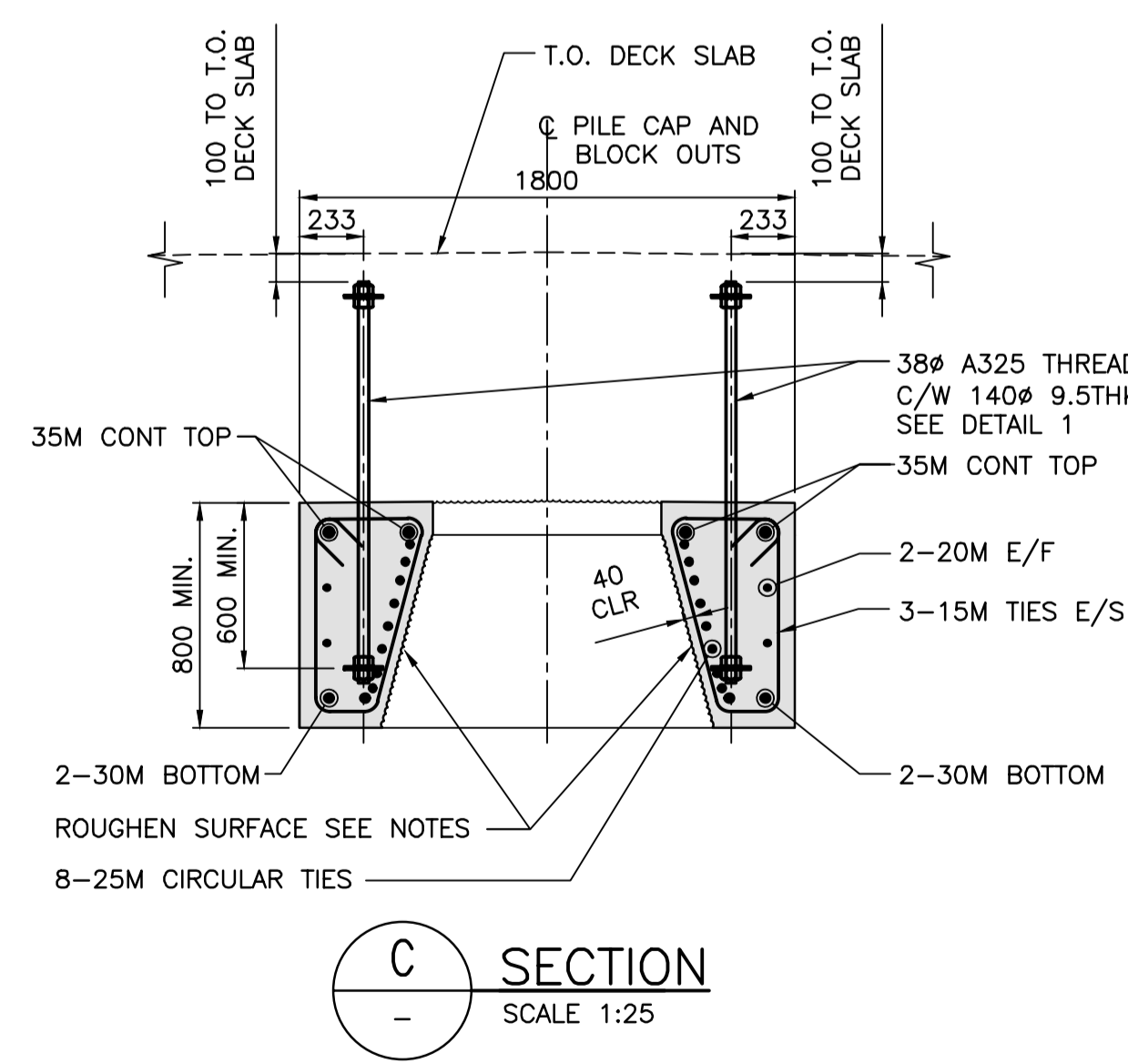
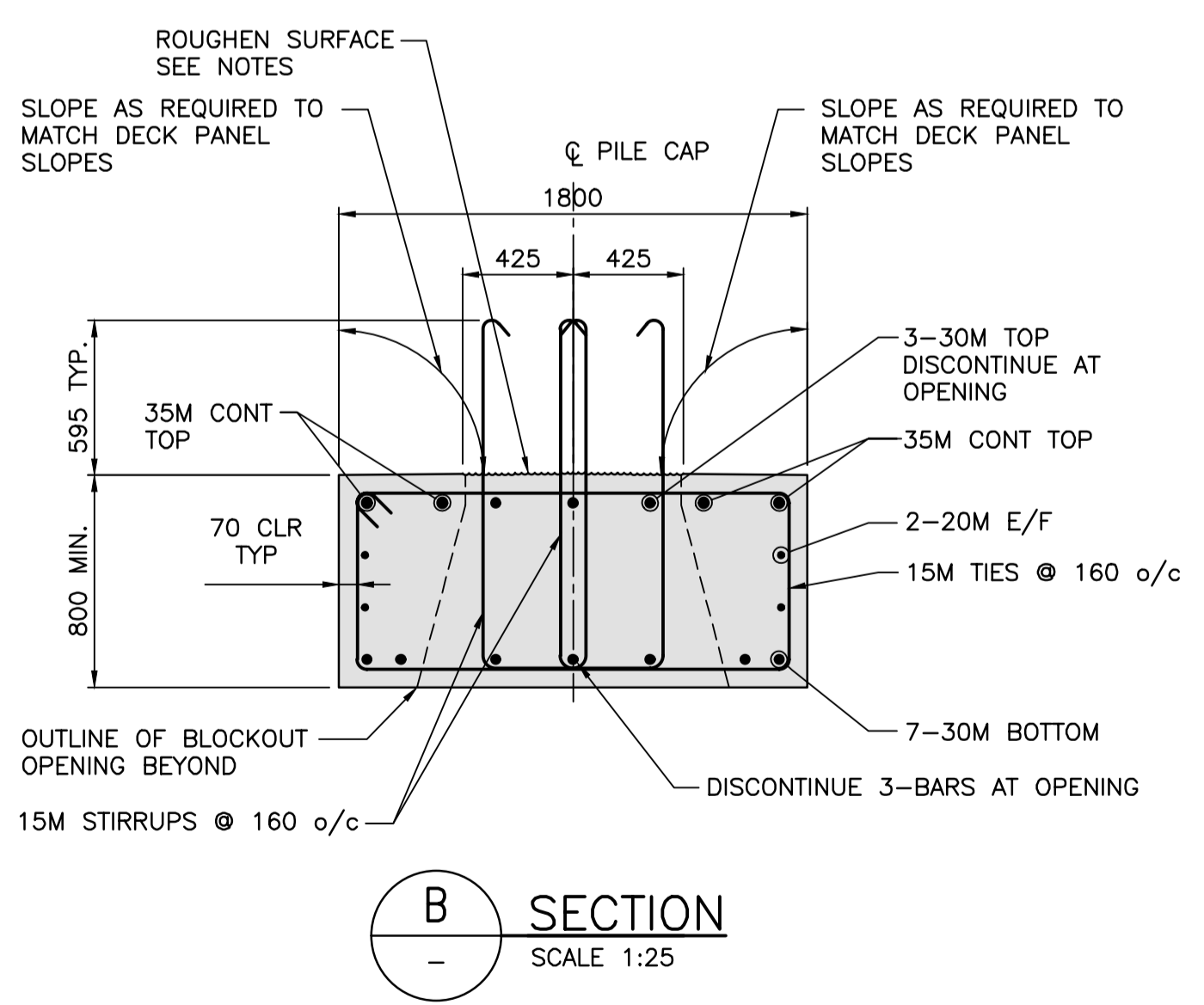
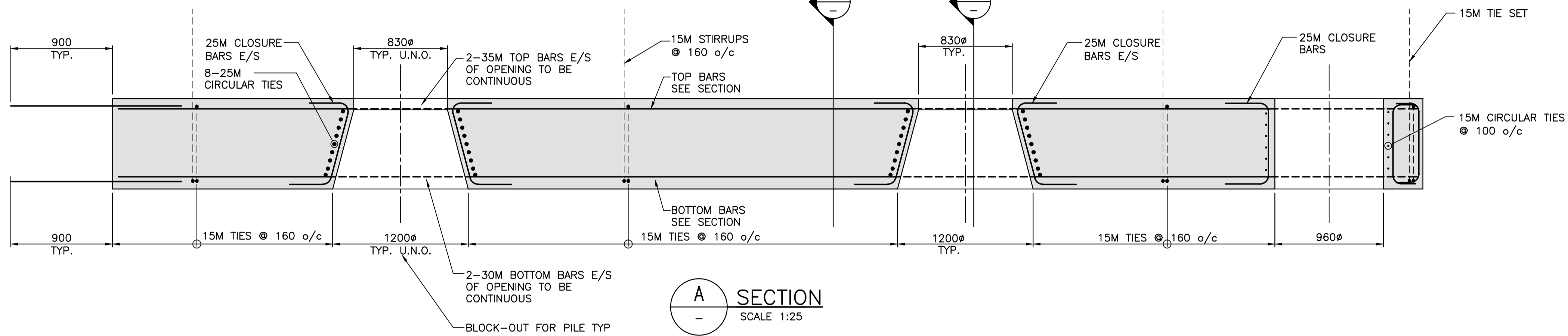
Drawing title/Titre du dessin
**PRECAST PILE CAP
PC5**

Project No./No. du projet R.026729.002	Sheet/Feuille S PC5	Revision no./ La Révision no. 2
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EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1, THIS DRAWING. @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS.



PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. S03.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

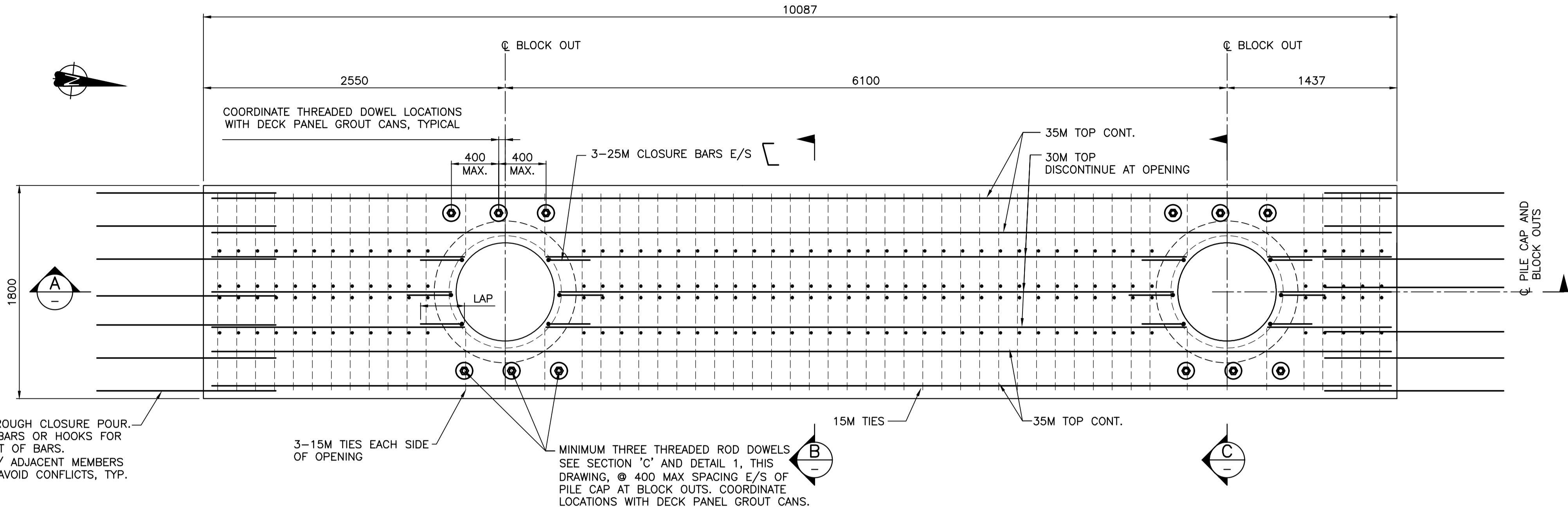
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
PRECAST PILE CAP PC6

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC6	2

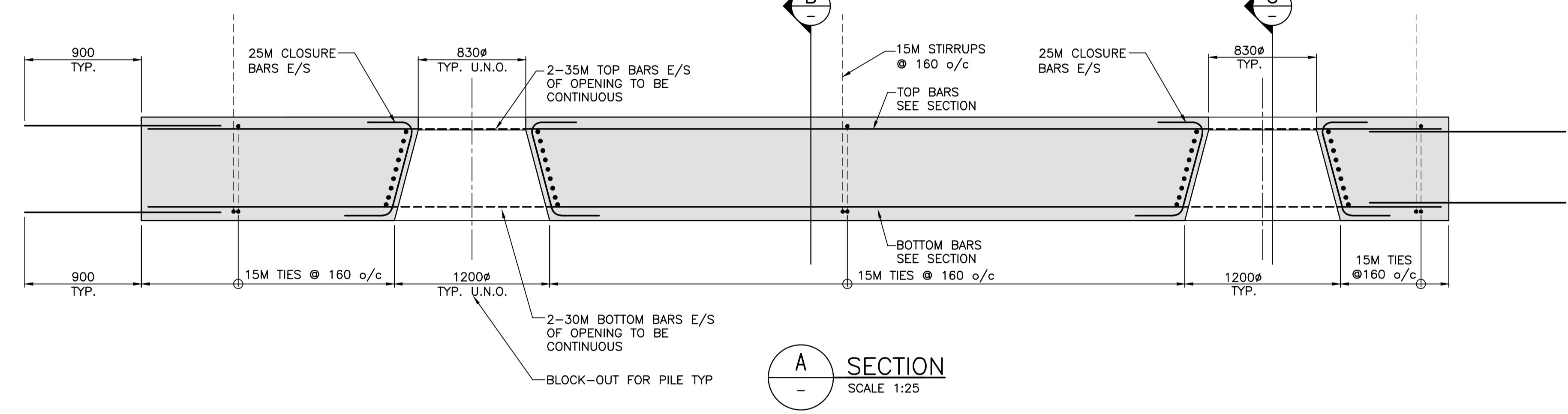


EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

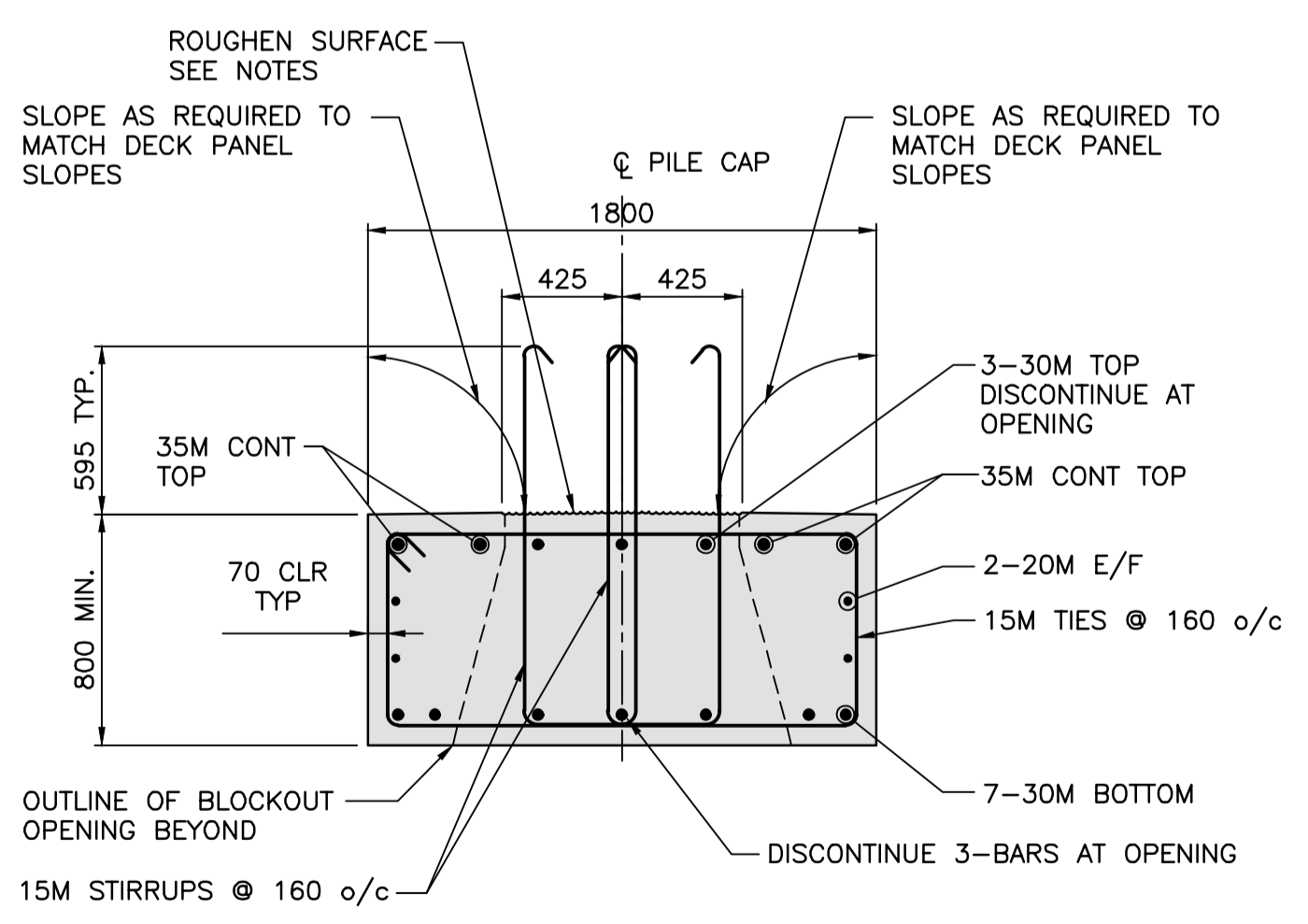
COORDINATE THREADED DOWEL LOCATIONS WITH DECK PANEL GROUT CANS, TYPICAL

MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1, THIS DRAWING, @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS.

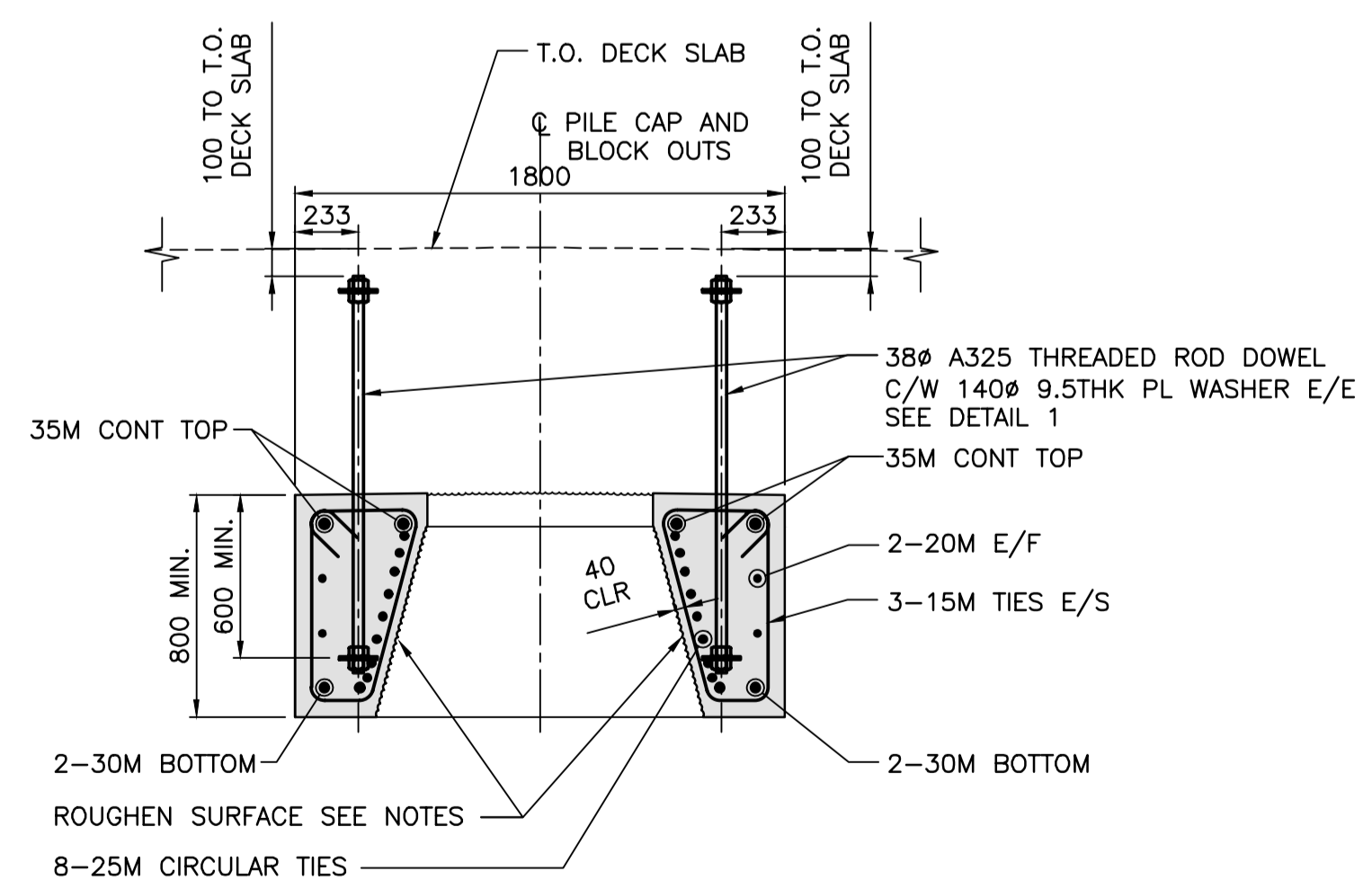
PLAN SCALE 1:25



SECTION A SCALE 1:25



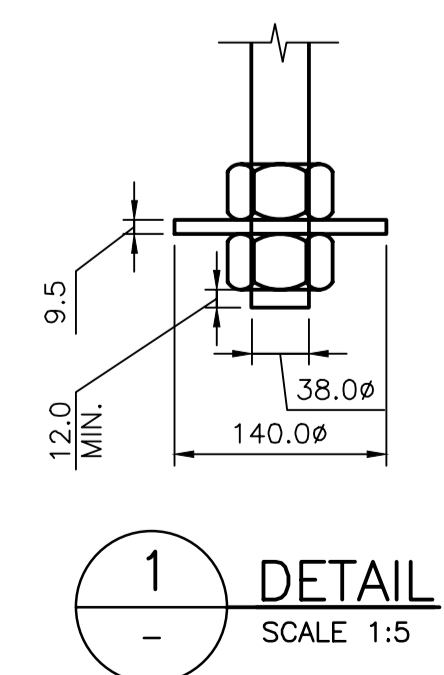
SECTION B SCALE 1:25



SECTION C SCALE 1:25

AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm



DETAIL 1 SCALE 1:5

- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. S01.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

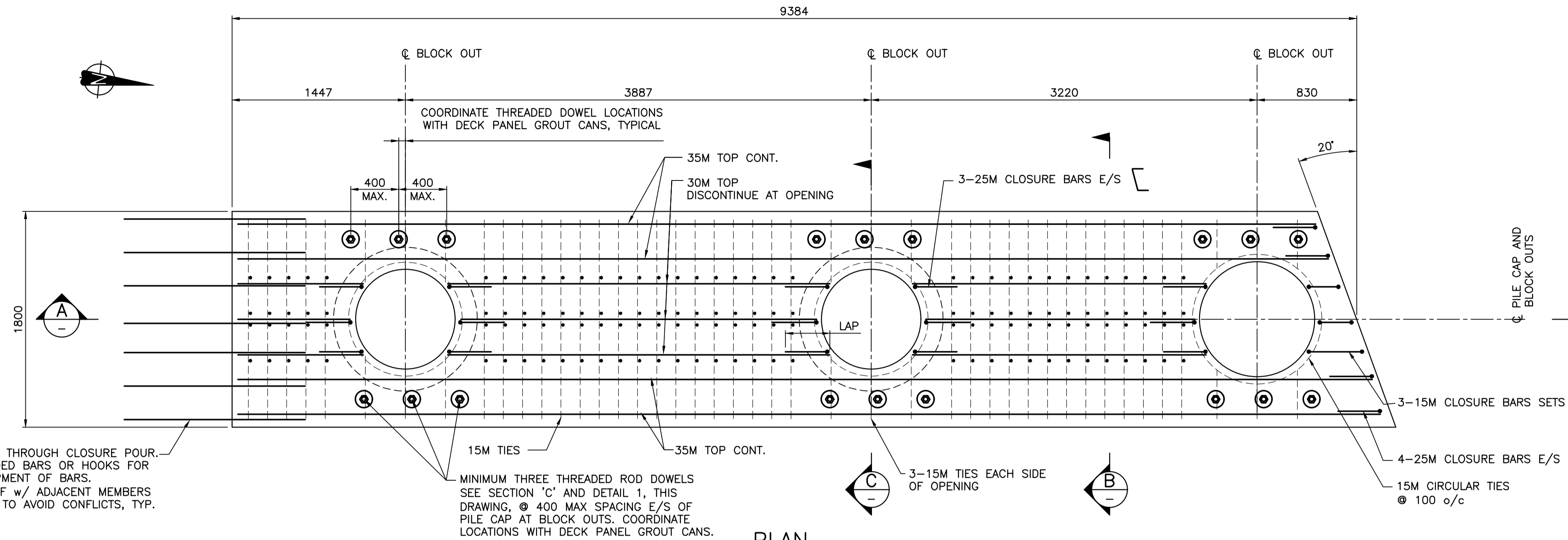
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
JJMC

PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
PRECAST PILE CAP PC7

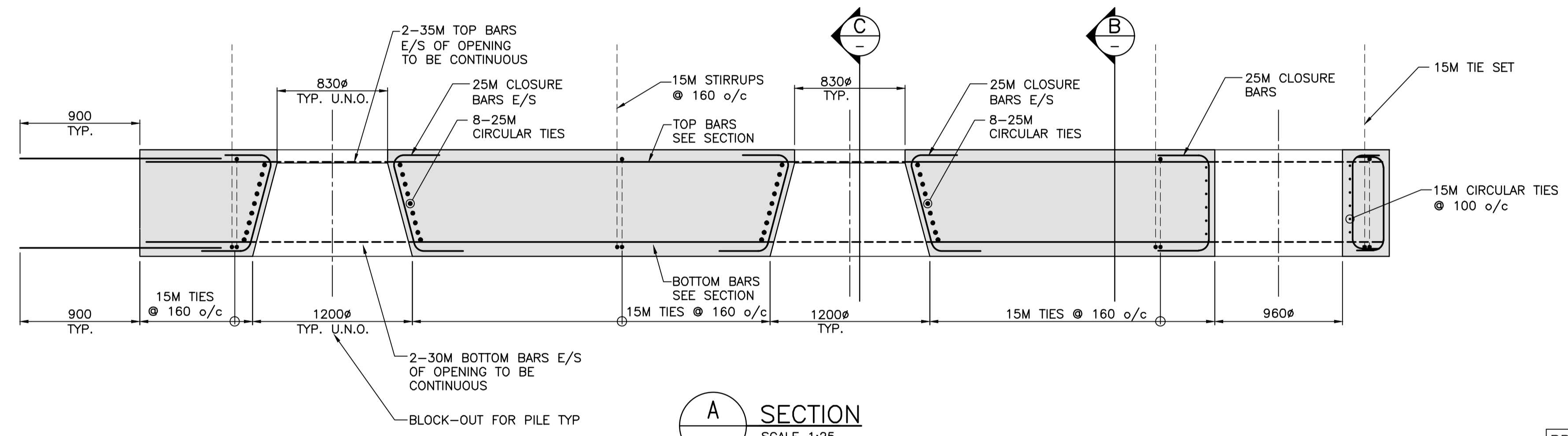
Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC7	2



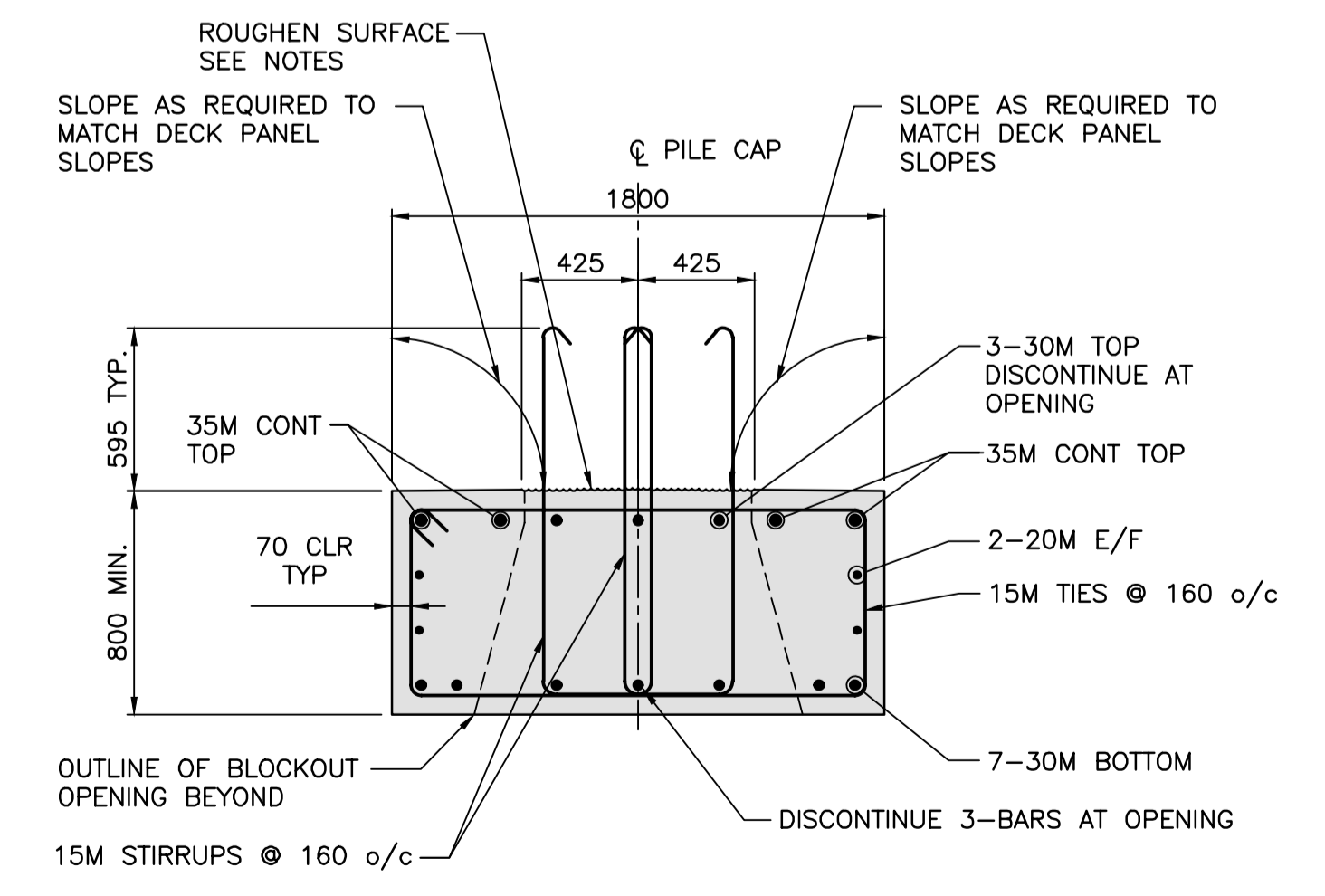
EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF w/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1, THIS DRAWING, @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS.

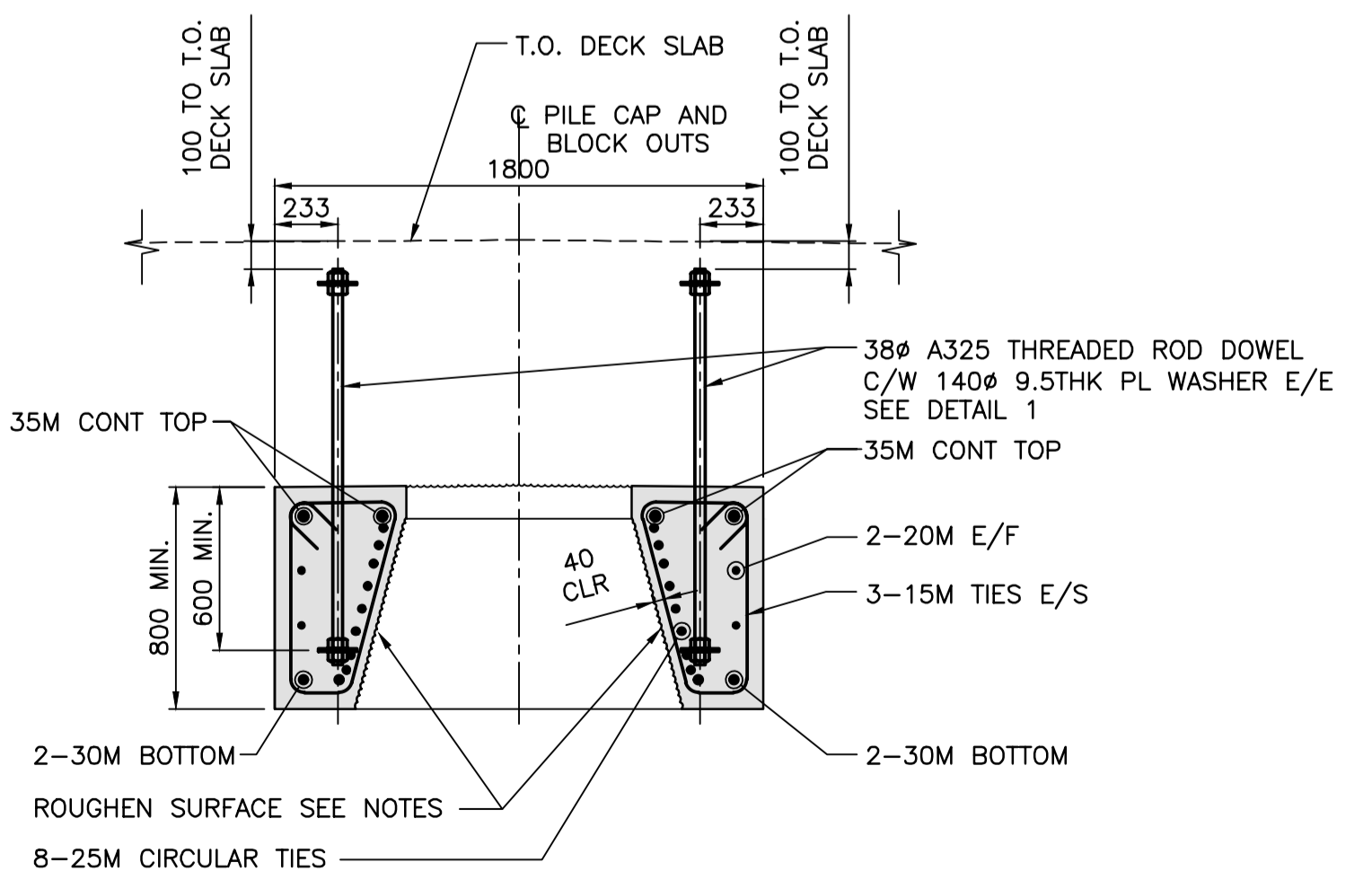
PLAN
SCALE 1:25



A SECTION
SCALE 1:25



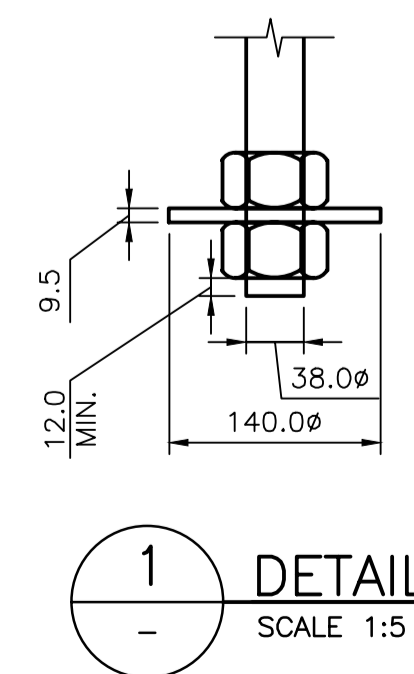
B SECTION
SCALE 1:25



C SECTION
SCALE 1:25

PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm



1 DETAIL
SCALE 1:5

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. SBG1.
- REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH. SEE SPECIFICATIONS.
- ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
- ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

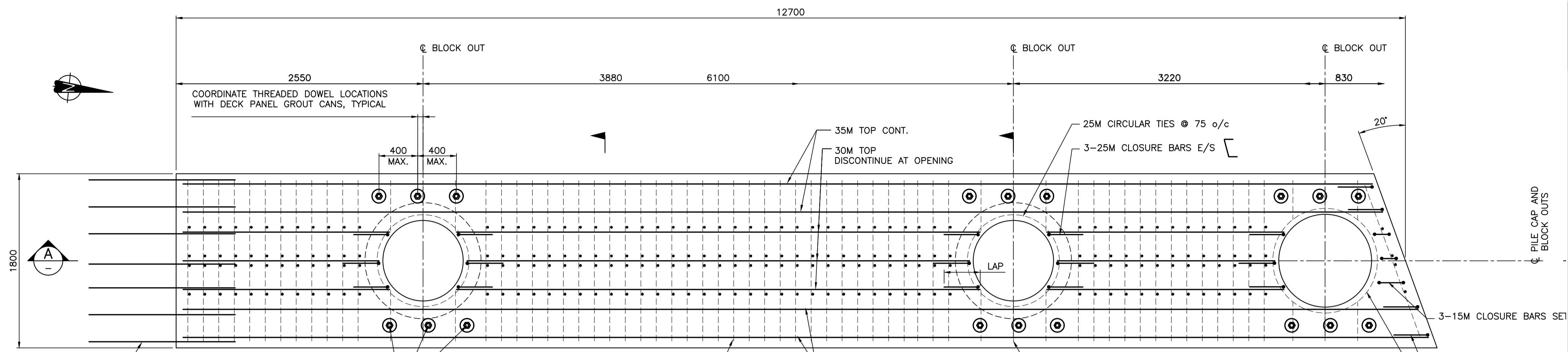
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG
PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

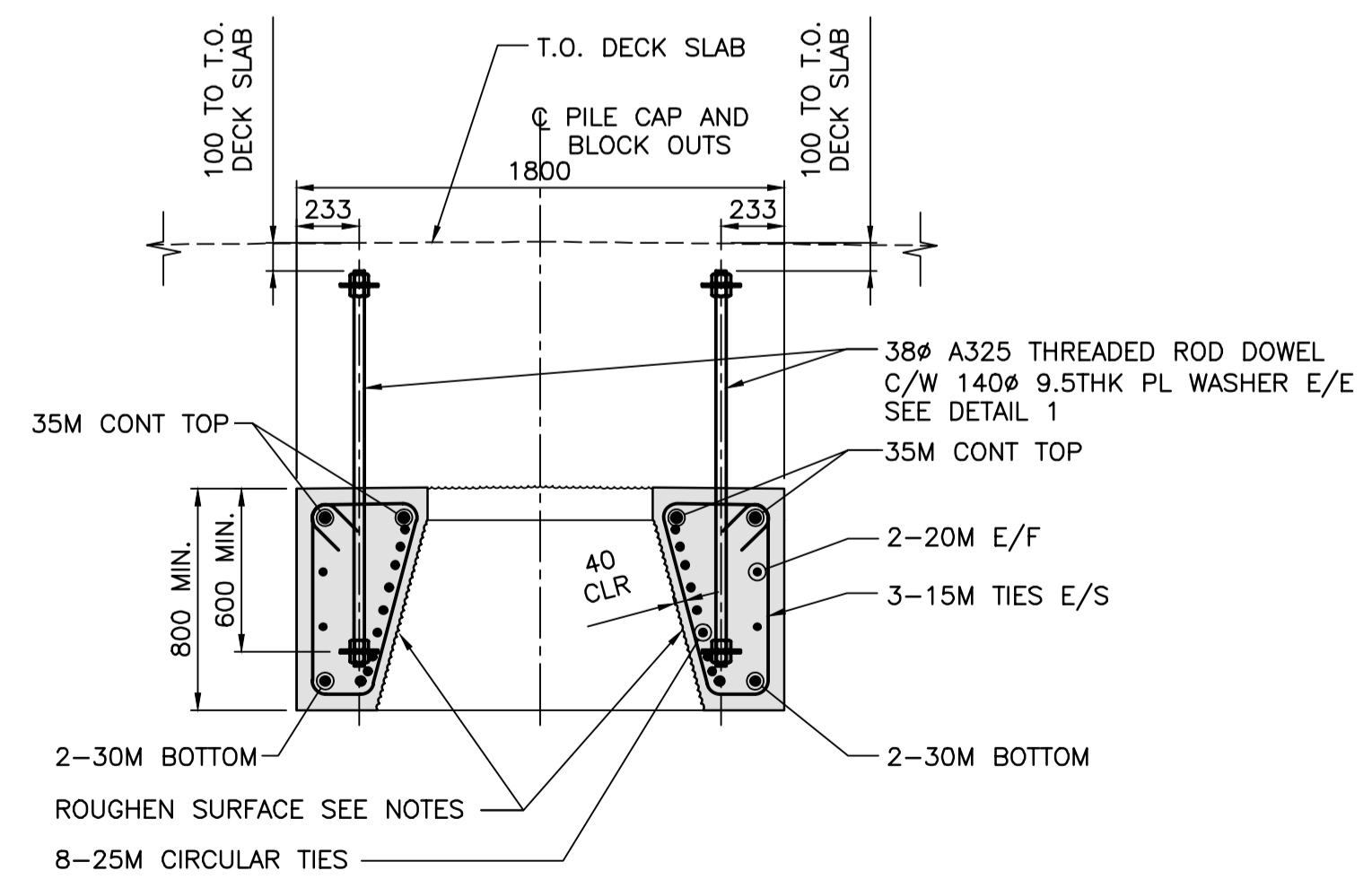
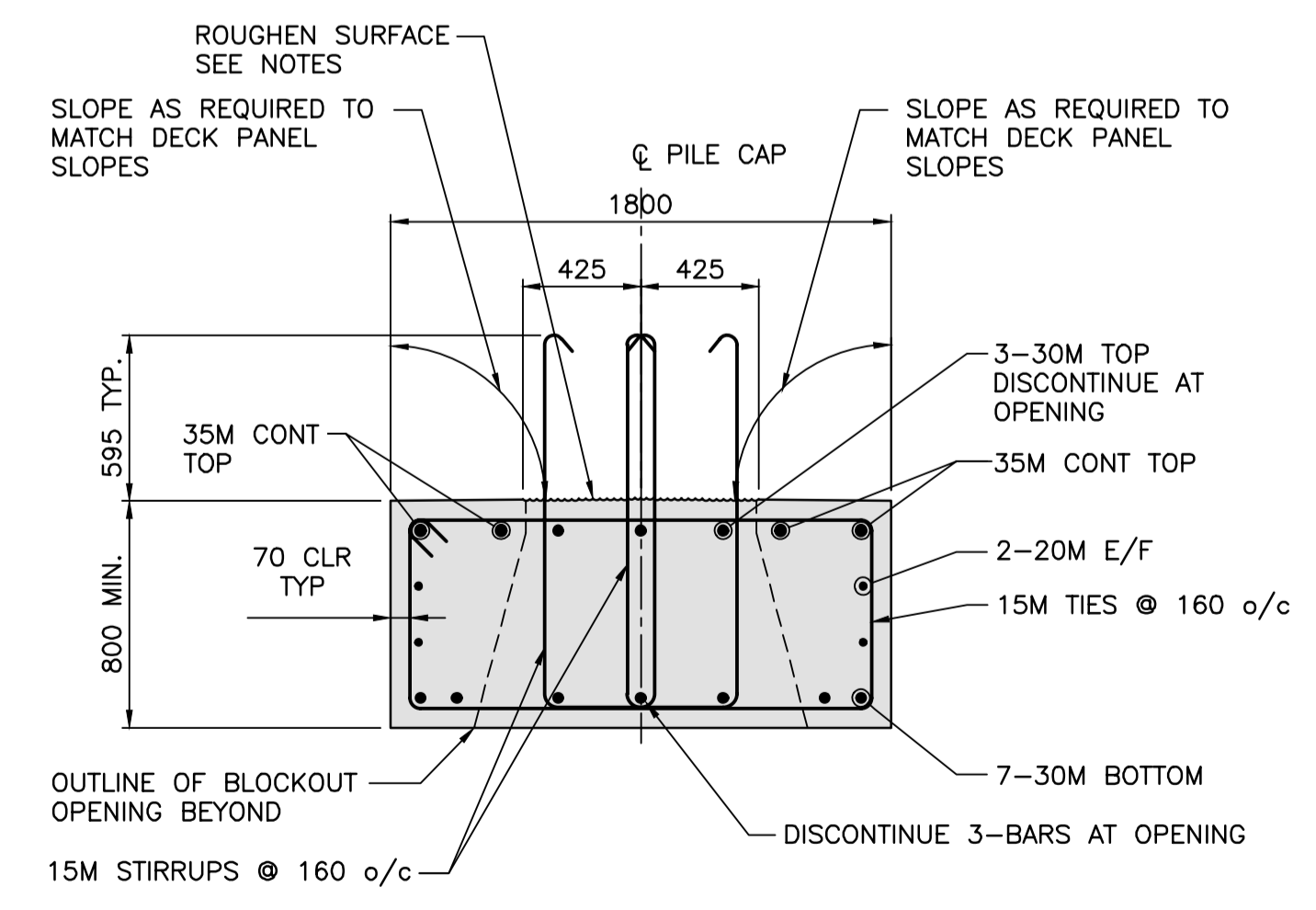
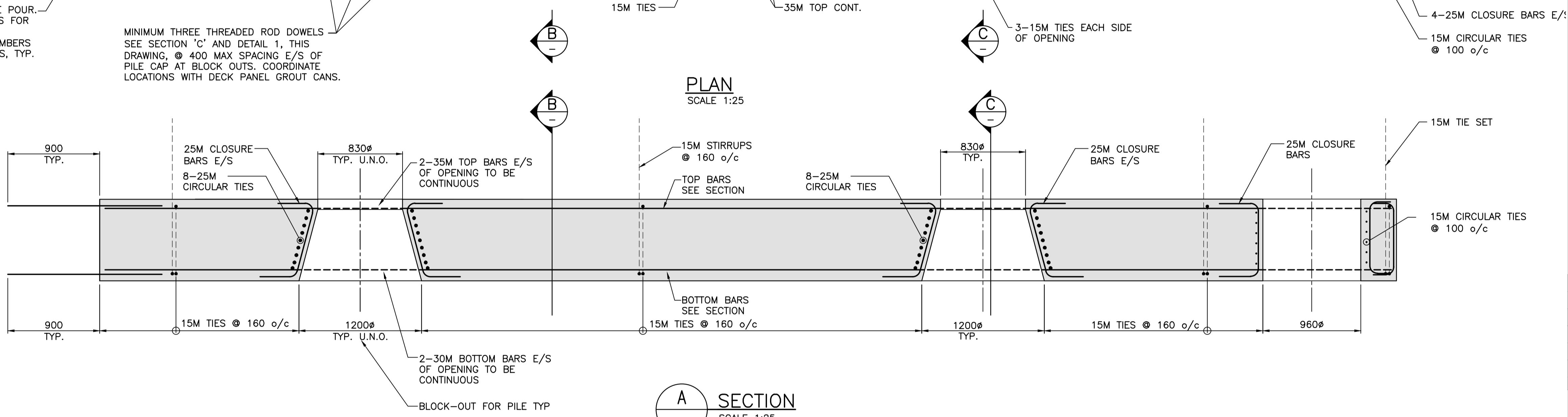
Drawing title/Titre du dessin
**PRECAST PILE CAP
PC8**

Project No./No. du projet R.026729.002	Sheet/Fauille S PC8	Revision no./La Révision no. 2
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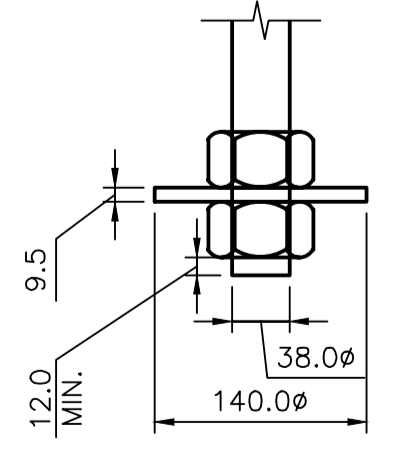
EXTEND REINF THROUGH CLOSURE POUR. PROVIDE HEADED BARS OR HOOKS FOR FULL DEVELOPMENT OF BARS. STAGGER REINF W/ ADJACENT MEMBERS AS REQUIRED TO AVOID CONFLICTS, TYP.

MINIMUM THREE THREADED ROD DOWELS SEE SECTION 'C' AND DETAIL 1, THIS DRAWING, @ 400 MAX SPACING E/S OF PILE CAP AT BLOCK OUTS. COORDINATE LOCATIONS WITH DECK PANEL GROUT CANS.



PRECAST PILE CAP CONCRETE COVER INFO	
AT EXPOSED FACES (SIDES & BOTTOM)	AT COVERED FACES (TOP)
70mm	40mm

PRECAST PILE CAP CAMBER VALUES	
PILE-TO-PILE SPAN DISTANCE	CAMBER
LESS THAN 3500	5mm
3500 TO 5000	7.5mm
MORE THAN 5000	10mm



- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. SBG1.
 - REFER TO DWG. S03 & S04 FOR QUANTITY, LOCATION AND ORIENTATION.
 - DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS.
 - ENSURE NO CONFLICT EXISTS BETWEEN THESE DOWELS AND DOWELS FROM ADJACENT PRECAST MEMBERS.
 - ROUGHEN ALL SURFACES TO RECEIVE CAST IN PLACE CONCRETE SEE SPECIFICATIONS.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

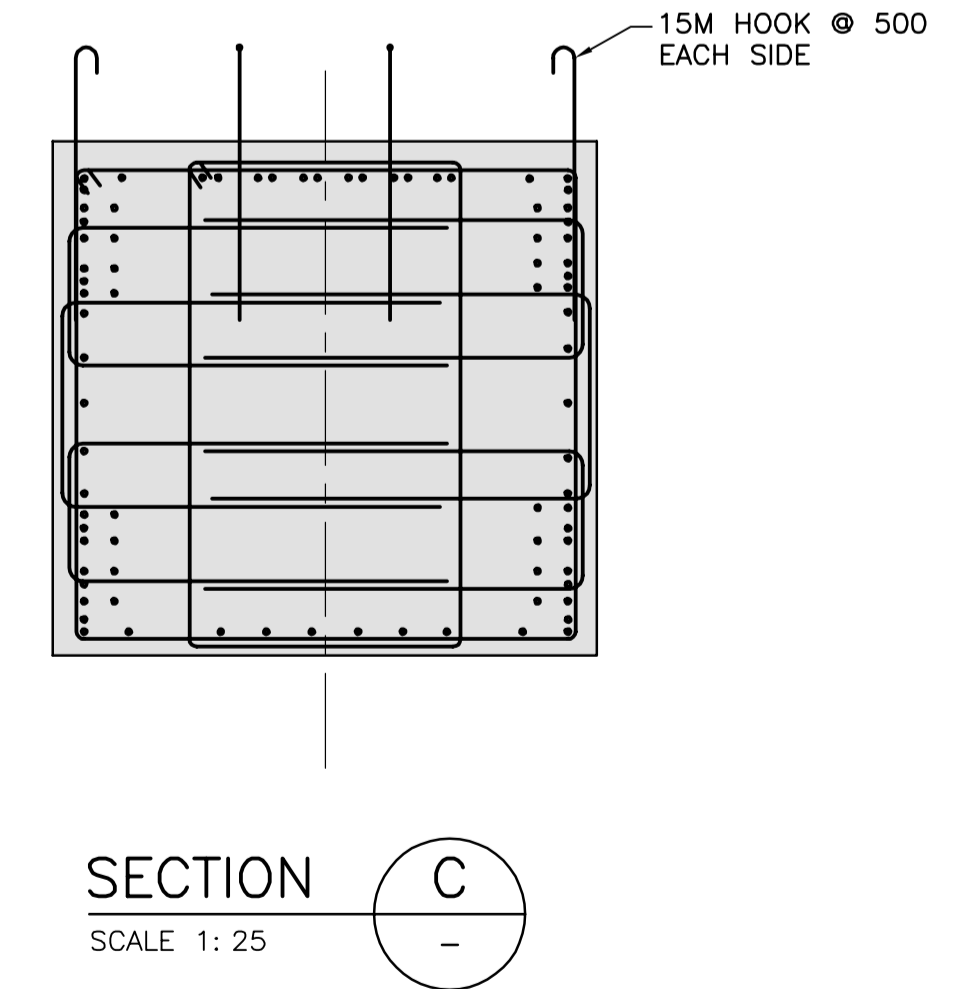
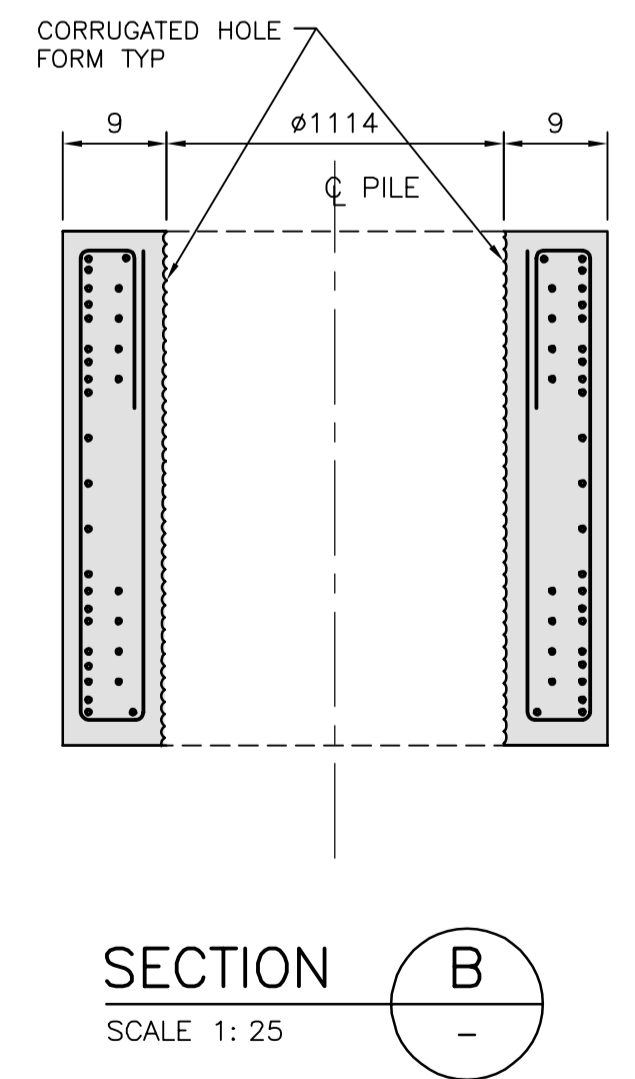
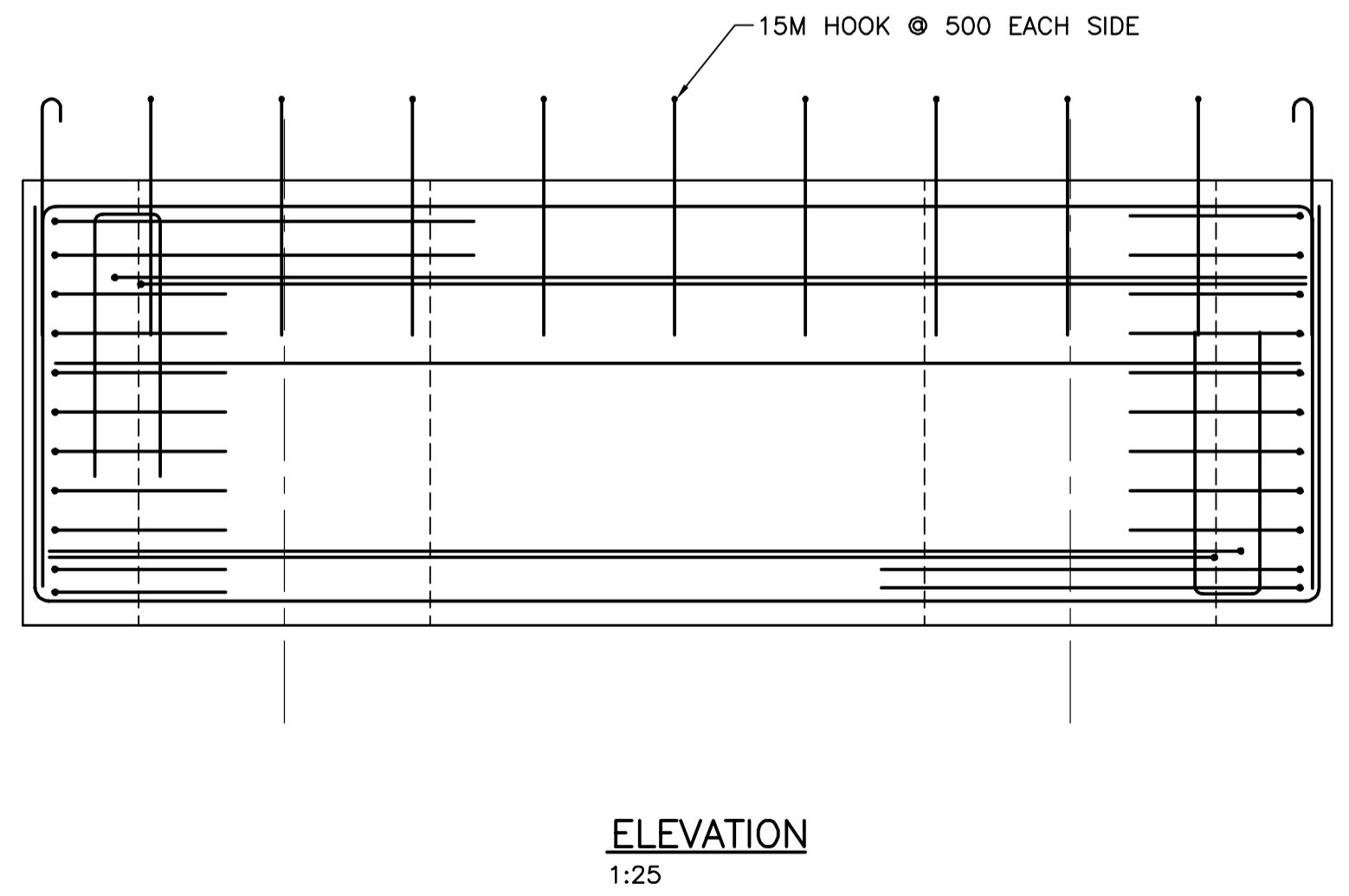
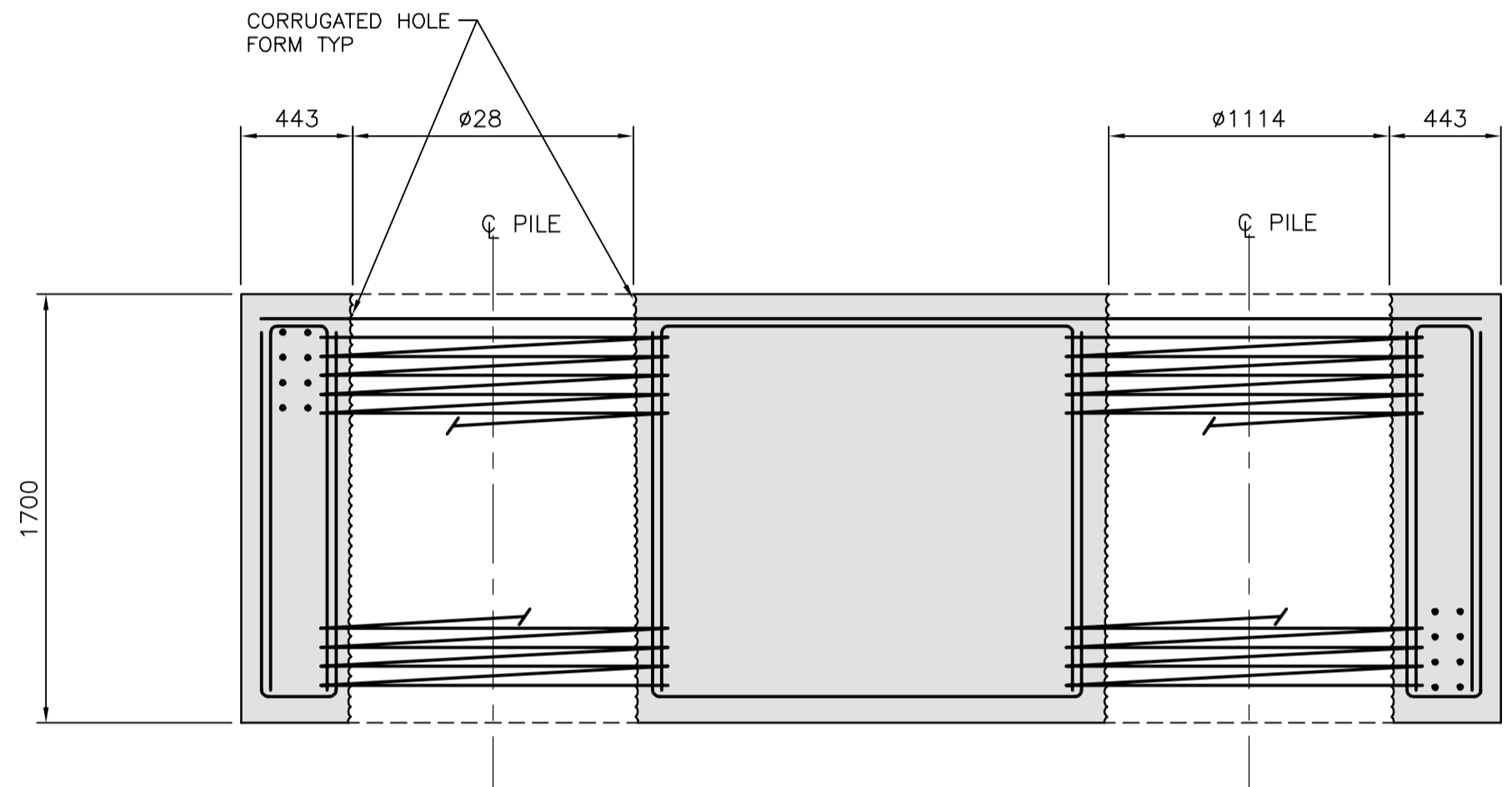
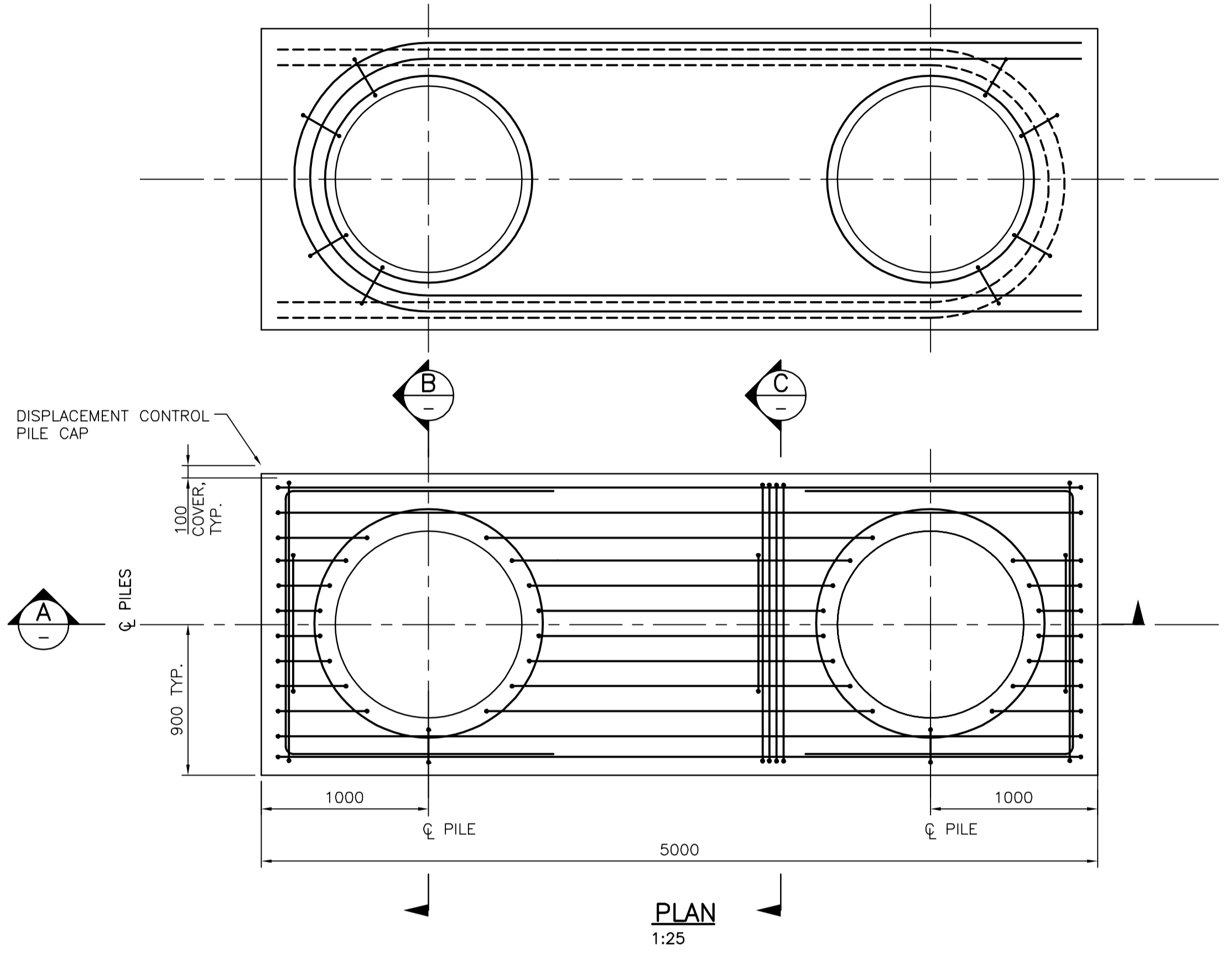
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST PILE CAP
PC9**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S PC9	2



- NOTES:**
- FOR NOTES SEE DWG. G01.
 - FOR PRECAST NOTES SEE DWG. S0G1.
 - FOR DETAILS SEE S18
 - MAXIMUM WEIGHT PER PRECAST ELEMENT NOT TO EXCEED 14 kPa

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/12

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

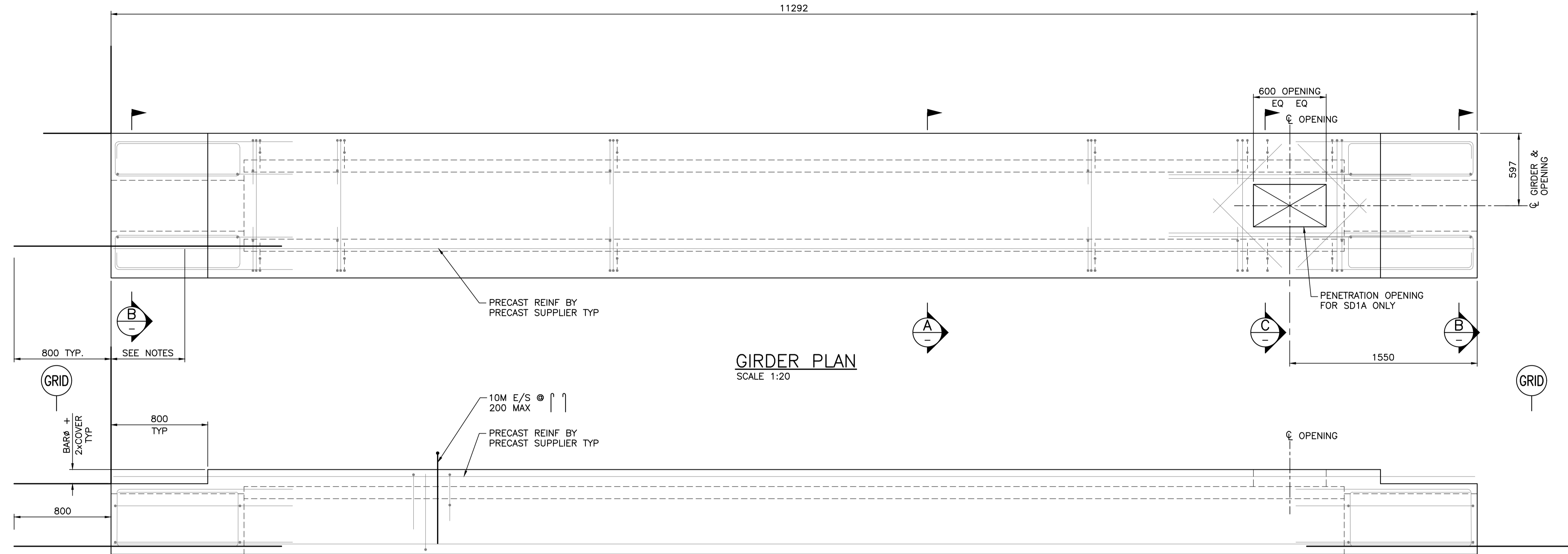
Drawn by/Dessiné par
BOG

PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

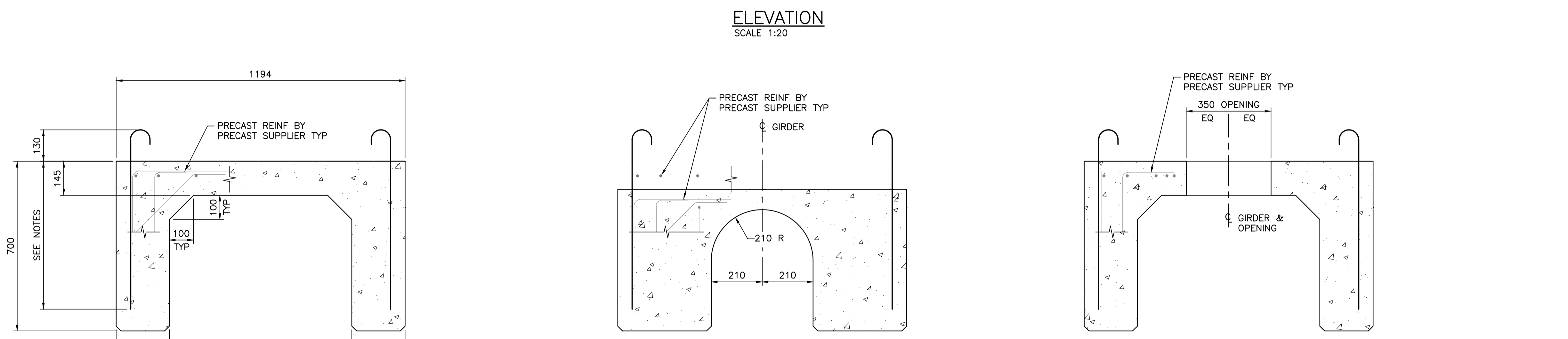
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**WEST JETTY
PRECAST DISPLACEMENT CONTROL
PILE-CAPS
PCD1**

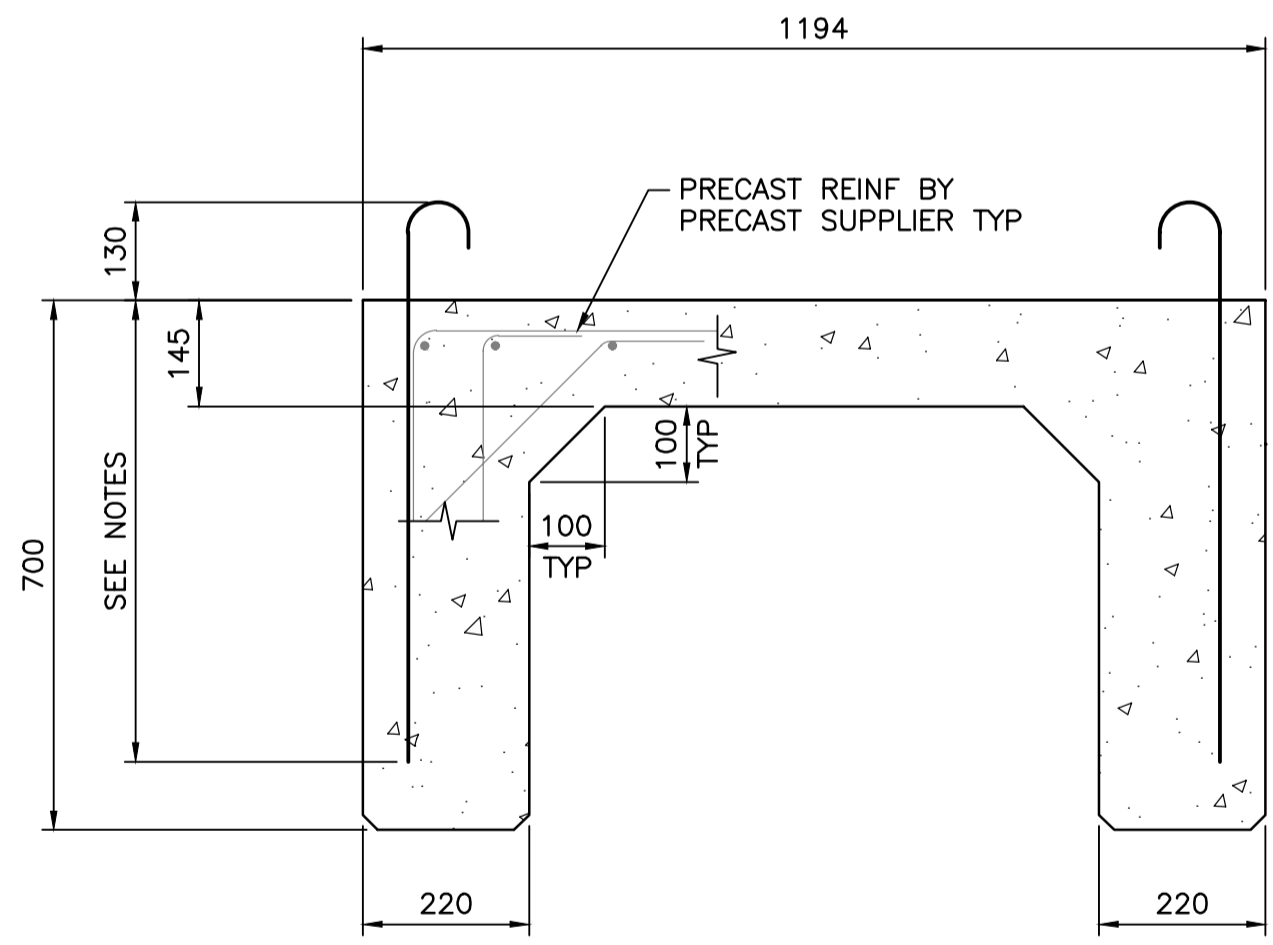
Project No./No. du projet	Sheet/feuille	Revision no./no. de révision
R.026729.002	S PCD1	2



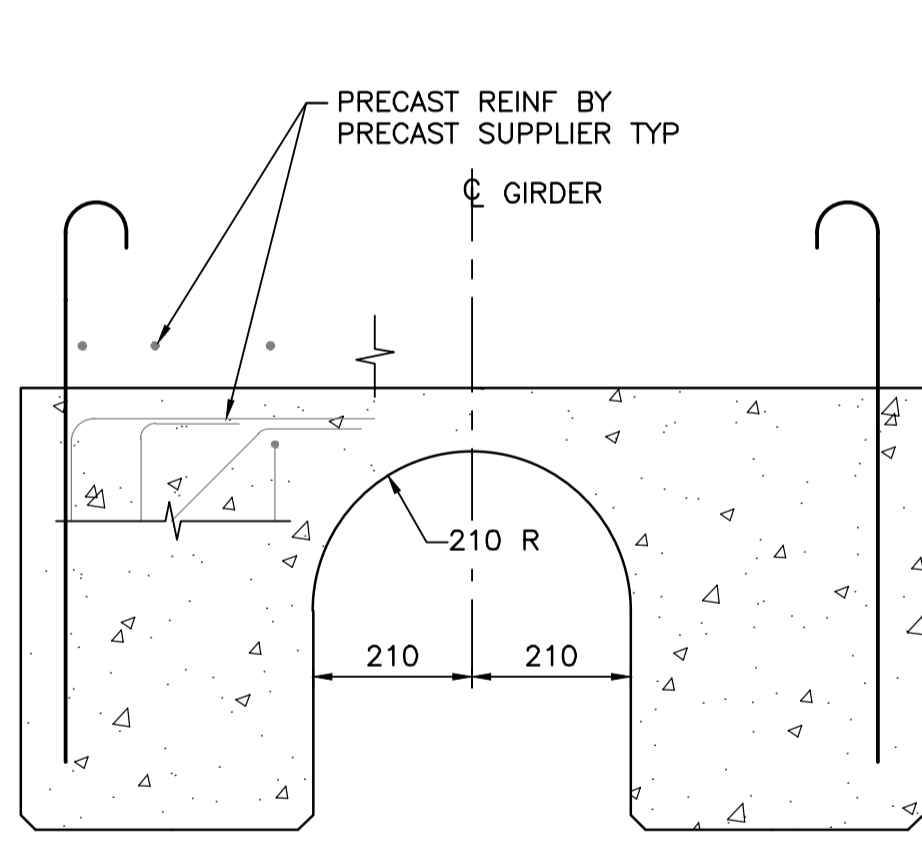
GIRDER PLAN
SCALE 1:20



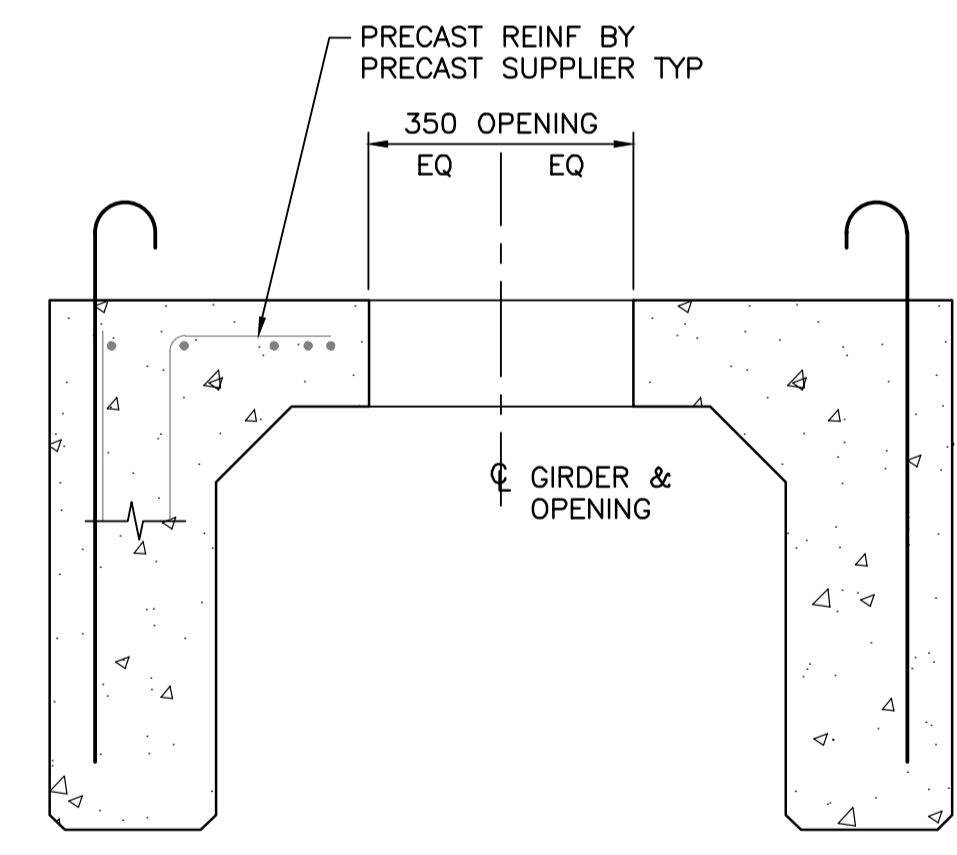
ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10



C SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S061.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

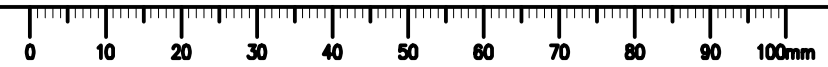
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BOG

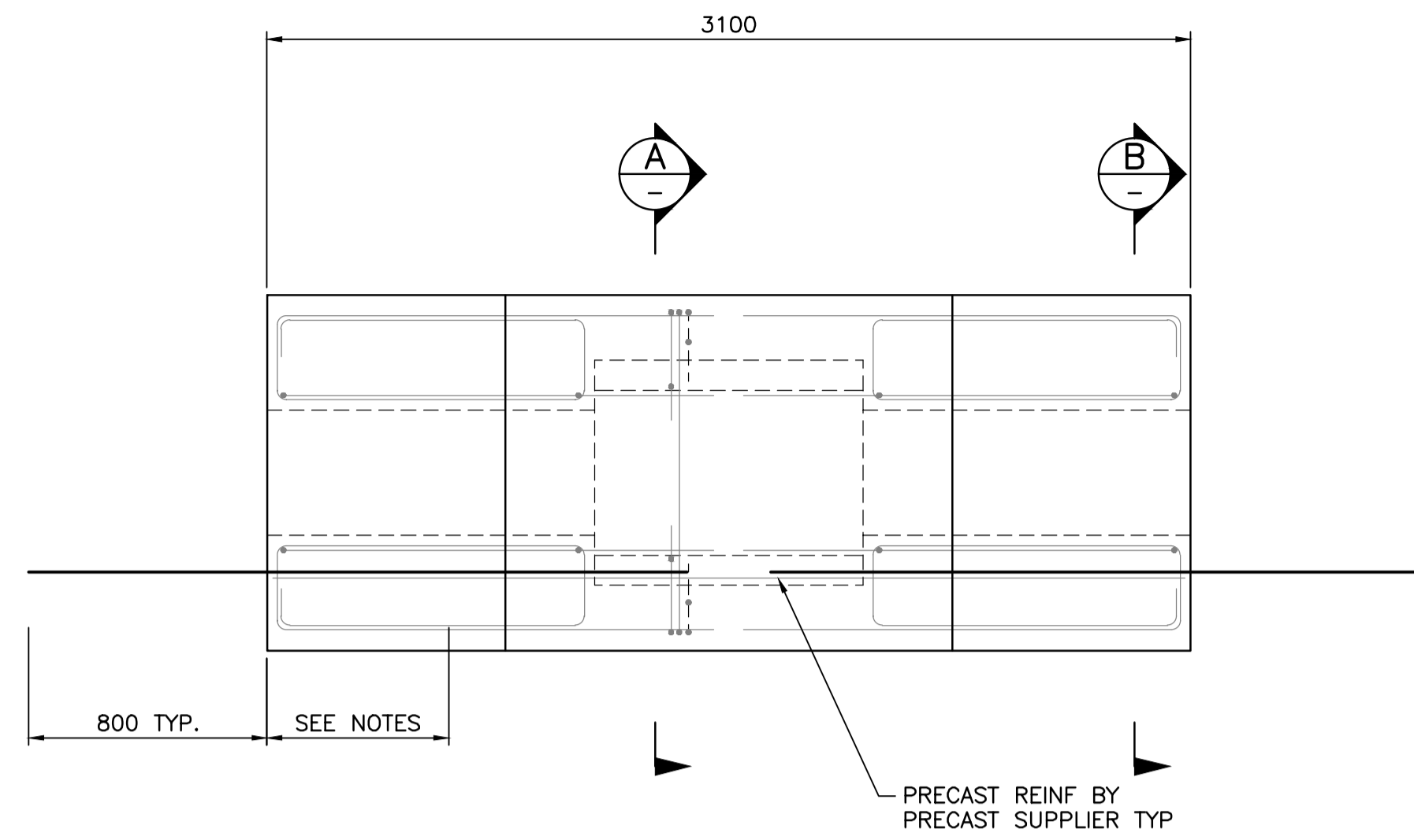
PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

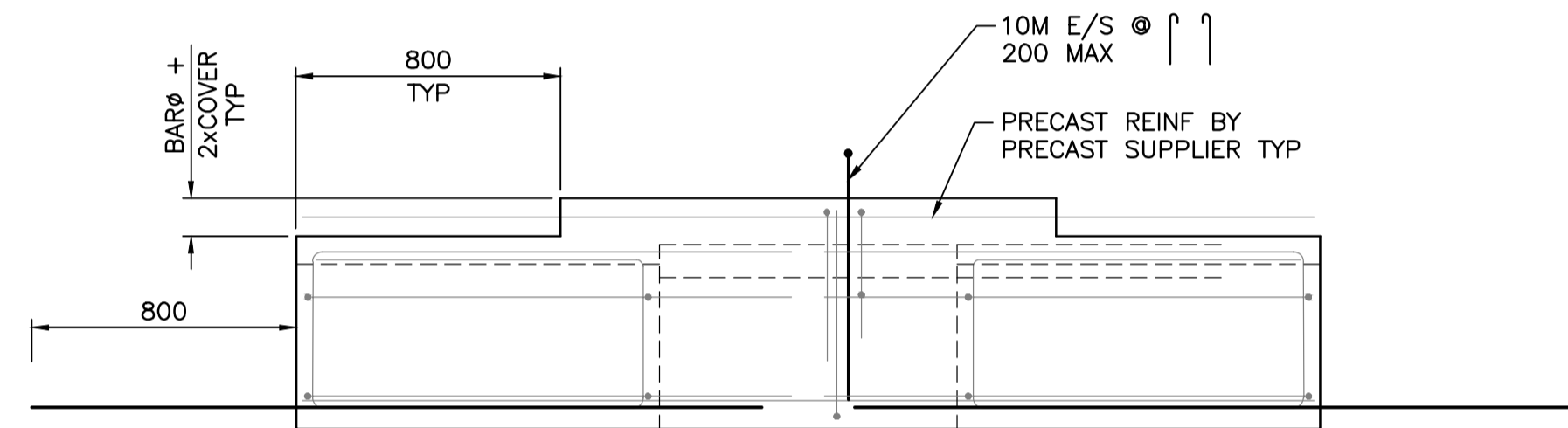
Drawing title/Titre du dessin
**PRECAST STORM DRAIN
SD1 & SD1A**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	S SD1	2

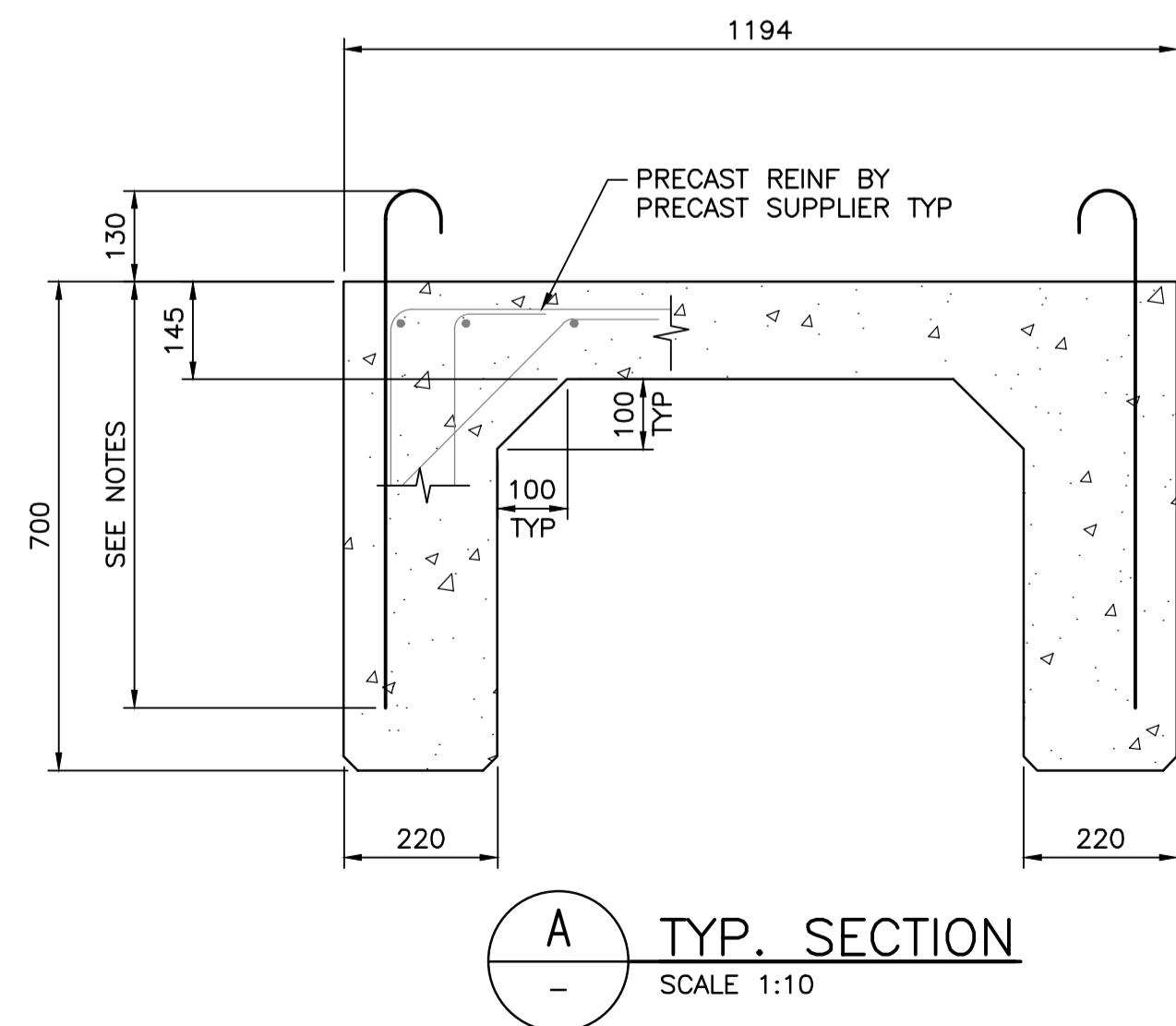




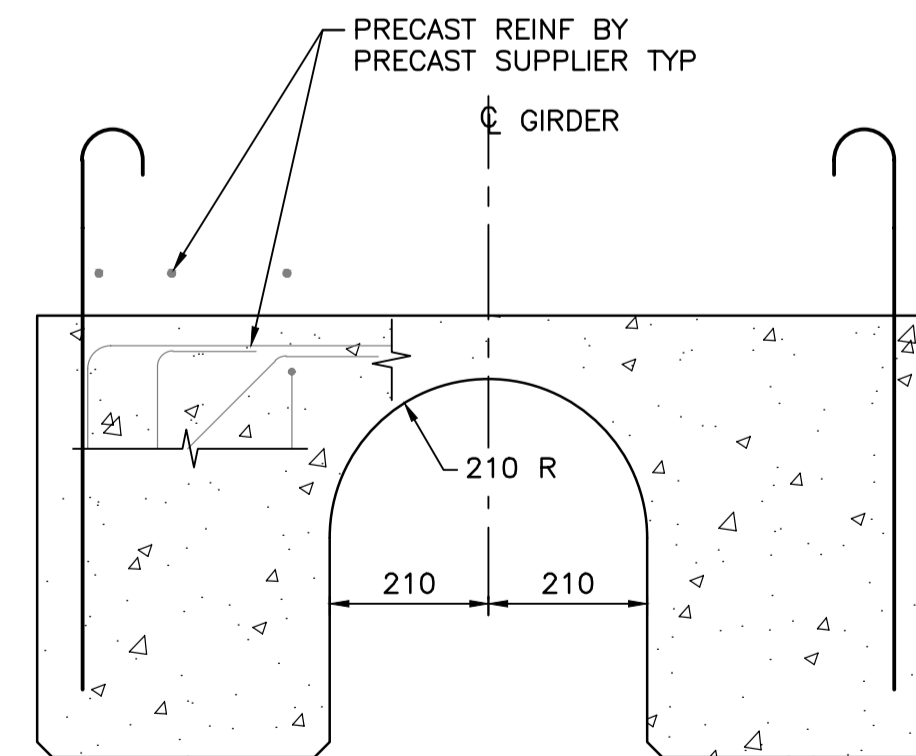
GIRDER PLAN
SCALE 1:20



ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10



B TYP. END SECTION
SCALE 1:10

NOTES:

- FOR NOTES SEE DWG. G01.
- FOR PRECAST NOTES SEE DWG. S06.
- REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
- DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY WHARF DEVELOPMENT

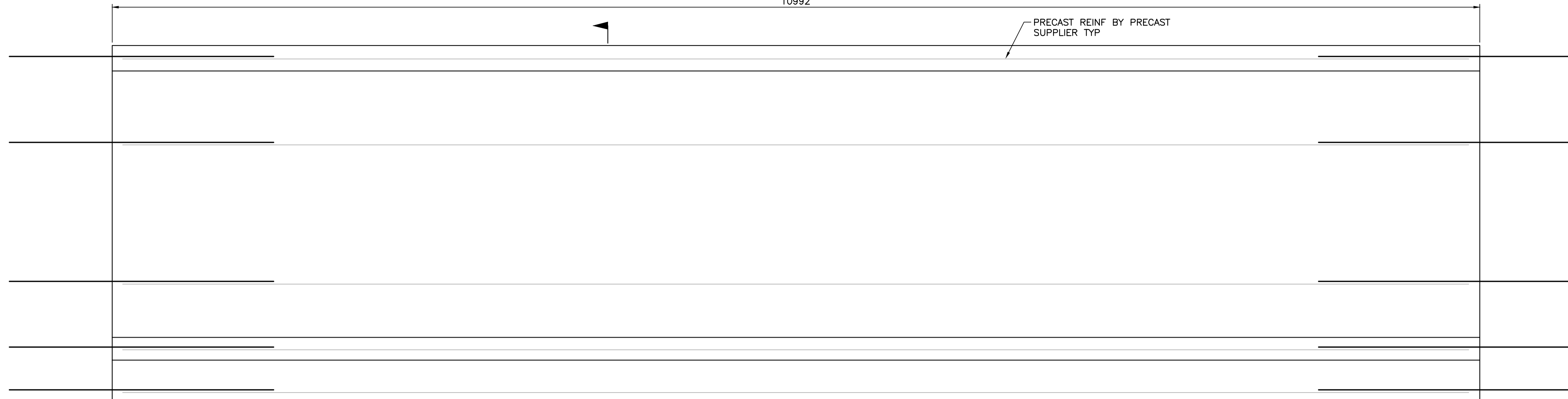
Consultant Signature Only
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG
PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin
**PRECAST STORM DRAIN
SD2**

Project No./No. du projet R.026729.002	Sheet/ S SD2	Revision no./ 2
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10992

PRECAST REINF BY PRECAST SUPPLIER TYP

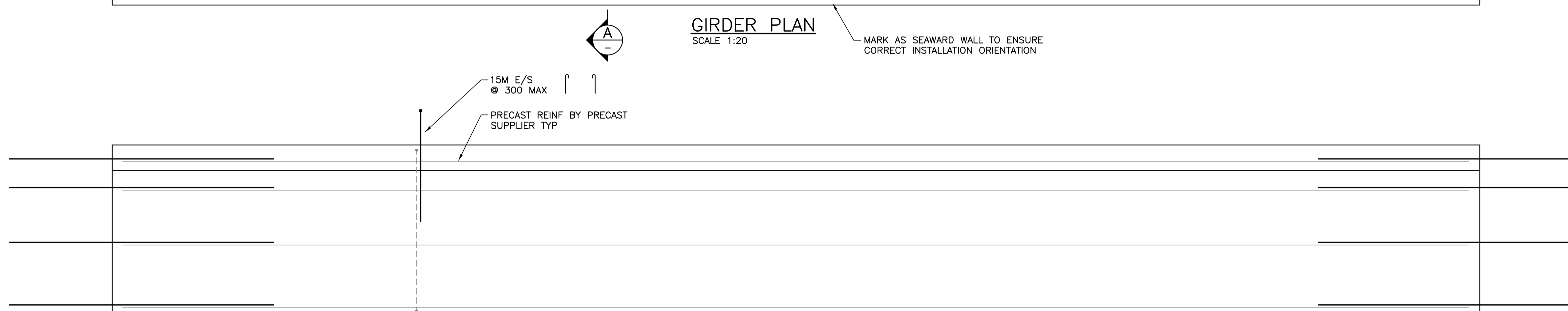


GIRDER PLAN
SCALE 1:20

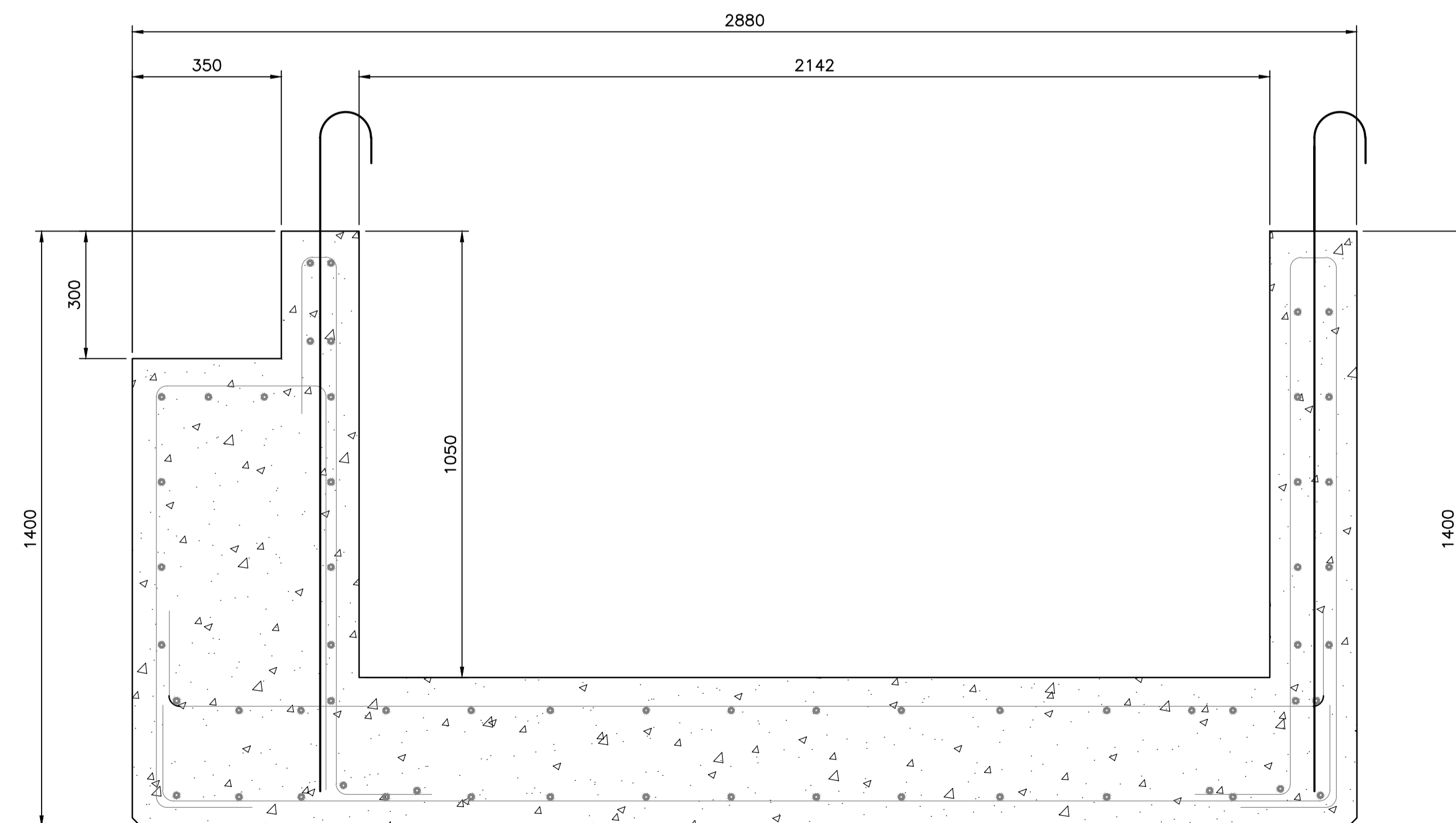
MARK AS SEAWARD WALL TO ENSURE CORRECT INSTALLATION ORIENTATION

15M E/S
⊙ 300 MAX

PRECAST REINF BY PRECAST SUPPLIER TYP



ELEVATION
SCALE 1:20



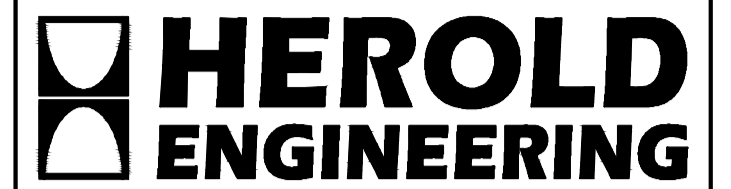
A TYP. SECTION
SCALE 1:10

PRECAST NOTES:

1. PRECAST DESIGN SHALL BE THE RESPONSIBILITY OF THE PRECAST SUPPLIER.
2. BOTTOM EDGES OF ALL PRECAST SHALL BE CHAMFERED 20 mm.
3. TOP SURFACE OF ALL PRECAST SHALL BE ROUGHENED TO 5mm AMPLITUDE
4. LAP SPLICES SHALL BE STAGGERED

NOTES:

1. FOR NOTES SEE DWG. G01.
2. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
3. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS



HEL JOB FILE: 3191-008



Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

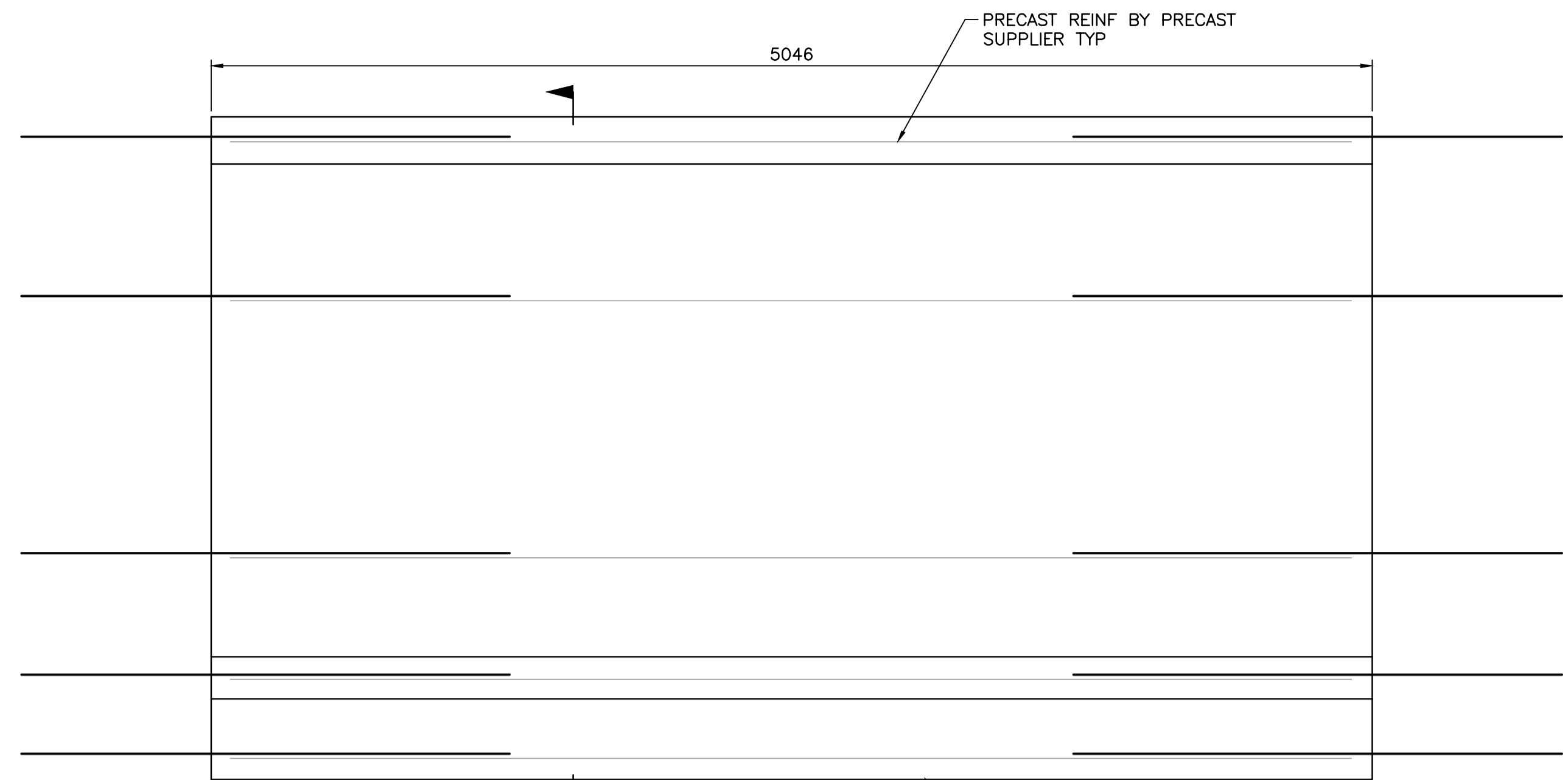
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

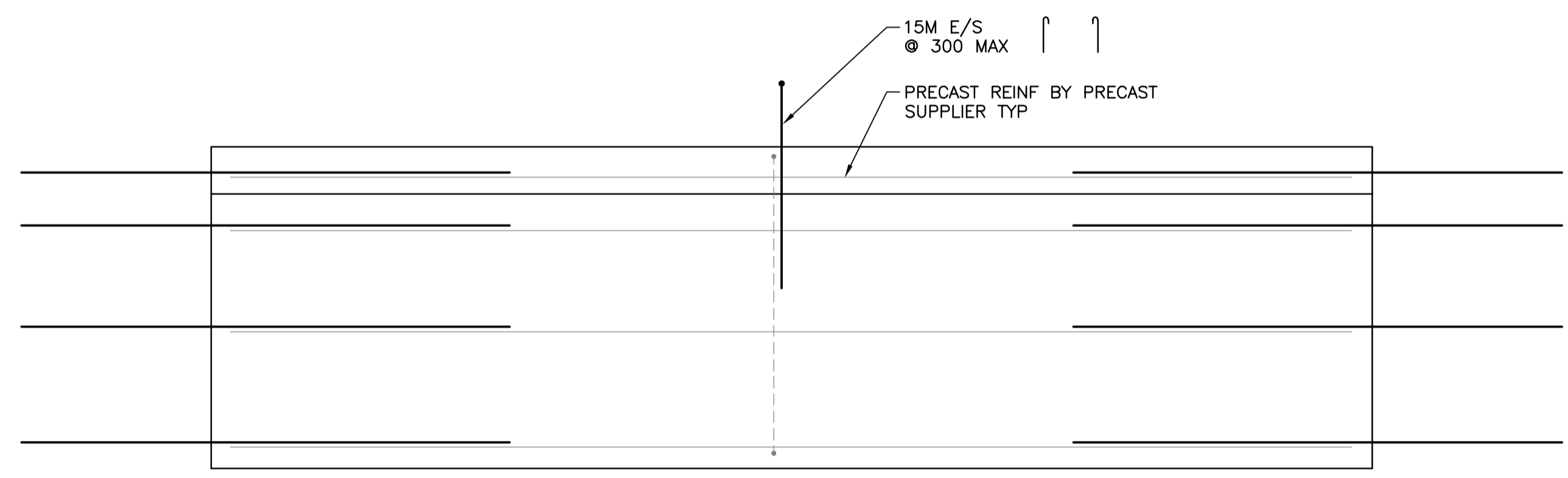
Consultant Signature Only
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG
PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL FAUL

Drawing title/Titre du dessin
**PRECAST UTILITY TRENCH
UT1**

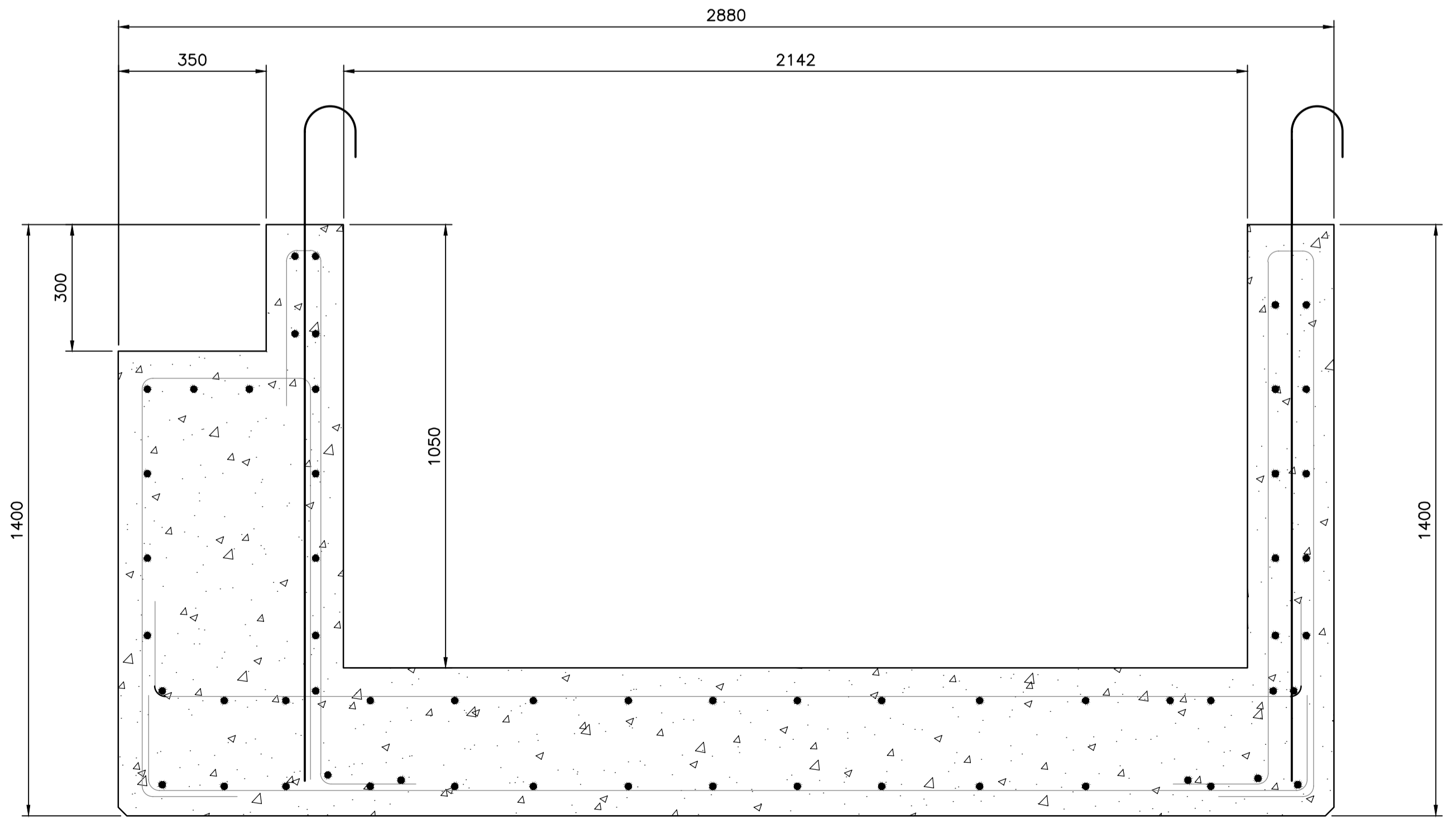
Project No./No. du projet R.026729.002	Sheet/ S UT1	Revision no./ 2
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GIRDER PLAN
SCALE 1:20
MARK AS SEAWARD WALL TO ENSURE CORRECT INSTALLATION ORIENTATION



ELEVATION
SCALE 1:20



TYP. SECTION
SCALE 1:10

PRECAST NOTES:

1. PRECAST DESIGN SHALL BE THE RESPONSIBILITY OF THE PRECAST SUPPLIER.
2. BOTTOM EDGES OF ALL PRECAST SHALL BE CHAMFERED 20 mm.
3. TOP SURFACE OF ALL PRECAST SHALL BE ROUGHENED TO 5mm AMPLITUDE
4. LAP SPLICES SHALL BE STAGGERED

NOTES:

1. FOR NOTES SEE DWG. G01.
2. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
3. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

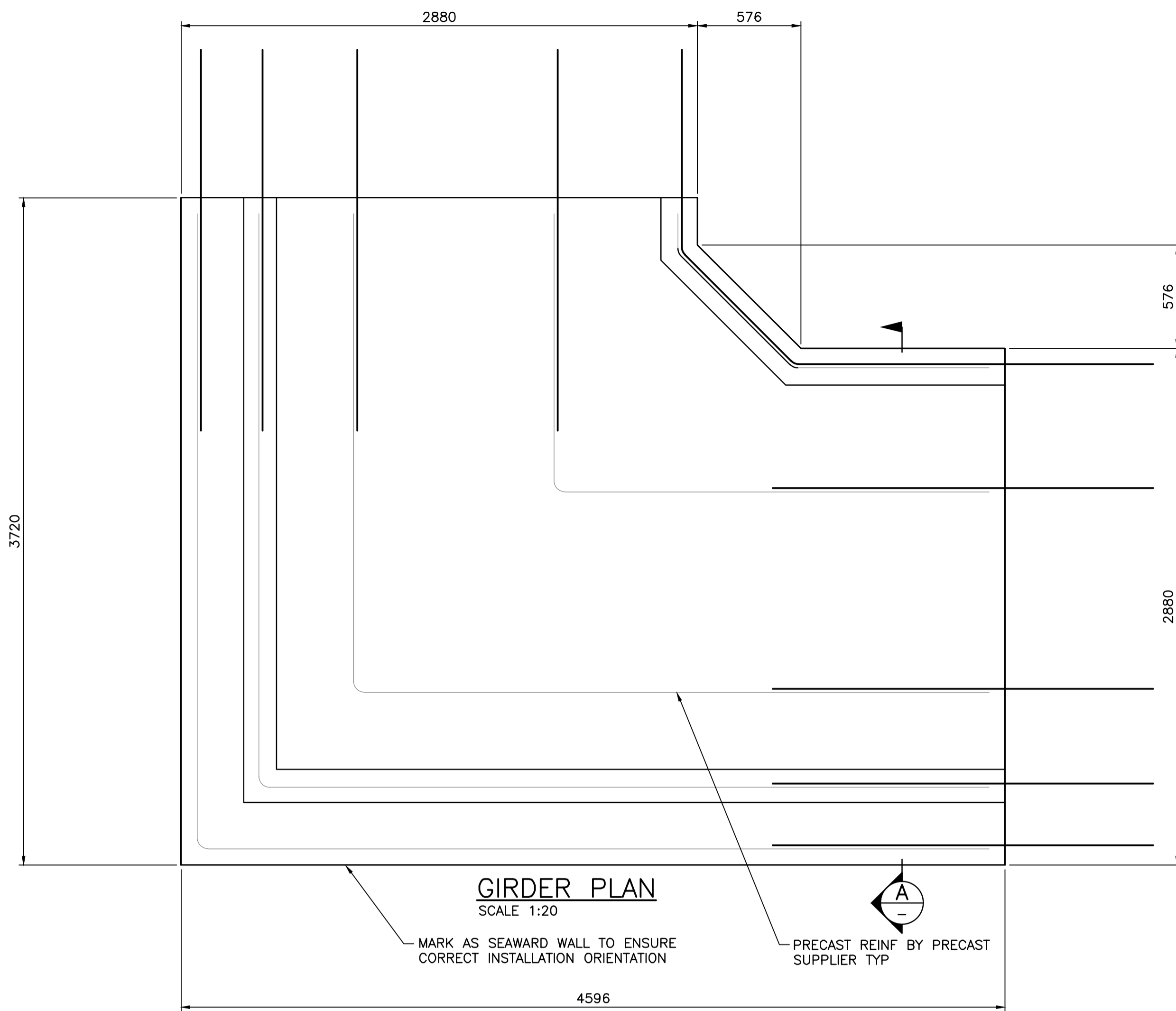
Drawn by/Dessiné par
BOG

PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

Drawing title/Titre du dessin
**PRECAST UTILITY TRENCH
UT2**

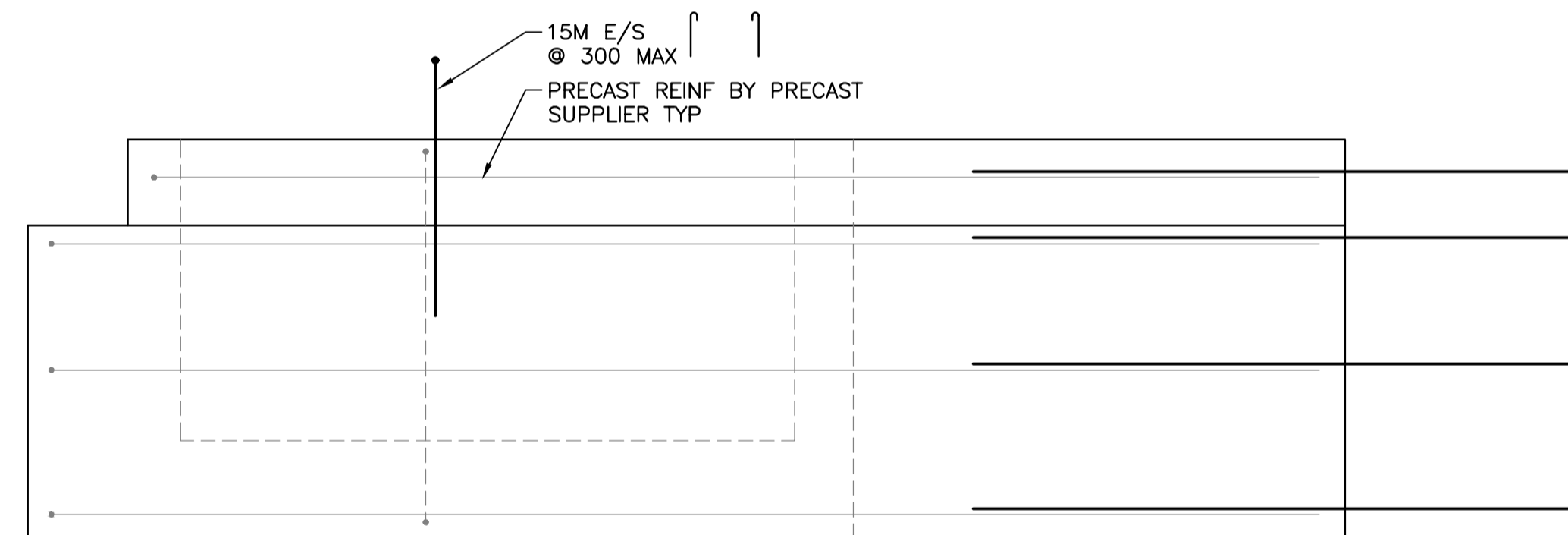
Project No./No. du projet R.026729.002	Sheet/ S UT2	Revision no./ 2
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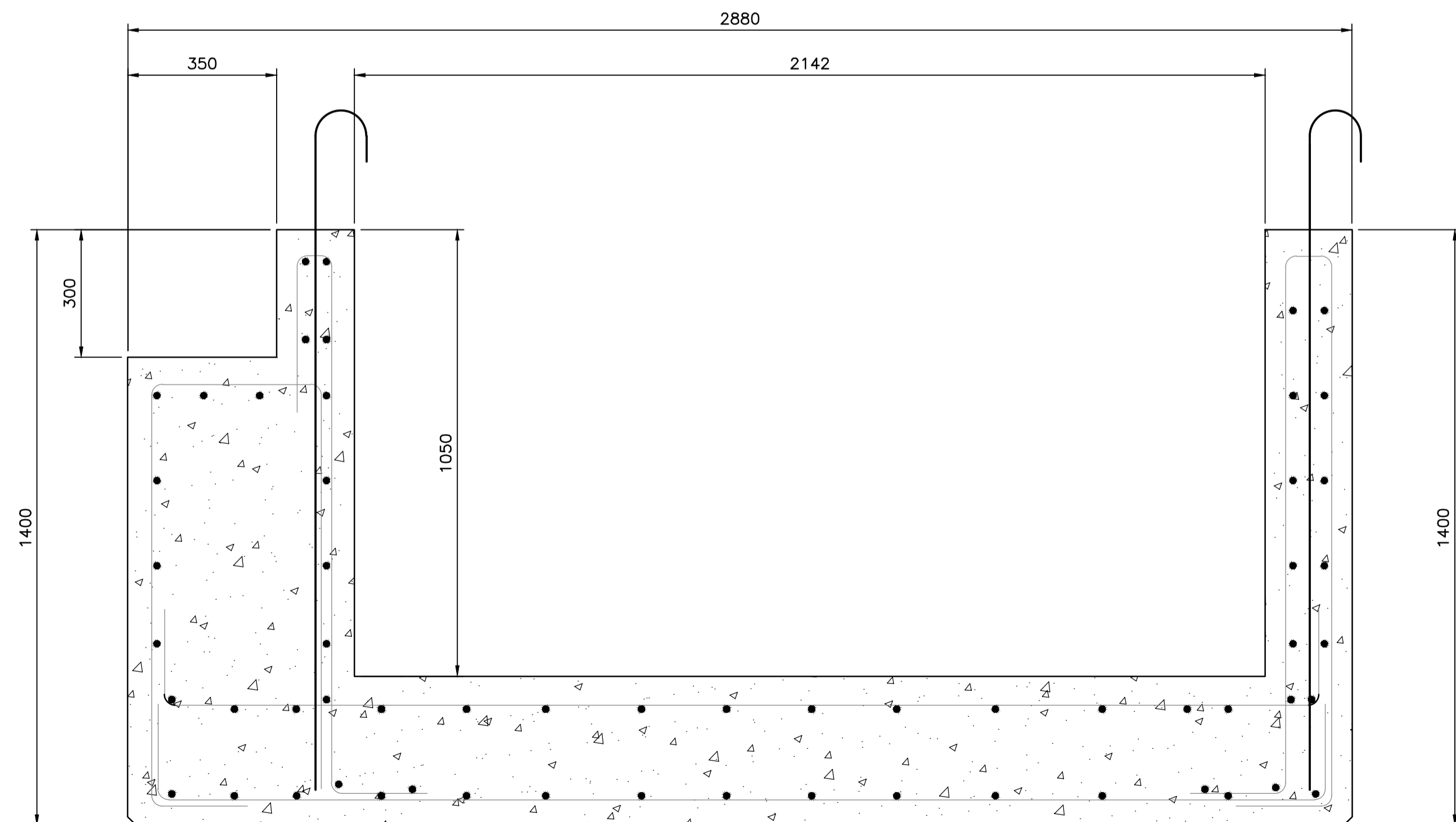
GIRDER PLAN
SCALE 1:20

MARK AS SEAWARD WALL TO ENSURE CORRECT INSTALLATION ORIENTATION

PRECAST REINF BY PRECAST SUPPLIER TYP



ELEVATION
SCALE 1:20



TYP. SECTION
SCALE 1:10

Revision/Redaction	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW

Drawn by/Dessiné par
BOG

PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

Drawing title/Titre du dessin

**PRECAST UTILIDOR SEGMENT
UT3**

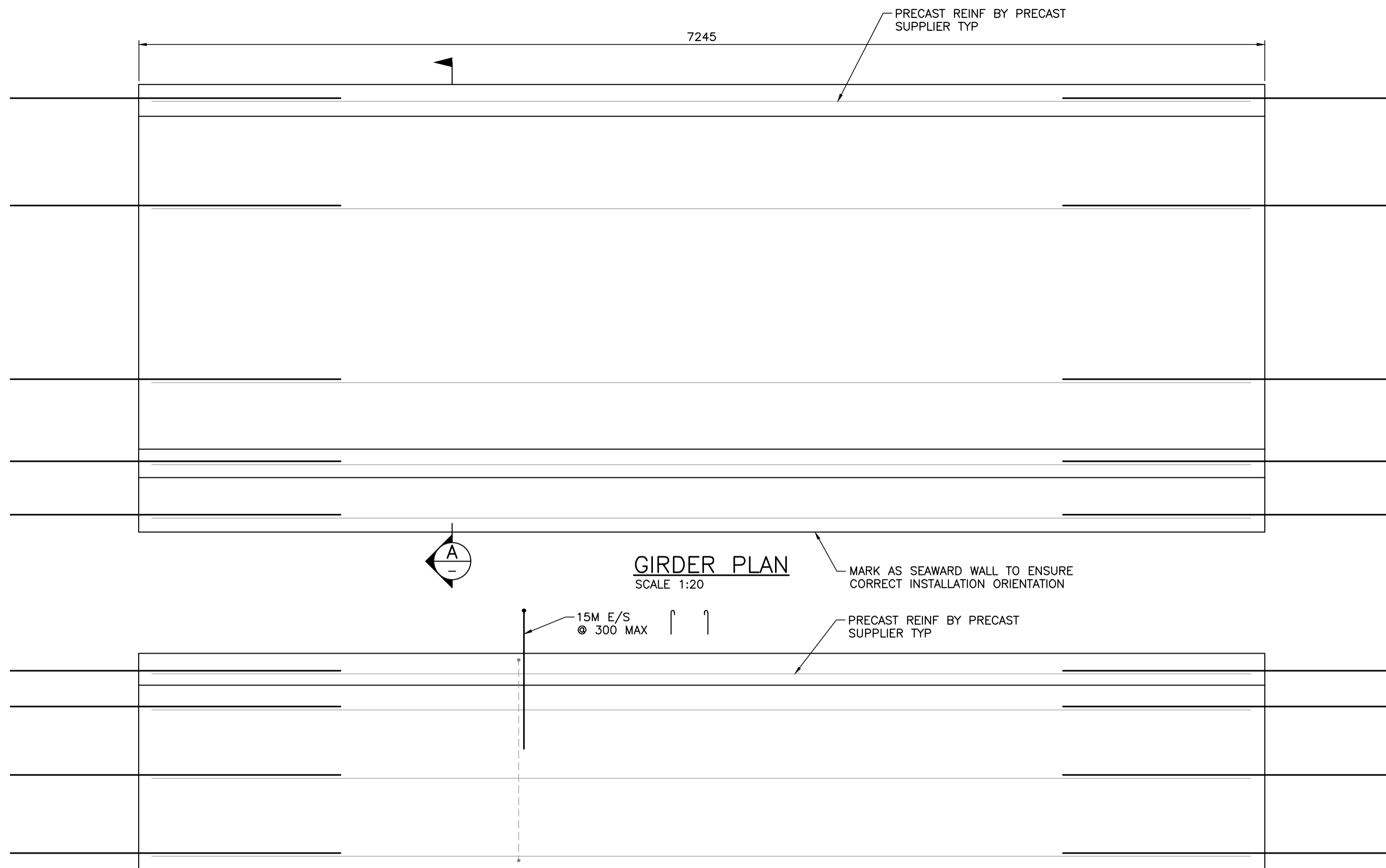
Project No./No. du projet R.026729.002	Sheet/ S UT3	Revision no./ 2
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PRECAST NOTES:

1. PRECAST DESIGN SHALL BE THE RESPONSIBILITY OF THE PRECAST SUPPLIER.
2. BOTTOM EDGES OF ALL PRECAST SHALL BE CHAMFERED 20 mm.
3. TOP SURFACE OF ALL PRECAST SHALL BE ROUGHENED TO 5mm AMPLITUDE
4. LAP SPLICES SHALL BE STAGGERED

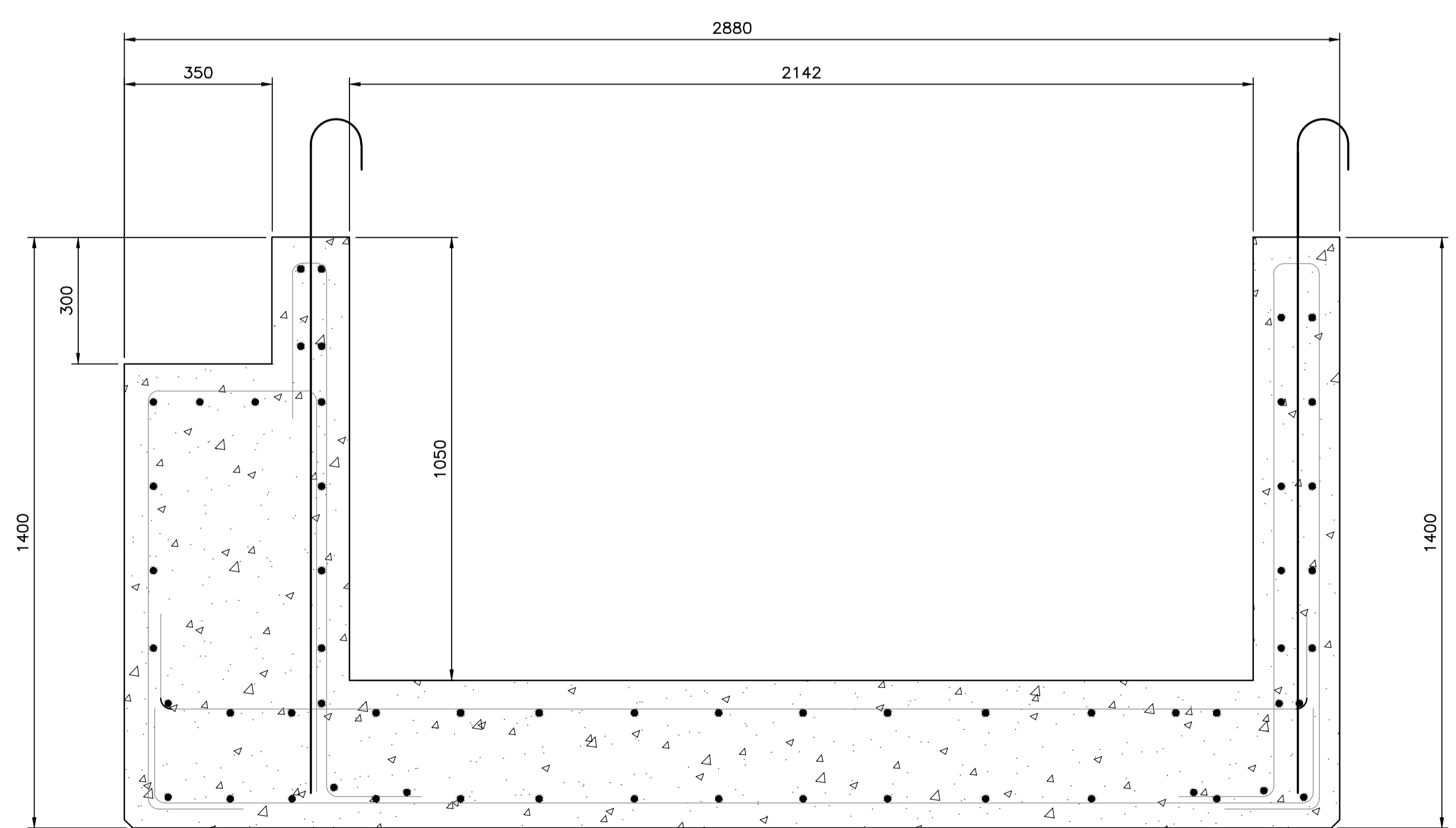
NOTES:

1. FOR NOTES SEE DWG. G01.
2. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
3. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS



GIRDER PLAN
SCALE 1:20

ELEVATION
SCALE 1:20



A TYP. SECTION
SCALE 1:10

PRECAST NOTES:

1. PRECAST DESIGN SHALL BE THE RESPONSIBILITY OF THE PRECAST SUPPLIER.
2. BOTTOM EDGES OF ALL PRECAST SHALL BE CHAMFERED 20 mm.
3. TOP SURFACE OF ALL PRECAST SHALL BE ROUGHENED TO 5mm AMPLITUDE
4. LAP SPLICES SHALL BE STAGGERED

NOTES:

1. FOR NOTES SEE DWG. G01.
2. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
3. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS

Revision/Redaction	Description/Description	Date/Date
E	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

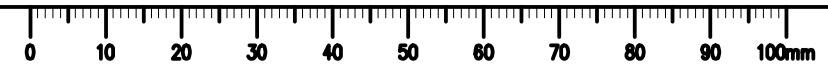
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

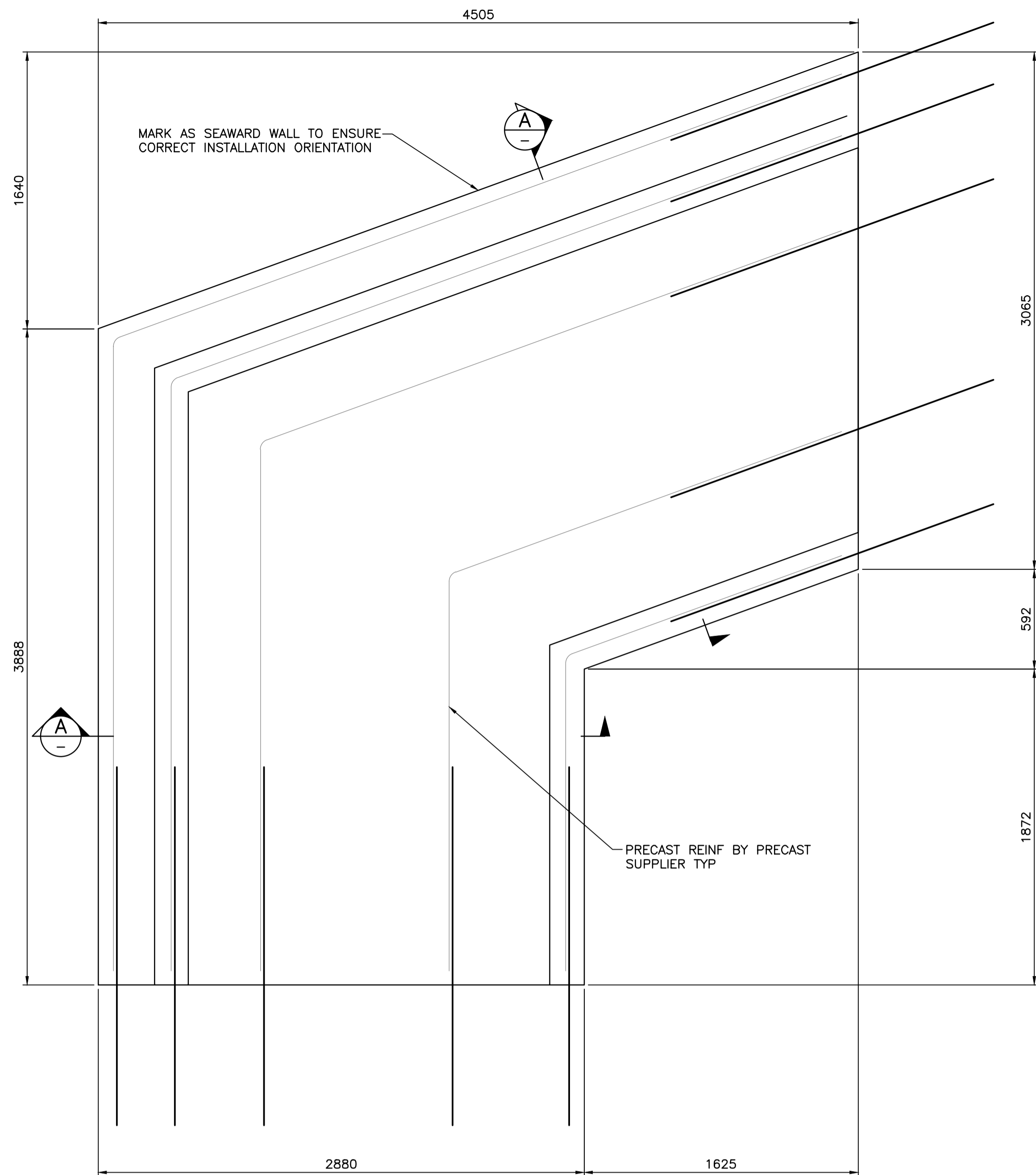
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par
KU, TW
Drawn by/Dessiné par
BOG
PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETIPAL PAUL

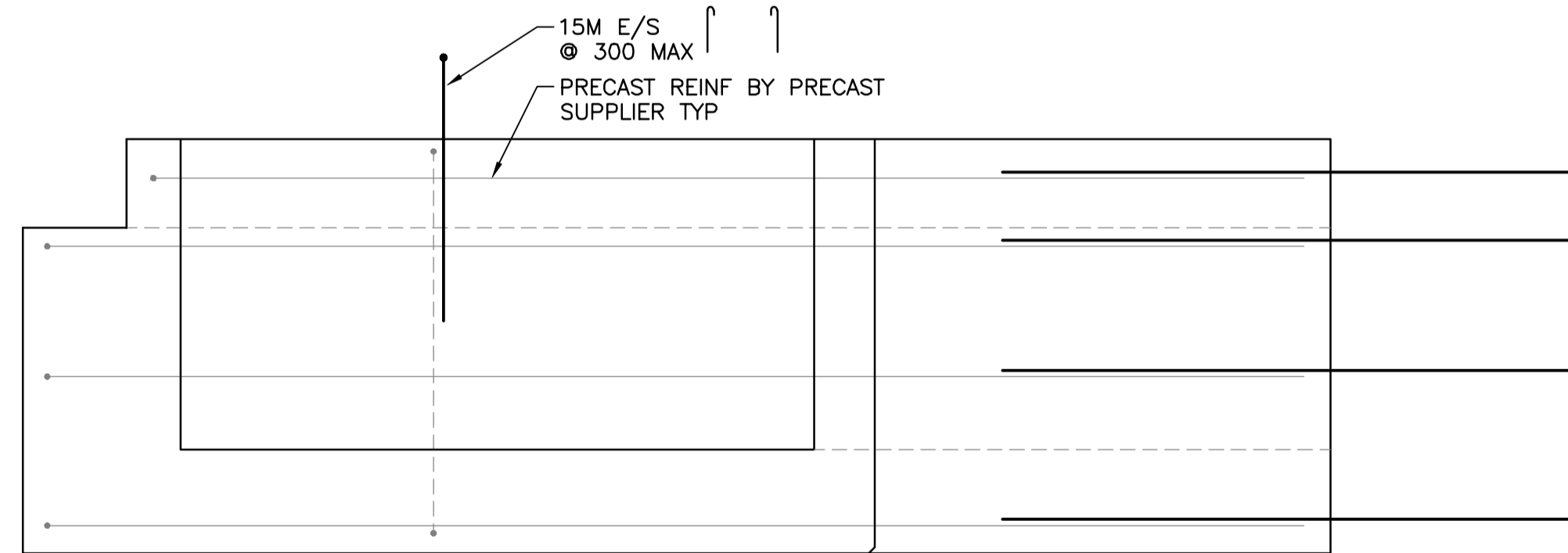
Drawing title/Titre du dessin
**PRECAST UTILITY TRENCH
UT4**

Project No./No. du projet R.026729.002	Sheet/ S UT4	Revision no./ 2
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GIRDER PLAN
SCALE 1:20



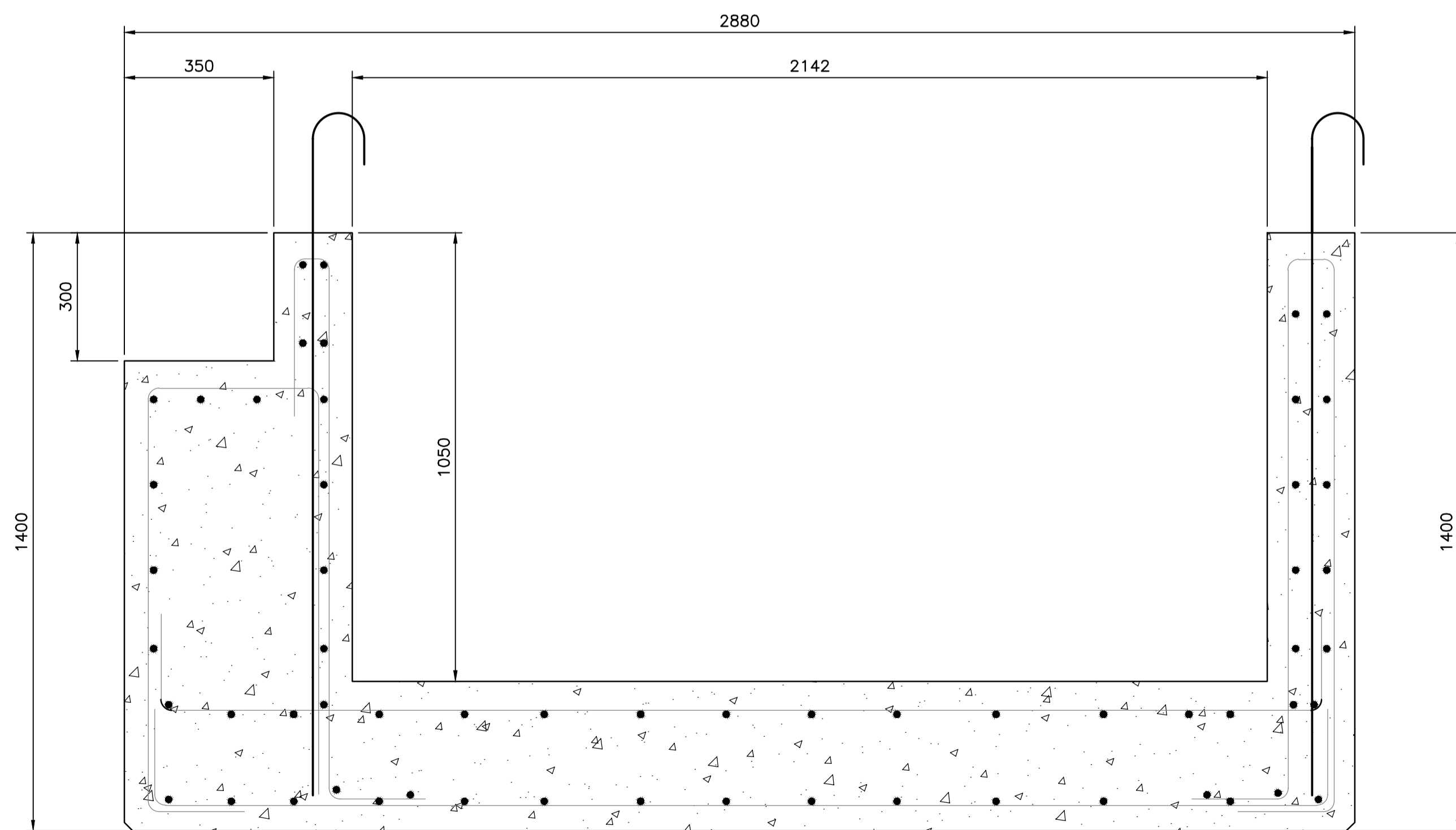
ELEVATION
SCALE 1:20

PRECAST NOTES:

1. PRECAST DESIGN SHALL BE THE RESPONSIBILITY OF THE PRECAST SUPPLIER.
2. BOTTOM EDGES OF ALL PRECAST SHALL BE CHAMFERED 20 mm.
3. TOP SURFACE OF ALL PRECAST SHALL BE ROUGHENED TO 5mm AMPLITUDE
4. LAP SPLICES SHALL BE STAGGERED

NOTES:

1. FOR NOTES SEE DWG. G01.
2. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
3. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS



A TYP. SECTION
SCALE 1:10

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
KU, TW
Drawn by/Dessine par
BOG

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services
PREETPAL PAUL

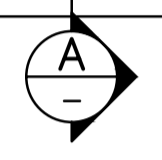
Drawing title/Titre du dessin
**PRECAST UTILITY TRENCH
UT5**

Project No./No. du projet R.026729.002	Sheet/ S UT5	Revision no./ 2
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11486

MARK AS SEAWARD WALL TO ENSURE
CORRECT INSTALLATION ORIENTATION

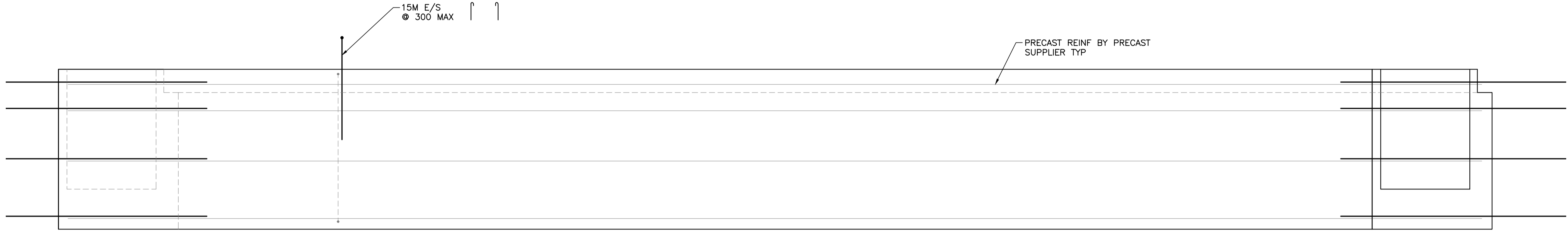
PRECAST REINF BY PRECAST
SUPPLIER TYP



GIRDER PLAN
SCALE 1:20

15M E/S
⊙ 300 MAX

PRECAST REINF BY PRECAST
SUPPLIER TYP



ELEVATION
SCALE 1:20

2880

350

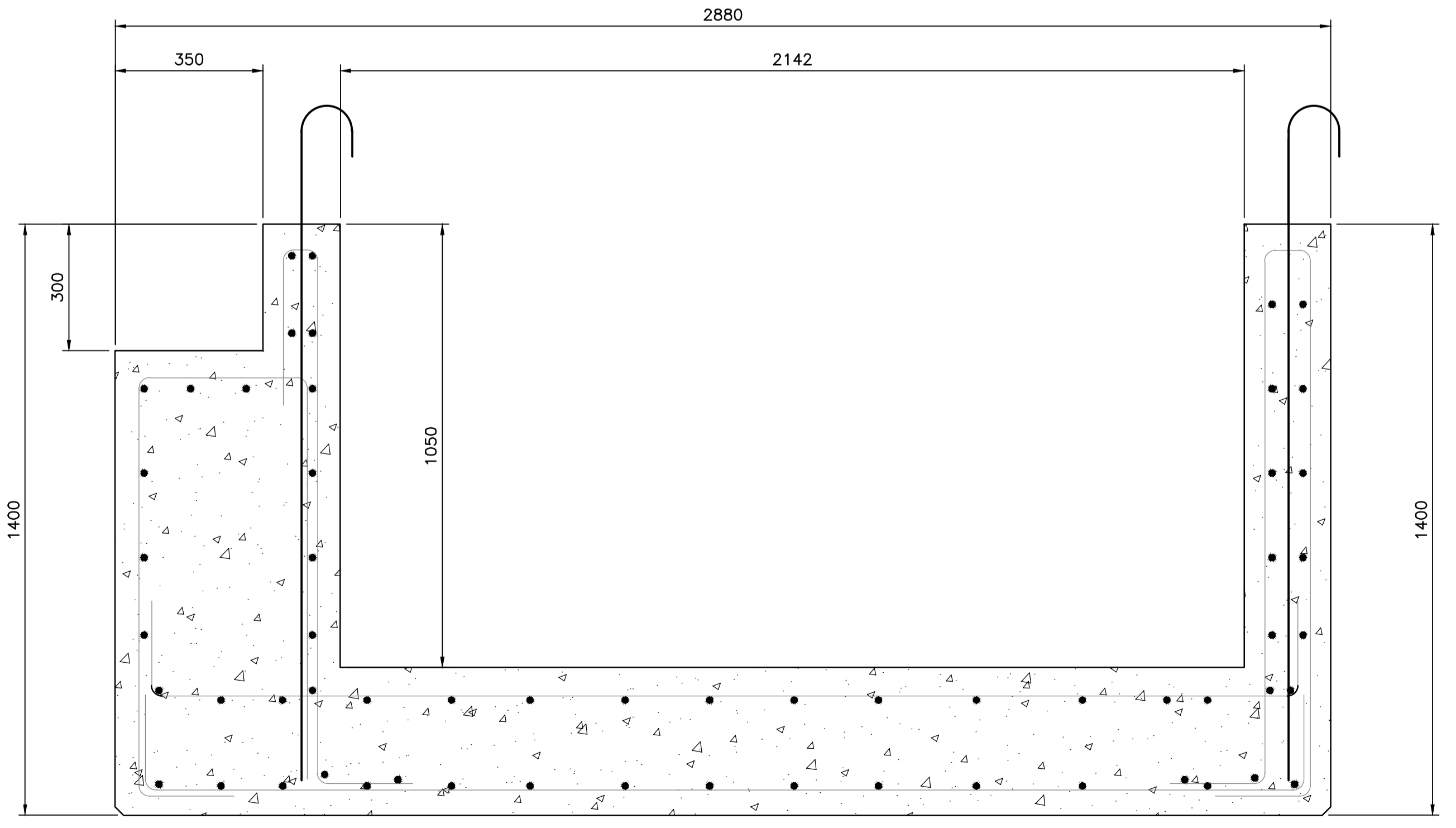
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1400

300

1050

1400



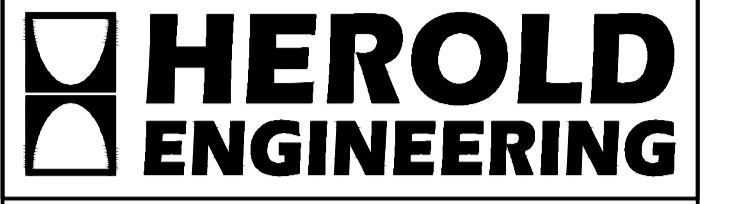
TYP. SECTION
SCALE 1:10

PRECAST NOTES:

1. PRECAST DESIGN SHALL BE THE RESPONSIBILITY OF THE PRECAST SUPPLIER.
2. BOTTOM EDGES OF ALL PRECAST SHALL BE CHAMFERED 20 mm.
3. TOP SURFACE OF ALL PRECAST SHALL BE ROUGHENED TO 5mm AMPLITUDE
4. LAP SPLICES SHALL BE STAGGERED

NOTES:

1. FOR NOTES SEE DWG. G01.
2. REFER TO DWG. S05 & S06 FOR QUANTITY, LOCATION AND ORIENTATION.
3. DOWEL DEVELOPMENT EMBEDMENT TO BE STANDARD TENSION EMBEDMENT DEPTH, SEE SPECIFICATIONS



HEL JOB FILE: 3191-008



Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/10

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only

Designed by/Concept par
 KU, TW

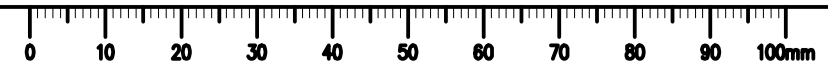
Drawn by/Dessine par
 BOG

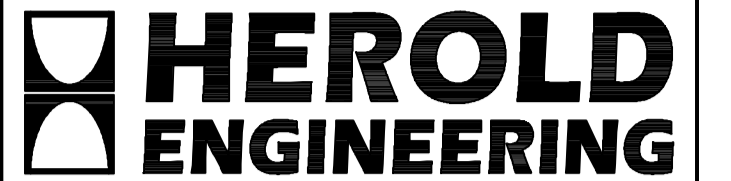
PWGSC Project Manager/Administrateur de Projets TPSCG
 PATRICK TRUONG

Regional Manager, Architectural and Engineering Services
 Regional Manager, Environmental Services
 PREETPAL PAUL

Drawing title/Titre du dessin
PRECAST UTILITY TRENCH
UT6

Project No./No. du projet R.026729.002	Sheet/ S UT6	Revision no./ 2
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HEL JOB FILE: 3191-008



All loads are specified loads (unfactored). Design precast elements for factored loads based on the following load combinations:

- 1.2D + 1.6L + 0.5S
- 1.2D + 1.6L + 0.5S + 1.3M
- 1.2D + 0.5L + 1.6B
- 1.2D + 0.5L + 0.25S + 1.0E
- 0.8D + 1.0E

- D = Dead Load
- L = Live Load
- S = Snow Load
- M = Mooring Load
- B = Berthing Load
- E = Earthquake Load

Self weight of member not included in listed design loads
 All members shall also be designed for the vehicle live loads listed on drawing G01 note 1.10 (not coincident with listed live line load)

PRECAST DECK ELEMENTS

Mark	D	L	S	E MOMENT	E SHEAR
#	kN/m2	kN/m2	kN/m2	kN-m/m applied at supports	kN/m
UT		9	28.7	2.1	0
BG		9	28.7	2.1	0
DP		6	28.7	2.1	240
SD		6	28.7	2.1	240
FP		6	28.7	2.1	240

NOTE: DESIGN FOR PRECAST PILE CAPS (PC), PRECAST FENDER SUPPORTS (FS), PRECAST DISPLACEMENT CONTROL PILE CAPS (PCD), AND PRECAST OIL-WATER SEPARATOR PLATFORM (OW) HAS BEEN COMPLETED BY HEROLD ENGINEERING LIMITED AS INDICATED IN THE PRECAST ELEMENT DRAWINGS. DESIGN OF ADDITIONAL REINFORCING FOR HANDLING AND INSTALLATION IS THE RESPONSIBILITY OF THE PRECAST SUPPLIER FOR ALL PRECAST ELEMENTS, REFER TO SPECIFICATIONS.

PRECAST DESIGN LOADS
N/A

NOTES:
1. FOR NOTES SEE DWG. G01.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27
A	ISSUED FOR 99% REVIEW	2016/08/18

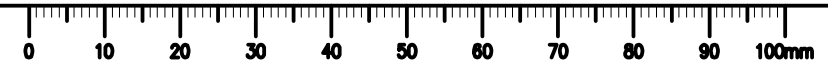
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

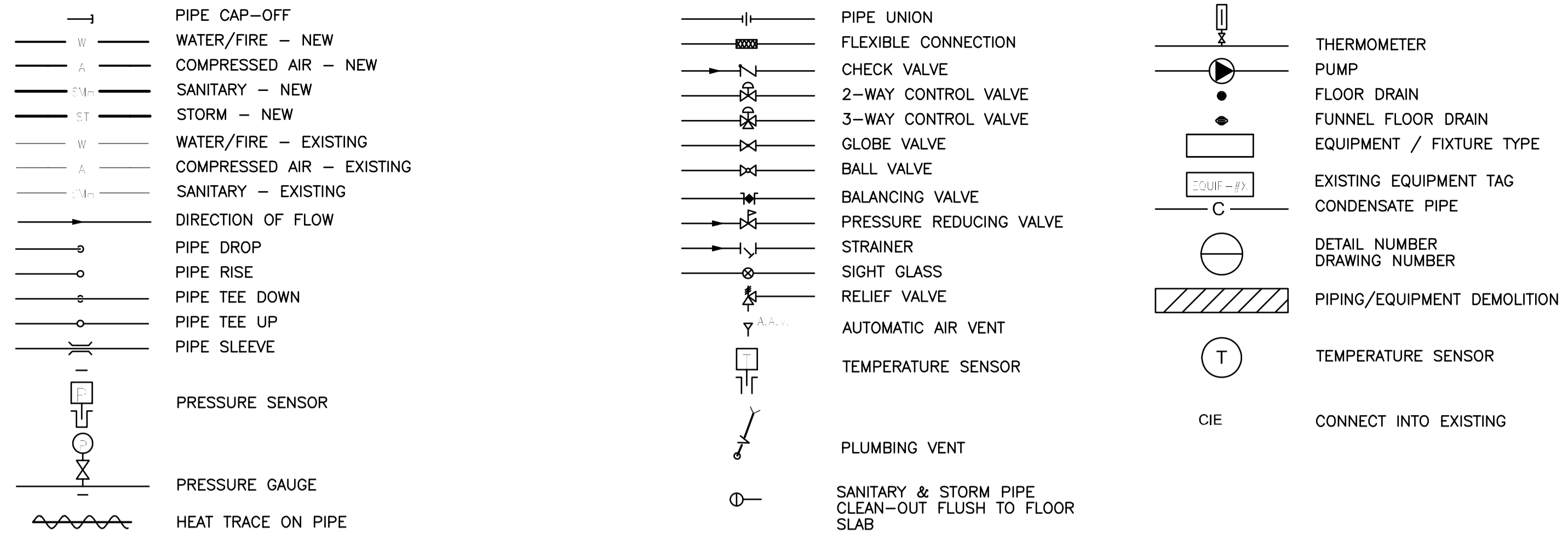
Consultant Signature Only
 Designed by/Concept par
 KU, TW
 Drawn by/Dessine par
 BOG
 PWGSC Project Manager/Administrateur de Projets TPSGC
 PATRICK TRUONG
 Regional Manager, Architectural and Engineering Services
 Regional Manager, Environmental Services
 PREETIPAL PAUL

Drawing title/Titre du dessin
PRECAST DESIGN LOADS & NOTES

Project No./No. du projet R.026729.002	Sheet/ S DL&N	Revision no./ 2
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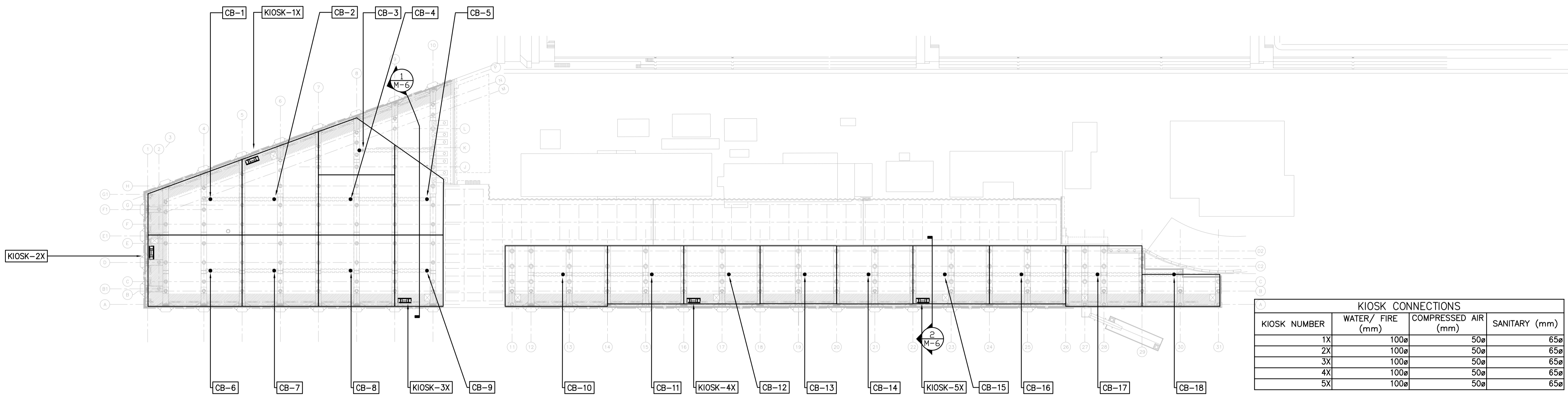


SYMBOL SCHEDULE



GENERAL NOTES

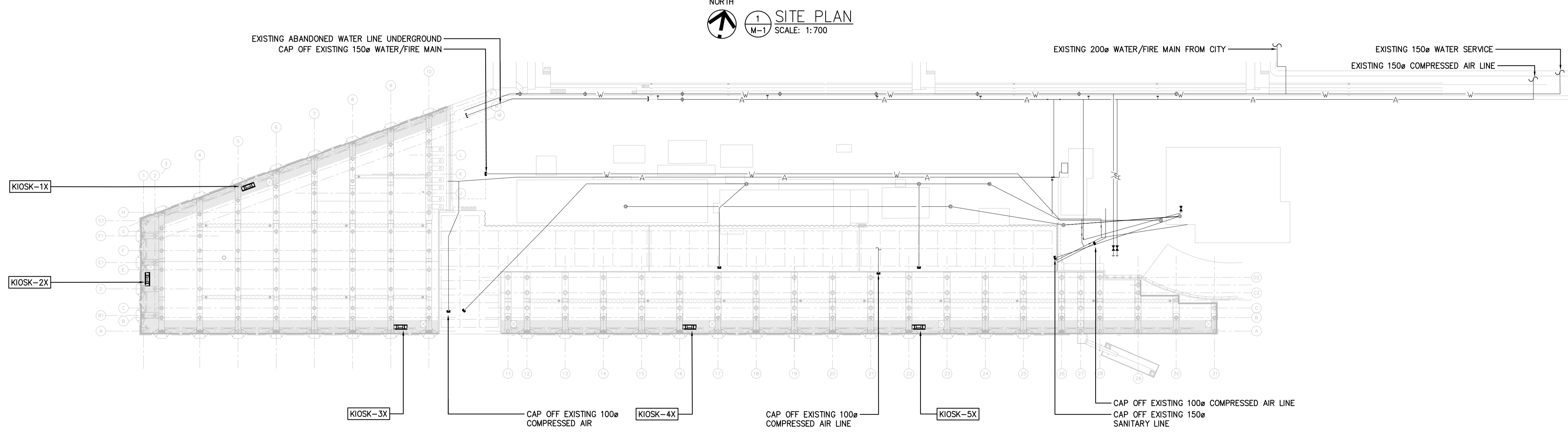
- EXACT LAYOUT MAY VARY. CONTRACTOR TO VERIFY ALL DETAILS ON SITE.
- ALL DIMENSIONS FOR REFERENCE ONLY. CONTRACTOR TO VERIFY ALL DETAILS ON SITE.
- ALL EXISTING PIPEWORK AND FITTINGS ARE SHOWN ACCORDING TO AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL LOCATE ALL EXISTING PIPEWORK PRIOR TO CONSTRUCTION INCLUDING UNDERGROUND FIRE WATER, SANITARY SEWER AND COMPRESSED AIR AND SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION. ANY ADDITIONAL WORK REQUIRED AS A RESULT OF FAILING TO PRE-LOCATE KNOWN OR POTENTIAL CONFLICTS WILL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.
- FOR KIOSK CONNECTION DETAILS, SEE DETAILS 2 M-2 AND 3 M-2.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE IN WRITING IF ANY PIPEWORK OR FITTING INTENDED TO BE REUSED CANNOT BE REUSED, DAMAGE TO PIPEWORK OR FITTINGS CAUSED BY CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO PWGSC.
- ALL STEEL PIPE, HANGERS, PIPE CLAMPS, FITTINGS AND OTHER STEEL ITEMS MUST BE HOT DIPPED GALVANIZED AFTER FABRICATION.
- METALLIC PIPE, SUPPORTS, FITTINGS AND OTHER METAL MUST BE GROUNDED PER THE CANADIAN ELECTRICAL CODE.
- SURFACE RUN PIPE TO BE SCHEDULE 40 GALVANIZED STEEL WITH GROOVED END MECHANICAL CONNECTIONS.
- BURIED PIPE TO BE SCHEDULE 10 316 STAINLESS STEEL WITH GROOVED END MECHANICAL CONNECTIONS.
- ALL KIOSKS ARE EXISTING, TO BE REINSTALLED IN NEW LOCATIONS AS SHOWN. CONTRACTOR TO PRESSURE WASH AND CLEAN PRIOR TO REINSTALLATION. ALL PIPING INSIDE THE KIOSK SHALL BE NEW.
- WATER METERS ARE EXISTING AND CURRENTLY STORED INSIDE KIOSK. REINSTALL IN KIOSKS, AND ALLOW FOR NEW PIPING TO AND FROM WATER METER.
- REUSE EXISTING FIRE DEPARTMENT CONNECTIONS STORED IN KIOSKS
- SLOPE WATER AND AIR LINES TO KIOSKS TO ALLOW FOR PERIODIC BLOW DOWN OF AIR LINES AND DRAINING OF WATER LINES. REFER TO SITE PLAN ON DRAWING M2 FOR SLOPES.



Association of Professional Engineers and Geoscientists of the Province of British Columbia
A. J. MULLALEY
 ENGINEERING LICENSEE
 Limited Licence 170480

2017-03-01

Revision/Revisions	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR TENDER	2017/01/27



2 SITE PLAN- EXISTING WATER, COMPRESSED AIR AND SANITARY
 SCALE: 1:700

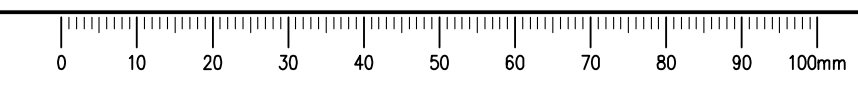
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

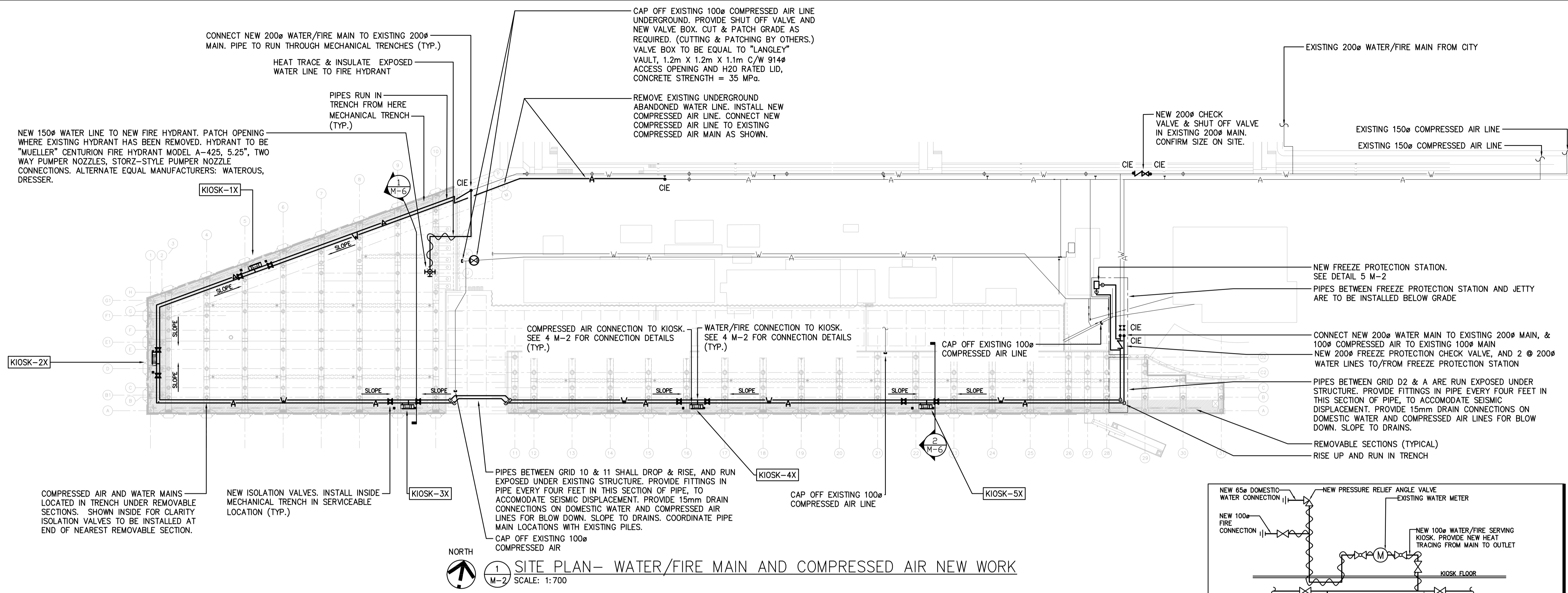
Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
 Designed by/Concept par
KH
 Drawn by/Dessiné par
GR
 PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
 Regional Manager, Architectural and Engineering Services
 Responsable Managérial, Services Environnementaux et Services
PREETIPAL PAUL

Drawing title/Titre du dessin
SITE PLAN AND EXISTING WATER, COMPRESSED AIR AND SANITARY

Project No./No. du projet
R.026729.002
 Sheet/Feuille
M-1
 of
9
 Revision no./La Révision no.



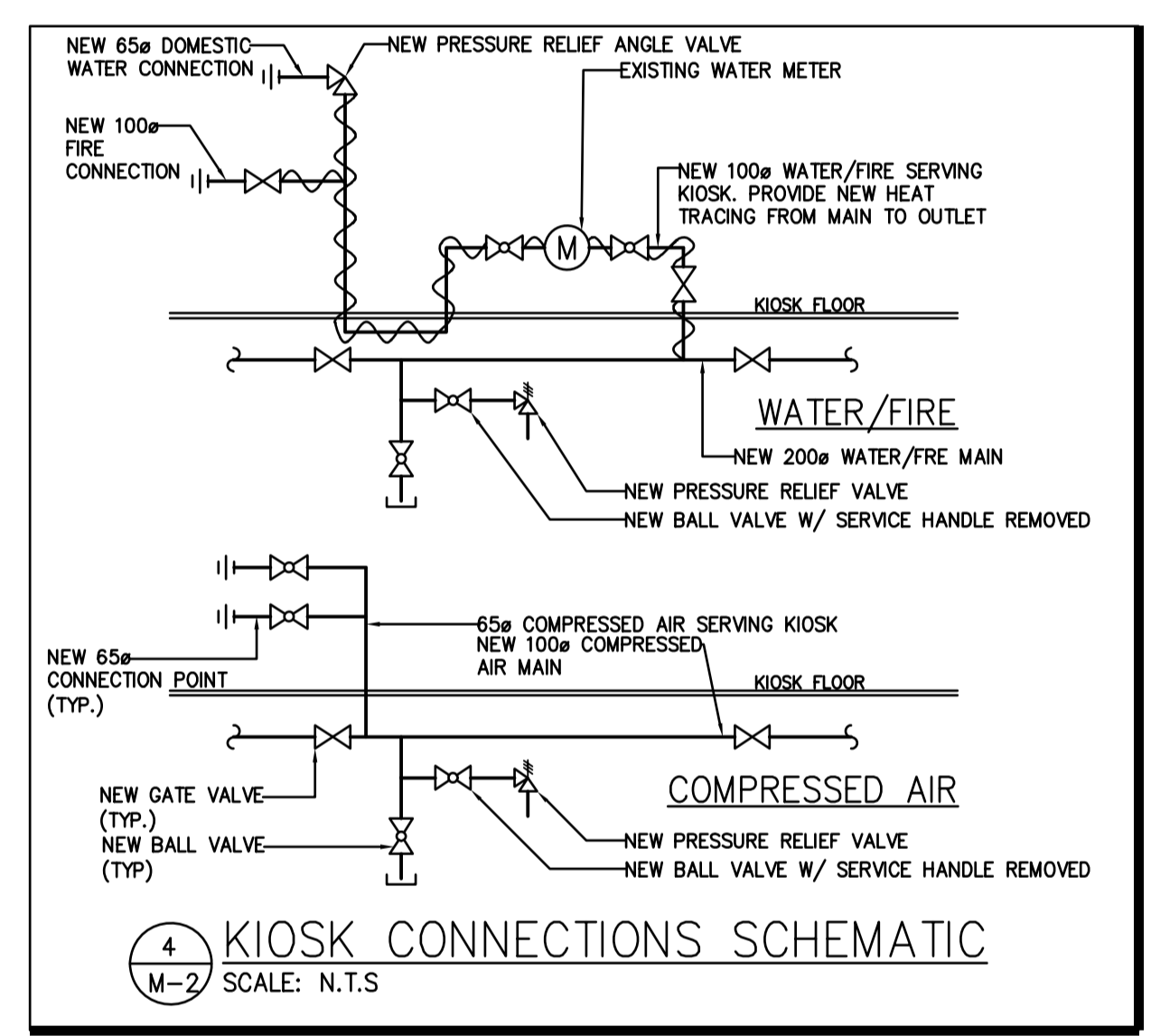


1 SITE PLAN- WATER/FIRE MAIN AND COMPRESSED AIR NEW WORK
SCALE: 1:700

UNIT NUMBER	MANUFACTURER	MODEL	SERVICE	LOCATION	PIPE CONN. SIZE (mm)	POWER (W)	DRIVE TYPE	FLOW RATE (L/s)	TOTAL HEAD (kPa)	V/Ph/Hz	COMMENTS
P-1&2	GRUNDFOS	UP-40-160	FREEZE PROTECTION	JETTY	43	560	WET ROTOR	3.2	213	480/3/60	SUITABLE FOR POTABLE WATER

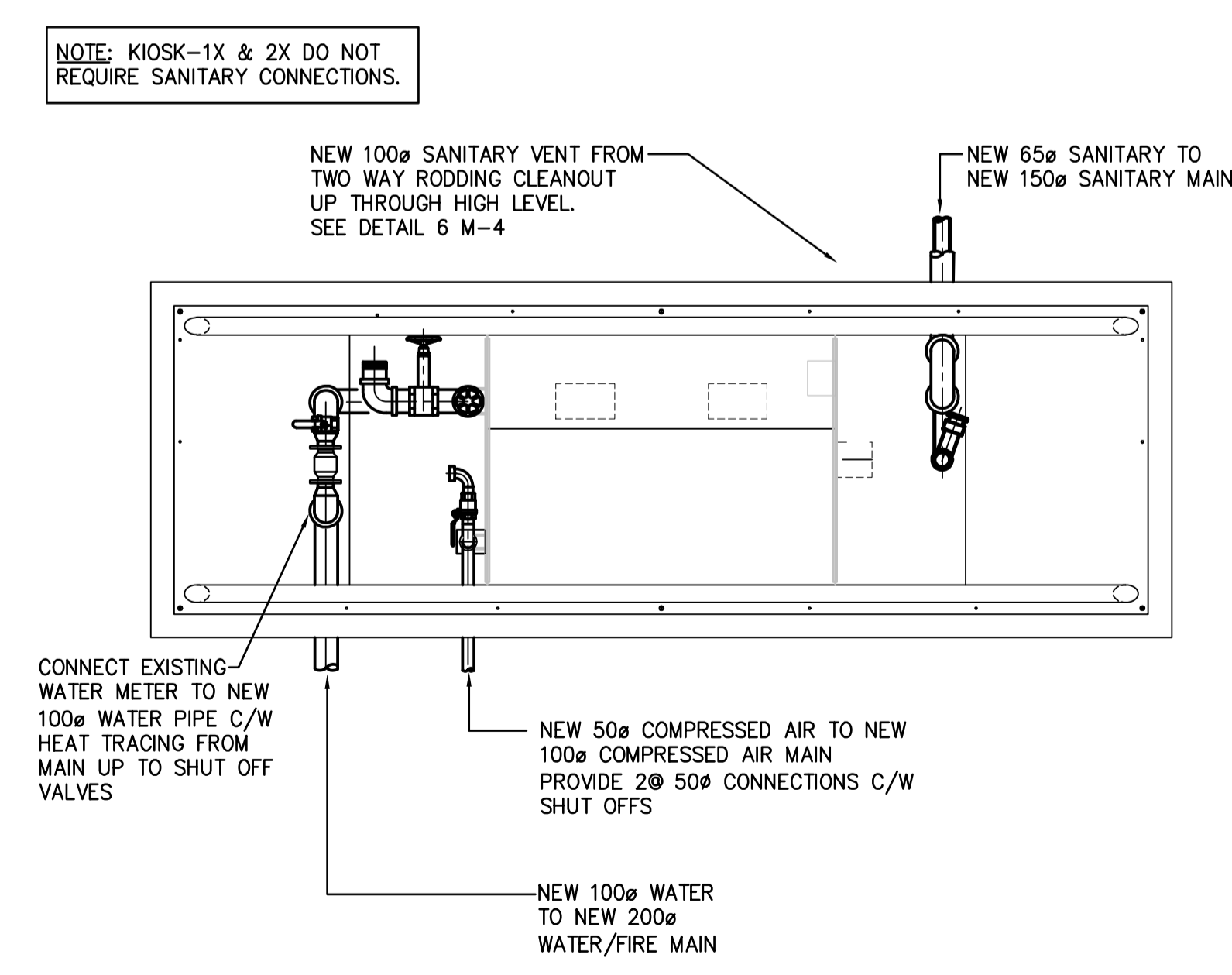
DESIGNATION	SERVICE	MAKE	MODEL	OUTPUT WATT/FT	PIPE LENGTH M	MAX. EXPOSURE TEMP. (C)	FUSE AMPS	POWER (WATTS)	ELECTRICAL V/PH/Hz	NOTES
HT-1	KIOSK 1X	RAYCHEM	8XLI-CR	8	2.5	4	15	100	120/1/60	1,2,3
HT-2	KIOSK 2X	RAYCHEM	8XLI-CR	8	2.5	4	15	100	120/1/60	1,2,3
HT-3	KIOSK 3X	RAYCHEM	8XLI-CR	8	2.5	4	15	100	120/1/60	1,2,3
HT-4	KIOSK 4X	RAYCHEM	8XLI-CR	8	2.5	4	15	100	120/1/60	1,2,3
HT-5	KIOSK 5X	RAYCHEM	8XLI-CR	8	2.5	4	15	100	120/1/60	1,2,3
HT-6	NEW HYDRANT	RAYCHEM	8XLI-CR	8	20	4	15	525	120/1/60	1,2,3

NOTES:
1. C/W RAYCLUC-PC POWER CONNECTION, RAYCLUC-LE END SEAL AND DIGITRACE C910 ELECTRONIC CONTROLLER.
2. CONFIRM PIPE LENGTH ON SITE.
3. PROVIDE INSULATION AND ALUMINUM JACKET AROUND PIPE.

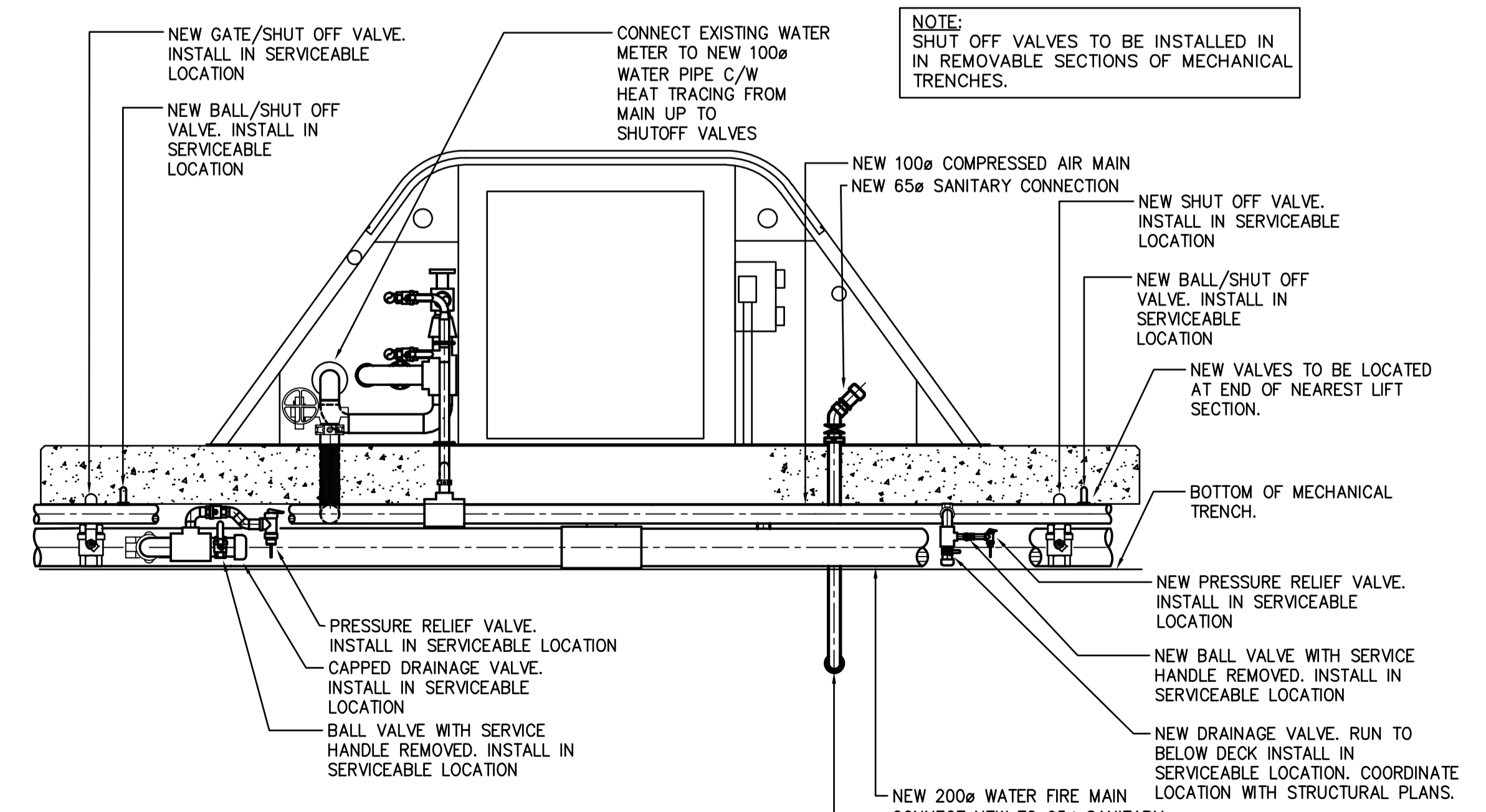


4 KIOSK CONNECTIONS SCHEMATIC
SCALE: N.T.S.

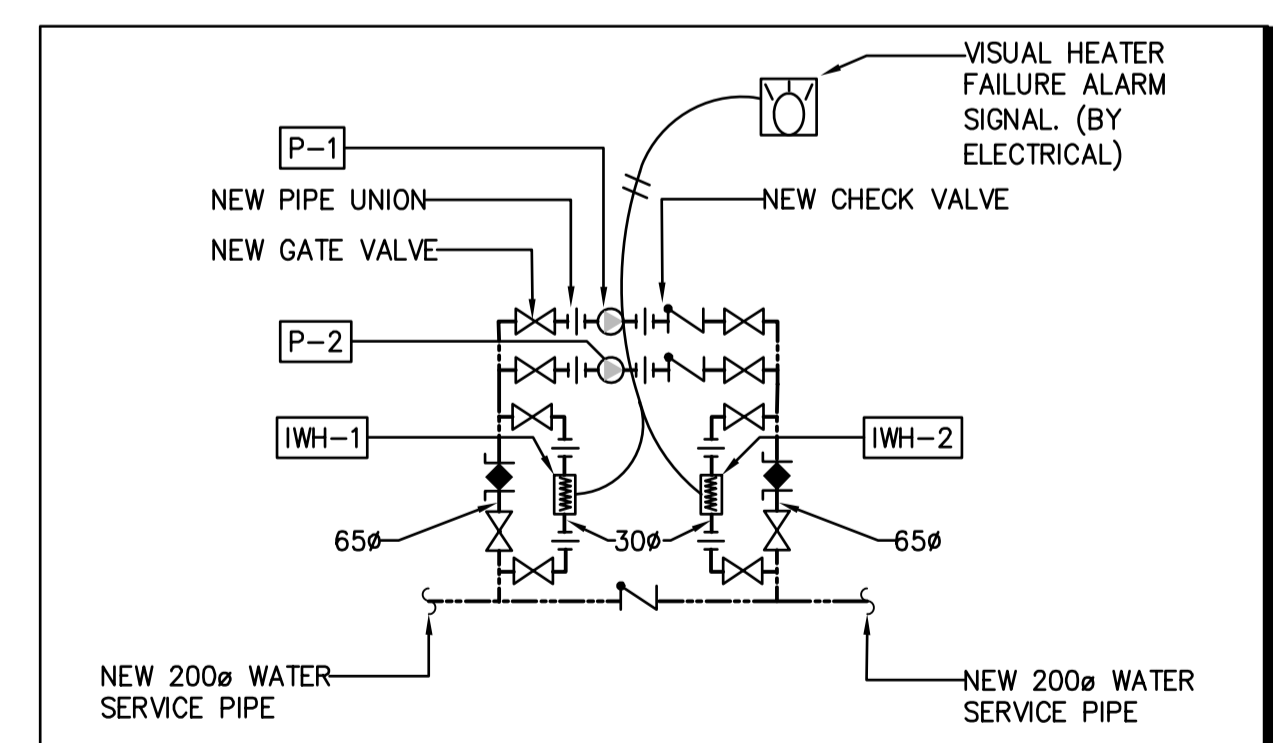
UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	ENTERING WATER (°C)	LEAVING WATER (°C)	MAX FLOW (L/S)	KW	ELECTRICAL	UNIT WEIGHT (LBS)	COMMENTS
IWH-1&2	EEMAX	ED020480T3-N4X	JETTY	2	4	0.32	20	480/3/60	15	NEMA STAINLESS STEEL WATER PROOF CORROSION RESISTANT CABINET



2 TYPICAL KIOSK- TOP VIEW DETAIL
SCALE: N.T.S.

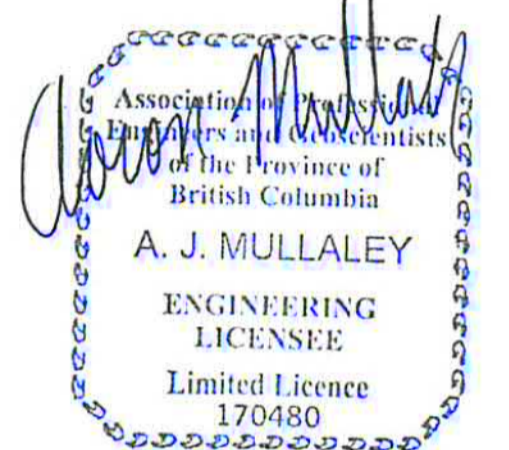


3 TYPICAL KIOSK- FRONT VIEW DETAIL
SCALE: N.T.S.



	AO	AI	DO	DI	P1 COMMAND
P-1C			X		P1 STATUS
P-1S	X				P2 STATUS
P-2C			X		P2 STATUS
P-2S	X				P2 STATUS
IWH1-C			X		IWH1 COMMAND
IWH1-S		X			IWH1 STATUS
IWH2-C		X			IWH2 COMMAND
IWH2-S		X			IWH2 STATUS
EWT	X				ENTERING WATER TEMP.
LWT	X				LEAVING WATER TEMP.
OAT	X				OUTSIDE AIR TEMP.
Alarm-Scada			X		SCADA - DRY CONTACT
Status-Light			X		ALARM LIGHT ON ENCLOSURE
Alarm-Clear				X	PUSH BUTTON RESET

5 FREEZE PROTECTION STATION SCHEMATIC
SCALE: N.T.S.



2017-03-01

Revision/Édition	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

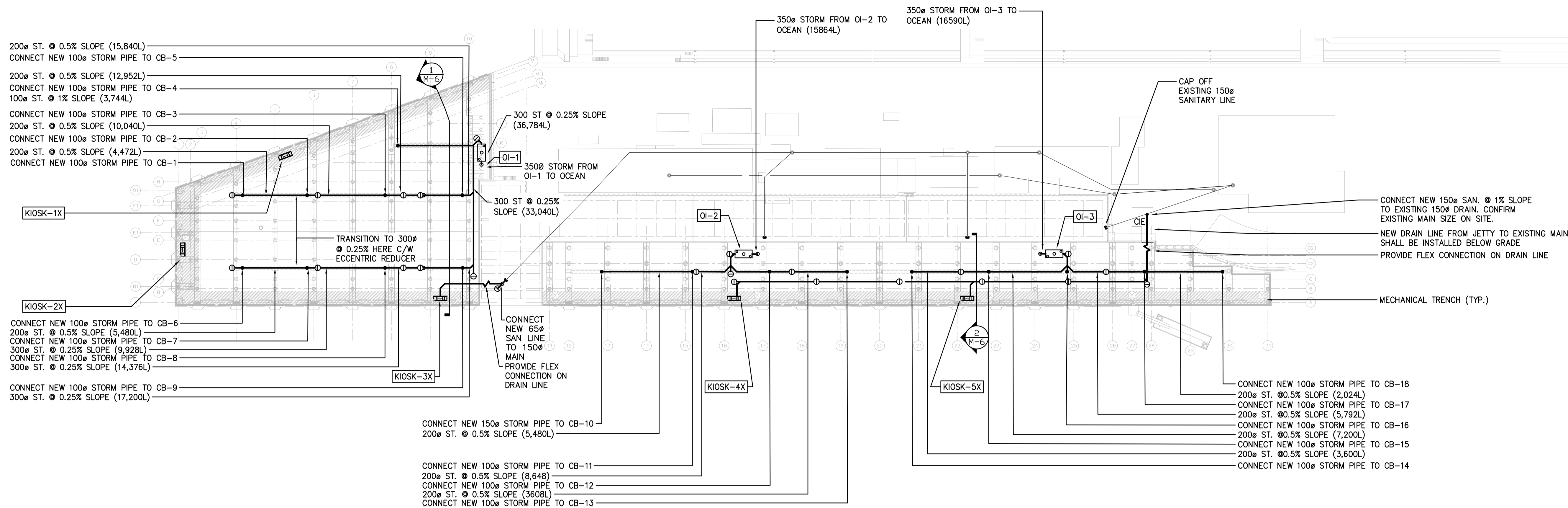
Client/Client: **PUBLIC WORKS AND GOVERNMENT SERVICES CANADA**

Project title/Titre du projet: **ESQUIMALT GRAVING DOCK 825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Designed by/Concept par: **KH**
Drawn by/Dessiné par: **MT, XY**
PWGSC Project Manager/Administrateur de Projets TPSC: **PATRICK TRUONG**
Regional Manager, Architectural and Engineering Services / Régional Manager, Environnemental Services

Drawing title/Titre du dessin: **WATER/FIRE MAIN AND COMPRESSED AIR NEW WORK AND KIOSK DETAILS**

Project No./No. du projet: **R.026729.002**
Sheet/Fauille: **M-2**
Revision no./no. de Révision: **9**



WEST JETTY STORM LOAD SUMMARY (8mm/15 MIN. RAINFALL)

FIXTURE	AREA (m ²)	HYDRAULIC LOAD (L/15 MIN.)	PIPE SIZE REQ'D (mm)	~ INVERT @ CONNECTION TO MAIN (m)
CB-1	559	4,472	100ø @ 2% SLOPE	4.63
CB-2	696	5,568	100ø @ 2% SLOPE	4.52
CB-3	364	2,912	100ø @ 1% SLOPE	4.46
CB-4	468	3,744	100ø @ 1% SLOPE	4.63
CB-5	361	2,888	100ø @ 1% SLOPE	4.40
CB-6	685	5,480	100ø @ 2% SLOPE	4.63
CB-7	556	4,448	100ø @ 2% SLOPE	4.52
CB-8	556	4,448	100ø @ 2% SLOPE	4.46
CB-9	353	2,824	100ø @ 1% SLOPE	4.40
WEST JETTY TOTAL		36,784	300ø @ 0.25% SLOPE	

SOUTH JETTY STORM LOAD SUMMARY (8mm/15 MIN. RAINFALL)

FIXTURE	AREA (m ²)	HYDRAULIC LOAD (L/15 MIN.)	PIPE SIZE REQ'D (mm)	~ INVERT @ CONNECTION TO MAIN (m)
CB-10	630	5,040	100ø @ 2% SLOPE	4.63
CB-11	451	3,608	100ø @ 1% SLOPE	4.52
CB-12	451	3,608	100ø @ 1% SLOPE	4.46
CB-13	451	3,608	100ø @ 1% SLOPE	4.40
CB-14	451	3,608	100ø @ 1% SLOPE	4.63
CB-15	451	3,608	100ø @ 1% SLOPE	4.40
CB-16	451	3,608	100ø @ 1% SLOPE	4.46
CB-17	471	3,768	100ø @ 1% SLOPE	4.52
CB-18	253	2,024	100ø @ 1% SLOPE	4.63
SOUTH JETTY TOTAL		32,480	300ø @ 0.25% SLOPE	

NORTH

 1 M-3 SCALE: 1:700
SITE PLAN- SANITARY AND STORM NEW WORK

Association of Professional Engineers and Geoscientists of the Province of British Columbia
A. J. MULLALEY
 ENGINEERING LICENSEE
 Limited Licence 170480

2017-03-01

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

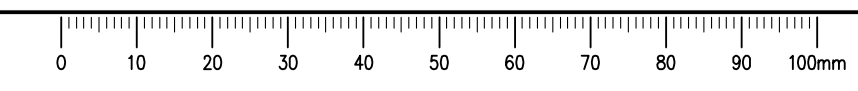
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

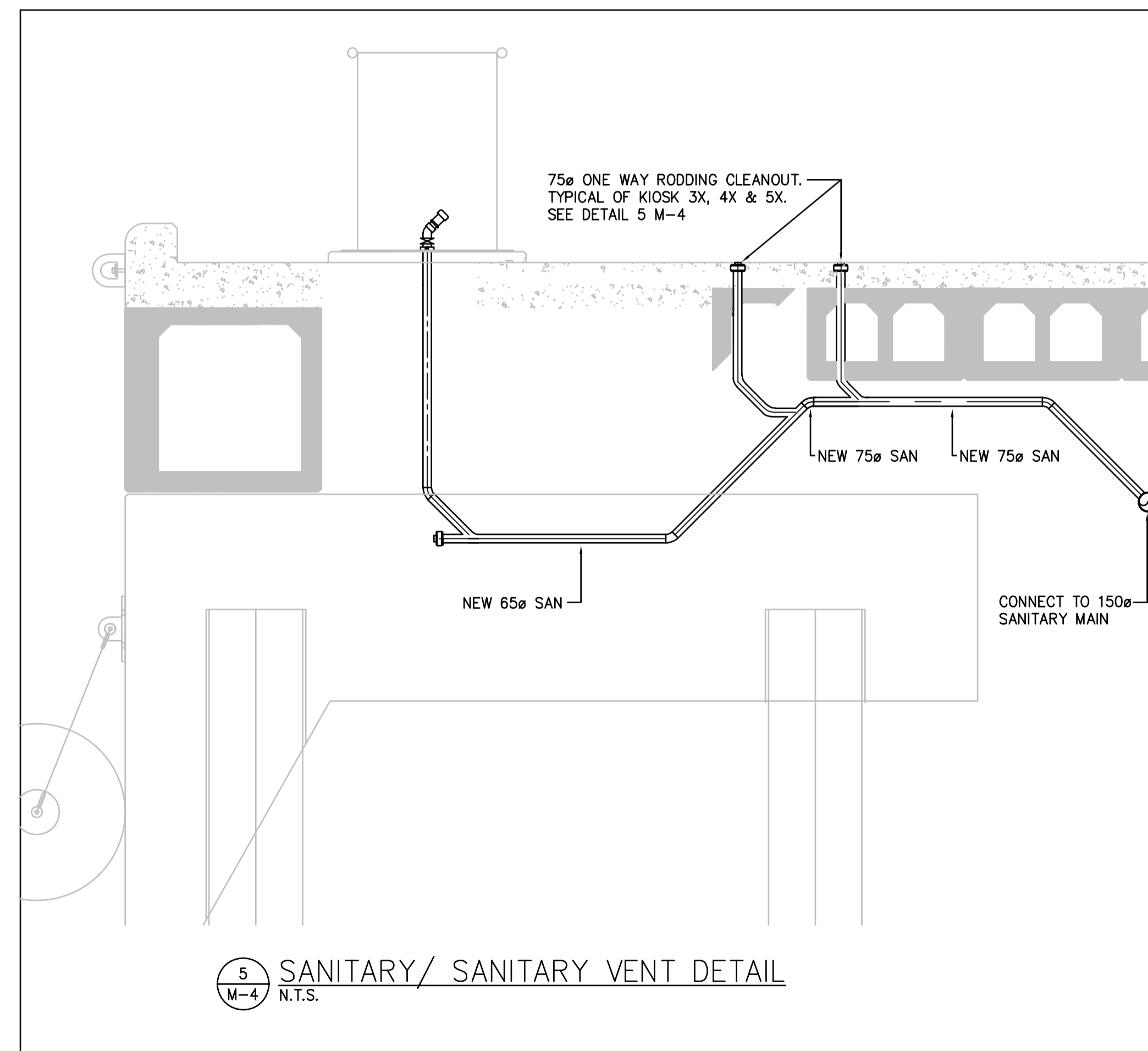
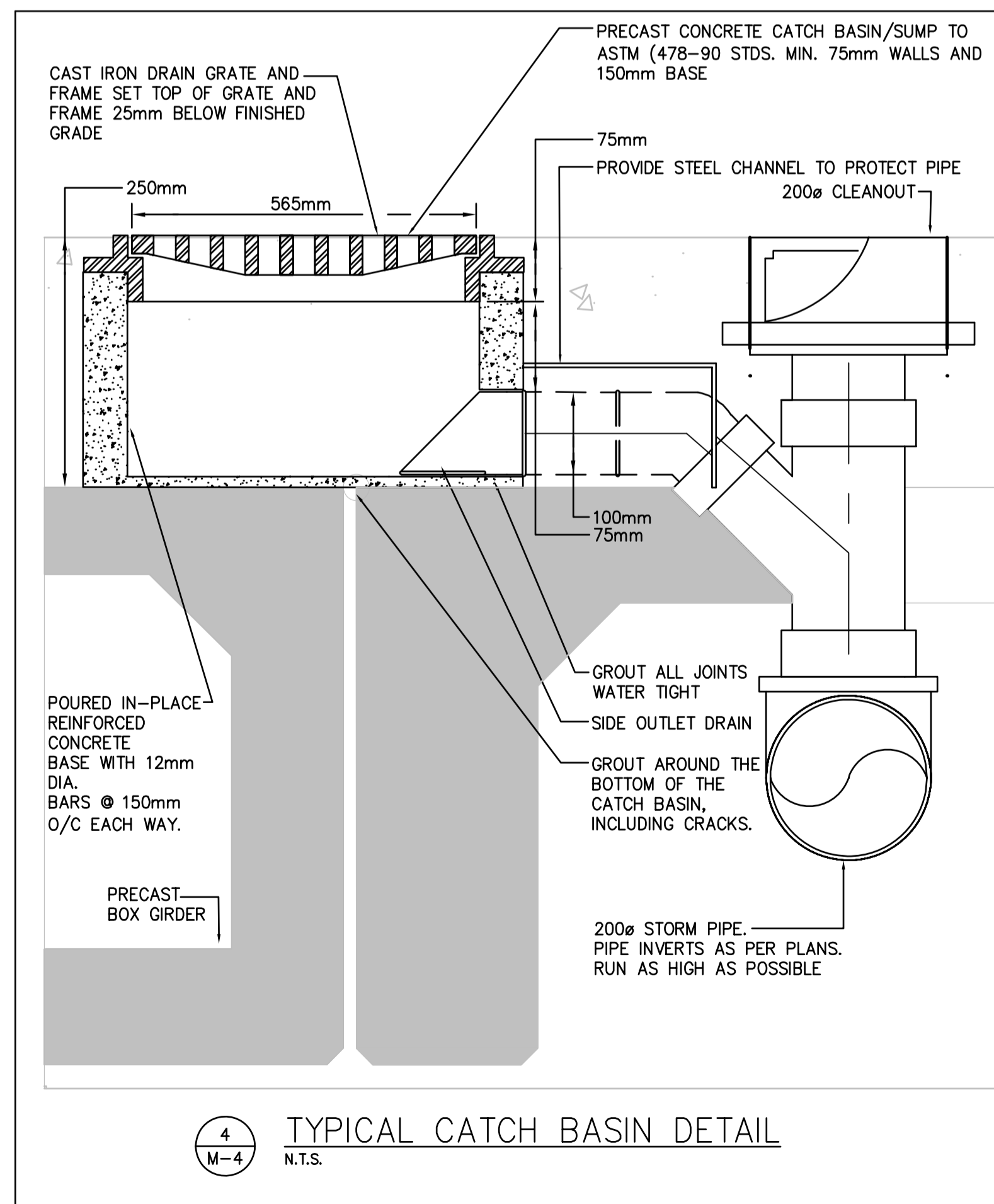
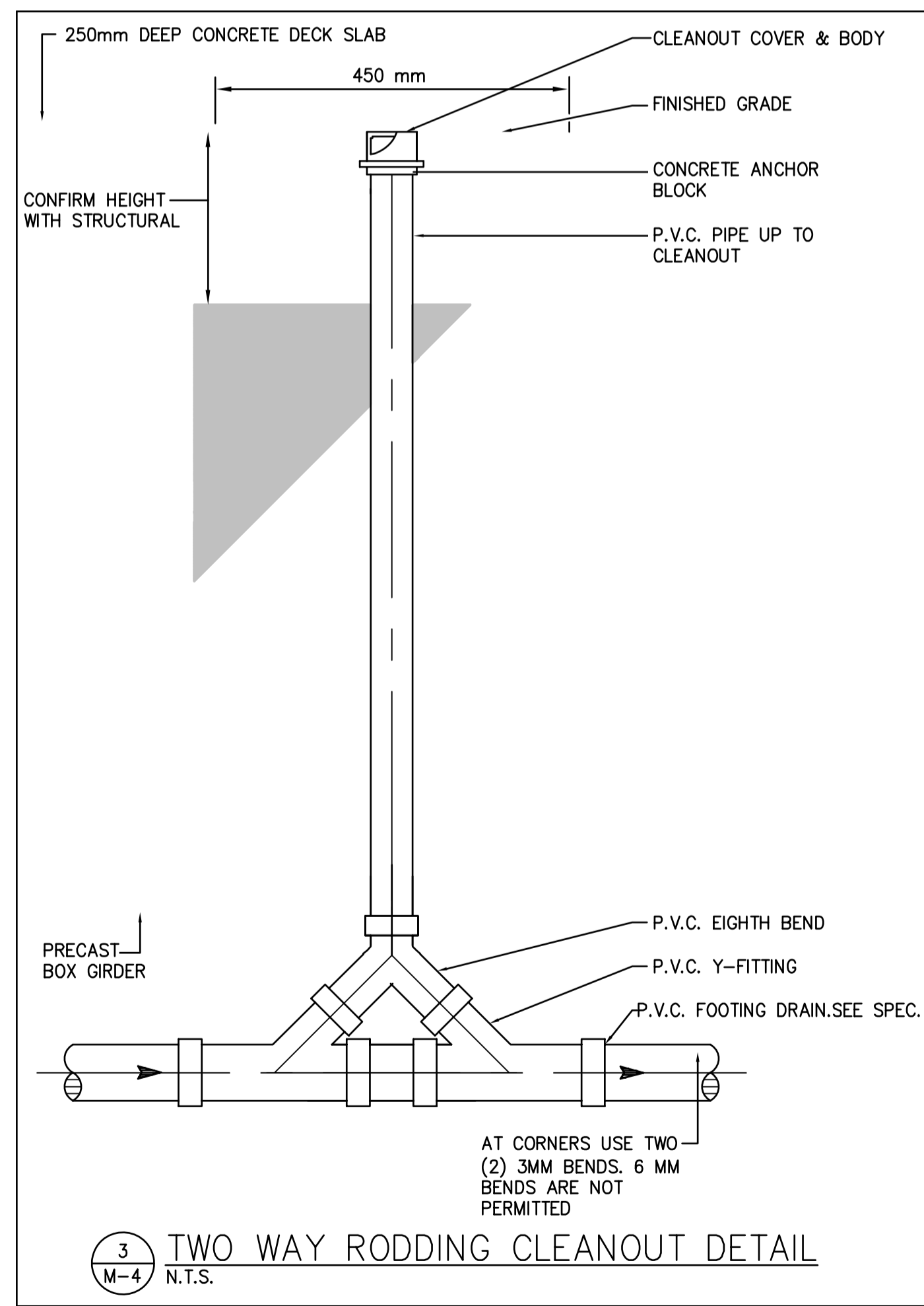
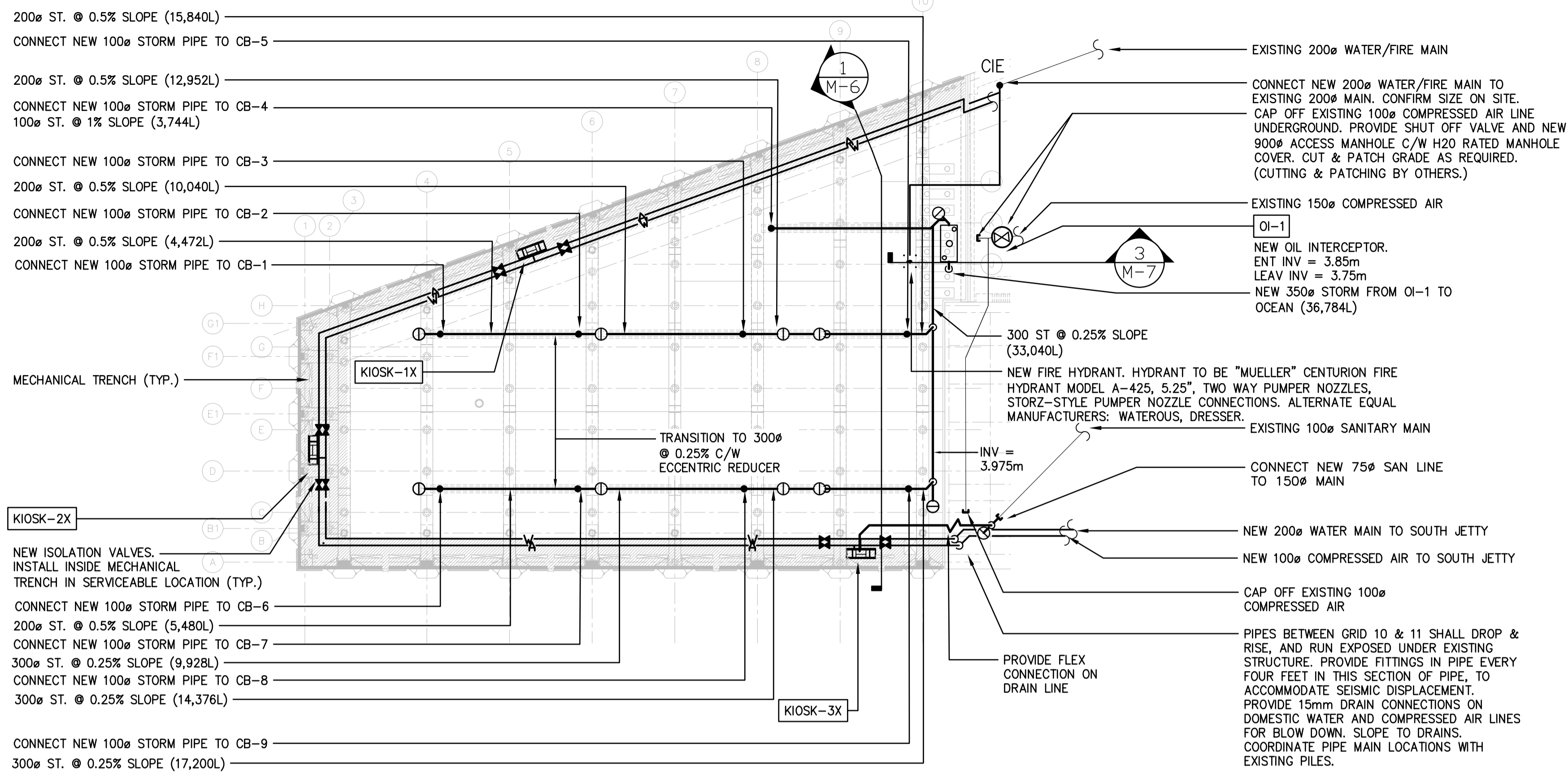
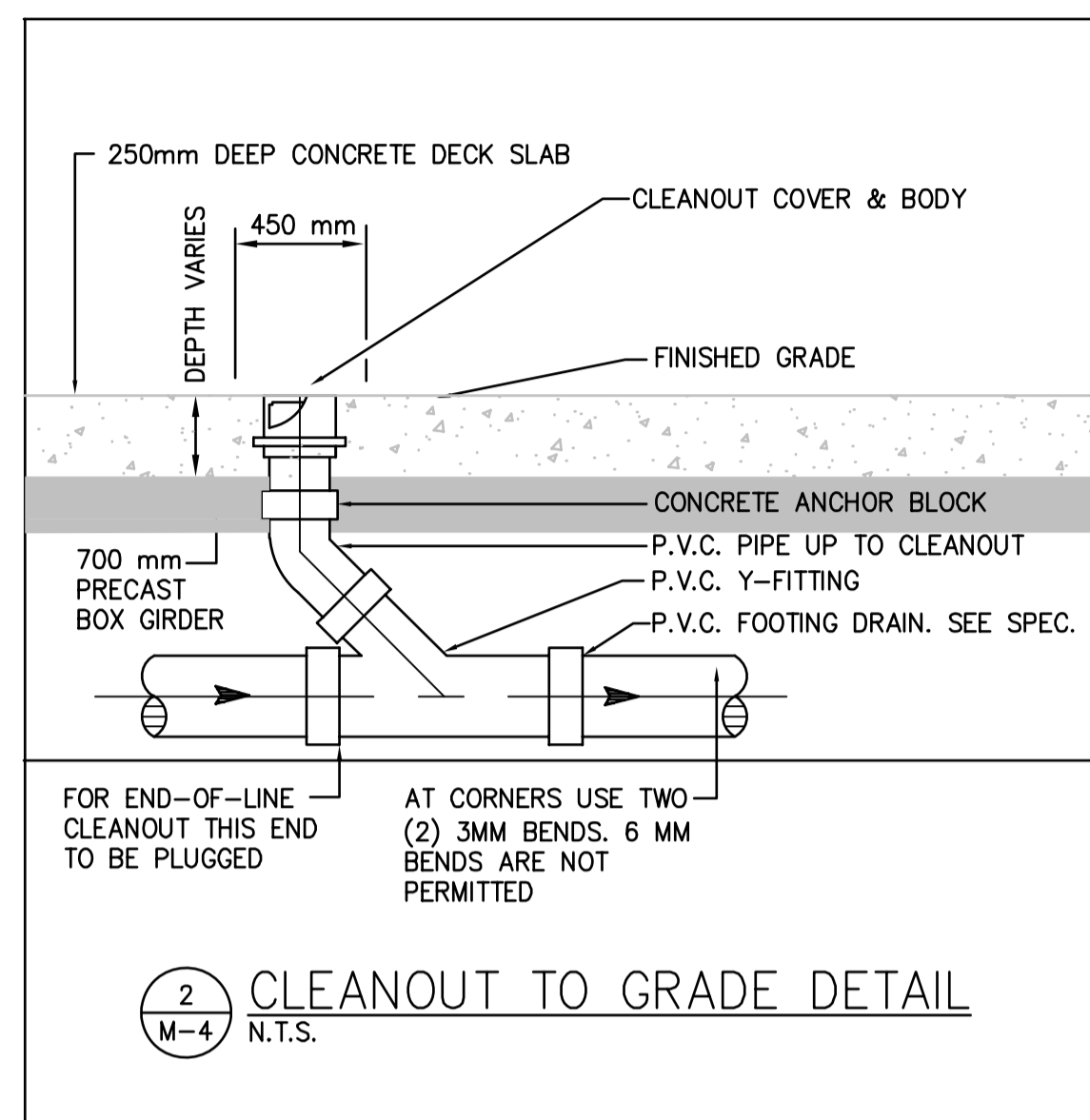
Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
 Designed by/Concept par
KH
 Drawn by/Dessiné par
MT, XY
 PWSC Project Manager/Administrateur de Projets TF50C
PATRICK TRUONG
 Regional Manager, Architectural and Engineering Services
 Regional Manager, Environmental Services

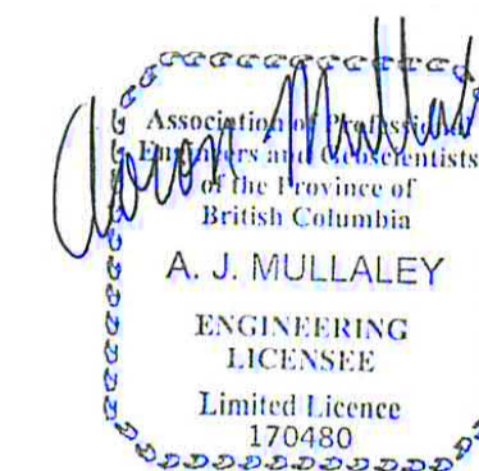
Drawing title/Titre du dessin
SANITARY AND STORM NEW WORK

Project No./No. du projet R.026729.002	Sheet/Feuille M-3 OF 9	Revision no./No. de Révision no.
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1 WEST JETTY- WATER, COMPRESSED AIR, SANITARY AND STORM NEW WORK
SCALE: 1:500



2017-03-01

Revision/Revisions	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

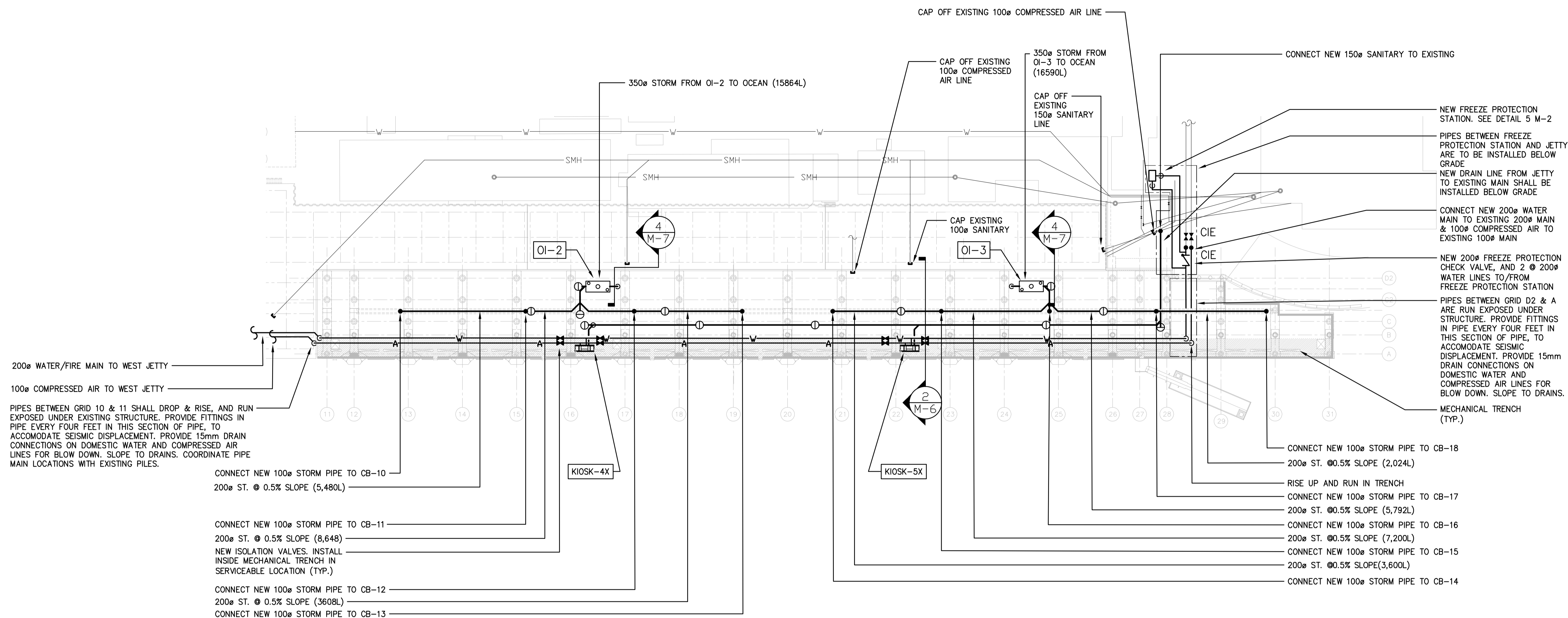
Client/Client: **PUBLIC WORKS AND GOVERNMENT SERVICES CANADA**

Project title/Titre du projet: **ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Designed by/Concept par: KH
Drawn by/Dessiné par: MT, XY
PWGSC Project Manager/Administrateur de Projets TPWSC: **PATRICK TRUONG**
Regional Manager, Architectural and Engineering Services / Régional Manager, Environmental Services

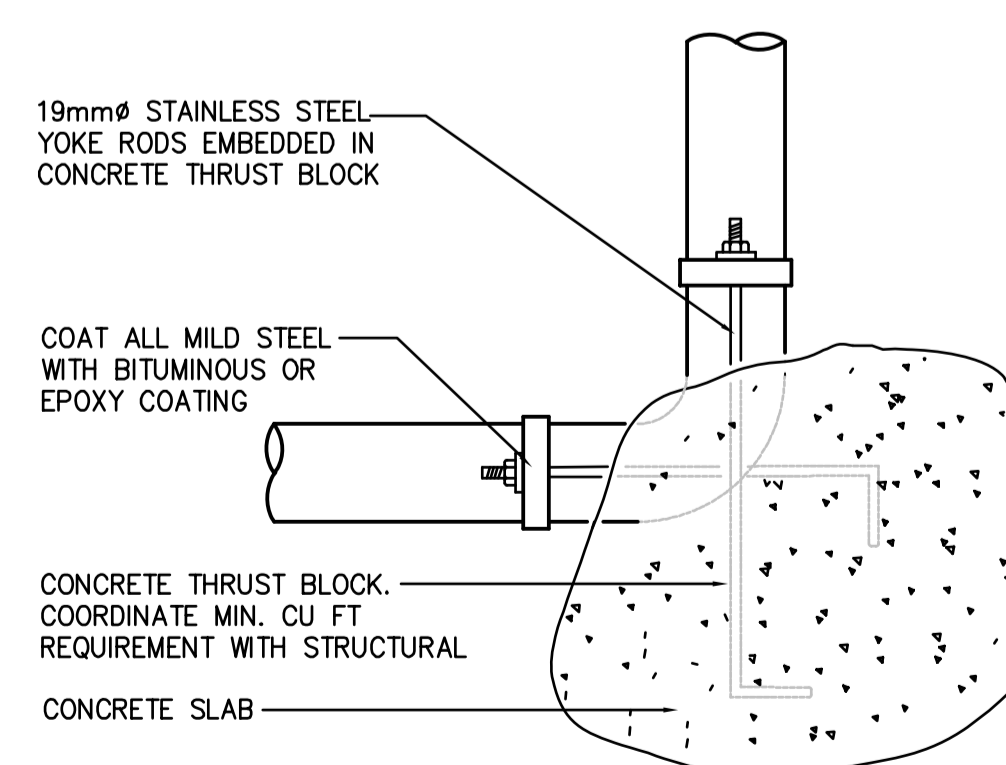
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Project No./No. du projet: R.026729.002	Sheet/Feuille: M-4 of 9	Revision no./La Révision no.:
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1 SOUTH JETTY- WATER, COMPRESSED AIR, SANITARY AND STORM NEW WORK
SCALE: 1:500

NOTE:
THRUST BLOCK TO BE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR. GENERAL CONTRACTOR TO COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.



2 CONCRETE THRUST BLOCK
N.T.S.

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

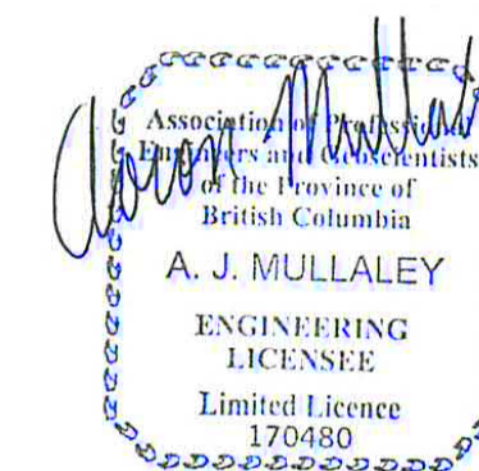
Client/Client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

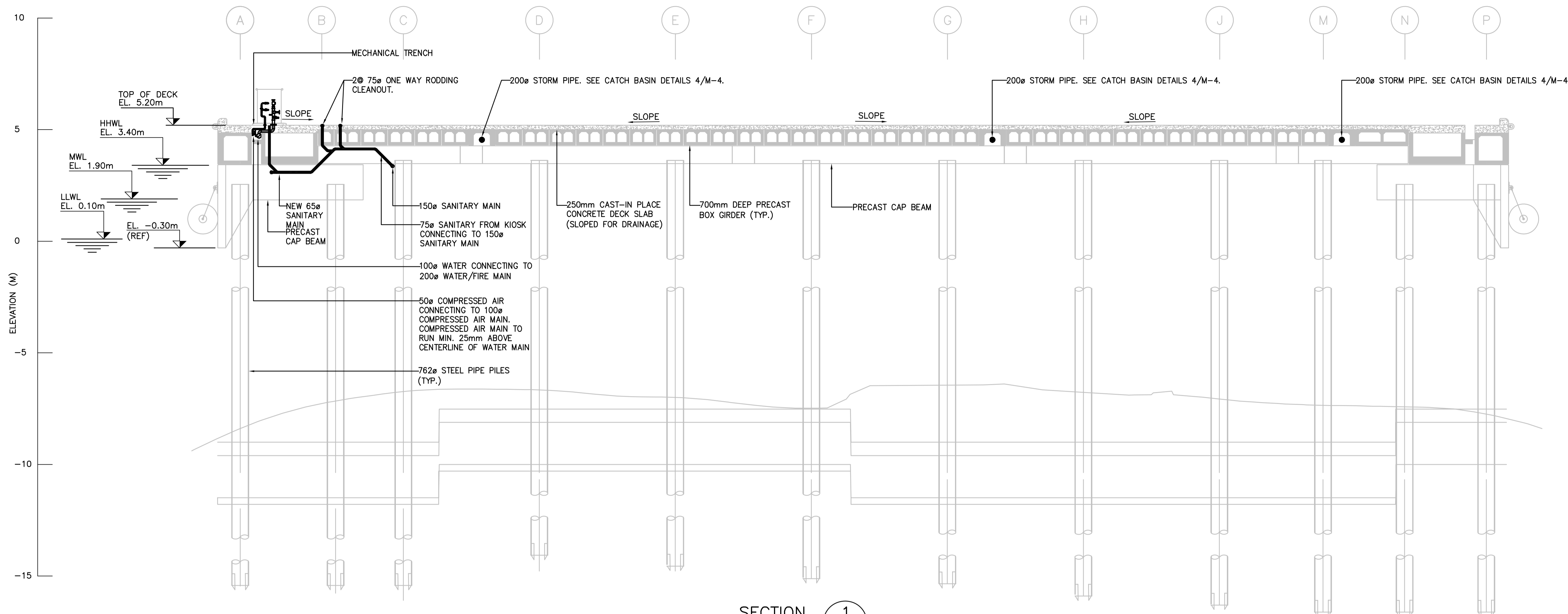
Consultant Signature Only
Designed by/Concept par
KH
Drawn by/Dessiné par
MT, XY
PWGSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services

Drawing title/Titre du dessin
SOUTH JETTY- WATER, COMPRESSED AIR, SANITARY AND STORM NEW WORK

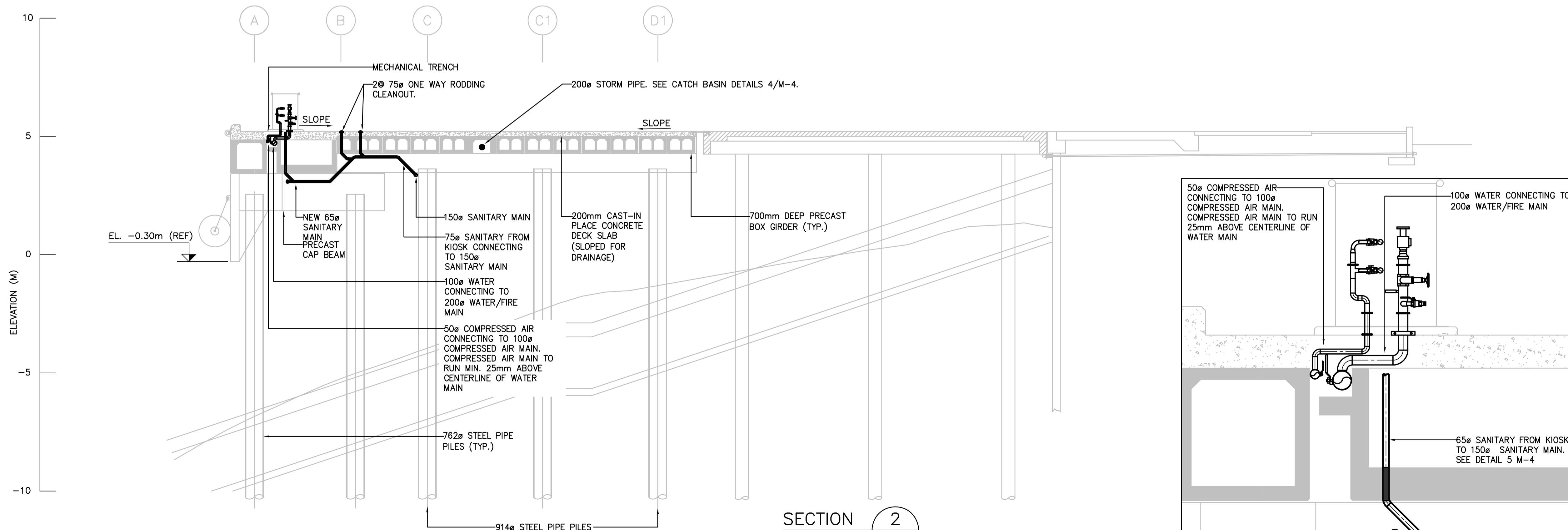
Project No./No. du projet R.026729.002	Sheet/Fauille M-5 OF 9	Revision no./No. Révision no.
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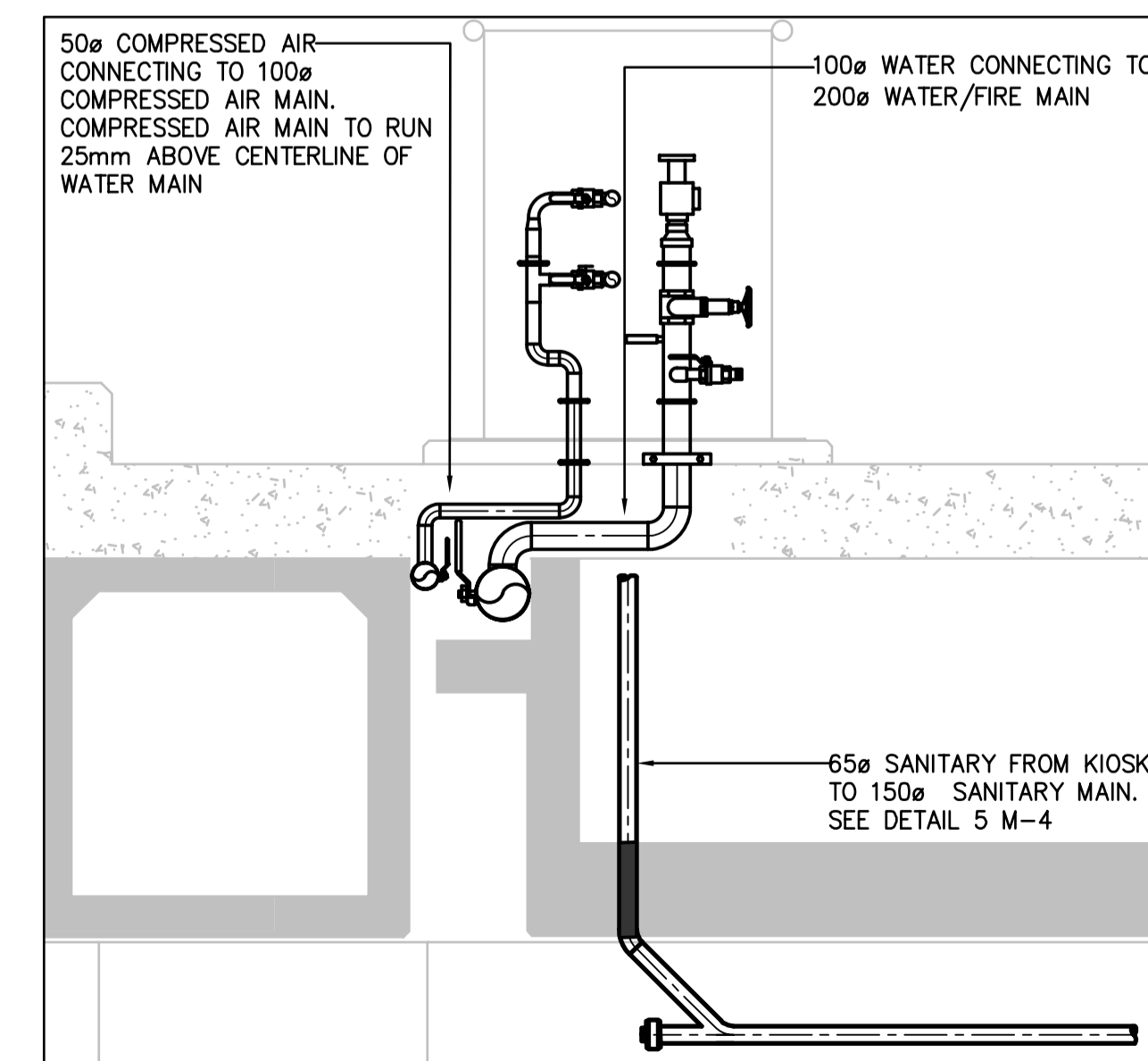
2017-03-01



SECTION 1
SCALE 1: 100



SECTION 2
SCALE 1: 100



SECTION 3
TYPICAL KIOSK - SECTION VIEW
SCALE: 1:25

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

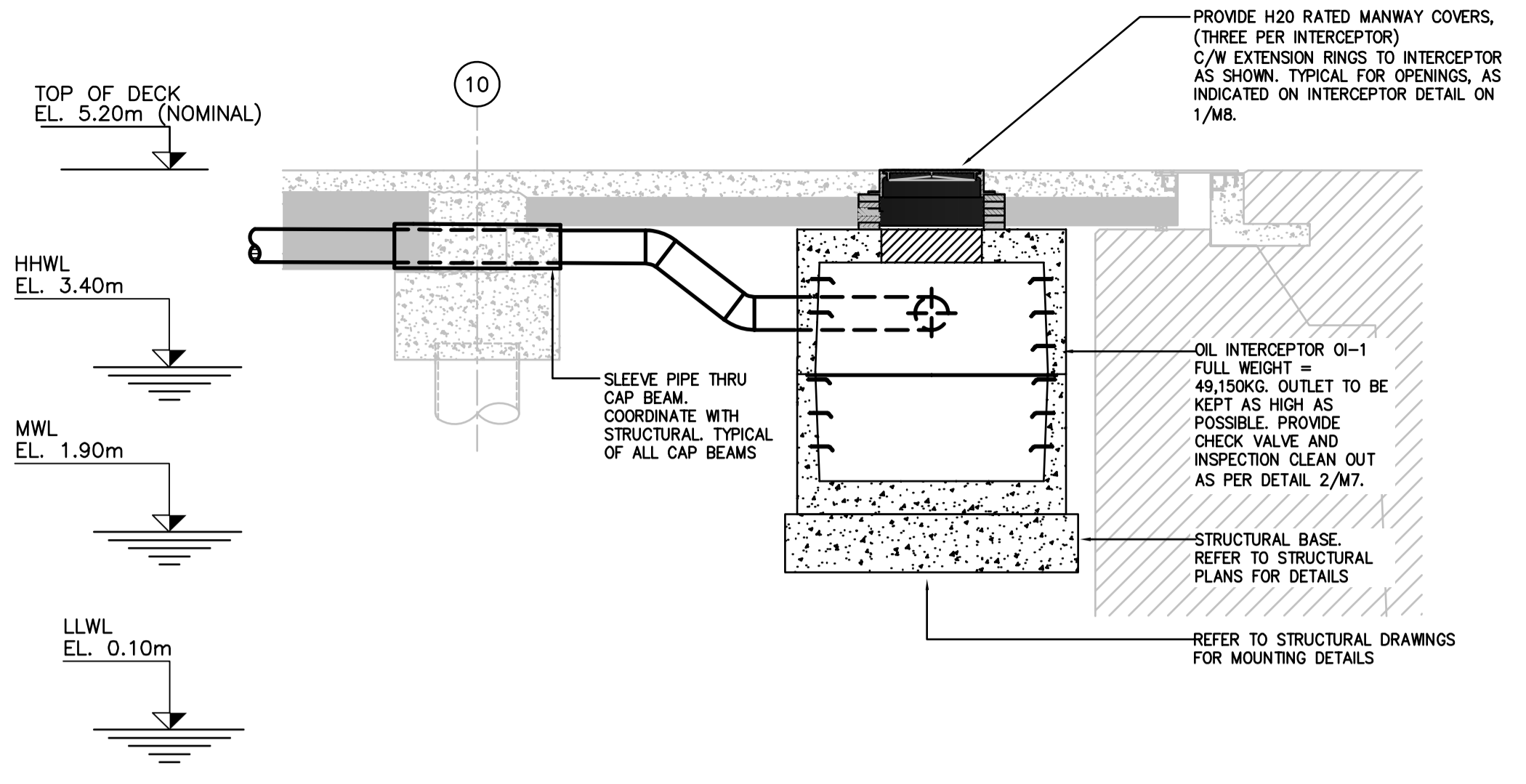
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

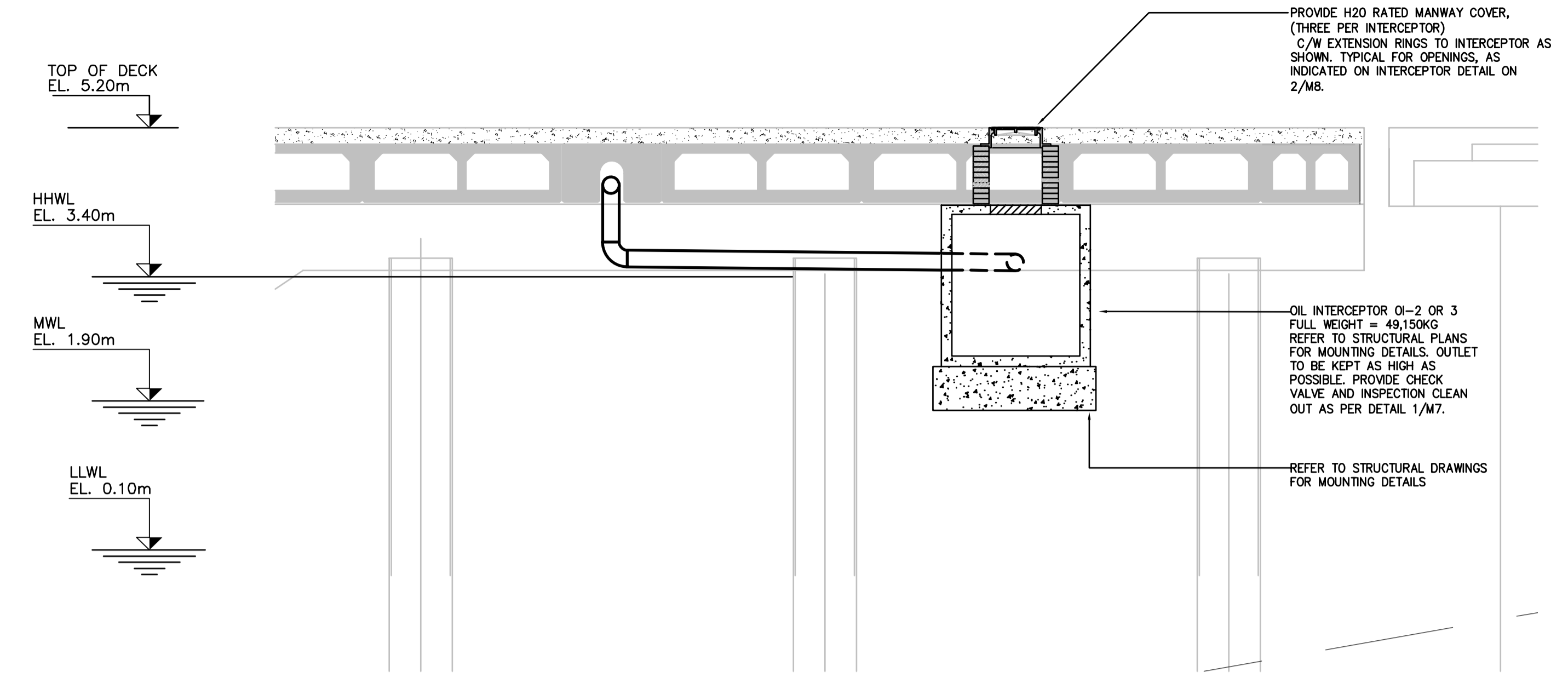
Consultant Signature Only
Designed by/Concept par
KH
Drawn by/Dessiné par
MT, XY
PWSCC Project Manager/Administrateur de Projets TPSCC
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services

Drawing title/Titre du dessin
MECHANICAL SECTIONS

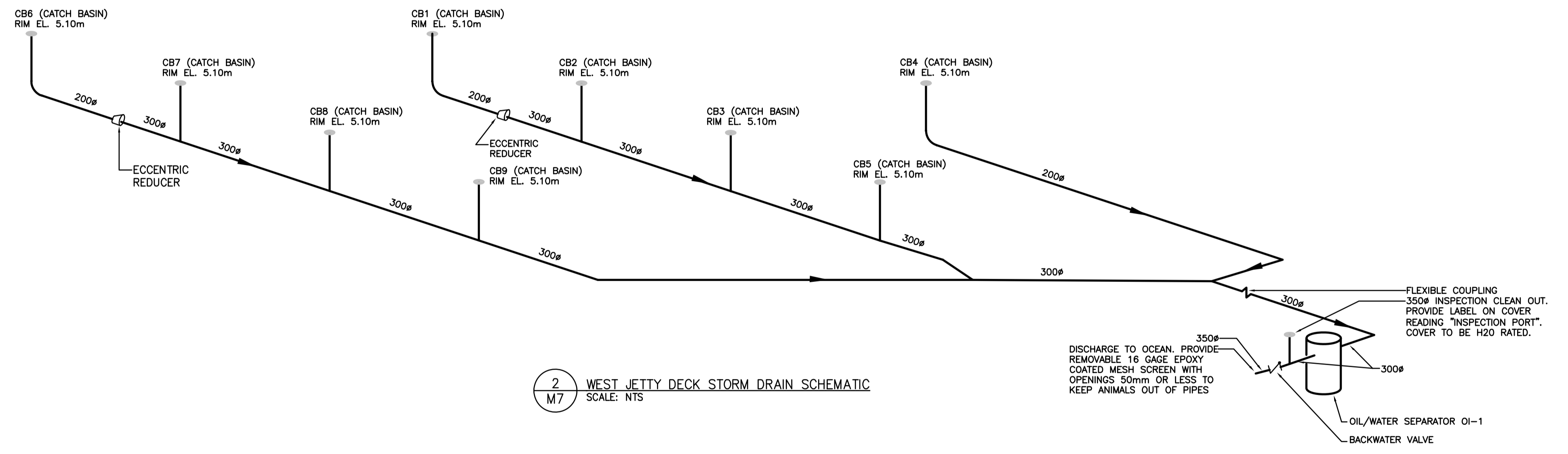
Project No./No. du projet R.026729.002	Sheet/Feuille M-6 of 9	Revision no./No. Révision no.
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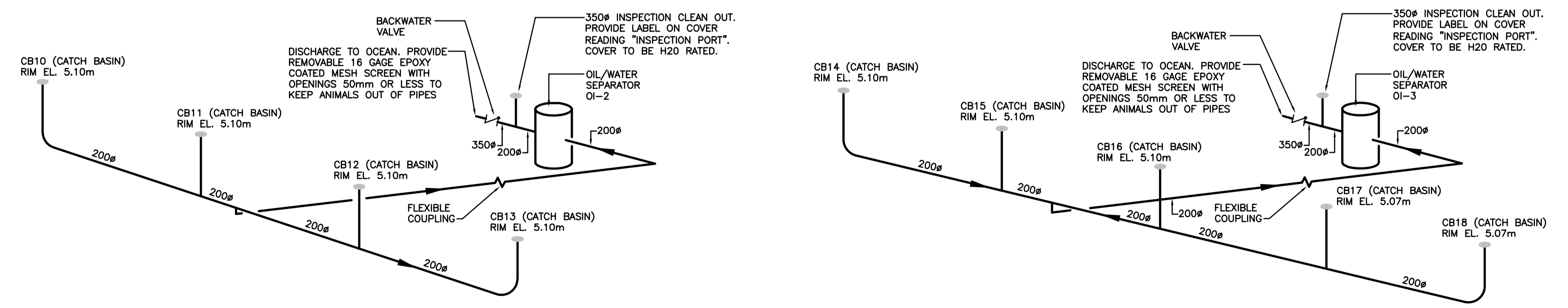
3 WEST JETTY - SECTION THRU OIL INTERCEPTOR
SCALE: NTS



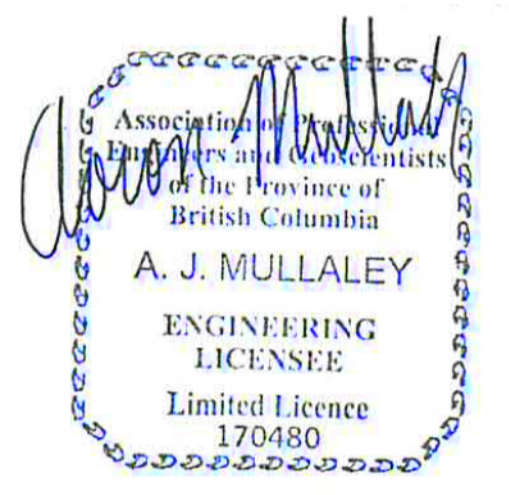
4 SOUTH JETTY - SECTION THRU OIL INTERCEPTOR (TYPICAL OF OI-2&3)
SCALE: NTS



2 WEST JETTY DECK STORM DRAIN SCHEMATIC
SCALE: NTS



1 SOUTH JETTY DECK STORM DRAIN SCHEMATIC
SCALE: NTS



2017-03-01

Revision/Revisions	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/Client: **PUBLIC WORKS AND GOVERNMENT SERVICES CANADA**

Project title/Titre du projet: **ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY RECONSTRUCTION

Consultant Signature Only: _____

Designed by/Concept par: **KH**

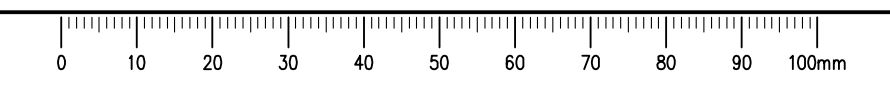
Drawn by/Dessiné par: **MT, XY**

FWGSC Project Manager/Administrateur de Projets TPSCC: **PATRICK TRUONG**

Regional Manager, Architectural and Engineering Services / Régional Manager, Environnemental Services: _____

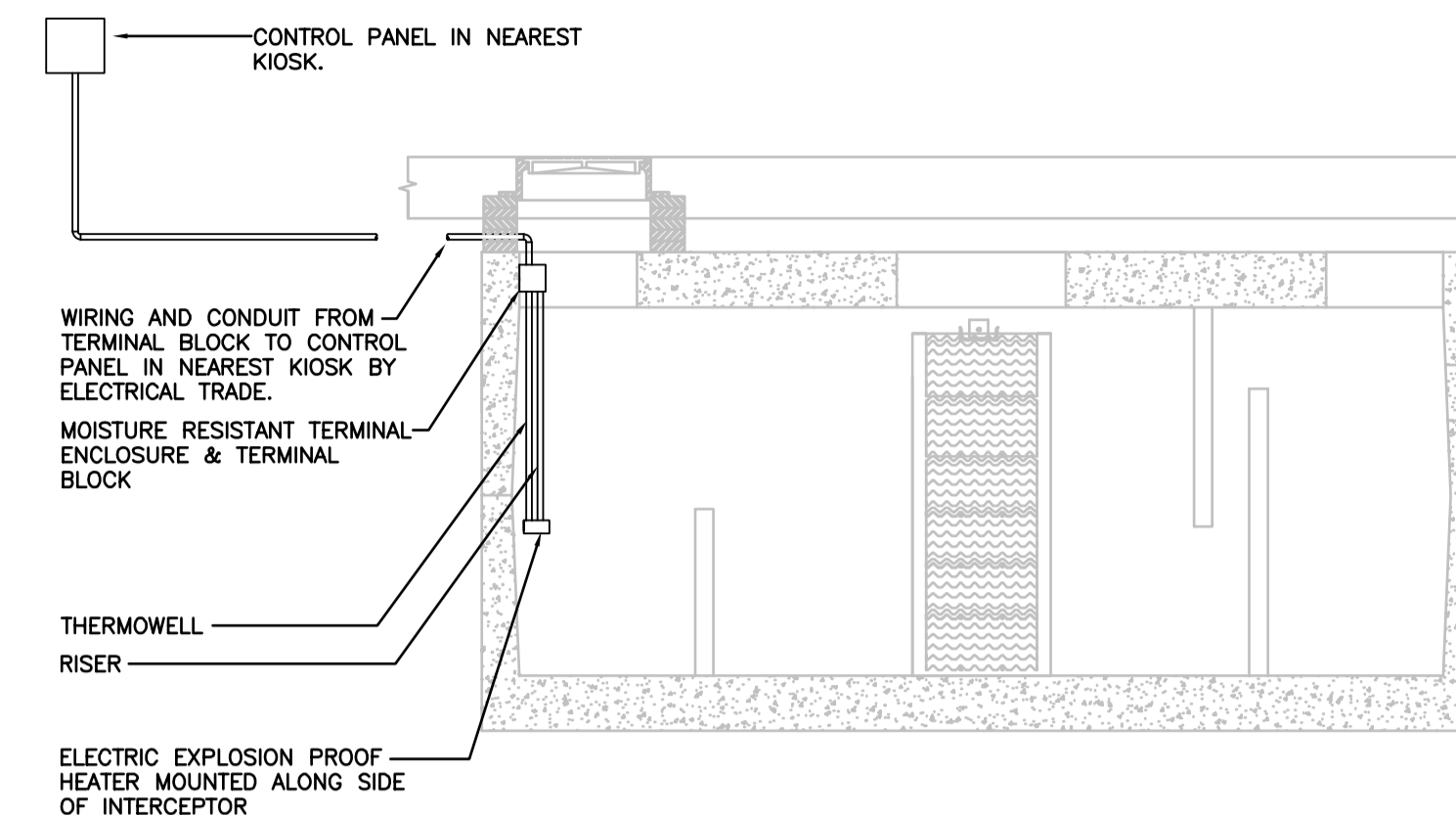
Drawing title/Titre du dessin: **MECHANICAL SECTIONS AND SCHEMATICS**

Project No./No. du projet: R.026729.002	Sheet/Feuille: M-7 OF 9	Revision no./No. de Révision: _____
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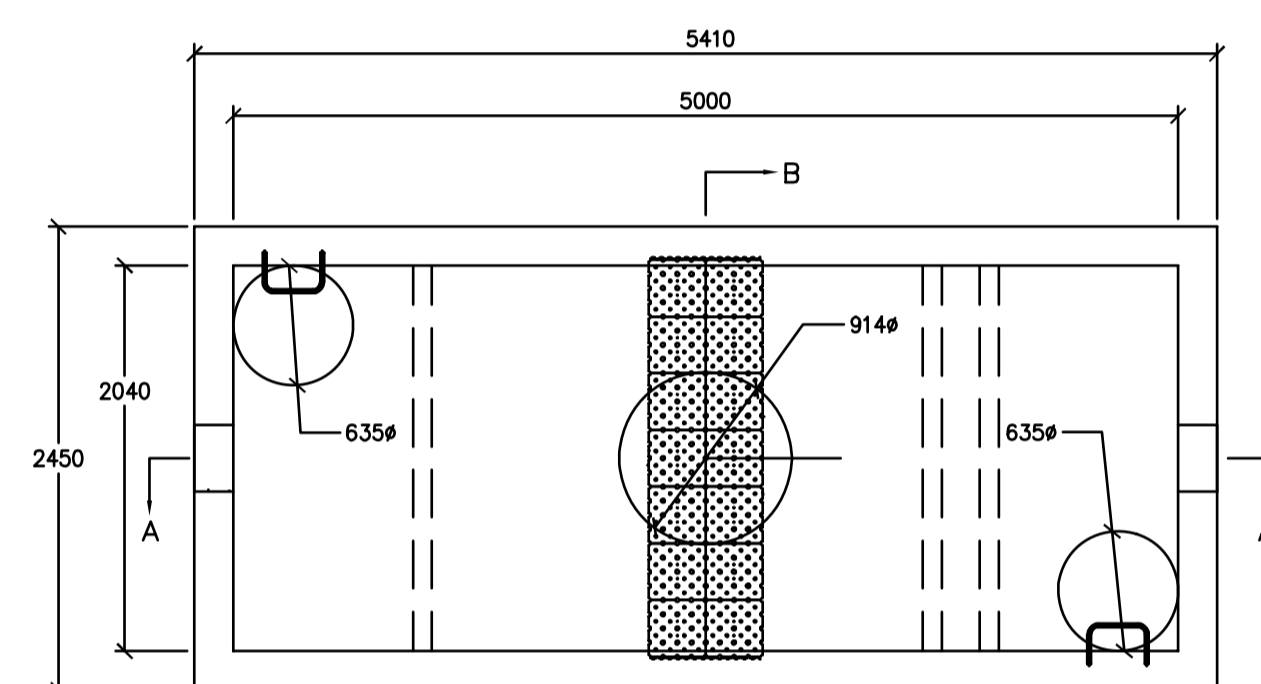


IMERSION HEATER SPECIFICATIONS:
HEATER TO BE "WATLOW" MODEL OLN37L5W, 6KW/480 VOLT/3PH/60, L SHAPED HEATER, C/W IMERSION THERMOWELL, MOISTURE RESISTANT TERMINAL ENCLOSURE, EXPLOSION PROOF HEATER. HEATER TO BE C/W CONTROL PANEL. CONTROL PANEL TO HAVE TEMPERATURE SETTING CAPABILITY AND RELAY FOR OUTPUT TO WARN OF HEATER FAILURE.

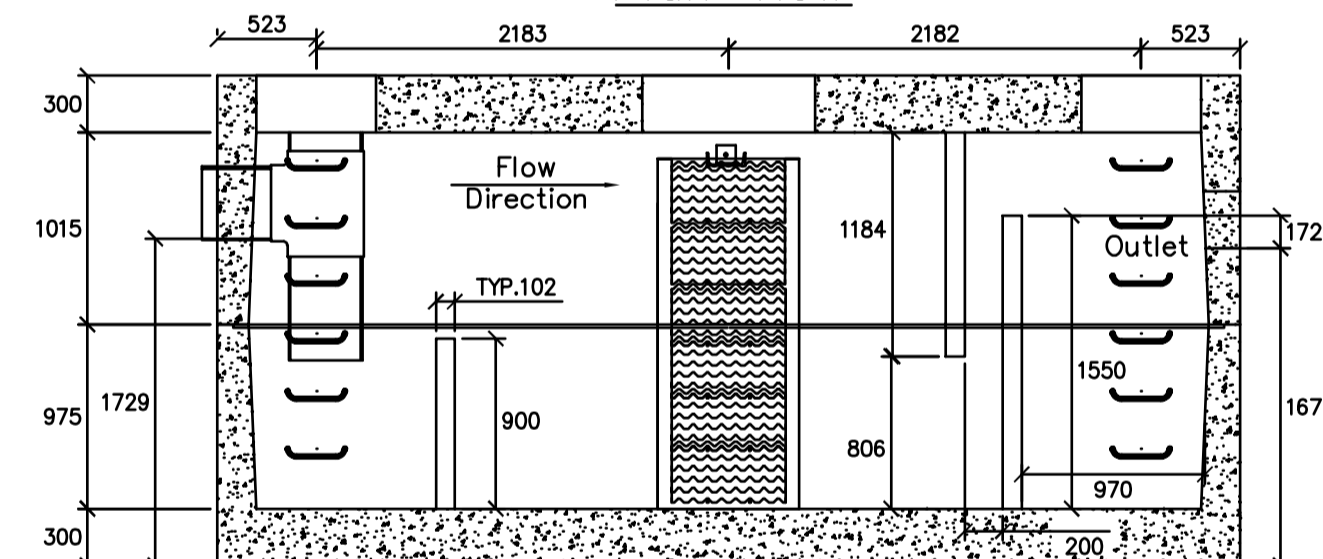
NOTES:
1. WIRES FROM TERMINAL BLOCK TO CONTROL PANEL TO BE BY ELECTRICAL TRADE. COORDINATE WITH ELECTRICAL.



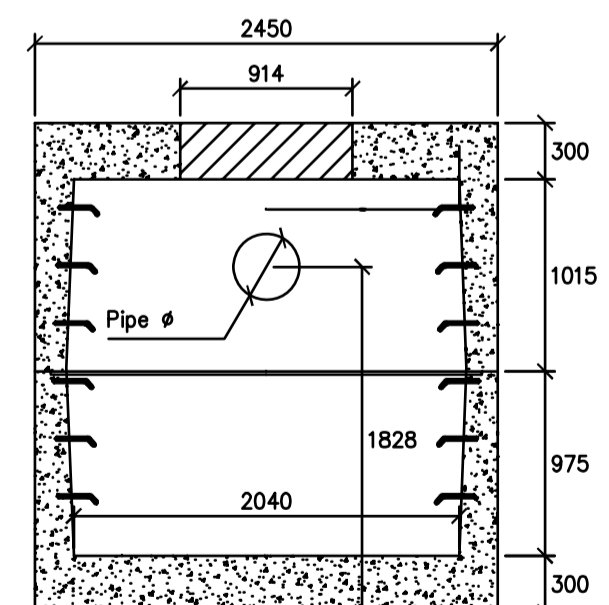
3 TYPICAL OIL INTERCEPTOR HEATER DETAIL (OI-1,2&3)
M-B SCALE: NTS



Plan View



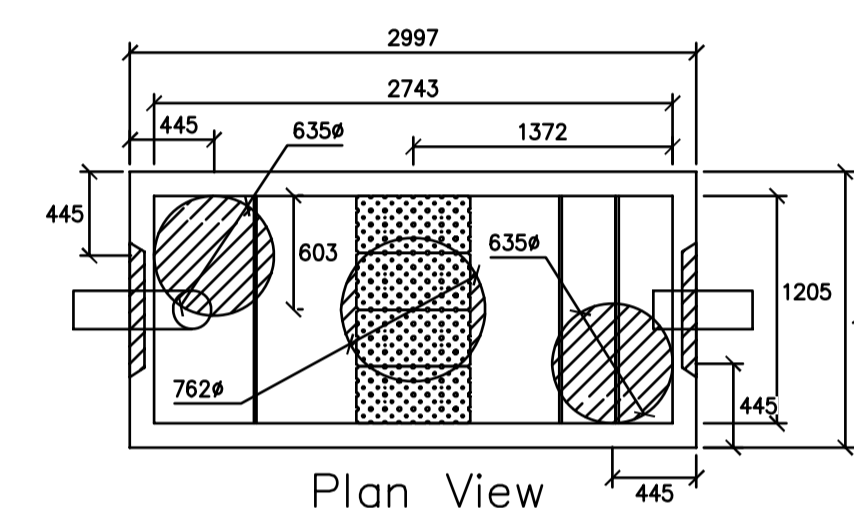
Section A-A



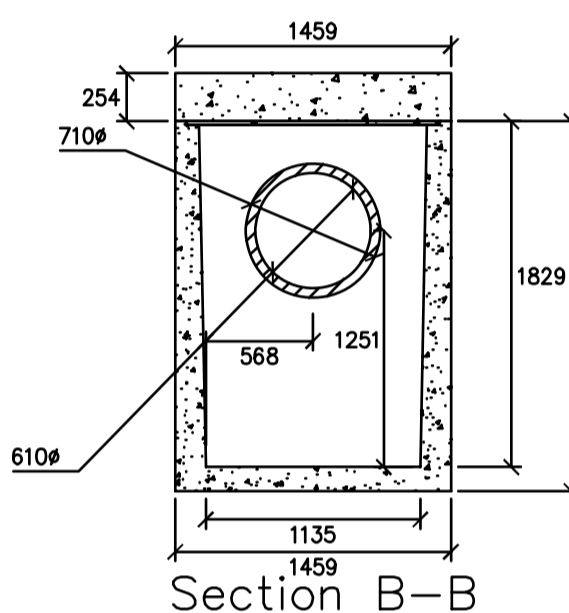
Section B-B

- NOTES:**
- MODEL: 5212-16 MM SPACING, OIL INTERCEPTOR MANUFACTURED TO MEET AASHTO HS20 LIVE LOADING.
 - UNIT DIMENSIONS ARE 5.0 X 2.1 X 2.0M.
 - REINFORCED CONCRETE LID MANUFACTURED FOR AASHTO HS20 LIVE LOADING.
 - UNIT C/W ROUGH CORES FOR INLET/OUTLETS AS REQUIRED.
 - UNIT C/W 2-#635 MM OPENING FOR ACCESSES AS SHOWN.
 - OIL INTERCEPTOR C/W 102 MM THICK CONCRETE BAFFLES AS SHOWN.
 - UNIT HAS A MAXIMUM 13,020 LITER [13.02 M³] CAPACITY.
 - UNIT C/W LIFTING INSERTS AS REQUIRED.
 - UNIT C/W LADDER RUNGS UPON REQUEST.
 - PVC REQUIRED BY DESIGN, INSTALLED BY OTHERS IN FIELD.
 - DESIGN CAN BE MODIFIED FOR SPECIFIC APPLICATION. PLEASE CONTACT LCG SALES OFFICE.
 - APPROXIMATE WEIGHT:
 - TOP SECTION: 18,650 KG.
 - BOTTOM SECTION: 17,500 KG.
 - MINIMUM REBAR YIELD STRENGTH: 414 MPA.
 - MINIMUM CONCRETE STRENGTH: 35 MPA.
 - ALL DIMENSIONS ARE IN MILLIMETERS.
 - UNIT DESIGN TO:
 - TEMP: 0°C.
 - OIL S.G.: 0.85.
 - INFLUENT OIL = 100 MG/L.
 - EFFLUENT OIL <=15 MG/L.
 - MAX FLOW: 42.9 L/SEC.

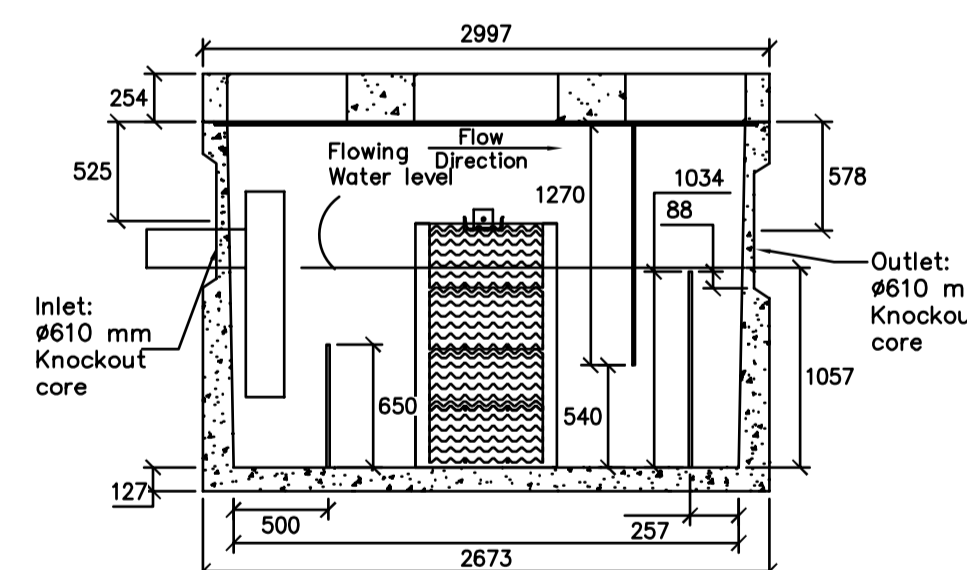
1 WATER/OIL INTERCEPTOR OI-1 DETAIL
M-B SCALE: N.T.S.



Plan View



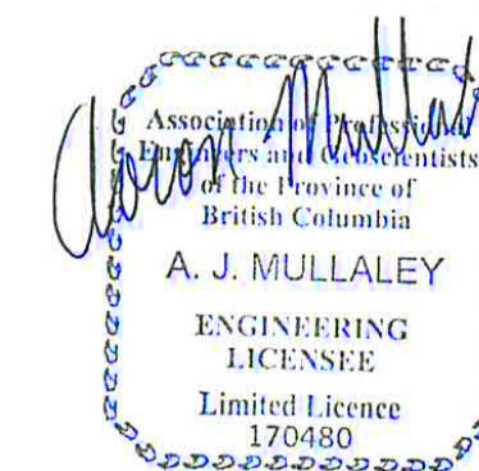
Section B-B



Section A-A

- NOTES:**
- MODEL: TYPE III-B MM SPACING, OIL INTERCEPTOR MANUFACTURED FOR AASHTO HS20 LIVE LOADING AS SHOWN.
 - UNIT DIMENSIONS ARE 2.7 X 1.2 X 1.8 M.
 - REINFORCED CONCRETE LID MANUFACTURED FOR AASHTO HS20 LIVE LOADING.
 - UNIT C/W #610 MM KNOCKOUT CORES FOR INLET/OUTLET FLOW.
 - UNIT C/W 2-#635 MM AND 1-#762 MM OPENING ACCESS.
 - UNIT TO HAVE 4-#51 MM VENT HOLES AS SHOWN.
 - UNIT C/W GALVANIZED BAFFLES AS SHOWN.
 - UNIT C/W LIFTING INSERTS AS REQUIRED.
 - UNIT C/W LADDER RUNGS UPON REQUEST.
 - PVC REQUIRED BY DESIGN, INSTALLED BY OTHERS IN FIELD.
 - DESIGN CAN BE MODIFIED FOR SPECIFIC APPLICATION. PLEASE CONTACT LCG SALES OFFICE.
 - UNIT HAS A MAXIMUM 3,000 LITER [3.0 M³] CAPACITY.
 - UNIT DESIGN TO:
 - TEMP: 0°C.
 - OIL S.G.: 0.85.
 - INFLUENT OIL = 100 MG/L.
 - EFFLUENT OIL <=15 MG/L.
 - MAX. FLOW: 22 L/SEC.
 - APPROXIMATE MASS:
 - LID: 2,865 KG.
 - CHAMBER: 6,790 KG.
 - CHAMBER W/BAFFLES: 6,821KG.
 - MINIMUM REBAR YIELD STRENGTH: 414 MPA.
 - MINIMUM CONCRETE STRENGTH: 35 MPA.
 - ALL DIMENSIONS ARE IN MILLIMETERS.

2 WATER/OIL INTERCEPTOR OI-2 & 3 DETAIL
M-B SCALE: N.T.S.



2017-03-01

Revision/	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/27

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par
KH
Drawn by/Dessiné par
MT, XY
PWOSC Project Manager/Administrateur de Projets TPSCC
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services

Drawing title/Titre du dessin
OIL INTERCEPTOR DETAILS

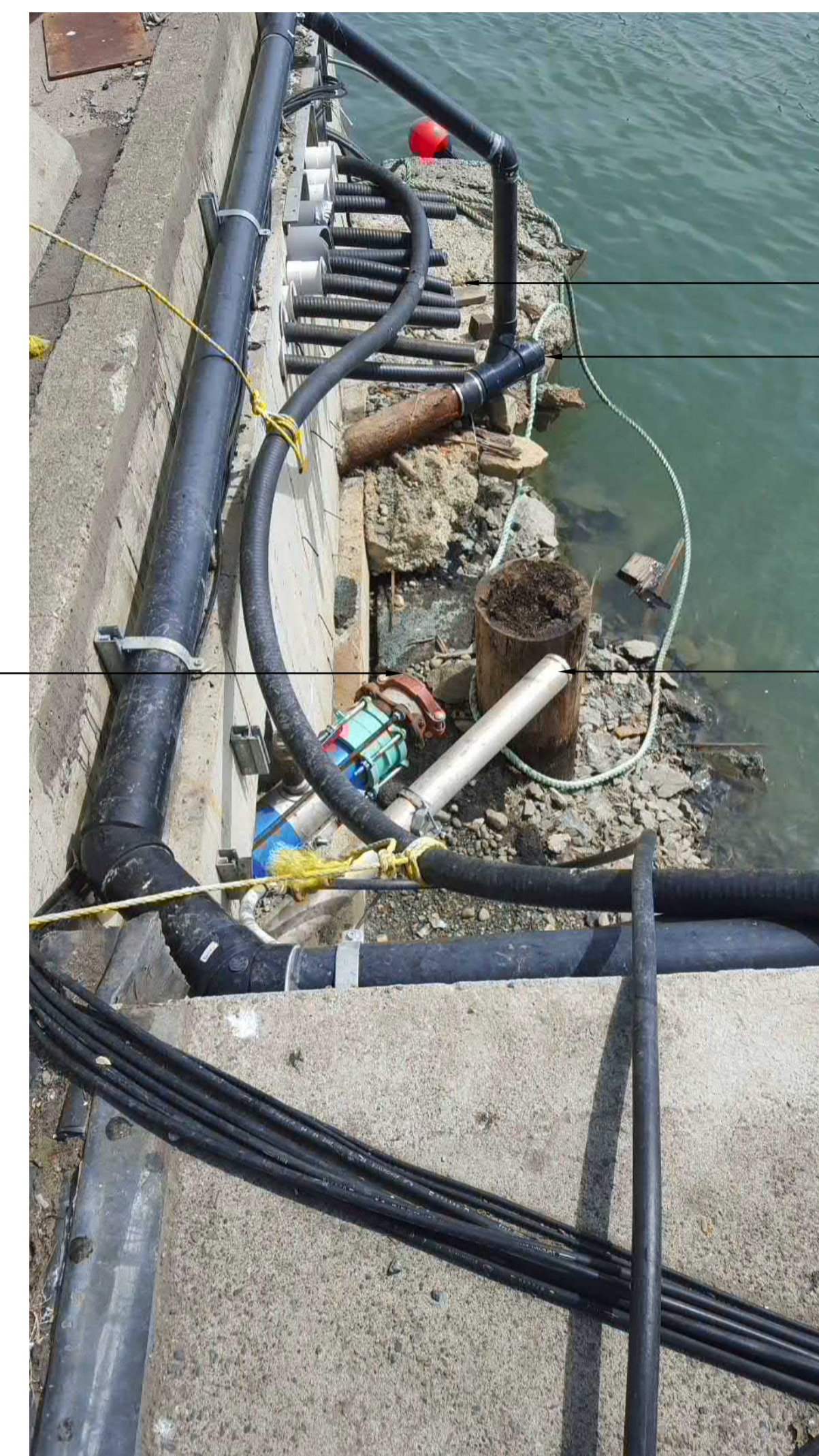
Project No./No. du projet R.026729.002	Sheet/Feuille M-8 OF 9	Revision no./No. Révision no.
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EXISTING WATER METER TO BE REUSED



EXISTING SANITARY CONNECTION TO BE REUSED

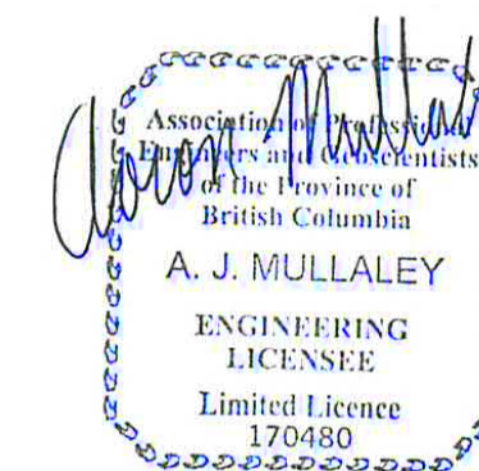


EXISTING CONDUIT

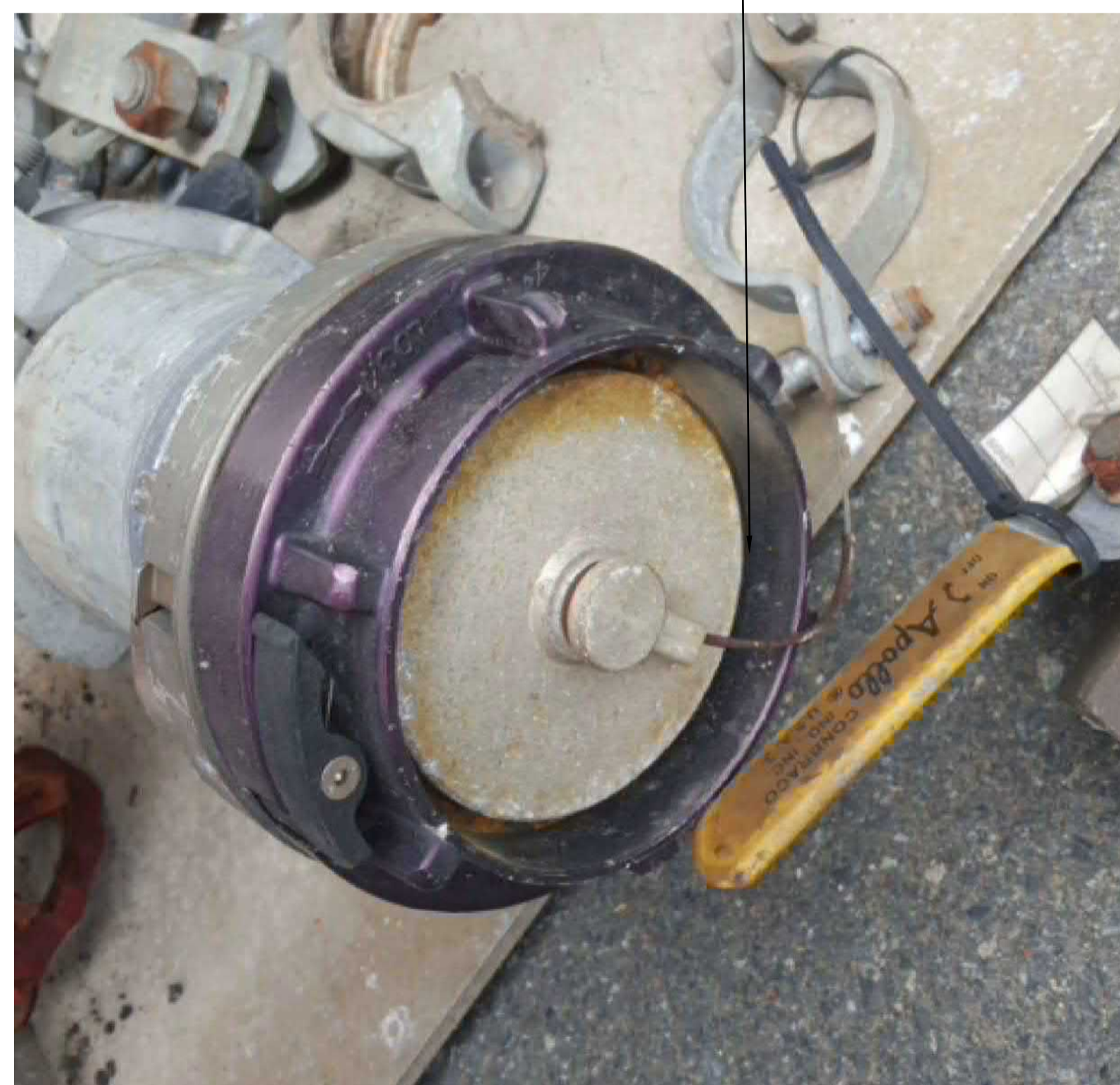
EXISTING 150mm SANITARY MAIN

EXISTING 200mm FIRE/WATER MAIN

EXISTING 100mm COMPRESSED AIR



2017-03-01



EXISTING FIRE DEPARTMENT CONNECTION, TO BE REUSED



PROVIDE NEW SHUTOFF VALVES AND PRESSURE RELIEFS



TYPICAL KIOSK

100mm WATER PIPE OPENING

50mm COMPRESSED AIR PIPE OPENING

Revision/Revision	Description/Description	Date/Date
2	RE-ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR TENDER	2017/01/22

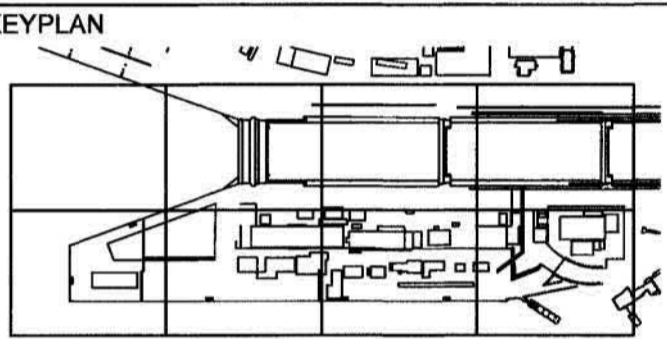
Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY RECONSTRUCTION

Consultant Signature Only
Designed by/Concept par
KH
Drawn by/Dessiné par
MT, XY
PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
Regional Manager, Architectural and Engineering Services
Regional Manager, Environmental Services

Drawing title/Titre du dessin
DETAILS

Project No./No. du projet R.026729.002	Sheet/Fauille M-9 OF 9	Revision no./ la Révision no.
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Revision/Revisions	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 90% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project Title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

**SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only

Designed by/Concept par
I. BARNES

Drawn by/Designé par
J. BIELING, S. SEYMOUR

PWSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG

PWSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TPSC
PREETIPAL PAUL

Drawing Title/Titre du dessin

LEGEND OF SYMBOLS

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.026729.002	E0	2

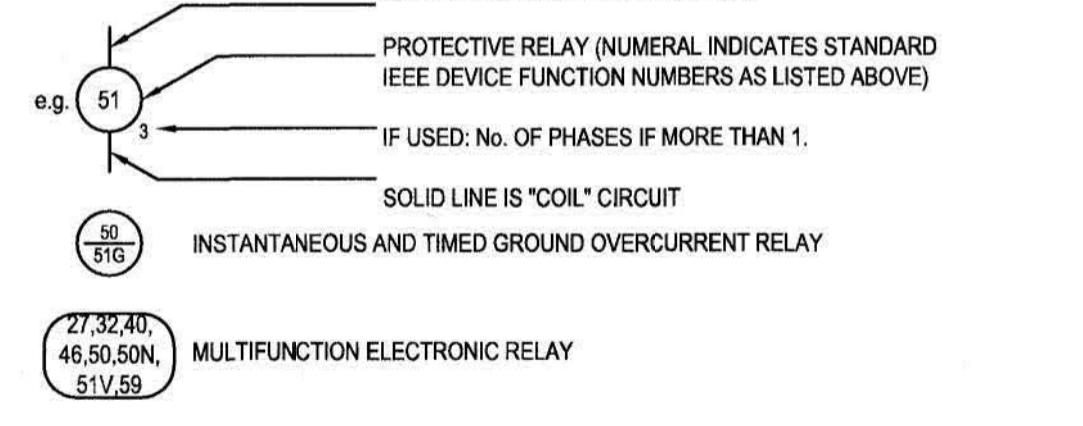
LEGEND - SINGLE LINE & SCHEMATIC DIAGRAMS

NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	H.V. CABLE STRESS CONE TERMINATION CABLE SIDE		HAND-OFF-AUTO 3 POSITION, 2 POLE, SHOWN IN 'HAND' POSITION		PANEL A
	INCOMING UTILITY CONNECTION		TWO POSITION SELECTOR SWITCH SHOWN IN 'LOCAL' POSITION		FLOAT SWITCH
	ULTIMATE AVAILABLE FAULT LEVEL (RMS SYM)		KEYSWITCH		ULTRASONIC HEAD
	PRESENT AVAILABLE FAULT LEVEL (RMS SYM)		SPEED SWITCH		RADIO ANTENNA
	SHORT CIRCUIT RATING OF EQUIPMENT		EMERGENCY STOP		METAL OXIDE VARISTOR
	LV CIRCUIT BREAKER (MOLDED CASE)		PUSHBUTTON - NORMALLY CLOSED MOMENTARY		RECTIFIER
	LV CIRCUIT BREAKER (DRAWOUT)		PUSHBUTTON - NORMALLY OPEN MOMENTARY		THYRISTOR GENERAL
	INSULATED CASE CIRCUIT BREAKER ELECTRICALLY OPERATED FOR REMOTE OR LOCAL (MANUAL) TRIP AND CLOSE		N.O. DELAYED CLOSING AFTER ENERGIZATION OF ACTUATING COIL		BATTERY
	BREAKER AUX CONTACTS BREAKER KEY INTERLOCK (# INDICATES KEY MATCH)		N.C. DELAYED CLOSING AFTER ENERGIZATION OF ACTUATING COIL		GROUND
	BREAKER DESIGNATION e.g. 52-71 or 4SS2-71		N.O. DELAYED CLOSING AFTER DE-ENERGIZATION OF ACTUATING COIL		1 CONDUCTOR
	PROTECTION (OPERATIVE CIRCUIT) BREAKER TRIP UNIT RATING (NOTE 2)		N.C. DELAYED CLOSING AFTER DE-ENERGIZATION OF ACTUATING COIL		1 CONDUCTOR + NEUTRAL
	DRAWOUT CELL		LEVEL SWITCH - CLOSSES ON FALLING LEVEL		1 NEUTRAL
	HV CIRCUIT BREAKER (DRAWOUT) LETTER DESIGNATIONS IF USED: OCB: OIL CIRCUIT BREAKER SFB: SF6 VAC: VACUUM RECLOSER		LEVEL SWITCH - CLOSSES ON RISING LEVEL		2 CONDUCTORS
	OCB: OIL CIRCUIT BREAKER		LEVEL SWITCH - OPENS ON RISING LEVEL		2 CONDUCTORS + NEUTRAL
	VAC: VACUUM RECLOSER		TEMPERATURE SWITCH - CLOSSES ON RISING TEMPERATURE		3 CONDUCTORS
	LIGHTNING ARRESTOR/SURGE ARRESTOR		TEMPERATURE SWITCH - OPENS ON RISING TEMPERATURE		3 CONDUCTORS + NEUTRAL
	POWER DISCONNECT SWITCH		PRESSURE SWITCH - CLOSSES ON RISING PRESSURE		PORTABLE CABLE WITH SEPARABLE CONNECTORS
	LOAD BREAK SWITCH		PRESSURE SWITCH - OPENS ON RISING PRESSURE		EYS SEAL
	FUSED CUTOUT (POLE MOUNTED)		FLOW SWITCH - CLOSSES ON INCREASING MATERIAL FLOW		STUB-OUT FOR CONDUIT; OR INSULATED END FOR SPARE CABLE OR CONTROL WIRING
	FUSED SWITCH		FLOW SWITCH - OPENS ON INCREASING MATERIAL FLOW		TRANSFORMER
	EARTHING/SAFETY GROUNDING SWITCH		LIMIT SWITCH - NORMALLY OPEN		AUTO TRANSFORMER
	LIVE LINE INDICATOR		LIMIT SWITCH - NORMALLY CLOSED		REACTOR
	AUTOMATIC TRANSFER SWITCH		LIMIT SWITCH - NORMALLY CLOSED HELD OPEN		REACTOR (ALTERNATE SYMBOL)
	MANUAL TRANSFER SWITCH		LIMIT SWITCH NORMALLY OPEN HELD CLOSED		FIELD WINDING
	CONTROL FUSE		LIMIT SWITCH MAINTAINED NORMALLY OPEN		POTENTIAL TRANSFORMER
	INDICATING INSTRUMENT: V = VOLTMETER A = AMMETER Hz = FREQUENCY METER kW = KILOWATT METER SS = SYNCHROSCOPE		LIMIT SWITCH MAINTAINED NORMALLY CLOSED		CURRENT TRANSFORMER
	VS = VOLT METER SWITCH AS = AMMETER SWITCH		FOOT SWITCH - DEPRESS TO CLOSE		ZERO SEQUENCE CURRENT TRANSFORMER
	TRANSducer		FOOT SWITCH - DEPRESS TO OPEN		TEST LINK/SWITCH/BLOCK (1-LINE DIAGRAM)
	CONVERTER		RELAY COIL WITH INHIBIT		TEST LINK (WIRING DIAGRAM)
	INVERTER		RELAY COIL OR CONTACTOR COIL		600V BUSDUCT
	REDUCED VOLTAGE STARTER		N.O. CONTACT - OPEN WHEN RELAY DE-ENERGIZED		MECHANICAL INTERLOCK
	VARIABLE FREQUENCY DRIVE		N.C. CONTACT - CLOSED WHEN RELAY DE-ENERGIZED		ELECTRICAL AND/OR MECHANICAL INTERLOCK
	INTEGRATING/RECORDING/MAX. DEMAND INSTRUMENT: kWd = KILOWATT DEMAND METRE kVAR = KILOVOLT AMPERE REACTIVE METRE ET = ELAPSED TIME (OR HOUR METRE) Ad = AMMETER DEMAND METRE		DEVICE/AUXILIARY CONTACT (N.O. or a)		CABLE LABELS
	DIGITAL METERING SYSTEM POWER METER TYPE 1		DEVICE/AUXILIARY CONTACT (N.C. or b)		MAGNETIC PICKUP UNIT
	DIGITAL METERING SYSTEM POWER METER TYPE 2		FORM-C CONTROL CONTACT		GENERATOR PERMANENT MAGNET EXCITER FIELD
	DIGITAL METERING SYSTEM REVENUE CERTIFIED METER		N.O. CONTACT (ALTERNATE) OR DISCONNECT SWITCH		GENERATOR EXCITER FIELD
	UTILITY POWER METER		N.C. CONTACT (ALTERNATE)		GENERATOR DIGITAL METERING SYSTEM
	SLIP RING		RESISTANCE TEMPERATURE DETECTOR		LOAD BANK CONTROLLER
	CAPACITOR		RESISTOR (GENERAL)		LOAD BANK DIGITAL METERING SYSTEM
	AC MOTOR (23 DESIGNATES HP)		NEUTRAL GROUNDING RESISTOR		ELECTRICALLY INTERLOCKED TO PREVENT BOTH BREAKERS BEING CLOSED SIMULTANEOUSLY.
	AC MOTOR (GENERAL)		SHUNT		TRANSFORMER PROTECTIVE RELAY TYPE 1
	DC MOTOR (GENERAL)		RESISTOR (ALTERNATE SYMBOL)		OPTO-ISOLATED FREQUENCY SENSOR
	AC GENERATOR SET		HEATER		ILLUMINATED PUSHBUTTON (GREEN)
	DC GENERATOR (OR EXCITER)		COIL/SERIES MAGNETIC OVERLOAD DEVICE/SOLENOID		PILOT LIGHT (RED)
	CONTACTOR MAIN CONTACTS		INDICATOR LIGHT		NON-ILLUMINATED PUSHBUTTON (STOP)
	VACUUM CONTACTOR		PLUG CONNECTOR (CONTROL CCTS); STAB CONNECTOR OR DRAWOUT CONTACTS (PWR CCTS)		MUSHROOM HEAD PUSHBUTTON
			MULTI FUNCTION PROTECTION RELAY		2-POSITION SELECTOR SWITCH
			THERMAL OVERLOAD DEVICE		3-POSITION SELECTOR SWITCH
			VT TEST SWITCH		POTENTIOMETER
			CT SHORTING TYPE TEST SWITCH		CUT-OUT WITH CLOSING BUTTON
			GENERATOR CONTROL PANEL TYPE 1		
			GENERATOR PROTECTIVE RELAY TYPE 1		
			DIGITAL GENERATOR CONTROLLER		
			MASTER DIGITAL ENGINE CONTROLLER		

ANSI/IEEE STANDARD ELECTRICAL POWER SYSTEM DEVICE FUNCTION NUMBERS (NOTE 1):

1. MASTER ELEMENT
2. TIME-DELAY STARTING OR CLOSING RELAY
3. CHECKING OR INTERLOCKING RELAY
4. MASTER CONTACTOR
5. STOPPING DEVICE
6. STARTING CIRCUIT BREAKER
7. ANODE CIRCUIT BREAKER
8. CONTROL POWER DISCONNECTING DEVICE
9. REVERSING DEVICE
10. UNIT SEQUENCE SWITCH
11. RESERVED FOR FUTURE APPLICATION
12. OVERSPEED DEVICE
13. SYNCHRONOUS-SPEED DEVICE
14. UNDERSPEED DEVICE
15. SPEED OR FREQUENCY MATCHING DEVICE
16. RESERVED FOR FUTURE APPLICATION
17. SHUNTING OR DISCHARGE SWITCH
18. ACCELERATING OR DECELERATING DEVICE
19. STARTING-TO-RUNNING TRANSITION CONTACTOR
20. ELECTRICALLY OPERATED VALVE
21. DISTANCE RELAY
22. EQUALIZER CIRCUIT BREAKER
23. TEMPERATURE CONTROL DEVICE
24. RESERVED FOR FUTURE APPLICATION
25. SYNCHRONIZING OR SYNCHRONISM-CHECK DEVICE
26. APPARATUS THERMAL DEVICE
27. UNDERVOLTAGE RELAY
28. FLAME DETECTOR
29. ISOLATING CONTACTOR
30. ANNUNCIATOR RELAY
31. SEPARATE EXCITATION DEVICE
32. DIRECTIONAL POWER RELAY
33. POSITION SWITCH
34. MASTER SEQUENCE DEVICE
35. BRUSH-OPERATING OR SLIP-RING SHORT-CIRCUITING DEVICE
36. POLARITY OR POLARIZING VOLTAGE DEVICE
37. UNDERCURRENT OR UNDERPOWER RELAY
38. BEARING PROTECTIVE DEVICE
39. MECHANICAL CONDITION MONITOR
40. FIELD RELAY
41. FIELD CIRCUIT BREAKER
42. RUNNING CIRCUIT BREAKER
43. MANUAL TRANSFER OR SELECTOR DEVICE
44. UNIT SEQUENCE STARTING RELAY
45. ATMOSPHERIC CONDITION MONITOR
46. REVERSE-PHASE OR PHASE-BALANCE CURRENT RELAY
47. PHASE-SEQUENCE VOLTAGE RELAY
48. INCOMPLETE SEQUENCE RELAY
49. MACHINE OR TRANSFORMER THERMAL RELAY
50. INSTANTANEOUS OVERCURRENT OR RATE-OF-RISE RELAY
51. AC TIME OVERCURRENT RELAY
52. AC CIRCUIT BREAKER
- 52a: BREAKER AUXILIARY SWITCH, OPEN WHEN THE BREAKER IS OPEN
- 52b: BREAKER AUXILIARY SWITCH, CLOSED WHEN THE BREAKER IS OPEN
53. EXCITER OR DC GENERATOR RELAY
54. RESERVED FOR FUTURE APPLICATION
55. POWER FACTOR RELAY
56. FIELD APPLICATION RELAY
57. SHORT-CIRCUITING OR GROUNDING DEVICE
58. RECTIFICATION FAILURE RELAY
59. OVERVOLTAGE RELAY
60. VOLTAGE OR CURRENT BALANCE RELAY
61. RESERVED FOR FUTURE APPLICATION
62. TIME-DELAY STOPPING OR OPENING RELAY
63. PRESSURE SWITCH
64. GROUND DETECTOR RELAY
65. GOVERNOR
66. NOTCHING OR JOGGING DEVICE
67. AC DIRECTIONAL OVERCURRENT RELAY
68. BLOCKING RELAY
69. PERMISSIVE CONTROL DEVICE
70. RHEOSTAT
71. LEVEL SWITCH
72. DC CIRCUIT BREAKER
73. LOAD-RESISTOR CONTACTOR
74. ALARM RELAY
75. POSITION CHANGING MECHANISM
76. DC OVERCURRENT RELAY
77. PULSE TRANSMITTER
78. PHASE-ANGLE MEASURING OR OUT-OF-STEP PROTECTIVE RELAY
79. AC RECLOSING RELAY
80. FLOW SWITCH
81. FREQUENCY RELAY
82. DC RECLOSING RELAY
83. AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY
84. OPERATING MECHANISM
85. CARRIER OR PILOT-WIRE RECEIVER RELAY
86. LOCKOUT RELAY
87. DIFFERENTIAL PROTECTIVE RELAY
88. AUXILIARY MOTOR OR MOTOR GENERATOR
89. LINE SWITCH
90. REGULATING DEVICE
91. VOLTAGE DIRECTIONAL RELAY
92. VOLTAGE AND POWER DIRECTIONAL RELAY
93. FIELD-CHANGING CONTACTOR
94. TRIPPING OR TRIP-FREE RELAY
- 95-99. USED ONLY FOR SPECIFIC APPLICATIONS IN INDIVIDUAL INSTALLATIONS WHERE NONE OF THE ASSIGNED NUMBERED FUNCTIONS FROM 1 TO 94 ARE SUITABLE

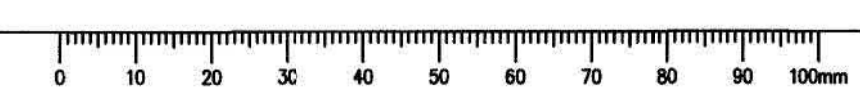


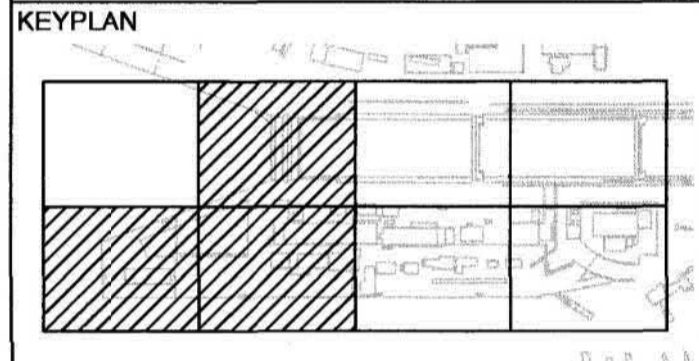
- NOTES:**
1. FOR DETAILED DESCRIPTION OF DEVICE AND SUFFIX LETTERS TO BE USED WITH FUNCTION NUMBERS, SEE ANSI/IEEE C37.2.
 2. UNLESS NOTED OTHERWISE, 1-LINE DIAGRAMS INDICATE ONLY BREAKER TRIP RATINGS. FOR BREAKER FRAME SIZES, SEE SWITCHGEAR FRONT ARRANGEMENT DRAWINGS. WHERE BOTH FRAME SIZE AND TRIP RATING ARE SHOWN ON 1-LINE DIAGRAMS, THEY ARE INDICATED AS (e.g. 600AF, 500AT)

LEGEND - LAYOUT DRAWINGS

NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS. SOME SYMBOLS MAY ALSO APPEAR ON SINGLE LINE AND SCHEMATIC DRAWINGS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LUMINAIRE		TELEPHONE OUTLET
	SUSPENDED LUMINAIRE		DATA OUTLET
	CEILING MOUNTED LUMINAIRE		COMBINATION DATA/TEL OUTLET C/W 2 DATA & 1 TEL UNLESS OTHERWISE INDICATED
	WALL MOUNTED LUMINAIRE		INTERCOM
	LUMINAIRE ON EMERGENCY/24hr CIRCUIT		MICROPHONE OUTLET
	BOLLARD/POST TOP LUMINAIRE		CEILING MOUNTED HORN
	POLE MOUNTED LUMINAIRES		WALL MOUNTED HORN
	DIRECTIONAL LUMINAIRE		DUAL COMPARTMENT RACEWAY CW OUTLETS AS INDICATED
	SINGLE POLE TOGGLE SWITCH, GANGED AS SHOWN. LETTERS, WHERE SHOWN, DENOTE SWITCHING		CEILING MOUNTED FIRE ALARM/PAGING SPEAKER
	WP - WEATHER PROOF		WALL MOUNTED FIRE ALARM/PAGING SPEAKER
	XP - EXPLOSION PROOF		CLOCK CW MASTER CLOCK WIRING AND 120V RECEPTACLE
	P - CAV PILOT LIGHT		SURFACE MOUNTED COMMUNICATIONS PANEL
	K - KEY OPERATED		RECESSED/FLUSH MOUNTED COMMUNICATIONS PANEL
	D - DOOR OPERATED		
	M - MOTOR STARTER		
	MC - MOMENTARY CONTACT, 3-POSITION		
	EMERGENCY LIGHTING:	RECEPTACLES AND OUTLETS:	
	EXIT SIGN C/W ARROWS AS SHOWN		DUPLEX RECEPTACLE
	EMERGENCY LIGHT BATTERY UNIT, WATTAGE AS SHOWN		520R (1520A) DUPLEX RECEPTACLE
	REMOTE EMERGENCY HEADS		4-PLEX RECEPTACLE
	GROUNDING:		SINGLE RECEPTACLE
	GROUND ROD		GROUND FAULT INTERRUPTER RECEPTACLE
	GROUND ROD IN ACCESSIBLE BOX		CEILING MOUNTED JUNCTION BOX
	END-TO-END GROUND CONNECTION POINT		WALL MOUNTED JUNCTION BOX
	X-CONNECTION (GROUNDING)		MECHANICAL EQUIPMENT CONNECTION
	T-CONNECTION (GROUNDING)		SPECIAL PURPOSE RECEPTACLE
	GROUNDING PLATE (CAST FLUSH IN CONCRETE)		SPECIAL PURPOSE OUTLET
	WELDED OR EXOTHERMIC END CONNECTION (GROUNDING)		MOTORIZED DAMPER
	GROUNDING END CONNECTION WITH CABLE LUG, CLAMP CONNECTOR OR OTHER MECHANICAL CONNECTOR BOLTED TO EQUIPMENT	FIRE ALARM:	
	POWER FACTOR RELAY		FIRE ALARM PULL STATION
	FIELD APPLICATION RELAY		FIRE ALARM PULL STATION C/W STROBE LIGHT
	SHORT-CIRCUITING OR GROUNDING DEVICE		FIRE ALARM STROBE
	RECTIFICATION FAILURE RELAY		EMERGENCY ALARM PULL STATION
	OVERVOLTAGE RELAY		EMERGENCY ALARM PULL STATION C/W STROBE LIGHT
	VOLTAGE OR CURRENT BALANCE RELAY		FIRE ALARM YARD HORN
	RESERVED FOR FUTURE APPLICATION		FIRE ALARM YARD HORN
	TIME-DELAY STOPPING OR OPENING RELAY		FIRE ALARM ZONE ISOLATION MODULE
	PRESSURE SWITCH		
	GROUND DETECTOR RELAY	SITE PLAN:	
	GOVERNOR		EQUIPMENT CONNECTION AS NOTED ON DRAWING
	NOTCHING OR JOGGING DEVICE		HIGH VOLTAGE UNDERGROUND CHAMBER OR BOX
	AC DIRECTIONAL OVERCURRENT RELAY		LOW VOLTAGE UNDERGROUND CHAMBER OR BOX
	BLOCKING RELAY		COMMUNICATIONS UNDERGROUND CHAMBER OR BOX
	PERMISSIVE CONTROL DEVICE		RIGID STEEL CONDUIT
	RHEOSTAT		
	LEVEL SWITCH		
	DC CIRCUIT BREAKER		
	LOAD-RESISTOR CONTACTOR		
	ALARM RELAY		
	POSITION CHANGING MECHANISM		
	DC OVERCURRENT RELAY		
	PULSE TRANSMITTER		
	PHASE-ANGLE MEASURING OR OUT-OF-STEP PROTECTIVE RELAY		
	AC RECLOSING RELAY		
	FLOW SWITCH		
	FREQUENCY RELAY		
	DC RECLOSING RELAY		
	AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY		
	OPERATING MECHANISM		
	CARRIER OR PILOT-WIRE RECEIVER RELAY		
	LOCKOUT RELAY		
	DIFFERENTIAL PROTECTIVE RELAY		
	AUXILIARY MOTOR OR MOTOR GENERATOR		
	LINE SWITCH		
	REGULATING DEVICE		
	VOLTAGE DIRECTIONAL RELAY		
	VOLTAGE AND POWER DIRECTIONAL RELAY		
	FIELD-CHANGING CONTACTOR		
	TRIPPING OR TRIP-FREE RELAY		
	RESERVED FOR SPECIFIC APPLICATIONS IN INDIVIDUAL INSTALLATIONS WHERE NONE OF THE ASSIGNED NUMBERED FUNCTIONS FROM 1 TO 94 ARE SUITABLE		





MAR - 6 2017

2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 90% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only

Designed by/Concepté par
I. BARNES

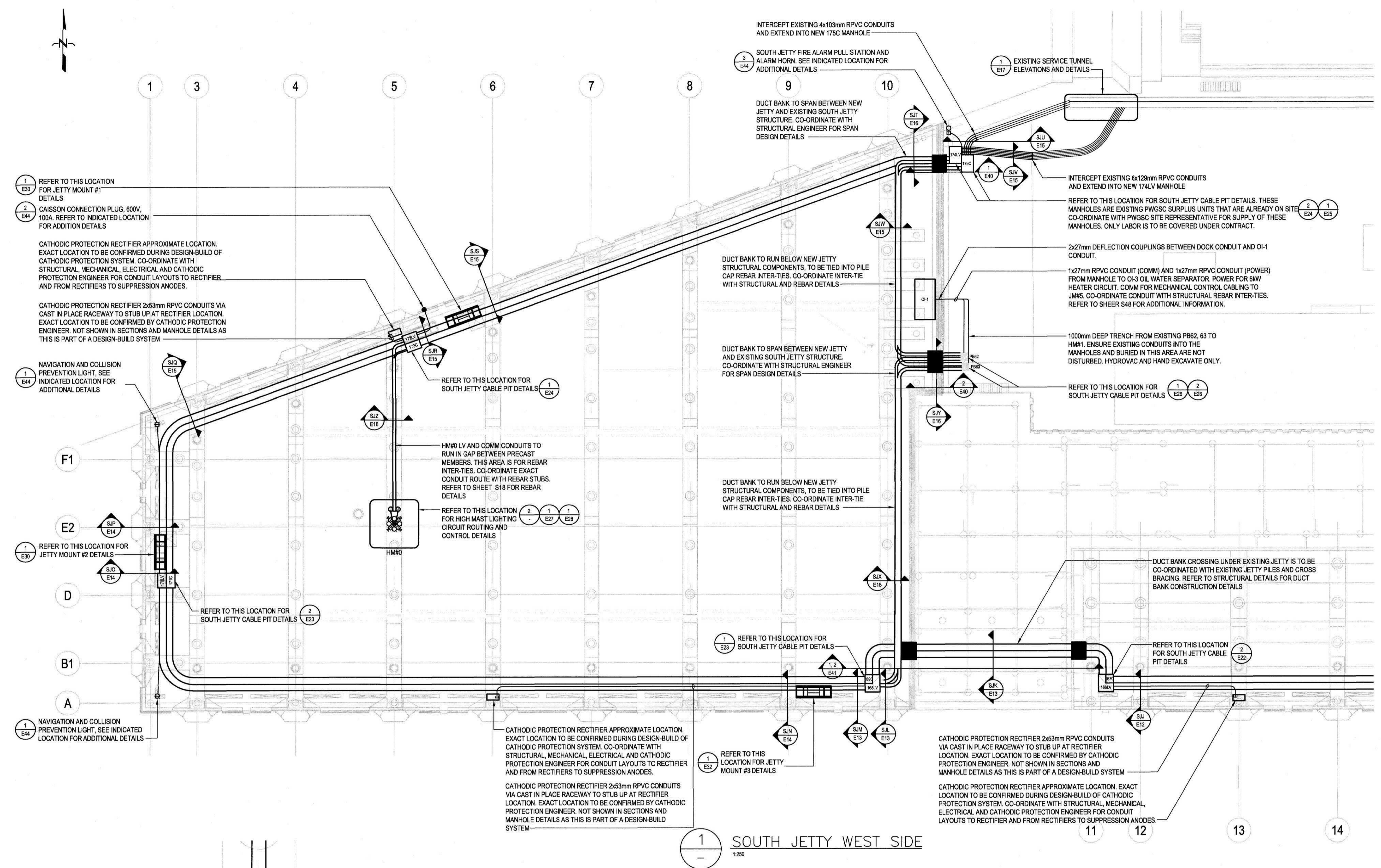
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

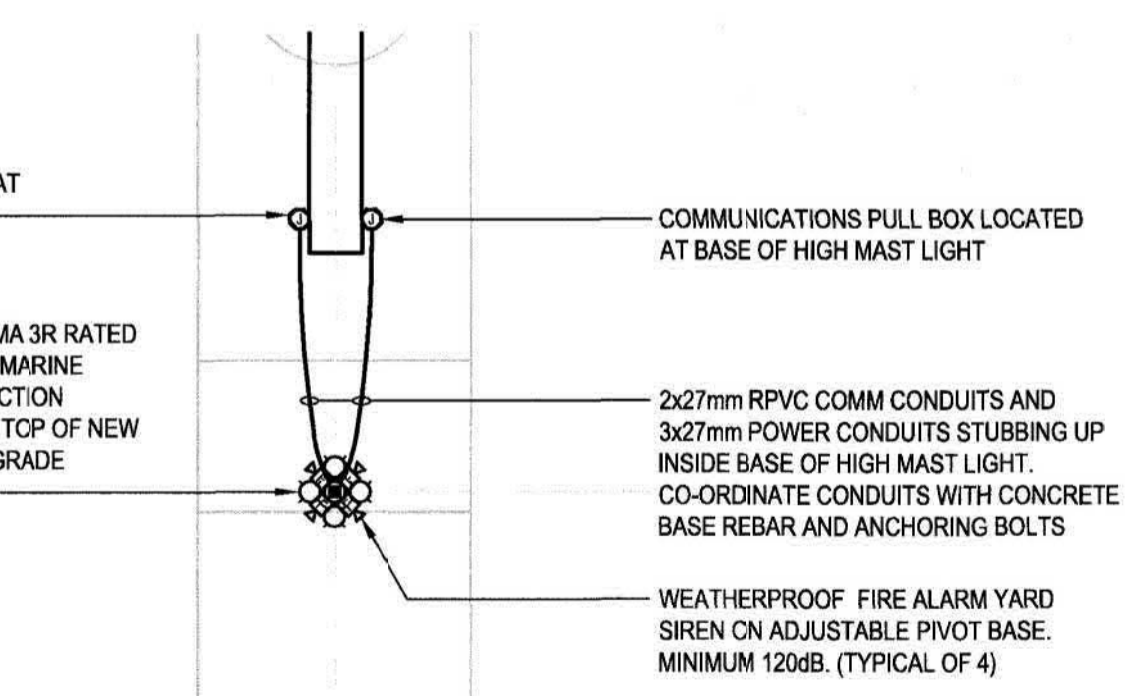
TPSGC Regional Manager/Architectural and Engineering Services/
Gestionnaire Régional, Services d'architectural et de génie, TPSGC
PREETIPAL PAUL

**SOUTH JETTY SITE
2 OF 2
WEST SIDE**

Project No./No. du projet	Sheet/Faible	Revision no./ La Révision no.
R.026729.002	E2	2

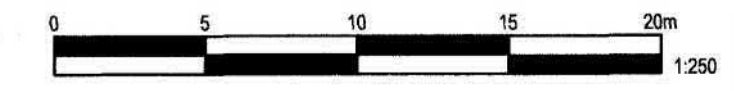
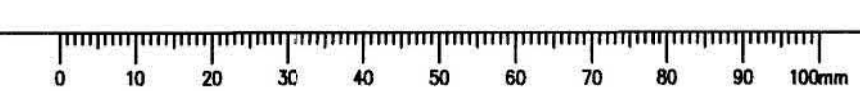


- 1 E30 REFER TO THIS LOCATION FOR JETTY MOUNT #1 DETAILS
- 2 E44 CAISSON CONNECTION PLUG, 600V, 100A. REFER TO INDICATED LOCATION FOR ADDITION DETAILS
- CATHODIC PROTECTION RECTIFIER APPROXIMATE LOCATION. EXACT LOCATION TO BE CONFIRMED DURING DESIGN-BUILD OF CATHODIC PROTECTION SYSTEM. CO-ORDINATE WITH STRUCTURAL, MECHANICAL, ELECTRICAL AND CATHODIC PROTECTION ENGINEER FOR CONDUIT LAYOUTS TO RECTIFIER AND FROM RECTIFIERS TO SUPPRESSION ANODES.
- CATHODIC PROTECTION RECTIFIER 2x53mm RPVC CONDUITS VIA CAST IN PLACE RACEWAY TO STUB UP AT RECTIFIER LOCATION. EXACT LOCATION TO BE CONFIRMED BY CATHODIC PROTECTION ENGINEER. NOT SHOWN IN SECTIONS AND MANHOLE DETAILS AS THIS IS PART OF A DESIGN-BUILD SYSTEM
- 1 E44 NAVIGATION AND COLLISION PREVENTION LIGHT, SEE INDICATED LOCATION FOR ADDITIONAL DETAILS
- 1 E30 REFER TO THIS LOCATION FOR JETTY MOUNT #2 DETAILS
- 2 E23 REFER TO THIS LOCATION FOR SOUTH JETTY CABLE PIT DETAILS
- 1 E44 NAVIGATION AND COLLISION PREVENTION LIGHT, SEE INDICATED LOCATION FOR ADDITIONAL DETAILS



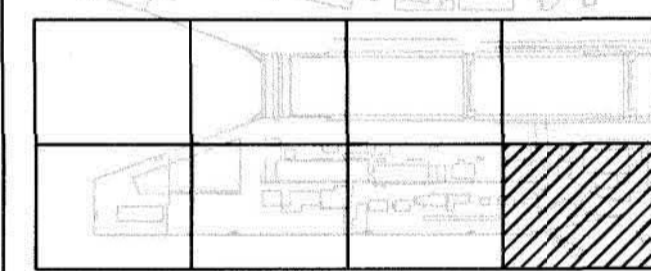
2 HM#0 SERVICE DETAILS
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KEYPLAN



2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 99% REVIEW	18/08/15

ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only

Designed by/Conçu par
I. BARNES

Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

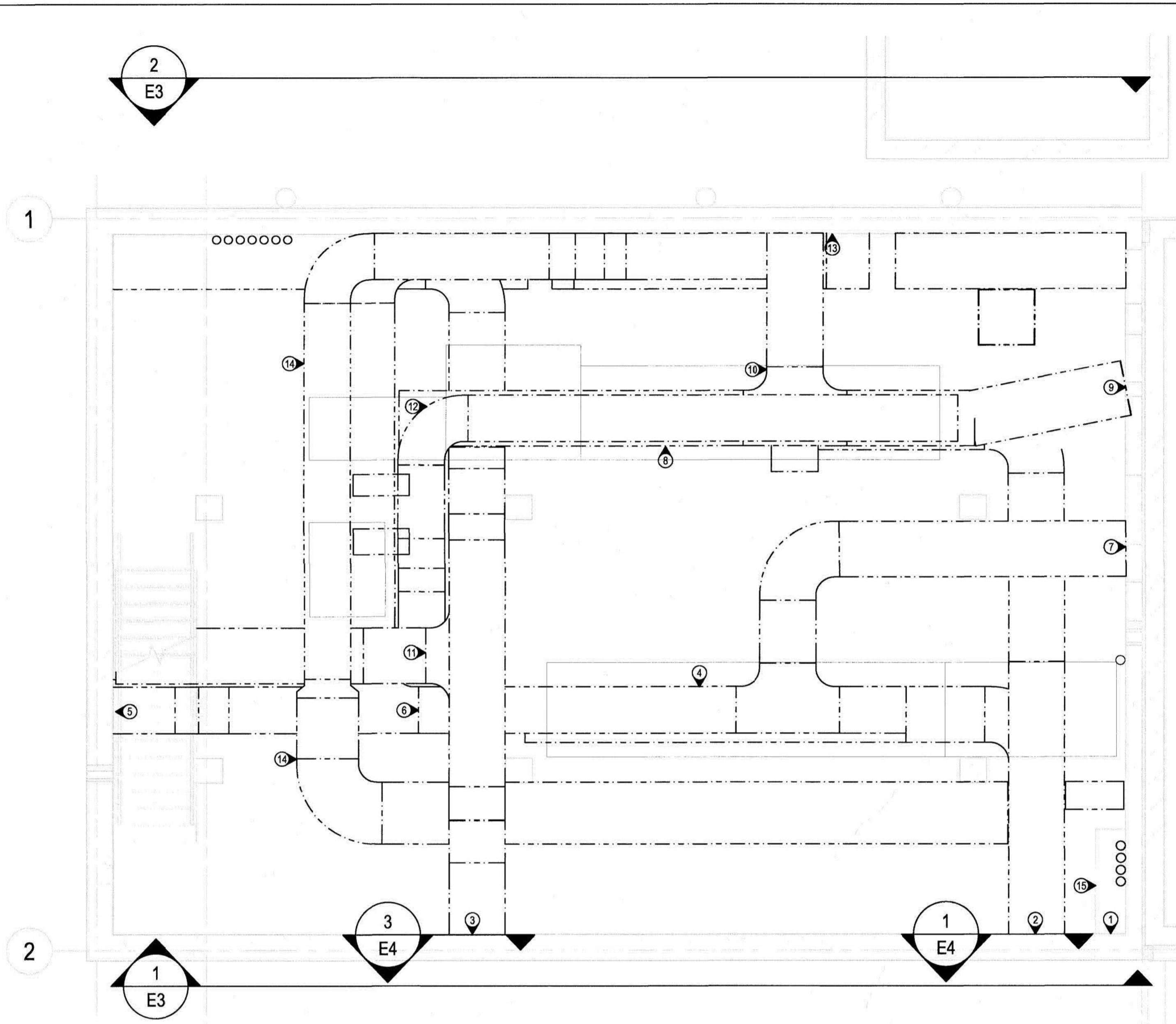
Checked by/Vérifié par
PATRICK TRUONG

Drawn by/Dessiné par
PREETIPAL PAUL

Drawn by/Dessiné par

EXISTING SSSR BASEMENT PLANS AND ELEVATIONS

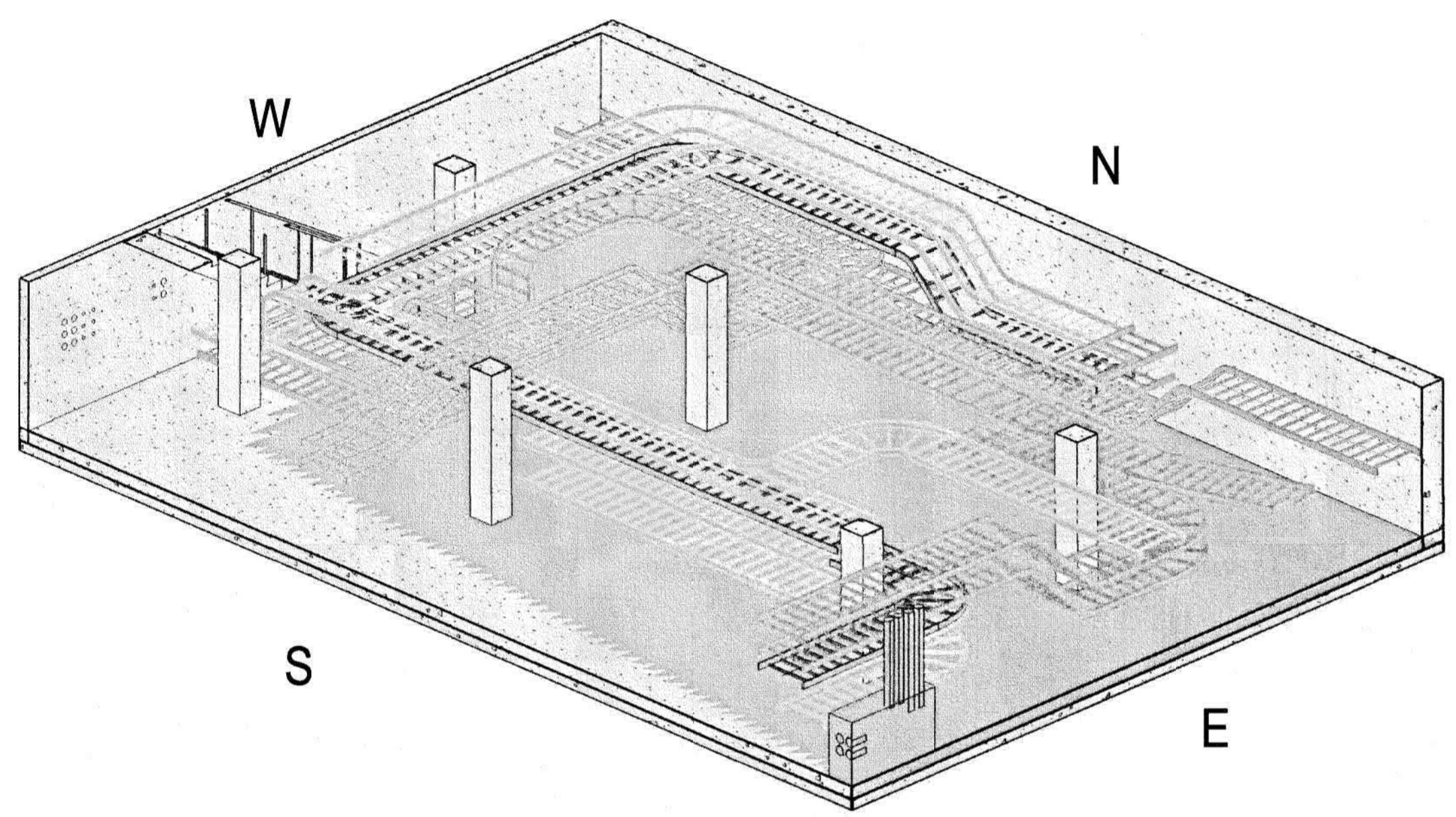
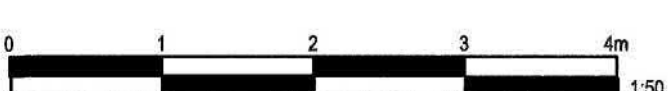
Project No./No. du projet R.026729.002	Sheet/Feuille E3	Revision No./No. de révision 2
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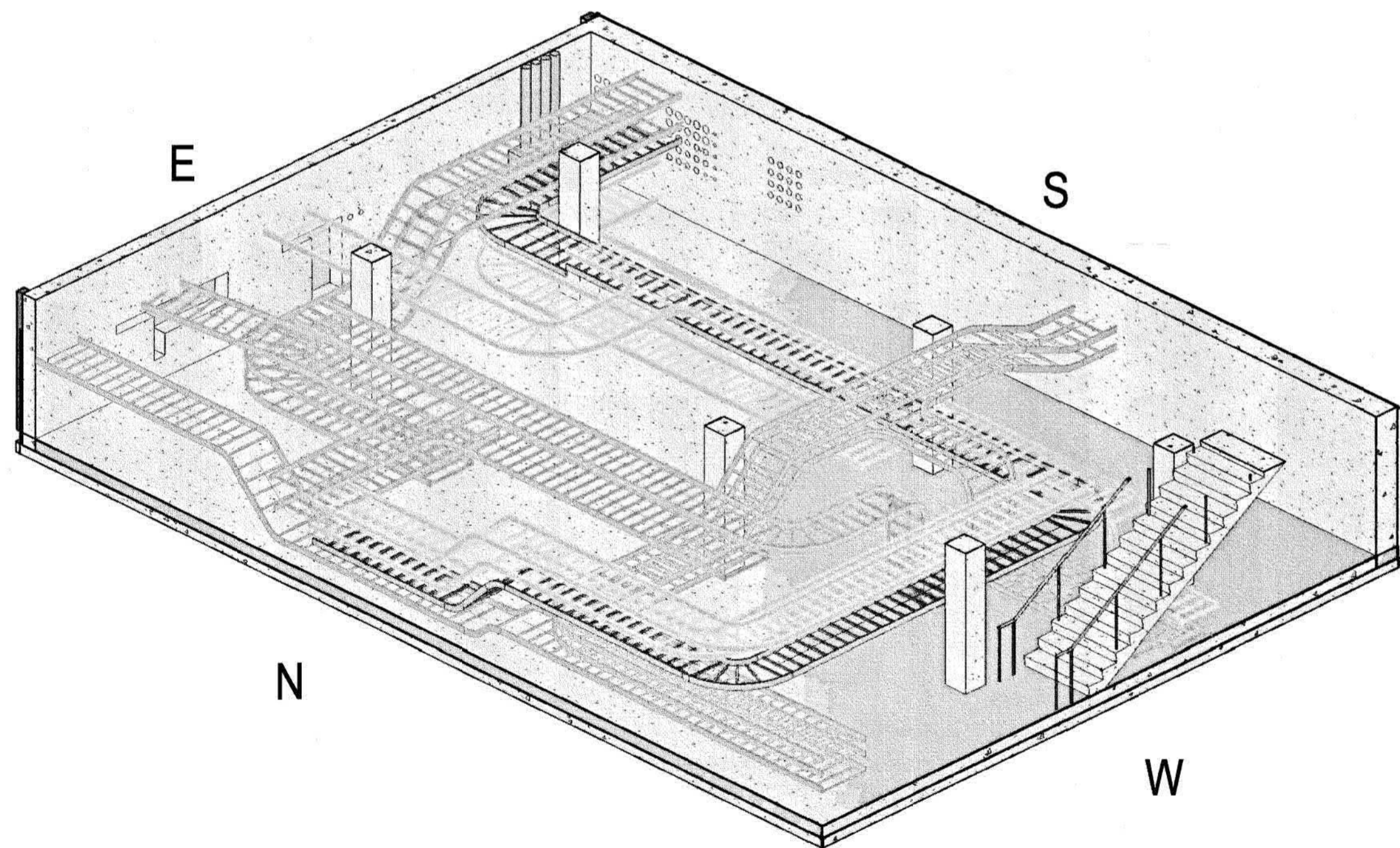
1 EXISTING SSSR BASEMENT
1:50

- KEYNOTES DETAIL 1/E3:**
- SSSR SOUTH WALL HIGH VOLTAGE CONDUIT ENTRY.
 - SSSR SOUTH WALL LOW VOLTAGE CONDUIT ENTRY, CABLE TRAYS FOR 120/208V, 480V AND 600V SWITCHBOARD. CO-ORDINATE EXACT CABLE ARRANGEMENTS AND LAYOUT WITH CONDUCTOR BENDING AND SPACING REQUIREMENTS.
 - SSSR SOUTH WALL COMMUNICATION CONDUIT ENTRY. CO-ORDINATE EXACT CABLE ARRANGEMENTS AND LAYOUT WITH CONDUCTOR BENDING AND SPACING REQUIREMENTS.
 - 120/208V CABLE TRAYS OVER EACH OTHER.
 - SSSR WEST WALL LOW VOLTAGE CONDUIT ENTRY.
 - SSSR NORTH WALL LOW VOLTAGE CABLE TRAYS MERGE WITH WEST WALL TRAYS.
 - SSSR EAST WALL 120/208V WINDOWS IN NEW FOUNDATION TO HOLES CORED IN EXISTING SSS SUBSTATION
 - SSSR SOUTH WALL 480V TRAY RUNS BELOW 4SSSR-2 SWITCHBOARD.
 - SSSR EAST WALL 480V WINDOWS IN NEW FOUNDATION TO HOLES CORED IN EXISTING SSS SUBSTATION TUNNEL WALL.
 - SSSR NORTH WALL 480V CABLE TRAYS MERGE WITH TRAYS UNDER 4SSSR-2 SWITCHBOARD.
 - SSSR WEST WALL COMMUNICATION CABLE TRAYS MERGE WITH SOUTH WALL COMMUNICATION TRAYS.
 - SSSR WEST WALL 480V CABLE TRAYS MERGE WITH TRAYS UNDER 4SSSR-2.
 - SSSR NORTH WALL LOW VOLTAGE AND COMMUNICATION CONDUIT ENTRY
 - 430-630V CABLE TRAY FROM NORTH WALL CONDUIT PENETRATION TO BASE OF 4SSSR-REG SWITCHBOARD.
 - SSSR 25/12.5KV PULL BOX

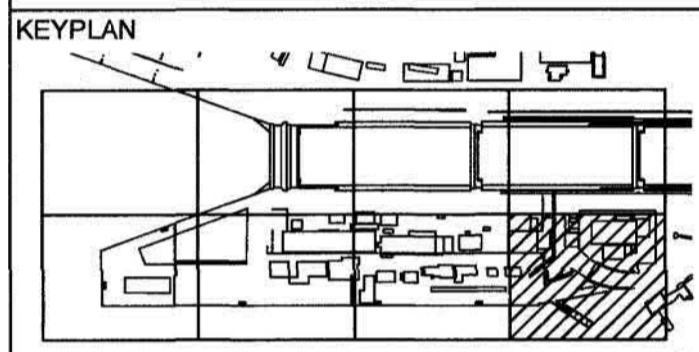
- GENERAL NOTES:**
- ALL EQUIPMENT IS EXISTING UNLESS OTHERWISE NOTED
 - CABLE TRAY LAYOUTS ARE BASED ON SSSR TENDER DOCUMENTS. CONTRACTOR TO CONFIRM ALL DIMENSIONS AND CLEARANCES PRIOR TO STARTING WORKS.
 - ALL CONDUITS TO BE SEALED AFTER CABLE PULLS TO PREVENT VAPOR/AIR MIGRATION.
 - FIRESTOP ALL CONDUIT PASSING THROUGH FLOOR TO SSSR FIRST FLOOR



2 CABLE TRAY FRONT RIGHT VIEW
NOT TO SCALE



3 CABLE TRAY BACK LEFT VIEW
NOT TO SCALE



MAR - 6 2017

2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 90% REVIEW	16/08/15

Revision/	Description/Description	Date/Date
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Client/client

ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only

Designed by/Concept par
I. BARNES

Drawn by/Desainé par
J. BIELING, S. SEYMOUR

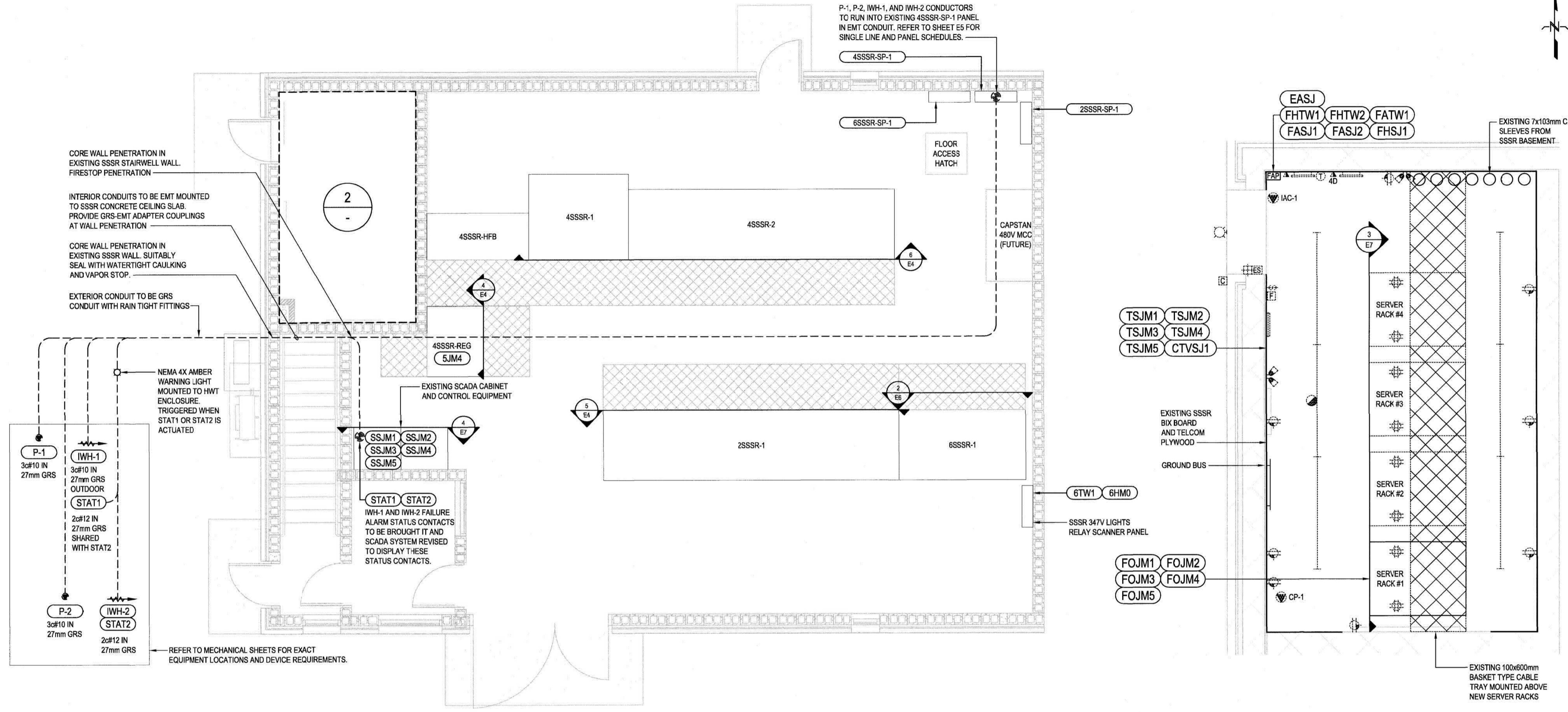
PWSSC Project Manager/Administrateur de Projets TPSSC
PATRICK TRUONG

PWSSC, Regional Manager, Architectural and Engineering Services/
 Gestionnaire régional, Services d'architecture et de génie, TPSSC
PREETIPAL PAUL

Drawing title/Titre du dessin

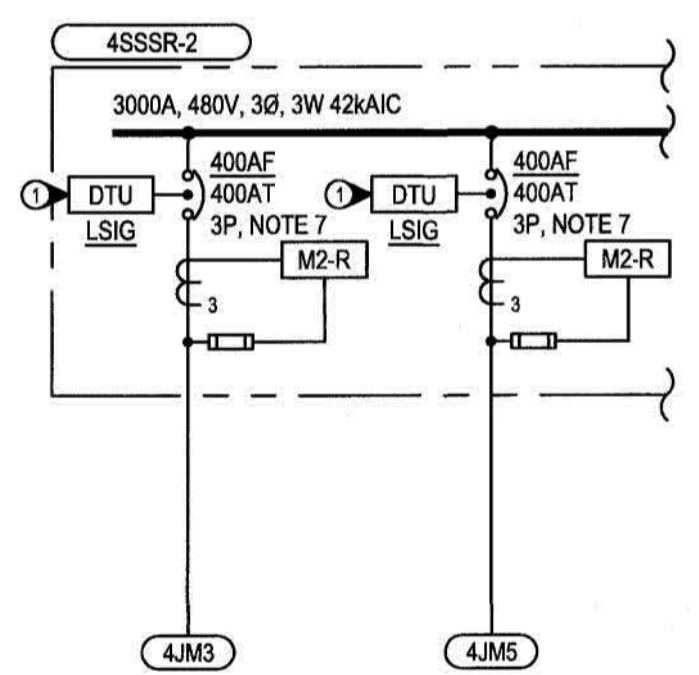
SSSR BUILDING FIRST FLOOR PLAN AND SINGLE LINE DETAILS

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.026729.002	E5	2

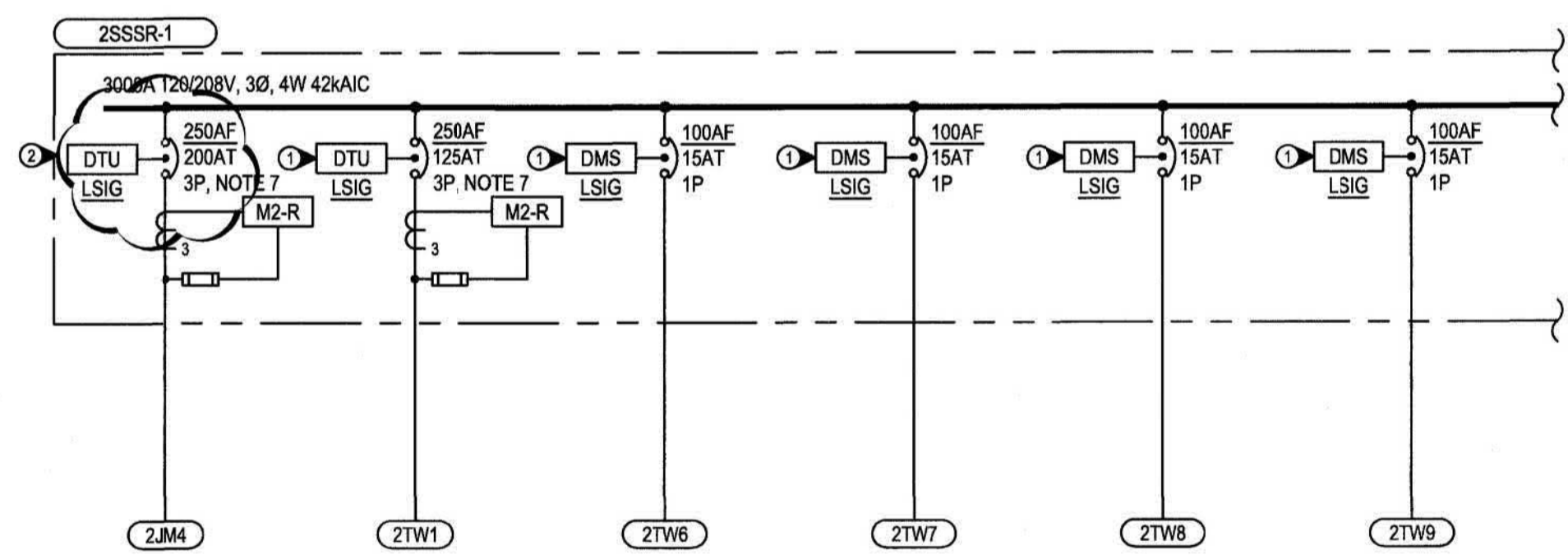


1 SSSR EXISTING FIRST FLOOR DETAILS
 E1 1:50

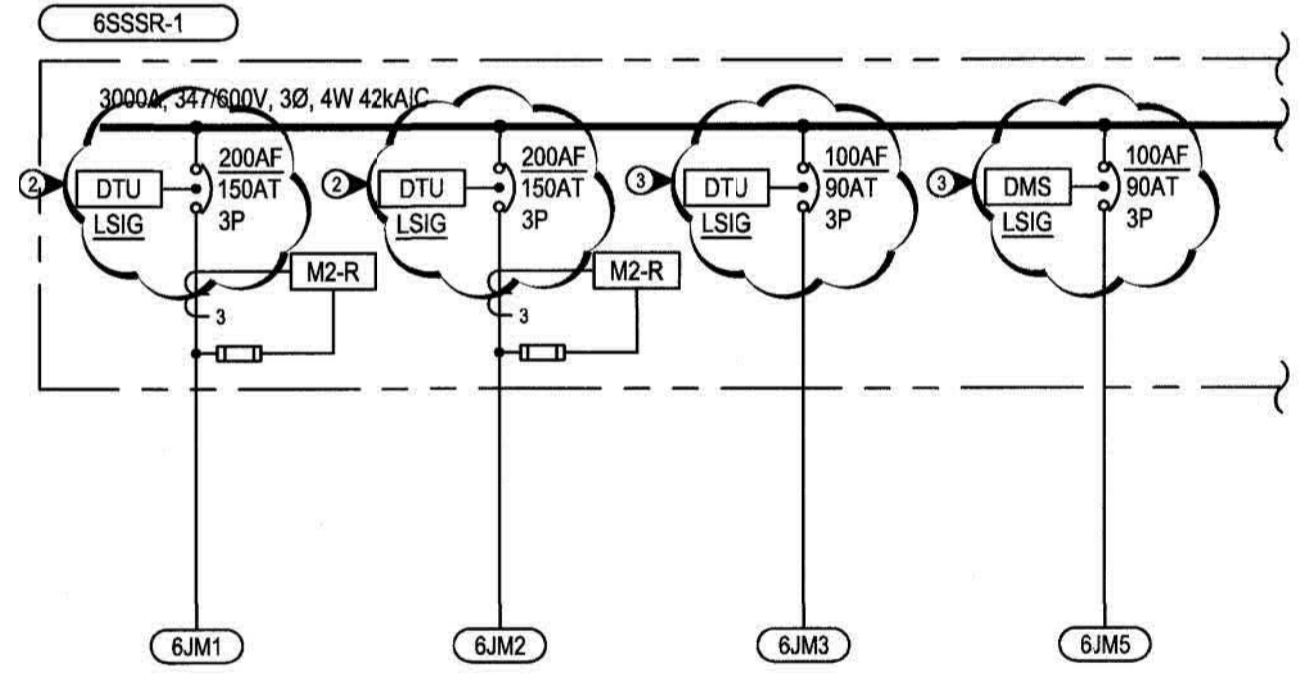
2 SSSR EXISTING COMMUNICATIONS ROOM DETAILS
 - 1:25



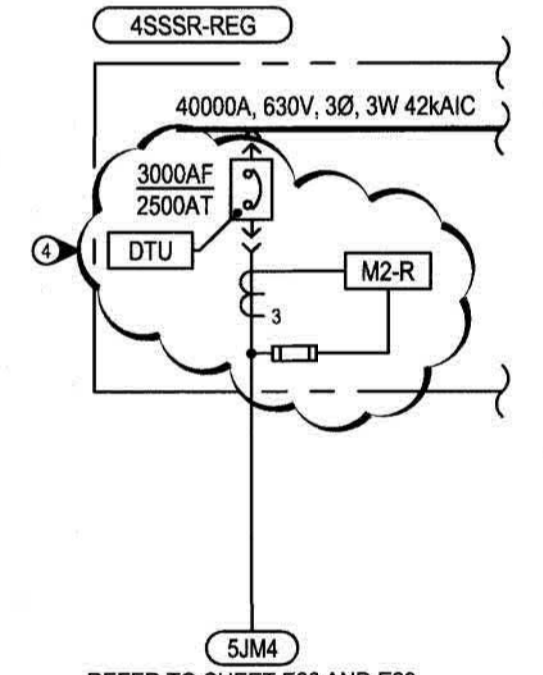
3 480V EXISTING SSSR SINGLE LINE PARTIAL DETAIL
 E5 NOT TO SCALE



4 120/208V EXISTING SSSR SINGLE LINE PARTIAL DETAIL
 - NOT TO SCALE



5 347/600V EXISTING SSSR SINGLE LINE PARTIAL DETAIL
 - NOT TO SCALE



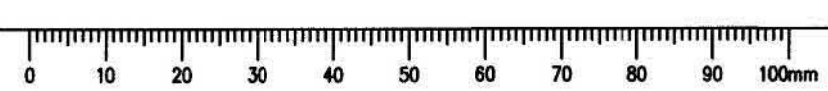
6 430-600V EXISTING SSSR SINGLE LINE PARTIAL DETAIL
 - NOT TO SCALE

KEY NOTES DETAILS 3/E5 TO 6/E5:

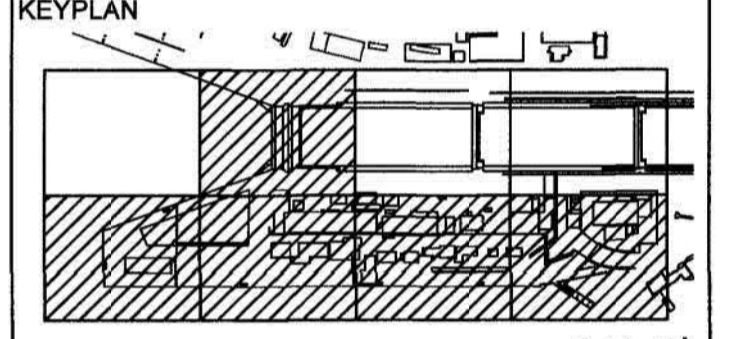
- CONNECT NEW FEEDERS TO EXISTING BREAKER, AND REVENUE METERING SYSTEM IF APPLICABLE
- SUPPLY AND INSTALL NEW BREAKER C/W DIGITAL TRIP UNIT AND ADJUST REVENUE METERING SETTINGS TO SUIT.
- SUPPLY AND INSTALL NEW BREAKER C/W DIGITAL TRIP UNIT AND CONNECT TO EXISTING CONTROL SYSTEM
- SUPPLY AND INSTALL NEW BREAKER C/W DIGITAL TRIP UNIT AND PROVIDE NEW REVENUE CERTIFIED METER AND ASSOCIATED CTS AND PTS

GENERAL NOTE:

ALL EQUIPMENT IS EXISTING UNLESS OTHERWISE NOTED, BASED ON ISSUED FOR TENDER DRAWINGS OF THE SSSR PROJECT



Plot Date: March 3, 2017 10:37 AM
 File Name: E:\PROJECTS\2017\17-143\SSSR\SSSR_3001_P101.dwg



MAR - 6 2017

Revision/Revisions	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

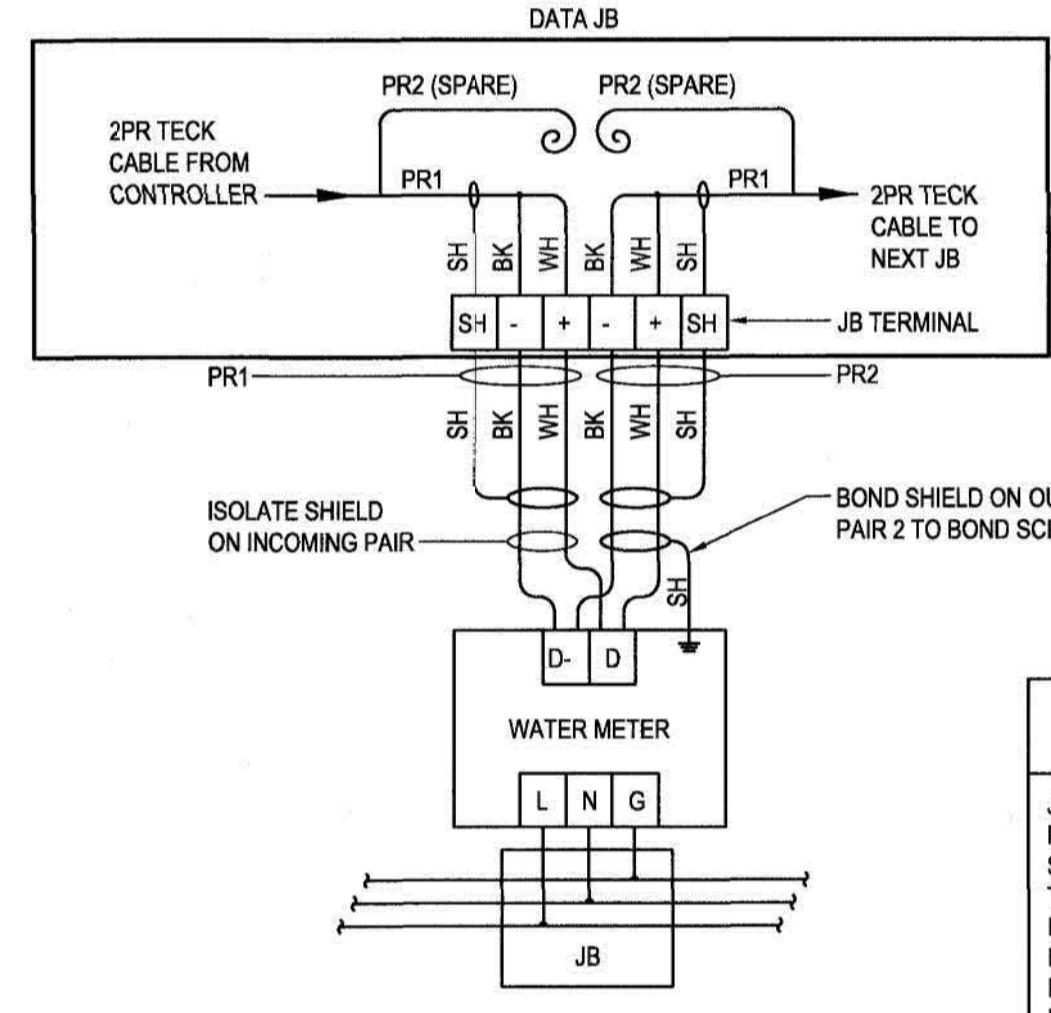
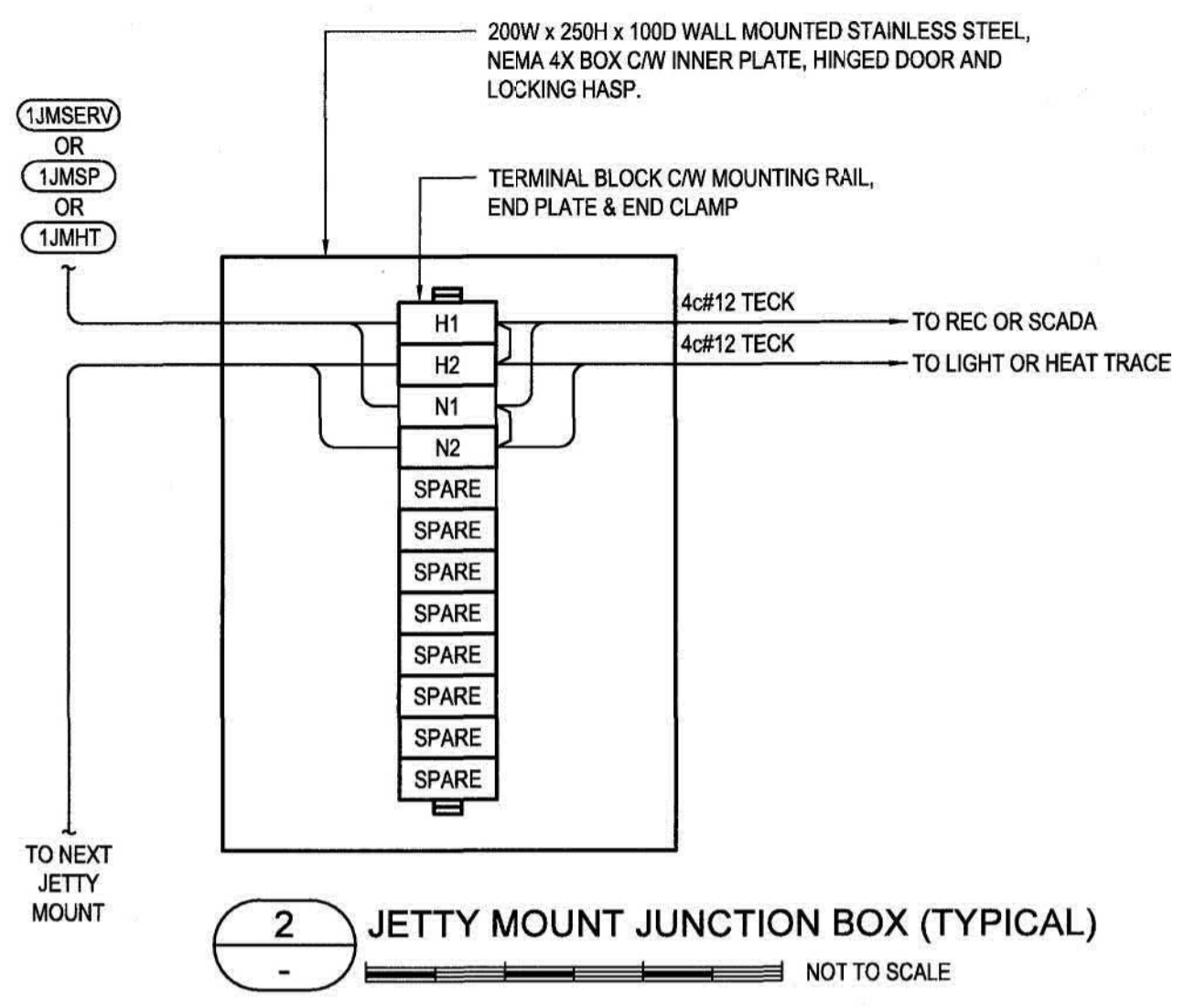
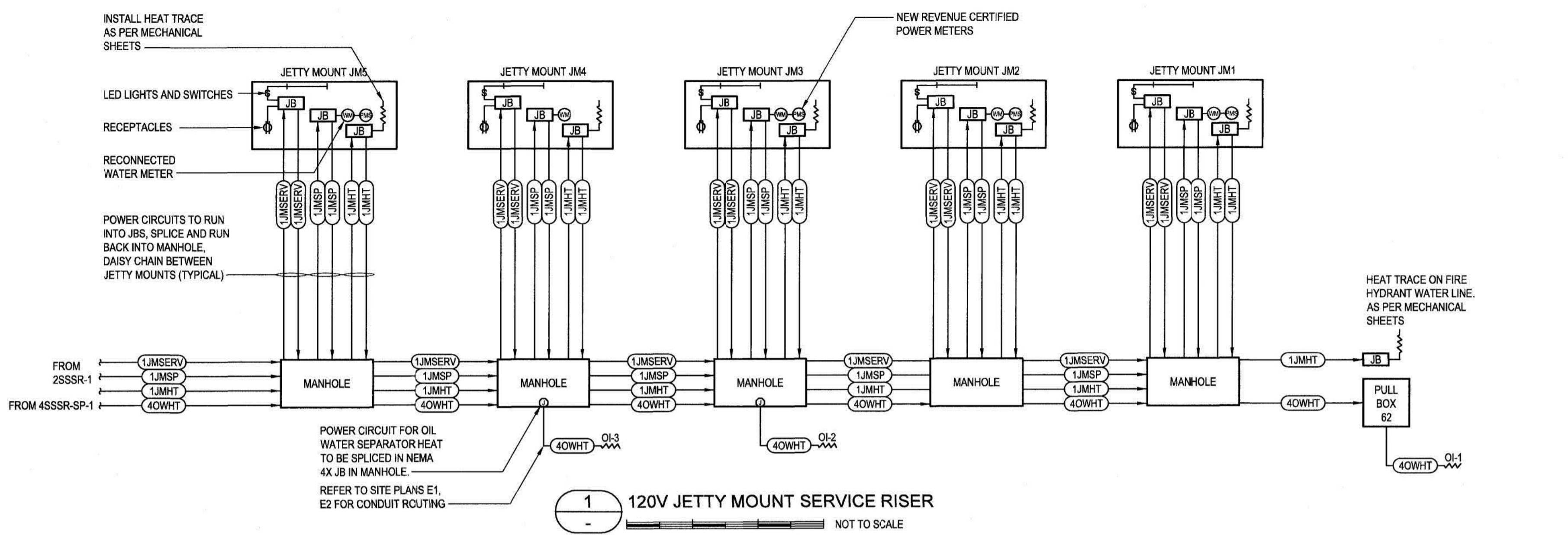
Project Title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
Designed by/Concept par: I. BARNES
Drawn by/Dessiné par: J. BIELING, S. SEYMOUR
PWSC Project Manager/Administrateur de Projets TPSCC: PATRICK TRUONG
PWSC Regional Manager, Architectural and Engineering Services/Gestionnaire régional, Services d'architectural et de génie, TPSCC: PREETIPAL PAUL

SOUTH JETTY LOW VOLTAGE RISERS AND CONNECTION DETAILS

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	E6	2



JOB NO./NAME	EGD SOUTH SUBSTATION SWITCHGEAR REPLACEMENT					
PANEL	4SSSR-SP-1					
SYSTEM	480V 3Ø 3W					
TYPE	CDP					
LOCATION	SOUTH SIDE SUBSTATION REPLACEMENT					
MOUNTING	SURFACE					
NO. CIRCUITS	60					
BUS SIZE	400A					
SYM. FAULT RATING	22kAIC					

DESCRIPTION	BRK	POLE	CCT	CCT	POLE	BRK	DESCRIPTION
SEWAGE PUMP	100	3	01	02	3	20	SPARE
JETTY CIRC PUMP#1	15	3	07	08	3	20	SPARE
JETTY CIRC PUMP#2	15	3	13	14	3	20	SPARE
SPARE	15	3	19	20	3	20	SPARE
SPARE	15	3	23	24	3	20	SPARE
SPARE	15	3	25	26	3	20	SPARE
SPARE	15	3	31	32	3	20	SPARE
NEW BREAKER IWH-1	30	3	37	38			
NEW BREAKER IWH-2	30	3	43	44			
NEW BREAKER - OIL-WATER SEPARATOR HEATERS	30	3	45	50			
			51	52			
			53	54			
			55	56			
			57	58			
			59	60			

JOB NO./NAME	EGD SOUTH SUBSTATION SWITCHGEAR REPLACEMENT					
PANEL	6SSSR-SP-1					
SYSTEM	347/600V 3Ø 4W					
TYPE	CDP					
LOCATION	SOUTH SIDE SUBSTATION REPLACEMENT					
MOUNTING	SURFACE					
NO. CIRCUITS	60					
BUS SIZE	400A					
SYM. FAULT RATING	22kAIC					

DESCRIPTION	BRK	POLE	CCT	CCT	POLE	BRK	DESCRIPTION
4SSSR-SP-1 3P/4W	200	3	01	02	3	150	6SSSR-SP-1 3P/4W
CAISSONS 2,3	175	3	07	08	1	20	JETTY CATHODIC PRO. #1
CAISSON 1	175	3	11	12	1	20	JETTY CATHODIC PRO. #2
LIFT STATION C.P.	15	3	17	18	2	30	125VDC STATION
LIFT STATION C.P.	15	3	21	22	3	15	SP-1
MAU-1	25	3	27	28	3	70	AHU-1
SPARE	15	3	31	32	3	15	EUH-1
SPARE	15	3	33	34	3	15	EUH-2
SPARE	15	3	35	36	3	15	EUH-3
SPARE	15	3	37	38	3	15	EUH-4
SPARE	15	3	39	40	3	15	
SPARE	15	3	41	42	3	15	
SPARE	15	3	43	44	3	15	
SPARE	15	3	45	46	3	15	
SPARE	15	3	47	48	3	15	
SPARE	15	3	49	50	3	15	
SPARE	15	3	51	52	3	15	
SPARE	15	3	53	54	3	15	
SPARE	15	3	55	56	3	15	
SPARE	15	3	57	58	3	15	JETTY CATHODIC PRO. #3
SPARE	15	3	59	60	3	15	JETTY CATHODIC PRO. #4

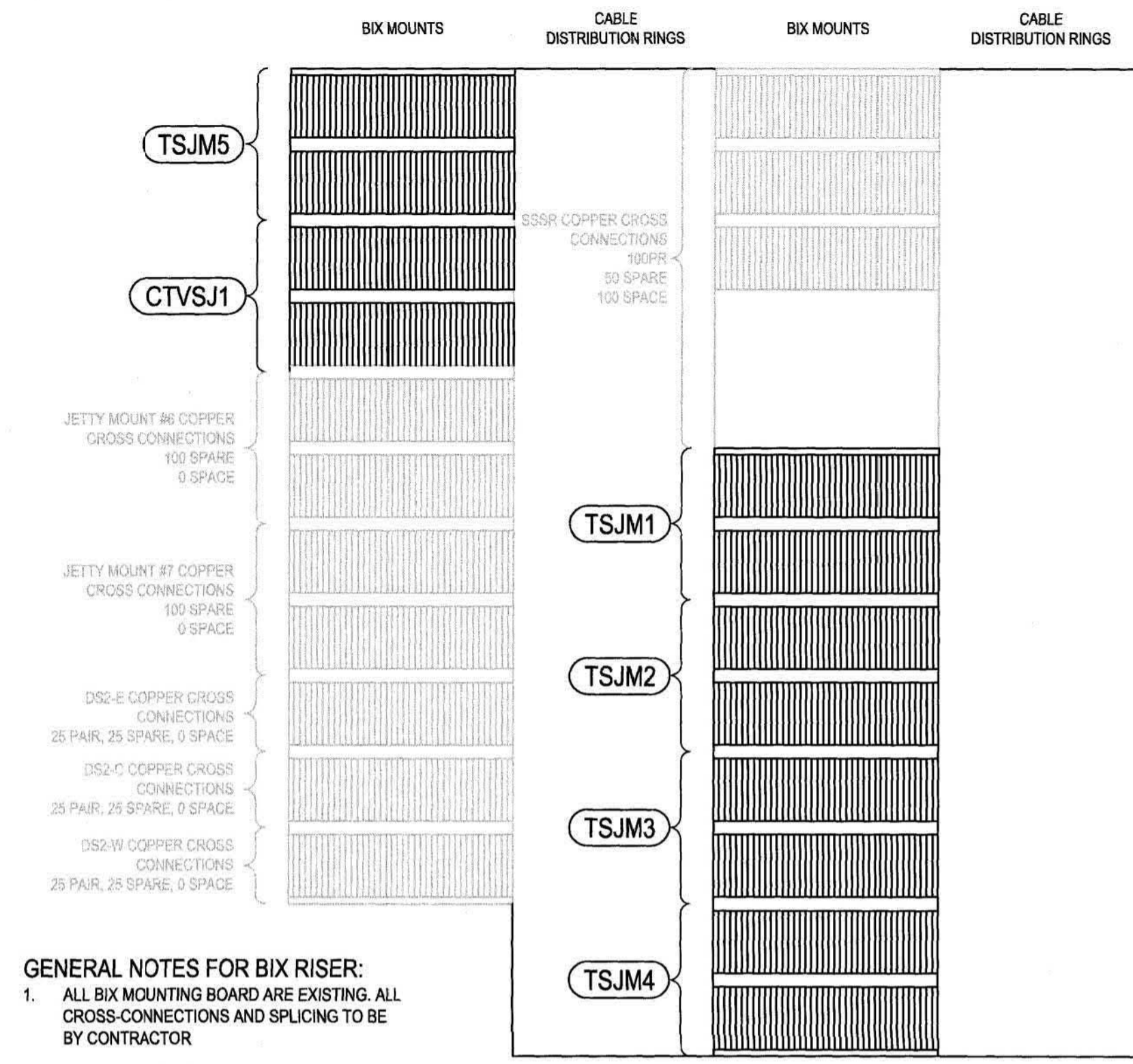
JOB NO./NAME	EGD SOUTH SUBSTATION SWITCHGEAR REPLACEMENT					
PANEL	2SSSR-SP-1					
SYSTEM	120/208V 3Ø 4W					
TYPE	CDP					
LOCATION	SOUTH SIDE SUBSTATION REPLACEMENT					
MOUNTING	SURFACE					
NO. CIRCUITS	84					
BUS SIZE	600A					
SYM. FAULT RATING	22kAIC					

DESCRIPTION	BRK	POLE	CCT	CCT	POLE	BRK	DESCRIPTION
SSSR MAIN FLOOR LTS	15	1	01	02	1	20	SSSR MAIN FLOOR REC
SSSR COMM ROOM LTS	15	1	03	04	1	20	SSSR COMM REC #1
SSSR 2ND FLOOR LTS	15	1	05	06	1	20	SSSR COMM REC #2
SSSR CABLE PIT LTS	15	1	07	08	1	20	SSSR COMM REC #3
SSSR OUTDOOR LTS	15	1	09	10	1	20	SSSR COMM REC #4
SSSR EXT LTS	15	1	11	12	1	20	SSSR COMM REC #5
SSSR LOCKE/OPEN	15	1	13	14	1	20	SSSR 2ND FL REC
SSSR MOTOR DAMPERS	20	1	15	16	1	20	SSSR 2ND FL REC
SW DRYDOCK STAIRS	15	1	17	18	1	20	SSSR 2ND FL REC
SE DRYDOCK STAIRS	15	1	19	20	1	20	SSSR CABLE PIT REC
IAC-1ICU-1	40	2	21	22	3	40	TUG #1
			23	24			
RBH-1	15	1	25	26			TUG #2
MEQ CONTROL PANEL	15	1	27	28	3	40	TUG #3
SPARE	15	1	29	30			TUG REC
TP	15	1	31	32			TUG REC
AHU-1 CONTROLS	15	1	33	34	2	20	TUG REC
SECURITY ALARM PANEL	10	1	35	36			
FIRE ALARM PANEL	15	1	37	38	2	20	
P-1	15	3	39	40			
			41	42	1	15	CTRL-1
			43	44	1	15	SF-2
P-2	15	3	45	46	2	70	PANEL 25L
			47	48			PANEL 26L
SSSR LOG SYSTEM	30	1	51	52			PANEL 25M
SSSR BATTERY PACK	15	1	53	54			
SPARE	15	1	55	56	3	150	
SPARE	15	1	57	58			
SPARE	15	1	59	60			
SPARE	15	1	61	62	1	15	SOUTH JETTY NAV. LIGHTS
SPARE	15	1	63	64	1	15	JETTY MOUNT RECS AND LTGS
SPARE	15	1	65	66	1	15	JETTY MOUNT SCADA POWER
SPARE	15	1	67	68	1	15	JETTY MOUNT HEAT TRACE
SPARE	15	1	69	70	1	15	HIGH MAST SERVICE RECS.
SPARE	15	1	71	72	1	15	
SPARE	15	1	73	74	1	15	
SPARE	15	1	75	76	1	15	
SPARE	15	1	77	78	1	15	
SPARE	15	1	79	80	1	15	
SPARE	20	1	81	82	1	15	
SPARE	15	1	83	84	1	15	

NOTE: ALL BREAKERS ARE EXISTING UNLESS OTHERWISE NOTED. HIGHLIGHTED BREAKERS ARE THOSE TO BE CONNECTED UNDER THIS WORK.

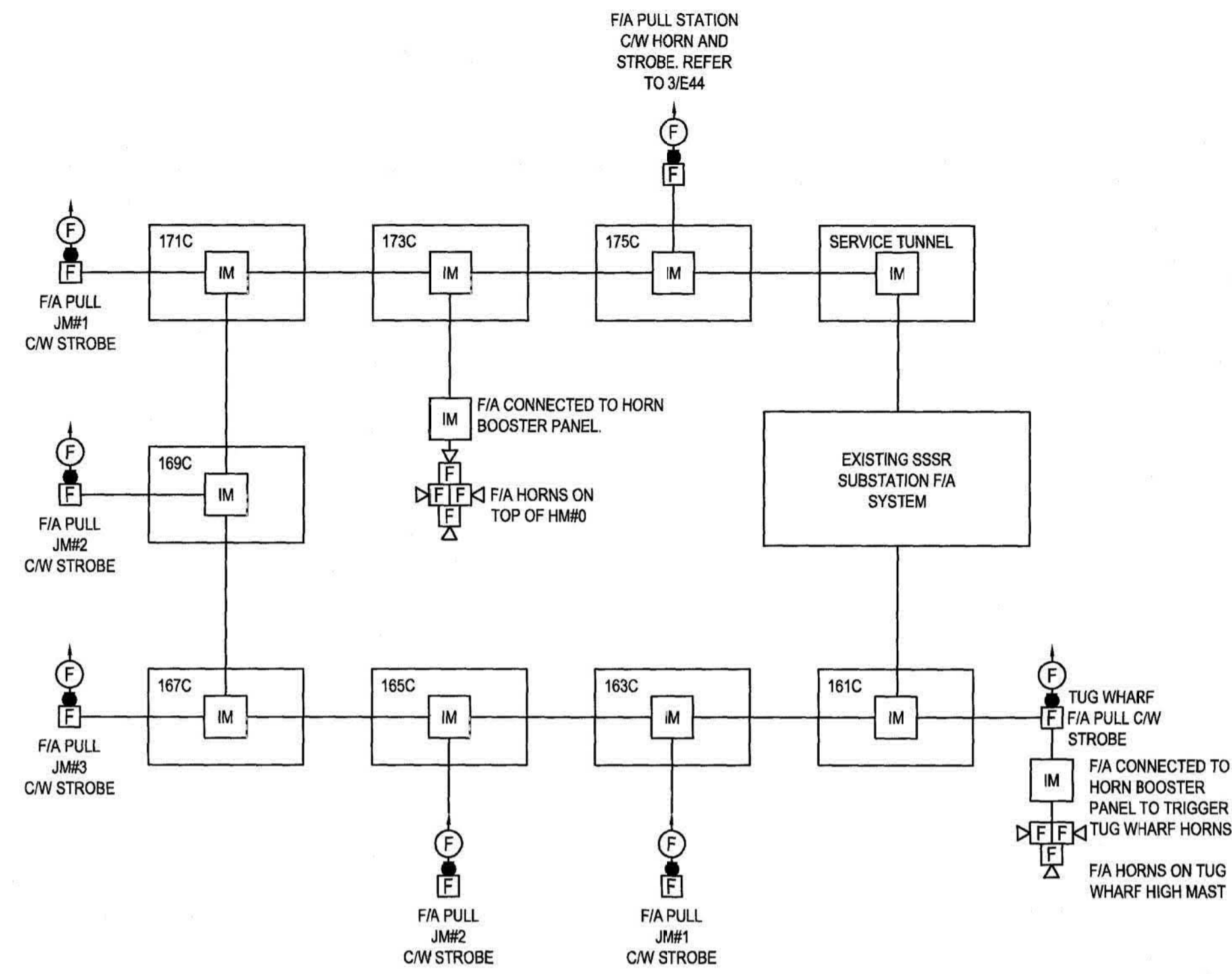
NOTE: REPLACE EXISTING SPARE BREAKERS WITH NEW, SIZED AS INDICATED CONFIRM BREAKER SIZE WITH CATHODIC PROTECTION CONTRACTOR AND REVISE AS NEEDED AT NO ADDITIONAL COST.

NOTE: ALL BREAKERS ARE EXISTING UNLESS OTHERWISE NOTED. HIGHLIGHTED BREAKERS ARE THOSE TO BE CONNECTED UNDER THIS WORK.



GENERAL NOTES FOR BIX RISER:
 1. ALL BIX MOUNTING BOARD ARE EXISTING. ALL CROSS-CONNECTIONS AND SPLICING TO BE BY CONTRACTOR

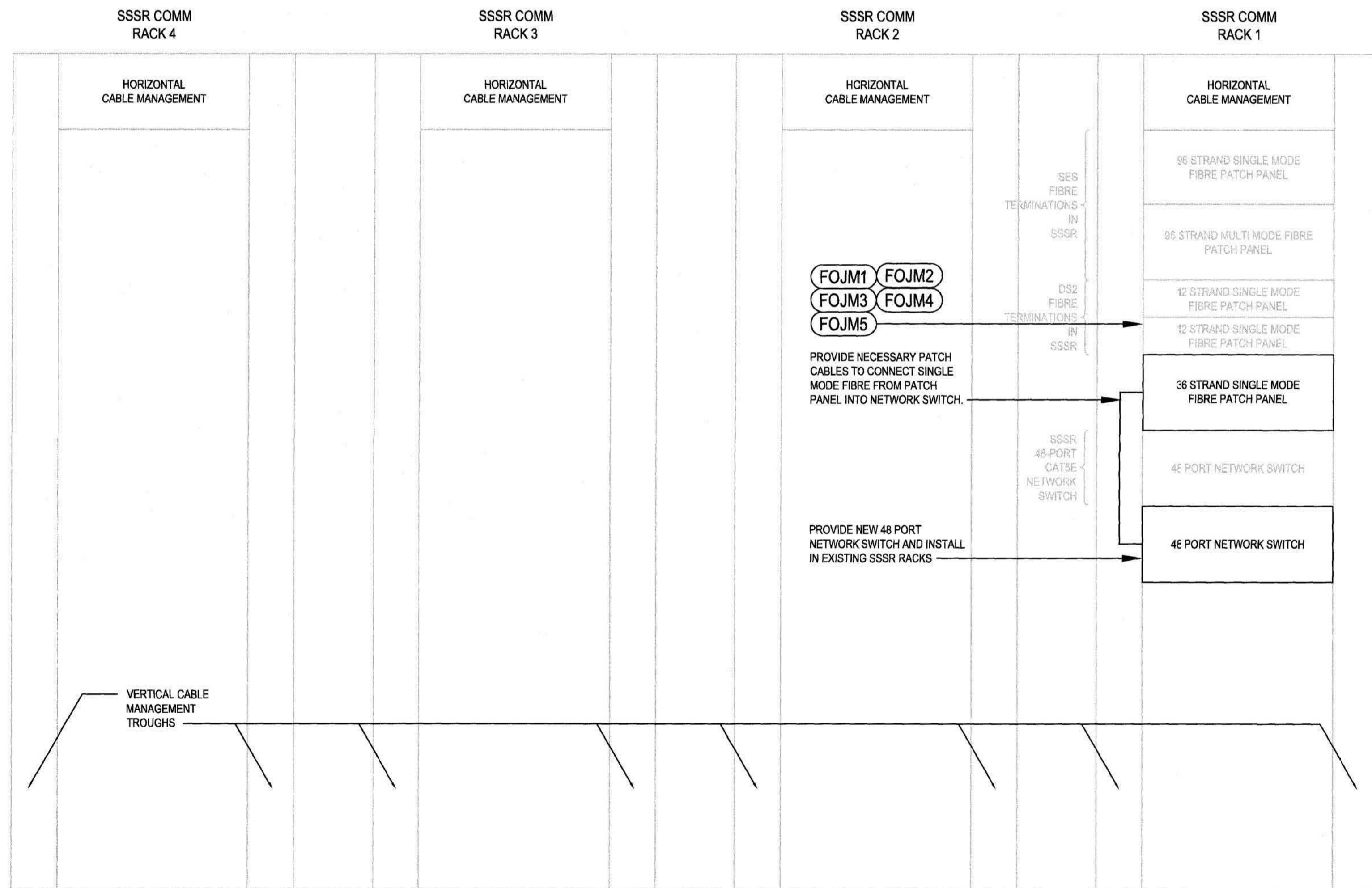
1
 NTS
 EXISTING SSSR BIX BOARD ELEVATION



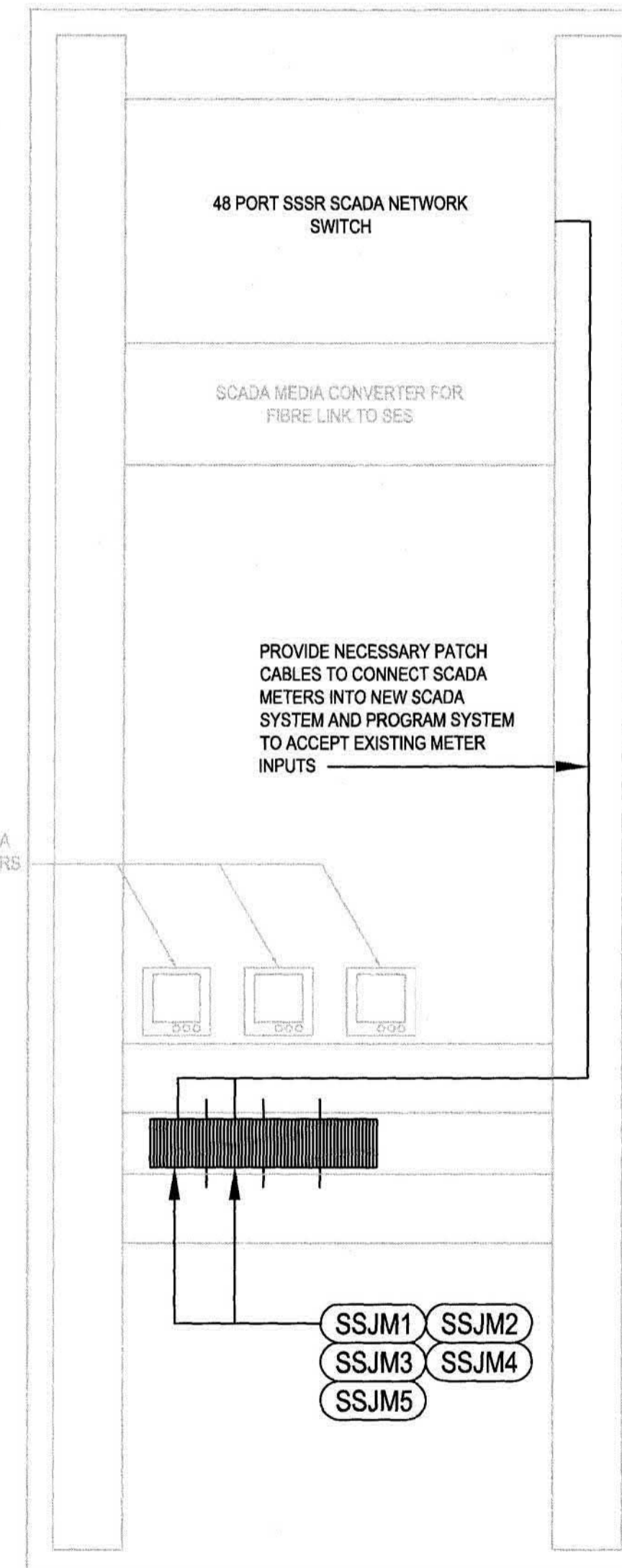
GENERAL NOTE:
 ALL EQUIPMENT IS EXISTING UNLESS OTHERWISE NOTED, BASED ON ISSUED FOR TENDER DRAWINGS OF THE SSSR PROJECT

- GENERAL NOTES FOR EGD NEW FIRE ALARM SYSTEM:**
1. PROVIDE 35mm RPVC RACEWAYS AND 250x250x150RPVC PULL BOXES IN EACH MANHOLE TO SEPARATE FIRE ALARM SYSTEM WIRING FROM OTHER COMMS SYSTEMS WIRING.
 2. REPLACE THE EXISTING GRAPHIC ANNUNCIATOR AT MAIN GATE WITH A NEW UPDATED GRAPHIC. PROVIDE ALL NEW DRIVERS AND COMPONENTS REQUIRED TO INTERFACE WITH THE EXISTING EDWARDS EST 3 PANEL. RE-USE EXISTING CPU, DRIVERS, BOOSTERS ETC. ADD ADDITIONAL LEDs AS REQUIRED.
 3. PROVIDE REQUIRED BOOSTER PANELS FOR NOTIFICATION DEVICES AND ISOLATION MODULES FOR THE NEW DATA LOOP. LOCATE BOOSTER PANELS IN NEARBY JETTY MOUNTS. CO-ORDINATE BOOSTER PANEL INSTALLATION WITH JETTY MOUNT REFURBISHMENT WORK.
 4. REPROGRAM EXISTING DEVICES TO NEW ADDRESSABLE LOOP AS REQUIRED.

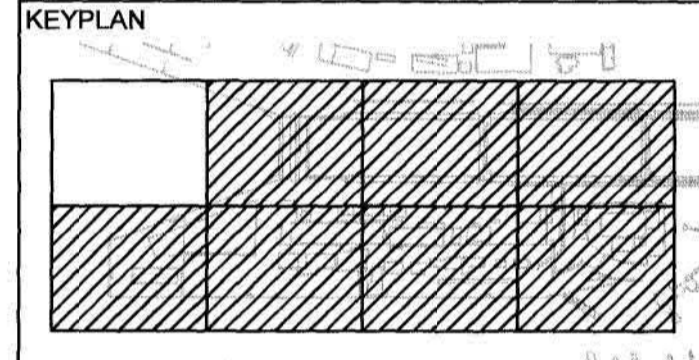
2
 NTS
 NEW SOUTH JETTY FIRE ALARM RISER



3
 E5
 NTS
 EXISTING SSSR DATA RACK ELEVATION



4
 E5
 NTS
 EXISTING SSSR SCADA PANEL ELEVATION



MAR - 6 2017

2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

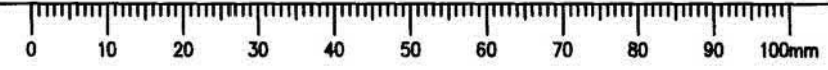
Project Title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
 Drawn by/Concept par
L. BARNES
 Written by/Designé par
J. BIELING, S. SEYMOUR
 Project Manager/Administrateur de Projets TPSSGC
PATRICK TRUONG
 Project Manager/Administrateur et Ingénieur Services/Le Gérant et l'Ingénieur TPSSGC
PREETIPAL PAUL

Drawing Title/Titre du dessin
FIRE ALARM, COMMUNICATIONS AND SCADA SYSTEM DETAILS AND RISERS

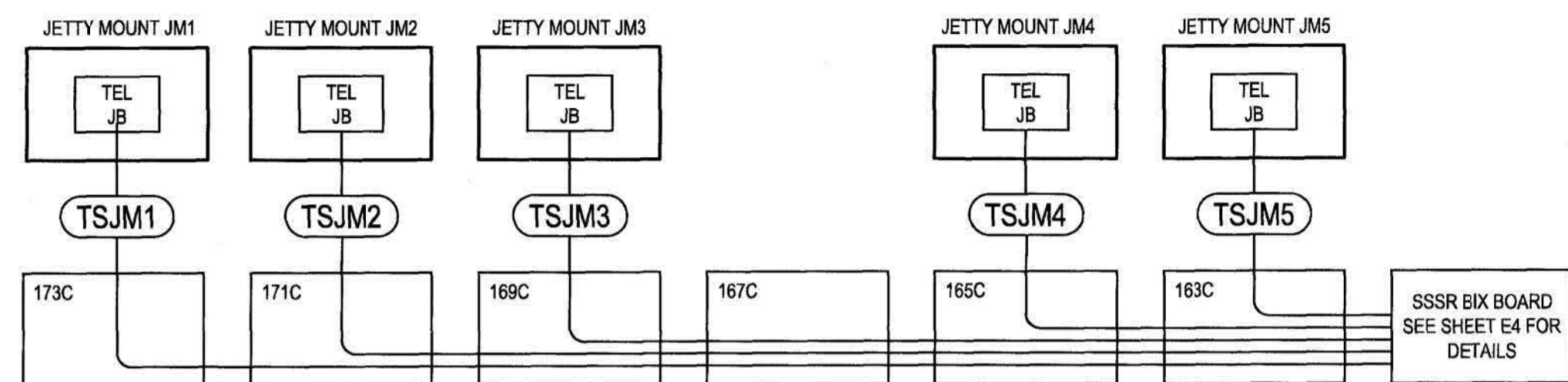
Project No./No. de projet	Sheet/Feuille	Revision no./No. de révision
R.026729.002	E7	2

Plot Date: March 3, 2017 8:32 AM
 Plot Name: R:\Projects\2017\17-11-142\SSSR\040177 FIRE_ALARM_AND_COMMUNICATION_RISELING

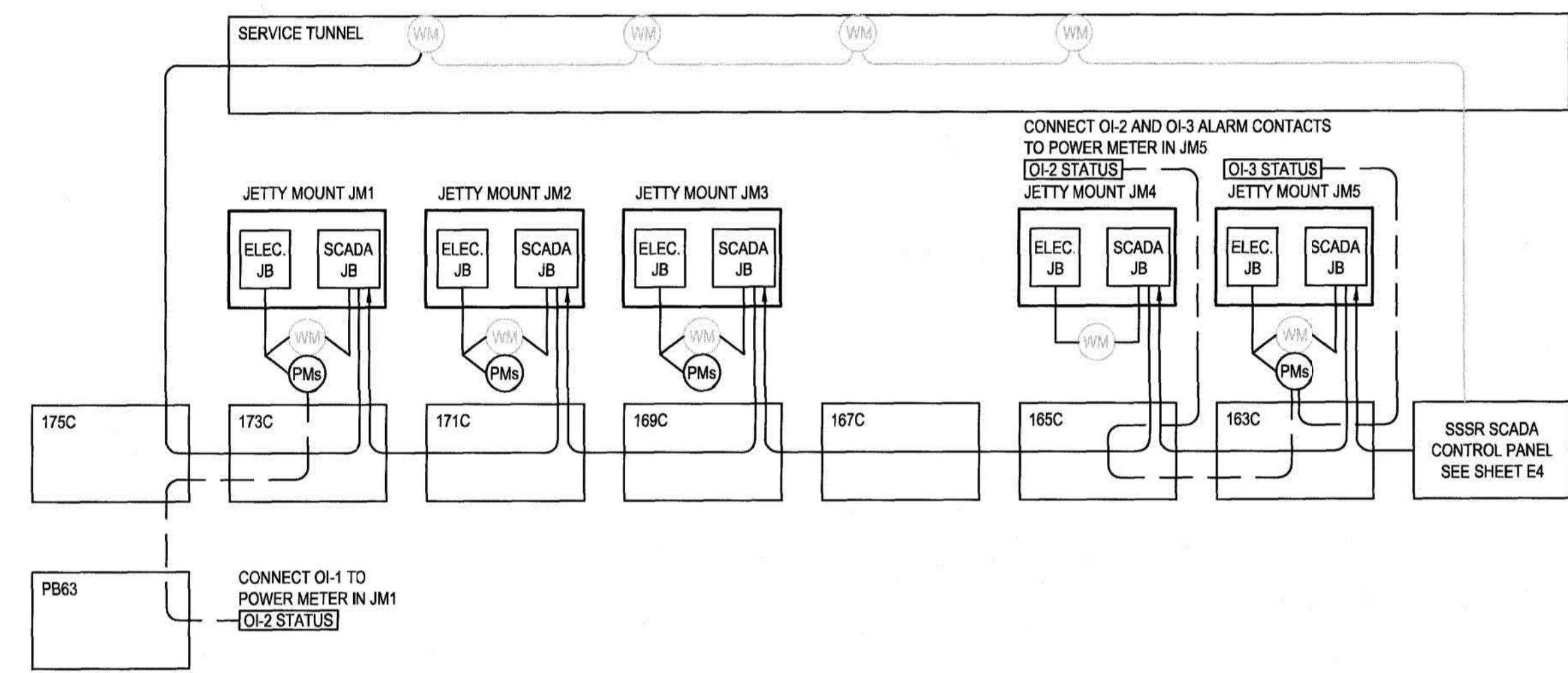




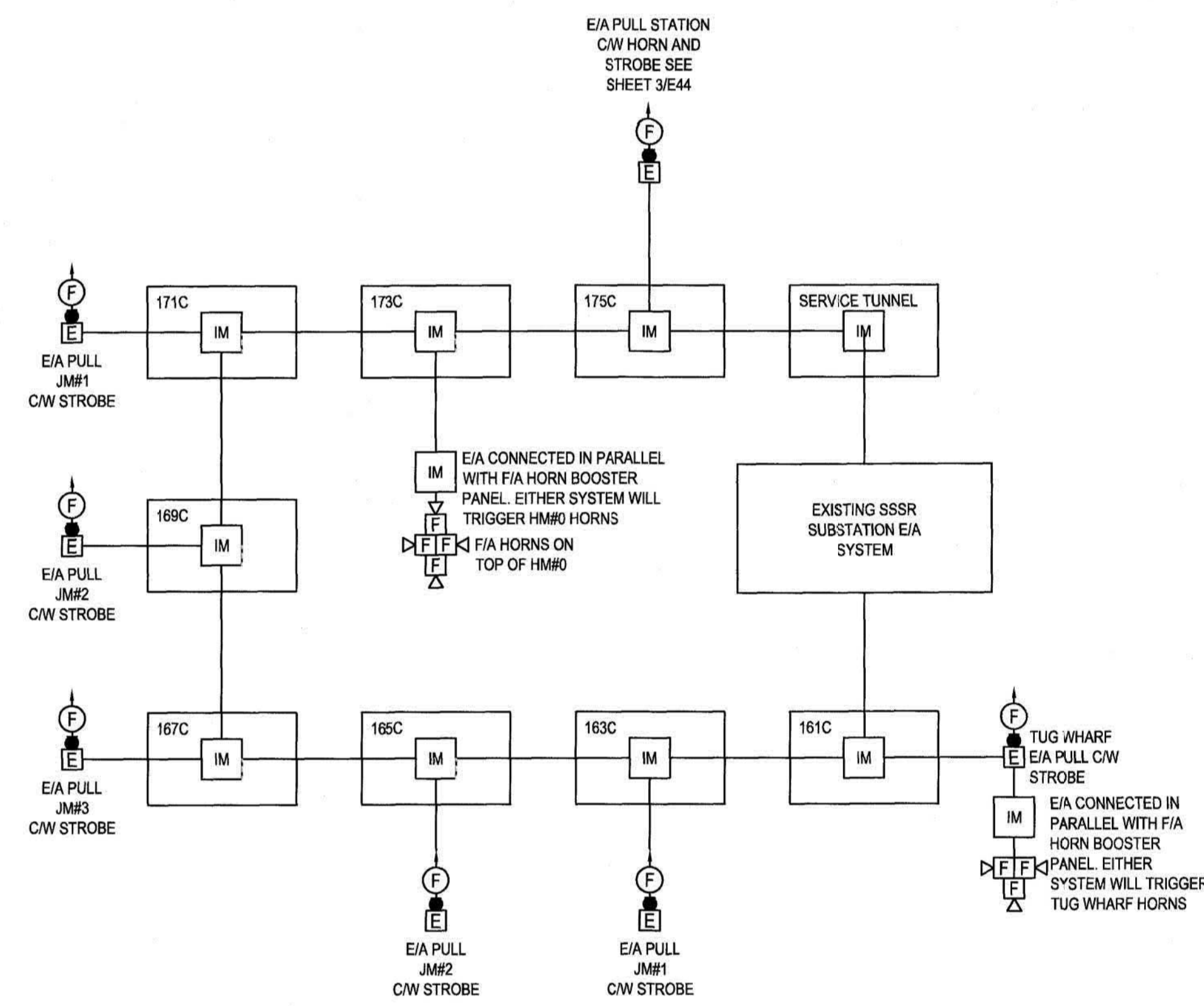
GENERAL NOTE:
ALL EQUIPMENT IS EXISTING UNLESS OTHERWISE NOTED,
BASED ON ISSUED FOR TENDER DRAWINGS OF THE SSSR
PROJECT



1 NEW JETTY MOUNT TELECOM SERVICE RISER
NTS

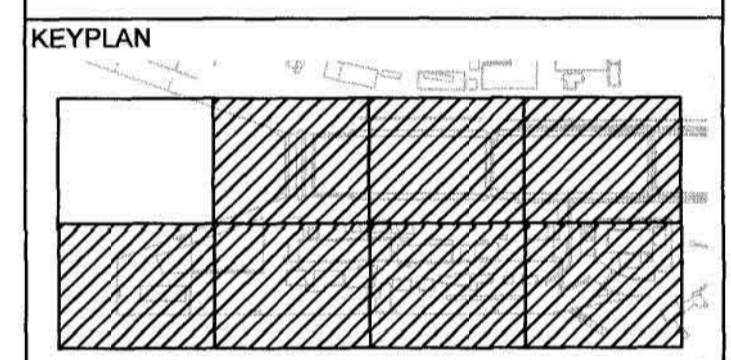


3 NEW JETTY MOUNT SCADA SERVICE RISER
NTS



- GENERAL NOTES FOR EGD NEW EMERGENCY ALARM SYSTEM:
1. PROVIDE 35mm RPVC RACEWAYS AND 250x250x150RPVC PULL BOXES IN EACH MANHOLE TO SEPARATE EMERGENCY ALARM SYSTEM WIRING FROM OTHER COMMS SYSTEMS WIRING.
 2. REPLACE THE EXISTING GRAPHIC ANNUNCIATOR AT MAIN GATE WITH A NEW UPDATED GRAPHIC. PROVIDE ALL NEW DRIVERS AND COMPONENTS REQUIRED TO INTERFACE WITH THE EXISTING EDWARDS EST 3 PANEL. RE-USE EXISTING CPU, DRIVERS, BOOSTERS ETC. ADD ADDITIONAL LEDs AS REQUIRED.
 3. PROVIDE REQUIRED BOOSTER PANELS FOR NOTIFICATION DEVICES AND ISOLATION MODULES FOR THE NEW DATA LOOP. LOCATE BOOSTER PANELS IN NEARBY JETTY MOUNTS. CO-ORDINATE BOOSTER PANEL INSTALLATION WITH JETTY MOUNT REFURBISHMENT WORK.
 4. REPROGRAM EXISTING DEVICES TO NEW ADDRESSABLE LOOP AS REQUIRED.

2 NEW SOUTH JETTY EMERGENCY ALARM RISER
NTS



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 90% REVIEW	16/08/15

Client/Client
ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project Title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

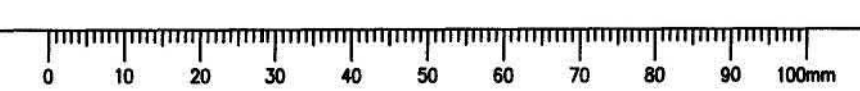
**SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
Designed by/Conçu par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWSOC Project Manager/Administrateur de Projets TPSOC
PATRICK TRUONG
PWSOC Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TPSOC
PREETIPAL PAUL

Drawing title/Titre du dessin
**EMERGENCY ALARM,
COMMUNICATIONS AND
SCADA SYSTEM DETAILS**

Project No./No. du projet R.026729.002	Sheet/Feuille E8	Revision No./ de Révision 2
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Plot Date: March 3, 2017 8:32 AM
File Name: \\PROJECTS\2016\15-145\DWG\DWG\EBR FIRE ALARM AND COMMUNICATION REBUILD.DWG

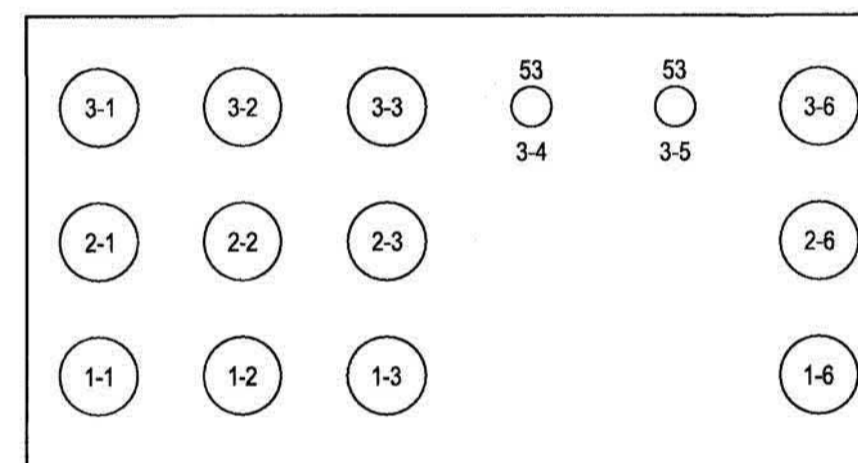


EGD DUCTBANK CONDUIT NAMING CONVENTION

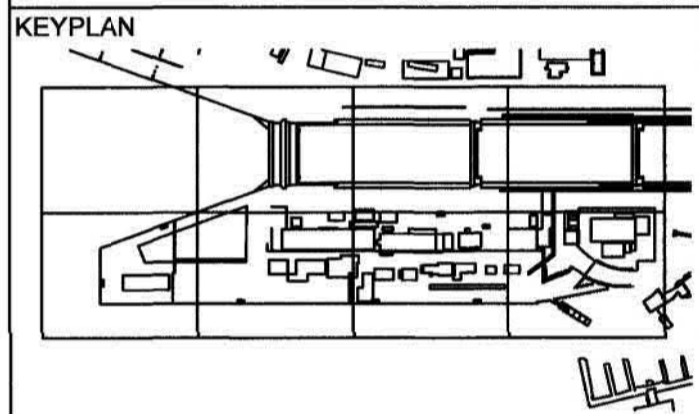
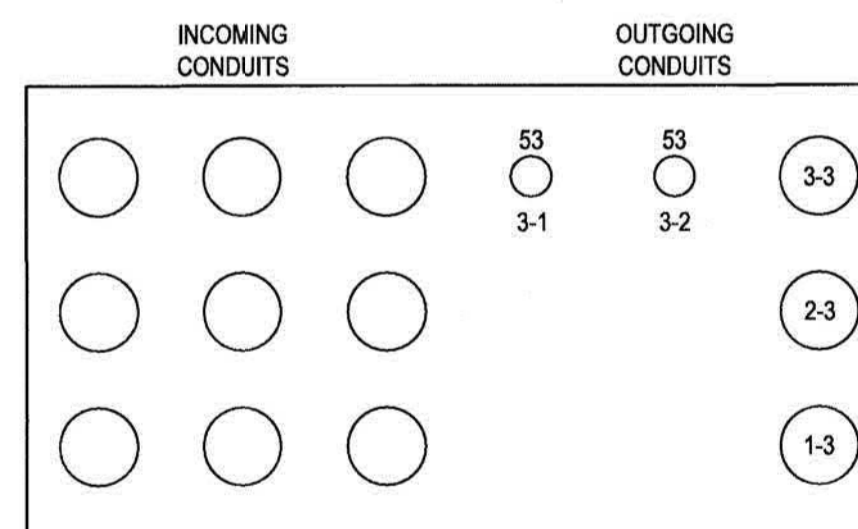
1. CONDUIT CUT SECTIONS ARE TAKEN LOOKING WEST DOWN THE SITE AND LOOKING OUT FROM EACH MANHOLE FACE OR BUILDING.
2. CONDUITS ARE NAMED ACCORDING TO THE VERTICAL AND HORIZONTAL ROW AT WHICH THEY LEAVE A MANHOLE OR BUILDING.

3-1	3-2	3-3
2-1	2-2	2-3
1-1	1-2	1-3

3. CONDUITS ARE NAMED FROM MANHOLE OR BUILDING IT IS COMING FROM TO THE MANHOLE OR BUILDING IT IS GOING TO. CONDUITS ARE NAMED FOR THE LOWEST NUMBERED MANHOLE TO THE NEXT BOX. SO A CONDUIT RUNNING FROM 102LV TO 105LV WOULD BE NAMED IN MANHOLE 102LV NOT 105 LV. IF CONDUIT 2-3 FROM ABOVE IS GOING FROM MANHOLES 102LV TO 105LV THEN THIS CONDUIT WOULD BE NAMED 102LV-105LV:1-1.
4. IF A SPACE EXISTS IN ONE OF THE CONDUIT ROWS OR COLUMNS IT IS SKIPPED AND ITS IDENTIFIER IS NOT USED. FOR EXAMPLE THE FOLLOWING CONDUITS ARE IDENTIFIED AS SHOWN:



5. CONDUITS ENTERING A MANHOLE VIA THE SAME FACE AS CONDUITS EXITING A MANHOLE OR BUILDING ARE IGNORED FOR THE PURPOSES OF CREATING THE EXITING CONDUIT'S MATRIX.



Revision/Revision	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 90% REVIEW	16/08/15

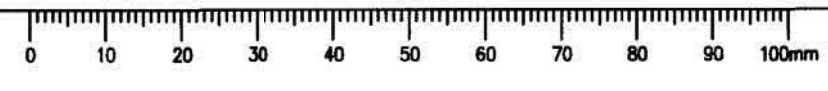
Client/client
ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD,
 VICTORIA, BC, V9A 2P1

Project title/Titre du projet
 825 ADMIRALS ROAD, VICTORIA, BC
 ESQUIMALT GRAVING DOCK
 ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
 Designed by/Concept par
 I. BARNES
 Drawn by/Dessiné par
 J. BIELING, S. SEYMOUR
 PWSC Project Manager/Administrateur de Projets TPSCG
 PATRICK TRUONG
 PWSC, Regional Manager, Architectural and Engineering Services/
 Gestionnaire régionale, Services d'architecture et de génie, TPSCG
 PREETIPAL PAUL
 Drawing title/Titre du dessin

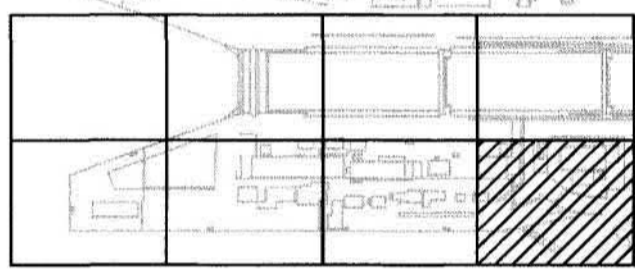
EGD DUCT BANK NAMING CONVENTION

Project No./No. du projet R.026729.002	Sheet/Feuille E9	Revision no./ La Révision no. 2
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KEYPLAN



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 90% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD,
 VICTORIA, BC, V9A 2P1

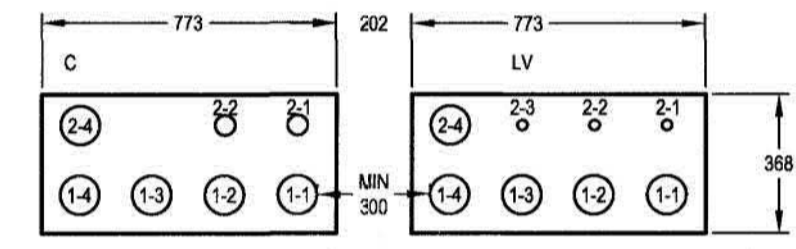
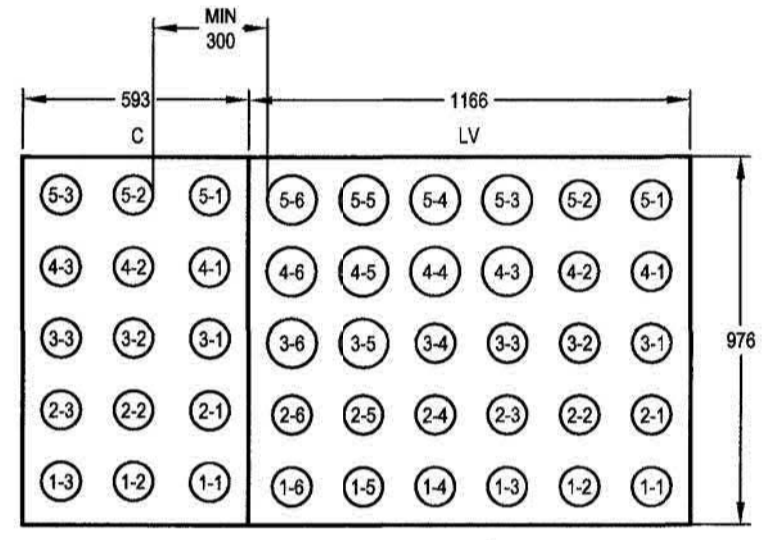
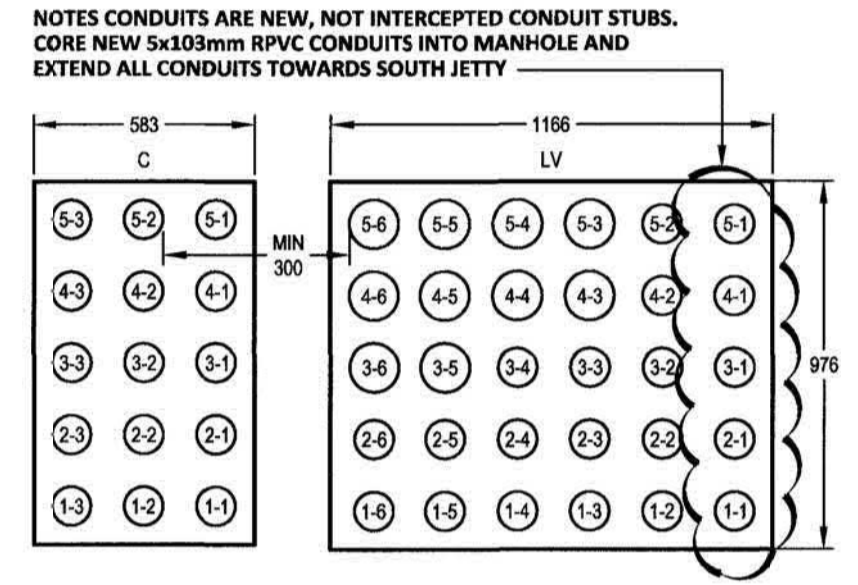
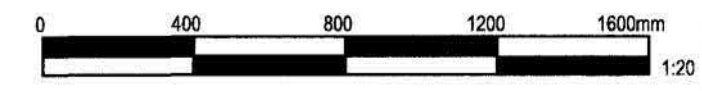
Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
 ESQUIMALT GRAVING DOCK
 ELECTRICAL SAFETY UPGRADE**

SOUTH JETTY RECONSTRUCTION
 Project No./No. du projet
R.026729.002
 Sheet/Feuille
E10
 Revision no./
 Lot Révision
2

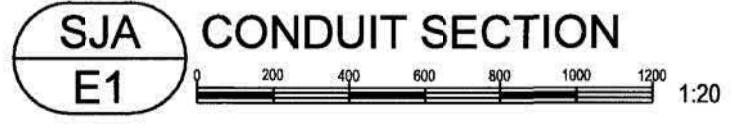
JETTY DUCT BANK SECTIONS 1 OF 7

CABLE SCHEDULE SOUTH JETTY SERVICES				
SERVICE	TYPE	VOLTAGE	CONDUCTORS	ID
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG1
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG2
120/208V OUTDOOR PANEL	LV	120/208V	3c#2 TC CABLE	2TW1
TUG WHARF CABLES, NAV LIGHTS	LV	120/208V	2x3c#6 TC CABLE, 2x2c#8 TC CABLE	2TW2 2TW3 (NAVL)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW4 2TW5 2TW6
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW7 2TW8 2TW9
JM#1-5 120V RECS, LIGHTS SERVICE	LV	120/208V	2c#1 TC CABLE	1JMSERV
JM#1-5 120V SCADA POWER	LV	120/208V	2c#1 TC CABLE	1JMSP
JM#1-5 HEAT TRACE	LV	120V	2c#1/0 TC CABLE	1JMHT
JM#1 600V SERVICE	LV	600V	3c#500KCM TC CABLE	6JM1
JM#2 600V SERVICE	LV	600V	3c#500KCM TC CABLE	6JM2
JM#3 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM3
JM#5 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM5
JM#4 430-630 REGULATED SERVICE	LV	630V	8x3c#500KCM TC CABLE	6JM4
JM#3 480V SERVICE	LV	480V	3x3c#300KCM TC CABLE	4JM3
JM#5 480V SERVICE	LV	480V	2x3c#300KCM TC CABLE	4JM5
JM#4 208V SERVICE	LV	120/208V	2x4c#300KCM TC CABLE	2JM4
HM#1 FUTURE	LV	N/A	FUTURE	6HM1
HM#0 SERVICE	LV	347V	4c#6 TC CABLE	6HM0
TUG WHARF LIST SERVICE	LV	347V	4c#6 TC CABLE	6TWHM
HM#0, HM#1 REC POWER	LV	120/208V	2c#1 TC CABLE	2HM
600V SOUTH JETTY CAISSON RECEPTACLE	LV	600V	4c#1/0 TC CABLE	6SJR
600V OIL WATER SEPARATORS HEAT	LV	600V	4c#1 TC CABLE	4OWHT
SOUTH JETTY LV SPARE CONDUIT (103mm)	LV	N/A	FUTURE	4LVSJS
SOUTH JETTY LV SPARE CONDUIT (53mm)	LV	N/A	FUTURE	2LVSJS
JETTY MOUNT SPARE LV CONDUIT (103mm)	LV	N/A	FUTURE	4JMLVS
ROPE LOCKER LOW VOLTAGE (FUTURE)	LV	N/A	FUTURE	RLLV
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW1
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW2
F/A TUG WHARF	COMM	N/A	2c#12 ARMORED	FATW1
F/A SOUTH JETTY	COMM	N/A	2x2c#12 ARMORED	FASJ1 FASJ2
F/A HORN SOUTH JETTY	COMM	N/A	2c#12 ARMORED	FHSJ1
TEL SOUTH JETTY MOUNTS	COMM	N/A	5x2PR#14 GEL CAT3 ARMORED CALBE	TSJM1 TSJM2 TSJM3 TSJM4 TSJM5
SCADA SOUTH JETTY MOUNTS	COMM	N/A	5x2PR#18 CAT3 ARMORED CABLE	SSJM1 SSJM2 SSJM3 SSJM4 SSJM5
SCADA TUNNEL LOOP	COMM	N/A	2PR#18 CAT3 ARMORED CABLE	SSTU1
FIBRE OPTIC JETTY MOUNTS	COMM	N/A	5x6 9/125µm SSM ARMORED FIBRE CABLE	FOJM1 FOJM2 FOJM3 FOJM4 FOJM5
CCTV SOUTH JETTY	COMM	N/A	12PR#14 GEL CAT3 ARMORED CALBE	CTVSJ1
F/A TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAJM
F/A HORN TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAHM
E/A SOUTH JETTY	COMM	N/A	2c#12 ARMORED	EASJ
E/A TO JETTY MOUNT	COMM	N/A	2c#12 ARMORED	EAMJ
CCTV SOUTH JETTY FUTURE	COMM	N/A	FUTURE	CTVSJF1
SHAW CABLE (FUTURE)	COMM	N/A	FUTURE	SHAW
SOUTH JETTY COMM SPARE (FIBRE ONLY)	COMM	N/A	FUTURE	FOSJF
SOUTH JETTY COMM SPARE	COMM	N/A	FUTURE	TELSJF
JETTY MOUNT SPARE COMM CONDUIT (103mm)	COMM	N/A	FUTURE	JMCS

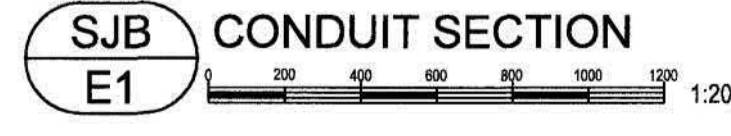
NOTE
 NOT ALL CABLES WILL APPEAR IN EVERY SECTION.



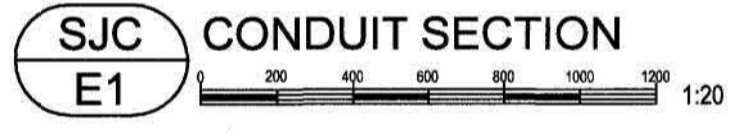
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	103	6JM3
	1-2	103	4JM3
	1-3	103	4JM3
	1-4	103	4JM5
	1-5	103	4JM5
	1-6	103	6JM5
	2-1	103	4JM3
	2-2	103	6JM1
	2-3	103	6JM2
	2-4	103	4LVSJS
	2-5	103	4LVSJS
	2-6	103	2JM4
	3-1	103	SJSG1
	3-2	103	1JMSERV 1JMSP 1JMHT 4OWHT
	3-3	103	6HM1 6HM0 2HM (NAVL) 6TWHM
	3-4	103	2TW1 2TW2 2TW3
	3-5	129	2TW4 2TW5 2TW6 2TW7 2TW8 2TW9
	3-6	129	2JM4
	4-1	103	SJSG2
	4-2	103	RLLV
	4-3	129	5JM4
	4-4	129	5JM4
	4-5	129	5JM4
	4-6	129	5JM4
	5-1	103	4LVSJS
	5-2	103	4LVSJS
	5-3	129	5JM4
	5-4	129	5JM4
	5-5	129	5JM4
	5-6	129	5JM4
SOUTH JETTY COMM SERVICES	1-1	103	FOJM1 FOJM2 FOJM3 FOJM4 FOJM5
	1-2	103	TSJM1 TSJM2 TSJM3 TSJM4 TSJM5
	1-3	103	FHTW1 FHTW2 FATW1 FASJ1 FASJ2 FHSJ1
	2-1	103	FOSJF
	2-2	103	SSJM1 SSJM2 SSJM3 SSJM4 SSJM5
	2-3	103	CTVSJ1
	3-1	103	FOSJF
	3-2	103	EASJ
	3-3	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
	5-1	103	FOSJF
	5-2	103	TELSJF
	5-3	103	SHAW



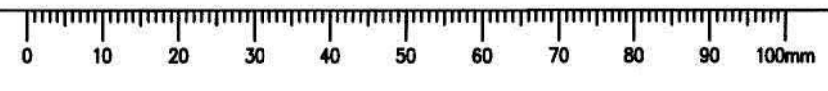
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	103	6JM3
	1-2	103	4JM3
	1-3	103	4JM3
	1-4	103	4JM5
	1-5	103	4JM5
	1-6	103	6JM5
	2-1	103	4JM3
	2-2	103	6JM1
	2-3	103	6JM2
	2-4	103	4LVSJS
	2-5	103	4LVSJS
	2-6	103	2JM4
	3-1	103	SJSG1
	3-2	103	1JMSERV 1JMSP 1JMHT 4OWHT
	3-3	103	6HM1 6HM0 2HM (NAVL) 6TWHM
	3-4	103	2TW1 2TW2 2TW3
	3-5	129	2TW4 2TW5 2TW6 2TW7 2TW8 2TW9
	3-6	129	2JM4
	4-1	103	SJSG2
	4-2	103	RLLV
	4-3	129	5JM4
	4-4	129	5JM4
	4-5	129	5JM4
	4-6	129	5JM4
	5-1	103	4LVSJS
	5-2	103	4LVSJS
	5-3	129	5JM4
	5-4	129	5JM4
	5-5	129	5JM4
	5-6	129	5JM4
SOUTH JETTY COMM SERVICES	1-1	103	FOJM1 FOJM2 FOJM3 FOJM4 FOJM5
	1-2	103	TSJM1 TSJM2 TSJM3 TSJM4 TSJM5
	1-3	103	FHTW1 FHTW2 FATW1 FASJ1 FASJ2 FHSJ1
	2-1	103	FOSJF
	2-2	103	SSJM1 SSJM2 SSJM3 SSJM4 SSJM5
	2-3	103	CTVSJ1
	3-1	103	FOSJF
	3-2	103	EASJ
	3-3	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
	5-1	103	FOSJF
	5-2	103	TELSJF
	5-3	103	SHAW

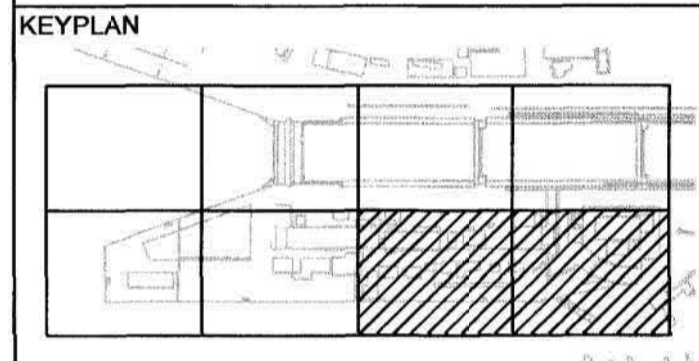


CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES TO TUG WHARF	1-1	103	2TW1 2TW2 2TW3
	1-2	103	2TW4 2TW5 2TW6 2TW7 2TW8 2TW9
	1-3	103	4LVSJS
	1-4	103	4LVSJS
	2-4	103	4LVSJS
	2-1	27	6TWHM
LV TO TUG WHARF POLE	2-2	27	2HM TO AND FROM TUG WHARF POLE
	2-3	27	2LVSJS
	1-1	103	TELSJF
SOUTH JETTY COMM SERVICES TO TUG WHARF	1-2	103	TELSJF
	1-3	103	TELSJF
	1-4	103	TELSJF
	2-4	103	TELSJF
COMM TO TUG WHARF POLE	2-1	53	FHTW1 FHTW2 FATW1
	2-2	53	TELSJF



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MAR - 6 2017

2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

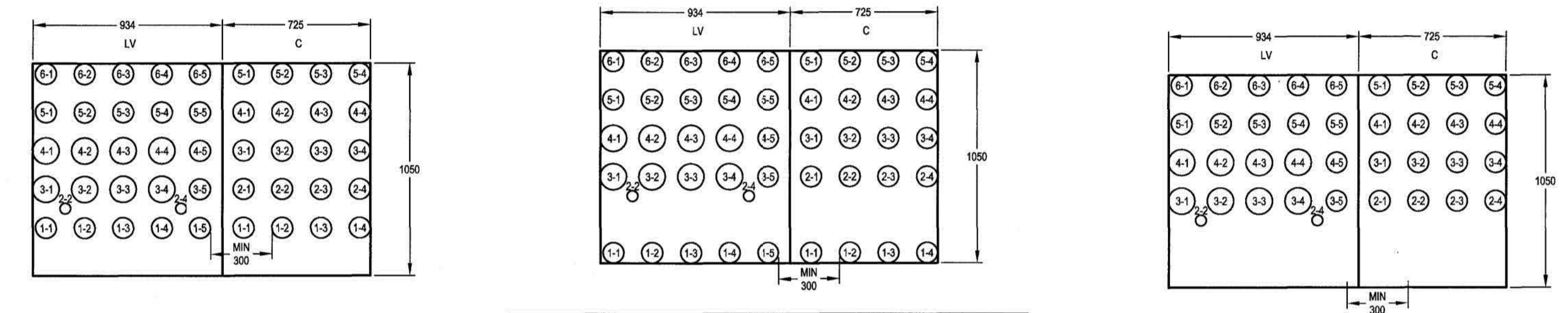
Consultant Approval Box Only
Designed by/Conçu par: I. BARNES
Drawn by/Dessiné par: J. BIELING, S. SEYMOUR
PWOSC Project Manager/Administrateur de Projets: PATRICK TRUONG
PWOSC Regional Manager, Architectural and Engineering Services / Directeur régional, Services d'architecture et de génie, PWSO: PREETIPAL PAUL
Drawing Title/Titre du Dessin

JETTY DUCT BANK SECTIONS 2 OF 7

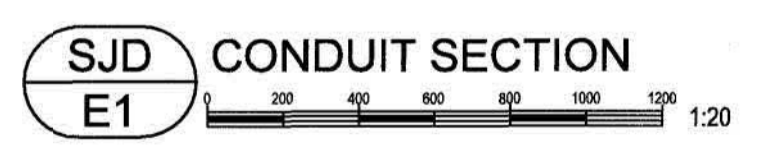
Project No./No. du projet	Sheet/Feuille	Revision no./No. de Révision
R.026729.002	E11	2

CABLE SCHEDULE SOUTH JETTY SERVICES				
SERVICE	TYPE	VOLTAGE	CONDUCTORS	ID
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG1
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG2
120/208V OUTDOOR PANEL	LV	120/208V	3c#2 TC CABLE	2TW1
TUG WHARF CABLES, NAV LIGHTS	LV	120/208V	2x3c#6 TC CABLE, 2x2c#8 TC CABLE	2TW2 2TW3 (NAVL)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW4 2TW5 2TW6
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW7 2TW8 2TW9
JMH#1-5 120V RECS, LIGHTS SERVICE	LV	120/208V	2c#1 TC CABLE	1JMSERV
JMH#1-5 120V SCADA POWER	LV	120/208V	2c#1 TC CABLE	1JMSP
JMH#1-5 HEAT TRACE	LV	120V	2c#1/0 TC CABLE	1JMHT
JMH#1 600V SERVICE	LV	600V	3c#500kCM TC CABLE	6JM1
JMH#2 600V SERVICE	LV	600V	3c#500kCM TC CABLE	6JM2
JMH#3 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM3
JMH#5 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM5
JMH#4 430-630 REGULATED SERVICE	LV	630V	8x3c#500kCM TC CABLE	5JM4
JMH#3 480V SERVICE	LV	480V	3x3c#300kCM TC CABLE	4JM3
JMH#5 480V SERVICE	LV	480V	2x3c#300kCM TC CABLE	4JM5
JMH#4 208V SERVICE	LV	120/208V	2x4c#300kCM TC CABLE	2JM4
HMH#1 FUTURE	LV	N/A	FUTURE	6HM1
HMH#0 SERVICE	LV	347V	4c#6 TC CABLE	6HM0
TUG WHARF LIST SERVICE	LV	347V	4c#6 TC CABLE	6TWHM
HMH#0, HM#1 REC POWER	LV	120/208V	2c#1 TC CABLE	2HM
600V SOUTH JETTY CAISSON RECEPTACLE	LV	600V	4c#1/0 TC CABLE	6SJCR
600V OIL WATER SEPARATORS HEAT	LV	600V	4c#1 TC CABLE	4OWHT
SOUTH JETTY LV SPARE CONDUIT (103mm)	LV	N/A	FUTURE	4LVSJS
SOUTH JETTY LV SPARE CONDUIT (53mm)	LV	N/A	FUTURE	2LVSJS
JETTY MOUNT SPARE LV CONDUIT (103mm)	LV	N/A	FUTURE	4JMLVS
ROPE LOCKER LOW VOLTAGE (FUTURE)	LV	N/A	FUTURE	RLLV
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW1
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW2
F/A TUG WHARF	COMM	N/A	2c#12 ARMORED	FATW1
F/A SOUTH JETTY	COMM	N/A	2x2c#12 ARMORED	FASJ1 FASJ2
F/A HORN SOUTH JETTY	COMM	N/A	2c#12 ARMORED	FHSJ1
TEL SOUTH JETTY MOUNTS	COMM	N/A	5x2PR#14 GEL CAT3 ARMORED CALBE	TSJM1 TSJM2 TSJM3 TSJM4 TSJM5
SCADA SOUTH JETTY MOUNTS	COMM	N/A	5x(2PR#18 CAT3) ARMORED CABLE	SSJM1 SSJM2 SSJM3 SSJM4 SSJM5
SCADA TUNNEL LOOP	COMM	N/A	2PR#18 CAT3 ARMORED CABLE	SSTU1
FIBRE OPTIC JETTY MOUNTS	COMM	N/A	5x6 9/125µm SSM ARMORED FIBRE CABLE	FOJM1 FOJM2 FOJM3 FOJM4 FOJM5
CCTV SOUTH JETTY	COMM	N/A	12PR#14 GEL CAT3 ARMORED CALBE	CTVSJ1
F/A TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAJM
F/A HORN TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAHJM
E/A SOUTH JETTY	COMM	N/A	2c#12 ARMORED	EASJ
E/A TO JETTY MOUNT	COMM	N/A	2c#12 ARMORED	GAJM
CCTV SOUTH JETTY FUTURE	COMM	N/A	FUTURE	CTVSJF1
SHAW CABLE (FUTURE)	COMM	N/A	FUTURE	SHAW
SOUTH JETTY COMM SPARE (FIBRE ONLY)	COMM	N/A	FUTURE	FOSJF
SOUTH JETTY COMM SPARE	COMM	N/A	FUTURE	TELSJF
JETTY MOUNT SPARE COMM CONDUIT (103mm)	COMM	N/A	FUTURE	JMCS

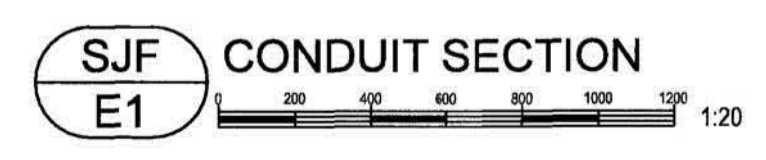
NOTE
NOT ALL CABLES WILL APPEAR IN EVERY SECTION.



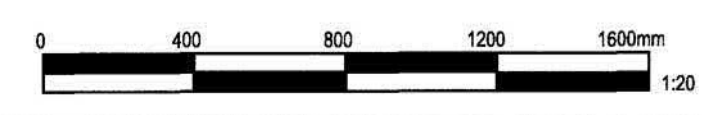
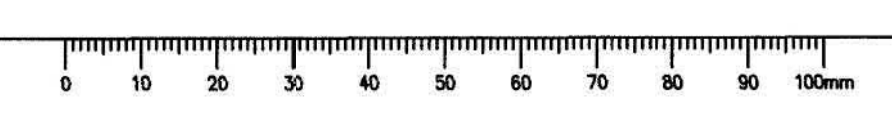
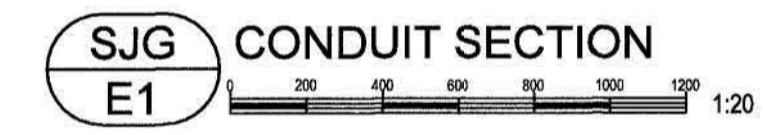
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	103	4JM5
	1-2	103	4JM5
	1-3	103	6JM5
	1-4	103	1JMSERV 1JMSP 1JMHT TO AND FROM JM
	1-5	103	4JMLVS
	2-1	53	SJSG1
	2-2	53	SJSG2
	3-1	129	5JM4
	3-2	129	5JM4
	3-3	129	5JM4
	3-4	129	5JM4
	3-5	103	2JM4
	4-1	129	5JM4
	4-2	129	5JM4
	4-3	129	5JM4
	4-4	129	5JM4
	4-5	103	2JM4
	5-1	103	6JM3
	5-2	103	4JM3
	5-3	103	4JM3
	5-4	103	4JM3
	5-5	103	6JM1
	6-1	103	6JM2
	6-2	103	RLLV
	6-3	103	4LVSJS
6-4	103	6HM1 6HM0 2HM (NAVL) 4OWHT	
6-5	103	1JMSERV 1JMSP 1JMHT TO NEXT JM	
SOUTH JETTY COMM SERVICES	1-1	103	FOJM5
	1-2	103	TSJM5
	1-3	103	FAJM FAHJM GAJM
	1-4	103	SSJM5
	2-1	103	FOJM1 FOJM2 FOJM3 FOJM4
	2-2	103	TSJM1 TSJM2 TSJM3 TSJM4
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1 SSJM2 SSJM3 SSJM4
	3-1	103	FOSJF
	3-2	103	CTVSJ1
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
4-4	103	TELSJF	
5-1	103	FOSJF	
5-2	103	TELSJF	
5-3	103	TELSJF	
5-4	103	SHAW	

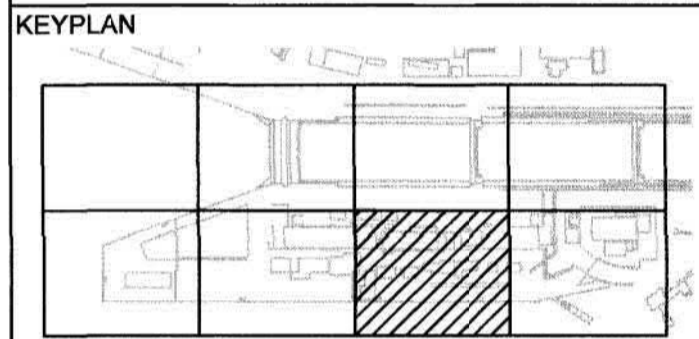


CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	103	4JM5
	1-2	103	4JM5
	1-3	103	6JM5
	1-4	103	1JMSERV 1JMSP 1JMHT TO AND FROM JM
	1-5	103	4JMLVS
	2-1	53	SJSG1
	2-2	53	SJSG2
	3-1	129	5JM4
	3-2	129	5JM4
	3-3	129	5JM4
	3-4	129	5JM4
	3-5	103	2JM4
	4-1	129	5JM4
	4-2	129	5JM4
	4-3	129	5JM4
	4-4	129	5JM4
	4-5	103	2JM4
	5-1	103	6JM3
	5-2	103	4JM3
	5-3	103	4JM3
	5-4	103	4JM3
	5-5	103	6JM1
	6-1	103	6JM2
	6-2	103	RLLV
	6-3	103	4LVSJS
6-4	103	6HM1 6HM0 2HM (NAVL) 4OWHT	
6-5	103	1JMSERV 1JMSP 1JMHT TO NEXT JM	
SOUTH JETTY COMM SERVICES	1-1	103	FOJM5
	1-2	103	TSJM5
	1-3	103	FAJM FAHJM GAJM
	1-4	103	SSJM5
	2-1	103	FOJM1 FOJM2 FOJM3 FOJM4
	2-2	103	TSJM1 TSJM2 TSJM3 TSJM4
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1 SSJM2 SSJM3 SSJM4
	3-1	103	FOSJF
	3-2	103	CTVSJ1
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
4-4	103	TELSJF	
5-1	103	FOSJF	
5-2	103	TELSJF	
5-3	103	TELSJF	
5-4	103	SHAW	



CONDUIT AND CABLE SCHEDULE				
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID	
SOUTH JETTY LV SERVICES	2-1	53	SJSG1	
	2-2	53	SJSG2	
	3-1	129	5JM4	
	3-2	129	5JM4	
	3-3	129	5JM4	
	3-4	129	5JM4	
	3-5	103	2JM4	
	4-1	129	5JM4	
	4-2	129	5JM4	
	4-3	129	5JM4	
	4-4	129	5JM4	
	4-5	103	2JM4	
	4-5	103	2JM4	
	5-1	103	6JM3	
	5-2	103	4JM3	
	5-3	103	4JM3	
	5-4	103	4JM3	
	5-5	103	6JM1	
	6-1	103	6JM2	
	6-2	103	RLLV	
	6-3	103	4LVSJS	
	6-4	103	6HM1 6HM0 2HM (NAVL) 4OWHT	
	6-5	103	1JMSERV 1JMSP 1JMHT TO NEXT JM	
	SOUTH JETTY COMM SERVICES	2-1	103	FOJM1 FOJM2 FOJM3 FOJM4
		2-2	103	TSJM1 TSJM2 TSJM3 TSJM4
2-3		103	FASJ1 FASJ2 FHSJ1	
2-4		103	SSJM1 SSJM2 SSJM3 SSJM4	
3-1		103	FOSJF	
3-2		103	CTVSJ1	
3-3		103	EASJ	
3-4		103	CTVSJF1	
4-1		103	FOSJF	
4-2		103	TELSJF	





2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 90% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD,
 VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
 ESQUIMALT GRAVING DOCK
 ELECTRICAL SAFETY UPGRADE**

SOUTH JETTY RECONSTRUCTION

Client/Client
ESQUIMALT GRAVING DOCK

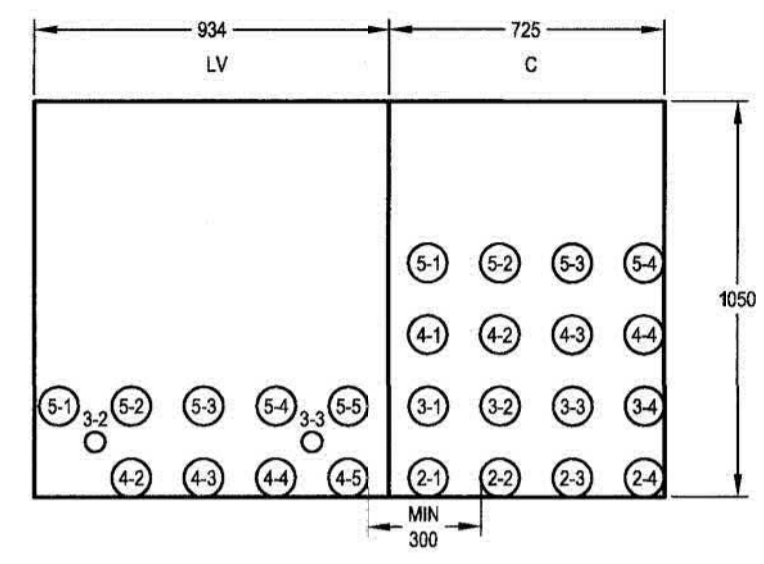
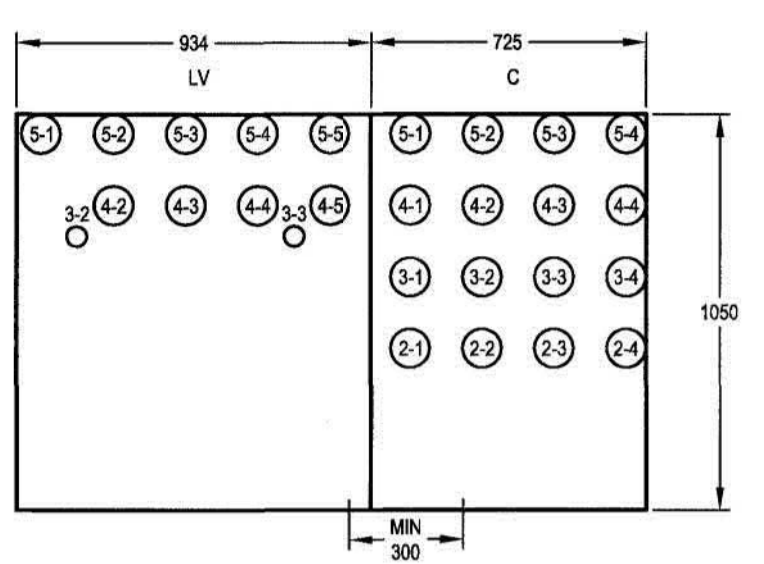
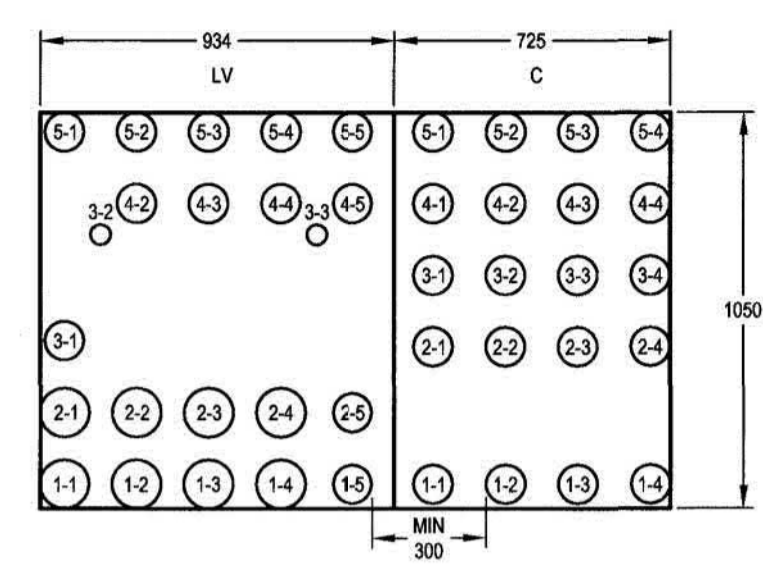
Design/Conçu par
I. BARNES

Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

Project Manager/Administrateur de Projets
PATRICK TRUONG

Regional Manager, Architectural and Engineering Services/
 Directeur régional, Services d'architecture et de génie, TPSSC
PREETIPAL PAUL

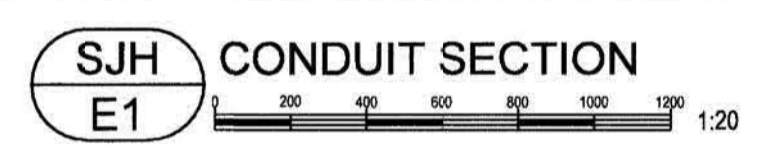
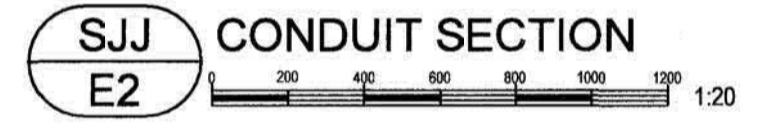
**JETTY DUCT BANK
 SECTIONS 3 OF 7**



CONDUIT AND CABLE SCHEDULE				
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID	
SOUTH JETTY LV SERVICES	1-1	129	5JM	
	1-2	129	5JM	
	1-3	129	5JM	
	1-4	129	5JM	
	1-5	103	2JM	
	2-1	129	5JM	
	2-2	129	5JM	
	2-3	129	5JM	
	2-4	129	5JM	
	2-5	103	2JM	
	3-1	103	1JMSRV 1JMSP 1JMHT TO AND FROM JM	
	3-2	53	SJSG1	
	3-3	53	SJSG2	
	4-2	103	6JM3	
	4-3	103	4JM3	
	4-4	103	4JM3	
	4-5	103	4JM3	
	5-1	103	6JM1	
	5-2	103	6JM2	
	5-3	103	RLLV	
	5-4	103	6HM1 6HM0 2HM (NAVL) 4OWHT	
	5-5	103	1JMSP 1JMSP 1JMHT TO NEXT JM	
	SOUTH JETTY COMM SERVICES	1-1	103	FOJM4
		1-2	103	TSJM
		1-3	103	FAJM FAHJM GAJM
1-4		103	SSJM	
2-1		103	FOJM1 FOJM2 FOJM3	
2-2		103	TSJM1 TSJM2 TSJM3	
2-3		103	FASJ1 FASJ2 FHSJ1	
2-4		103	SSJM1 SSJM2 SSJM3	
3-1		103	FOSJF	
3-2		103	CTVSJ1	
3-3		103	EASJ	
3-4		103	CTVSJF1	
4-1		103	FOSJF	
4-2		103	TELSJF	
4-3		103	TELSJF	
4-4		103	TELSJF	
5-1		103	FOSJF	
5-2		103	TELSJF	
5-3		103	TELSJF	
5-4		103	SHAW	

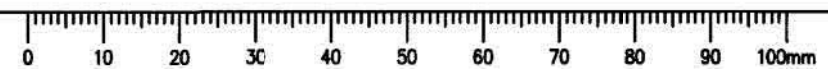
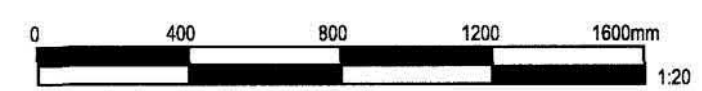
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	3-2	53	SJSG1
	3-3	53	SJSG2
	4-2	103	6JM3
	4-3	103	4JM3
	4-4	103	4JM3
	4-5	103	4JM3
	5-1	103	6JM1
	5-2	103	6JM2
	5-3	103	RLLV
	5-4	103	6HM1 6HM0 2HM (NAVL) 4OWHT
5-5	103	1JMSP 1JMSP 1JMHT TO NEXT JM	
SOUTH JETTY COMM SERVICES	2-1	103	FOJM1 FOJM2 FOJM3
	2-2	103	TSJM1 TSJM2 TSJM3
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1 SSJM2 SSJM3
	3-1	103	FOSJF
	3-2	103	CTVSJ1
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
4-3	103	TELSJF	
4-4	103	TELSJF	
5-1	103	FOSJF	
5-2	103	TELSJF	
5-3	103	TELSJF	
5-4	103	SHAW	

CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	3-2	53	SJSG1
	3-3	53	SJSG2
	4-2	103	6JM3
	4-3	103	4JM3
	4-4	103	4JM3
	4-5	103	4JM3
	5-1	103	6JM1
	5-2	103	6JM2
	5-3	103	RLLV
	5-4	103	6HM1 6HM0 2HM (NAVL) 4OWHT
5-5	103	1JMSP 1JMSP 1JMHT TO NEXT JM	
SOUTH JETTY COMM SERVICES	2-1	103	FOJM1 FOJM2 FOJM3
	2-2	103	TSJM1 TSJM2 TSJM3
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1 SSJM2 SSJM3
	3-1	103	FOSJF
	3-2	103	CTVSJ1
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
4-3	103	TELSJF	
4-4	103	TELSJF	
5-1	103	FOSJF	
5-2	103	TELSJF	
5-3	103	TELSJF	
5-4	103	SHAW	



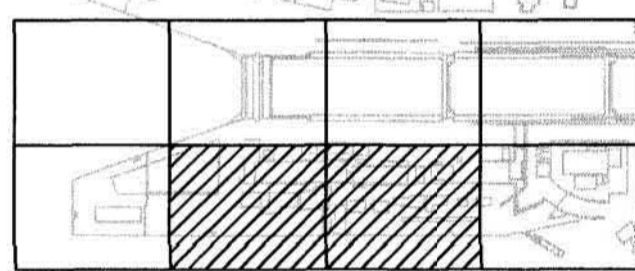
CABLE SCHEDULE SOUTH JETTY SERVICES				
SERVICE	TYPE	VOLTAGE	CONDUCTORS	ID
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG1
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG2
120/208V OUTDOOR PANEL	LV	120/208V	3c#2 TC CABLE	2TW1
TUG WHARF CABLES , NAV LIGHTS	LV	120/208V	2x3c#6 TC CABLE, 2x2c#8 TC CABLE	2TW2 2TW3 (NAVL)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW4 2TW5 2TW6
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW7 2TW8 2TW9
JMH1-5 120V RECS, LIGHTS SERVICE	LV	120/208V	2c#1 TC CABLE	1JMSRV
JMH1-5 120V SCADA POWER	LV	120/208V	2c#1 TC CABLE	1JMSP
JMH1-5 HEAT TRACE	LV	120V	2c#1/0 TC CABLE	1JMHT
JMH1 600V SERVICE	LV	600V	3c#500kCM TC CABLE	6JM1
JMH2 600V SERVICE	LV	600V	3c#500kCM TC CABLE	6JM2
JMH3 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM3
JMH5 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM5
JMH4 430-630 REGULATED SERVICE	LV	630V	8x3c#500kCM TC CABLE	5JM4
JMH3 480V SERVICE	LV	480V	3x3c#300kCM TC CABLE	4JM3
JMH5 480V SERVICE	LV	480V	2x3c#300kCM TC CABLE	4JM5
JMH4 208V SERVICE	LV	120/208V	2x4c#300kCM TC CABLE	2JM4
HMH1 FUTURE	LV	N/A	FUTURE	6HM1
HMH0 SERVICE	LV	347V	4c#6 TC CABLE	6HM0
TUG WHARF LIST SERVICE	LV	347V	4c#6 TC CABLE	6TWHM
HMH0, HMH1 REC POWER	LV	120/208V	2c#1 TC CABLE	2HM
600V SOUTH JETTY CAISSON RECEPTACLE	LV	600V	4c#1/0 TC CABLE	6SJCRC
600V OIL WATER SEPARATORS HEAT	LV	600V	4c#1 TC CABLE	4OWHT
SOUTH JETTY LV SPARE CONDUIT (103mm)	LV	N/A	FUTURE	4LVSJS
SOUTH JETTY LV SPARE CONDUIT (53mm)	LV	N/A	FUTURE	2LVSJS
JETTY MOUNT SPARE LV CONDUIT (103mm)	LV	N/A	FUTURE	4JMLVS
ROPE LOCKER LOW VOLTAGE (FUTURE)	LV	N/A	FUTURE	RLLV
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW1
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW2
F/A TUG WHARF	COMM	N/A	2c#12 ARMORED	FATW1
F/A SOUTH JETTY	COMM	N/A	2x2c#12 ARMORED	FASJ1 FASJ2
F/A HORN SOUTH JETTY	COMM	N/A	2c#12 ARMORED	FHSJ1
TEL SOUTH JETTY MOUNTS	COMM	N/A	5x25PR#14 GEL CAT3 ARMORED CALBE	TSJM1 TSJM2 TSJM3 TSJM4 TSJM5
SCADA SOUTH JETTY MOUNTS	COMM	N/A	5x(2PR#18 CAT3) ARMORED CABLE	SSJM1 SSJM2 SSJM3 SSJM4 SSJM5
SCADA TUNNEL LOOP	COMM	N/A	2PR#18 CAT3 ARMORED CABLE	SSTU1
FIBRE OPTIC JETTY MOUNTS	COMM	N/A	5x6 9/125um SSM ARMORED FIBRE CABLE	FOJM1 FOJM2 FOJM3 FOJM4 FOJM5
CCTV SOUTH JETTY	COMM	N/A	12PR#14 GEL CAT3 ARMORED CALBE	CTVSJ1
F/A TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAJM
F/A HORN TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAHJM
E/A SOUTH JETTY	COMM	N/A	2c#12 ARMORED	EASJ
E/A TO JETTY MOUNT	COMM	N/A	2c#12 ARMORED	GAJM
CCTV SOUTH JETTY FUTURE	COMM	N/A	FUTURE	CTVSJF1
SHAW CABLE (FUTURE)	COMM	N/A	FUTURE	SHAW
SOUTH JETTY COMM SPARE (FIBRE ONLY)	COMM	N/A	FUTURE	FOSJF
SOUTH JETTY COMM SPARE	COMM	N/A	FUTURE	TELSJF
JETTY MOUNT SPARE COMM CONDUIT (103mm)	COMM	N/A	FUTURE	JMCS

NOTE
 NOT ALL CABLES WILL APPEAR IN EVERY SECTION.





KEYPLAN



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 90% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

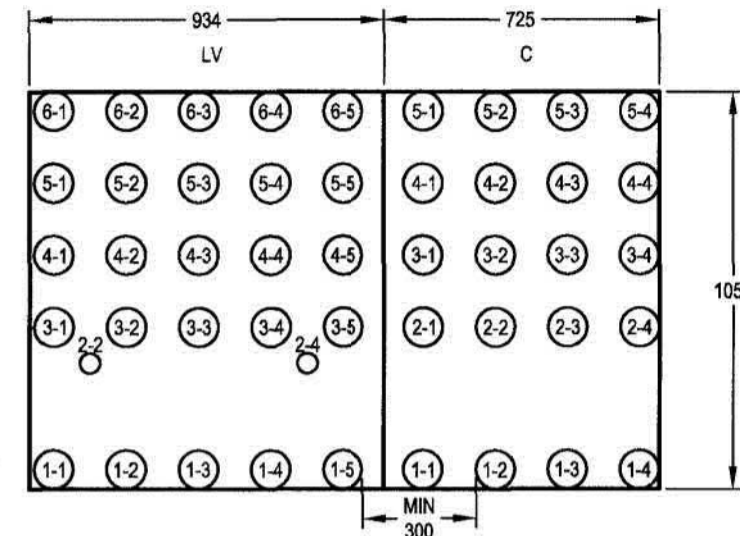
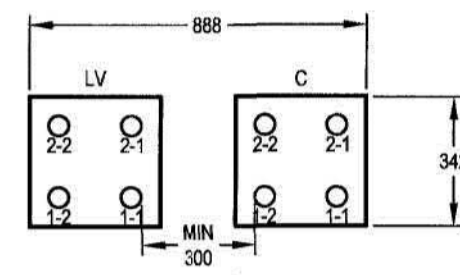
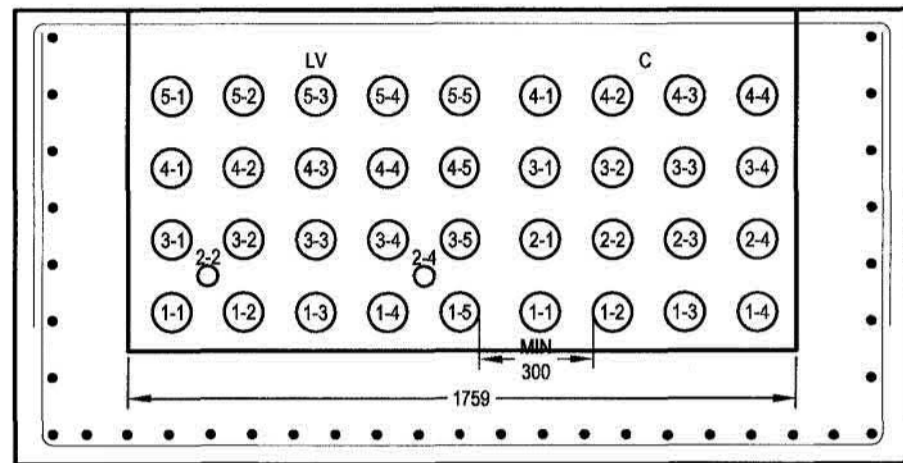
825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
Designed by/Conçu par: I. BARNES
Drawn by/Dessiné par: J. BIELING, S. SEYMOUR
PACIFIC PROJECT MANAGER/Administrateur de Projets TPSGC: PATRICK TRUONG
PACIFIC REGIONAL MANAGER/Architectural and Engineering Services/ Gestionnaire régional, Services d'architecture et de génie, TPSGC: PREETIPAL PAUL
Drawing title/Titre du dessin

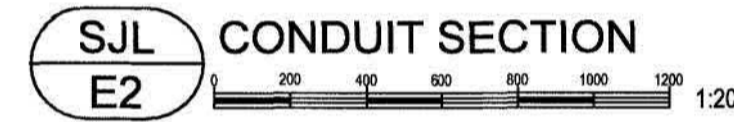
JETTY DUCT BANK SECTIONS 4 OF 7

NOTE
THIS DUCT BANK MUST SPAN BENEATH THE EXISTING SOUTH JETTY. REFER TO STRUCTURAL DRAWINGS FOR EXCAT DUCT BANK DESIGN AND LAYOUT DETAILS. DIMENSIONS GIVEN ARE AN APPROXIMATION. REFER TO SHEET S044.



CONDUIT AND CABLE SCHEDULE		
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)
SOUTH JETTY LV SERVICES	1-1	103 (6JM1)
	1-2	103 (6JM2)
	1-3	103 (6JM3)
	1-4	103 (4JM3)
	1-5	103 (4JM3)
	2-1	53 (SJSJ1)
	2-2	53 (SJSJ2)
	3-1	103 (RLV)
	3-2	103 (6HM1 6HM2 2HM 1NAVL1 4OWHT)
	3-3	103 (1JMSERV 1JMSP 1JMHT) TO NEXT JM
	3-4	103 (4JM3)
	3-5	103 (4LVSJS)
	4-1	103 (4LVSJS)
	4-2	103 (4LVSJS)
	4-3	103 (4LVSJS)
4-4	103 (4LVSJS)	
4-5	103 (4LVSJS)	
5-1	103 (4LVSJS)	
5-2	103 (4LVSJS)	
5-3	103 (4LVSJS)	
5-4	103 (4LVSJS)	
5-5	103 (4LVSJS)	
SOUTH JETTY COMM SERVICES	1-1	103 (FOJM1 FOJM2 FOJM3)
	1-2	103 (TSJM1 TSJM2 TSJM3)
	1-3	103 (FASJ1 FASJ2 FHSJ1)
	1-4	103 (SSJM1 SSJM2 SSJM3)
	2-1	103 (FOSJF)
	2-2	103 (CTVSJ1)
	2-3	103 (EASJ)
	2-4	103 (CTVSJF1)
	3-1	103 (FOSJF)
	3-2	103 (TELSJF)
	3-3	103 (TELSJF)
	3-4	103 (TELSJF)
	4-1	103 (FOSJF)
	4-2	103 (TELSJF)
	4-3	129 (TELSJF)
4-4	103 (SHAW)	

CONDUIT AND CABLE SCHEDULE		
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)
SOUTH JETTY LV SERVICES TO PB62	1-1	53 (6HM1 4OWHT 2HM)
	1-2	53 (2LVSJS)
	1-3	53 (2LVSJS)
	1-4	53 (2LVSJS)
SOUTH JETTY COMM SERVICES TO PB63	1-1	53 (CTVSJ1)
	1-2	53 (CTVSJF1)
	1-3	53 (TELSJF)
	1-4	53 (SHAW)

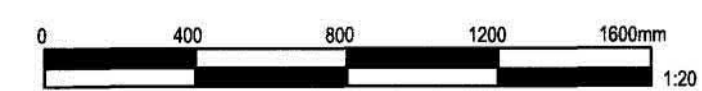
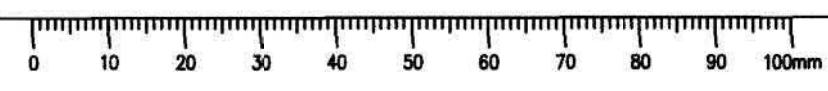


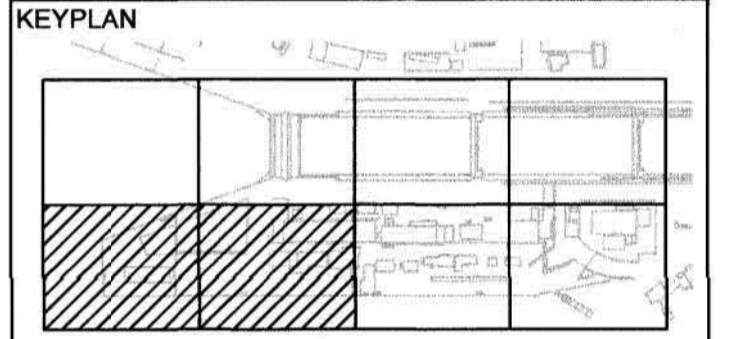
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	103	(4JM3)
	1-2	103	(4JM3)
	1-3	103	(4JM3)
	1-4	103	(6JM3)
	1-5	103	(1JMSERV 1JMSP 1JMHT) TO AND FROM JM
	2-1	53	(SJSJ1)
	2-2	53	(SJSJ2)
	3-1	103	(6JM1)
	3-2	103	(6JM2)
	3-3	103	(6HM0 1NAVL1)
	3-4	103	(1JMSERV 1JMSP 1JMHT) TO NEXT JM
	3-5	103	(RLV)
	4-1	103	(4LVSJS)
	4-2	103	(4LVSJS)
	4-3	103	(4LVSJS)
4-4	103	(4LVSJS)	
4-5	103	(4LVSJS)	
5-1	103	(4LVSJS)	
5-2	103	(4LVSJS)	
5-3	103	(4LVSJS)	
5-4	103	(4LVSJS)	
5-5	103	(4LVSJS)	
6-1	103	(4LVSJS)	
6-2	103	(4LVSJS)	
6-3	103	(4LVSJS)	
6-4	103	(4LVSJS)	
6-5	103	(4LVSJS)	
SOUTH JETTY COMM SERVICES	1-1	103	(FOJM3)
	1-2	103	(TSJM3)
	1-3	103	(FAJM FAJM GAJM)
	1-4	103	(SSJM3)
	2-1	103	(FOJM1 FOJM2)
	2-2	103	(TSJM1 TSJM2)
	2-3	103	(FASJ1 FASJ2 FHSJ1)
	2-4	103	(SSJM1 SSJM2)
	3-1	103	(FOSJF)
	3-2	103	(TELSJF)
	3-3	103	(EASJ)
	3-4	103	(CTVSJF1)
	4-1	103	(FOSJF)
	4-2	103	(TELSJF)
	4-3	103	(TELSJF)
4-4	103	(TELSJF)	
5-1	103	(FOSJF)	
5-2	103	(TELSJF)	
5-3	103	(TELSJF)	
5-4	103	(SHAW)	



CABLE SCHEDULE SOUTH JETTY SERVICES				
SERVICE	TYPE	VOLTAGE	CONDUCTORS	ID
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	(SJSJ1)
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	(SJSJ2)
120/208V OUTDOOR PANEL	LV	120/208V	3c#2 TC CABLE	(2TW1)
TUG WHARF CABLES, NAV LIGHTS	LV	120/208V	2x3c#6 TC CABLE, 2x2c#8 TC CABLE	(2TW2 2TW3 1NAVL1)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	(2TW4 2TW5 2TW6)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	(2TW7 2TW8 2TW9)
JMH#1-5 120V RECS, LIGHTS SERVICE	LV	120/208V	2c#1 TC CABLE	(1JMSERV)
JMH#1-5 120V SCADA POWER	LV	120/208V	2c#1 TC CABLE	(1JMSP)
JMH#1-5 HEAT TRACE	LV	120V	2c#1/0 TC CABLE	(1JMHT)
JMH#1 600V SERVICE	LV	600V	3c#600KCM TC CABLE	(6JM1)
JMH#2 600V SERVICE	LV	600V	3c#600KCM TC CABLE	(6JM2)
JMH#3 600V SERVICE	LV	600V	3c#3/0 TC CABLE	(6JM3)
JMH#5 600V SERVICE	LV	600V	3c#3/0 TC CABLE	(6JM5)
JMH#4 430-630 REGULATED SERVICE	LV	630V	8x3c#500KCM TC CABLE	(6JM4)
JMH#3 480V SERVICE	LV	480V	3x3c#300KCM TC CABLE	(4JM3)
JMH#5 480V SERVICE	LV	480V	2x3c#300KCM TC CABLE	(4JM5)
JMH#4 208V SERVICE	LV	120/208V	2x4c#300KCM TC CABLE	(2JM4)
HMH#1 FUTURE	LV	N/A	FUTURE	(6HM1)
HMH#0 SERVICE	LV	347V	4c#6 TC CABLE	(6HM0)
TUG WHARF LIST SERVICE	LV	347V	4c#6 TC CABLE	(6TWHM)
HMH#0, HMH#1 REC POWER	LV	120/208V	2c#1 TC CABLE	(2HM)
600V SOUTH JETTY CAISSON RECEPTACLE	LV	600V	4c#1/0 TC CABLE	(6SICR)
600V OIL WATER SEPARATORS HEAT	LV	600V	4c#1 TC CABLE	(4OWHT)
SOUTH JETTY LV SPARE CONDUIT (103mm)	LV	N/A	FUTURE	(4LVSJS)
SOUTH JETTY LV SPARE CONDUIT (63mm)	LV	N/A	FUTURE	(2LVSJS)
JETTY MOUNT SPARE LV CONDUIT (103mm)	LV	N/A	FUTURE	(4JMLVS)
ROPE LOCKER LOW VOLTAGE (FUTURE)	LV	N/A	FUTURE	(RLV)
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	(FHTW1)
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	(FHTW2)
F/A TUG WHARF	COMM	N/A	2c#12 ARMORED	(FATW1)
F/A SOUTH JETTY	COMM	N/A	2x2c#12 ARMORED	(FASJ1 FASJ2)
F/A HORN SOUTH JETTY	COMM	N/A	2c#12 ARMORED	(FHSJ1)
TEL SOUTH JETTY MOUNTS	COMM	N/A	5x2PR#14 GEL CAT3 ARMORED CALBE	(TSJM1 TSJM2 TSJM3 TSJM4 TSJM5)
SCADA SOUTH JETTY MOUNTS	COMM	N/A	5x(2PR#18 CAT3) ARMORED CABLE	(SSJM1 SSJM2 SSJM3 SSJM4 SSJM5)
SCADA TUNNEL LOOP	COMM	N/A	2PR#18 CAT3 ARMORED CABLE	(SSTU1)
FIBRE OPTIC JETTY MOUNTS	COMM	N/A	5x6 9/125um SSM ARMORED FIBRE CABLE	(FOJM1 FOJM2 FOJM3 FOJM4 FOJM5)
CCTV SOUTH JETTY	COMM	N/A	12PR#14 GEL CAT3 ARMORED CALBE	(CTVSJ1)
F/A TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	(FAJM)
F/A HORN TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	(FAHJM)
E/A SOUTH JETTY	COMM	N/A	2c#12 ARMORED	(EASJ)
E/A TO JETTY MOUNT	COMM	N/A	2c#12 ARMORED	(GAJM)
CCTV SOUTH JETTY FUTURE	COMM	N/A	FUTURE	(CTVSJF1)
SHAW CABLE (FUTURE)	COMM	N/A	FUTURE	(SHAW)
SOUTH JETTY COMM SPARE (FIBRE ONLY)	COMM	N/A	FUTURE	(FOSJF)
SOUTH JETTY COMM SPARE	COMM	N/A	FUTURE	(TELSJF)
JETTY MOUNT SPARE COMM CONDUIT (103mm)	COMM	N/A	FUTURE	(JMCS)

NOTE
NOT ALL CABLES WILL APPEAR IN EVERY SECTION.





Revisión/Description	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 90% REVIEW	16/06/15

ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project Title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only

Designed by/Concept par
I. BARNES

Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

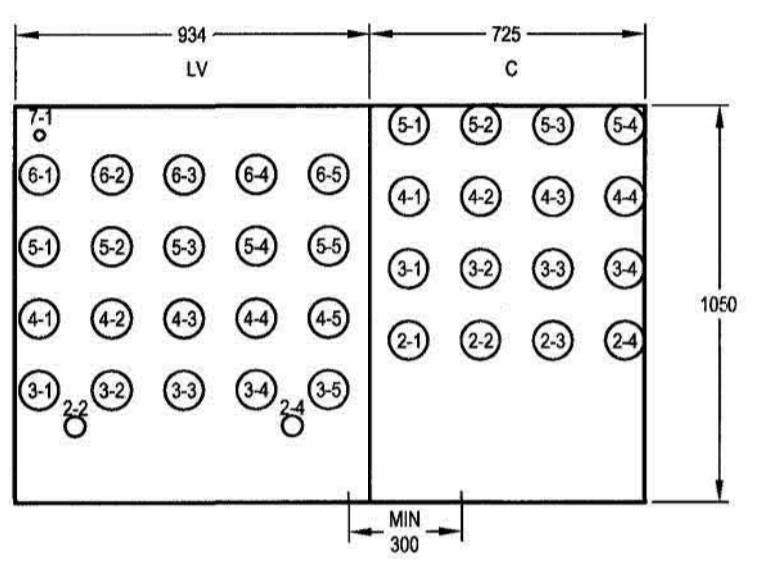
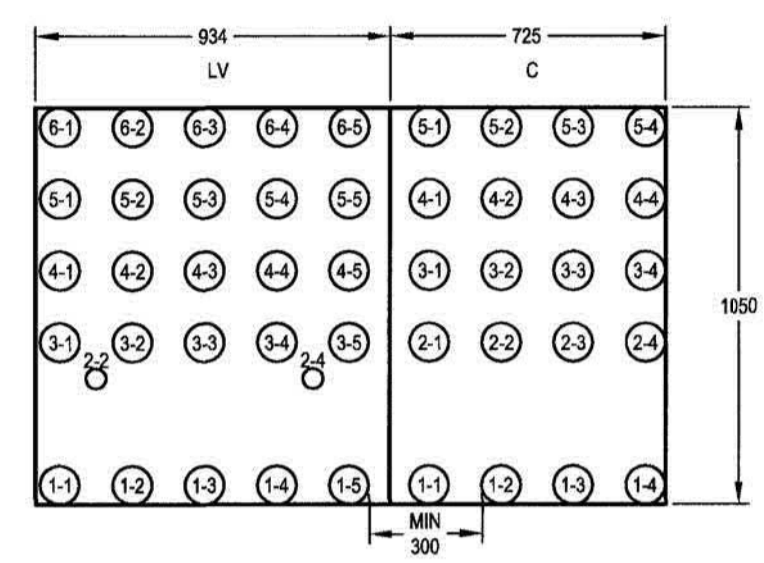
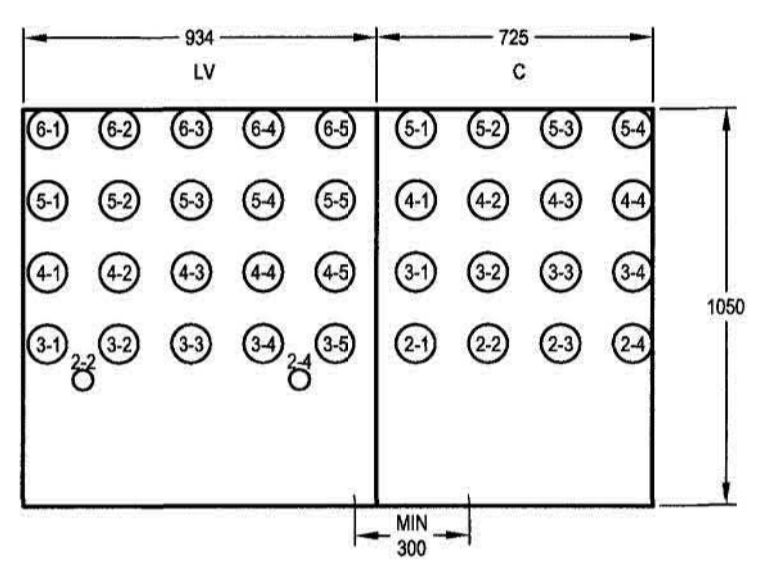
Project Manager/Administrateur de Projets TP/DC
PATRICK TRUONG

Project Engineer/Ingénieur en Électrotechnique et en Génie des Systèmes
PREETIPAL PAUL

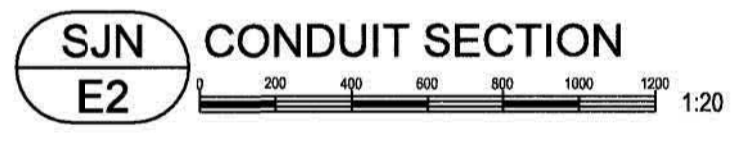
JETTY DUCT BANK SECTIONS 5 OF 7

CABLE SCHEDULE SOUTH JETTY SERVICES				
SERVICE	TYPE	VOLTAGE	CONDUCTORS	ID
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG1
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG2
120/208V OUTDOOR PANEL	LV	120/208V	3c#2 TC CABLE	2TW1
TUG WHARF CABLES, NAV LIGHTS	LV	120/208V	2x3c#6 TC CABLE, 2x2c#8 TC CABLE	2TW2 2TW3 (1NAVL)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW4 2TW5 2TW6
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW7 2TW8 2TW9
JM#1-5 120V RECS, LIGHTS SERVICE	LV	120/208V	2c#1 TC CABLE	1JMSERV
JM#1-5 120V SCADA POWER	LV	120/208V	2c#1 TC CABLE	1JMSP
JM#1-5 HEAT TRACE	LV	120V	2c#1/0 TC CABLE	1JMHT
JM#1 600V SERVICE	LV	600V	3c#500kCM TC CABLE	6JM1
JM#2 600V SERVICE	LV	600V	3c#500kCM TC CABLE	6JM2
JM#3 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM3
JM#5 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM5
JM#4 430-630 REGULATED SERVICE	LV	630V	8x3c#500kCM TC CABLE	6JM4
JM#3 480V SERVICE	LV	480V	3x3c#300kCM TC CABLE	4JM3
JM#5 480V SERVICE	LV	480V	2x3c#300kCM TC CABLE	4JM5
JM#4 208V SERVICE	LV	120/208V	2x4c#300kCM TC CABLE	2JM4
HM#1 FUTURE	LV	N/A	FUTURE	6HM1
HM#0 SERVICE	LV	347V	4c#6 TC CABLE	6HM0
TUG WHARF LIST SERVICE	LV	347V	4c#6 TC CABLE	6TWHM
HM#0, HM#1 REC POWER	LV	120/208V	2c#1 TC CABLE	2HM
600V SOUTH JETTY CAISSON RECEPTACLE	LV	600V	4c#1/0 TC CABLE	6SJCR
600V OIL WATER SEPARATORS HEAT	LV	600V	4c#1 TC CABLE	4OWHT
SOUTH JETTY LV SPARE CONDUIT (103mm)	LV	N/A	FUTURE	4LVSJS
SOUTH JETTY LV SPARE CONDUIT (53mm)	LV	N/A	FUTURE	2LVSJS
JETTY MOUNT SPARE LV CONDUIT (103mm)	LV	N/A	FUTURE	4JMLVS
ROPE LOCKER LOW VOLTAGE (FUTURE)	LV	N/A	FUTURE	RLLV
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW1
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW2
F/A TUG WHARF	COMM	N/A	2c#12 ARMORED	FATW1
F/A SOUTH JETTY	COMM	N/A	2x2c#12 ARMORED	FASJ1 FASJ2
F/A HORN SOUTH JETTY	COMM	N/A	2c#12 ARMORED	FHSJ1
TEL SOUTH JETTY MOUNTS	COMM	N/A	5x25PR#14 GEL CAT3 ARMORED CALBE	TSJM1 TSJM2 TSJM3 TSJM4 TSJM5
SCADA SOUTH JETTY MOUNTS	COMM	N/A	5x(2PR#18 CAT3) ARMORED CABLE	SSJM1 SSJM2 SSJM3 SSJM4 SSJM5
SCADA TUNNEL LOOP	COMM	N/A	2PR#16 CAT3 ARMORED CABLE	SSTU1
FIBRE OPTIC JETTY MOUNTS	COMM	N/A	5x6 9/125um SSM ARMORED FIBRE CABLE	FOJM1 FOJM2 FOJM3 FOJM4 FOJM5
CCTV SOUTH JETTY	COMM	N/A	12PR#14 GEL CAT3 ARMORED CALBE	CTVSJ1
F/A TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAJM
F/A HORN TO JETTY MOUNT	COMM	N/A <td 2x2c#12 ARMORED	FAHJM	
E/A SOUTH JETTY	COMM	N/A	2c#12 ARMORED	EASJ
E/A TO JETTY MOUNT	COMM	N/A	2c#12 ARMORED	GAJM
CCTV SOUTH JETTY FUTURE	COMM	N/A	FUTURE	CTVSJF1
SHAW CABLE (FUTURE)	COMM	N/A	FUTURE	SHAW
SOUTH JETTY COMM SPARE (FIBRE ONLY)	COMM	N/A	FUTURE	FOSJF
SOUTH JETTY COMM SPARE	COMM	N/A	FUTURE	TELSJF
JETTY MOUNT SPARE COMM CONDUIT (103mm)	COMM	N/A	FUTURE	JMCS

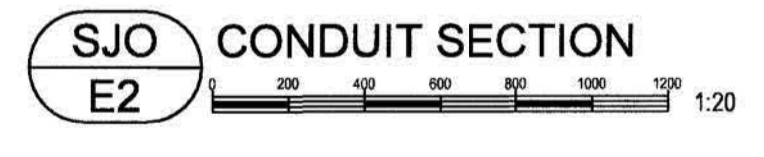
NOTE
NOT ALL CABLES WILL APPEAR IN EVERY SECTION.



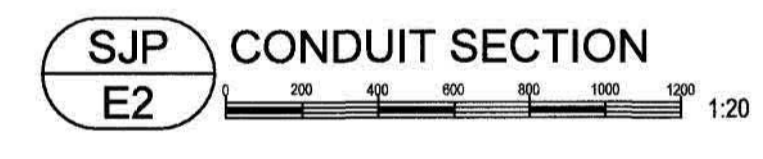
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	2-1	53	SJSG1
	2-2	53	SJSG2
	3-1	103	6JM1
	3-2	103	6JM2
	3-3	103	6HMD (1NAVL)
	3-4	103	1JMSERV 1JMSP 1JMHT TO NEXT JM
	3-5	103	RLLV
	4-1	103	4LVSJS
	4-2	103	4LVSJS
	4-3	103	4LVSJS
	4-4	103	4LVSJS
	4-5	103	4LVSJS
	5-1	103	4LVSJS
	5-2	103	4LVSJS
	5-3	103	4LVSJS
	5-4	103	4LVSJS
	5-5	103	4LVSJS
	6-1	103	4LVSJS
6-2	103	4LVSJS	
6-3	103	4LVSJS	
6-4	103	4LVSJS	
6-5	103	4LVSJS	
SOUTH JETTY COMM SERVICES	2-1	103	FOJM1 FOJM2
	2-2	103	TSJM1 TSJM2
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1 SSJM2
	3-1	103	FOSJF
	3-2	103	TELSJF
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
	4-4	103	TELSJF
	5-1	103	FOSJF
	5-2	103	TELSJF
5-3	103	TELSJF	
5-4	103	SHAW	

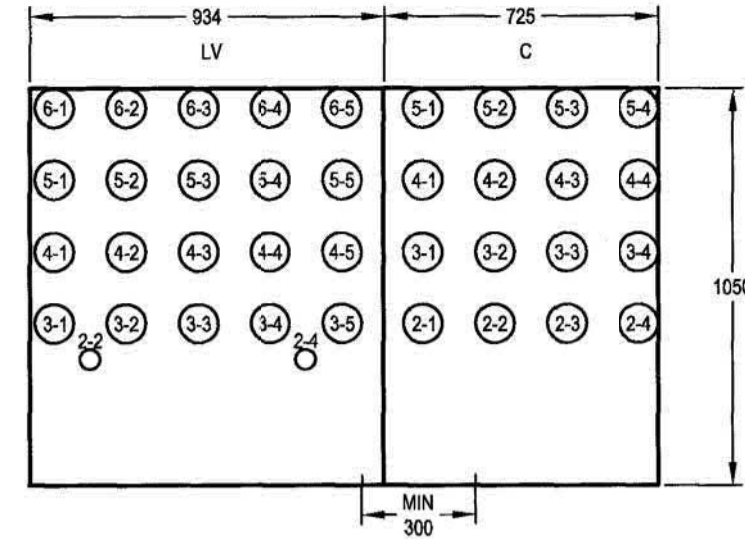
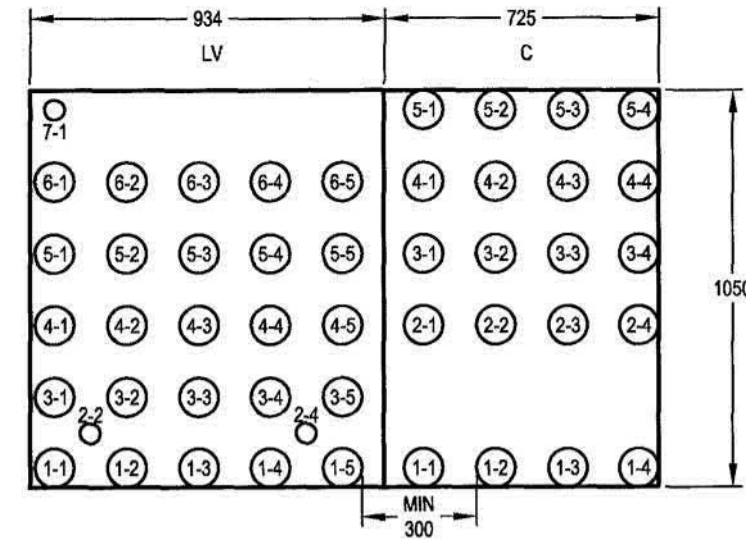
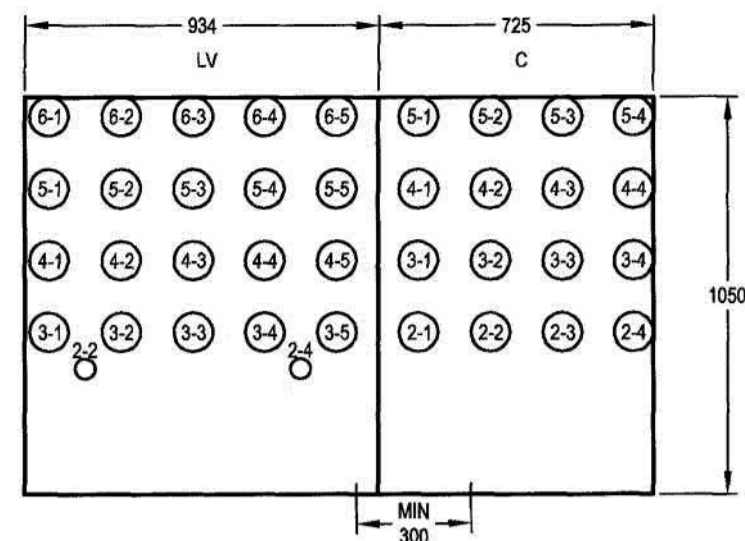


CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	103	6JM2
	1-2	103	1JMSERV 1JMSP 1JMHT TO AND FROM JM
	1-3	103	4JMLVS
	1-4	103	4JMLVS
	1-5	103	4JMLVS
	2-1	53	SJSG1
	2-2	53	SJSG2
	3-1	103	6JM1
	3-2	103	6HMD (1NAVL)
	3-3	103	1JMSERV 1JMSP 1JMHT TO NEXT JM
	3-4	103	4LVSJS
	3-5	103	RLLV
	4-1	103	4LVSJS
	4-2	103	4LVSJS
	4-3	103	4LVSJS
	4-4	103	4LVSJS
	4-5	103	4LVSJS
	5-1	103	4LVSJS
5-2	103	4LVSJS	
5-3	103	4LVSJS	
5-4	103	4LVSJS	
5-5	103	4LVSJS	
6-1	103	4LVSJS	
6-2	103	4LVSJS	
6-3	103	4LVSJS	
6-4	103	4LVSJS	
6-5	103	4LVSJS	
SOUTH JETTY COMM SERVICES	1-1	103	FOJM2
	1-2	103	TSJM2
	1-3	103	FAJM FAHJM GAJM
	1-4	103	SSJM2
	2-1	103	FOJM1 FOJM2
	2-2	103	TSJM1
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1
	3-1	103	FOSJF
	3-2	103	TELSJF
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
4-3	103	TELSJF	
4-4	103	TELSJF	
5-1	103	FOSJF	
5-2	103	TELSJF	
5-3	103	TELSJF	
5-4	103	SHAW	

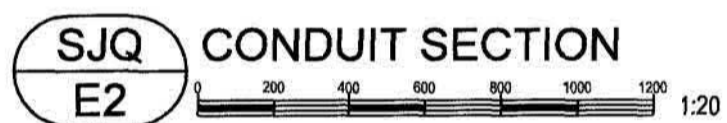


CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	2-1	53	SJSG1
	2-2	53	SJSG2
	3-1	103	6JM1
	3-2	103	4LVSJS
	3-3	103	1JMSERV 1JMSP 1JMHT TO NEXT JM
	3-4	103	4LVSJS
	3-5	103	RLLV
	4-1	103	4LVSJS
	4-2	103	4LVSJS
	4-3	103	4LVSJS
	4-4	103	4LVSJS
	4-5	103	4LVSJS
	5-1	103	4LVSJS
	5-2	103	4LVSJS
	5-3	103	4LVSJS
	5-4	103	4LVSJS
	5-5	103	4LVSJS
	7-1	27	1NAVL
SOUTH JETTY COMM SERVICES	2-1	103	FOJM1
	2-2	103	TSJM1
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1
	3-1	103	FOSJF
	3-2	103	TELSJF
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
	4-4	103	TELSJF
	5-1	103	FOSJF
	5-2	103	TELSJF
5-3	103	TELSJF	
5-4	103	SHAW	

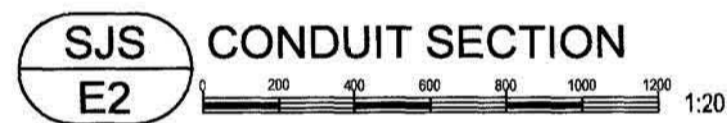
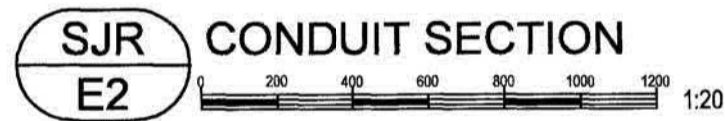




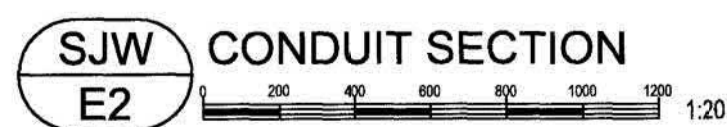
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	2-1	53	SJSG1
	2-2	53	SJSG2
	3-1	103	6JM1
	3-2	103	4LVSJ
	3-3	103	1JMSERV 1JMSP 1JMHT TO NEXT JM
	3-4	103	4LVSJ
	3-5	103	RLLV
	4-1	103	4LVSJ
	4-2	103	4LVSJ
	4-3	103	4LVSJ
	4-4	103	4LVSJ
	4-5	103	4LVSJ
	5-1	103	4LVSJ
	5-2	103	4LVSJ
	5-3	103	4LVSJ
5-4	103	4LVSJ	
5-5	103	4LVSJ	
6-1	103	4LVSJ	
6-2	103	4LVSJ	
6-3	103	4LVSJ	
6-4	103	4LVSJ	
6-5	103	4LVSJ	
SOUTH JETTY COMM SERVICES	2-1	103	FOJM1
	2-2	103	TSJM1
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSJM1
	3-1	103	FOSJF
	3-2	103	TELSJF
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
	4-4	103	TELSJF
	5-1	103	FOSJF
	5-2	103	TELSJF
	5-3	103	TELSJF
5-4	103	SHAW	



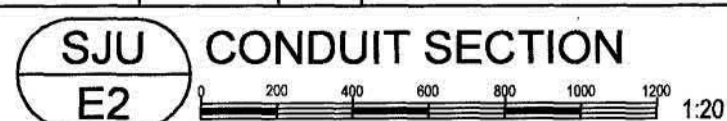
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	103	6JM1
	1-2	103	1JMSERV 1JMSP 1JMHT TO LAST JM
	1-3	103	4LVSJ
	1-4	103	4LVSJ
	1-5	103	4LVSJ
	2-1	53	SJSG1
	2-2	53	SJSG2
	3-1	103	4LVSJ
	3-2	103	6SJCR
	3-3	103	4LVSJ
	3-4	103	4LVSJ
	3-5	103	RLLV
	4-1	103	4LVSJ
	4-2	103	4LVSJ
	4-3	103	4LVSJ
4-4	103	4LVSJ	
4-5	103	4LVSJ	
5-1	103	4LVSJ	
5-2	103	4LVSJ	
5-3	103	4LVSJ	
5-4	103	4LVSJ	
5-5	103	4LVSJ	
6-1	103	4LVSJ	
6-2	103	4LVSJ	
6-3	103	4LVSJ	
6-4	103	4LVSJ	
6-5	103	4LVSJ	
SOUTH JETTY COMM SERVICES	1-1	103	FOJM1
	1-2	103	TSJM1
	1-3	103	FAJM FAJM GAJM
	1-4	103	SSJM1 (SSTU1) BACK TO MH FROM JM
	2-1	103	FOSJF
	2-2	103	TELSJF
	2-3	103	FASJ1 FASJ2 FHSJ1
	2-4	103	SSTU1
	3-1	103	FOSJF
	3-2	103	TELSJF
	3-3	103	EASJ
	3-4	103	CTVSJF1
	4-1	103	FOSJF
	4-2	103	TELSJF
	4-3	103	TELSJF
4-4	103	TELSJF	
5-1	103	FOSJF	
5-2	103	TELSJF	
5-3	103	TELSJF	
5-4	103	SHAW	



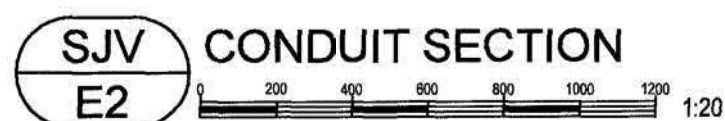
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	1-1	53	2LVSJ
	1-2	53	2LVSJ
	2-1	53	2LVSJ
SOUTH JETTY COMM SERVICES	1-1	53	TELSJF
	1-2	53	TELSJF
	2-1	53	TELSJF
	2-2	53	TELSJF



CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
TO F/A AND E/A POLE	1-1	53	FASJ1 FASJ2 FHSJ1 EASJ
INTERCEPTED EXISTING 103mm SERVICE TUNNEL COMM.	1-2	103	EXISTING 103mm CONDUITS FROM SERVICE TUNNEL INTERCEPTED AND EXTENDED INTO NEW COMMUNICATIONS MANHOLE
	1-3	103	
	1-4	103	SSTU1
	1-5	103	

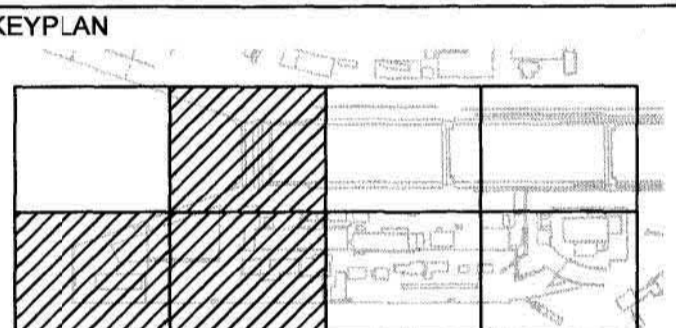


CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
INTERCEPTED EXISTING 129mm SERVICE TUNNEL LV	1-1	129	EXISTING 129mm CONDUITS FROM SERVICE TUNNEL INTERCEPTED AND EXTENDED INTO NEW LOW VOLTAGE MANHOLE
	1-2	129	
	1-3	129	
	1-4	129	6SJCR EXTEND FROM EXISTING SECTION#1 CAISSON SPICE BOX TO JETTY CAISSON PLUG
	1-5	129	
	1-6	129	



CABLE SCHEDULE SOUTH JETTY SERVICES				
SERVICE	TYPE	VOLTAGE	CONDUCTORS	ID
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG1
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	SJSG2
120/208V OUTDOOR PANEL	LV	120/208V	3c#2 TC CABLE	2TW1
TUG WHARF CABLES, NAV LIGHTS	LV	120/208V	2x3c#6 TC CABLE, 2x2c#8 TC CABLE	2TW2 2TW3 (1NAVL)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW4 2TW5 2TW6
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	2TW7 2TW8 2TW9
JMH1-5 120V RECS, LIGHTS SERVICE	LV	120/208V	2c#1 TC CABLE	1JMSERV
JMH1-5 120V SCADA POWER	LV	120/208V	2c#1 TC CABLE	1JMSP
JMH1-5 HEAT TRACE	LV	120V	2c#1/0 TC CABLE	1JMHT
JMH1 600V SERVICE	LV	600V	3c#500kcm TC CABLE	6JM1
JMH2 600V SERVICE	LV	600V	3c#500kcm TC CABLE	6JM2
JMH3 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM3
JMH5 600V SERVICE	LV	600V	3c#3/0 TC CABLE	6JM5
JMH4 430-630 REGULATED SERVICE	LV	630V	8x3c#500kcm TC CABLE	5JM4
JMH3 480V SERVICE	LV	480V	3x3c#300kcm TC CABLE	4JM3
JMH5 480V SERVICE	LV	480V	2x3c#300kcm TC CABLE	4JM5
JMH4 208V SERVICE	LV	120/208V	2x4c#300kcm TC CABLE	2JM4
HM#1 FUTURE	LV	N/A	FUTURE	6HM1
HM#0 SERVICE	LV	347V	4c#6 TC CABLE	6HM0
TUG WHARF LIST SERVICE	LV	347V	4c#6 TC CABLE	6TWHM
HM#0, HM#1 REC POWER	LV	120/208V	2c#1 TC CABLE	2HM
600V SOUTH JETTY CAISSON RECEPTACLE	LV	600V	4c#1/0 TC CABLE	6SJCR
600V OIL WATER SEPARATORS HEAT	LV	600V	4c#1 TC CABLE	4OWHT
SOUTH JETTY LV SPARE CONDUIT (103mm)	LV	N/A	FUTURE	4LVSJ
SOUTH JETTY LV SPARE CONDUIT (53mm)	LV	N/A	FUTURE	2LVSJ
JETTY MOUNT SPARE LV CONDUIT (103mm)	LV	N/A	FUTURE	4JMLVS
ROPE LOCKER LOW VOLTAGE (FUTURE)	LV	N/A	FUTURE	RLLV
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW1
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	FHTW2
F/A TUG WHARF	COMM	N/A	2c#12 ARMORED	FATW1
F/A SOUTH JETTY	COMM	N/A	2x2c#12 ARMORED	FASJ1 FASJ2
F/A HORN SOUTH JETTY	COMM	N/A	2c#12 ARMORED	FHSJ1
TEL SOUTH JETTY MOUNTS	COMM	N/A	5x25PR#14 GEL CAT3 ARMORED CALBE	TSJM1 TSJM2 TSJM3 TSJM4 TSJM5
SCADA SOUTH JETTY MOUNTS	COMM	N/A	5x22PR#18 CAT3 ARMORED CABLE	SSJM1 SSJM2 SSJM3 SSJM4 SSJM5
SCADA TUNNEL LOOP	COMM	N/A	2PR#18 CAT3 ARMORED CABLE	SSTU1
FIBRE OPTIC JETTY MOUNTS	COMM	N/A	5x6 9/125um SSM ARMORED FIBRE CABLE	FOJM1 FOJM2 FOJM3 FOJM4 FOJM5
CCTV SOUTH JETTY	COMM	N/A	12PR#14 GEL CAT3 ARMORED CALBE	CTVSJ1
F/A TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAJM
F/A HORN TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	FAJHM
E/A SOUTH JETTY	COMM	N/A	2c#12 ARMORED	EASJ
E/A TO JETTY MOUNT	COMM	N/A	2c#12 ARMORED	GAJM
CCTV SOUTH JETTY FUTURE	COMM	N/A	FUTURE	CTVSJF1
SHAW CABLE (FUTURE)	COMM	N/A	FUTURE	SHAW
SOUTH JETTY COMM SPARE (FIBRE ONLY)	COMM	N/A	FUTURE	FOSJF
SOUTH JETTY COMM SPARE	COMM	N/A	FUTURE	TELSJF
JETTY MOUNT SPARE COMM CONDUIT (103mm)	COMM	N/A	FUTURE	JMCS

NOTE
NOT ALL CABLES WILL APPEAR IN EVERY SECTION.



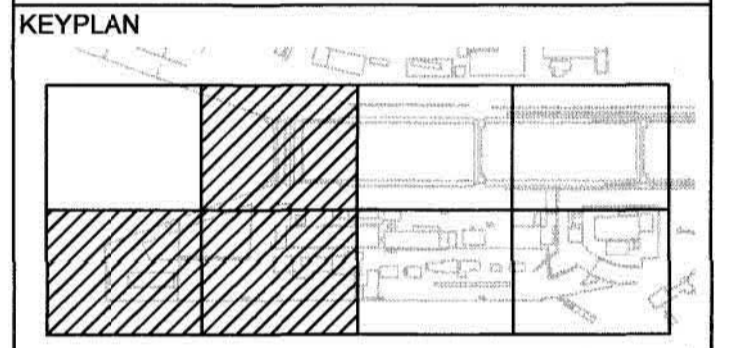
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
Designed by/Conçu par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWSSC Project Manager/Administrateur de Projets TPSSC
PATRICK TRUONG
PWSSC Regional Manager, Architectural and Engineering Services /
Gérant régional, Services d'architecture et de génie, TPSSC
PREETIPAL PAUL
Drawing title/Titre du dessin

JETTY DUCT BANK SECTIONS 6 OF 7



MAR - 6 2017

2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

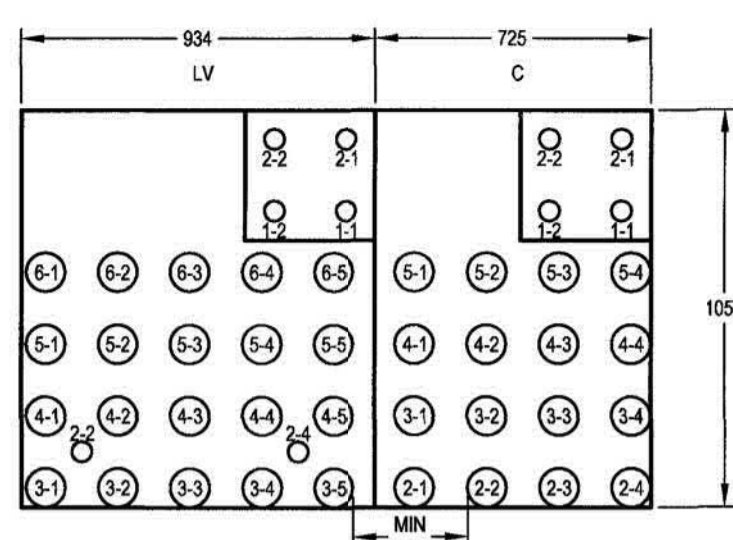
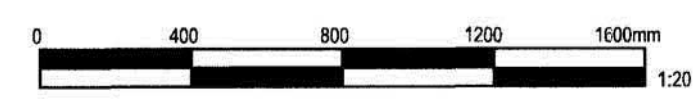
SOUTH JETTY RECONSTRUCTION
Consultant Approval Box Only
Designed by/Conçue par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWS02: Project Manager/Administrateur de Projets TP502
PATRICK TRUONG
PWS02: Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TP502
PREETIPAL PAUL
Drawing title/Titre du dessin

JETTY DUCT BANK SECTIONS 7 OF 7

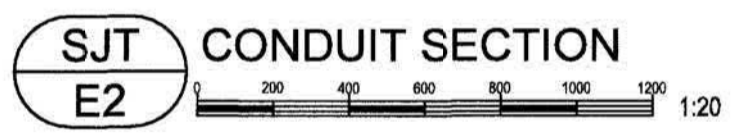
Project No./No. du projet: **R.026729.002**
Sheet/Feuille: **E16**
Revision no./No. de révision: **2**

CABLE SCHEDULE SOUTH JETTY SERVICES				
SERVICE	TYPE	VOLTAGE	CONDUCTORS	ID
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	(SJSJ1)
SOUTH JETTY SYSTEM GROUND	LV	N/A	1c#2/0 INSULATED	(SJSJ2)
120/208V OUTDOOR PANEL	LV	120/208V	3c#2 TC CABLE	(2TW1)
TUG WHARF CABLES , NAV LIGHTS	LV	120/208V	2x3c#8 TC CABLE, 2x2c#8 TC CABLE	(2TW2) (2TW3) (1NAVLT)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	(2TW4) (2TW5) (2TW6)
TUG WHARF CABLES	LV	120/208V	3x3c#10 TC CABLE	(2TW7) (2TW8) (2TW9)
JM#1-5 120V RECS, LIGHTS SERVICE	LV	120/208V	2c#1 TC CABLE	(1JMSERV)
JM#1-5 120V SCADA POWER	LV	120/208V	2c#1 TC CABLE	(1JMSP)
JM#1-5 HEAT TRACE	LV	120V	2c#1/0 TC CABLE	(1JMHT)
JM#1 600V SERVICE	LV	600V	3c#500CM TC CABLE	(6JM1)
JM#2 600V SERVICE	LV	600V	3c#500CM TC CABLE	(6JM2)
JM#3 600V SERVICE	LV	600V	3c#3/0 TC CABLE	(6JM3)
JM#5 600V SERVICE	LV	600V	3c#3/0 TC CABLE	(6JM5)
JM#4 430-630 REGULATED SERVICE	LV	630V	6x3c#500CM TC CABLE	(6JM4)
JM#3 480V SERVICE	LV	480V	3x3c#300CM TC CABLE	(4JM3)
JM#5 480V SERVICE	LV	480V	2x3c#300CM TC CABLE	(4JM5)
JM#4 208V SERVICE	LV	120/208V	2x4c#300CM TC CABLE	(2JM4)
HM#1 FUTURE	LV	N/A	FUTURE	(6HM1)
HM#0 SERVICE	LV	347V	4c#6 TC CABLE	(6HMD)
TUG WHARF LIST SERVICE	LV	347V	4c#6 TC CABLE	(6TWHM)
HM#0, HM#1 REC POWER	LV	120/208V	2c#1 TC CABLE	(2HM)
600V SOUTH JETTY CAISSON RECEPTACLE	LV	600V	4c#1/0 TC CABLE	(6SJCR)
600V OIL WATER SEPARATORS HEAT	LV	600V	4c#1 TC CABLE	(4OWHT)
SOUTH JETTY LV SPARE CONDUIT (103mm)	LV	N/A	FUTURE	(4LVSJS)
SOUTH JETTY LV SPARE CONDUIT (53mm)	LV	N/A	FUTURE	(2LVSJS)
JETTY MOUNT SPARE LV CONDUIT (103mm)	LV	N/A	FUTURE	(4JMLVS)
ROPE LOCKER LOW VOLTAGE (FUTURE)	LV	N/A	FUTURE	(RLLV)
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	(FHTW1)
F/A HORN TUG WHARF	COMM	N/A	2c#12 ARMORED	(FHTW2)
F/A TUG WHARF	COMM	N/A	2c#12 ARMORED	(FATW1)
F/A SOUTH JETTY	COMM	N/A	2x2c#12 ARMORED	(FASJ1) (FASJ2)
F/A HORN SOUTH JETTY	COMM	N/A	2c#12 ARMORED	(FHSJ1)
TEL SOUTH JETTY MOUNTS	COMM	N/A	5x25PR#14 GEL CAT3 ARMORED CALBE	(TSJM1) (TSJM2) (TSJM3) (TSJM4) (TSJM5)
SCADA SOUTH JETTY MOUNTS	COMM	N/A	5x(2PR#18 CAT3) ARMORED CABLE	(SSJM1) (SSJM2) (SSJM3) (SSJM4) (SSJM5)
SCADA TUNNEL LOOP	COMM	N/A	2PR#14 CAT3 ARMORED CABLE	(SSTU1)
FIBRE OPTIC JETTY MOUNTS	COMM	N/A	5x6 9/125µm SSM ARMORED FIBRE CABLE	(FOJM1) (FOJM2) (FOJM3) (FOJM4) (FOJM5)
CCTV SOUTH JETTY	COMM	N/A	12PR#14 GEL CAT3 ARMORED CALBE	(CTVSJ1)
F/A TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	(FAJM)
F/A HORN TO JETTY MOUNT	COMM	N/A	2x2c#12 ARMORED	(FAJLM)
E/A SOUTH JETTY	COMM	N/A	2c#12 ARMORED	(EASJ)
E/A TO JETTY MOUNT	COMM	N/A	2c#12 ARMORED	(GAJM)
CCTV SOUTH JETTY FUTURE	COMM	N/A	FUTURE	(CTVSJF)
SHAW CABLE (FUTURE)	COMM	N/A	FUTURE	(SHAW)
SOUTH JETTY COMM SPARE (FIBRE ONLY)	COMM	N/A	FUTURE	(FOSJF)
SOUTH JETTY COMM SPARE	COMM	N/A	FUTURE	(TELSJF)
JETTY MOUNT SPARE COMM CONDUIT (103mm)	COMM	N/A	FUTURE	(JMCS)

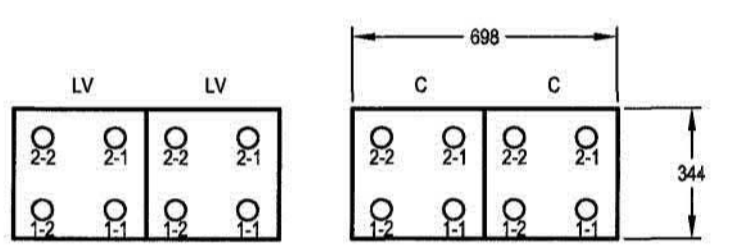
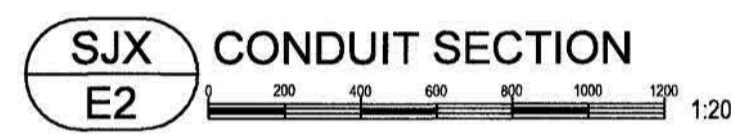
NOTE
NOT ALL CABLES WILL APPEAR IN EVERY SECTION.



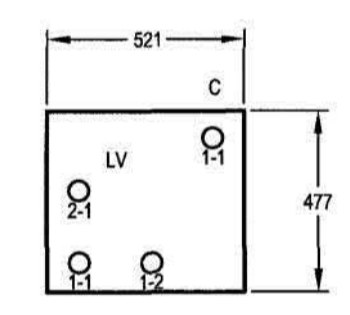
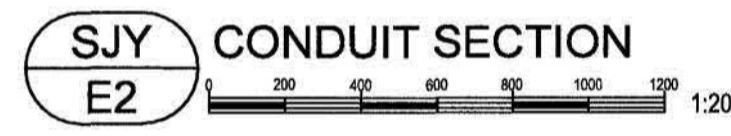
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
SOUTH JETTY LV SERVICES	2-1	53	(SJSJ1)
	2-2	53	(SJSJ2)
	3-1	103	(6SJCR)
	3-2	103	(4LVSJS)
	3-3	103	(4LVSJS)
	3-4	103	(4LVSJS)
	3-5	103	(RLLV)
	4-1	103	(4LVSJS)
	4-2	103	(4LVSJS)
	4-3	103	(4LVSJS)
	4-4	103	(4LVSJS)
	4-5	103	(4LVSJS)
	5-1	103	(4LVSJS)
	5-2	103	(4LVSJS)
	5-3	103	(4LVSJS)
5-4	103	(4LVSJS)	
5-5	103	(4LVSJS)	
6-1	103	(4LVSJS)	
6-2	103	(4LVSJS)	
6-3	103	(4LVSJS)	
6-4	103	(4LVSJS)	
6-5	103	(4LVSJS)	
SOUTH JETTY COMM SERVICES	2-1	103	(FOSJF)
	2-2	103	(TELSJF)
	2-3	103	(FASJ1) (FASJ2) (FHSJ1)
	2-4	103	(SSTU1)
	3-1	103	(FOSJF)
	3-2	103	(TELSJF)
	3-3	103	(EASJ)
	3-4	103	(CTVSJF)
	4-1	103	(FOSJF)
	4-2	103	(TELSJF)
4-3	103	(TELSJF)	
4-4	103	(TELSJF)	
5-1	103	(FOSJF)	
5-2	103	(TELSJF)	
5-3	103	(TELSJF)	
5-4	103	(TELSJF)	
SOUTH JETTY LV SERVICES TO PB62	1-1	53	(2LVSJS)
	1-2	53	(2LVSJS)
	1-3	53	(2LVSJS)
	1-4	53	(2LVSJS)
SOUTH JETTY COMM SERVICES TO PB63	1-1	53	(TELSJF)
	1-2	53	(TELSJF)
	1-3	53	(TELSJF)
	1-4	53	(SHAW)



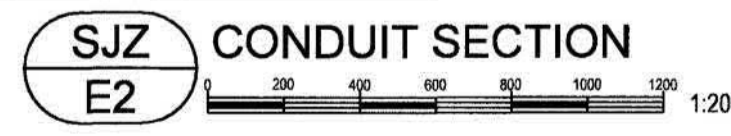
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
174LV TO PB62 SOUTH JETTY LV SERVICES	1-1	53	(6HM1) (2HM)
	1-2	53	(2LVSJS)
	2-1	53	(2LVSJS)
	2-2	53	(2LVSJS)
175C TO PB63 SOUTH JETTY LV SERVICES	1-1	53	(CTVSJ1)
	1-2	53	(CTVSJF)
	2-1	53	(TELSJF)
	2-2	53	(TELSJF)

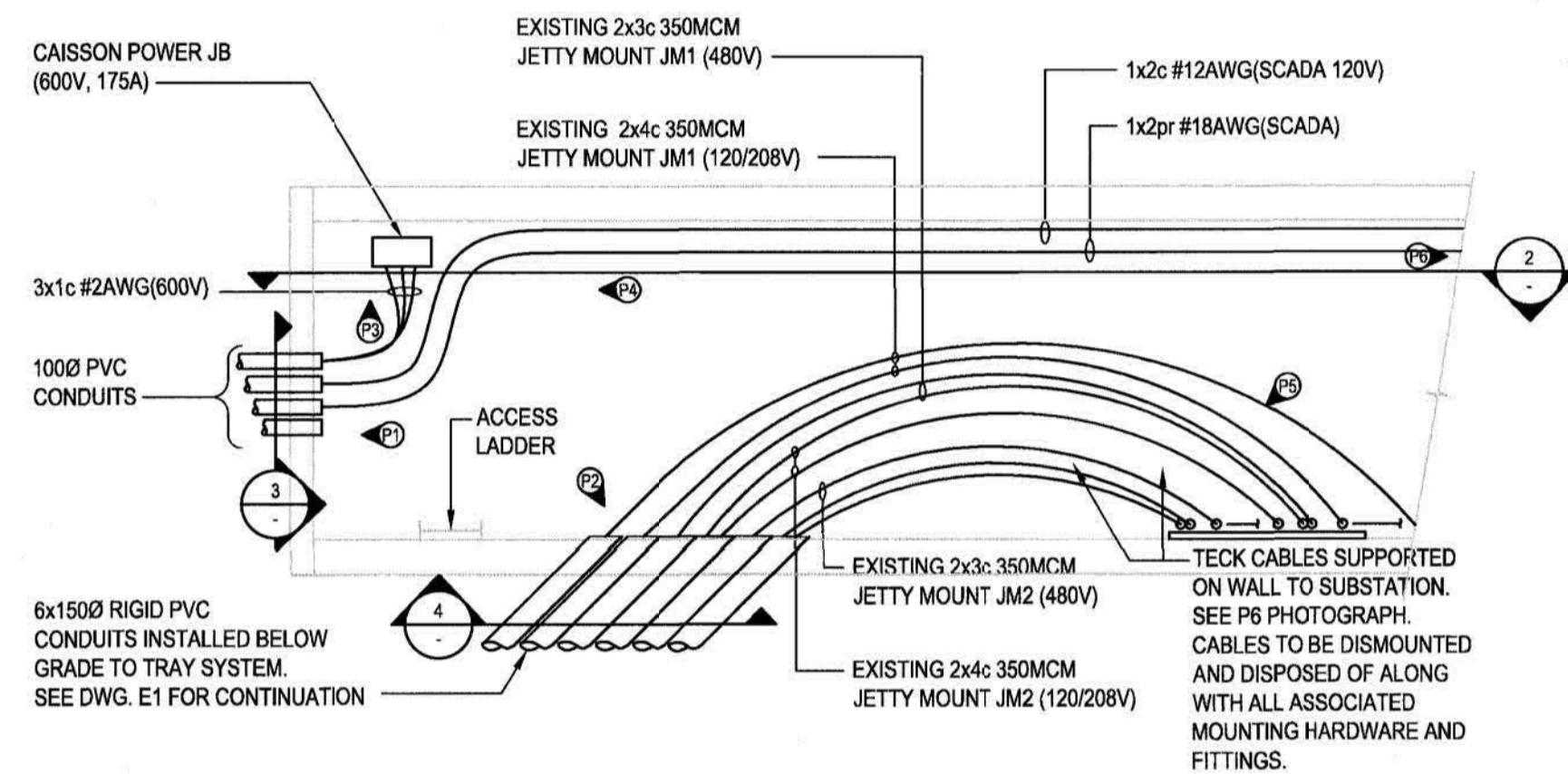


CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
168LV TO PB62 SOUTH JETTY LV SERVICES	1-1	53	(2LVSJS)
	1-2	53	(2LVSJS)
	2-1	53	(2LVSJS)
	2-2	53	(2LVSJS)
174LV TO PB62 SOUTH JETTY LV SERVICES	1-1	53	(6HM1) (4OWHT) (2HM)
	1-2	53	(2LVSJS)
	2-1	53	(2LVSJS)
	2-2	53	(2LVSJS)
169C TO PB63 SOUTH JETTY COMM SERVICES	1-1	53	(TELSJF)
	1-2	53	(TELSJF)
	2-1	53	(TELSJF)
	2-2	53	(TELSJF)
175C TO PB63 SOUTH JETTY COMM SERVICES	1-1	53	(CTVSJ1)
	1-2	53	(CTVSJF)
	2-1	53	(TELSJF)
	2-2	53	(SHAW)



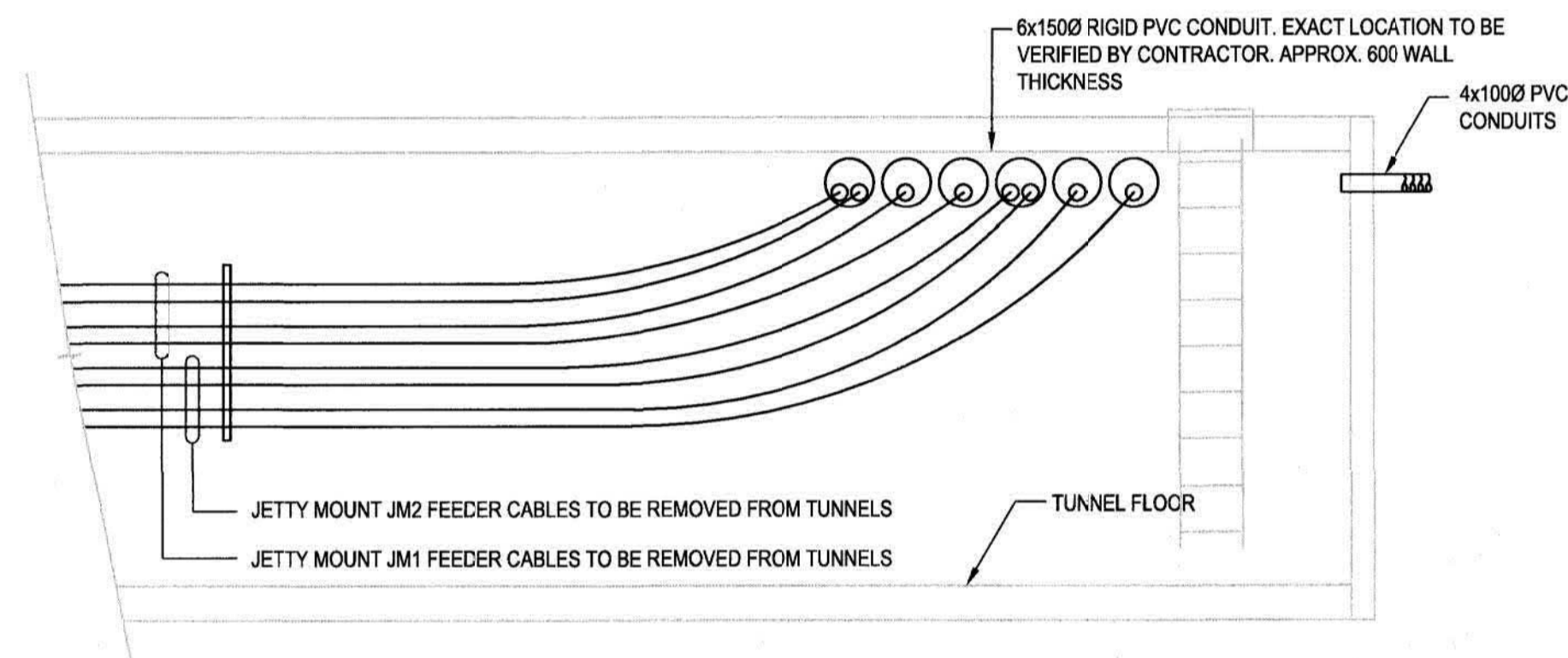
CONDUIT AND CABLE SCHEDULE			
CONDUIT ROUTE	CONDUIT ID	SIZE (mm)	CABLE ID
HM#0 LV SERVICES	1-1	53	(6HMD) AND (2HM)
	1-2	53	(2LVSJS)
	2-1	53	(2LVSJS)
HM#0 COMM SERVICES	1-1	53	(TELSJF)



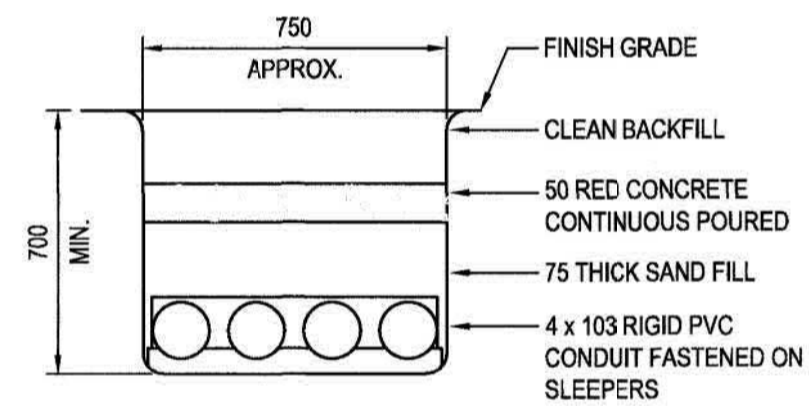


1
E2
EXISTING TUNNEL PLAN VIEW
NTS

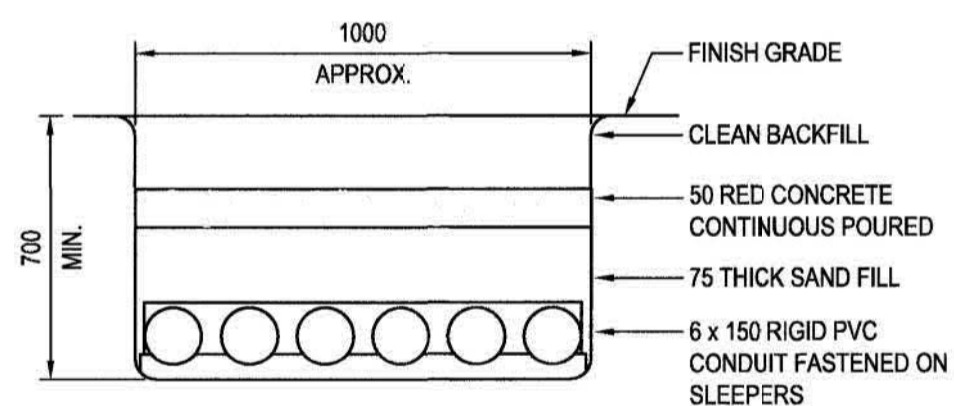
GENERAL NOTES:
1. P1 TO P8 ARE SITE PHOTOGRAPHS. REFER TO SHEET E18.



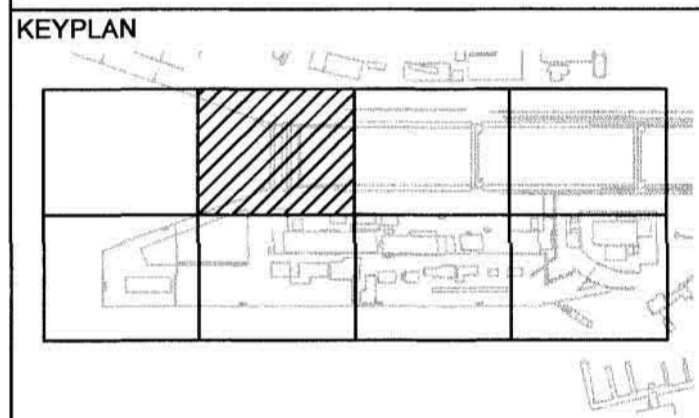
2
-
EXISTING TUNNEL ELEVATION
NTS



3
-
103mm CONDUIT SECTION
NTS



4
-
155mm RPVC CONDUIT SECTION
NTS



Revision/Revisions	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 98% REVIEW	16/08/15

Client/client
ESQUIMALT GRAVING DOCK

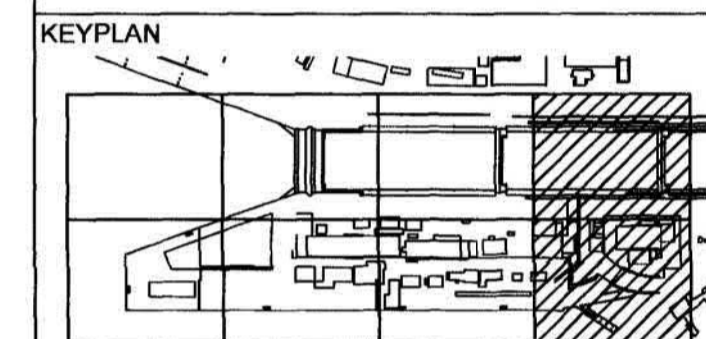
825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

**SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
Designed by/Conçue par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWSG Project Manager/Administrateur de Projets TP506
PATRICK TRUONG
PWSG Regional Manager, Architectural and Engineering Services/
Services d'architecture et de génie, TP506
PREETIPAL PAUL
Drawing title/Titre du dessin

Project No./No. du projet R.026729.002	Sheet/Faule E17	Revision no./ No. de révisión 2
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2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15
Revision/Revision	Description/Description	Date/Date

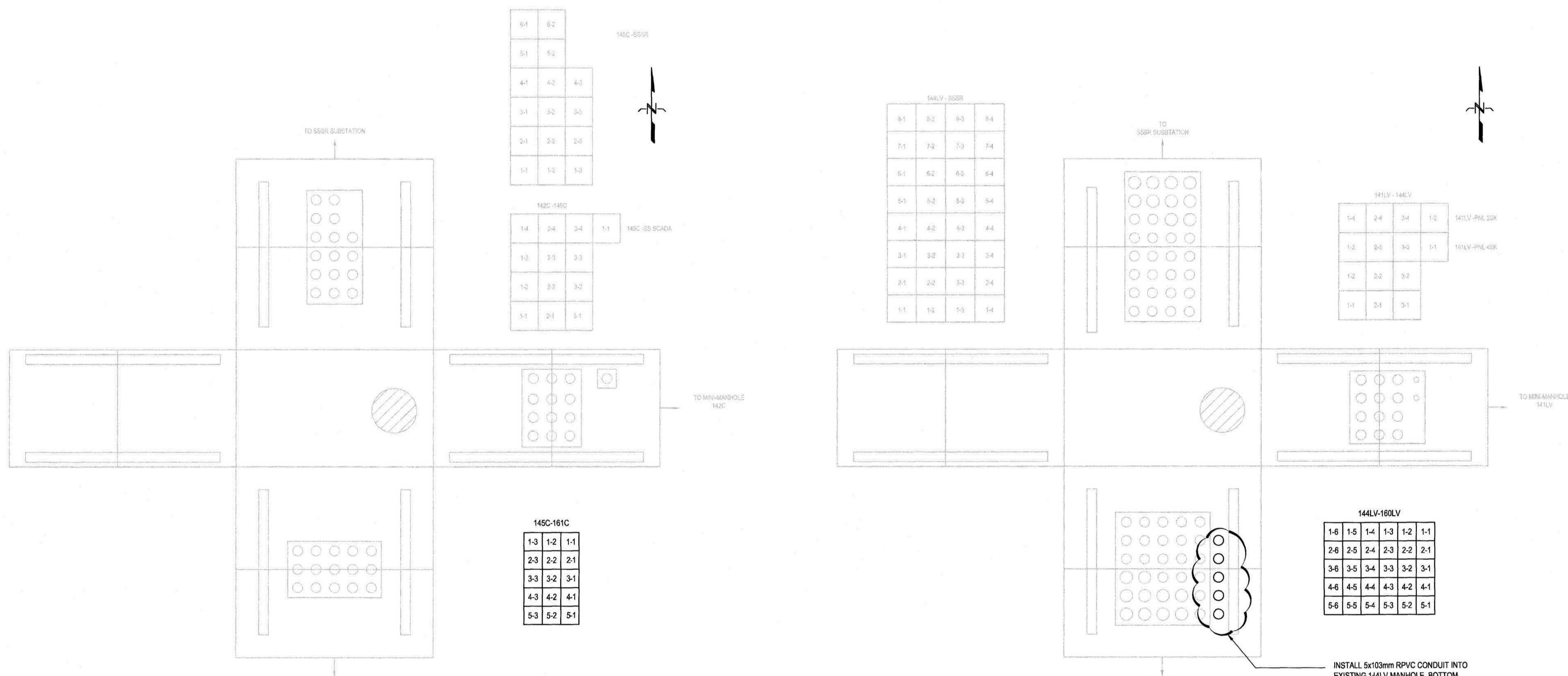
Client/Client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
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Drawn by/Dessiné par
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PATRICK TRUONG
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Drawing title/Titre du dessin
**SOUTH JETTY
MANHOLE AND PULL
PIT DETAILS 1 OF 7**

Project No./No. du projet	Sheet/Feuille	Revision no./ Le Révision no.
R.026729.002	E20	2

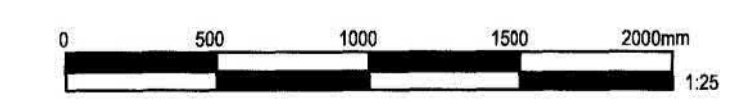


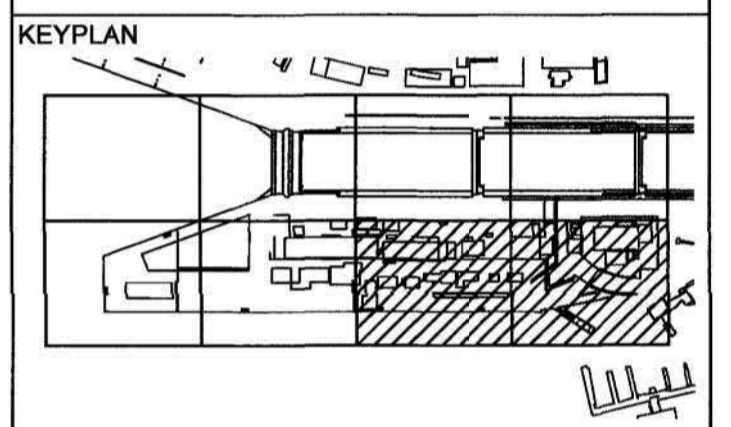
2
E1
EXISTING MINI-MANHOLE
(145C) FOR REFERENCE ONLY
SCALE 1:25

1
E1
EXISTING MINI-MANHOLE
(144LV) FOR REFERENCE ONLY
SCALE 1:25

INSTALL 5x103mm RPVC CONDUIT INTO EXISTING 144LV MANHOLE, BOTTOM ROW OF EXISTING 103mm CONDUIT TO BE TURNED 90 DEGREES TO FACE SOUTH AND STUB 1m FROM SIDE OF DUCT BANK.

- GENERAL NOTES:**
- REFER TO CIVIL SHEETS TO EXTRUDED CONCRETE RACEWAY CONSTRUCTION DETAILS.
 - IDENTIFY ALL FEEDER CABLES WITH COLOURED TAGS HAVING 4 SLOTTED TIE HOLES AND SECURED WITH TWO PLASTIC TAG TIES.
 - ALL MANHOLES SHALL BE EQUIPPED WITH CONDUIT DIRECTORIES. EACH WALL OF THE MANHOLE WITH CONDUIT ENTRY SHALL HAVE A DIRECTORY. SEE SPECIFICATION FOR DIRECTORY DETAILS.
 - ALL MANHOLE COVERS SHALL HAVE ASSIGNED MANHOLE NUMBER WELDED ONTO EXTERIOR OF LID.





Revision/Revisions	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 99% REVIEW	16/08/15

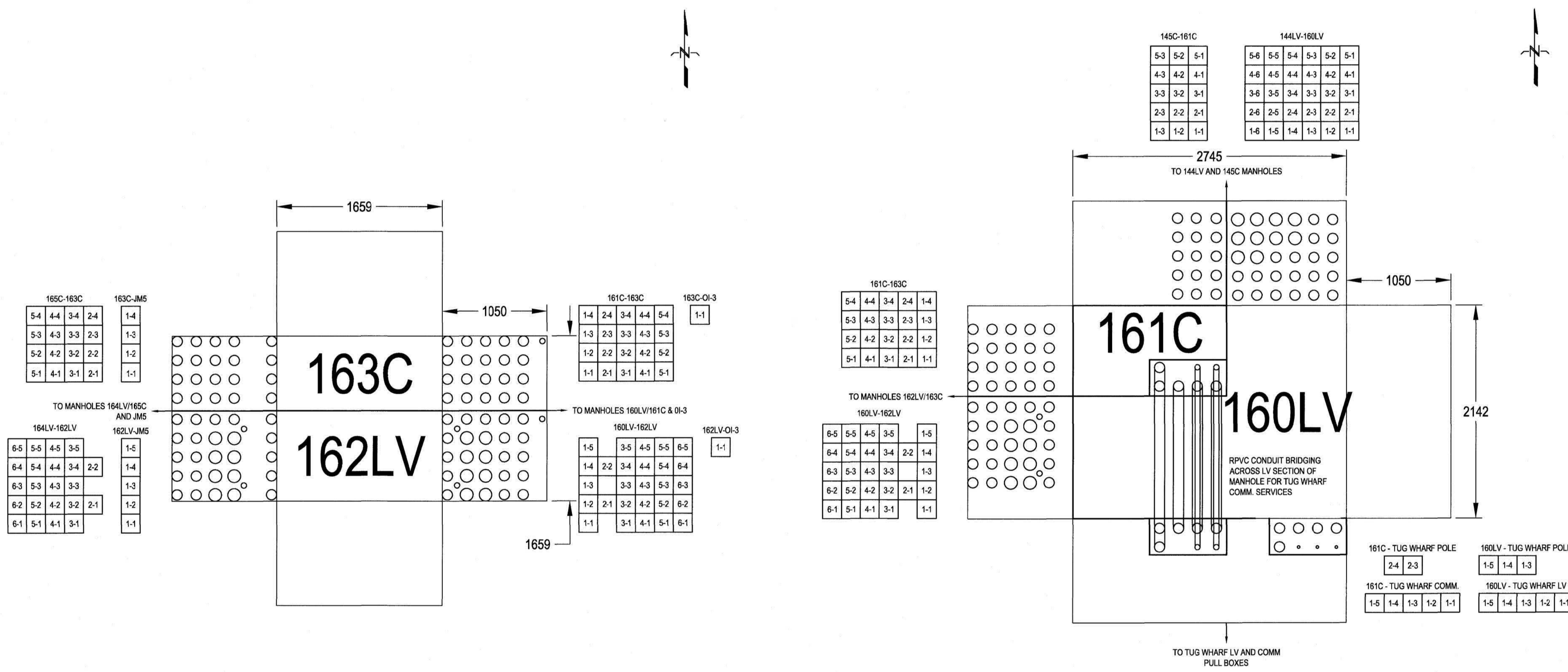
Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY
RECONSTRUCTION**

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PATRICK TRUONG
PWOSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TP50C
PREETIPAL PAUL

Drawing title/Titre du dessin
**SOUTH JETTY
MANHOLE AND PULL
PIT DETAILS 2 OF 7**

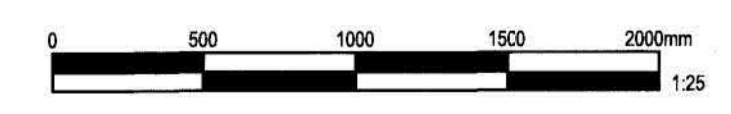
Project No./No. du projet R.026729.002	Sheet/Feuille E21	Revision no./ La Révision no. 2
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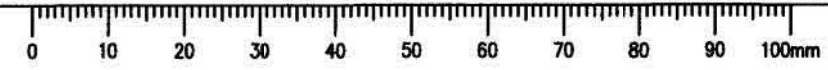
2
E1 NEW CABLE PIT (162LV/163C)
SCALE 1:25

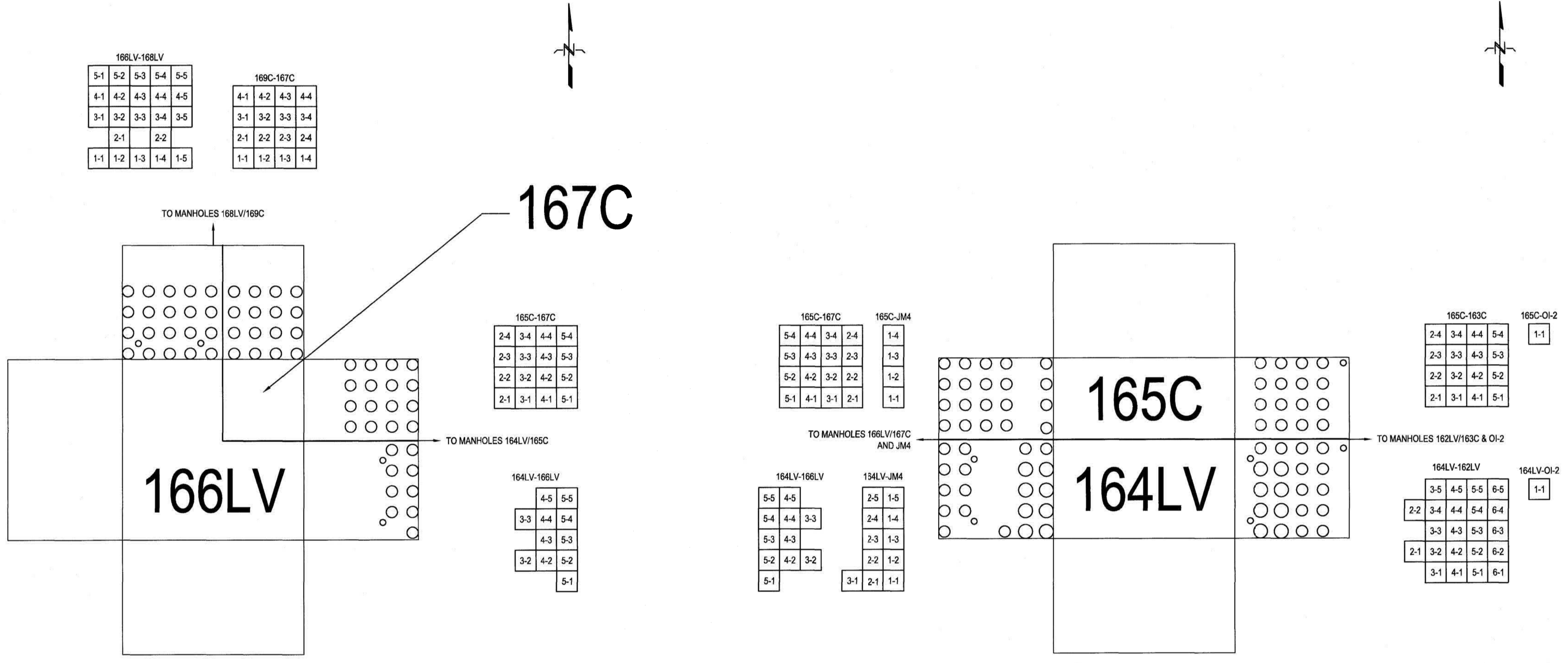
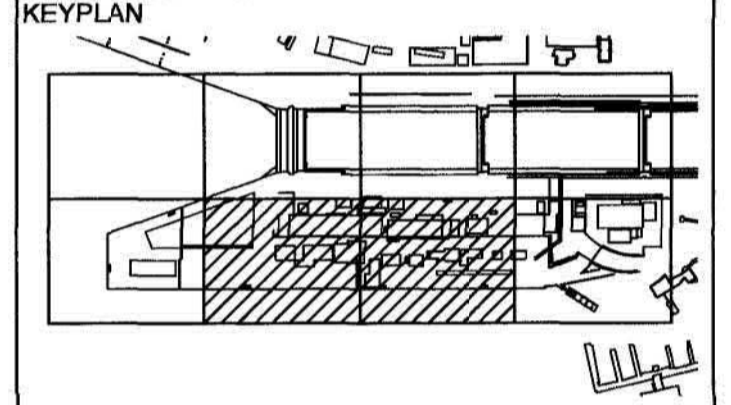
1
E1 NEW CABLE PIT (160LV/161C)
SCALE 1:25

- GENERAL NOTES:**
- REFER TO CIVIL SHEETS TO EXTRUDED CONCRETE RACEWAY CONSTRUCTION DETAILS.
 - IDENTIFY ALL FEEDER CABLES WITH COLOURED TAGS HAVING 4 SLOTTED TIE HOLES AND SECURED WITH TWO PLASTIC TAG TIES.
 - ALL MANHOLES SHALL BE EQUIPPED WITH CONDUIT DIRECTORIES. EACH WALL OF THE MANHOLE WITH CONDUIT ENTRY SHALL HAVE A DIRECTORY. SEE SPECIFICATION FOR DIRECTORY DETAILS.
 - ALL MANHOLE COVERS SHALL HAVE ASSIGNED MANHOLE NUMBER WELDED ONTO EXTERIOR OF LID.



Plot Date: March 3, 2017 8:33 AM Plotted by: Jason Belling File Name: R:\Projects\2017\1-10-142\Drawings\Sheet E21.dwg



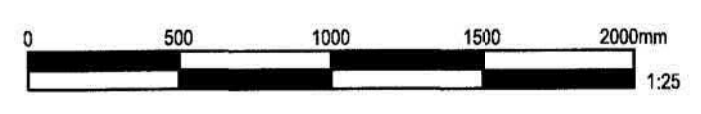


2
E2
NEW CABLE PIT (166LV/167C)
SCALE 1:25

1
E1
NEW CABLE PIT (164LV/165C)
SCALE 1:25

GENERAL NOTES:

- REFER TO CIVIL SHEETS TO EXTRUDED CONCRETE RACEWAY CONSTRUCTION DETAILS.
- IDENTIFY ALL FEEDER CABLES WITH COLOURED TAGS HAVING 4 SLOTTED TIE HOLES AND SECURED WITH TWO PLASTIC TAG TIES.
- ALL MANHOLES SHALL BE EQUIPPED WITH CONDUIT DIRECTORIES. EACH WALL OF THE MANHOLE WITH CONDUIT ENTRY SHALL HAVE A DIRECTORY. SEE SPECIFICATION FOR DIRECTORY DETAILS.
- ALL MANHOLE COVERS SHALL HAVE ASSIGNED MANHOLE NUMBER WELDED ONTO EXTERIOR OF LID.



Revision/Revision	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 99% REVIEW	16/08/15

Client/Client
ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

**SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
-
Designed by/Concept par
I. BARNES

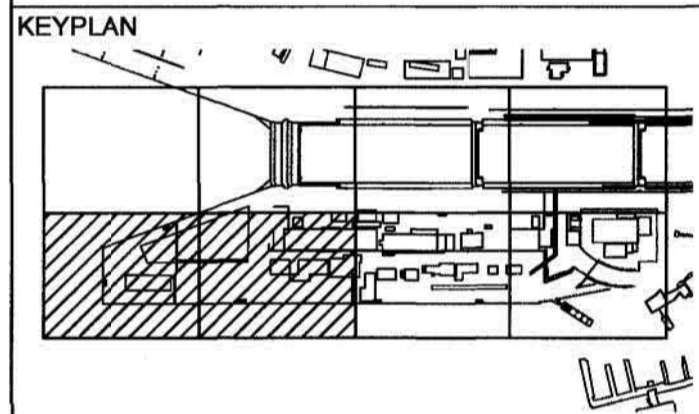
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

PWGSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSCG
PREETIPAL PAUL
Drawing title/Titre du dessin

**SOUTH JETTY
MANHOLE AND PULL
PIT DETAILS 3 OF 7**

Project No./No. du projet	Sheet/Feuille	Revision no./ Le Révision
R.026729.002	E22	2



Revision/Revision	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 90% REVIEW	16/08/15

Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**
SOUTH JETTY RECONSTRUCTION

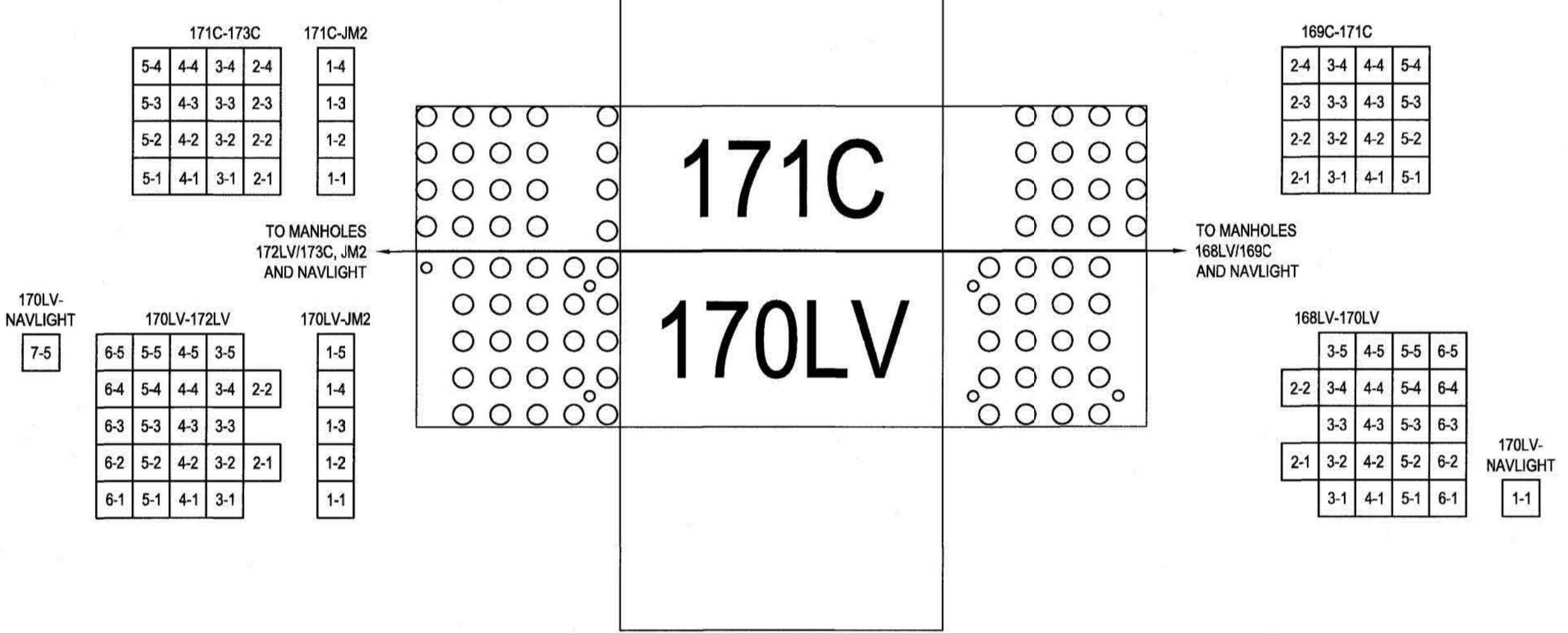
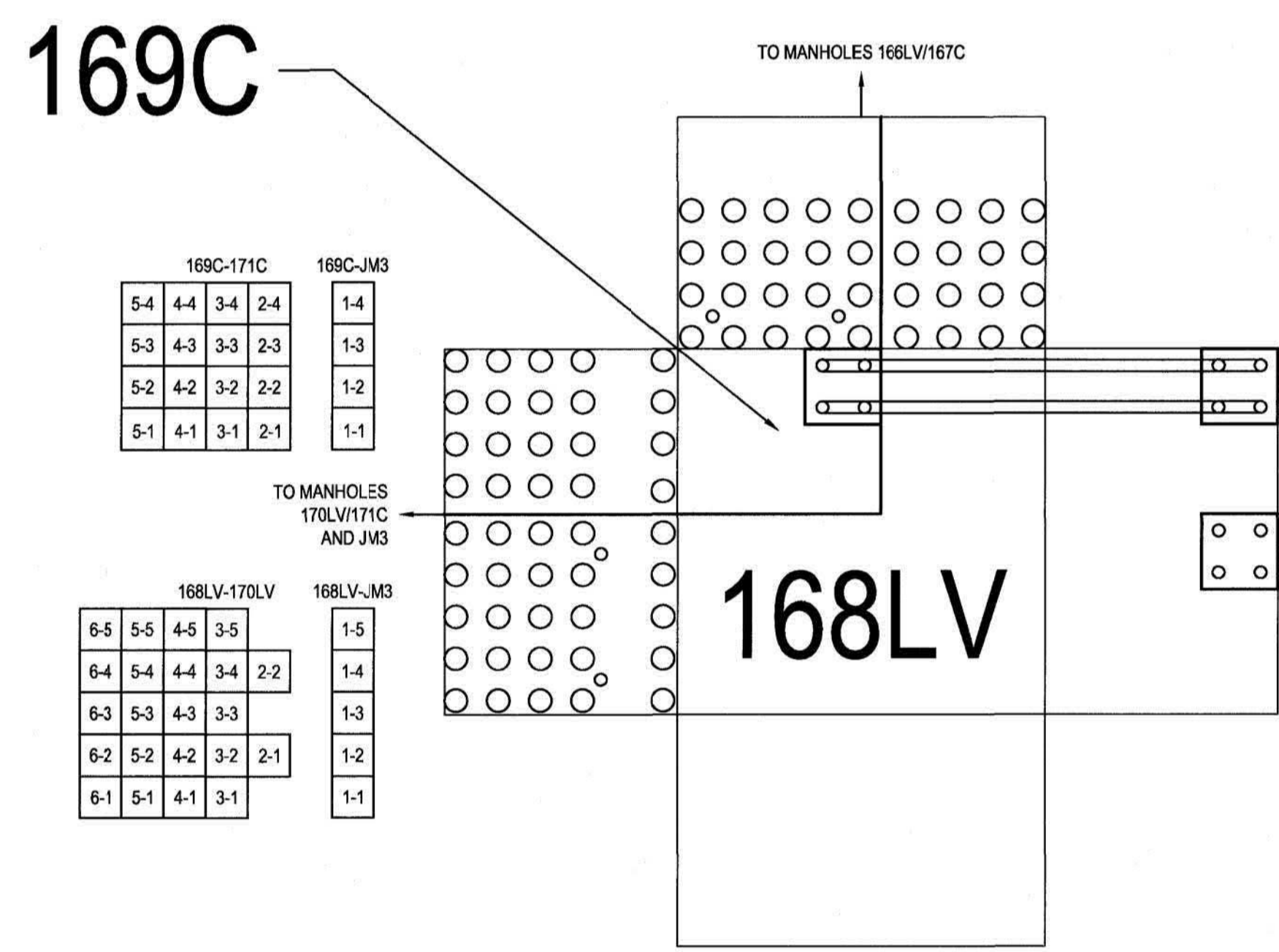
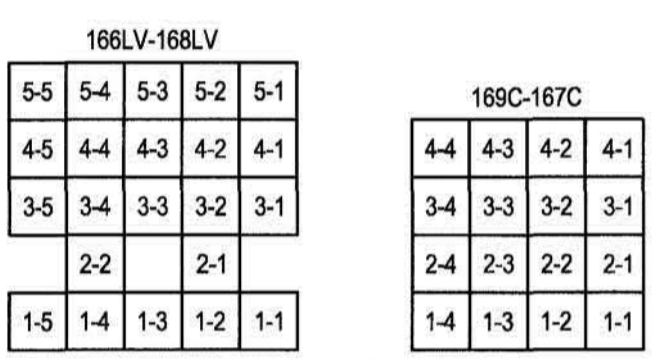
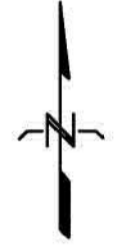
Consultant Approval Box Only

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Drawn by/Dessiné par
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PWSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG

Drawing title/Titre du dessin

**SOUTH JETTY
MANHOLE AND PULL
PIT DETAILS 4 OF 7**

Project No./No. du projet R.026729.002	Sheet/Fauille E23	Revision no./La Révision no. 2
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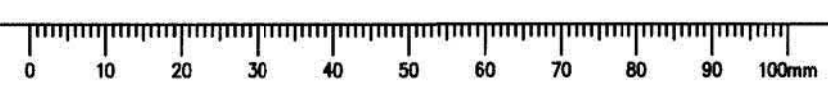
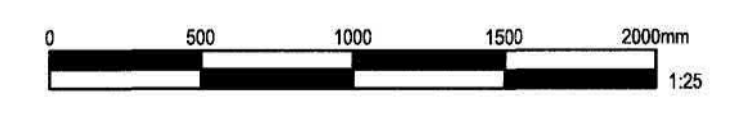


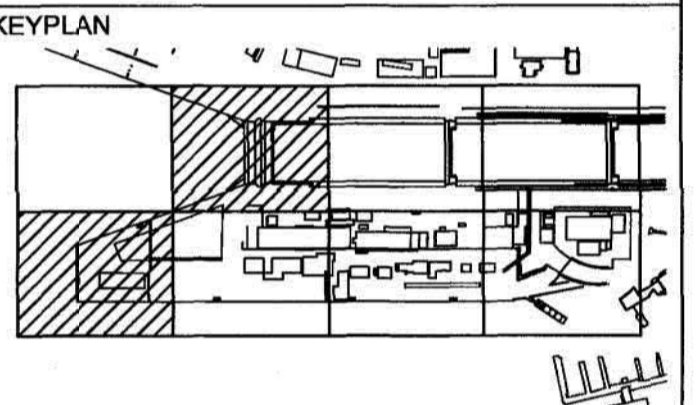
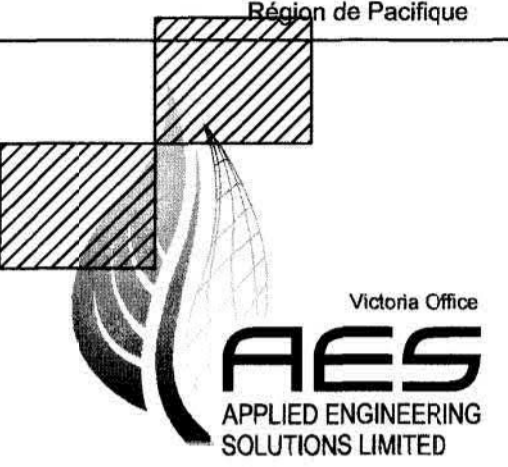
2
E2 NEW CABLE PIT (170LV/171C)
SCALE 1:25

1
E2 NEW CABLE PIT (168LV/169C)
SCALE 1:25

GENERAL NOTES:

- REFER TO CIVIL SHEETS TO EXTRUDED CONCRETE RACEWAY CONSTRUCTION DETAILS.
- IDENTIFY ALL FEEDER CABLES WITH COLOURED TAGS HAVING 4 SLOTTED TIE HOLES AND SECURED WITH TWO PLASTIC TAG TIES.
- ALL MANHOLES SHALL BE EQUIPPED WITH CONDUIT DIRECTORIES. EACH WALL OF THE MANHOLE WITH CONDUIT ENTRY SHALL HAVE A DIRECTORY. SEE SPECIFICATION FOR DIRECTORY DETAILS.
- ALL MANHOLE COVERS SHALL HAVE ASSIGNED MANHOLE NUMBER WELDED ONTO EXTERIOR OF LID.





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MAR - 6 2017

Revision/	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

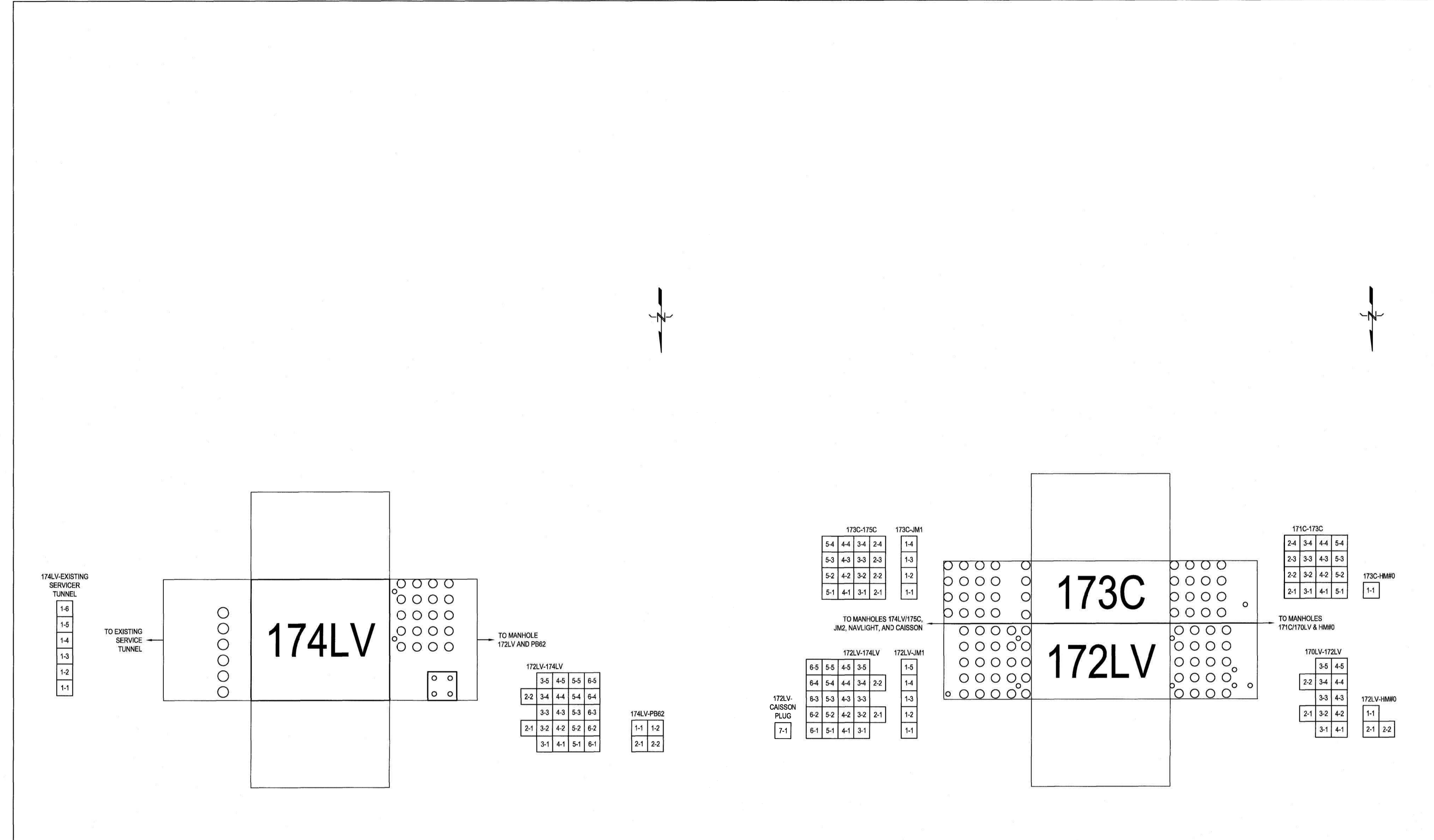
Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**
**SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
Designed by/Concept par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
PWGC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSCG
PREETIPAL PAUL
Drawing title/Titre du dessin

**SOUTH JETTY
MANHOLE AND PULL
PIT DETAILS 5 OF 7**

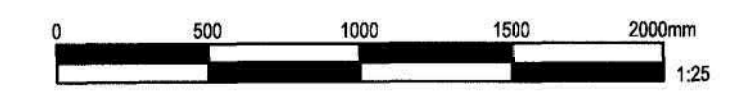
Project No./No. du projet R.026729.002	Sheet/Feuille E24	Revision no./ no. de Révision 2
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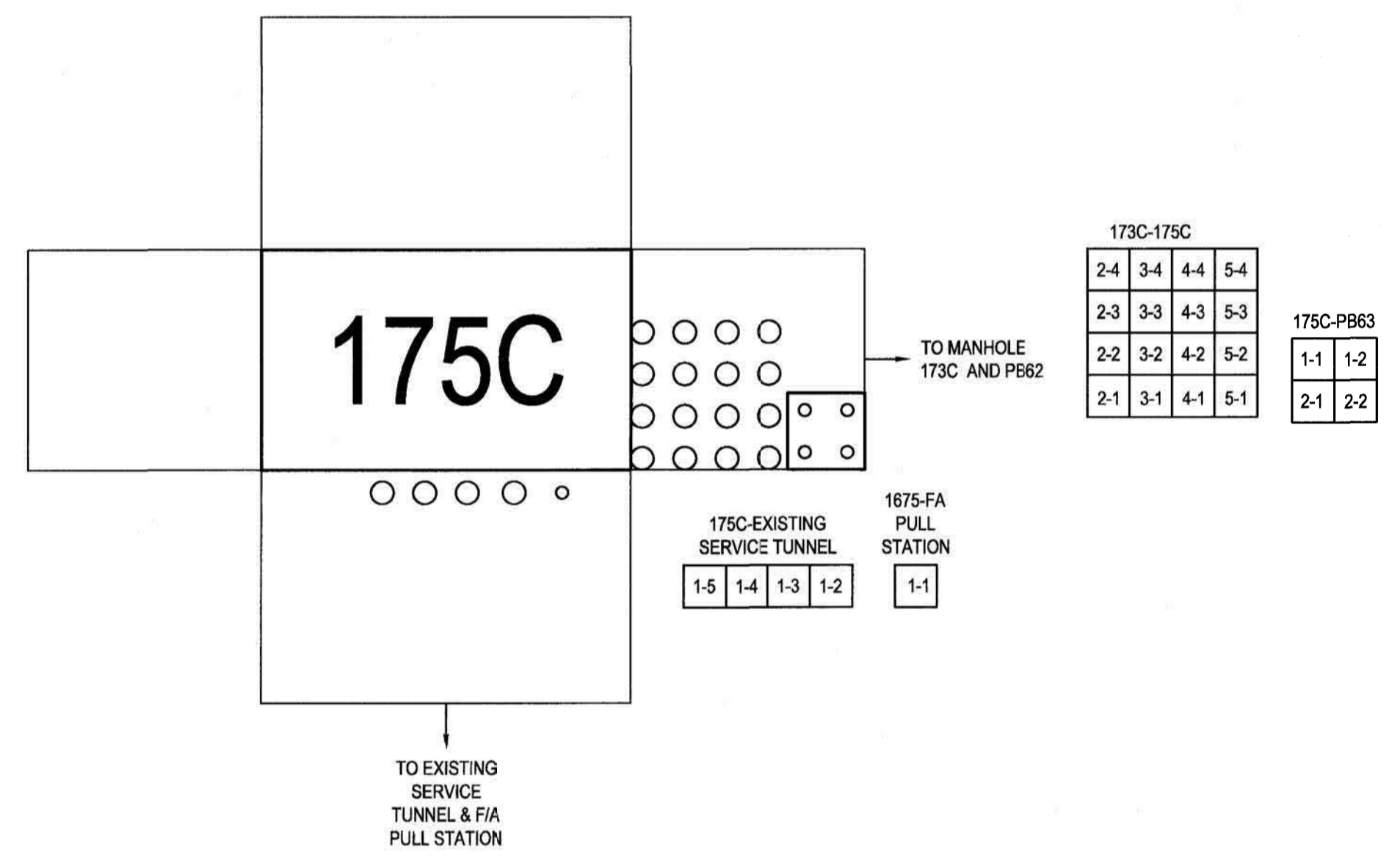
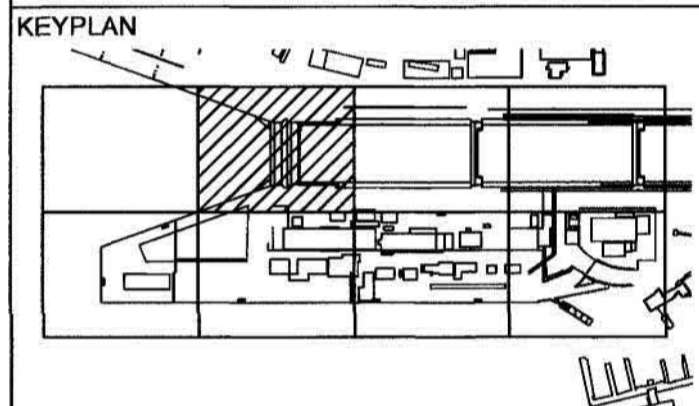


2 NEW CABLE PIT 174LV
SCALE 1:25

1 NEW CABLE PIT (172LV/173C)
SCALE 1:25

- GENERAL NOTES:**
- REFER TO CIVIL SHEETS TO EXTRUDED CONCRETE RACEWAY CONSTRUCTION DETAILS.
 - IDENTIFY ALL FEEDER CABLES WITH COLOURED TAGS HAVING 4 SLOTTED TIE HOLES AND SECURED WITH TWO PLASTIC TAG TIES.
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 - ALL MANHOLE COVERS SHALL HAVE ASSIGNED MANHOLE NUMBER WELDED ONTO EXTERIOR OF LID.

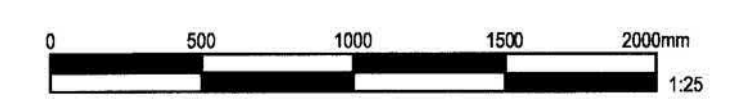




1
E2 NEW CABLE PIT (175C)
SCALE 1:25

GENERAL NOTES:

- REFER TO CIVIL SHEETS TO EXTRUDED CONCRETE RACEWAY CONSTRUCTION DETAILS.
- IDENTIFY ALL FEEDER CABLES WITH COLOURED TAGS HAVING 4 SLOTTED TIE HOLES AND SECURED WITH TWO PLASTIC TAG TIES.
- ALL MANHOLES SHALL BE EQUIPPED WITH CONDUIT DIRECTORIES. EACH WALL OF THE MANHOLE WITH CONDUIT ENTRY SHALL HAVE A DIRECTORY. SEE SPECIFICATION FOR DIRECTORY DETAILS.
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Revision/Revision	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 90% REVIEW	16/08/15

Client/client
ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

**SOUTH JETTY
RECONSTRUCTION**

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Designed by/Concept par
I. BARNES

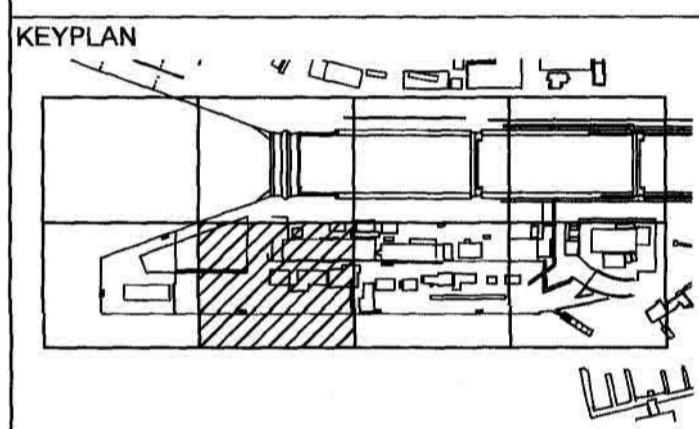
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

PWGC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG

PWGC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin
**SOUTH JETTY
MANHOLE AND PULL
PIT DETAILS 6 OF 7**

Project No./No. du projet	Sheet/Feuille	Revision no./ Loi Révision no.
R.026729.002	E25	2



Revision/	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 99% REVIEW	16/08/15

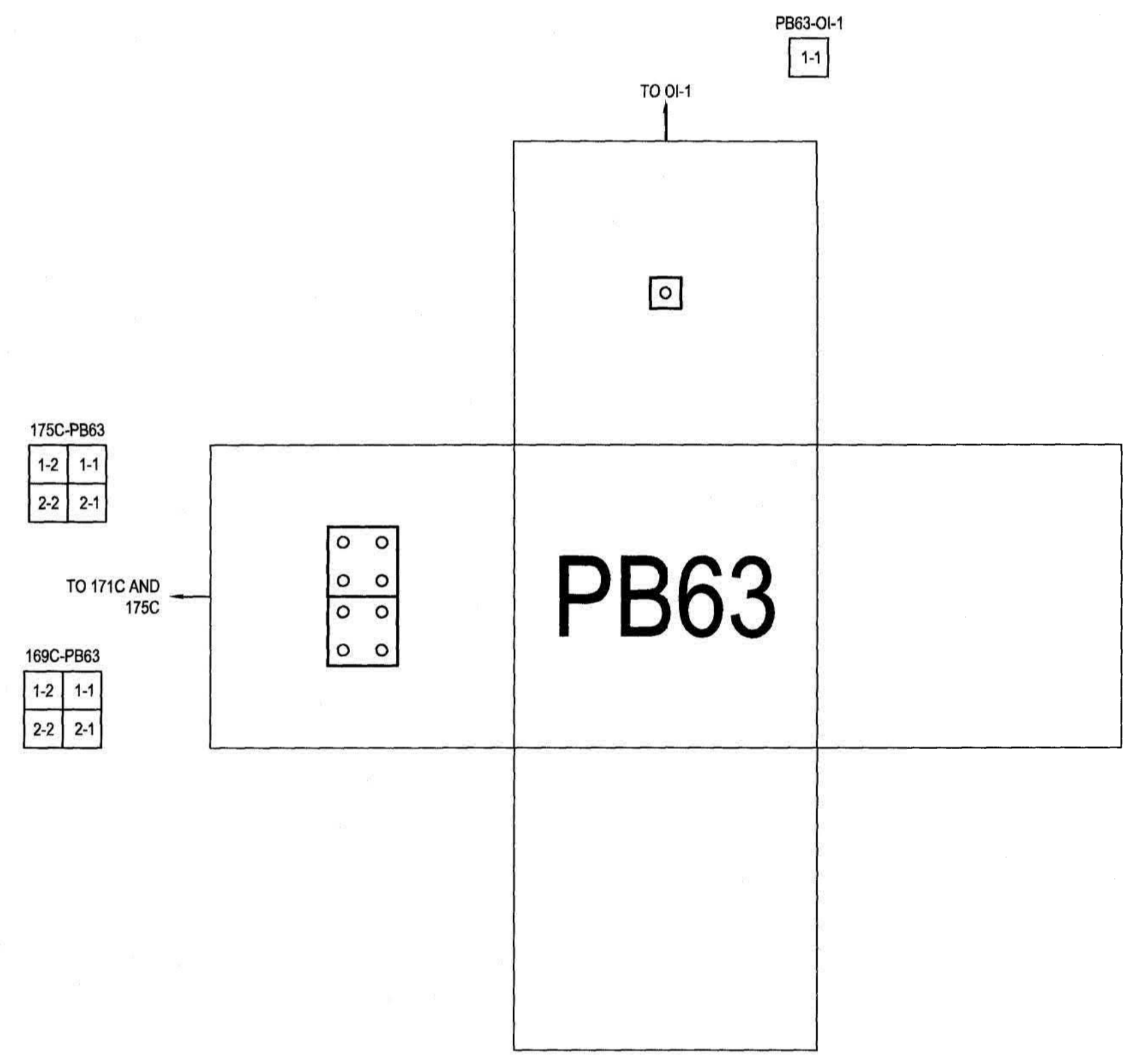
Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**
**SOUTH JETTY
RECONSTRUCTION**

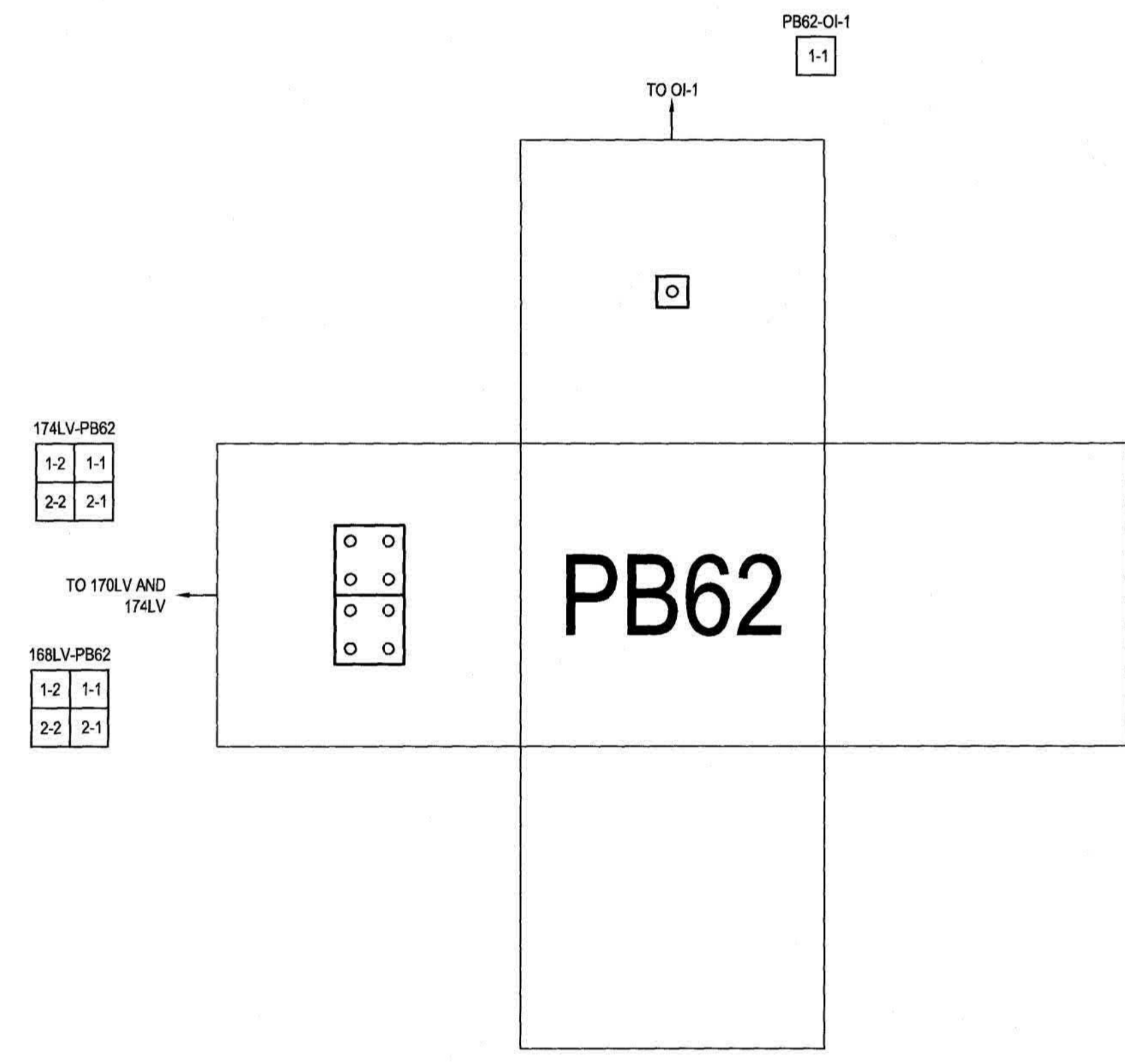
Designed by/Concept par
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Drawn by/Dessiné par
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PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
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Gestionnaire régionale, Services d'architecture et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin
**SOUTH JETTY
MANHOLE AND PULL
PIT DETAILS 7 OF 7**

Project No./No. du projet R.026729.002	Sheet/Faite E26	Revision no./ La Révision no. 2
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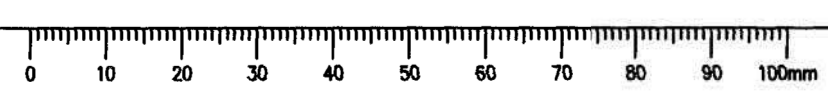
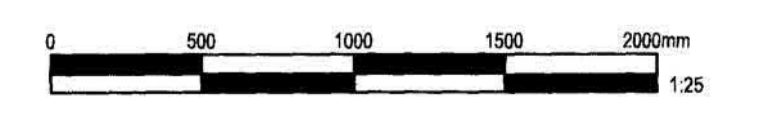


1 EXISTING PB63
SCALE 1:25

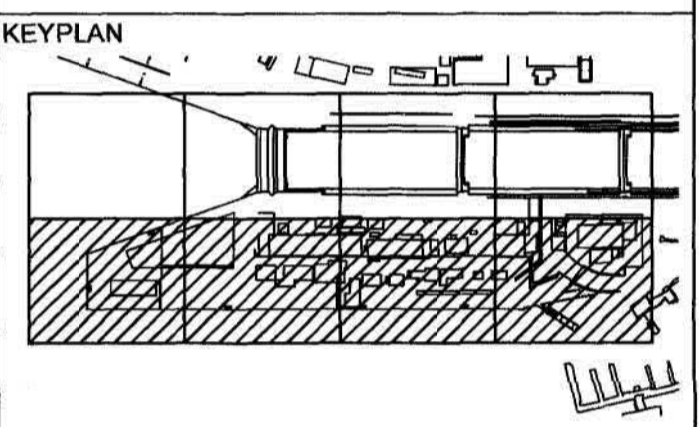


2 EXISTING PB62
SCALE 1:25

- GENERAL NOTES:**
- REFER TO CIVIL SHEETS TO EXTRUDED CONCRETE RACEWAY CONSTRUCTION DETAILS.
 - IDENTIFY ALL FEEDER CABLES WITH COLOURED TAGS HAVING 4 SLOTTED TIE HOLES AND SECURED WITH TWO PLASTIC TAG TIES.
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 - ALL MANHOLE COVERS SHALL HAVE ASSIGNED MANHOLE NUMBER WELDED ONTO EXTERIOR OF LID.



1PR TWISTED SHIELDED TO SEE SHEET 5906
 1PR TWISTED SHIELDED FUTURE



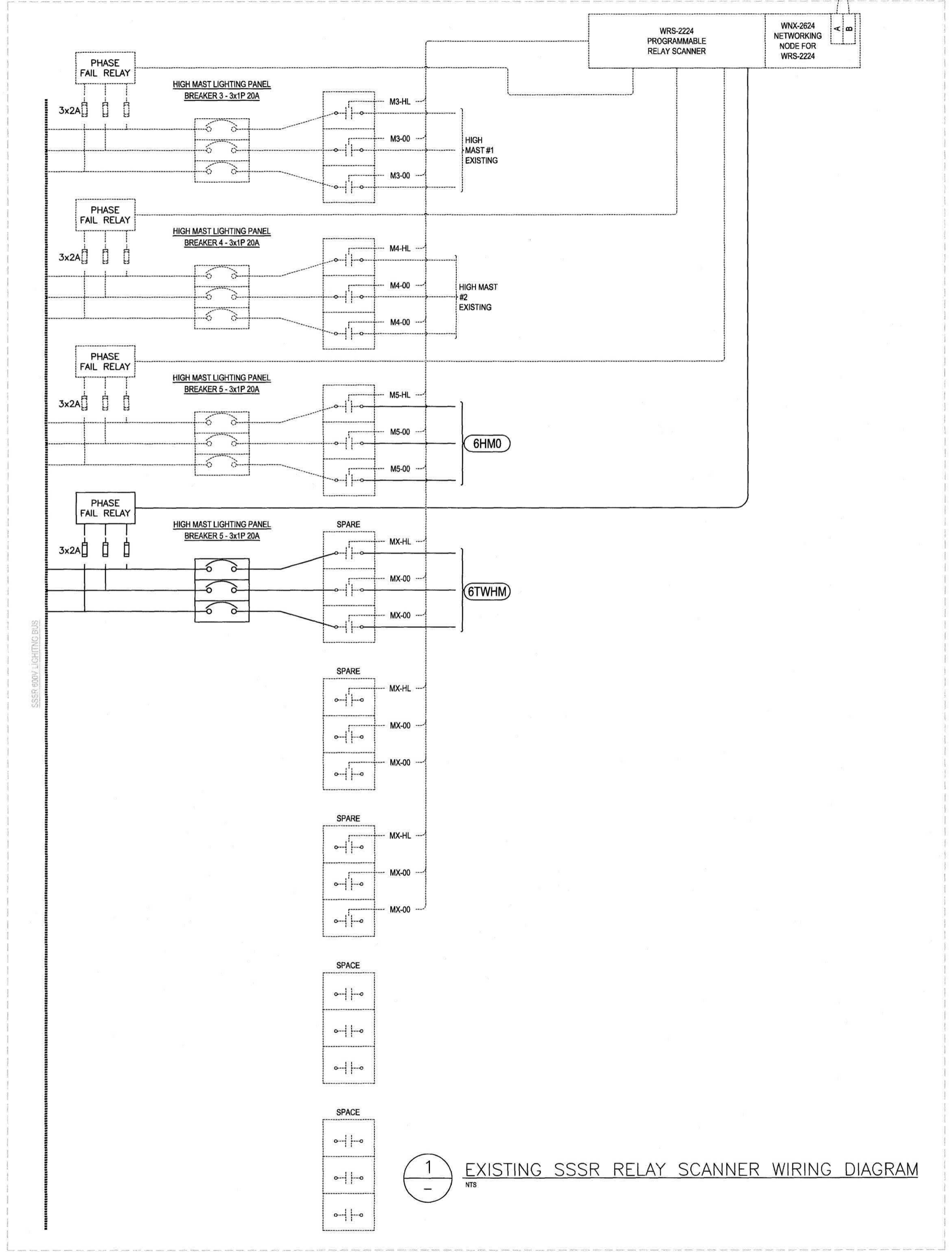
MAR - 6 2017

2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

Client/client
ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1
 Project title/Titre du projet
 825 ADMIRALS ROAD, VICTORIA, BC
 ESQUIMALT GRAVING DOCK
 ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
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 I. BARNES
 Drawn by/Dessiné par
 J. BIELING, S. SEYMOUR
 PWSC Project Manager/Administrateur de Projets TPSGC
 PATRICK TRUONG
 PWSC Regional Manager, Architectural and Engineering Services / Gestionnaire régionale, Services d'architecture et de génie, TPSGC
 PREETIPAL PAUL
 Drawing title/Titre du dessin

Project No./No. du projet R.026729.002	Sheet/Feuille E27	Revision no./La Révision no. 2
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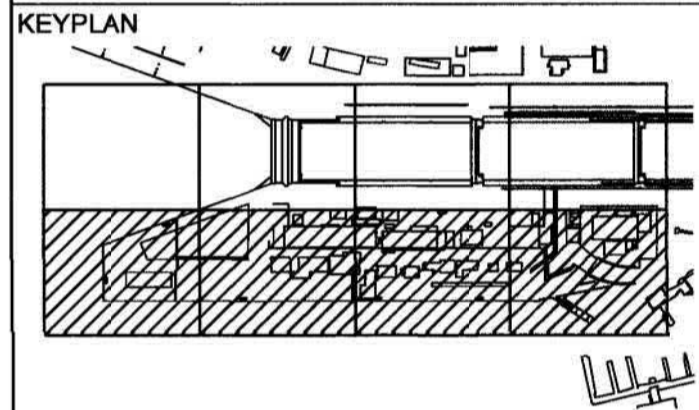
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 -
 EXISTING SSSR RELAY SCANNER WIRING DIAGRAM
 NTS

Plot Date: March 3, 2017 8:24 AM
 Plotted by: Jacob Belling
 File Name: \\A:\PROJECTS\2016\1-16-14\DWG\SSR\SSR LIGHTING CONTROLS.DWG

SOUTH SIDE SUBSTATION REPLACEMENT LIGHTING CONTROL PANEL



DM5XXXXX



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15
Revision/ Révision	Description/Description	Date/Date

Client/client
**ESQUIMALT
GRAVING DOCK**

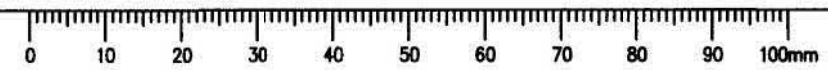
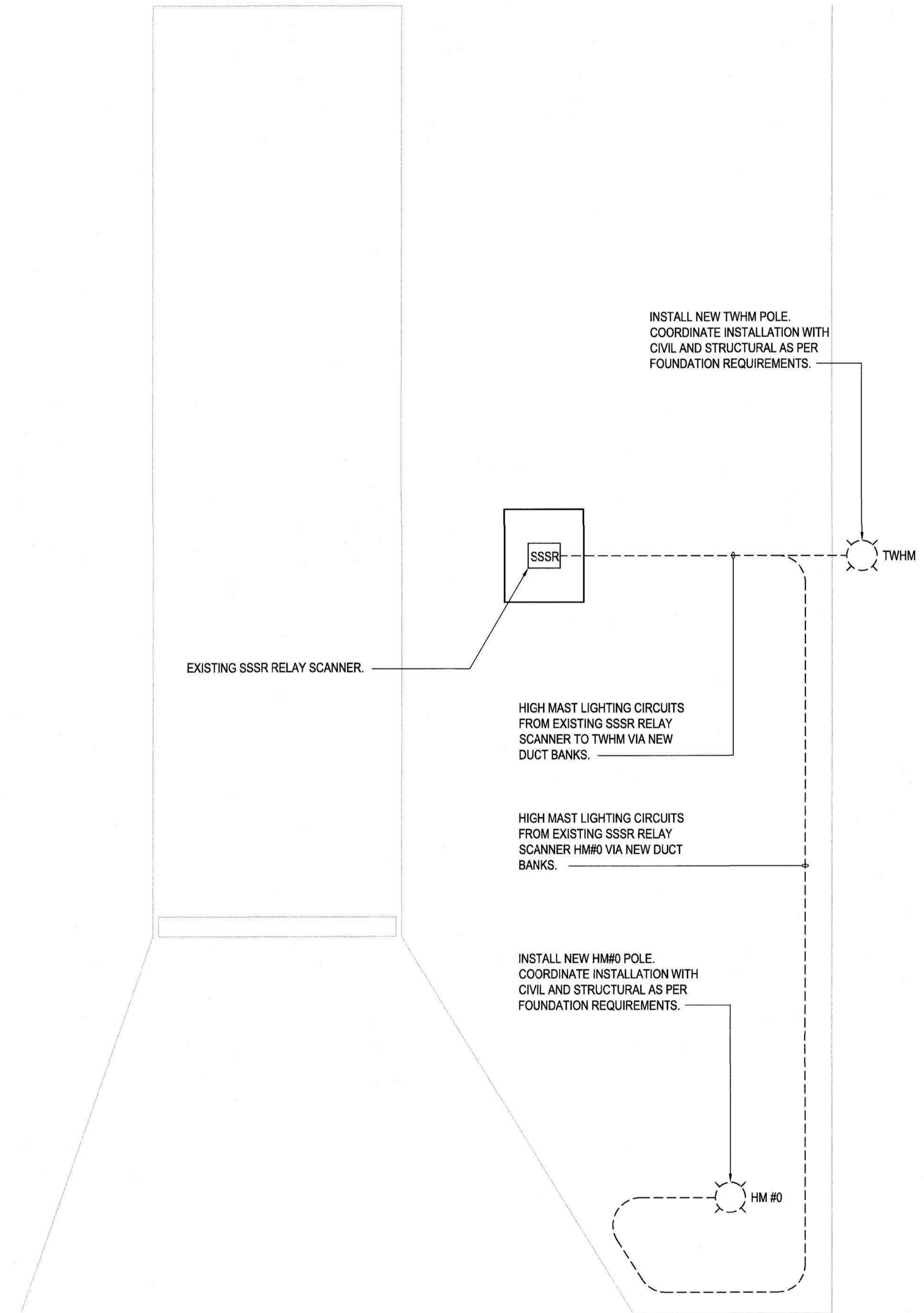
825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
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Gestionnaire régional, Services d'architecture et de génie, TPSC
PREETIPAL PAUL
Drawing title/Titre du dessin

**SSSR AND SOUTH JETTY
LIGHTING CABLE
ROUTING**

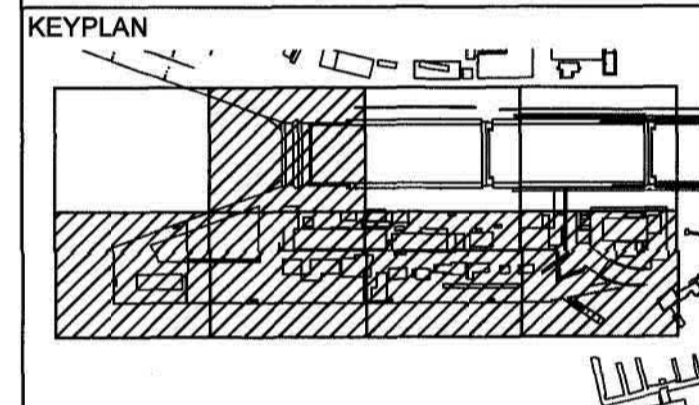
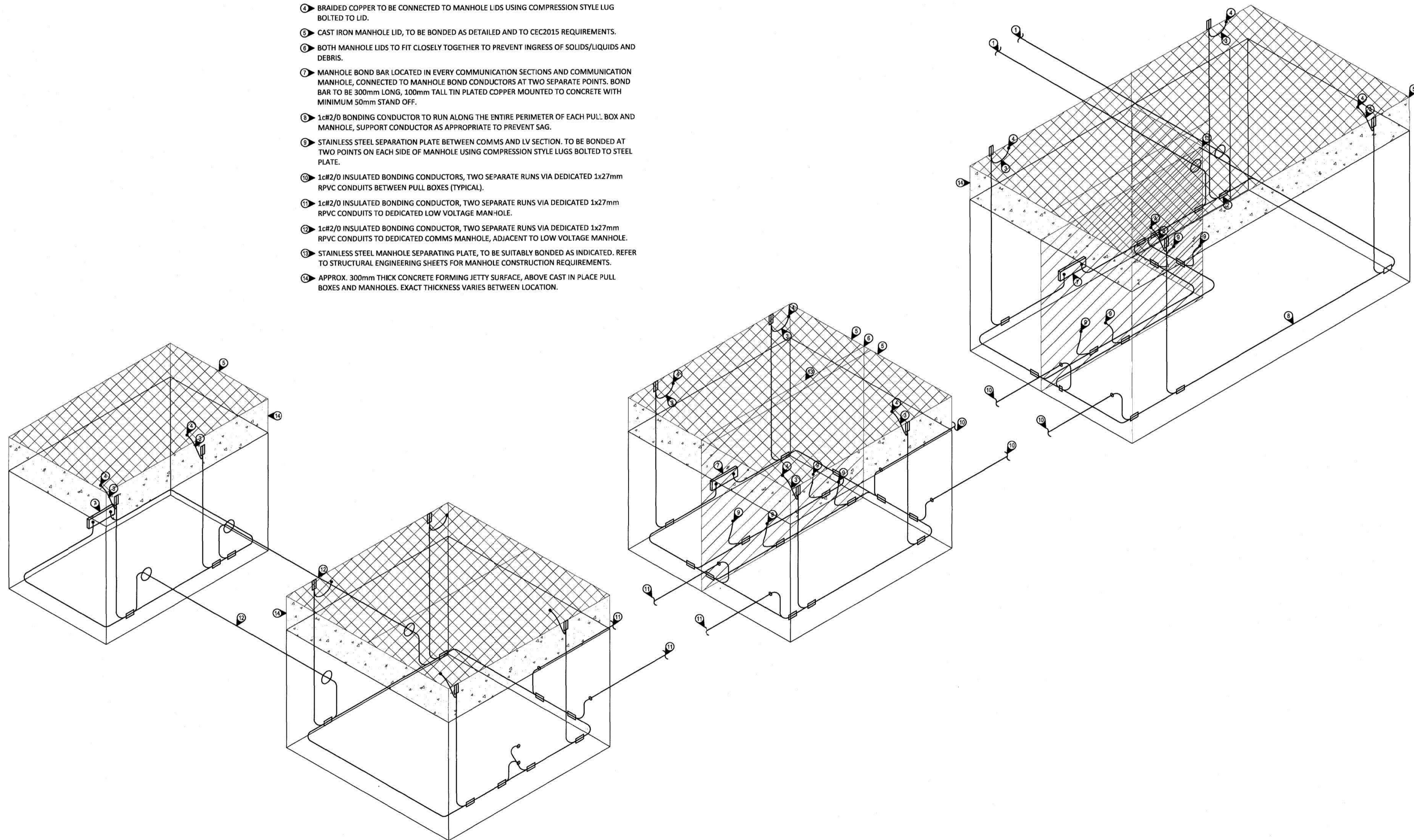
Project No./No. du projet R.026729.002	Sheet/Fauille E28	Revision no./ La Révision no. 2
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BONDING NOTES

- ① 1#2/0 INSULATED BONDING CONDUCTORS, TWO SEPARATE RUNS VIA DEDICATED 1x27mm RPVC CONDUITS TO EXISTING LOW VOLTAGE MANHOLE 144LV BOND. TIE INTO EXISTING BOND AT TWO DIFFERENT LOCATIONS AND ATTACH USING NON-REVERSIBLE COMPRESSION STYLE CRIMP CONNECTOR.
- ② ALL BOND CONDUCTOR TAPS TO BE CONNECTED TO MAIN BOND WIRES USING NON-REVERSIBLE COMPRESSION STYLE CRIMP CONNECTOR (TYPICAL).
- ③ BRAIDED #2/0 FLEXIBLE COPPER CONNECTOR TO BOND MANHOLE LIDS, ATTACH TO EACH LID AT TWO SEPARATE LOCATIONS.
- ④ BRAIDED COPPER TO BE CONNECTED TO MANHOLE LIDS USING COMPRESSION STYLE LUG BOLTED TO LID.
- ⑤ CAST IRON MANHOLE LID, TO BE BONDED AS DETAILED AND TO CEC2015 REQUIREMENTS.
- ⑥ BOTH MANHOLE LIDS TO FIT CLOSELY TOGETHER TO PREVENT INGRESS OF SOLIDS/LIQUIDS AND DEBRIS.
- ⑦ MANHOLE BOND BAR LOCATED IN EVERY COMMUNICATION SECTIONS AND COMMUNICATION MANHOLE, CONNECTED TO MANHOLE BOND CONDUCTORS AT TWO SEPARATE POINTS. BOND BAR TO BE 300mm LONG, 100mm TALL TIN PLATED COPPER MOUNTED TO CONCRETE WITH MINIMUM 50mm STAND OFF.
- ⑧ 1#2/0 BONDING CONDUCTOR TO RUN ALONG THE ENTIRE PERIMETER OF EACH PULL BOX AND MANHOLE, SUPPORT CONDUCTOR AS APPROPRIATE TO PREVENT SAG.
- ⑨ STAINLESS STEEL SEPARATION PLATE BETWEEN COMMS AND LV SECTION. TO BE BONDED AT TWO POINTS ON EACH SIDE OF MANHOLE USING COMPRESSION STYLE LUGS BOLTED TO STEEL PLATE.
- ⑩ 1#2/0 INSULATED BONDING CONDUCTORS, TWO SEPARATE RUNS VIA DEDICATED 1x27mm RPVC CONDUITS BETWEEN PULL BOXES (TYPICAL).
- ⑪ 1#2/0 INSULATED BONDING CONDUCTOR, TWO SEPARATE RUNS VIA DEDICATED 1x27mm RPVC CONDUITS TO DEDICATED LOW VOLTAGE MAN-HOLE.
- ⑫ 1#2/0 INSULATED BONDING CONDUCTOR, TWO SEPARATE RUNS VIA DEDICATED 1x27mm RPVC CONDUITS TO DEDICATED COMMS MANHOLE, ADJACENT TO LOW VOLTAGE MANHOLE.
- ⑬ STAINLESS STEEL MANHOLE SEPARATING PLATE, TO BE SUITABLY BONDED AS INDICATED. REFER TO STRUCTURAL ENGINEERING SHEETS FOR MANHOLE CONSTRUCTION REQUIREMENTS.
- ⑭ APPROX. 300mm THICK CONCRETE FORMING JETTY SURFACE, ABOVE CAST IN PLACE PULL BOXES AND MANHOLES. EXACT THICKNESS VARIES BETWEEN LOCATION.



Revision/Revision	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

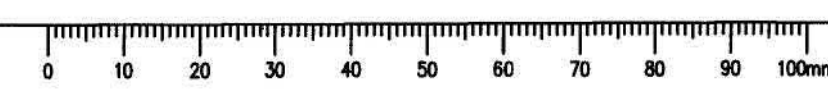
Client/Client
ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

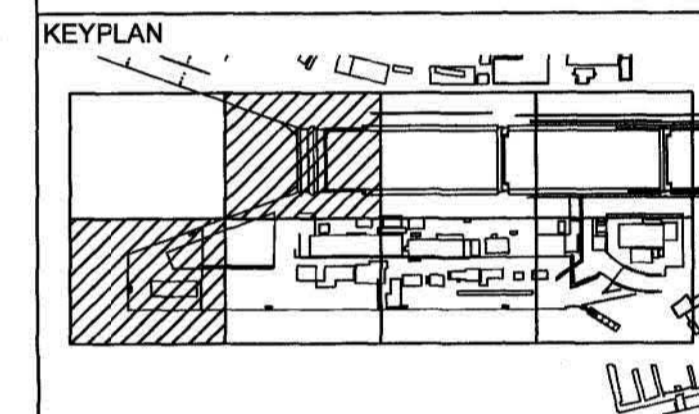
Project Title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
 ESQUIMALT GRAVING DOCK
 ELECTRICAL SAFETY UPGRADE
 SOUTH JETTY RECONSTRUCTION**

Consultant Approval Box Only
 -
 Designed by/Concept par
I. BARNES
 Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
 PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
 PWSC Regional Manager, Architectural and Engineering Services/
 Gestionnaire régionale, Services d'architecture et de génie, TPSGC
PREETIPAL PAUL

Drawing Title/Titre du dessin
**SOUTH JETTY
 PULLBOX BONDING
 TYPICAL DETAIL**

Project No./No. du projet R.026729.002	Sheet/Feuille E29	Revision no./ Loi Révision 2
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Revision/	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 90% REVIEW	16/08/15

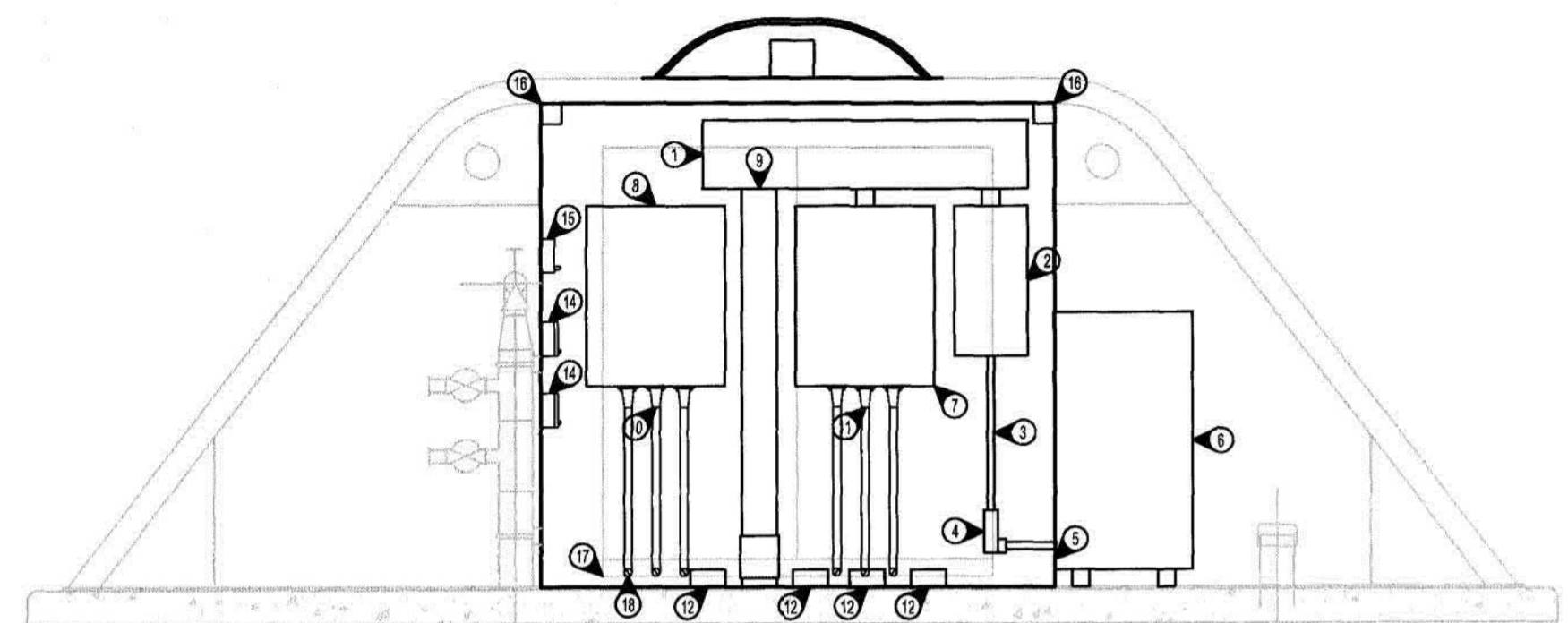
Client/client
ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

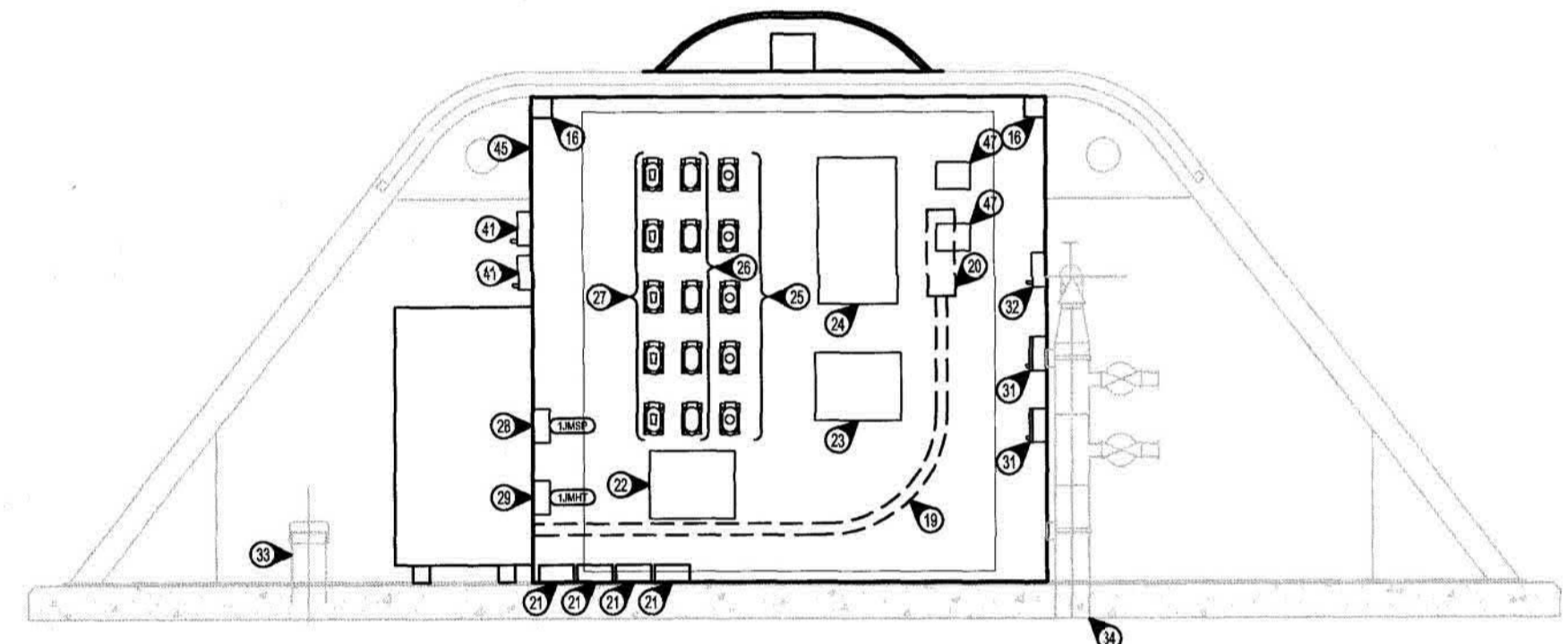
Consultant Approval Box Only
 Designed by/Concept par
I. BARNES
 Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
 PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
 PWSC, Regional Manager, Architectural and Engineering Services/
 Gestionnaire Régionale, Services d'architectural et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin
JETTY MOUNT #1 & #2 REFURBISHED DETAILS
1 OF 2

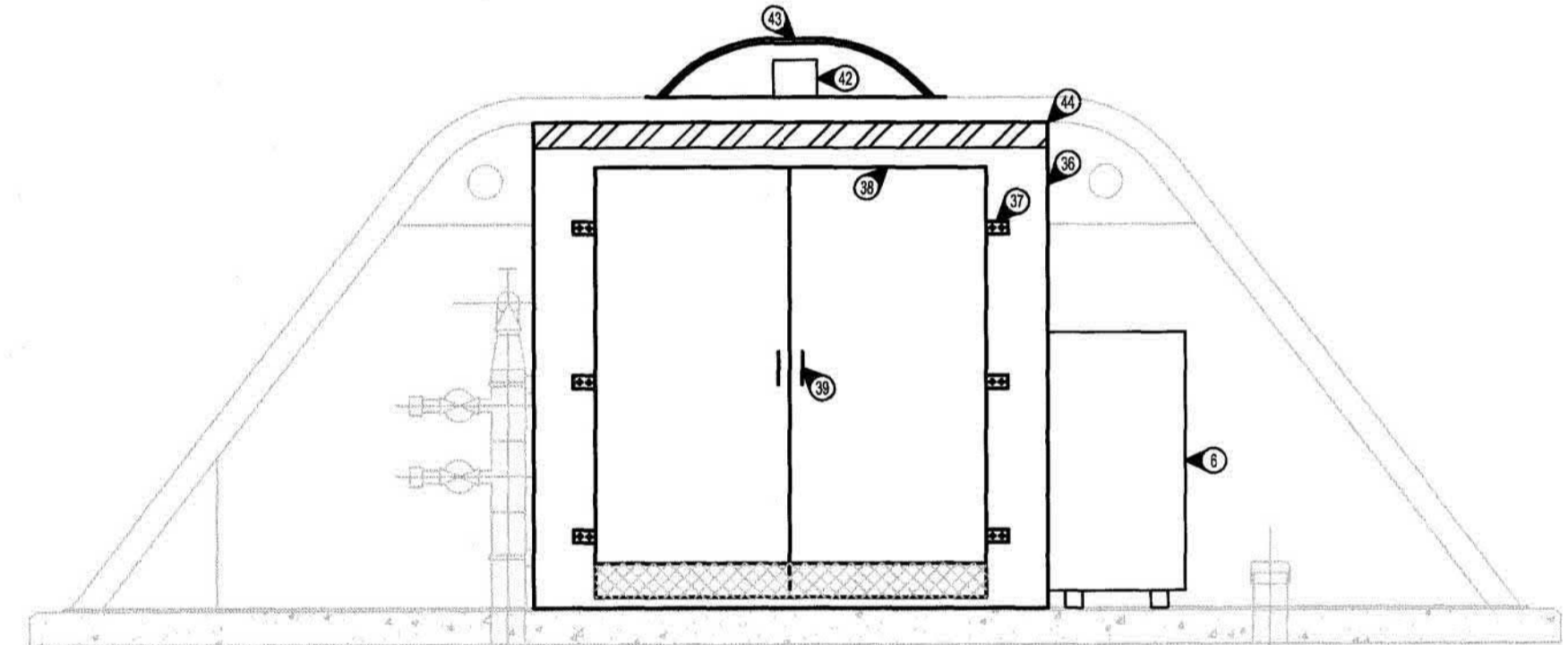
Project No./No. du projet	Sheet/Faillis	Revision no./La Révision no.
R.026729.002	E30	2



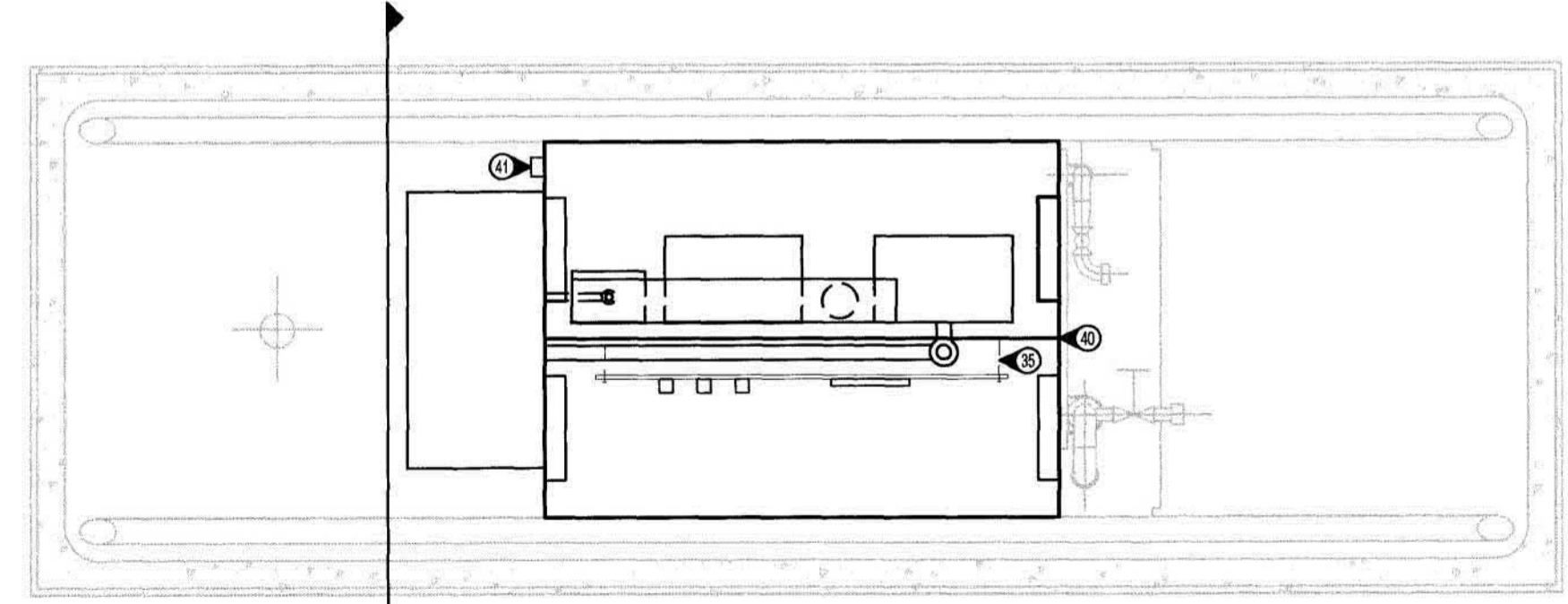
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JETTY MOUNT #1 & #2 REFURBISHED POWER SECTION (FACE TOWARDS SHORE)
 SCALE 1:20



2
JETTY MOUNT #1 & #2 REFURBISHED COMMUNICATION SECTION
 SCALE 1:20



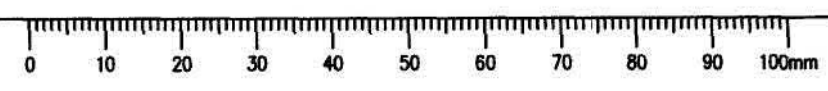
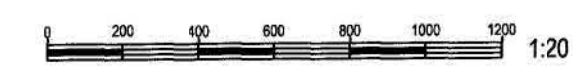
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 SCALE 1:20



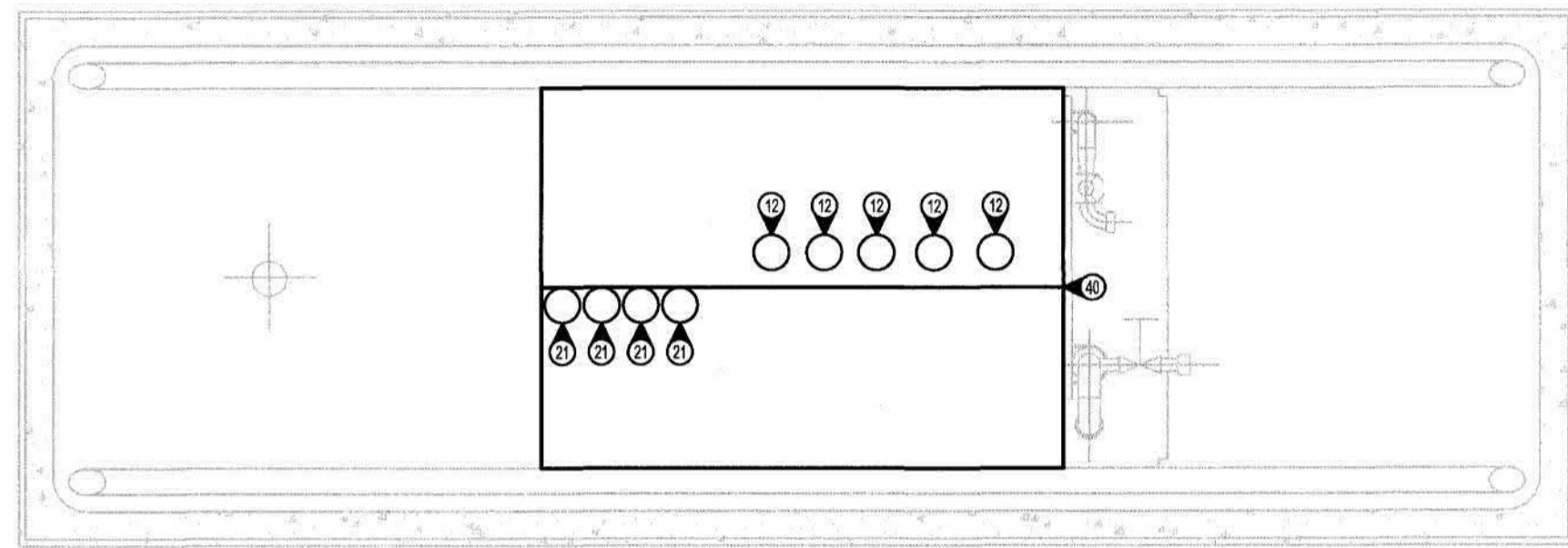
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JETTY MOUNT #1 & #2 REFURBISHED FLOOR PLAN
 SCALE 1:20

KEYNOTES SHEETS E30 AND E31:

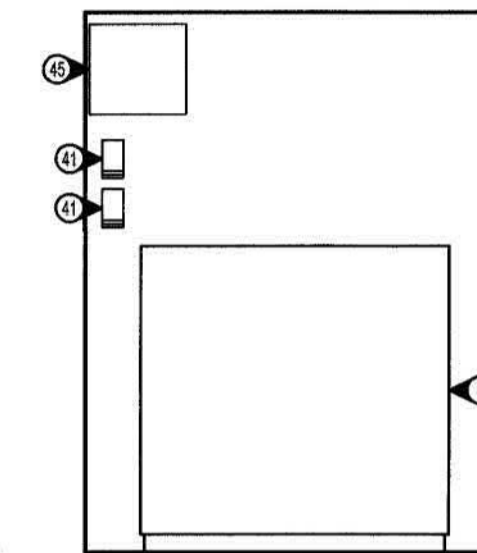
- 600V, 200A, 3PH, 3W SPLITTER TROUGH.
- 40A, 600V, 3PH BREAKER IN BREAKER ENCLOSURE.
- 1x21mm GRS CONDUIT BETWEEN 600V, 40A BREAKER AND OUTDOOR TRANSFORMER. CONNECT USING 3C#8
- GRS LBR FITTING.
- ENSURE PENETRATION BETWEEN ENCLOSURE AND TRANSFORMER IS SUITABLY SEALED AND VAPOR STOPPED.
- 40KVA, 600V-120/208V STEP DOWN TRANSFORMER. TRANSFORMER TO BE EPOXY ENCAPSULATED NEMA 4X RATED TRANSFORMER SUITABLE FOR WALL MOUNTING TO EXTERIOR TO KIOSK. TRANSFORMER IS TO BE DELTA-WYE TYPE WITH GROUND CONNECTING BACK INTO KIOSK AND TO CONNECT TO SOUTH JETTY GROUND BUS BAR LOCATED IN NEARBY MANHOLE. GROUND TO BE #6 GREEN INSULATED COPPER. PROTECT GROUND WIRE USING NON-METALLIC LIQUID TIGHT FLEX.
- 600V, 100A, 100% RATED BREAKER C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
- 120/208V, 100A, 100% RATED BREAKER C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
- 1x103mm GRS CONDUIT FROM CONDUIT STUB UP TO 600V SPLITTER TROUGH. CONDUIT TO BE ATTACHED TO RPVC STUB USING SUITABLE EXPANSION COUPLING.
- DLO STYLE CABLES SUPPLIED BY OTHERS.
- PROVIDE SUPPORT BARS BEHIND BREAKERS, FOR ATTACHMENT OF STAINLESS STEEL STRAIN RELIEF GRIPS TO PREVENT STRESS ON DLO CABLE OR CAM-LOCK PLUGS.
- 5x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOUR STOPPED.
- NOT USED
- POWER SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
- POWER SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- 500 LUMEN, 120V, LED STRIP LIGHTS, 4X RATED, MOUNTED IN TOP CORNERS OF EACH SECTION. TO BE MOUNTED SUCH THAT THE LIGHT IS THROWN INTO THE CENTRE OF THE KIOSK NOT JUST WASHING THE WALLS.
- OUTLINE OF KIOSK DOOR. ENSURE BREAKERS AND CAM-LOCK CONNECTORS ARE SUITABLY MOUNTED SUCH THAT ACCESS AND OPERATION IS NOT IMPEDED.
- EXISTING 100mm GAP BELOW KIOSK DOORS FOR CABLE EXIT/ENTRY.
- 4C#1/0 TECK CABLE MOUNTED BEHIND COMMUNICATION PLYWOOD BOARD. TO RUN BEHIND BOARD AND UP INTO ELBOW FITTING.
- 4C#1/0 ELBOW FITTING INTO TOP, BACK END OF 120/208V, 100A BREAKER VIA PENETRATION BETWEEN POWER AND COMMUNICATION COMPARTMENT BARRIER.
- 4x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOUR STOPPED.
- TEL-COM SPLICE BOX FOR CAT3 PHONE CABLE CROSS CONNECTIONS
- SCADA METERS FOR COMPRESSED AIR AND WATER MONITORING.
- FIBRE TO CAT5E MINIMUM 8-PORT INDUSTRIAL MEDIA CONVERTER AND POWER SUPPLY MOUNTED TO PLYWOOD MOUNTING BOARD.
- 5x 9/125µm SSM FIBRE OPTIC CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
- 5xCAT5E CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
- 5xCAT3 TELEPHONE CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
- JETTY MOUNT LV 120V SERVICE SPLICE BOX FOR POWER AND LIGHTING CIRCUIT.
- JETTY MOUNT HEAT TRACE SPLICE BOX. FINAL CONNECTION OF HEAT TRACE BY MECHANICAL CONTRACTOR.
- NOT USED
- COMMUNICATION SECTION SERVICE RECEPTACLES C/W LATCH COVERS
- COMMUNICATION SECTION LIGHT SWITCH WIRES IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- SEWER CONNECTION POINT. LOCATION TO BE CONFIRMED ON MECHANICAL DETAILS FOR JETTY MOUNT REFURBISHMENT.
- WATER AND COMPRESSED AIR CONNECTION MANIFOLDS. CONFIRM MOUNTING AND CO-ORDINATE WITH MECHANICAL CONTRACTOR AND MECHANICAL SHEETS FOR DETAILED DESIGN.
- COMMUNICATIONS 19mm THICK PLYWOOD BACKBOARD PAINTED WHITE. MOUNTED OFF WALL TO ALLOW TECK CABLE TO PASS BEHIND FOR 208V SECONDARY FEEDERS.
- CONFIRM POWER AND COMMUNICATION SECTION WELD INTEGRITY. SUBMIT A PER UNIT COST FOR REPAIR WORK THAT WILL BE DONE UNDER A CHANGE ORDER IF REQUIRED.
- REPLACE EXISTING DOOR HINGES WITH NEW STAINLESS STEEL HINGES.
- REPLACE ALL DOOR SEALS WITH NEW GASKETS. GASKET TO BE 4 STRIPS FOR TOP, BOTTOM AND SIDES. TO EXTEND FULL LENGTH OF DOOR AND MEET AT EDGES FOR SEAMLESS CONNECTION.
- REPLACE ALL DOOR LATCHES WITH NEW STAINLESS STEEL LOCKABLE LATCHES.
- REPLACE EXISTING SEPARATION BARRIER WITH NEW ALUMINUM OR STAINLESS STEEL 3.5mm PLATE.
- FIRE ALARM AND EMERGENCY ALARM EMERGENCY PULL STATION IN 4X RATED BOX MOUNTED ONE ABOVE THE OTHER, WIRED INTO FIRE ALARM SYSTEM.
- FIRE ALARM AND EMERGENCY ALARM STROBE LIGHT MOUNTED TO KIOSK ROOF. RED FOR FIRE ALARM. BLUE FOR EMERGENCY ALARM. TO BE OF NEMAX CONSTRUCTION AND ROOF PENETRATION TO BE SUITABLY SEALED TO PREVENT WATER INGRESS. WIRES INTO STROBE LIGHTS TO BE INSTALLED WITH DRIP LOOP TO PREVENT WATER MIGRATION ALONG THE CABLES IN THE EVENT OF A LEAK.
- SCHEDULE 80 ALUMINUM PIPE WORK, TO BE INSTALLED TO ALLOW ROPES TO SLIDE OVER THE TOP OF THE STROBE LIGHTS WITHOUT CATCHING. TO BE WELDED TO THE TOP OF THE EXISTING KIOSK ROOF.
- RED BANDING WRAP. WEATHERPROOF. APPLIED AROUND TOP OF KIOSK TO INDICATE KIOSK IS A FIRE ALARM AND EMERGENCY ALARM PULL STATION.
- OUTDOOR RATED LAMICOID LABEL. WHITE BACKGROUND WITH RED LETTERS MOUNTED ABOVE F/A AND E/A PULLS STATIONS STATING "FIRE ALARM AND EMERGENCY ALARM PULL STATIONS"
- PROVIDE LAMICOID LABEL OF JM#1 AND JM#2. SINGLE LINE DETAIL, TO BE MOUNTED TO FACE OF 208V MOLDED CASE SWITCH. SUBMIT SINGLE LINE DRAWING FOR ELECTRICAL ENGINEER AND SITE REPRESENTATIVE APPROVAL PRIOR TO MANUFACTURING.
- M2-R REVENUE CERTIFIED METERS C/W 200.5 CTS AND 5A FUSED PTS. TO BE MOUNTED ON COMMUNICATIONS BACKBOARD AND CONNECTED TO CTS AND PTS INTEGRATED INTO MOLDED CASE SWITCH COMPARTMENT. PLUG INTO CAT5E MEDIA CONVERTER FOR CONNECTION INTO EXISTING SSSR SCADA SYSTEM



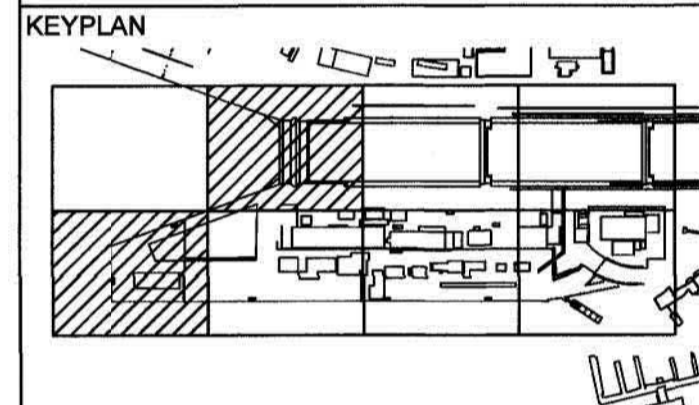
Plot Date: March 3, 2017 8:54 AM
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 File Name: R:\Projects\2017\17-142\040\040_020_001_1 & 2_DETAILS.DWG



JETTY MOUNT #1 & #2
REFURBISHED PENETRATION LOCATIONS
SCALE 1:20

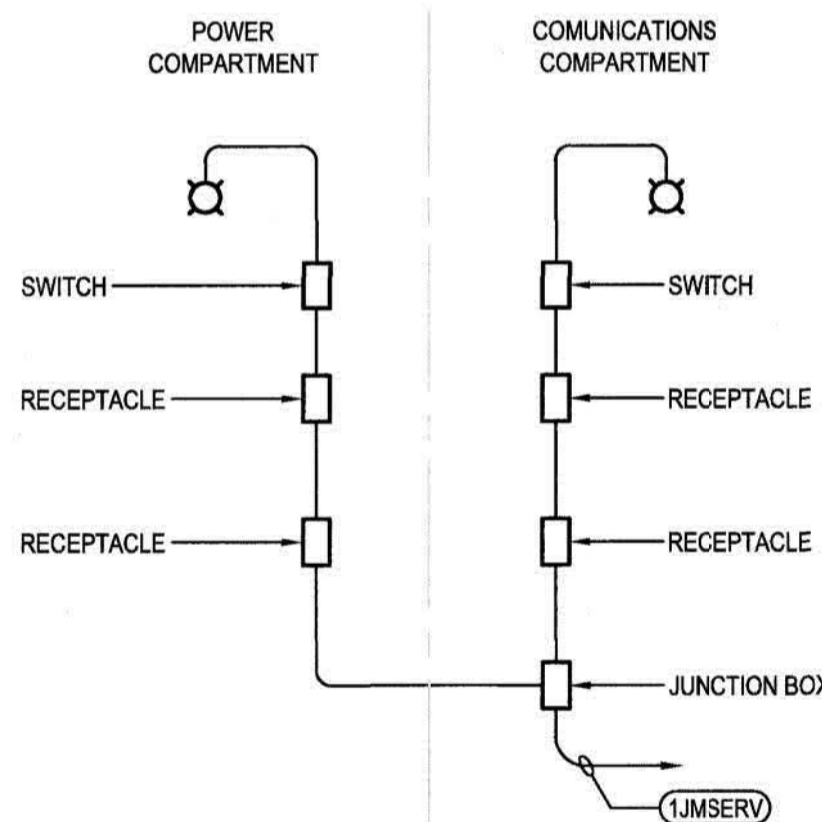


JETTY MOUNT #1 & #2
TRANSFORMER SIDE VIEW
SCALE 1:20

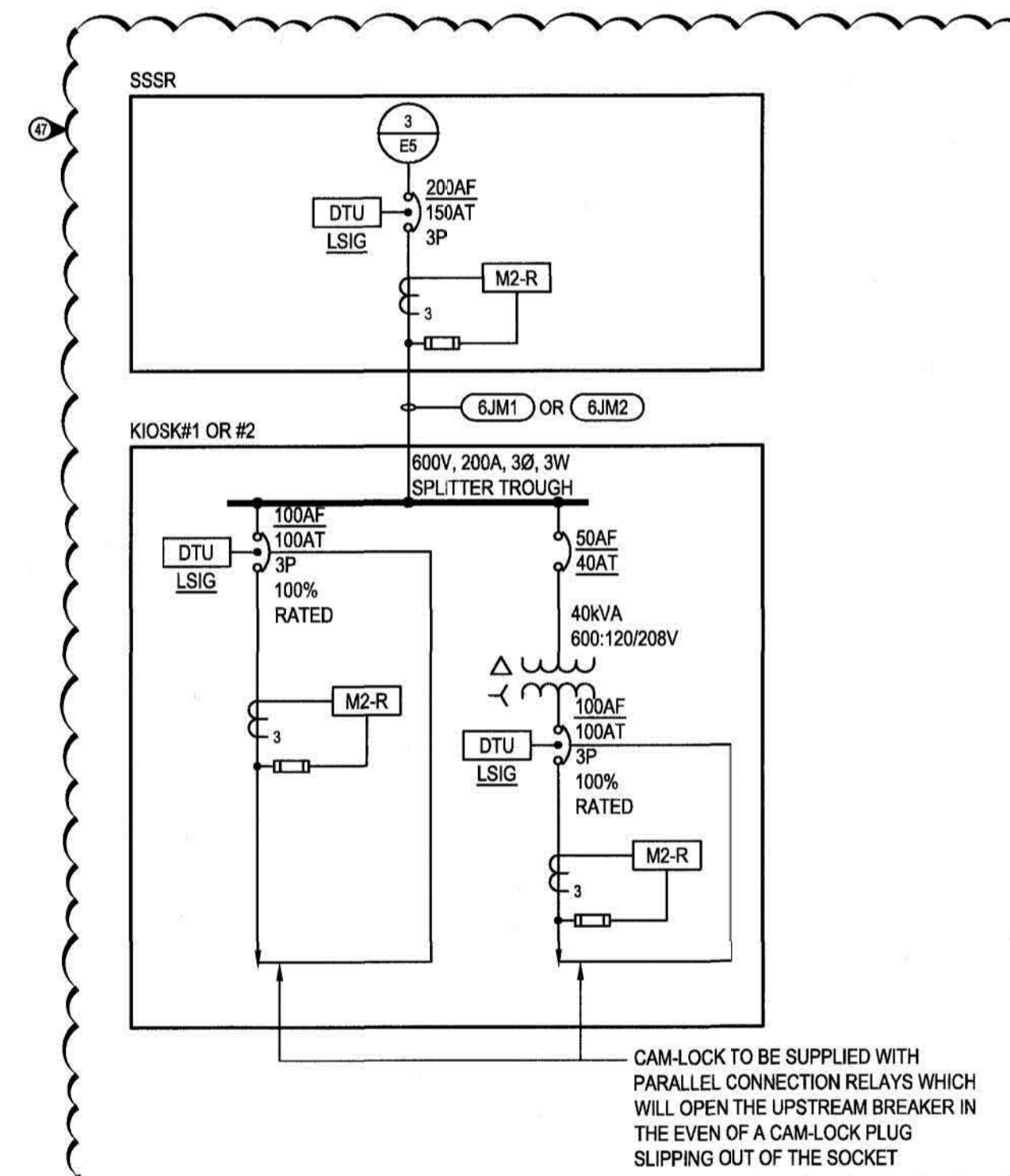


KEYNOTES SHEETS E30 AND E31:

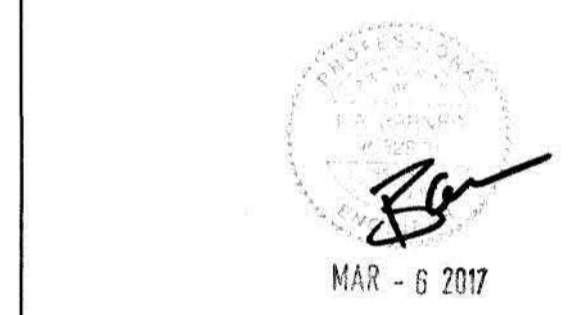
- 600V, 200A, 3PH, 3W SPLITTER TROUGH.
- 40A, 600V, 3PH BREAKER IN BREAKER ENCLOSURE.
- 1x21mm GRS CONDUIT BETWEEN 600V, 40A BREAKER AND OUTDOOR TRANSFORMER. CONNECT USING 3C#8
- GRS LBR FITTING.
- ENSURE PENETRATION BETWEEN ENCLOSURE AND TRANSFORMER IS SUITABLY SEALED AND VAPOR STOPPED.
- 40kVA, 600V-120/208V STEP DOWN TRANSFORMER. TRANSFORMER TO BE EPOXY ENCAPSULATED NEMA 4X RATED TRANSFORMER SUITABLE FOR WALL MOUNTING TO EXTERIOR TO KIOSK. TRANSFORMER IS TO BE DELTA-WYE TYPE WITH GROUND CONNECTING BACK INTO KIOSK AND TO CONNECT TO SOUTH JETTY GROUND BUS BAR LOCATED IN NEARBY MANHOLE. GROUND TO BE #6 GREEN INSULATED COPPER. PROTECT GROUND WIRE USING NON-METALLIC LIQUID TIGHT FLEX.
- 600V, 100A, 100% RATED BREAKER C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
- 120/208V, 100A, 100% RATED BREAKER C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
- 1x103mm GRS CONDUIT FROM CONDUIT STUB UP TO 600V SPLITTER TROUGH. CONDUIT TO BE ATTACHED TO RPVC STUB USING SUITABLE EXPANSION COUPLING.
- DLO STYLE CABLES SUPPLIED BY OTHERS.
- PROVIDE SUPPORT BARS BEHIND BREAKERS, FOR ATTACHMENT OF STAINLESS STEEL STRAIN RELIEF GRIPS TO PREVENT STRESS ON DLO CABLE OR CAM-LOCK PLUGS.
- 5x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOUR STOPPED.
- NOT USED
- POWER SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
- POWER SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- 500 LUMEN, 120V, LED STRIP LIGHTS, 4X RATED, MOUNTED IN TOP CORNERS OF EACH SECTION. TO BE MOUNTED SUCH THAT THE LIGHT IS THROWN INTO THE CENTRE OF THE KIOSK NOT JUST WASHING THE WALLS.
- OUTLINE OF KIOSK DOOR. ENSURE BREAKERS AND CAM-LOCK CONNECTORS ARE SUITABLY MOUNTED SUCH THAT ACCESS AND OPERATION IS NOT IMPEDED.
- EXISTING 100mm GAP BELOW KIOSK DOORS FOR CABLE EXIT/ENTRY.
- 4C#1/0 TECK CABLE MOUNTED BEHIND COMMUNICATION PLYWOOD BOARD. TO RUN BEHIND BOARD AND UP INTO ELBOW FITTING.
- 4C#1/0 ELBOW FITTING INTO TOP, BACK END OF 120/208V, 100A BREAKER VIA PENETRATION BETWEEN POWER AND COMMUNICATION COMPARTMENT BARRIER.
- 4x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOUR STOPPED.
- TEL-COM SPLICE BOX FOR CAT3 PHONE CABLE CROSS CONNECTIONS
- SCADA METERS FOR COMPRESSED AIR AND WATER MONITORING.
- FIBRE TO CATSE MINIMUM 8-PORT INDUSTRIAL MEDIA CONVERTER AND POWER SUPPLY MOUNTED TO PLYWOOD MOUNTING BOARD.
- 5x 9/125µm SSM FIBRE OPTIC CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
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- 5xCAT3 TELEPHONE CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
- JETTY MOUNT LV 120V SERVICE SPLICE BOX FOR POWER AND LIGHTING CIRCUIT.
- JETTY MOUNT HEAT TRACE SPLICE BOX. FINAL CONNECTION OF HEAT TRACE BY MECHANICAL CONTRACTOR.
- NOT USED
- COMMUNICATION SECTION SERVICE RECEPTACLES C/W LATCH COVERS
- COMMUNICATION SECTION LIGHT SWITCH WIRES IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- SEWER CONNECTION POINT. LOCATION TO BE CONFIRMED ON MECHANICAL DETAILS FOR JETTY MOUNT REFURBISHMENT.
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- FIRE ALARM AND EMERGENCY ALARM STROBE LIGHT MOUNTED TO KIOSK ROOF. RED FOR FIRE ALARM. BLUE FOR EMERGENCY ALARM. TO BE OF NEM4X CONSTRUCTION AND ROOF PENETRATION TO BE SUITABLY SEALED TO PREVENT WATER INGRESS. WIRES INTO STROBE LIGHTS TO BE INSTALLED WITH DRIP LOOP TO PREVENT WATER MIGRATION ALONG THE CABLES IN THE EVENT OF A LEAK.
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- RED BANDING WRAP. WEATHERPROOF. APPLIED AROUND TOP OF KIOSK TO INDICATE KIOSK IS A FIRE ALARM AND EMERGENCY ALARM PULL STATION.
- OUTDOOR RATED LAMICOID LABEL. WHITE BACKGROUND WITH RED LETTERS MOUNTED ABOVE F/A AND E/A PULLS STATIONS STATING "FIRE ALARM AND EMERGENCY ALARM PULL STATIONS"
- PROVIDE LAMICOID LABEL OF JM#1 AND JM#2 SINGLE LINE DETAIL. TO BE MOUNTED TO FACE OF 208V MOLDED CASE SWITCH. SUBMIT SINGLE LINE DRAWING FOR ELECTRICAL ENGINEER AND SITE REPRESENTATIVE APPROVAL PRIOR TO MANUFACTURING.
- M2-R REVENUE CERTIFIED METERS C/W 200.5 CTS AND 5A FUSED PTS. TO BE MOUNTED ON COMMUNICATIONS BACKBOARD AND CONNECTED TO CTS AND PTS INTEGRATED INTO MOLDED CASE SWITCH COMPARTMENT. PLUG INTO CATSE MEDIA CONVERTER FOR CONNECTION INTO EXISTING SSSR SCADA SYSTEM



JM#1 AND #2 WIRING RISER
NTS



JM#1 AND #2 PARTIAL SINGLE LINE
NTS



Revision/Revision	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only

Designed by/Conçu par
I. BARNES

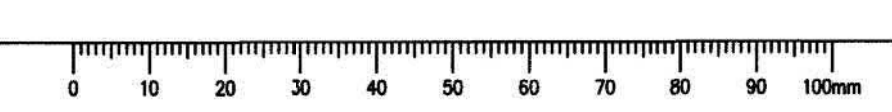
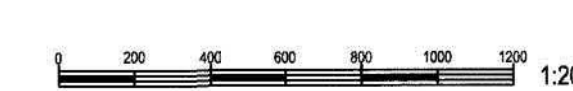
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

PWGC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG

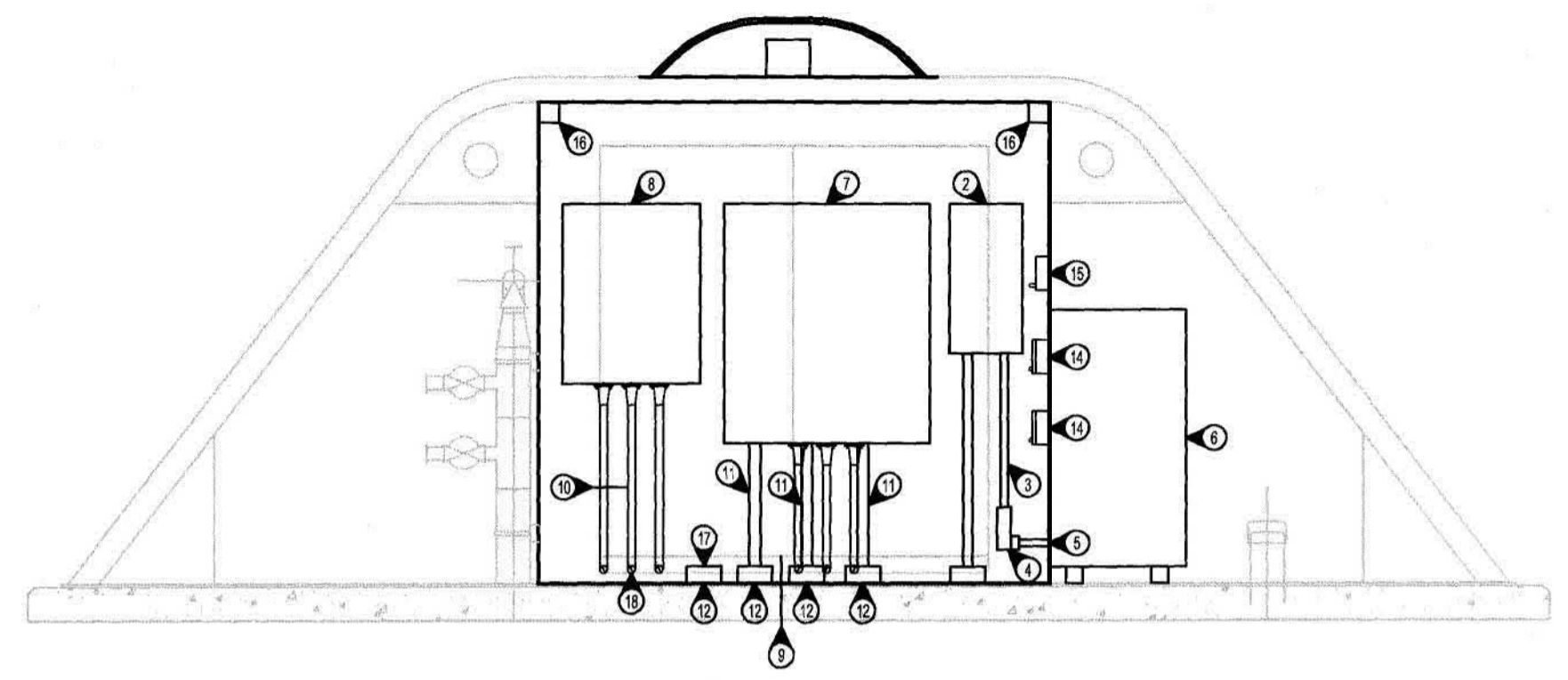
PWGC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architectural et de génie, TPSCG
PREETIPAL PAUL

Drawing title/Titre du dessin
**JETTY MOUNT #1 & #2
REFURBISHMENT DETAILS
2 OF 2**

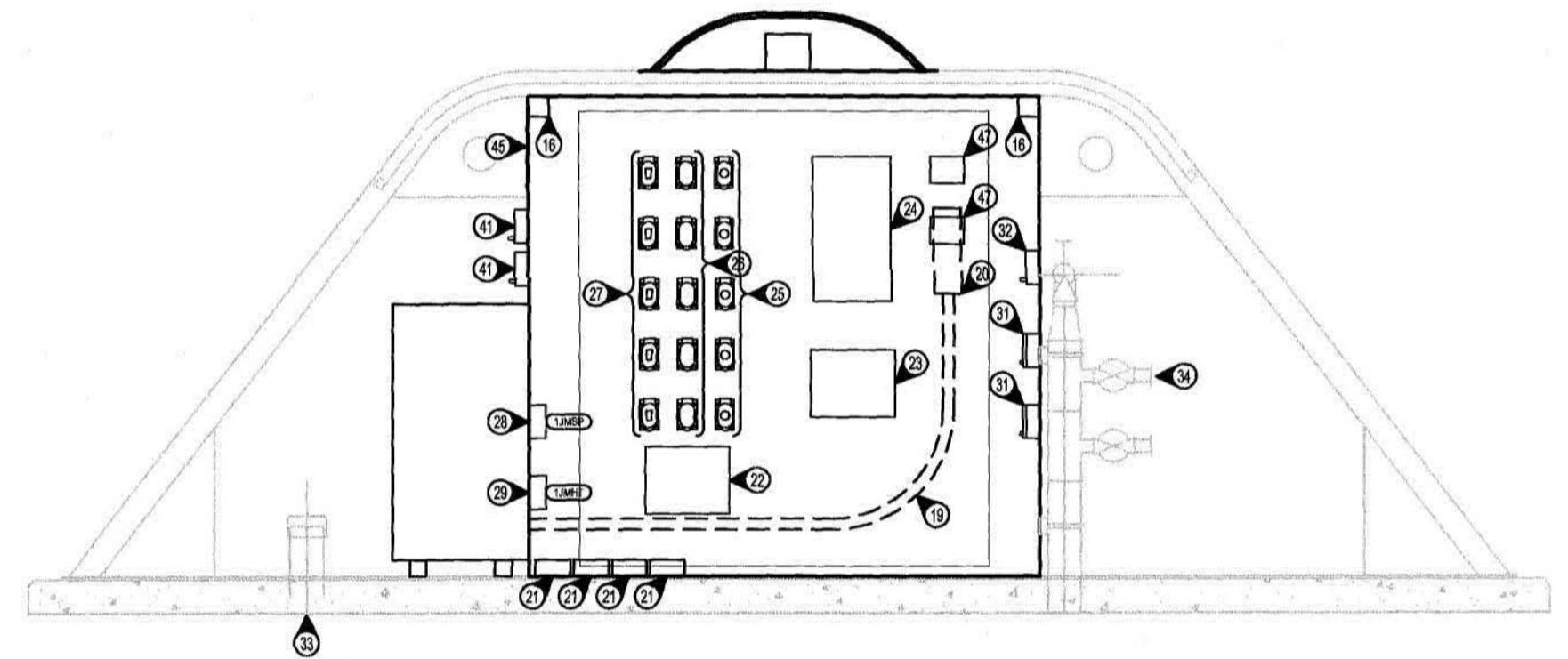
Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.026729.002	E31	2



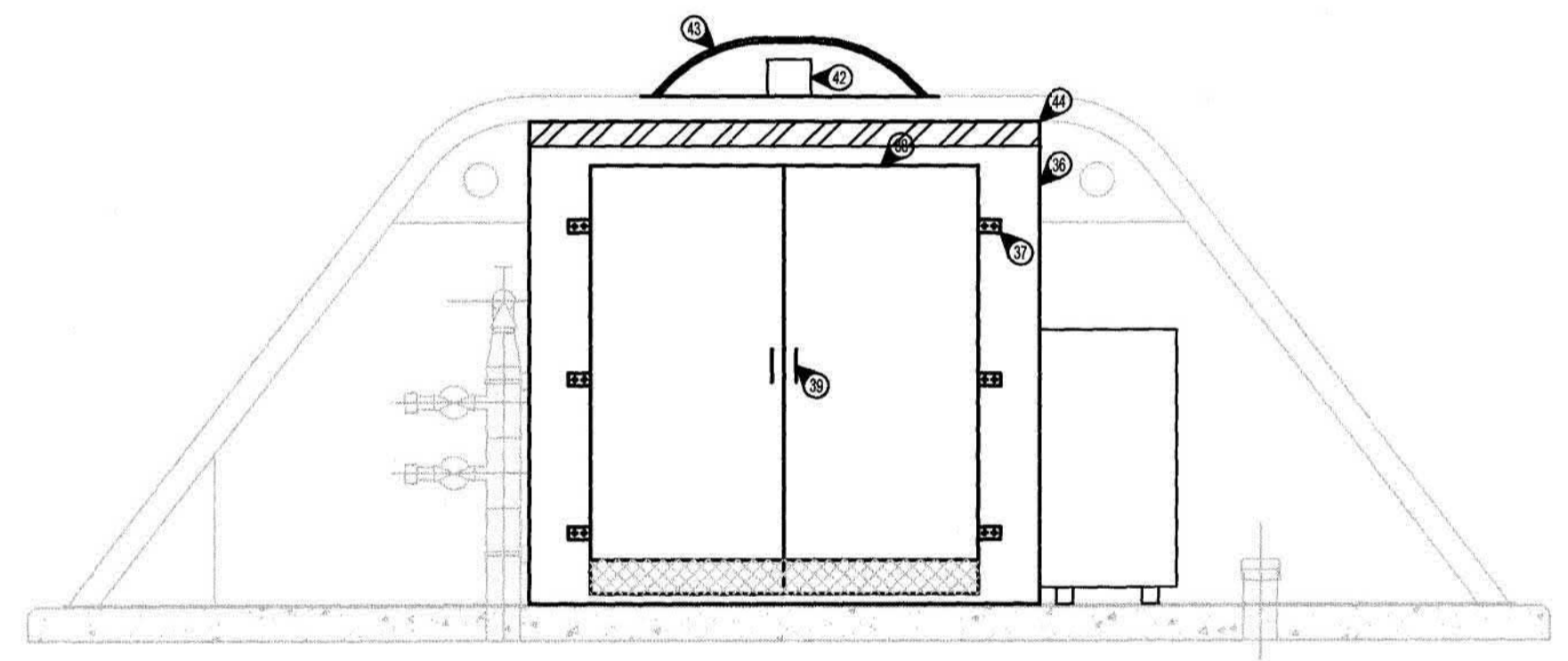
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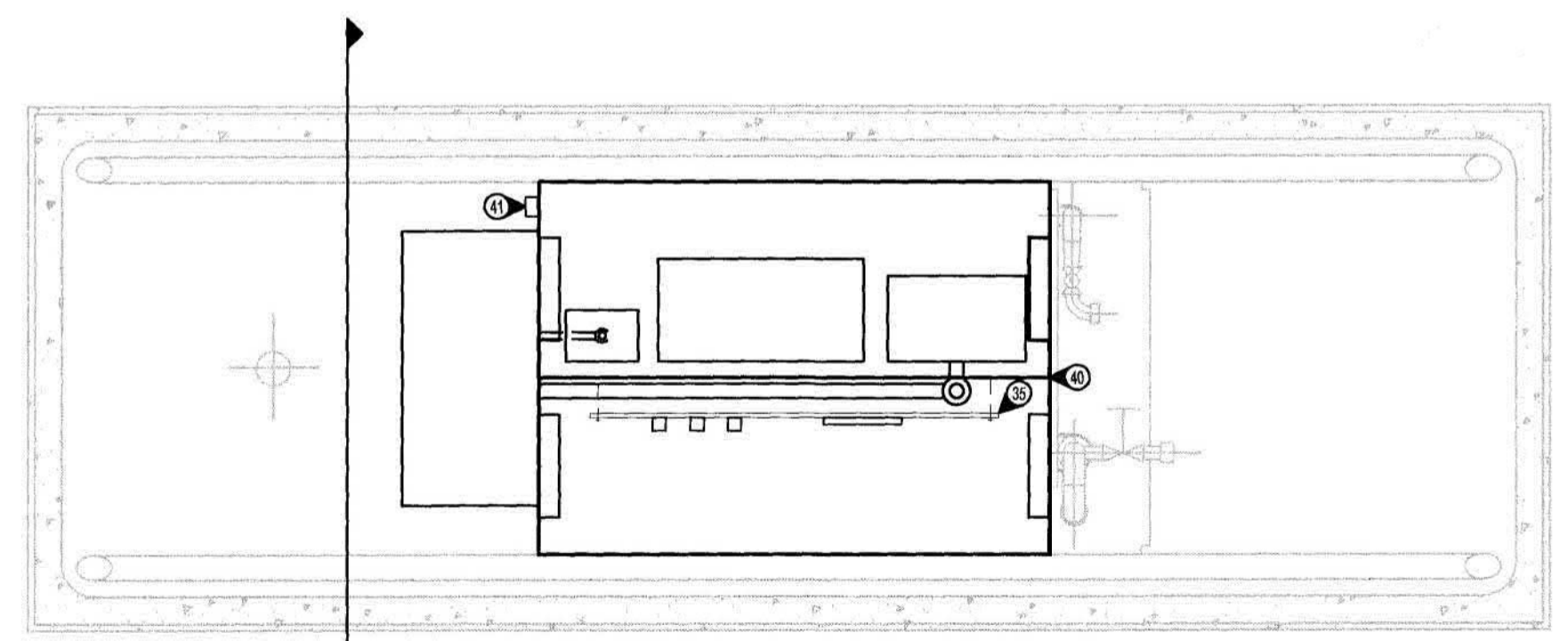
1 JETTY MOUNT #3 & #5
REFURNISHED POWER SECTION (FACE TOWARDS SHORE)
SCALE 1:20



2 JETTY MOUNT #3 & #5
REFURNISHED COMMUNICATIONS SECTION
SCALE 1:20



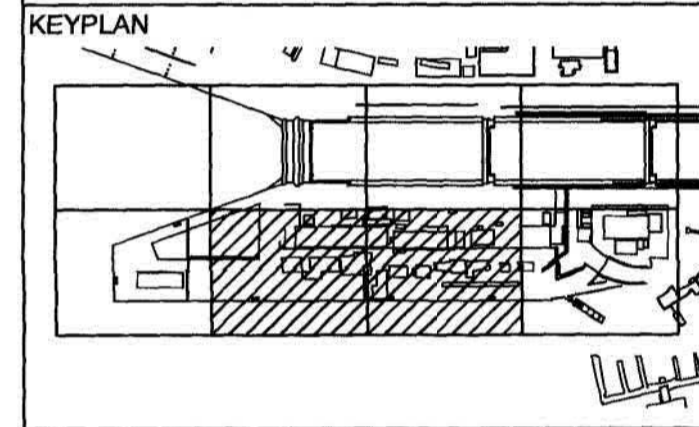
3 JETTY MOUNT #3 & #5
REFURNISHED ELEVATION
SCALE 1:20



4 JETTY MOUNT #3 & #5
REFURNISHED FLOOR PLAN
SCALE 1:20

KEYNOTES SHEETS E32 AND E33:

1. NOT USED
2. 90A 600V, 3PH BREAKER IN BREAKER ENCLOSURE.
3. 1x35MM GRS CONDUIT BETWEEN 600V, 90A BREAKER AND OUTDOOR TRANSFORMER. CONNECT USING 3C#2
4. GRS LBR FITTING.
5. ENSURE PENETRATION BETWEEN ENCLOSURE AND TRANSFORMER IS SUITABLY SEALED AND VAPOR STOPPED.
6. 75KVA, 600-120/208V STEP DOWN TRANSFORMER. TRANSFORMER TO BE EPOXY ENCAPSULATED NEMA 4X RATED TRANSFORMER SUITABLE FOR WALL MOUNTING TO EXTERIOR TO KIOSK. TRANSFORMER IS TO BE DELTA-WYE TYPE WITH GROUND CONNECTING BACK INTO KIOSK AND TO CONNECT TO SOUTH JETTY GROUND BUS BAR LOCATED IN NEARBY MANHOLE. GROUND TO BE #6 GREEN INSULATED COPPER. PROTECT GROUND WIRE USING NON-METALLIC LIQUID TIGHT FLEX
7. 480V, 400A MOLDED CASE SWITCH C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
8. 120/208V, 200A 100% RATED CIRCUIT BREAKER C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
9. 1x103MM GRS CONDUIT FROM CONDUIT STUB UP TO 600V SPLITTER TROUGH. CONDUIT TO BE ATTACHED TO RPVC STUB USING SUITABLE EXPANSION COUPLING.
10. DLO STYLE CABLES SUPPLIED BY OTHERS.
11. PROVIDE SUPPORT BARS BEHIND BREAKERS, FOR ATTACHMENT OF STAINLESS STEEL STRAIN RELIEF GRIPS TO PREVENT STRESS ON DLO CABLE OR CAM-LOCK PLUGS.
12. 5x103MM RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOR STOPPED.
13. NOT USED
14. POWER SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
15. POWER SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
16. 500 LUMEN, 120V, LED STRIP LIGHTS, 4X RATED, MOUNTED IN TOP CORNERS OF EACH SECTION. TO BE MOUNTED SUCH THAT THE LIGHT IS THROWN INTO THE CENTRE OF THE KIOSK NOT JUST WASHING THE WALLS.
17. OUTLINE OF KIOSK DOOR. ENSURE MOLDED CASE SWITCHES, BREAKERS AND CAM-LOCK CONNECTORS ARE SUITABLY MOUNTED SUCH THAT ACCESS AND OPERATION IS NOT IMPEDED.
18. EXISTING 100mm GAP BELOW KIOSK DOORS FOR CABLE EXIT/ENTRY.
19. 4C#250KCM TECK CABLE MOUNTED BEHIND COMMUNICATION PLYWOOD BOARD. TO RUN BEHIND BOARD AND UP INTO ELBOW FITTING.
20. 4C#250KCM ELBOW FITTING INTO TOP, BACK END OF 120/208V, 200A BREAKER VIA PENETRATION BETWEEN POWER AND COMMUNICATION COMPARTMENT BARRIER.
21. 4x103MM RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOR STOPPED.
22. TEL-COM SPLICE BOX FOR CAT3 PHONE CABLE CROSS CONNECTIONS
23. SCADA METERS FOR COMPRESSED AIR AND WATER MONITORING.
24. FIBRE TO CAT5E MINIMUM 8-PORT INDUSTRIAL MEDIA CONVERTER AND POWER SUPPLY MOUNTED TO PLYWOOD MOUNTING BOARD.
25. 5x9/125µm SSM FIBRE OPTIC CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
26. 5xCAT5E CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
27. 5xCAT3 TELEPHONE CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
28. JETTY MOUNT LV 120V SERVICE SPLICE BOX FOR POWER AND LIGHTING CIRCUIT.
29. JETTY MOUNT HEAT TRACE SPLICE BOX. FINAL CONNECTION OF HEAT TRACE BY MECHANICAL CONTRACTOR.
30. NOT USED
31. COMMUNICATION SECTION SERVICE RECEPTACLES C/W LATCH COVERS
32. COMMUNICATION SECTION LIGHT SWITCH WIRES IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
33. SEWER CONNECTION POINT. LOCATION TO BE CONFIRMED ON MECHANICAL DETAILS FOR JETTY MOUNT REFURBISHMENT.
34. WATER AND COMPRESSED AIR CONNECTION MANIFOLDS. CONFIRM MOUNTING AND CO-ORDINATE WITH MECHANICAL CONTRACTOR AND MECHANICAL SHEETS FOR DETAILED DESIGN.
35. COMMUNICATIONS 19mm THICK PLYWOOD BACKBOARD PAINTED WHITE. MOUNTED OFF WALL TO ALLOW TECK CABLE TO PASS BEHIND FOR 208V SECONDARY FEEDERS.
36. CONFIRM POWER AND COMMUNICATION SECTION WELD INTEGRITY. SUBMIT A PER UNIT COST FOR REPAIR WORK THAT WILL BE DONE UNDER A CHANGE ORDER IF REQUIRED.
37. REPLACE EXISTING DOOR HINGES WITH NEW STAINLESS STEEL HINGES.
38. REPLACE ALL DOOR SEALS WITH NEW GASKETS. GASKET TO BE 4 STRIPS FOR TOP, BOTTOM AND SIDES. TO EXTEND FULL LENGTH OF DOOR AND MEET AT EDGES FOR SEAMLESS CONNECTION.
39. REPLACE ALL DOOR LATCHES WITH NEW STAINLESS STEEL LOCKABLE LATCHES.
40. REPLACE EXISTING SEPARATION BARRIER WITH NEW ALUMINUM OR STAINLESS STEEL 3.5MM PLATE.
41. FIRE ALARM AND EMERGENCY ALARM EMERGENCY PULL STATION IN 4X RATED BOX MOUNTED ONE ABOVE THE OTHER, WIRED INTO FIRE ALARM SYSTEM.
42. FIRE ALARM AND EMERGENCY ALARM STROBE LIGHT MOUNTED TO KIOSK ROOF. RED FOR FIRE ALARM. BLUE FOR EMERGENCY ALARM. TO BE OF NEMA CONSTRUCTION AND ROOF PENETRATION TO BE SUITABLY SEALED TO PREVENT WATER INGRESS. WIRES INTO STROBE LIGHTS TO BE INSTALLED WITH DRIP LOOP TO PREVENT WATER MIGRATION ALONG THE CABLES IN THE EVENT OF A LEAK.
43. SCHEDULE 80 ALUMINUM PIPE WORK, TO BE INSTALLED TO ALLOW ROPES TO SLIDE OVER THE TOP OF THE STROBE LIGHTS WITHOUT CATCHING. TO BE WELDED TO THE TOP OF THE EXISTING KIOSK ROOF.
44. RED BANDING WRAP. WEATHERPROOF. APPLIED AROUND TOP OF KIOSK TO INDICATE KIOSK IS A FIRE ALARM AND EMERGENCY ALARM PULL STATION.
45. OUTDOOR RATED LAMACOID LABEL. WHITE BACKGROUND WITH RED LETTERS MOUNTED ABOVE F/A AND E/A PULLS STATIONS STATING "FIRE ALARM AND EMERGENCY ALARM PULL STATIONS"
46. PROVIDE LAMACOID LABEL OF JM#3 and JM#5 SINGLE LINE DETAIL. TO BE MOUNTED TO FACE OF 208V MOLDED CASE SWITCH. SUBMIT SINGLE LINE DRAWINGS FOR ELECTRICAL ENGINEER AND SITE REPRESENTATIVE APPROVAL PRIOR TO MANUFACTURING.
47. M2-R REVENUE CERTIFIED METERS C/W 200:5 CTS AND 5A FUSED PTS. TO BE MOUNTED ON COMMUNICATIONS BACKBOARD AND CONNECTED TO CTS AND PTS INTEGRATED INTO MOLDED CASE SWITCH COMPARTMENT. PLUG INTO CAT5E MEDIA CONVERTER FOR CONNECTION INTO EXISTING SSSR SCADA SYSTEM



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15
Revision/Revisions	Description/Description	Date/Date

Client/Client
ESQUIMALT GRAVING DOCK

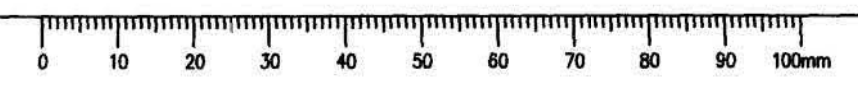
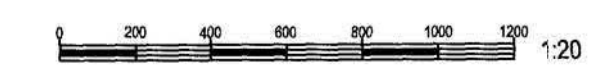
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION**

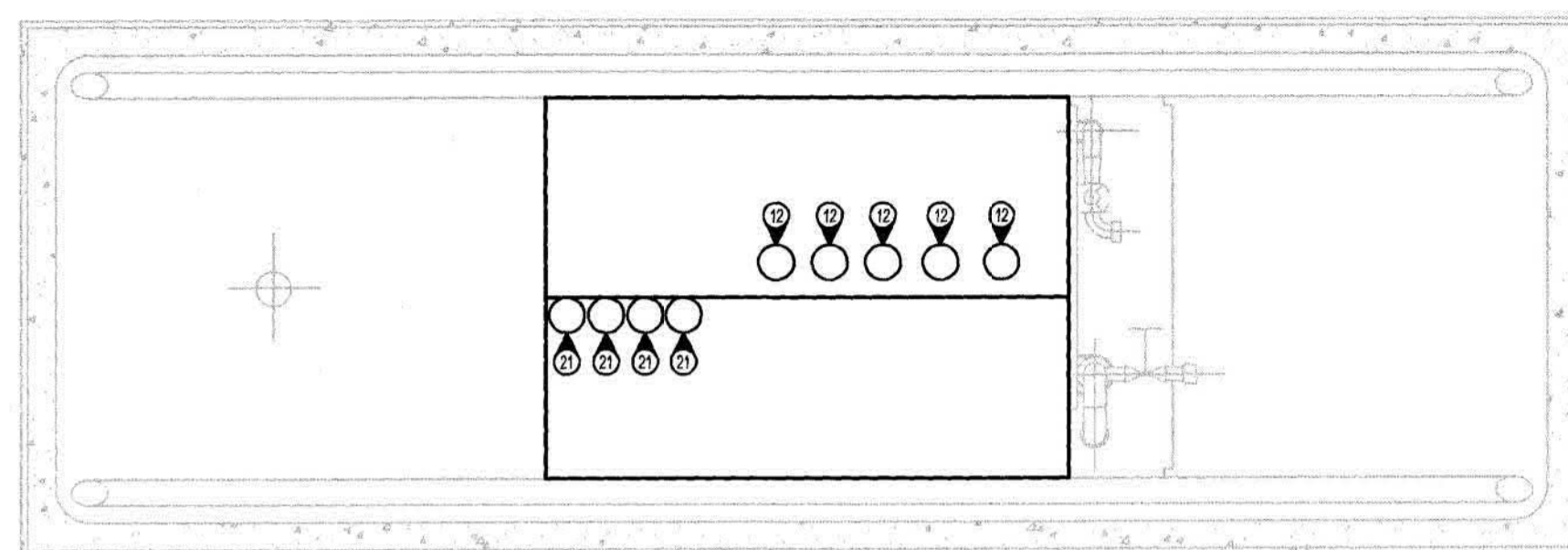
Consultant Approval Box Only
-
Designed by/Concept par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG
PWSC Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSC
PREETIPAL PAUL

Drawing title/Titre du dessin
**JETTY MOUNTS #3 AND #5
REFURBISHMENT DETAILS
1 OF 2**

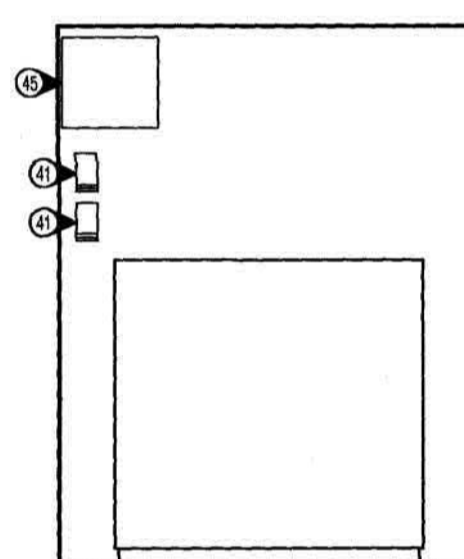
Project No./No. du projet
R.026729.002
Sheet/Feuille
E32
Revision no./
La Révision no.
2



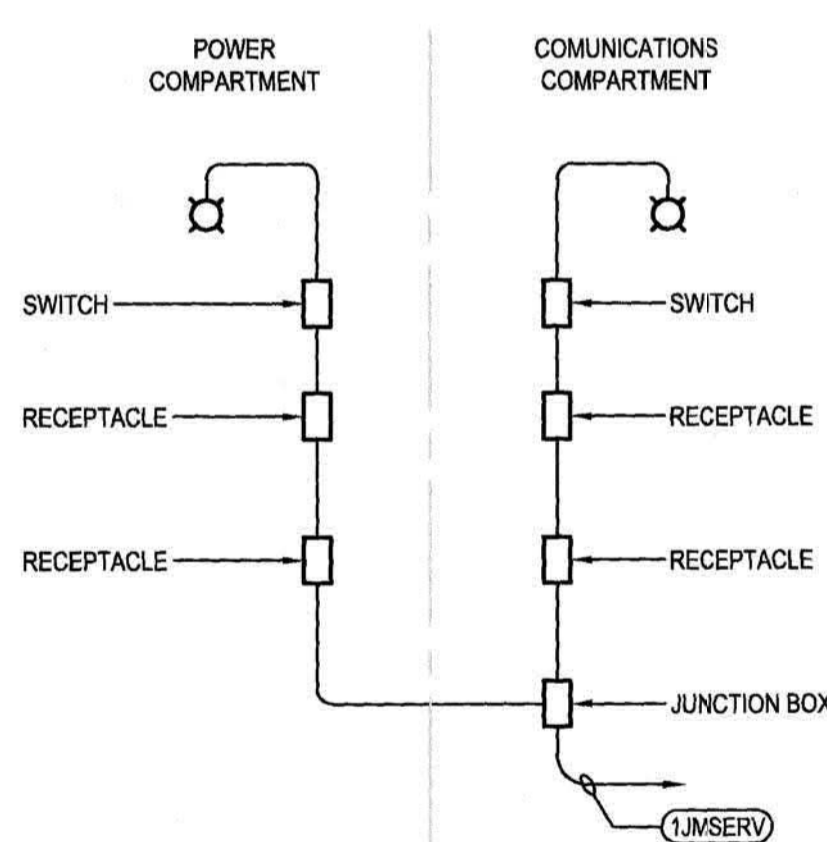
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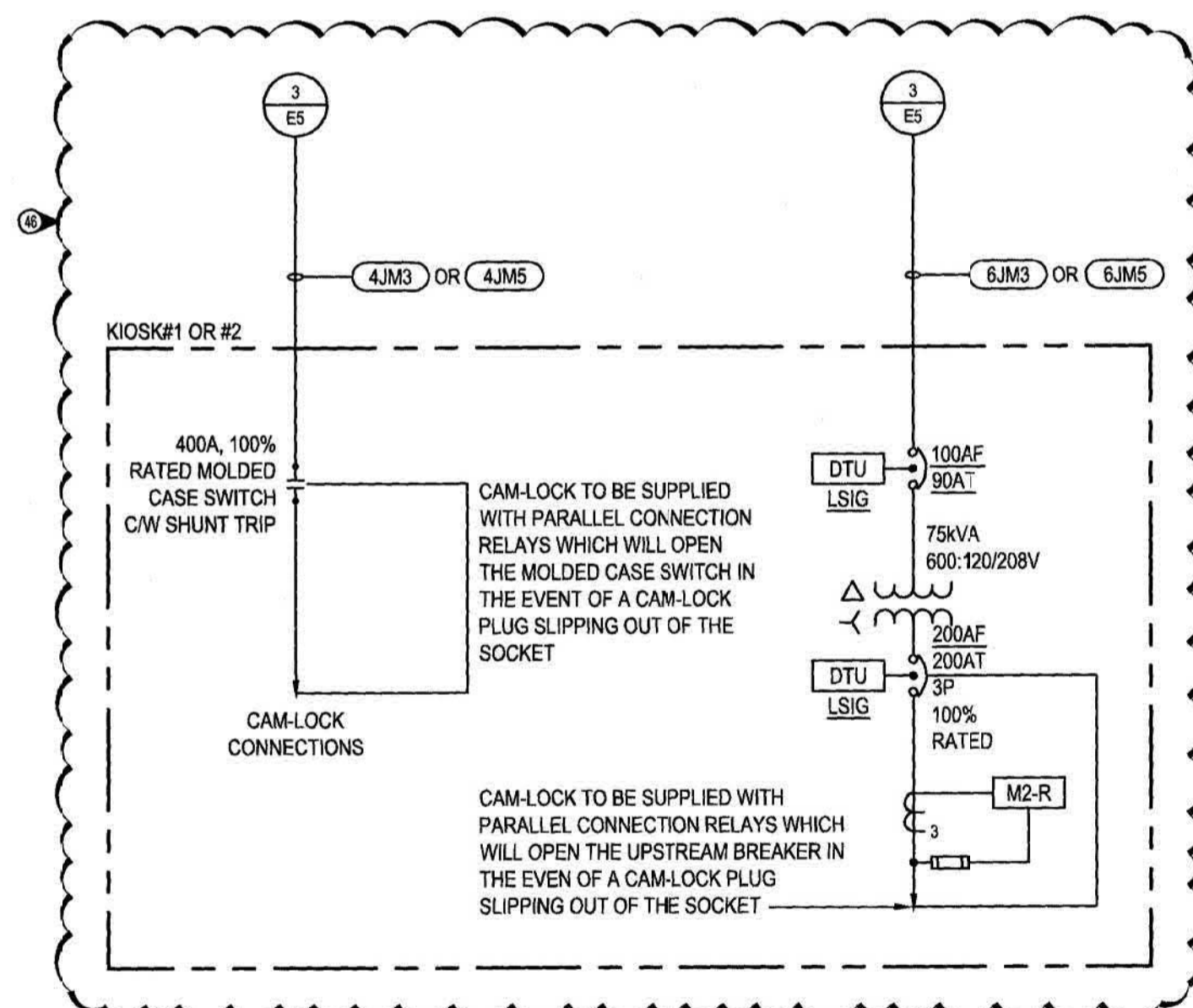
5 JETTY MOUNT #3 & #5 REFURBISHED PENETRATION LOCATIONS
SCALE 1:20



6 JETTY MOUNT #3 & #5 TRANSFORMER SIDE VIEW
SCALE 1:20



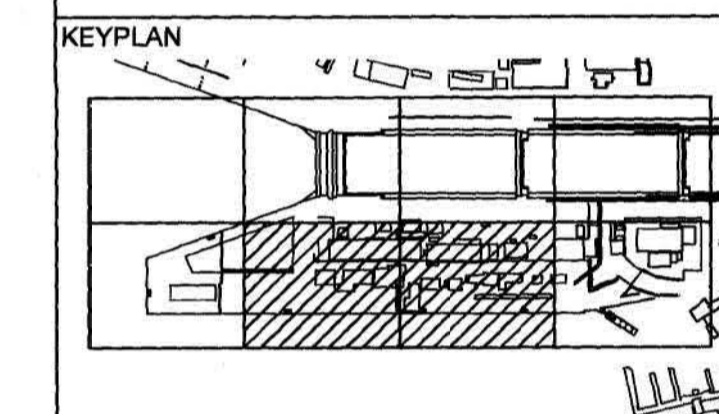
7 JM#3 AND #5 WIRING RISER
NTS



8 JM#3 AND #5 PARTIAL SINGLE LINE
NTS

KEYNOTES SHEETS E32 AND E33:

1. NOT USED
2. 90A 600V, 3PH BREAKER IN BREAKER ENCLOSURE.
3. 1x35MM GRS CONDUIT BETWEEN 600V, 90A BREAKER AND OUTDOOR TRANSFORMER. CONNECT USING 3C#2
4. GRS LBR FITTING.
5. ENSURE PENETRATION BETWEEN ENCLOSURE AND TRANSFORMER IS SUITABLY SEALED AND VAPOR STOPPED.
6. 75KVA, 600-120/208V STEP DOWN TRANSFORMER. TRANSFORMER TO BE EPOXY ENCAPSULATED NEMA 4X RATED TRANSFORMER SUITABLE FOR WALL MOUNTING TO EXTERIOR TO KIOSK. TRANSFORMER IS TO BE DELTA-WYE TYPE WITH GROUND CONNECTING BACK INTO KIOSK AND TO CONNECT TO SOUTH JETTY GROUND BUS BAR LOCATED IN NEARBY MANHOLE. GROUND TO BE #6 GREEN INSULATED COPPER. PROTECT GROUND WIRE USING NON-METALLIC LIQUID TIGHT FLEX
7. 480V, 400A MOLDED CASE SWITCH C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
8. 120/208V, 200A 100% RATED CIRCUIT BREAKER C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
9. 1x103MM GRS CONDUIT FROM CONDUIT STUB UP TO 600V SPLITTER TROUGH. CONDUIT TO BE ATTACHED TO RPVC STUB USING SUITABLE EXPANSION COUPLING.
10. DLO STYLE CABLES SUPPLIED BY OTHERS.
11. PROVIDE SUPPORT BARS BEHIND BREAKERS. FOR ATTACHMENT OF STAINLESS STEEL STRAIN RELIEF GRIPS TO PREVENT STRESS ON DLO CABLE OR CAM-LOCK PLUGS.
12. 5x103MM RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOR STOPPED.
13. NOT USED
14. POWER SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
15. POWER SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
16. 500 LUMEN, 120V, LED STRIP LIGHTS, 4X RATED, MOUNTED IN TOP CORNERS OF EACH SECTION. TO BE MOUNTED SUCH THAT THE LIGHT IS THROWN INTO THE CENTRE OF THE KIOSK NOT JUST WASHING THE WALLS.
17. OUTLINE OF KIOSK DOOR. ENSURE MOLDED CASE SWITCHES, BREAKERS AND CAM-LOCK CONNECTORS ARE SUITABLY MOUNTED SUCH THAT ACCESS AND OPERATION IS NOT IMPEDED.
18. EXISTING 100mm GAP BELOW KIOSK DOORS FOR CABLE EXIT/ENTRY.
19. 4C#250KCM TECK CABLE MOUNTED BEHIND COMMUNICATION PLYWOOD BOARD. TO RUN BEHIND BOARD AND UP INTO ELBOW FITTING.
20. 4C#250KCM ELBOW FITTING INTO TOP, BACK END OF 120/208V, 200A BREAKER VIA PENETRATION BETWEEN POWER AND COMMUNICATION COMPARTMENT BARRIER.
21. 4x103MM RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOR STOPPED.
22. TEL-COM SPLICE BOX FOR CAT3 PHONE CABLE CROSS CONNECTIONS
23. SCADA METERS FOR COMPRESSED AIR AND WATER MONITORING.
24. FIBRE TO CAT5E MINIMUM 8-PORT INDUSTRIAL MEDIA CONVERTER AND POWER SUPPLY MOUNTED TO PLYWOOD MOUNTING BOARD.
25. 5xØ125µm SSM FIBRE OPTIC CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
26. 5xCAT5E CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
27. 5xCAT3 TELEPHONE CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
28. JETTY MOUNT LV 120V SERVICE SPLICE BOX FOR POWER AND LIGHTING CIRCUIT.
29. JETTY MOUNT HEAT TRACE SPLICE BOX. FINAL CONNECTION OF HEAT TRACE BY MECHANICAL CONTRACTOR.
30. NOT USED
31. COMMUNICATION SECTION SERVICE RECEPTACLES C/W LATCH COVERS
32. COMMUNICATION SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
33. SEWER CONNECTION POINT. LOCATION TO BE CONFIRMED ON MECHANICAL DETAILS FOR JETTY MOUNT REFURBISHMENT.
34. WATER AND COMPRESSED AIR CONNECTION MANIFOLDS. CONFIRM MOUNTING AND CO-ORDINATE WITH MECHANICAL CONTRACTOR AND MECHANICAL SHEETS FOR DETAILED DESIGN.
35. COMMUNICATIONS 19mm THICK PLYWOOD BACKBOARD PAINTED WHITE. MOUNTED OFF WALL TO ALLOW TECK CABLE TO PASS BEHIND FOR 208V SECONDARY FEEDERS.
36. CONFIRM POWER AND COMMUNICATION SECTION WELD INTEGRITY. SUBMIT A PER UNIT COST FOR REPAIR WORK THAT WILL BE DONE UNDER A CHANGE ORDER IF REQUIRED.
37. REPLACE EXISTING DOOR HINGES WITH NEW STAINLESS STEEL HINGES.
38. REPLACE ALL DOOR SEALS WITH NEW GASKETS. GASKET TO BE 4 STRIPS FOR TOP, BOTTOM AND SIDES. TO EXTEND FULL LENGTH OF DOOR AND MEET AT EDGES FOR SEAMLESS CONNECTION.
39. REPLACE ALL DOOR LATCHES WITH NEW STAINLESS STEEL LOCKABLE LATCHES.
40. REPLACE EXISTING SEPARATION BARRIER WITH NEW ALUMINUM OR STAINLESS STEEL 3.5MM PLATE.
41. FIRE ALARM AND EMERGENCY ALARM EMERGENCY PULL STATION IN 4X RATED BOX MOUNTED ONE ABOVE THE OTHER, WIRED INTO FIRE ALARM SYSTEM.
42. FIRE ALARM AND EMERGENCY ALARM STROBE LIGHT MOUNTED TO KIOSK ROOF. RED FOR FIRE ALARM. BLUE FOR EMERGENCY ALARM. TO BE OF NEM4X CONSTRUCTION AND ROOF PENETRATION TO BE SUITABLY SEALED TO PREVENT WATER INGRESS. WIRED INTO STROBE LIGHTS TO BE INSTALLED WITH DRIP LOOP TO PREVENT WATER MIGRATION ALONG THE CABLES IN THE EVENT OF A LEAK.
43. SCHEDULE 80 ALUMINUM PIPE WORK, TO BE INSTALLED TO ALLOW ROPES TO SLIDE OVER THE TOP OF THE STROBE LIGHTS WITHOUT CATCHING. TO BE WELDED TO THE TOP OF THE EXISTING KIOSK ROOF.
44. RED BANDING WRAP. WEATHERPROOF. APPLIED AROUND TOP OF KIOSK TO INDICATE KIOSK IS A FIRE ALARM AND EMERGENCY ALARM PULL STATION.
45. OUTDOOR RATED LAMACOID LABEL. WHITE BACKGROUND WITH RED LETTERS MOUNTED ABOVE F/A AND E/A PULLS STATIONS STATING "FIRE ALARM AND EMERGENCY ALARM PULL STATIONS"
46. PROVIDE LAMACOID LABEL OF JM#3 AND JM#5 SINGLE LINE DETAIL, TO BE MOUNTED ON FACE OF 208V MOLDED CASE SWITCH. SUBMIT SINGLE LINE DRAWING FOR ELECTRICAL ENGINEER AND SITE REPRESENTATIVE APPROVAL PRIOR TO MANUFACTURING.
47. M2-R REVENUE CERTIFIED METERS C/W 200.5 CTS AND 5A FUSED PTS. TO BE MOUNTED ON COMMUNICATIONS BACKBOARD AND CONNECTED TO CTS AND PTS INTEGRATED INTO MOLDED CASE SWITCH COMPARTMENT. PLUG INTO CAT5E MEDIA CONVERTER FOR CONNECTION INTO EXISTING SSSR SCADA SYSTEM



Revision/	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/06/15

Client/client

ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only

Designed by/Concept par
I. BARNES

Drawn by/Dessiné par
J. BIELING, S. SEYMOUR

FWGSC Project Manager/Administrateur de Projets TFSGC
PATRICK TRUONG

FWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TFSGC
PREETIPAL PAUL

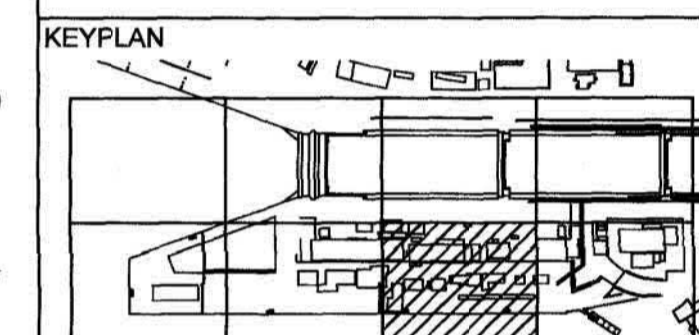
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JETTY MOUNTS #3 AND #5 REFURBISHMENT DETAILS 2 OF 2

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	E33	2



Victoris Office
AES
APPLIED ENGINEERING SOLUTIONS LIMITED



Revision/Revision	Description/Description	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

Client/Client
ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project Title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE

SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
-
Designed by/Concept par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TPSGC
PREETPAL PAUL

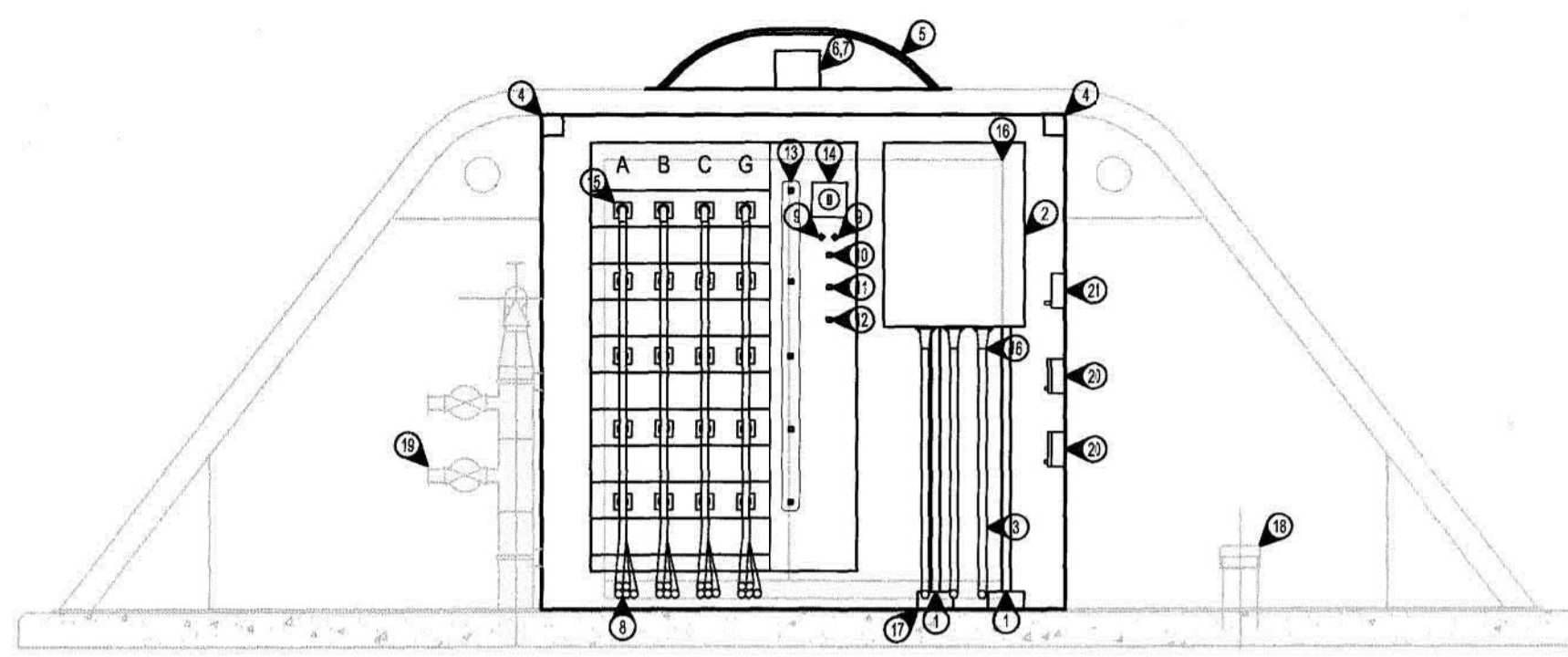
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JETTY MOUNTS #4 REFURBISHMENT DETAILS
1 OF 2

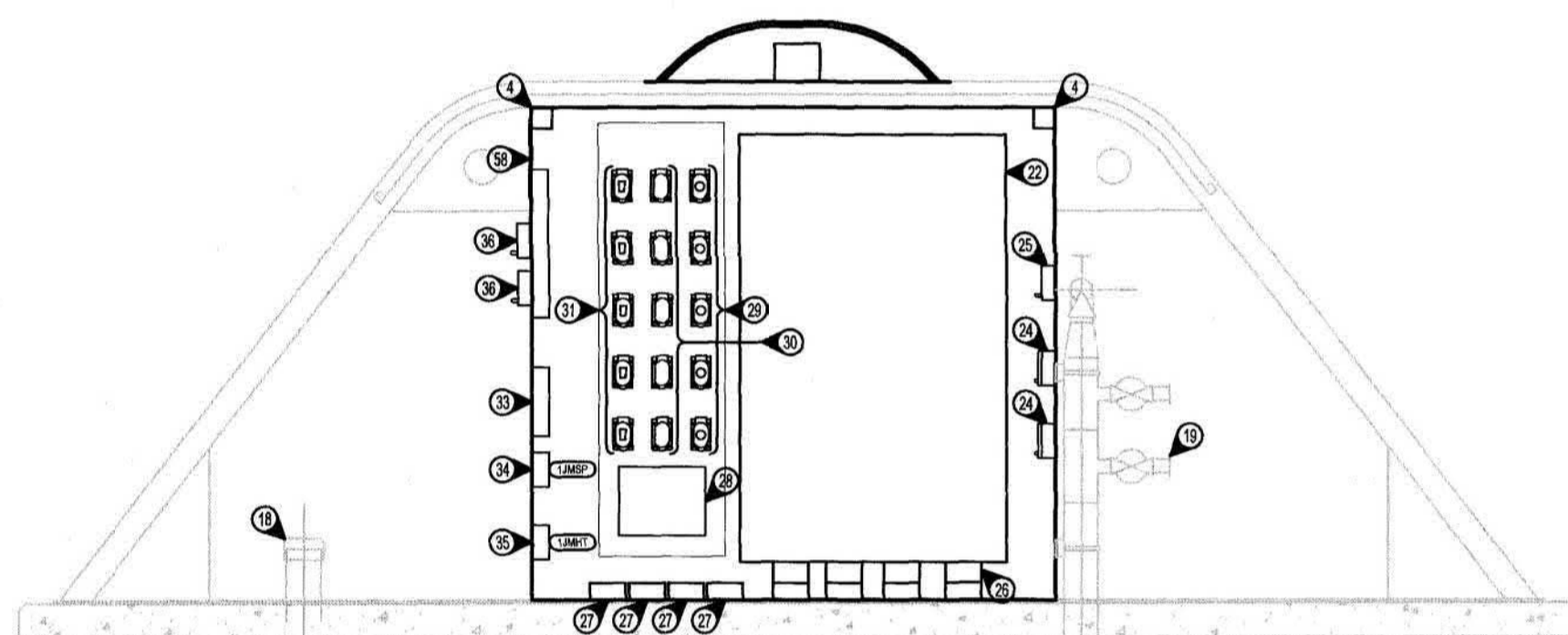
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R.026729.002
Sheet/Feuille
E34
Revision no./Le Révision no.
2

KEYNOTES SHEETS E34 AND E35:

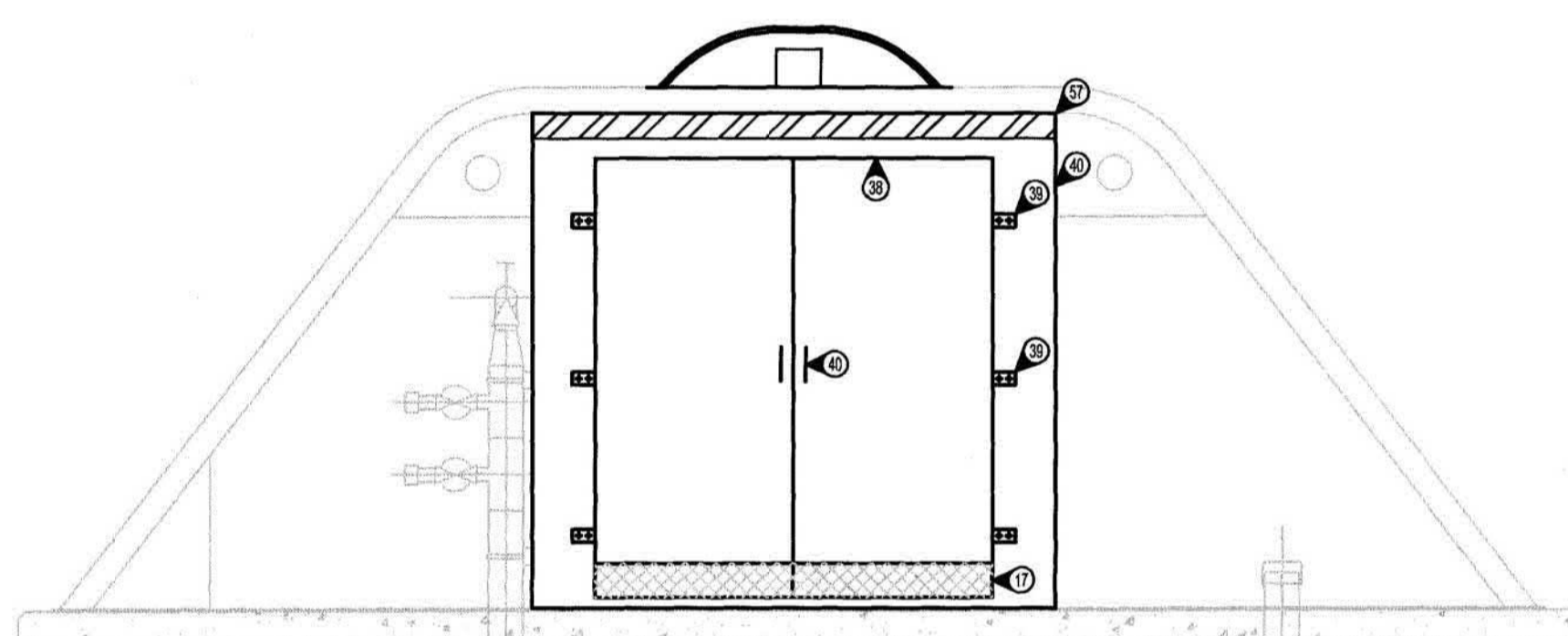
- 2x4C#300KCM VIA ARMORED FLEXIBLE TUBING FROM CONDUIT TO BASE OF 208V MOULDED CASE SWITCH.
- 120/208V, 200A MOULDED CASE SWITCH C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLES.
- DLO STYLE CABLES SUPPLIED BY OTHERS.
- 500 LUMEN, 120V, LED STRIP LIGHTS, 4X RATED, MOUNTED IN TOP CORNERS OF EACH SECTION. TO BE MOUNTED SUCH THAT THE LIGHT IS THROWN INTO THE CENTRE OF THE KIOSK NOT JUST WASHING THE WALLS.
- SCHEDULE 80 ALUMINIUM PIPE WORK, TO BE INSTALLED TO ALLOW ROPES TO SLIDE OVER THE TOP OF THE STROBE LIGHTS WITHOUT CATCHING. TO BE WELDED TO THE TOP OF THE EXISTING KIOSK ROOF.
- FIRE ALARM AND EMERGENCY ALARM STROBE LIGHTS MOUNTED TO KIOSK ROOF. RED FOR FIRE ALARM. BLUE FOR EMERGENCY ALARM. TO BE OF NEMAX CONSTRUCTION AND ROOF PENETRATION TO BE SUITABLY SEALED TO PREVENT WATER INGRESS. WIRED INTO STROBE LIGHTS TO BE INSTALLED WITH DRIP LOOP TO PREVENT WATER MIGRATION ALONG THE CABLES IN THE EVENT OF A LEAK.
- NOT USED
- DLO STYLE CABLES SUPPLIED BY OTHERS.
- CONNECTION POINTS FOR REMOTE MOUNTED EMERGENCY POWER OFF, TRIP ON OPEN SIGNAL C/W SHORTING CAP
- PILOT LIGHT, PUSH TO TEST, RED - POWER ON
- PILOT LIGHT, PUSH TO TEST, GREEN - POWER OFF
- PILOT LIGHT, PUSH TO TEST, AMBER - BREAKER TRIPPED DUE TO FAULT CONDITION
- PILOT LIGHT, PUSH TO TEST, INDICATES ALL CAM-LOCK RECEPTACLES FOR A, B, C AND GROUND PHASES ARE CONNECTED FOR ONE 400A CONNECTION. REFER TO REGULATED VOLTAGE SYSTEM CONTROL LOGIC DIAGRAMS FOR ADDITIONAL DETAILS
- MUSHROOM HEAD EMERGENCY POWER OFF BUTTON C/W KEY DISENGAGE.
- 400A @ 100%, 630V RATED CAM-LOCK STYLE RECEPTACLES, SINGLE POLE PER PHASE 250KCM. C/W DOUBLE THROW MICRO SWITCH FOR SAFETY INTERLOCKING OF MOLDED CASE SWITCH. RECEPTACLES FOR ØA, ØB, ØC, ØG WIRE CONNECTIONS, ØG RECEPTACLES TO BE REVERSED FROM POWER PHASES AND USE MALE CONNECTIONS ON EQUIPMENT FACE.
- OUTLINE OF KIOSK DOOR. ENSURE MOLDED CASE SWITCHES, BREAKERS AND CAM-LOCK CONNECTORS ARE SUITABLY MOUNTED SUCH THAT ACCESS AND OPERATION IS NOT IMPEDED.
- EXISTING 100mm GAP BELOW KIOSK DOORS FOR CABLE EXIT/ENTRY.
- SEWER CONNECTION POINT. LOCATION TO BE CONFIRMED ON MECHANICAL DETAILS FOR JETTY MOUNT REFURBISHMENT.
- WATER AND COMPRESSED AIR CONNECTION MANIFOLDS. CONFIRM MOUNTING AND CO-ORDINATE WITH MECHANICAL CONTRACTOR AND MECHANICAL SHEETS FOR DETAILED DESIGN.
- POWER SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
- POWER SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- BACK OF 2000A REGULATED DISTRIBUTION CONNECTION BOARD. DUE TO THE SIZE OF THE BUSSING AND ENTRY REQUIREMENTS IT STRADDLES ACROSS THE SEPARATION BARRIER AS SHOWN.
- 3x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE LV SECTION. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT, TO ENTRE BELOW 208V SWITCH FOR 208V POWER SERVICE AND JETTY MOUNT SERVICE FEEDERS.
- COMMUNICATION SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
- COMMUNICATION SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- 8x129mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE LV SECTION. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT, SPLIT BELOW 2000A REGULATED DISTRIBUTION CONNECTION BOARD AS SHOWN ON S/E35. PROVIDE EXTENDER COUPLING TO ENTRE 103mm CONDUITS INTO BASE ON DISTRIBUTION CONNECTION BOARD.
- 4x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE COMM SECTION. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOUR STOPPED.
- TEL-COM SPLICE BOX FOR CAT3 PHONE CABLE CROSS CONNECTIONS



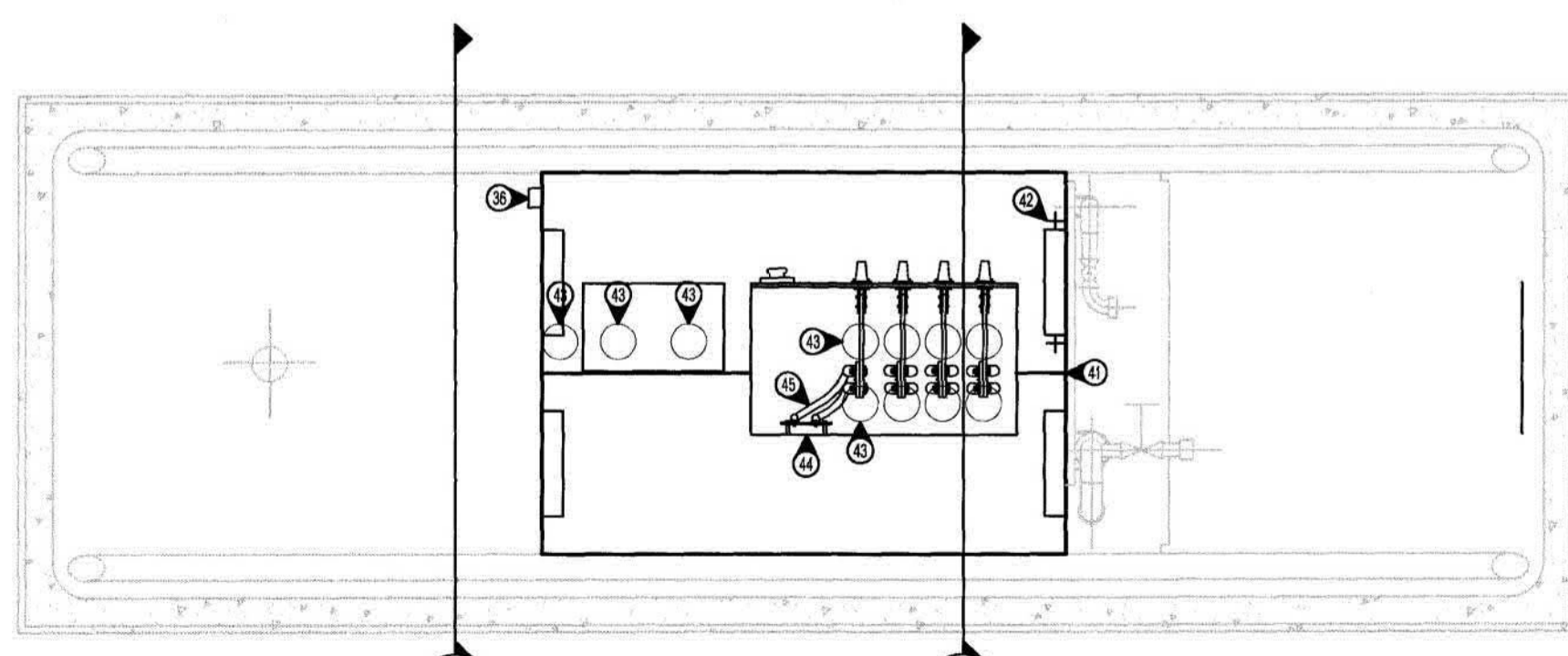
1 JETTY MOUNT #4 REFURBISHED POWER SECTION
Scale: 1:20



2 JETTY MOUNT #4 REFURBISHED COMM. SECTION
Scale: 1:20

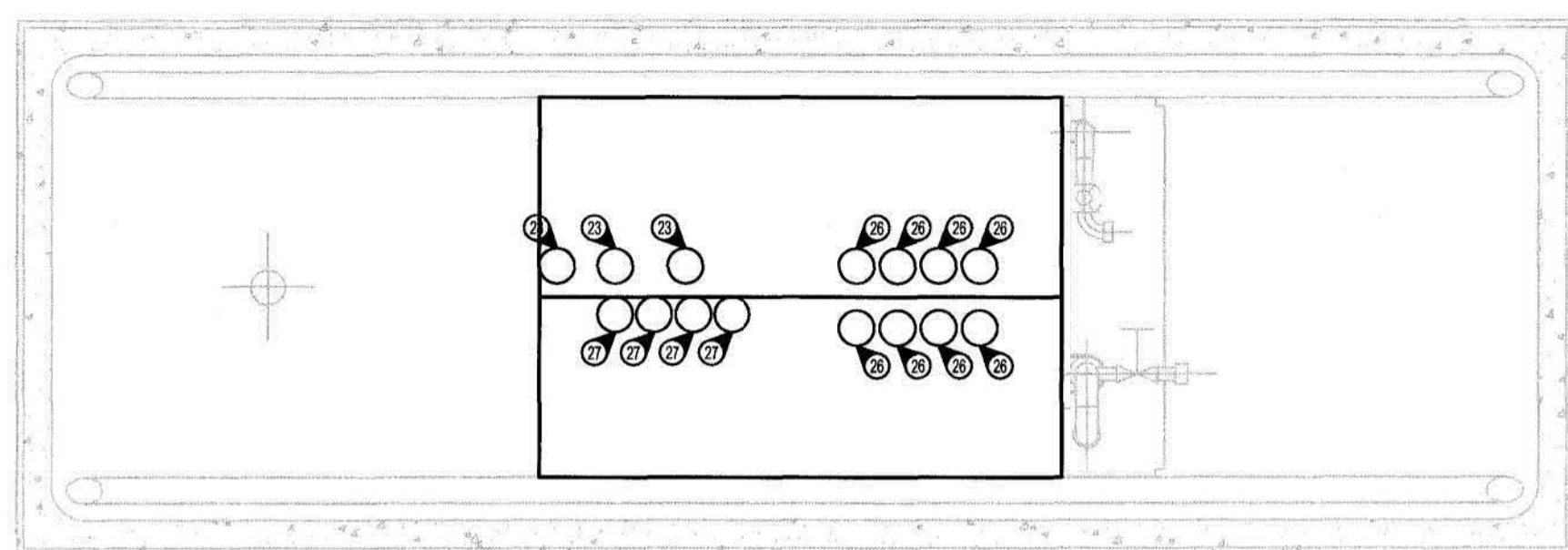


3 JETTY MOUNT #4 EXTERIOR ELEVATION
Scale: 1:20

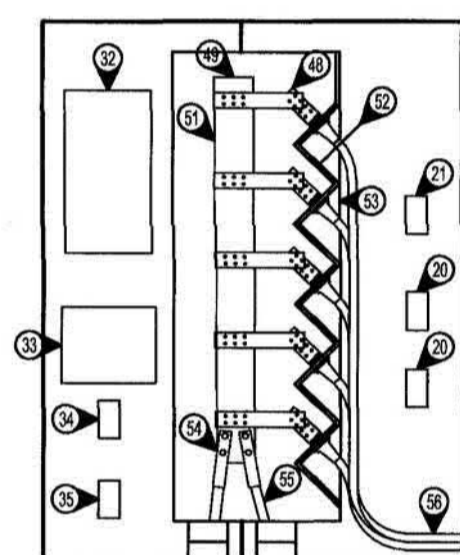


4 JETTY MOUNT #4 PLAN VIEW
Scale: 1:20

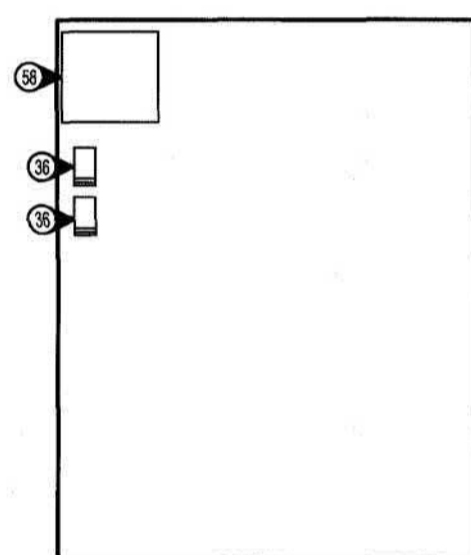
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 Project: South Jetty
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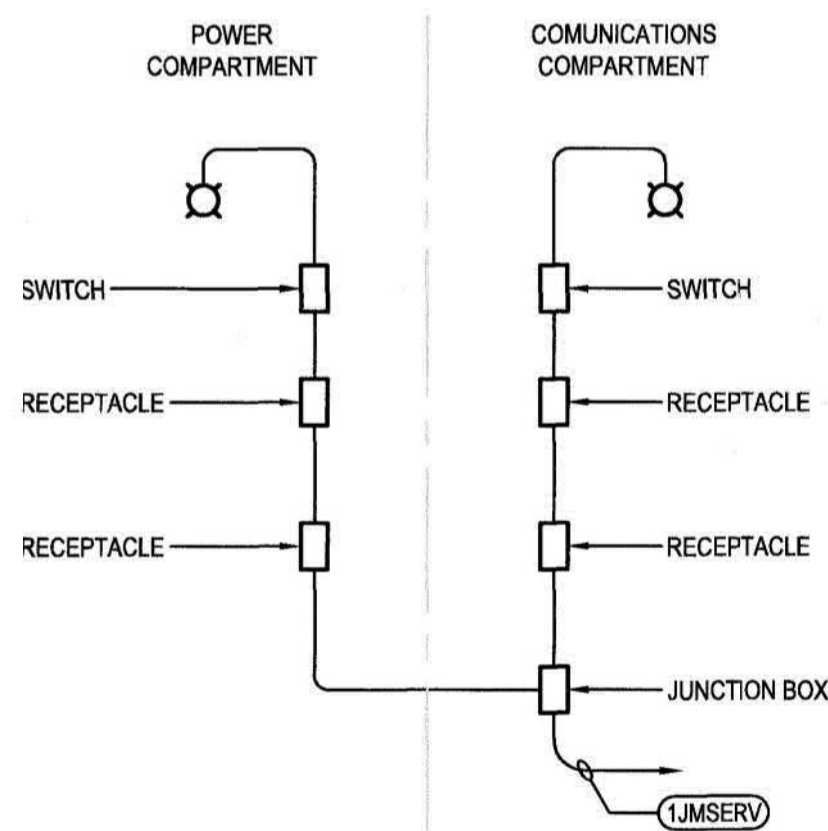
5 JETTY MOUNT #4 CONDUIT ENTRY PLAN
1:20



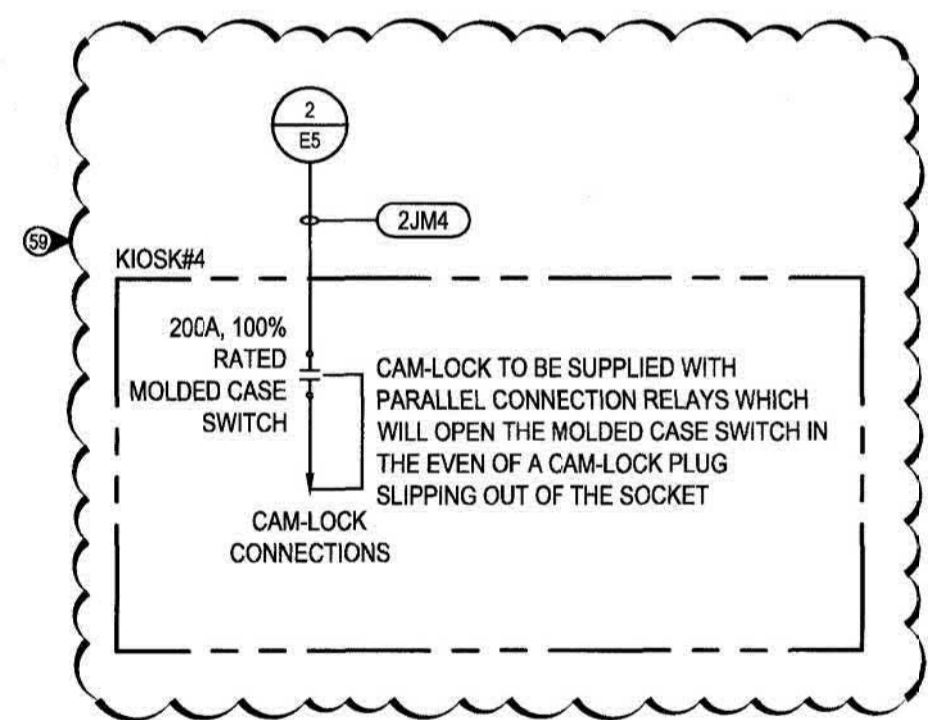
6 JETTY MOUNT #4 2000A REGULATED PLUG IN ASSEMBLY SECTION VIEW
E34 1:20



9 JETTY MOUNT #4 SIDE VIEW
E34 1:20



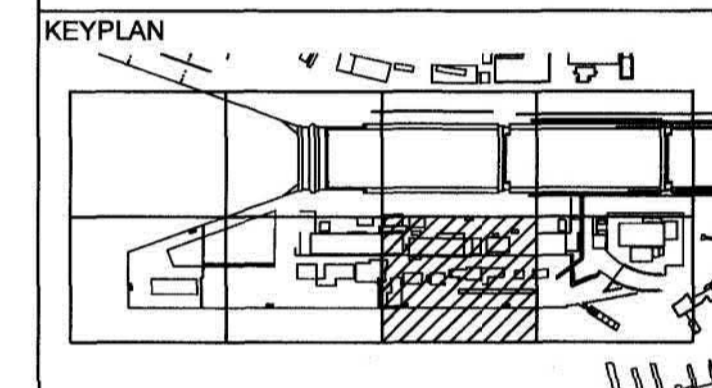
7 JM4 WIRING RISER
NTS



8 JM4 208V PARTIAL SINGLE LINE
NTS

KEYNOTES SHEETS E34 AND E35:

- 2x4C#300KCM VIA ARMORED FLEXIBLE TUBING FROM CONDUIT TO BASE OF 208V MOULDED CASE SWITCH.
- 120/208V, 200A MOULDED CASE SWITCH C/W CAMLOCK CONNECTORS ON BOTTOM SIZED TO MATCH EXISTING CAMLOCK CONNECTORS ON SSSR AND DOCKSIDE SERVICE ASSEMBLIES.
- DLO STYLE CABLES SUPPLIED BY OTHERS.
- 500 LUMEN, 120V, LED STRIP LIGHTS, 4X RATED, MOUNTED IN TOP CORNERS OF EACH SECTION. TO BE MOUNTED SUCH THAT THE LIGHT IS THROWN INTO THE CENTRE OF THE KIOSK NOT JUST WASHING THE WALLS.
- SCHEDULE 80 ALUMINUM PIPE WORK, TO BE INSTALLED TO ALLOW ROPES TO SLIDE OVER THE TOP OF THE STROBE LIGHTS WITHOUT CATCHING. TO BE WELDED TO THE TOP OF THE EXISTING KIOSK ROOF.
- FIRE ALARM AND EMERGENCY ALARM STROBE LIGHTS MOUNTED TO KIOSK ROOF. RED FOR FIRE ALARM. BLUE FOR EMERGENCY ALARM. TO BE OF NEM4X CONSTRUCTION AND ROOF PENETRATION TO BE SUITABLY SEALED TO PREVENT WATER INGRESS. WIRES INTO STROBE LIGHTS TO BE INSTALLED WITH DRIP LOOP TO PREVENT WATER MIGRATION ALONG THE CABLES IN THE EVENT OF A LEAK.
- NOT USED
- DLO STYLE CABLES SUPPLIED BY OTHERS.
- CONNECTION POINTS FOR REMOTE MOUNTED EMERGENCY POWER OFF, TRIP ON OPEN SIGNAL C/W SHORTING CAP
- PILOT LIGHT, PUSH TO TEST, RED - POWER ON
- PILOT LIGHT, PUSH TO TEST, GREEN - POWER OFF
- PILOT LIGHT, PUSH TO TEST, AMBER - BREAKER TRIPPED DUE TO FAULT CONDITION
- PILOT LIGHT, PUSH TO TEST, INDICATES ALL CAM-LOCK RECEPTACLES FOR A, B, C AND GROUND PHASES ARE CONNECTED FOR ONE 400A CONNECTION. REFER TO REGULATED VOLTAGE SYSTEM CONTROL LOGIC DIAGRAMS FOR ADDITIONAL DETAILS
- MUSHROOM HEAD EMERGENCY POWER OFF BUTTON C/W KEY DISENGAGE.
- 400A @ 100%, 630V RATED CAM-LOCK STYLE RECEPTACLES, SINGLE POLE PER PHASE 250KCM. C/W DOUBLE THROW MICRO SWITCH FOR SAFETY INTERLOCKING OF MOLDED CASE SWITCH. RECEPTACLES FOR 0A, 0B, 0C, 0G WIRE CONNECTIONS, 0G RECEPTACLES TO BE REVERSED FROM POWER PHASES AND USE MALE CONNECTIONS ON EQUIPMENT FACE.
- OUTLINE OF KIOSK DOOR. ENSURE MOLDED CASE SWITCHES, BREAKERS AND CAM-LOCK CONNECTORS ARE SUITABLY MOUNTED SUCH THAT ACCESS AND OPERATION IS NOT IMPEDED.
- EXISTING 100mm GAP BELOW KIOSK DOORS FOR CABLE EXIT/ENTRY.
- SEWER CONNECTION POINT. LOCATION TO BE CONFIRMED ON MECHANICAL DETAILS FOR JETTY MOUNT REFURBISHMENT.
- WATER AND COMPRESSED AIR CONNECTION MANIFOLDS. CONFIRM MOUNTING AND CO-ORDINATE WITH MECHANICAL CONTRACTOR AND MECHANICAL SHEETS FOR DETAILED DESIGN.
- POWER SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
- POWER SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- BACK OF 2000A REGULATED DISTRIBUTION CONNECTION BOARD. DUE TO THE SIZE OF THE BUSSING AND ENTRY REQUIREMENTS IT STRADDLES ACROSS THE SEPARATION BARRIER AS SHOWN.
- 3x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE LV SECTION. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT, TO ENTER BELOW 208V SWITCH FOR 208V POWER SERVICE AND JETTY MOUNT SERVICE FEEDERS.
- COMMUNICATION SECTION SERVICE RECEPTACLES C/W LATCH COVERS.
- COMMUNICATION SECTION LIGHT SWITCH WIRED IN SERIES AFTER SERVICE RECEPTACLES FOR CONTROL OF LIGHTING.
- 8x129mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE LV SECTION. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT, SPLIT BELOW 2000A REGULATED DISTRIBUTION CONNECTION BOARD AS SHOWN ON E35. PROVIDE EXTENDER COUPLING TO ENTER 103mm CONDUITS INTO BASE ON DISTRIBUTION CONNECTION BOARD.
- 4x103mm RPVC CONDUIT STUBS FROM NEARBY SOUTH JETTY MANHOLE COMM SECTION. ENSURE CONDUITS ARE SUITABLY ENTERED INTO BASE OF JETTY MOUNT TO ALLOW FOR FUTURE USE OF ALL SPARES. ALL CONDUITS TO BE SUITABLY VAPOUR STOPPED.
- TEL-COM SPLICE BOX FOR CAT3 PHONE CABLE CROSS CONNECTIONS
- 5x9/125mm SSM FIBRE OPTIC CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER
- TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
- 5xCAT5E CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
- 5xCAT3 TELEPHONE CONNECTION RECEPTACLES C/W SCREW ON OR SNAP ON COVER TO PREVENT DIRT/DUST/WATER INGRESS WHEN NOT IN USE. COVER TO COME WITH CHAIN OR PLASTIC TAIL ATTACHED TO PLUG BASE TO PREVENT LOSS WHEN CONNECTION IN USE.
- FIBRE TO CAT5E 8-PORT INDUSTRIAL MEDIA CONVERTER AND POWER SUPPLY MOUNTED TO PLYWOOD MOUNTING BOARD.
- SCADA METERS FOR COMPRESSED AND AND WATER MONITORING.
- JETTY MOUNT LV 120V SERVICE SPLICE BOX FOR POWER AND LIGHTING CIRCUIT.
- JETTY MOUNT HEAT TRACE SPLICE BOX. FINAL CONNECTION OF HEAT TRACE BY MECHANICAL CONTRACTOR.
- FIRE ALARM AND EMERGENCY ALARM EMERGENCY PULL STATION IN 4X RATED BOX MOUNTED ONE ABOVE THE OTHER, WIRED INTO FIRE ALARM SYSTEM.
- REPLACE EXISTING DOOR HINGES WITH NEW STAINLESS STEEL HINGES.
- REPLACE ALL DOOR SEALS WITH NEW GASKETS. GASKET TO BE 4 STRIPS FOR TOP, BOTTOM AND SIDES. TO EXTEND FULL LENGTH OF DOOR AND MEET AT EDGES FOR SEAMLESS CONNECTION.
- CONFIRM POWER AND COMMUNICATION SECTION WELD INTEGRITY. SUBMIT A PER UNIT COST FOR REPAIR WORK THAT WILL BE DONE UNDER A CHANGE ORDER IF REQUIRED.
- REPLACE ALL DOOR LATCHES WITH NEW STAINLESS STEEL LOCKABLE LATCHES.
- REPLACE EXISTING SEPARATION BARRIER WITH NEW ALUMINUM OR STAINLESS STEEL 3.5mm PLATE.
- COMMUNICATIONS 19mm THICK PLYWOOD BACKBOARD PAINTED WHITE. MOUNTED OFF WALL TO ALLOW TECK CABLE TO PASS BEHIND FOR 208V SECONDARY FEEDERS.
- CONDUIT STUB UP LOCATIONS. TO BE ARRANGED TO ENSURE EASE OF PULLING CONDUCTORS INTO CORRECT SERVICE CONNECTION POINTS
- JETTY MOUNT 2000A SERVICE GROUND BUS BAR MOUNTED NEAR BACK OF ASSEMBLY. TO BE OF TIN PLATED COPPER CONSTRUCTION MOUNTED ON INSULATED STANDOFFS.
- BOND CAM-LOCK CABLE CONCENTRIC COPPER BOND WIRES TO CELL GROUND BAR.
- NOT USED
- NOT USED
- CAM-LOCK TERMINAL LUGS, TO BE TIN PLATED COPPER AND RATED FOR 400A LOADS.
- 400A, TIN PLATED COPPER TAB BUS BETWEEN MAIN BUS AND CAM LOCK TERMINAL LUGS.
- 2000A RATED DISTRIBUTION BUS BAR, (PHASE A SHOWN) FOR ALL PHASES. TO BE MOUNTED VERTICALLY IN THE CELL.
- INSULATED SUPPORTS SPANNING ACROSS THE DISTRIBUTION CELL FOR BUS BAR SUPPORTS. TO BE SUITABLY INSULATED AND OF SUFFICIENT STRENGTH TO SUPPORT ALL BUSSING.
- 45 DEGREE CUT BACKS IN FACE OF DISTRIBUTION BOARD FOR MOUNTING OF CAM-LOCK CONNECTIONS.
- FLAT SURFACE OF THE DISTRIBUTION AFTER CAM LOCK PLUGS.
- TERMINATE CONDUCTOR TO BUS TERMINAL LUGS USING 2-HOLE COMPRESSION STYLE TERMINAL CONNECTORS. HEAT SHRINK TERMINATION USING MANUFACTURER'S RECOMMENDED METHODS.
- 500KCM COPPER CABLE 5JM4
- DLO CABLES EXITING VIA WINDOW AT BASE OF JETTY MOUNT
- RED BANDING WRAP. WEATHERPROOF. APPLIED AROUND TOP OF KIOSK TO INDICATE KIOSK IS A FIRE ALARM AND EMERGENCY ALARM PULL STATION.
- OUTDOOR RATED LAMICOID LABEL. WHITE BACKGROUND WITH RED LETTERS MOUNTED ABOVE F/A AND E/A PULLS STATIONS STATING 'FIRE ALARM AND EMERGENCY ALARM PULL STATIONS'
- PROVIDE LAMICOID LABEL OF 2JM4 SINGLE LINE DETAIL, TO BE MOUNTED TO FACE OF 208V MOLDED CASE SWITCH. SUBMIT SINGLE LINE DRAWING FOR ELECTRICAL ENGINEER AND SITE REPRESENTATIVE APPROVAL PRIOR TO MANUFACTURING.



APPROVED
MAR - 6 2017

Revision/Revisión	Description/Descripción	Date/Date
2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

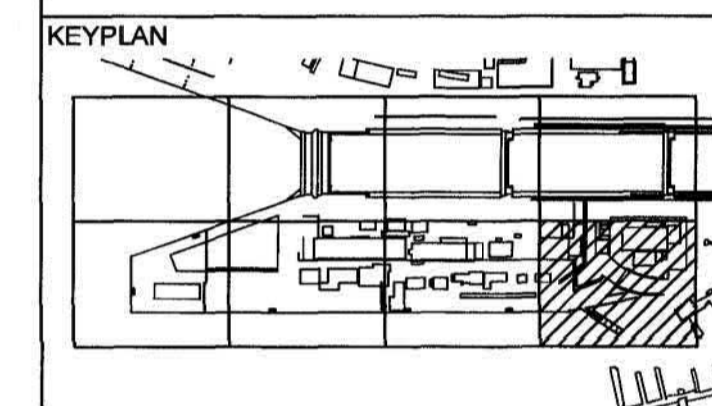
Client/Client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE SOUTH JETTY RECONSTRUCTION

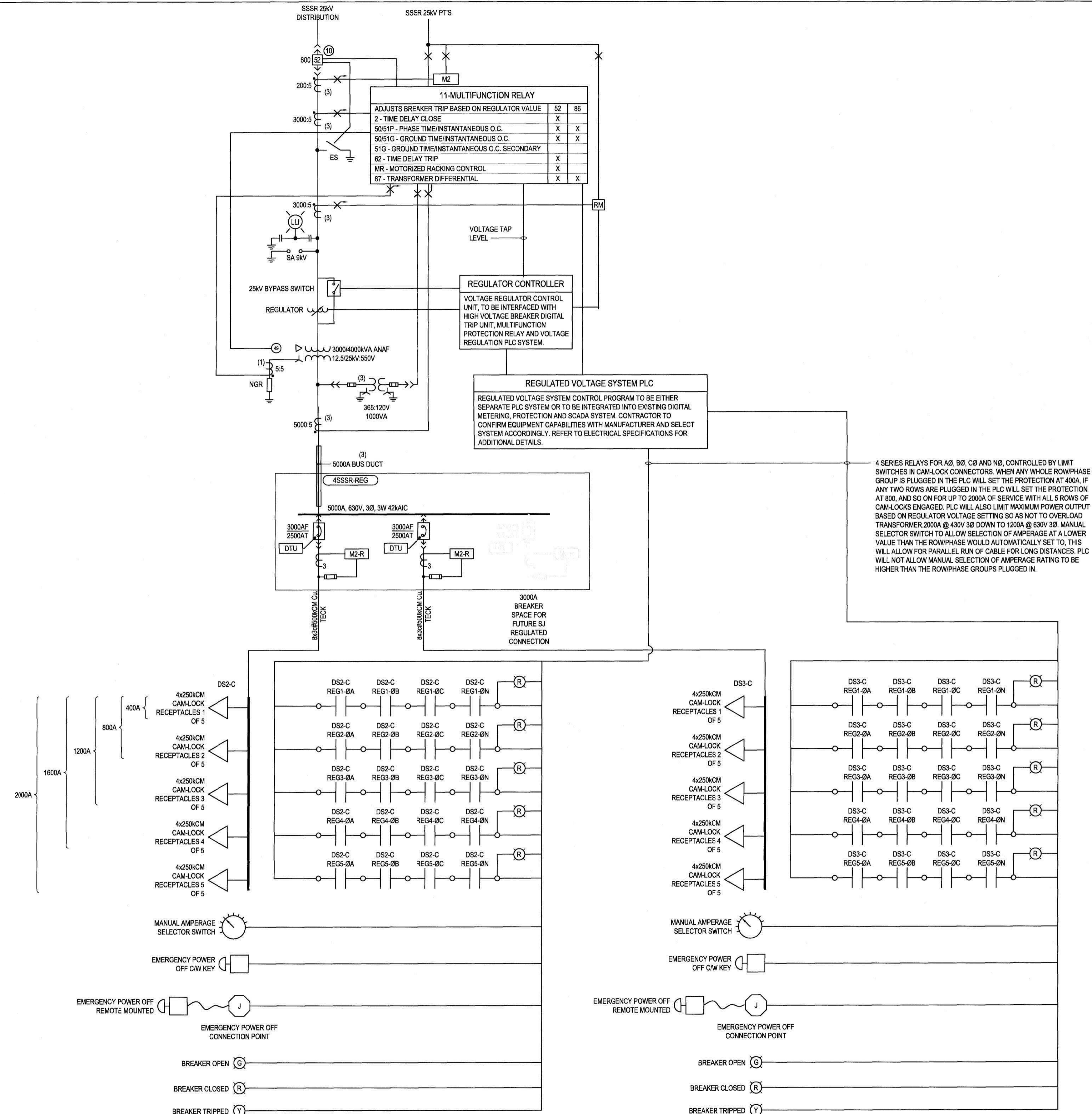
Consultant Approval Box Only
Designed by/Concept par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWGSC Project Manager/Administrateur de Projets TP50C
PATRICK TRUONG
PWGSC Regional Manager/Architectural and Engineering Services/Gestionnaire régionale, Services d'architecture et de génie, TP50C
PREETIPAL PAUL
Drawing title/Titre du dessin

JETTY MOUNTS #4 REFURBISHMENT DETAILS 2 OF 2

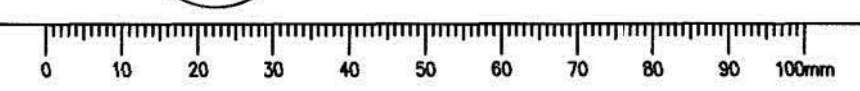
Project No./No. du projet R.026729.002	Sheet/Feuille E35	Revision no./La Révision no. 2
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MAR - 6 2017



1 EXISTING SSSR REGULATED DISTRIBUTION CONTROL AND PROTECTION



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15

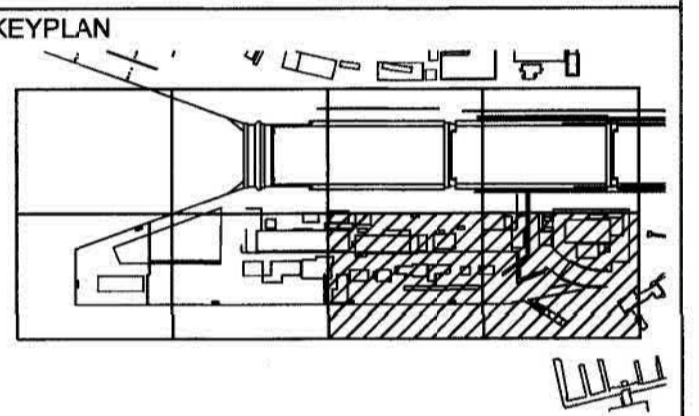
Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1
Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**
SOUTH JETTY RECONSTRUCTION

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Gestionnaire régionale, Services d'architecture et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin
**EXISTING SOUTH JETTY
REGULATED SERVICE
CONTROL AND PROTECTION**

Project No./No. du projet R.026729.002	Sheet/Feuille E36	Revision no./ La Révision 2
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File Name: \\projects\2016\1-16-14\UNES\UNES\ESQ_JETTY_4_PROTECTION.DWG



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15
Revision/Revision	Description/Description	Date/Date

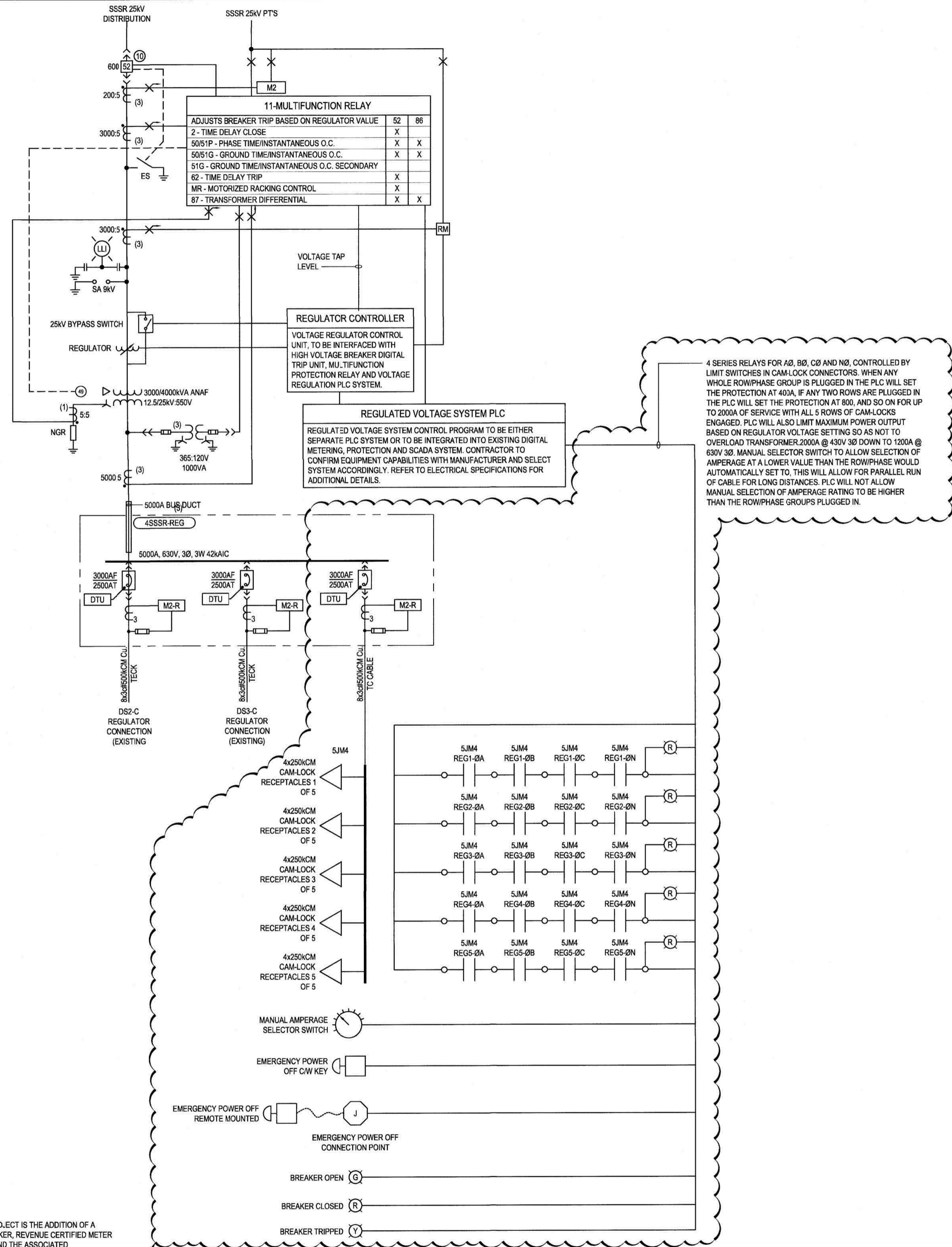
Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD,
VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE**
**SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
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PATRICK TRUONG
PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architectural et de génie, TPSCG
PREETIPAL PAUL
Drawing title/Titre du dessin

**JETTY MOUNT #4
REGULATED SERVICE
CONTROL AND PROTECTION**

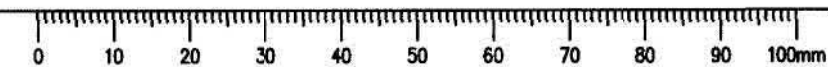
Project No./No. du projet R.026729.002	Sheet/Feuille E37	Revision no./ no. de Révision 2
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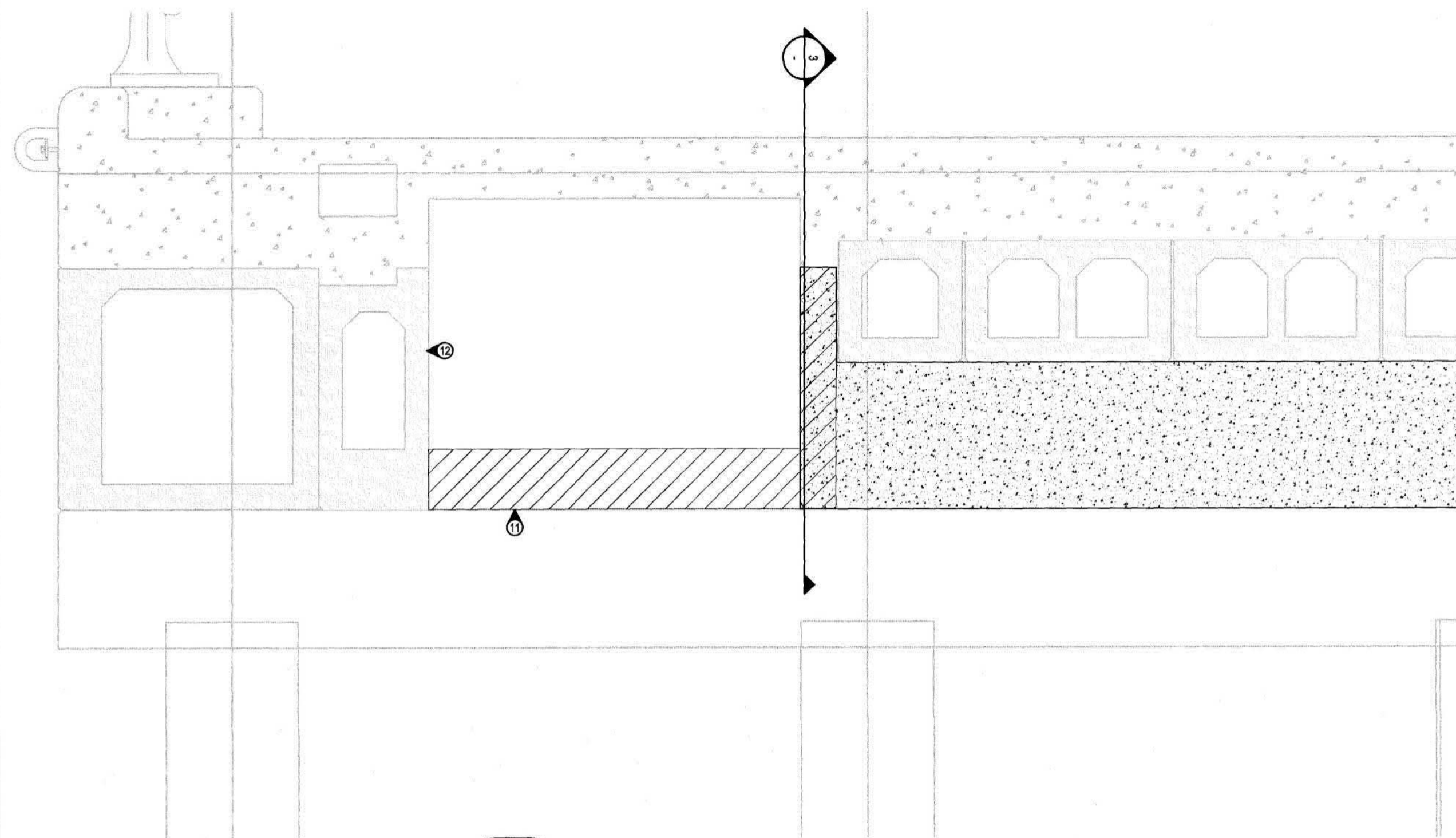


4 SERIES RELAYS FOR A0, B0, C0 AND N0, CONTROLLED BY LIMIT SWITCHES IN CAM-LOCK CONNECTORS. WHEN ANY WHOLE ROW/PHASE GROUP IS PLUGGED IN THE PLC WILL SET THE PROTECTION AT 400A, IF ANY TWO ROWS ARE PLUGGED IN THE PLC WILL SET THE PROTECTION AT 800, AND SO ON FOR UP TO 2000A OF SERVICE WITH ALL 5 ROWS OF CAM-LOCKS ENGAGED. PLC WILL ALSO LIMIT MAXIMUM POWER OUTPUT BASED ON REGULATOR VOLTAGE SETTING SO AS NOT TO OVERLOAD TRANSFORMER. 2000A @ 430V 3Ø DOWN TO 1200A @ 630V 3Ø. MANUAL SELECTOR SWITCH TO ALLOW SELECTION OF AMPERAGE AT A LOWER VALUE THAN THE ROW/PHASE RUN OF CABLE FOR LONG DISTANCES. PLC WILL NOT ALLOW MANUAL SELECTION OF AMPERAGE RATING TO BE HIGHER THAN THE ROW/PHASE GROUPS PLUGGED IN.

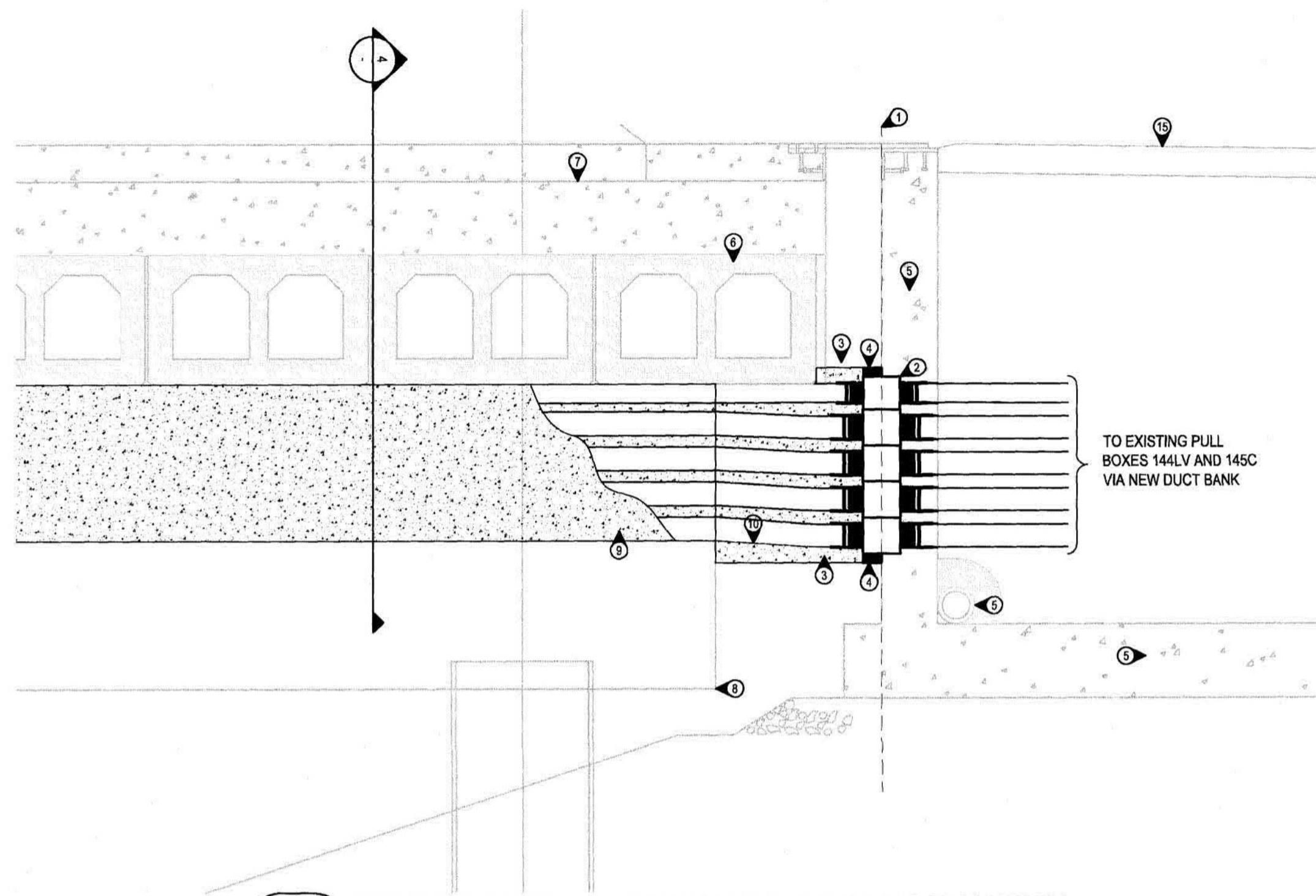
SCOPE FOR THIS PROJECT IS THE ADDITION OF A 3000AF/2500AT BREAKER, REVENUE CERTIFIED METER C/W CT'S AND PT'S AND THE ASSOCIATED INTERLOCKING SYSTEM SHOWN. EXISTING REGULATOR PLC TO BE REVISED SUCH THAT ONLY TWO OF THE THREE SERVICES CAN BE OPERATED AT ANY ONE TIME.

1 REVISED SSSR REGULATED DISTRIBUTION CONTROL AND PROTECTION
NTS

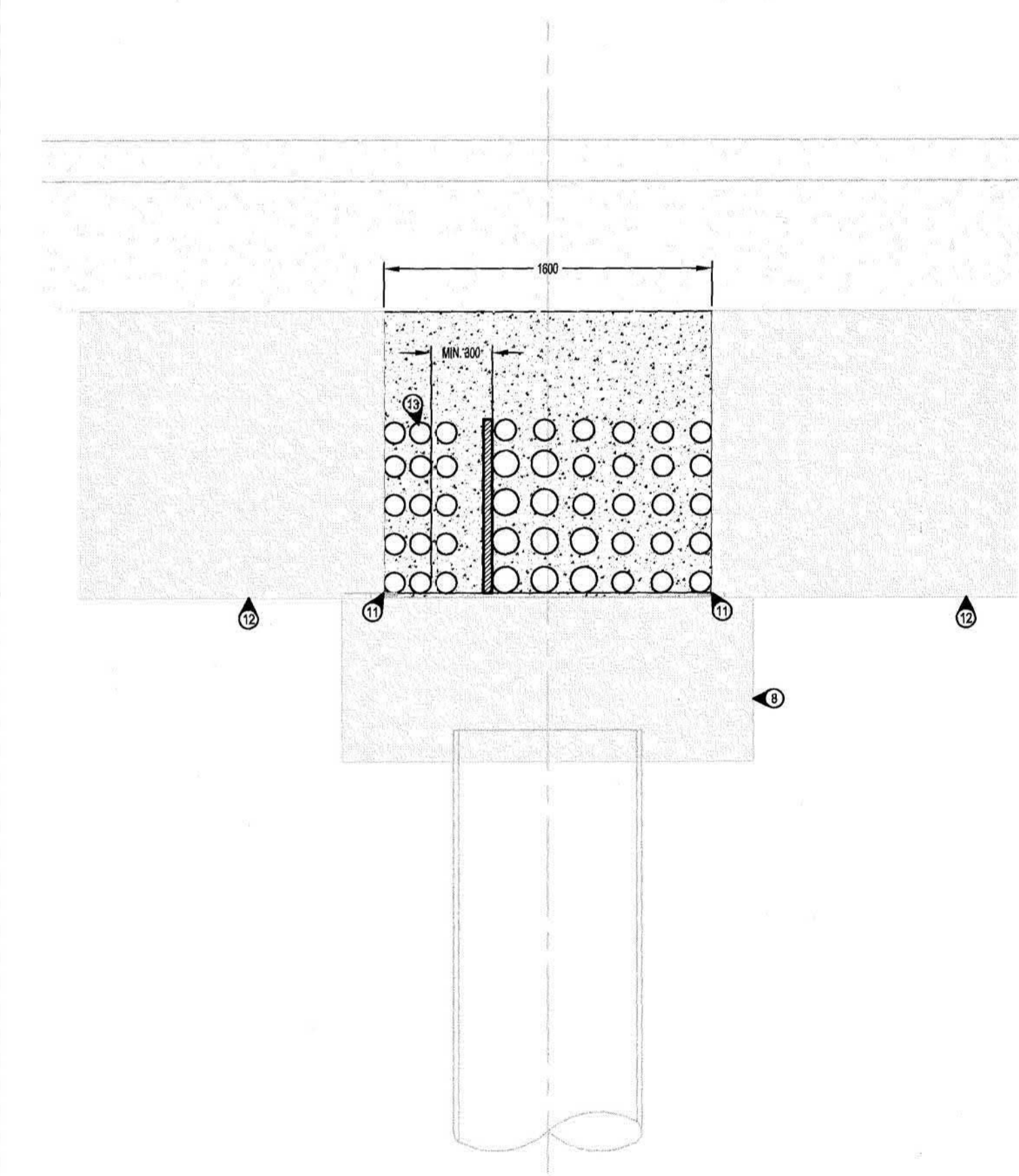
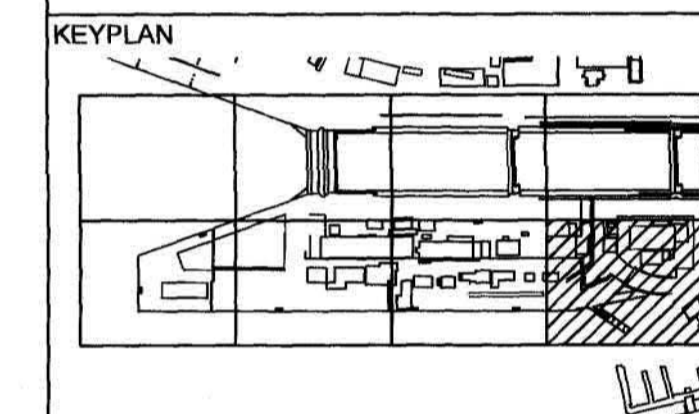




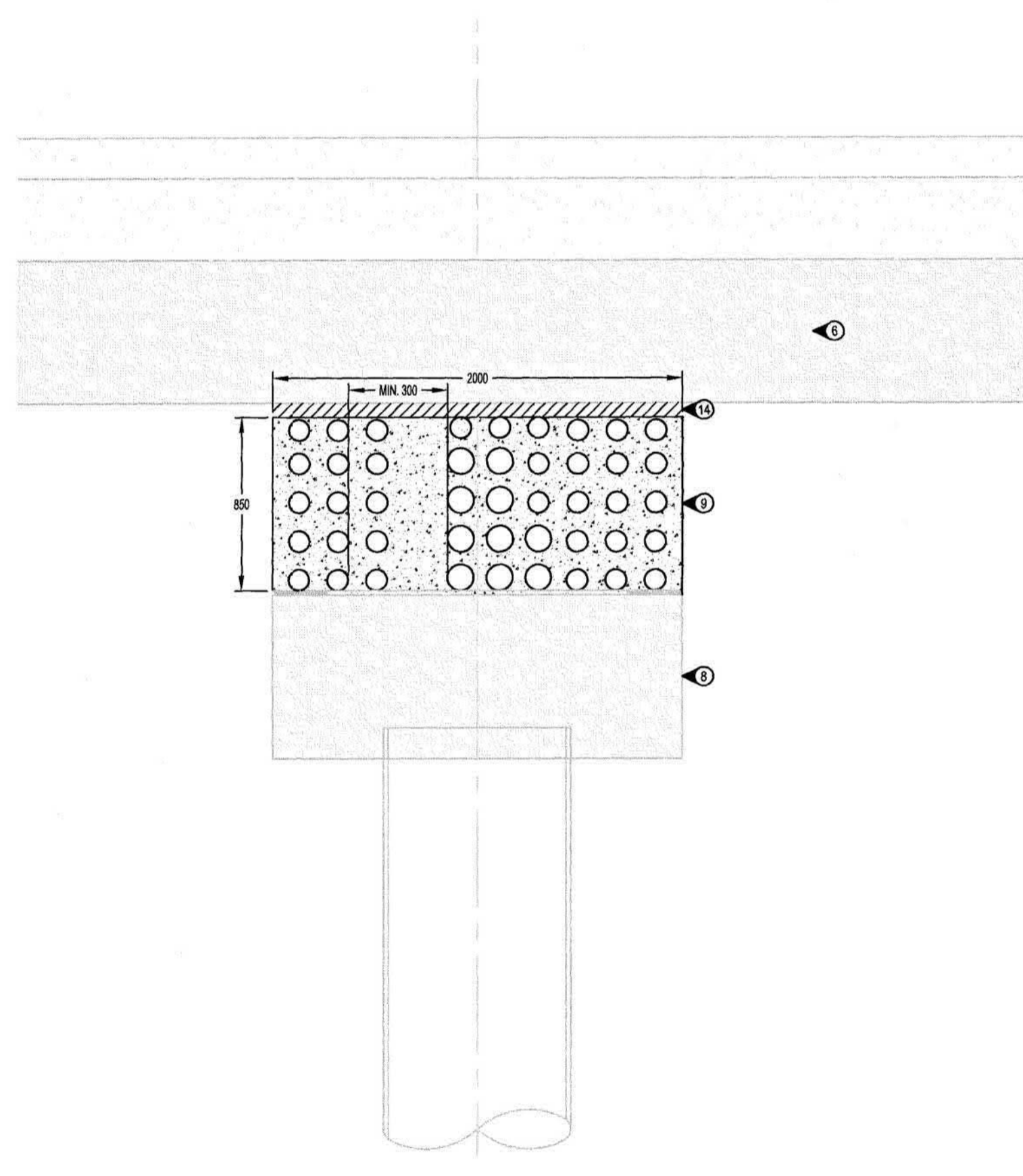
1 146LV AND 145C PULLBOX ENTRY ELEVATION
E1 1:25



2 EAST END DUCT BANK DEFLECTION COUPLING ELEVATION
E1 1:25



3 145C AND 146LV PULLBOX ENTRY SECTION
1:25



4 EAST END DUCT BANK TYPICAL SECTION
1:25

KEYNOTES:

- ① LOCATION OF STRUCTURAL JOINT LINE BETWEEN NEW JETTY STRUCTURE AND EXISTING SOUTH SIDE CONCRETE/SHEET PILE WALL. ENSURE DEFLECTION COUPLING FLEX JOINT IS INSTALLED IN THE SAME VERTICAL PLANE AS THE STRUCTURAL JOINT, SUCH THAT THE VERTICAL SHEAR IS ALIGNED.
- ② NEMA 4X RATED LIQUID TIGHT DEFLECTION COUPLING. ENSURE CONNECTION TO RPVC CONDUIT USES RIGID METAL CONDUIT NIPPLES AND RIGID METAL-TO-PVC CONDUIT ADAPTERS TO PREVENT DAMAGE TO RPVC THREADS DUE TO METAL ON PLASTIC THREAD FORCES. DEFLECTION COUPLING MUST BE CAPABLE OF THE FOLLOWING:
MINIMUM 19mm EXPANSION/CONTRACTION MOTION IN THE HORIZONTAL
MINIMUM 19mm UP/DOWN MOTION IN THE VERTICAL.
ANGULAR MISALIGNMENT OF THE CONDUIT RUNS UP TO 30 DEGREES.
INNER DIAMETER TO BE CONSTANT DURING A DEFLECTION EVENT WHICH DOES NOT EXCEED PARAMETER a,b OR c.
FLEXIBLE TINNED COPPER GROUNDING STRAP ACROSS DEFLECTION JOINT TO ALLOW FOR CONTINUITY OF GROUND.
STANDARD SIZES THREADS FOR RPVC/STEEL FITTINGS
SUITABLE FOR IMMERSION IN SALT WATER
- ③ PROVIDE MINIMUM 50mm CONCRETE COVER AROUND CONDUITS PRIOR TO CONNECTION TO DEFLECTION COUPLING.
- ④ RUBBER SEAT BETWEEN NEW CONCRETE DUCT BANK AND EXISTING CONCRETE WALL.
- ⑤ EXISTING SOUTH JETTY STRUCTURAL FOOTING, TO BE UNDISTURBED, AS ARE ANY EXISTING DRAIN LINES.
- ⑥ PRECAST CONCRETE SUPPORT BEAMS BETWEEN PILE CAPS. NO CORING, ANCHORING OR MODIFICATION TO THESE BEAMS WITHOUT PRIOR SIGNED AUTHORIZATION FROM STRUCTURAL ENGINEER OF RECORD.
- ⑦ JETTY CONCRETE/ASPHALT SURFACE. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL DETAILS.
- ⑧ NEW DUCT BANK PILE CAP COVER TOP OF NEW PILES, DEDICATED TO SUPPORT OF DUCT BANK ONLY. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL DETAILS.
- ⑨ DUCT BANK TO BE CONCRETE ENCASED MINIMUM 50mm COVER ON SIDES FOR PROTECTION AND SUPPORT.
- ⑩ RPVC CONDUIT SPLAYS OUT PRIOR TO CONNECTION TO DEFLECTION JOINTS TO ALLOW FOR LARGER DIAMETER OF DEFLECTION COUPLING FITTINGS COMPARED TO NORMAL CONDUIT. NO SEPARATION REQUIRED BETWEEN DEFLECTION COUPLINGS. FILL ANY SPACES WITH FLEXIBLE RUBBER CONCRETE SEALANT
- ⑪ PRECAST CONCRETE RACEWAY, TO BE SAW CUT AFTER INSTALLATION ON TOP OF DUCT BANK PILE CAP. ALLOW 200mm OF OVERLAP BETWEEN EDGES OF CONCRETE RACEWAY AND EDGE OF PILE CAP FOR SUPPORT. THE SAW CUT WILL ALLOW FOR DUCT BANK ENTRY INTO 145LV/145C PULLPIT.
- ⑫ SECTION OF PRECAST CONCRETE RACEWAY TO REMAIN AFTER SAW CUT.
- ⑬ COMMUNICATIONS CONDUITS TO BE CORRALLED AS REQUIRED TO ENTER INTO NORTH SIDE OF 145C PULL BOX SECTION, ENSURE MINIMUM 300mm SEPARATION BETWEEN SECOND COLUMN OF COMMUNICATION CONDUITS AND FIRST COLUMN OF LV CONDUITS. LV CONDUIT SEPARATION TO BE MAINTAINED AT 190mm CENTRE TO CENTRE.
- ⑭ CO-ORDINATE HEIGHT OF DUCT BANK SUCH THAT THERE IS MINIMUM 25mm SPACE BETWEEN TOP OF DUCT BANK AND BOTTOM OF SUPPORT BEAMS, DUCT BANK IS NOT TO BEAR ANY WEIGHT FROM OTHER OVERHEAD STRUCTURES. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL DETAILS.
- ⑮ EXISTING SOUTH SIDE CONCRETE COVER AND SOIL BACKFILL. TRENCHING AS REQUIRED TO INSTALL CONDUITS BETWEEN EXISTING MANHOLES AND DEFLECTION JOINTS. CO-ORDINATE TRENCHING WITH EXISTING SERVICES. HAND OR VACUUM EXCAVATE AS REQUIRED TO AVOID DISTURBING ANY EXISTING CONDUITS.

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MAR - 6 2017

2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15
Revision/Revisions	Description/Description	Date/Date

ESQUIMALT GRAVING DOCK

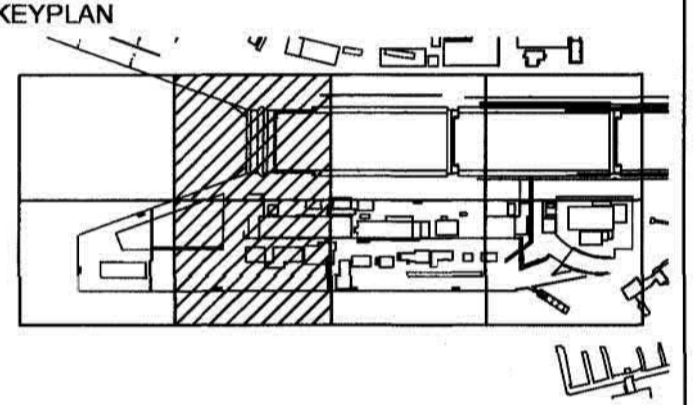
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project Title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY
RECONSTRUCTION**

Consultant Approval Box Only
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Drawn by/Dessiné par
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PWGSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
PWGSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSGC
PREETIPAL PAUL

Drawing Title/Titre du dessin
**SSSR DUCT BANK TO SOUTH
JETTY SERVICE RACEWAY
DEFLECTION JOINT**

Project No./No. du projet	Sheet/Fauille	Revision no./ La Révision no.
R.026729.002	E38	2



Revision/ Révision	Description/ Description	Date/ Date
2	ISSUED FOR TENDER	2017/03/06
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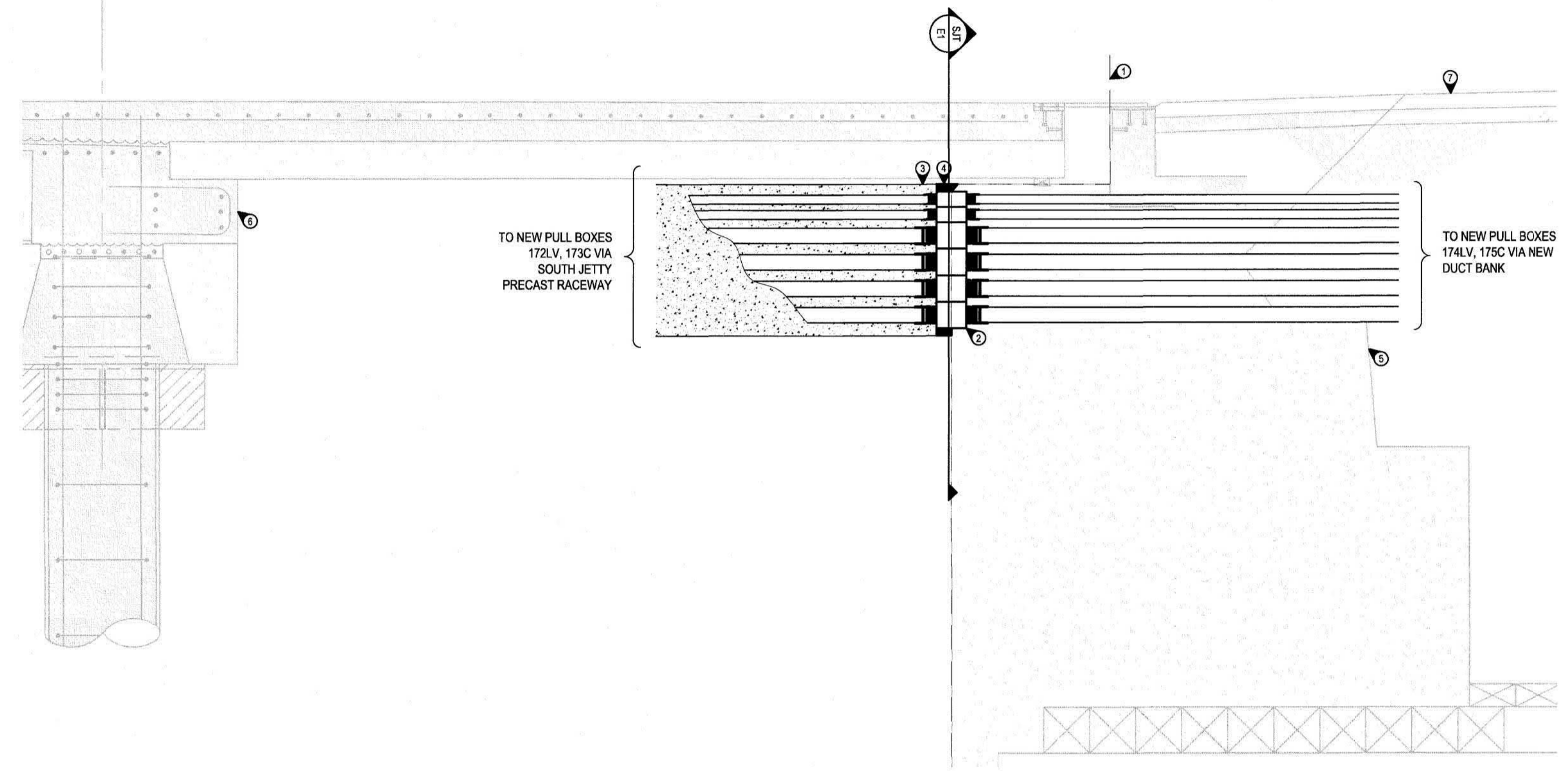
Client/Client
ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project Title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

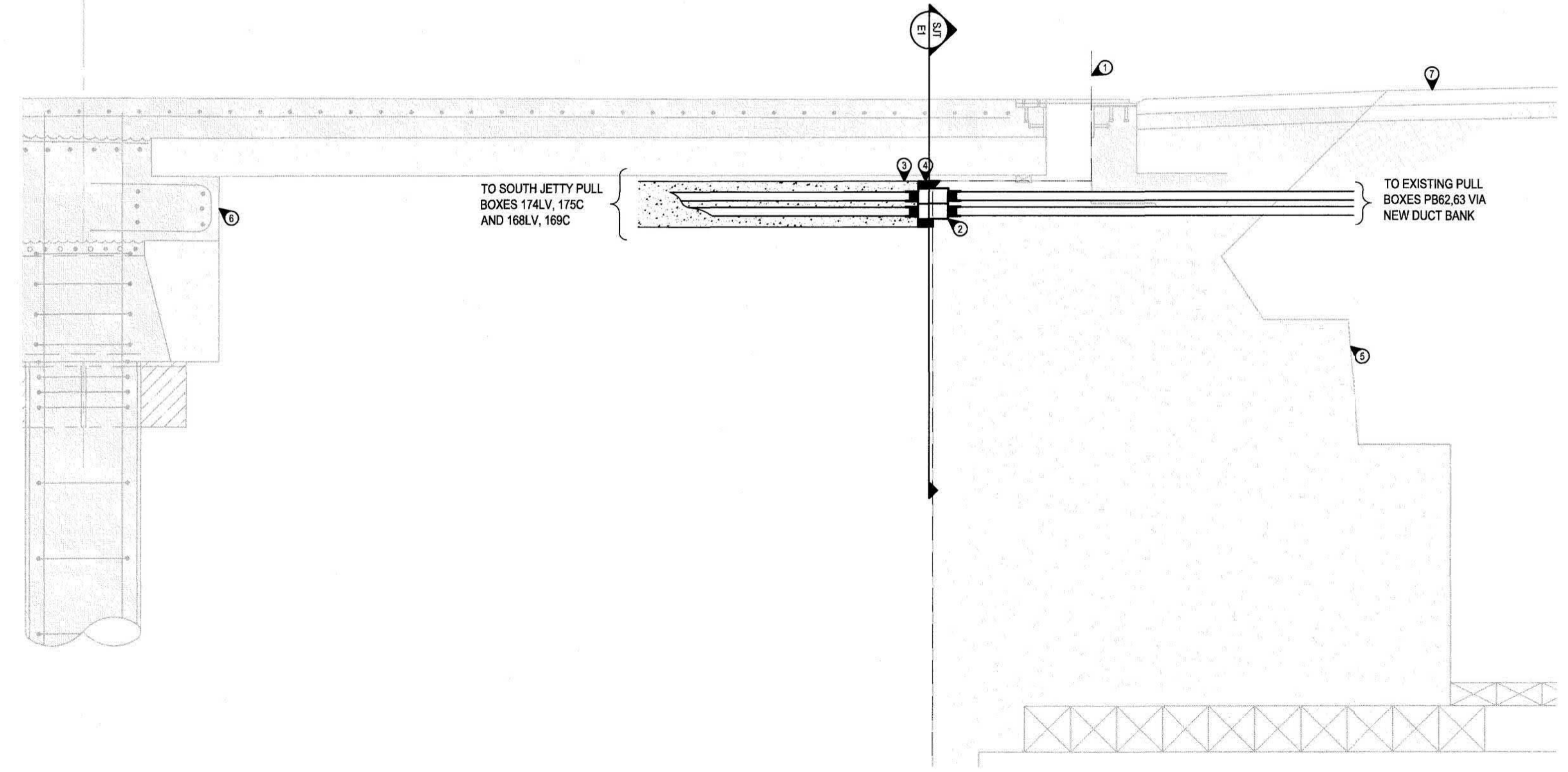
Consultant Approval Box Only
 Designed by/Concepté par
I. BARNES
 Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
 PWSC Project Manager/Administrateur de Projets TPSCG
PATRICK TRUONG
 PWSC, Regional Manager, Architectural and Engineering Services/
 Gestionnaire Régionale, Services d'architecture et de génie, TPSCG
PREETIPAL PAUL

Drawing Title/Titre du dessin
SOUTH JETTY WEST END DEFLECTION JOINTS

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.026729.002	E40	2



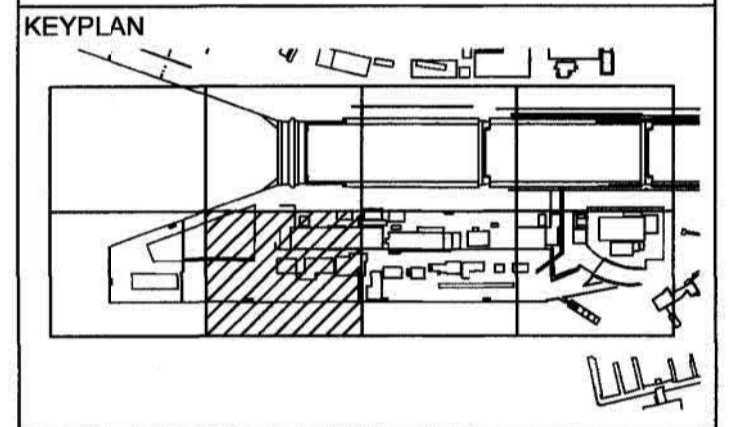
1 NORTH WEST JETTY COUPLING ELEVATION
 E2



2 CENTRE WEST JETTY COUPLING ELEVATION
 E2

KEYNOTES:

- LOCATION OF STRUCTURAL JOINT LINE BETWEEN NEW JETTY STRUCTURE AND EXISTING SOUTH SIDE CONCRETE/SHEET PILE WALL. ENSURE DEFLECTION COUPLING FLEX JOINT IS INSTALLED IN THE SAME VERTICAL PLANE AS THE STRUCTURAL JOINT, SUCH THAT THE VERTICAL SHEAR IS ALIGNED.
- NEMA 4X RATED LIQUID TIGHT DEFLECTION COUPLING, ENSURE CONNECTION TO RPVC CONDUIT USES RIGID METAL CONDUIT NIPPLES AND RIGID METAL-TO-PVC CONDUIT ADAPTERS TO PREVENT DAMAGE TO RPVC THREADS DUE TO METAL ON PLASTIC THREAD FORCES. DEFLECTION COUPLING MUST BE CAPABLE OF THE FOLLOWING:
 MINIMUM 19mm EXPANSION/CONTRACTION MOTION IN THE HORIZONTAL
 MINIMUM 19mm UP/DOWN MOTION IN THE VERTICAL
 ANGULAR MISALIGNMENT OF THE CONDUIT RUNS UP TO 30 DEGREES.
 INNER DIAMETER TO BE CONSTANT DURING A DEFLECTION EVENT WHICH DOES NOT EXCEED PARAMETER a,b OR c.
 FLEXIBLE TINNED COPPER GROUNDING STRAP ACROSS DEFLECTION JOINT TO ALLOW FOR CONTINUITY OF GROUND.
 STANDARD SIZES THREADS FOR RPVC/STEEL FITTINGS
 SUITABLE FOR IMMERSION IN SALT WATER
- PROVIDE MINIMUM 50mm CONCRETE COVER AROUND CONDUITS PRIOR TO CONNECTION TO DEFLECTION COUPLING.
- RUBBER SEAT BETWEEN NEW CONCRETE DUCT BANK AND EXISTING CONCRETE WALL.
- EXISTING SOUTH JETTY STRUCTURAL FOOTING, TO BE UNDISTURBED, AS ARE ANY EXISTING DRAIN LINES.
- PRECAST CONCRETE SUPPORT BEAMS BETWEEN PILE CAPS. NO CORING, ANCHORING OR MODIFICATION TO THESE BEAMS WITHOUT PRIOR SIGNED AUTHORIZATION FROM STRUCTURAL ENGINEER OF RECORD.
- JETTY CONCRETE/ASPHALT SURFACE. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL DETAILS.



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2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15
Revision/Revision	Description/Description	Date/Date

Client/Client: **ESQUIMALT GRAVING DOCK**
 825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet: **825 ADMIRALS ROAD, VICTORIA, BC ESQUIMALT GRAVING DOCK ELECTRICAL SAFETY UPGRADE**
SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
 Designed by/Concept par: **I. BARNES**

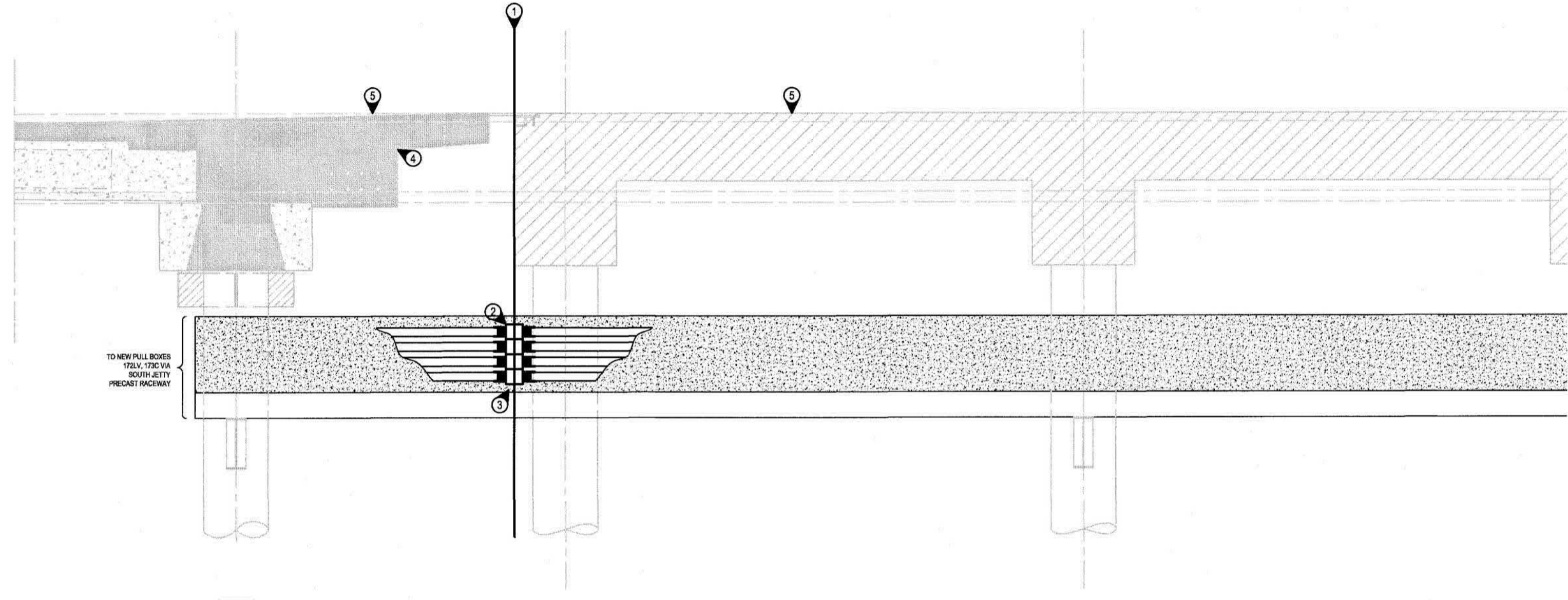
Drawn by/Dessiné par: **J. BIELING, S. SEYMOUR**

PWGC Project Manager/Administrateur de Projets TPSGC: **PATRICK TRUONG**

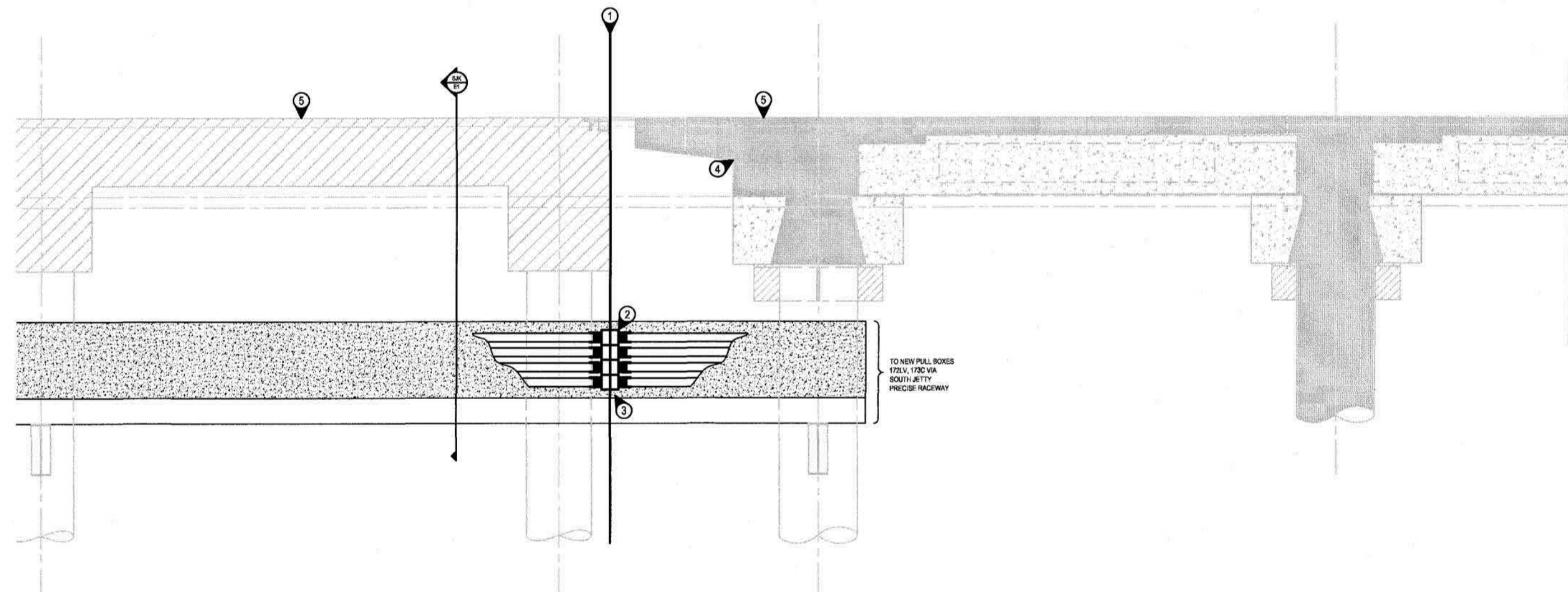
PWGC, Regional Manager, Architectural and Engineering Services/Gestionnaire régionale, Services d'architecture et de génie, TPSGC: **PREETIPAL PAUL**

Drawing title/Titre du dessin: **SOUTH JETTY WEST END DEFLECTION JOINTS**

Project No./No. du projet	Sheet/Feuille	Revision no./La Révision no.
R.026729.002	E41	2



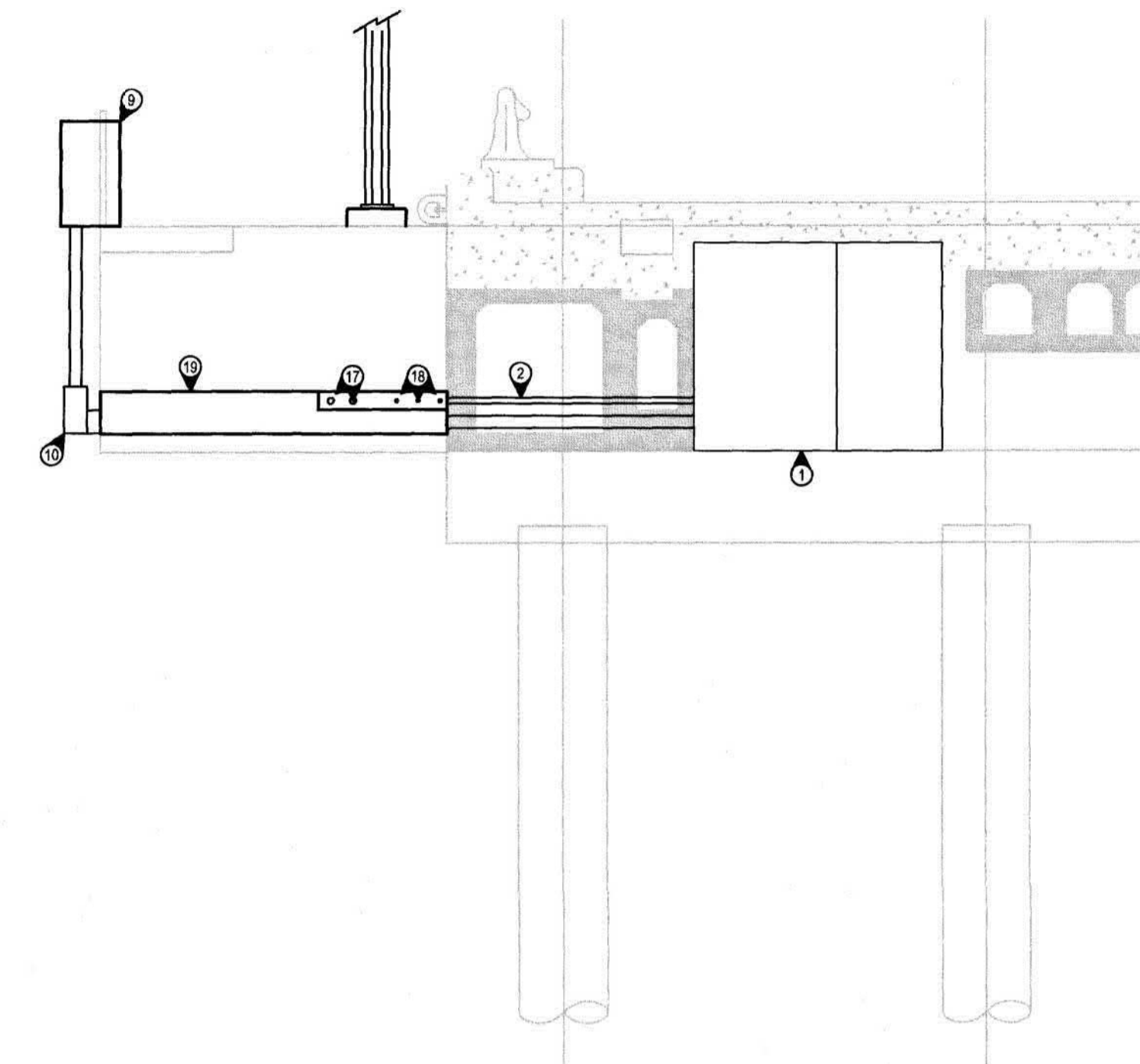
1 EXISTING JETTY CROSSING WEST END DEFLECTION JOINT
 Scale: 1:25



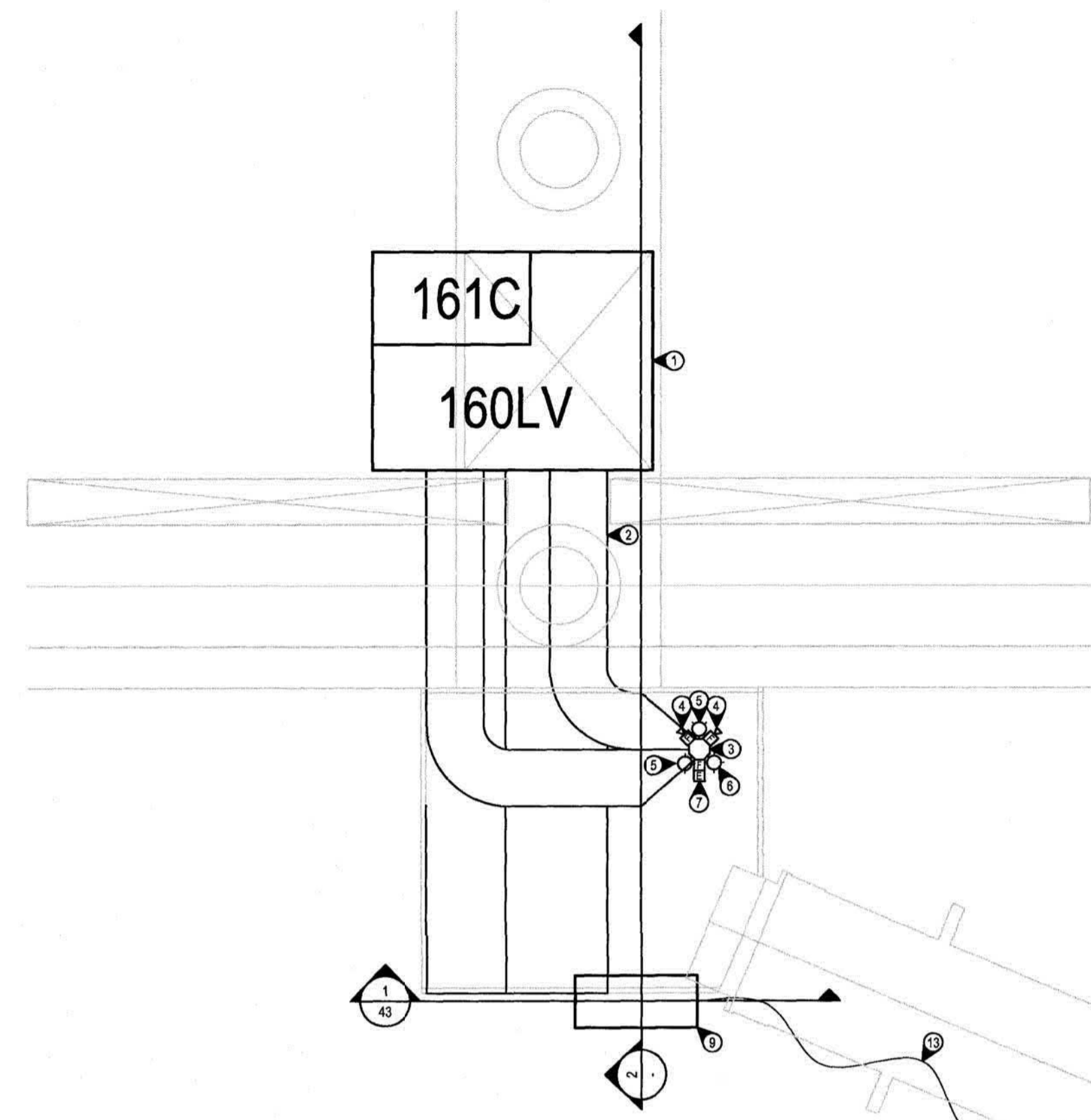
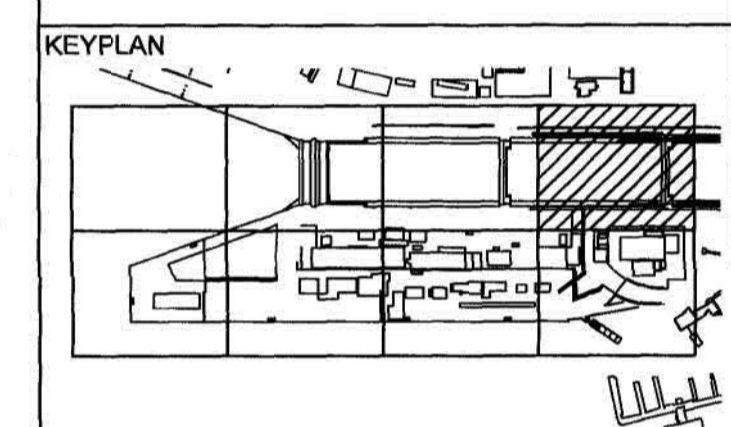
1 EXISTING JETTY CROSSING EAST END DEFLECTION JOINT
 Scale: 1:25

KEYNOTES:

- ① LOCATION OF STRUCTURAL JOINT LINE BETWEEN NEW JETTY STRUCTURE AND EXISTING SOUTH SIDE CONCRETE/SHEET PILE WALL. ENSURE DEFLECTION COUPLING FLEX JOINT IS INSTALLED IN THE SAME VERTICAL PLANE AS THE STRUCTURAL JOINT, SUCH THAT THE VERTICAL SHEAR IS ALIGNED.
- ② NEMA 4X RATED LIQUID TIGHT DEFLECTION COUPLING. ENSURE CONNECTION TO RPVC CONDUIT USES RIGID METAL CONDUIT NIPPLES AND RIGID METAL-TO-PVC CONDUIT ADAPTERS TO PREVENT DAMAGE TO RPVC THREADS DUE TO METAL ON PLASTIC THREAD FORCES. DEFLECTION COUPLING MUST BE CAPABLE OF THE FOLLOWING:
 MINIMUM 19mm EXPANSION/CONTRACTION MOTION IN THE HORIZONTAL
 MINIMUM 19mm UP/DOWN MOTION IN THE VERTICAL.
 ANGULAR MISALIGNMENT OF THE CONDUIT RUNS UP TO 30 DEGREES.
 INNER DIAMETER TO BE CONSTANT DURING A DEFLECTION EVENT WHICH DOES NOT EXCEED PARAMETER a,b OR c.
 FLEXIBLE TINNED COPPER GROUNDING STRAP ACROSS DEFLECTION JOINT TO ALLOW FOR CONTINUITY OF GROUND.
 STANDARD SIZES THREADS FOR RPVC/STEEL FITTINGS
 SUITABLE FOR IMMERSION IN SALT WATER
- ③ PROVIDE MINIMUM 50mm CONCRETE COVER AROUND CONDUITS PRIOR TO CONNECTION TO DEFLECTION COUPLING.
- ④ PRECAST CONCRETE SUPPORT BEAMS BETWEEN PILE CAPS. NO CORING, ANCHORING OR MODIFICATION TO THESE BEAMS WITHOUT PRIOR SIGNED AUTHORIZATION FROM STRUCTURAL ENGINEER OF RECORD.
- ⑤ JETTY CONCRETE/ASPHALT SURFACE. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL DETAILS.



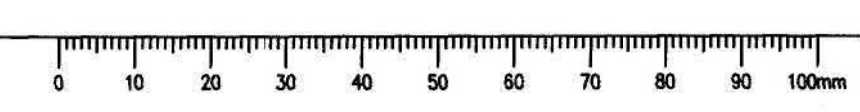
2 SOUTH JETTY TUG WHARF SECTION DETAILS
1:50



1 SOUTH JETTY TUG WHARF CONNECTION PLAN
1:50

KEYNOTES:

- SOUTH JETTY MANHOLE. REFER TO 1/E2 FOR ADDITIONAL DETAILS. COMM CONDUITS WILL NEED TO PASS THROUGH THE LV SECTION VIA RPVC CONDUIT TO ENSURE ISOLATION OF LV AND COMM IS MAINTAINED.
- CO-ORDINATE CONDUIT WINDOW IN CAST CONCRETE BEAM FOR CONDUIT PASS THROUGH AND INSTALL RPVC CONDUIT AS INDICATED ON SECTION DETAILS. CONFIRM CONDUIT WINDOW LOCATIONS WITH STRUCTURAL ENGINEER AND CO-ORDINATE WITH STRUCTURAL SHOP DRAWINGS.
- NEW 6M TALL TAPERED MARINE GRADE ALUMINUM NEMA3R SQUARE POLE. MINIMUM 4.76mm WALL THICKNESS. REFER TO DETAIL 3/E43 FOR ADDITIONAL INFORMATION.
- WEATHERPROOF FIRE ALARM YARD SIRE ON ADJUSTABLE PIVOT BASE. MINIMUM 120DB. (TYPICAL OF 4)
- 8000 LUMEN, 3000K, LED NEMA 3R RATED YARD LIGHT. TO BE OF CAST MARINE GRADE ALUMINUM CONSTRUCTION MOUNTED TO TOP OF NEW POLE.
- 13,000 LUMEN, 3000K, LED NEMA 3R RATED ADJUSTABLE WIDE DISTRIBUTION FLOOD LIGHT FOCUSED ON TUG WHARF. TO BE OF CAST MARINE GRADE ALUMINUM CONSTRUCTION MOUNTED TO TOP OF NEW POLE.
- FIRE ALARM AND EMERGENCY ALARM EMERGENCY PULL STATION IN 4X RATED BOX MOUNTED SIDE BY SIDE AT 1.5M AFF MOUNTED TO POLE. WIRED INTO FIRE ALARM SYSTEM.
- CONFIRM HAND RAIL LOCATION/HEIGHTS/SIZES WITH STRUCTURAL SHEETS.
- LOW VOLTAGE SPLICE BOX, ALL TUG WHARF CABLES TO BE SPLICES FROM TECK/C TYPE CABLES TO TYPE G CABLE SUITABLE FOR MOUNTING TO EXTERIOR OF TUG WHARF. SPLICE BOX TO BE SIZES AS PER CEC REQUIREMENTS FOR CONDUIT ENTRY/EXIT AND TO BE OF NEMA3R MARINE GRADE ALUMINUM CONSTRUCTION. FRONT COVER TO BE REMOVABLE TO ALLOW ACCESS FROM TUG WHARF SPUR OFF SOUTH JETTY. CO-ORDINATE SPLICE BOX LOCATION WITH HAND RAIL POLES.
- 5X103mm NEMA3R MARINE GRADE RIDGED ALUMINUM CONDUIT FROM ELBOWS ENTERING BASE TO SPLICE BOX. SECURELY STRAPPED TO JETTY CONCRETE STRUCTURE.
- 5X103mm NEMA 3R MARINE GRADE ELBOWS
- SEAL 5X103mm RPVC CONDUITS FOR FUTURE COMM SERVICES. ENSURE PULL STRING IS ACCESSIBLE BEHIND SEALING CAP.
- TYPE 'G' CONDUCTORS FROM SPLICE BOX TO TUG WHARF SERVICE PEDESTALS STRAPPED SECURELY TO WALKWAY AND EDGE OF TUG WHARF.
- TUG WHARF HINGED WALKWAY. COORDINATE EXACT DIMENSIONS AND MOUNTING SOLUTIONS WITH STRUCTURAL DETAILS AND SUPPLY CONTRACTOR.
- TUG WHARF SERVICES TO TUG WHARF MOUNT#1
- TUG WHARF SERVICES TO TUG WHARF MOUNT#2
- 2x53mm RPVC COMM. CONDUITS FROM COMM MANHOLE TO STUB UP INSIDE NEW TUG WHARF POLE.
- 3x27mm RPVC POWER. CONDUITS FROM LV MANHOLE TO STUB UP INSIDE NEW TUG WHARF POLE. CO-ORDINATE ALL CONDUITS TO ENTER SUCH THAT THEY ARE CONCEALED UNDER BASE OF NEW LIGHTING POLE.
- CONDUITS BETWEEN MANHOLE AND TUG WHARF TO BE ENCASED IN CONCRETE DUCT BANK AFTER PASSING THROUGH STRUCTURAL BREAM FROM NOTE 2
- NEMA4X OUTDOOR RATED L16-50R C/W LATCHED COVER
- NEMA4X OUTDOOR RATED L16-20R C/W LATCHED COVER
- NEMA4X OUTDOOR RATED L5-20R C/W LATCHED COVER
- 45 DEGREE CUT BACKS IN FACE OF DISTRIBUTION PEDESTAL FOR EASED OF CONNECTION AND PROTECTION FRO ELEMENTS
- ACCESS HATCHES ON EACH SIDE OF DISTRIBUTION PEDESTAL FOR ACCESS TO INTERNAL WIRE WAY.
- TYPE 'G' CONDUCTORS TO ENTER INTO BASE OF DISTRIBUTION PEDESTAL. TO BE SUITABLY SEALED TO PREVENT WATER/ANIMAL INGRESS.
- TUG WHARF DISTRIBUTION PEDESTAL (TYPICAL OF 2). TO BE OF NEMA 3R MARINE GRADE ALUMINUM CONSTRUCTION. TO BE MOUNTED WITH PLUGS FACING INTO CENTRE OF WHARF.
- POLE ACCESS HATCH. SEALED AND GASKETED.
- CO-ORDINATE 53mm COMMUNICATION CONDUIT STUBS WITHIN POLE BASE AS SHOWN.
- CO-ORDINATE 27mm COMMUNICATION CONDUIT STUBS WITHIN POLE BASE AS SHOWN.
- 19mm CHAMFER AROUND POLE BASE.
- CONCRETE 500mm Ø POLE BASE. TO BE SECURELY BOLTED TO THE TUG WHARF LANDING STRUCTURE USING REBAR DOWELS. COMPRESSIVE STRENGTH 28MPA @ 28DAYS.
- PRECAST CONCRETE JETTY LANDING



2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/08/15
Revision/Revisions	Description/Description	Date/Date

Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION

Consultant Approval Box Only
Designed by/Concept par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWSC Project Manager/Administrateur de Projets TP5GC
PATRICK TRUONG
PWSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TP5GC
PREETIPAL PAUL
Drawing title/Titre du dessin

NEW TUG WHARF SERVICES AND DETAILS

Project No./No. du projet R.026729.002	Sheet/Feuille E42	Revision no./ La Révision no. 2
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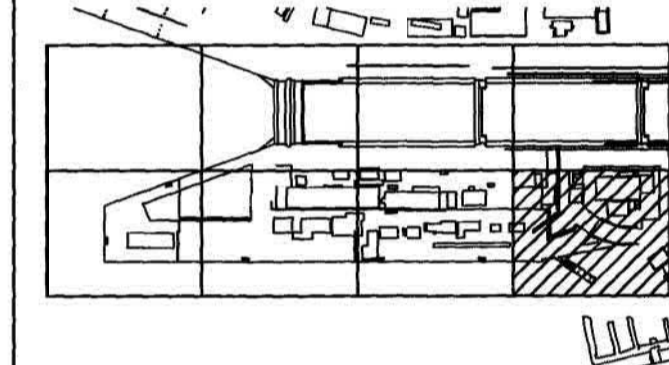
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Victoria Office

AES
APPLIED ENGINEERING SOLUTIONS LIMITED

KEYPLAN



2	ISSUED FOR TENDER	2017/03/08
1	ISSUED FOR 90% REVIEW	16/08/15

Revision/Revision	Description/Description	Date/Date

Client/client
ESQUIMALT GRAVING DOCK

825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION**

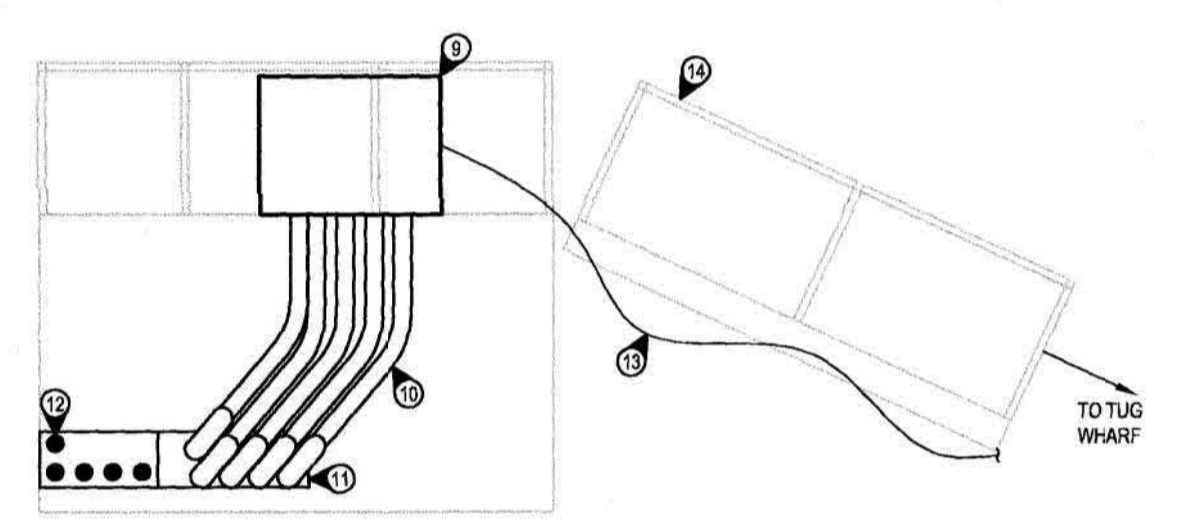
Consultant Approval Box Only
-
Designed by/Concept par
I. BARNES
Drawn by/Dessiné par
J. BELING, S. SEYMOUR
PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
PWSC, Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TPSGC
PREETPAL PAUL
Drawing title/Titre du dessin

NEW TUG WHARF SERVICES AND DETAILS

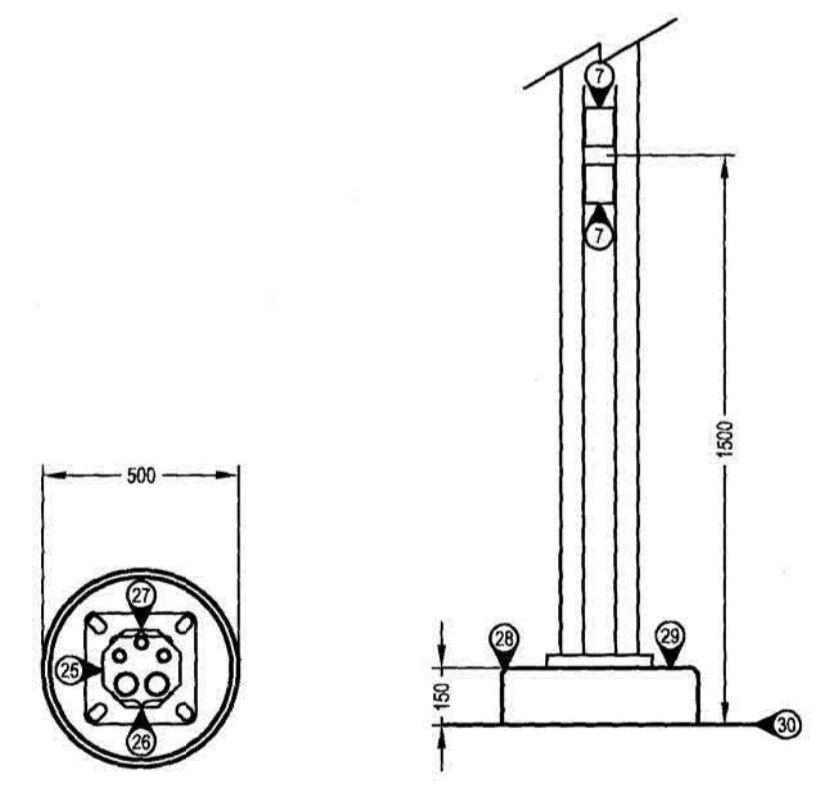
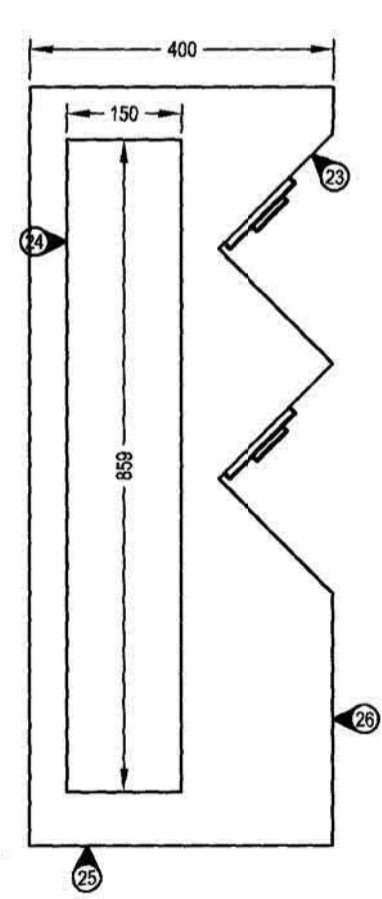
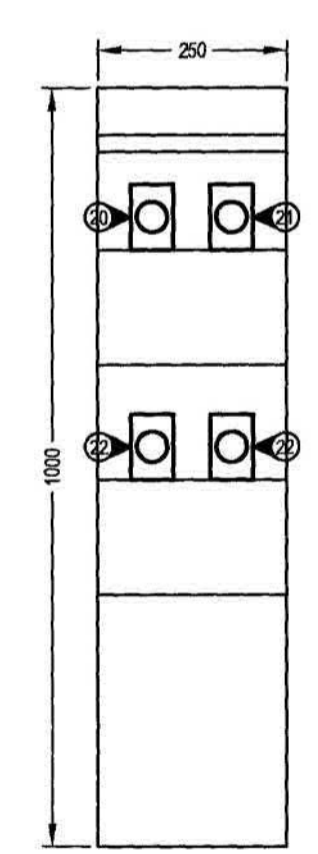
Project No./No. du projet R.026729.002	Sheet/Feuille E43	Revision no./ Le Révision no. 2
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KEYNOTES:

- SOUTH JETTY MANHOLE. REFER TO 1/2 FOR ADDITIONAL DETAILS. COMM CONDUITS WILL NEED TO PASS THROUGH THE LV SECTION VIA RPVC CONDUIT TO ENSURE ISOLATION OF LV AND COMM IS MAINTAINED.
- CO-ORDINATE CONDUIT WINDOW IN CAST CONCRETE BEAM FOR CONDUIT PASS THROUGH AND INSTALL RPVC CONDUIT AS INDICATED ON SECTION DETAILS. CONFIRM CONDUIT WINDOW LOCATIONS WITH STRUCTURAL ENGINEER AND CO-ORDINATE WITH STRUCTURAL SHOP DRAWINGS.
- NEW 6M TALL TAPERED MARINE GRADE ALUMINUM NEMA3R SQUARE POLE. MINIMUM 4.78mm WALL THICKNESS. REFER TO DETAIL 5 FOR ADDITIONAL INFORMATION.
- WEATHERPROOF FIRE ALARM YARD SIRE ON ADJUSTABLE PIVOT BASE. MINIMUM 120DB. (TYPICAL OF 4)
- 8000 LUMEN, 3000K, LED NEMA 3R RATED YARD LIGHT. TO BE OF CAST MARINE GRADE ALUMINUM CONSTRUCTION MOUNTED TO TOP OF NEW POLE.
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- NEMA4X OUTDOOR RATED L16-20R C/W LATCHED COVER
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- 45 DEGREE CUT BACKS IN FACE OF DISTRIBUTION PEDESTAL FOR EASED OF CONNECTION AND PROTECTION FRO ELEMENTS
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- TYPE 'G' CONDUCTORS TO ENTER INTO BASE OF DISTRIBUTION PEDESTAL. TO BE SUITABLY SEALED TO PREVENT WATER/ANIMAL INGRESS.
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- PRECAST CONCRETE JETTY LANDING

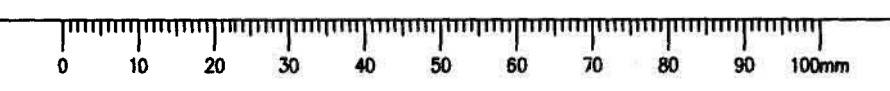


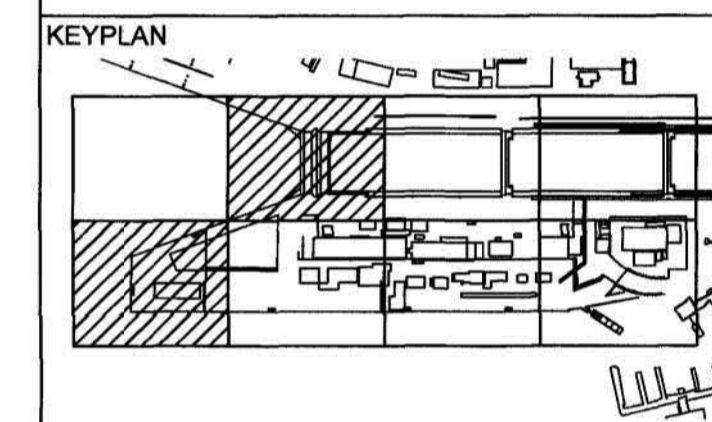
1 SOUTH JETTY TUG WHARF SPLICE BOX ELEVATION
1/50



2 SOUTH JETTY TUG WHARF PEDESTAL
NTS

3 SOUTH JETTY TUG WHARF POLE DETAILS
NTS





2	ISSUED FOR TENDER	2017/03/06
1	ISSUED FOR 99% REVIEW	16/06/15
Revision/Revisé	Description/Description	Date/Date

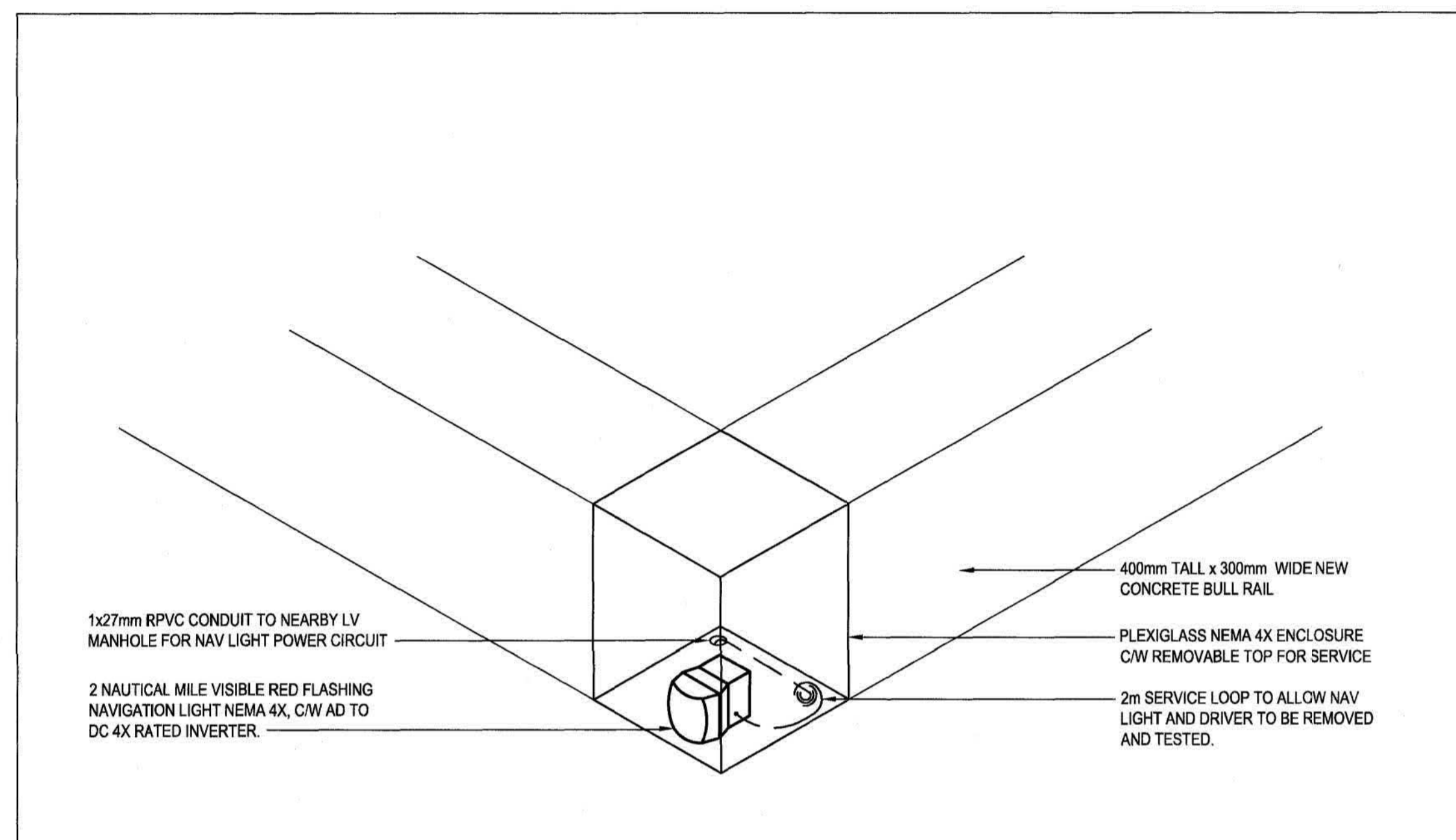
Client/client
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC, V9A 2P1

Project title/Titre du projet
**825 ADMIRALS ROAD, VICTORIA, BC
ESQUIMALT GRAVING DOCK
ELECTRICAL SAFETY UPGRADE
SOUTH JETTY RECONSTRUCTION**

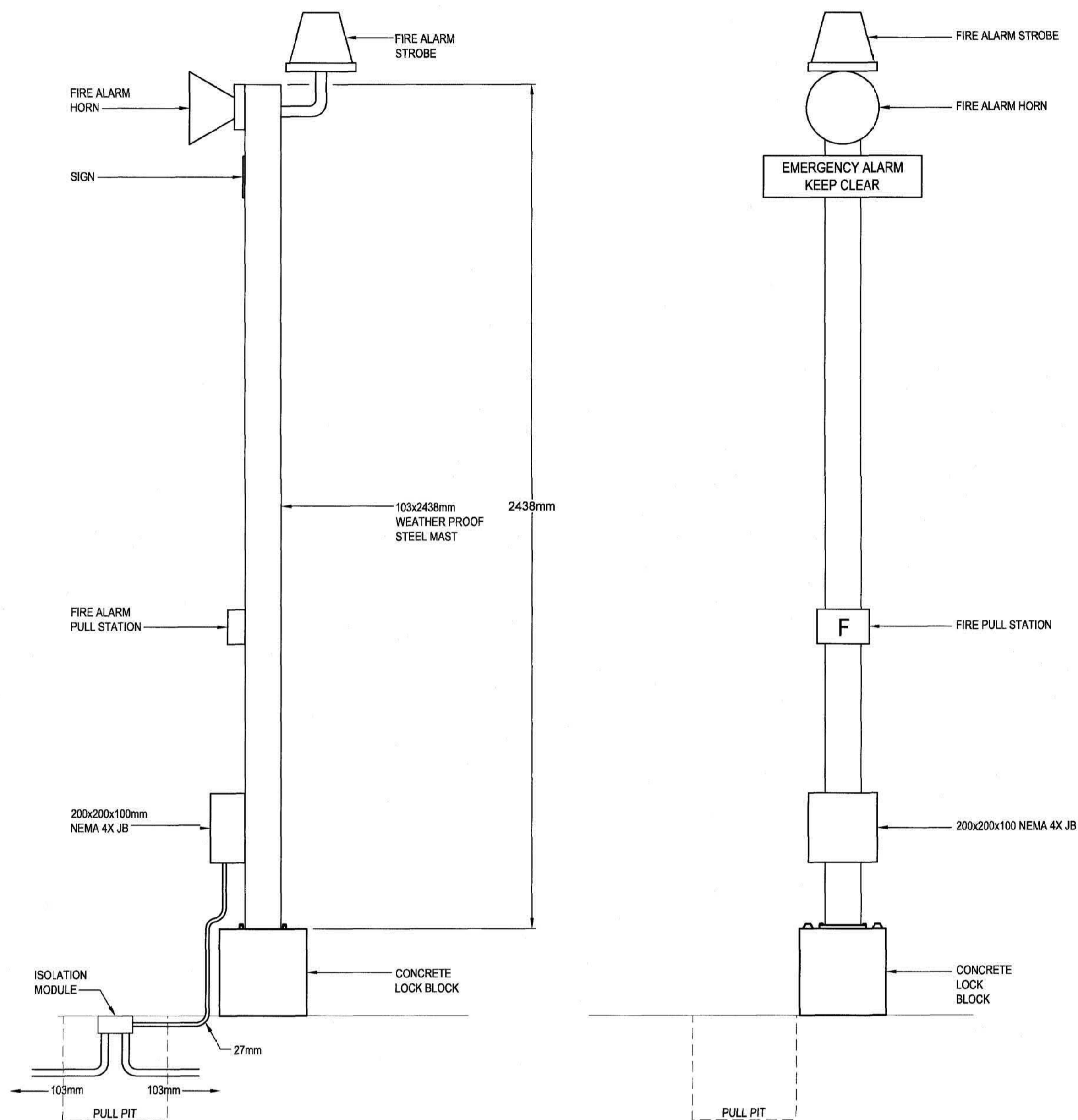
Consultant Approval Box Only
Designed by/Concept par
I. BARNES
Drawn by/Dessiné par
J. BIELING, S. SEYMOUR
PWSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG
PWSC Regional Manager, Architectural and Engineering Services/
Gestionnaire régional, Services d'architecture et de génie, TPSC
PREETIPAL PAUL

Drawing title/Titre du dessin
**NAVIGATIONAL LIGHT,
CAISSON PLUG AND
FIRE/EMERGENCY ALARM
PULL STATION**

Project No./No. du projet R.026729.002	Sheet/Fauille E44	Revision no./ La Révision no. 2
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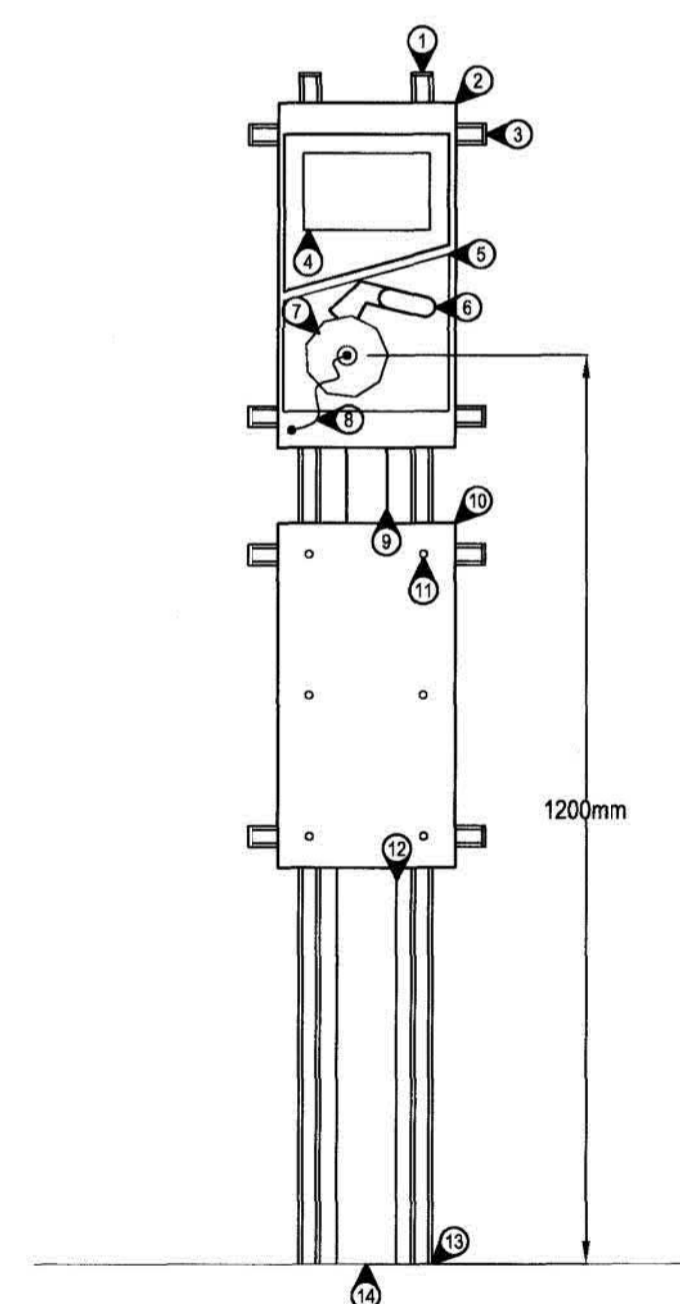
1 NAVIGATIONAL LIGHT
E2 NTS



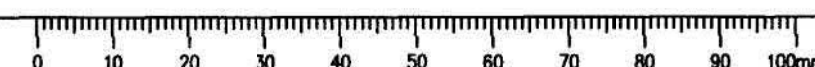
3 FIRE AND EMERGENCY ALARM PULL STATION
E2 NTS

KEYNOTES DETAIL 3 CAISSON PLUG ELEVATION DETAIL

- 1 NEMA 4X STAINLESS CHANNEL STEEL BRACING FOR CONDUIT AND EQUIPMENT MOUNTING.
- 2 CAISSON PLUG, TO BE RUSSEL STOLL MAXGUARD 600V, 100A, 3PH, 4W, NEMA 4X OUTDOOR. CONFIRM EXISTING PIN AND DIMENSIONS TO ENSURE EXISTING PLUGS ARE USABLE IN NEW DEVICE.
- 3 NEMA 4X STAINLESS CHANNEL STEEL CROSS BRACING FOR CONDUIT AND EQUIPMENT MOUNTING AND FRAME STABILITY. SECURELY BOLTED OR WELDED TO VERTICAL CHANNEL STEEL USING NON CORRODIBLE WELDS OR BOLTS.
- 4 NAME PLATE, WARNING LABEL AND BREAKER-DISCONNECT RATING.
- 5 RAISED FLANGE AROUND EDGES OF PLUG-IN RECEPTACLE AND BREAKER OPERATOR ARM TO PREVENT DAMAGE.
- 6 BREAKER OPERATOR ARM, MECHANICALLY AND ELECTRICAL INTERLOCKED WITH PLUG IN RECEPTACLE.
- 7 GATED DEAD FRONT WATERPROOF RECEPTACLE CW PROTECTIVE SCREW ON WATERTIGHT CAP.
- 8 CAP ATTACHED TO CAISSON PLUG VIA HEAVE DUTY STAINLESS STEEL WIRE TO PREVENT LOSS WHEN SYSTEM IS IN USE.
- 9 1x78mm GRS CONDUIT BETWEEN PULL BOX AND CAISSON PLUG. USE LIQUID TIGHT SEALS TO ATTACH CONDUITS TO BOXES.
- 10 NEMA 4X SPLICE BOX FOR CONNECTION OF CAISSON PLUG CONDUCTORS TO CAISSON TECK CABLES FROM NEARBY MANHOLE. SEAL INTERNAL ENTRY TO PREVENT VAPOR MIGRATION AFTER PULLING AND SPLICING CONDUCTORS.
- 11 STAINLESS STEEL SCREWS FOR REMOVAL OF ACCESS PLATE.
- 12 1x78mm GRS CONDUIT ABOVE GROUND TO SPLICE BOX. USE LIQUID TIGHT SEALS TO ATTACH CONDUIT TO SPLICE BOX.
- 13 NEMA 4X STAINLESS CHANNEL STEEL BRACING TO BE ATTACHED TO NEW DOCK SURFACE USING STAINLESS STEEL LAG BOLTS. ENSURE BOLTS ARE OF SUFFICIENT LENGTHS AND STRENGTH WITH WITHSTAND EXPECTED MECHANICAL FORCE LOADS DUE TO WEATHER.
- 14 INSTALL GRS - RPVC ADAPTER COUPLING AT UNDERGROUND TO SURFACE TRANSITION POINT AND CONNECT TO RPVC STUB FROM NEARBY MANHOLE.

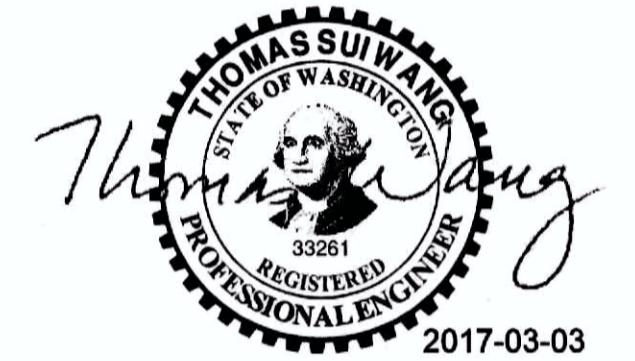
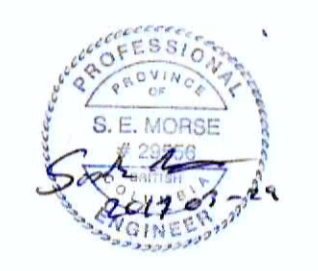
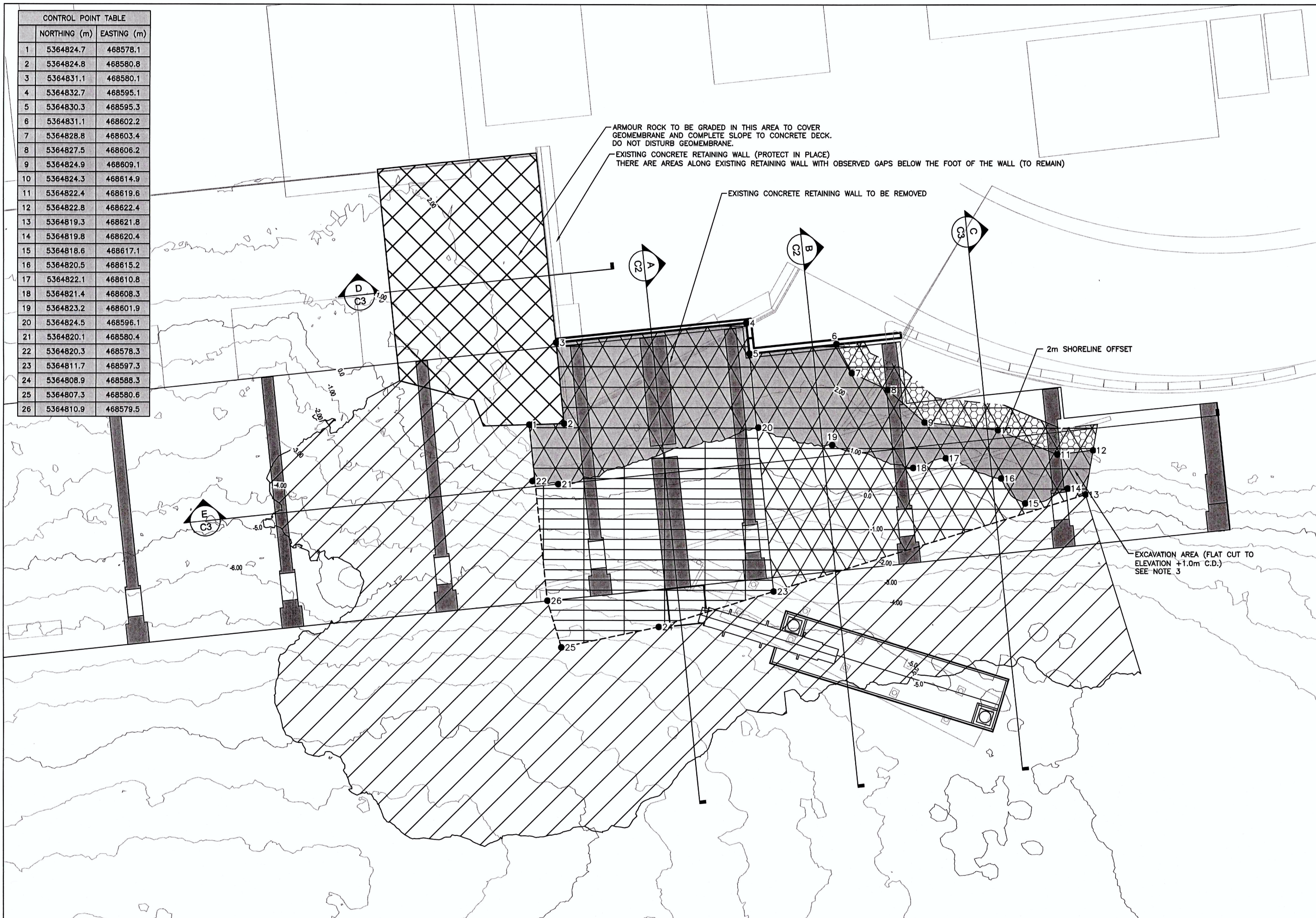


2 CAISSON CONNECTION RECEPTACLE ELEVATION DETAIL
E2 1:10



CONTROL POINT TABLE		
	NORTHING (m)	EASTING (m)
1	5364824.7	468578.1
2	5364824.8	468580.8
3	5364831.1	468580.1
4	5364832.7	468595.1
5	5364830.3	468595.3
6	5364831.1	468602.2
7	5364828.8	468603.4
8	5364827.5	468606.2
9	5364824.9	468609.1
10	5364824.3	468614.9
11	5364822.4	468619.6
12	5364822.8	468622.4
13	5364819.3	468621.8
14	5364819.8	468620.4
15	5364818.6	468617.1
16	5364820.5	468615.2
17	5364822.1	468610.8
18	5364821.4	468608.3
19	5364823.2	468601.9
20	5364824.5	468596.1
21	5364820.1	468580.4
22	5364820.3	468578.3
23	5364811.7	468597.3
24	5364808.9	468588.3
25	5364807.3	468580.6
26	5364810.9	468579.5

ARMOUR ROCK TO BE GRADED IN THIS AREA TO COVER GEOMEMBRANE AND COMPLETE SLOPE TO CONCRETE DECK. DO NOT DISTURB GEOMEMBRANE.
 EXISTING CONCRETE RETAINING WALL (PROTECT IN PLACE) THERE ARE AREAS ALONG EXISTING RETAINING WALL WITH OBSERVED GAPS BELOW THE FOOT OF THE WALL (TO REMAIN)
 EXISTING CONCRETE RETAINING WALL TO BE REMOVED



Revision/Revisions	Description/Description	Date/Date
0	ISSUED FOR REVIEW	2017/03/03

Client/client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
 825 ADMIRALS ROAD, VICTORIA, BC**
SOUTH JETTY WHARF DEVELOPMENT

Consultant Signature Only
 Designed by/Concept par
MATT WOLTMAN
 Drawn by/Dessiné par
CHRIS HEWETT
 PWSC Project Manager/Administrateur de Projets TPSC
PATRICK TRUONG
 Regional Manager, Environmental Services

Drawing title/Titre du dessin
EAST END SLOPE EXCAVATION AND ENGINEERED CAPPING PLAN

Project No./No. du projet	Sheet/	Revision no./
R.026729.002	C1	1

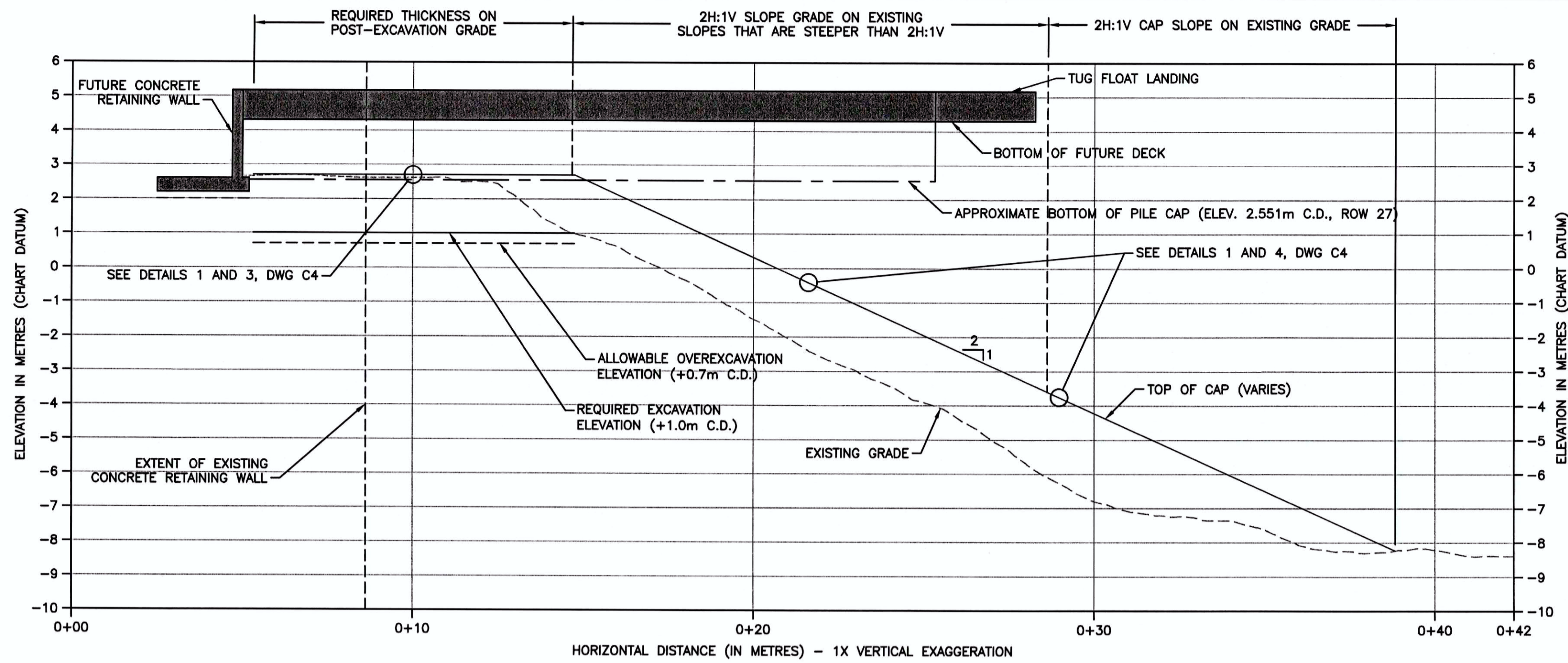
HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
 VERTICAL DATUM: CHART DATUM (C.D.)

EAST END SLOPE EXCAVATION AND ENGINEERED CAPPING PLAN
 SCALE 1: 150

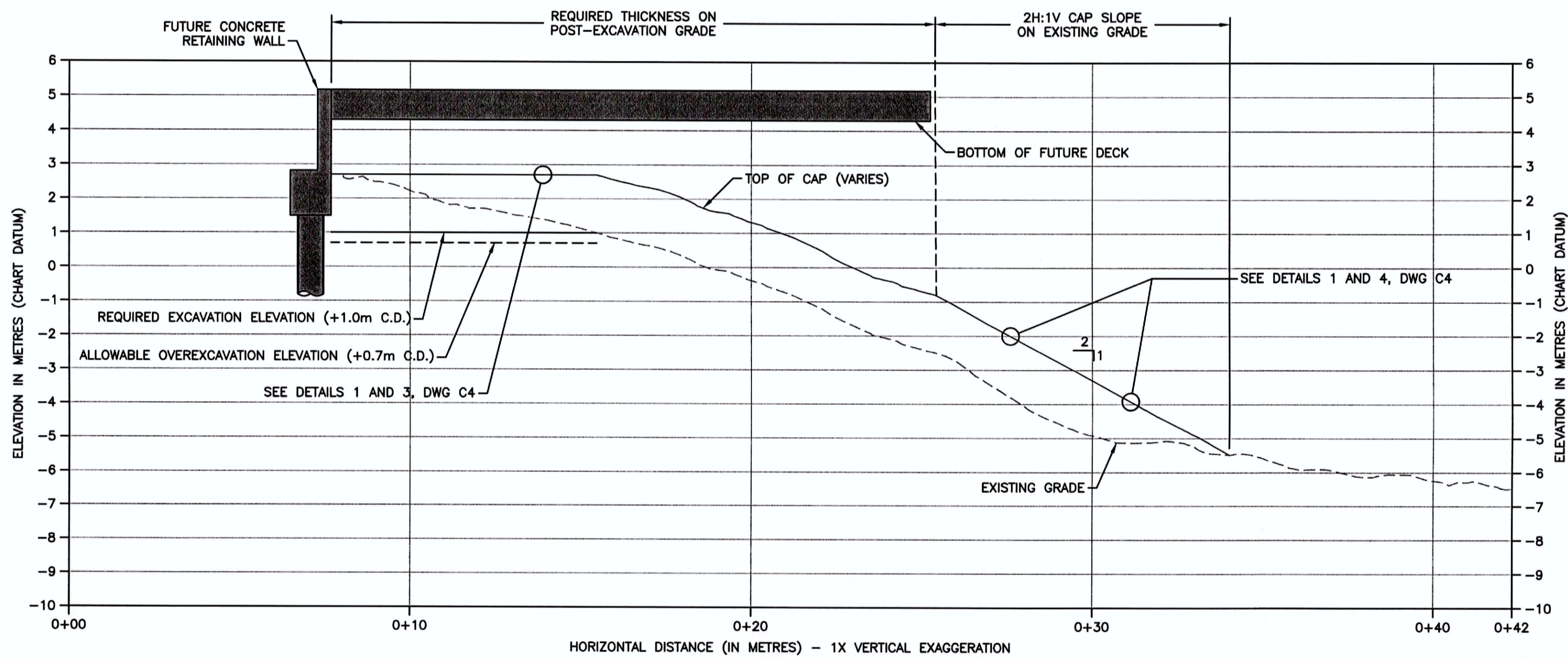
- NOTES:**
- BASEMAP FROM GOLDR ASSOCIATES, DATED 2012. POST-CONSTRUCTION UNDERPIER SURVEYS FROM MCCOI MARINE, DATED DECEMBER 27, 2016.
 - +1.0m C.D. ELEVATION LINE TO BE VERIFIED BY CONTRACTOR'S PRE-CONSTRUCTION SURVEY.
 - EXCAVATION ACTIVITIES SHALL BE PERFORMED WITHIN A FULL-LENGTH SILT CURTAIN OR OTHER ACCEPTABLE RE-SUSPENSION BARRIER THAT FULLY ENCLOSES THE EXCAVATION ACTIVITIES.
 - SAND, FILTER, AND ARMOUR MATERIAL TYPE IS THE SAME FOR ALL CAP AREAS.



- LEGEND:**
- BATHYMETRY (1M AND 5M)
 - EXISTING SHORELINE
 - PROPOSED RETAINING WALL (HEROLD ENGINEERS)
 - EXCAVATION AREA (TO ELEVATION +1.0m C.D.)
 - CAP AREA - REQUIRED THICKNESS ON POST-EXCAVATION GRADE
 - CAP AREA - 2H:1V SLOPE GRADE ON EXISTING SLOPES STEEPER THAN 2H:1V
 - CAP AREA - 2H:1V SLOPE ON EXISTING GRADE
 - AS-BUILT GEOMEMBRANE LOCATION
 - DESIGN PILE ROW
 - SHORELINE OFFSET AREA
 - CAP SLOPE TRANSITION LINE

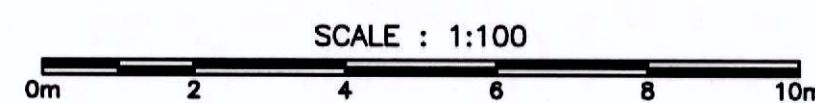


SECTION A
SCALE 1: 100
C1



SECTION B
SCALE 1: 100
C1

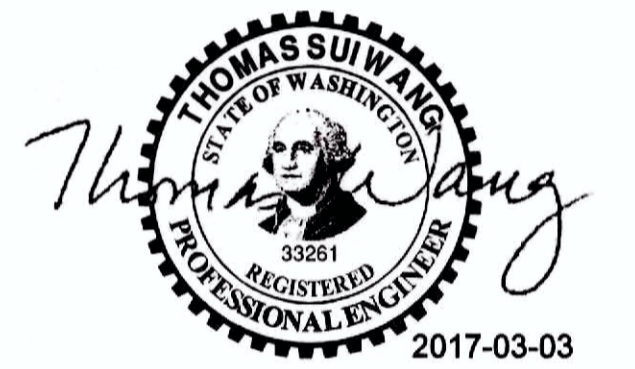
CROSS SECTIONS
SCALE 1: 100



- LEGEND:
- POST-WORK SURVEY (MNQM, DECEMBER 27, 2016)
 - EXISTING GRADE (INTERPOLATED)
 - EXCAVATION TO ELEVATION +1m C.D.
 - ALLOWABLE OVEREXCAVATION ELEVATION (+0.7m C.D.)
 - TOP OF PROPOSED CAP SURFACE

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

- NOTES:
1. BASEMAP FROM GOLDER ASSOCIATES, DATED 2012. POST-CONSTRUCTION UNDERPIER SURVEYS FROM MCCOI MARINE, DATED DECEMBER 27, 2016.
 2. FOR EXCAVATION AND CAPPING DETAILS, SEE DWG C4.



Revision/	Description/Description	Date/Date
0	ISSUED FOR REVIEW	2017/03/03

Client/Client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

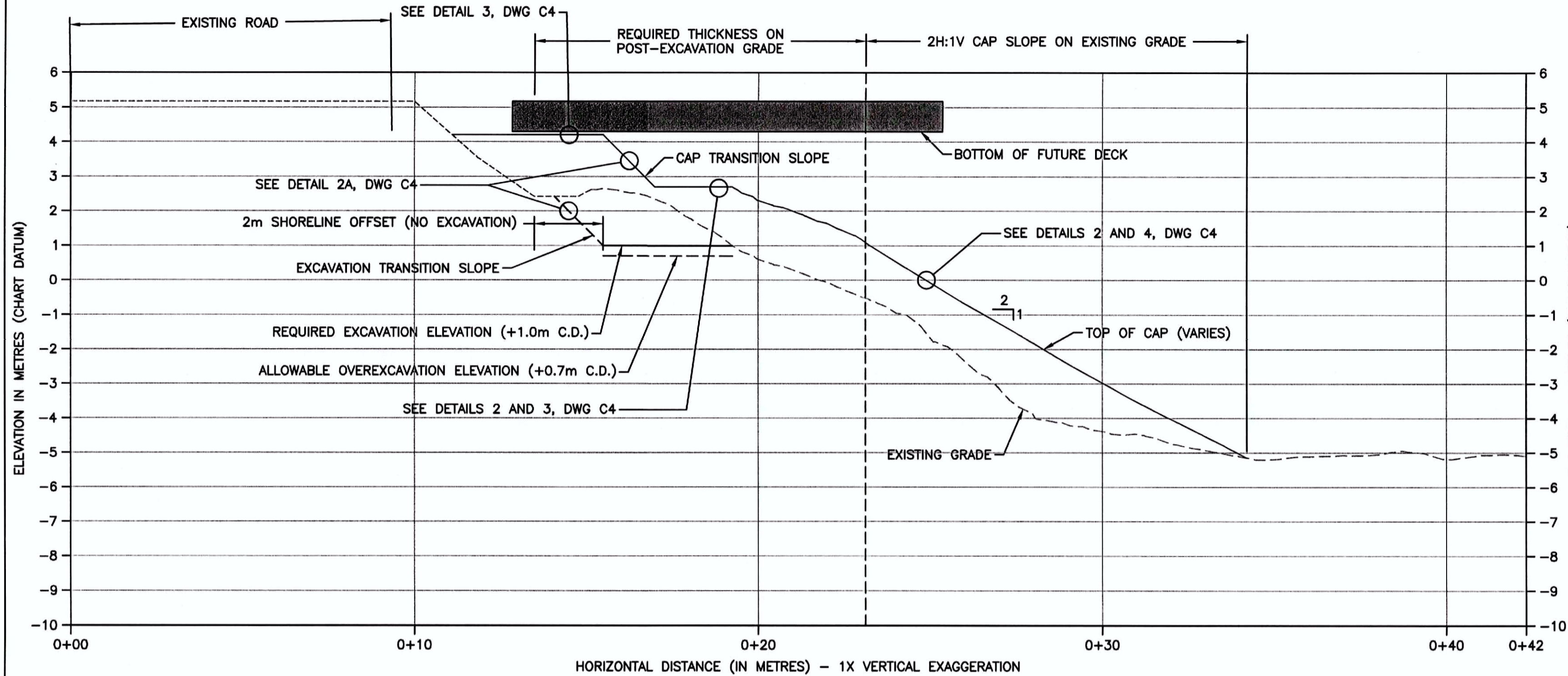
SOUTH JETTY WHARF DEVELOPMENT

Consultant Signature Only
Designed by/Conçept par: **MATT WOLTMAN**
Drawn by/Dessiné par: **CHRIS HEWETT**
PWSC Project Manager/Administrateur de Projets TPSGC: **PATRICK TRUONG**
Regional Manager, Environmental Services

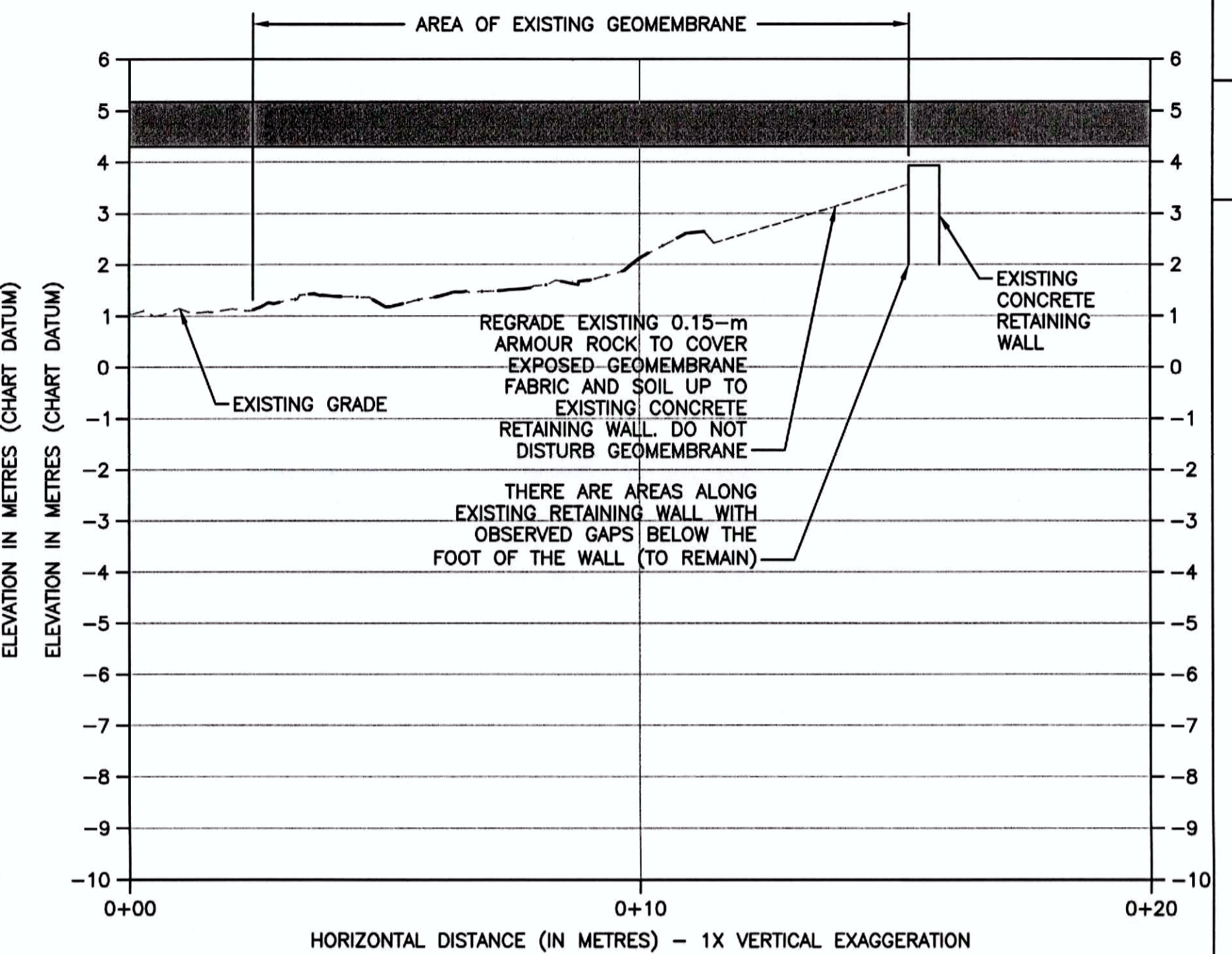
Drawing title/Titre du dessin
**ENGINEERED CAPPING
CROSS SECTIONS - SHEET 1**

Project No./No. du projet	Sheet/	Revision no./
R.026729.002	C2	1

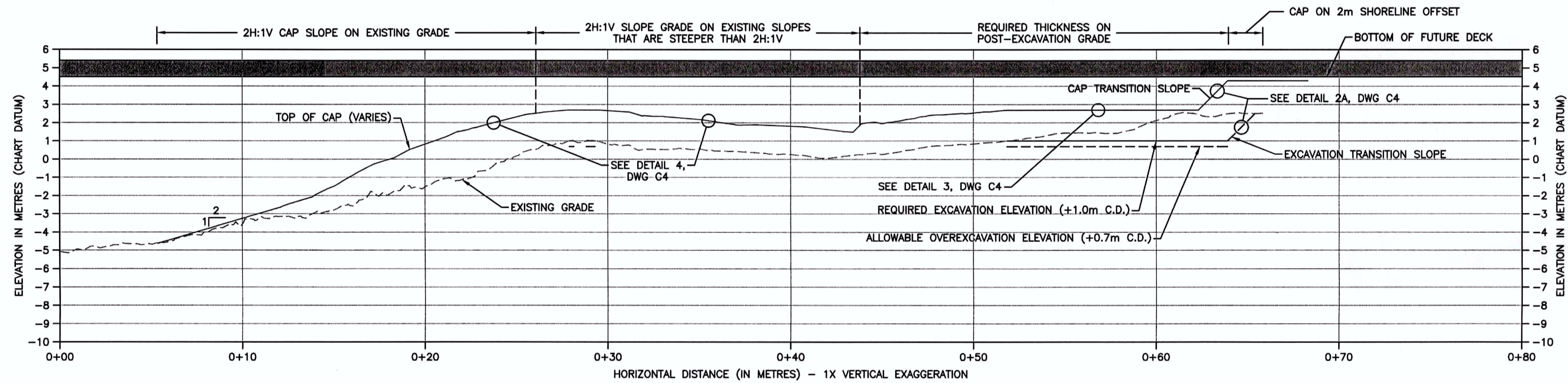




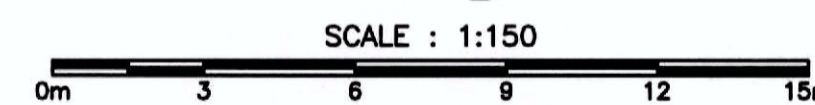
SECTION C
 SCALE 1: 100



SECTION D
 SCALE 1: 100



SECTION E
 SCALE 1: 150

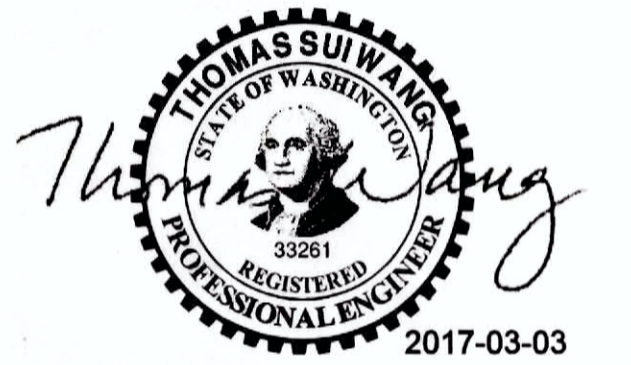


CROSS SECTIONS
 SCALE: AS NOTED

HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
 VERTICAL DATUM: CHART DATUM (C.D.)

- NOTES:**
 1. BASEMAP FROM GOLDER ASSOCIATES, DATED 2012. POST-CONSTRUCTION UNDERPIER SURVEYS FROM MCCOI MARINE, DATED DECEMBER 27, 2016.
 2. FOR EXCAVATION AND CAPPING DETAILS, SEE DWG C4.

- LEGEND:**
 - - - POST-WORK SURVEY (MNQM, DECEMBER 27, 2016)
 - - - - - EXISTING GRADE (INTERPOLATED)
 - - - - - GEOMEMBRANE PLACEMENT AREA
 - - - - - EXCAVATION TO ELEVATION +1m C.D.
 - - - - - ALLOWABLE OVEREXCAVATION ELEVATION (+0.7m C.D.)
 - - - - - TOP OF PROPOSED CAP SURFACE



Revision/Revision	Description/Description	Date/Date
0	ISSUED FOR REVIEW	2017/03/03

Client/Client
PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

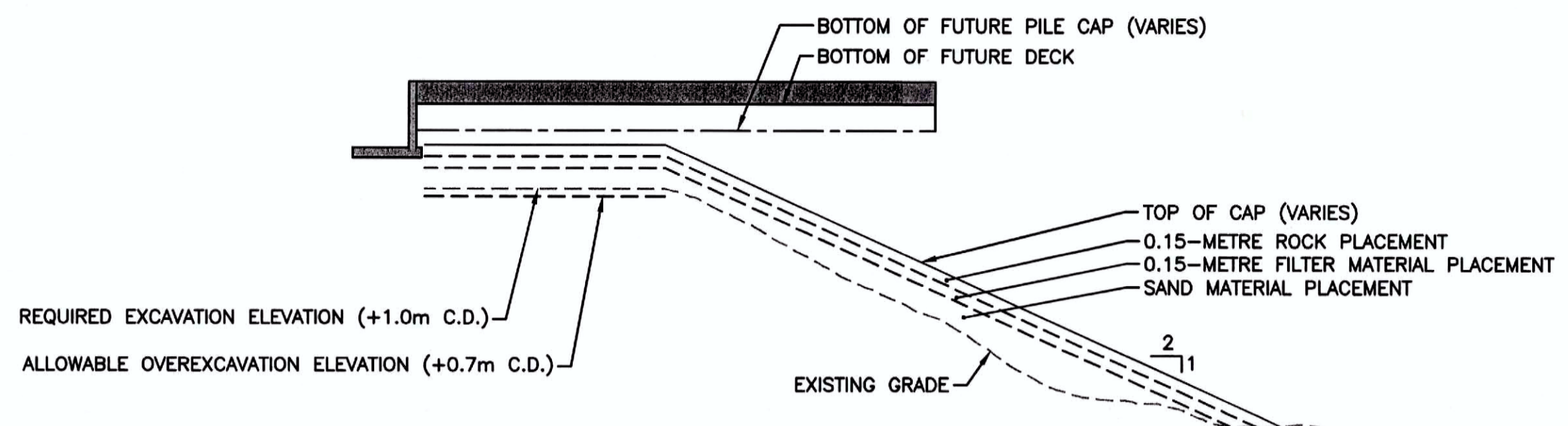
Project title/Titre du projet
ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC
SOUTH JETTY WHARF DEVELOPMENT

Consultant Signature Only
 Designed by/Concepé par
MATT WOLTMAN
 Drawn by/Dessiné par
CHRIS HEWETT
 PWSC Project Manager/Administrateur de Projets TPSGC
PATRICK TRUONG
 Regional Manager, Environmental Services

Drawing title/Titre du dessin
ENGINEERED CAPPING
CROSS SECTIONS - SHEET 2

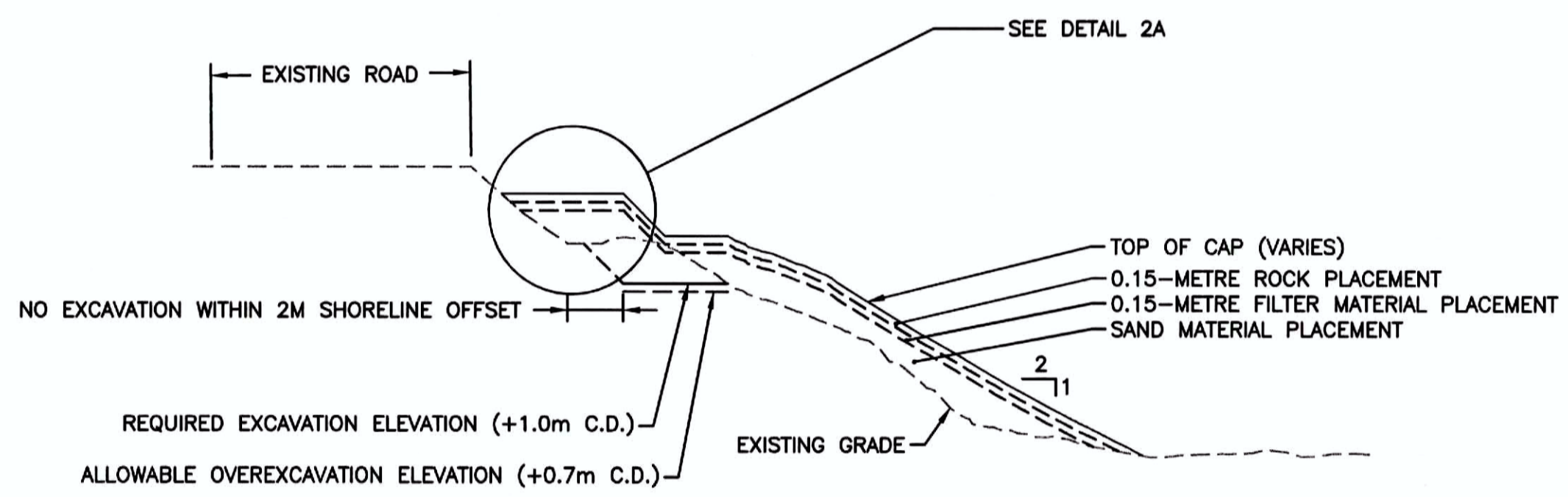
Project No./No. du projet R.026729.002	Sheet/ C3	Revision no./ 1
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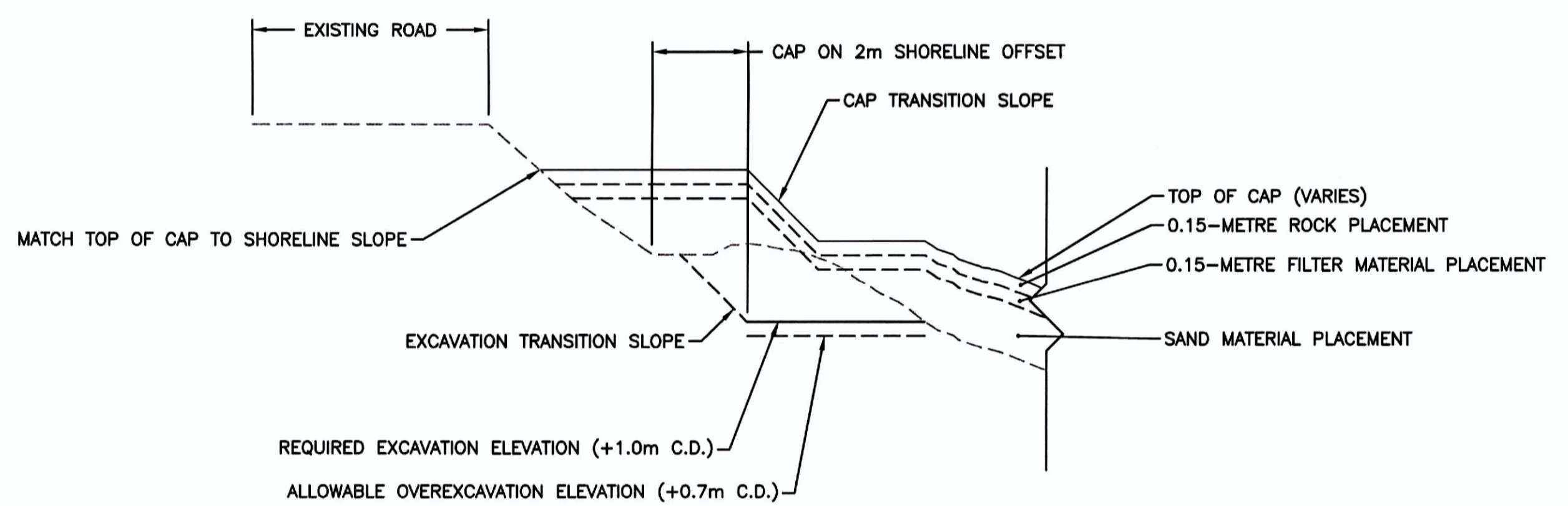
EAST END ENGINEERED CAP

DETAIL 1 NOT TO SCALE



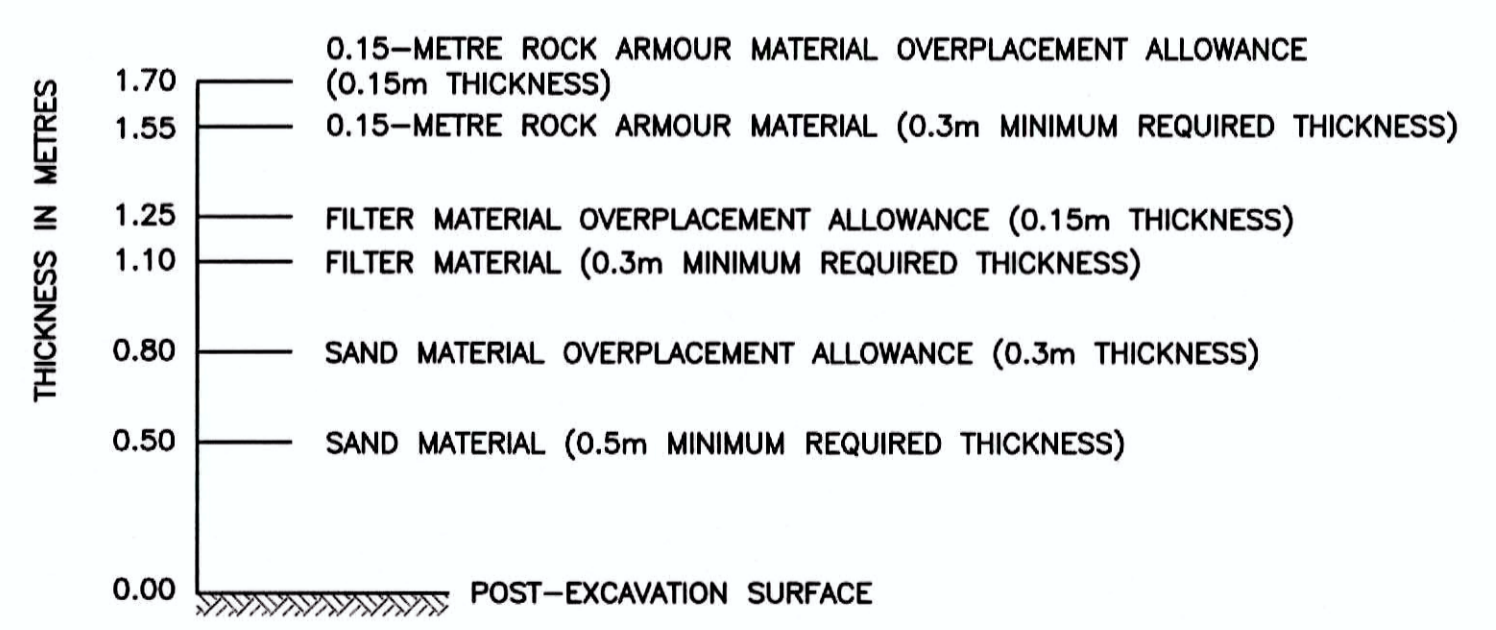
EAST END ENGINEERED CAP WITH SHORELINE OFFSET

DETAIL 2 NOT TO SCALE



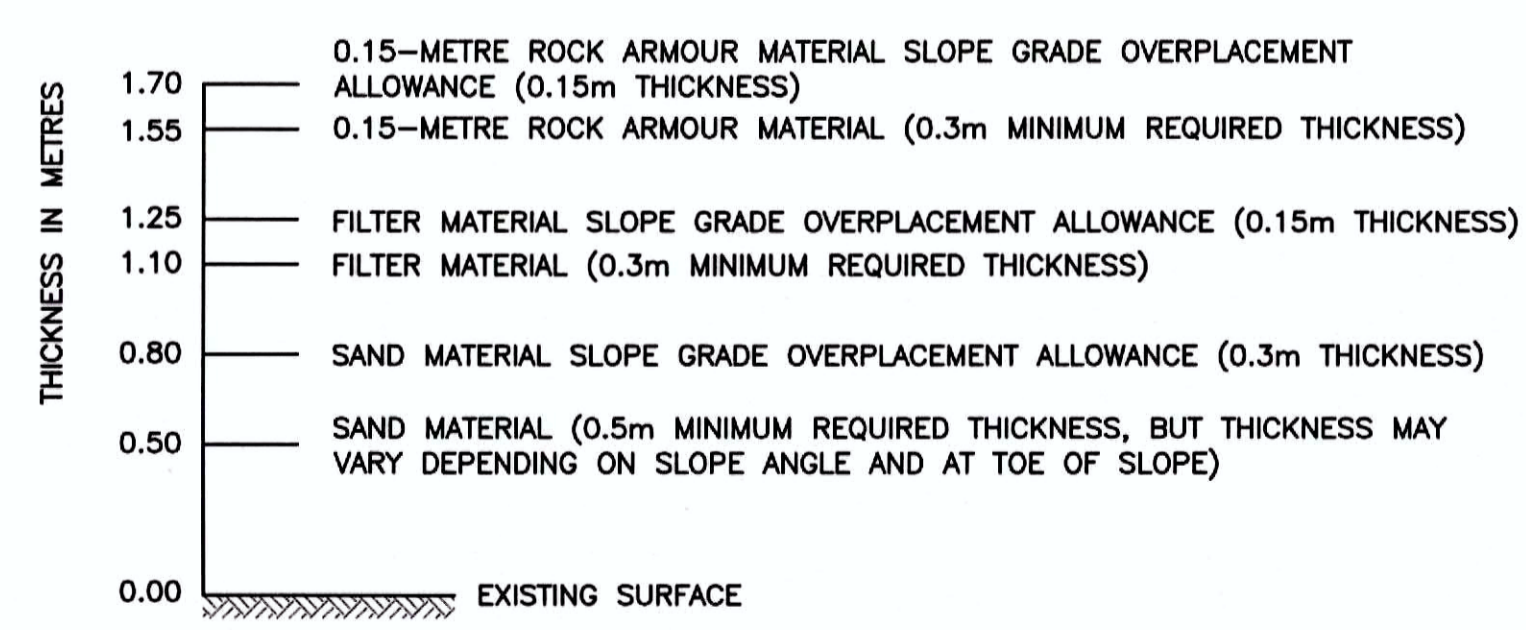
EXCAVATION AND CAP TRANSITIONS AT SHORELINE OFFSET

DETAIL 2A NOT TO SCALE



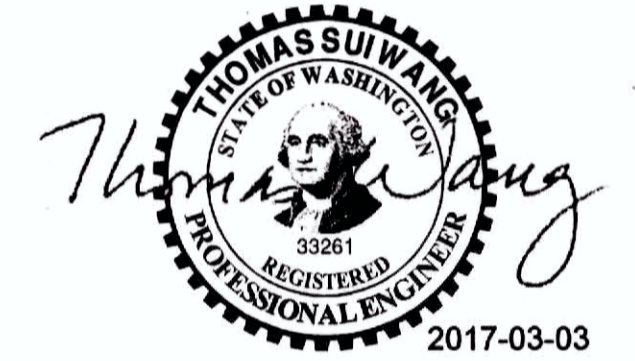
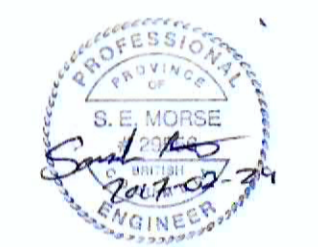
EAST END ENGINEERED CAP: 0.15-METRE ROCK ARMOUR LAYER OVER FILTER MATERIAL OVER SAND LAYER ON POST-EXCAVATION BENCHES

DETAIL 3 NOT TO SCALE



EAST END ENGINEERED CAP: 2H:1V CAP SLOPE ON EXISTING GRADE

DETAIL 4 NOT TO SCALE



0	ISSUED FOR REVIEW	2017/03/03
Revision/	Description/Description	Date/Date
Client/client		

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA

Project title/Titre du projet
**ESQUIMALT GRAVING DOCK
825 ADMIRALS ROAD, VICTORIA, BC**

SOUTH JETTY WHARF DEVELOPMENT

Consultant Signature Only

Designed by/Concept par
MATT WOLTMAN

Drawn by/Dessiné par
CHRIS HEWETT

PWSC Project Manager/Administrateur de Projets TP50C
PATRICK TRUONG

Regional Manager, Environmental Services

Drawing title/Titre du dessin
ENGINEERED CAPPING DETAILS

Project No./No. du projet R.026729.002	Sheet/ C4	Revision no./ 1
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HORIZONTAL DATUM: UTM ZONE 10 GRID, NAD83.
VERTICAL DATUM: CHART DATUM (C.D.)

NOTES:
1. BASEMAP FROM GOLDR ASSOCIATES, DATED 2012. POST-CONSTRUCTION UNDERPIER SURVEYS FROM MCCOI MARINE, DATED DECEMBER 27, 2016.

