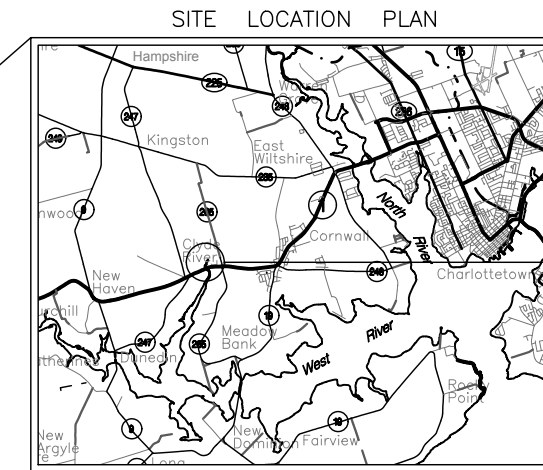
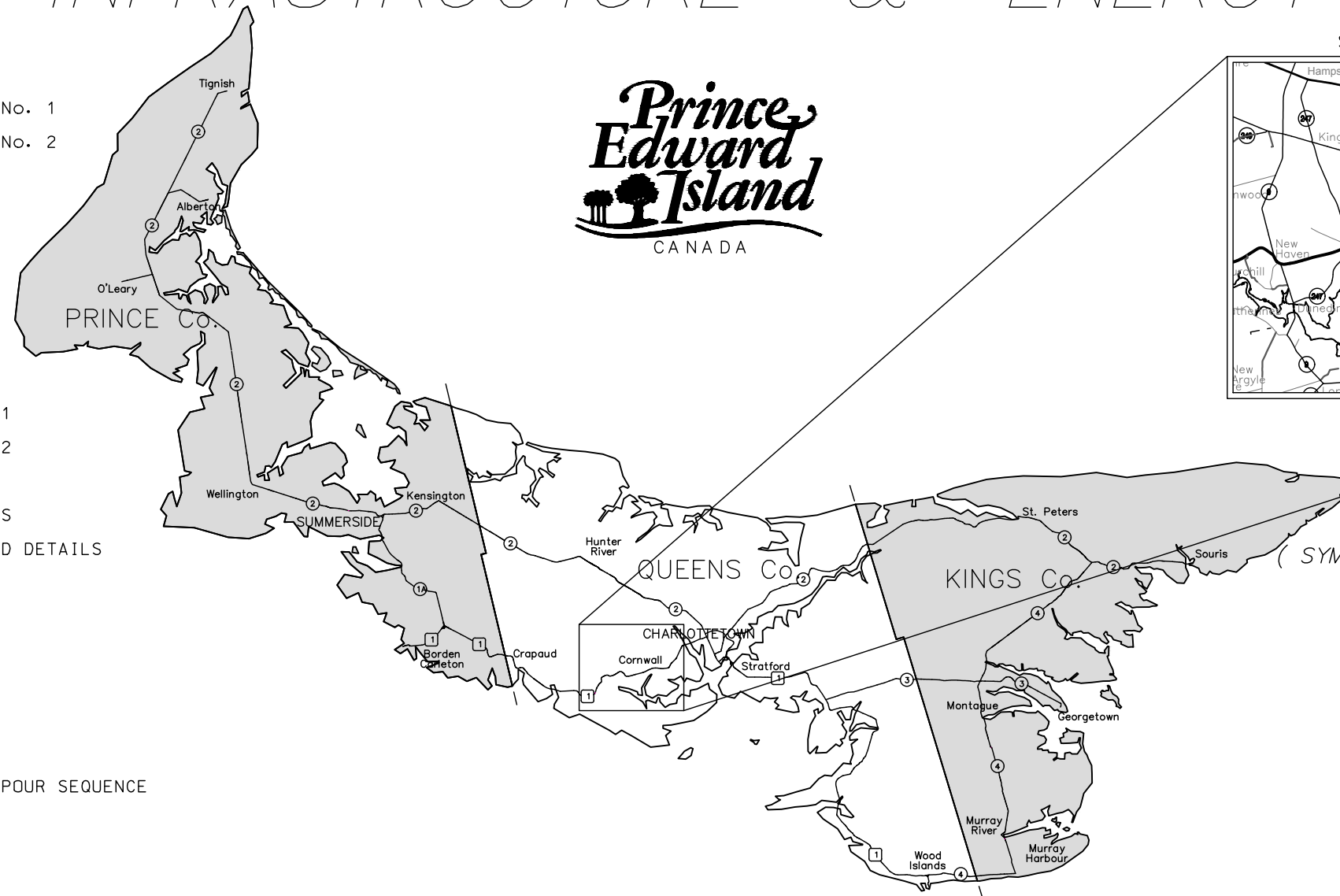


PROVINCE OF PRINCE EDWARD ISLAND DEPARTMENT OF TRANSPORTATION, INFRASTRUCTURE & ENERGY



CONTRACT AREA

- SHEET 01 GENERAL ARRANGEMENT - SHEET No. 1
- SHEET 02 GENERAL ARRANGEMENT - SHEET No. 2
- SHEET 03 NOTES
- SHEET 04 ABUTMENT PLANS
- SHEET 05 ABUTMENT ELEVATIONS
- SHEET 06 ABUTMENT SECTIONS
- SHEET 07 ABUTMENT DETAILS
- SHEET 08 PIER DETAILS - SHEET No. 1
- SHEET 09 PIER DETAILS - SHEET No. 2
- SHEET 10 BEARING DETAILS - SHEET No. 1
- SHEET 11 BEARING DETAILS - SHEET No. 2
- SHEET 12 GIRDER LAYOUT PLAN
- SHEET 13 GIRDER ELEVATION AND SECTIONS
- SHEET 14 GIRDER DIAPHRAGM SECTIONS AND DETAILS
- SHEET 15 GIRDER DIAPHRAGM DETAILS
- SHEET 16 GIRDER SPLICE DETAILS
- SHEET 17 GIRDER DETAILS
- SHEET 18 GIRDER GUSSET PLATE DETAILS
- SHEET 19 GIRDER MISCELLANEOUS DETAILS
- SHEET 20 DECK PLAN
- SHEET 21 DECK AND SCREED ELEVATIONS, POUR SEQUENCE
- SHEET 22 DECK DETAILS - SHEET No. 1
- SHEET 23 DECK DETAILS - SHEET No. 2
- SHEET 24 ABUTMENT REINFORCING
- SHEET 25 ABUTMENT PILE CAP REINFORCING
- SHEET 26 WINGWALL REINFORCING
- SHEET 27 ABUTMENT AND WINGWALL REINFORCING SECTIONS
- SHEET 28 PIER REINFORCING - SHEET No. 1
- SHEET 29 PIER REINFORCING - SHEET No. 2
- SHEET 30 DECK AND APPROACH SLAB REINFORCING PLAN
- SHEET 31 DECK REINFORCING SECTIONS AND DETAILS
- SHEET 32 REINFORCING BAR LISTS - SHEET No. 1
- SHEET 33 REINFORCING BAR LISTS - SHEET No. 2

LEGEND:
(SYMBOLS MAY OR MAY NOT BE PRESENT)

- HYDRANT
- MANHOLE
- WATER VALVE
- CATCH BASIN
- WELL CASING
- LIGHT POLE
- POWER POLE
- TELEPHONE POLE
- TELEPHONE STANDARD
- GUY WIRE
- SIGN POST
- SURVEY MARKER
- MONUMENT POINT
- GUARD RAIL
- FENCE LINE

CONTRACT DRAWINGS FOR CLYDE RIVER BRIDGE TCH EXTENSION

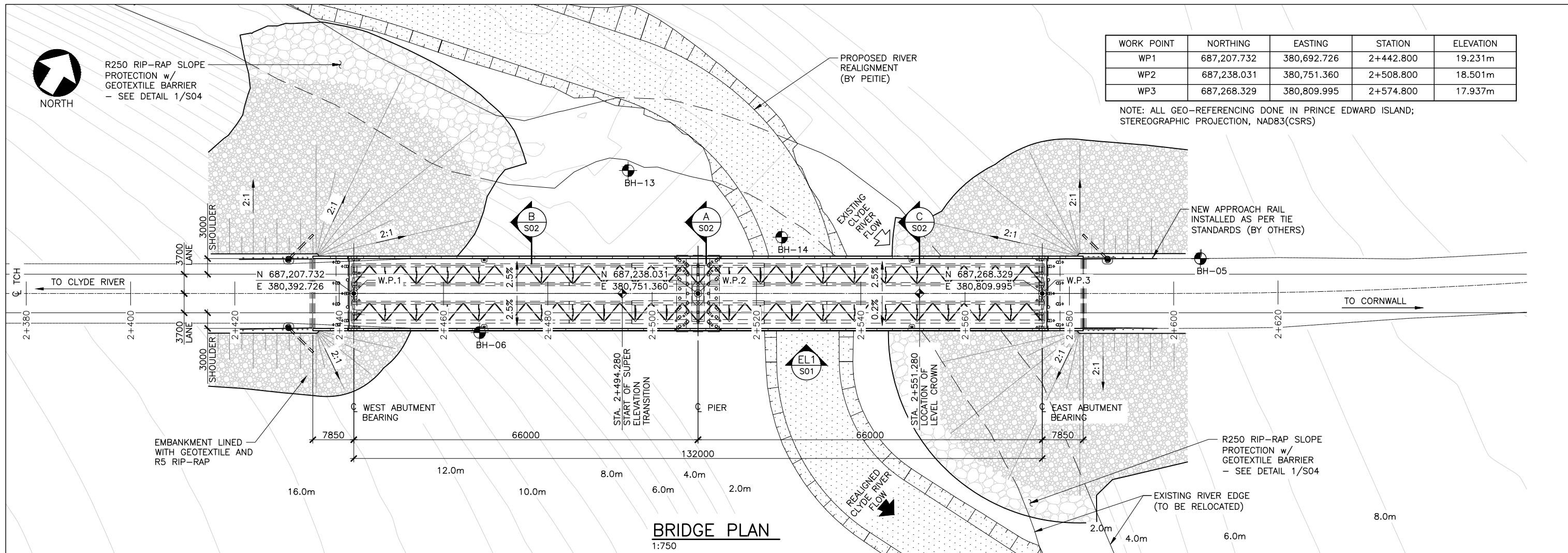
PROJECT 172623.00



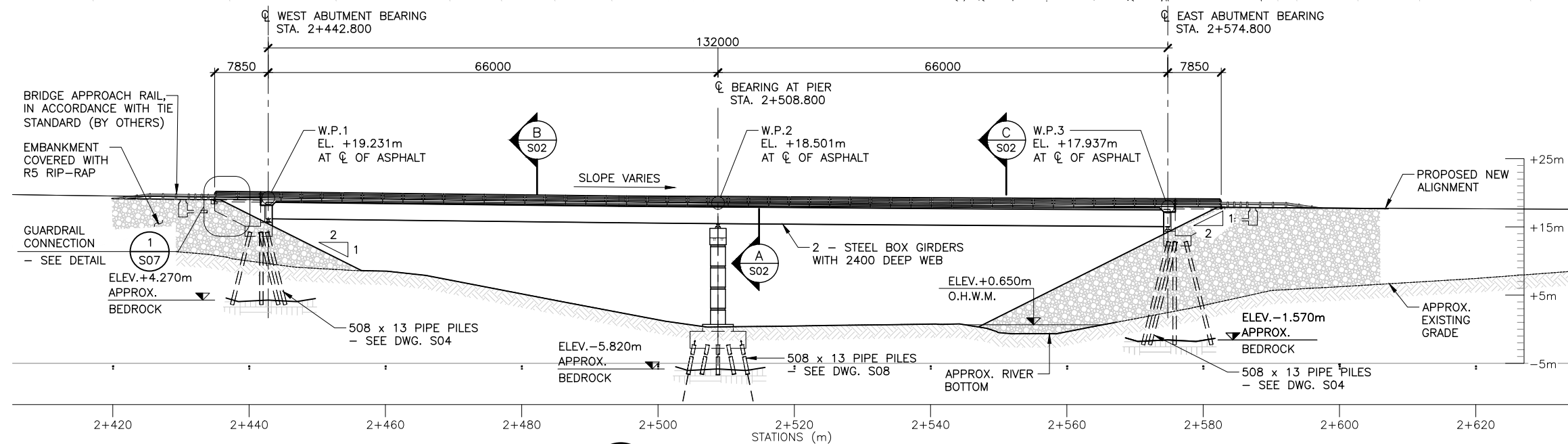
R250 RIP-RAP SLOPE PROTECTION w/ GEOTEXTILE BARRIER - SEE DETAIL 1/S04

WORK POINT	NORTHING	EASTING	STATION	ELEVATION
WP1	687,207.732	380,692.726	2+442.800	19.231m
WP2	687,238.031	380,751.360	2+508.800	18.501m
WP3	687,268.329	380,809.995	2+574.800	17.937m

NOTE: ALL GEO-REFERENCING DONE IN PRINCE EDWARD ISLAND; STEREOGRAPHIC PROJECTION, NAD83(CSRS)



BRIDGE PLAN
1:750



EL1 BRIDGE ELEVATION
S01 1:750

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim
COLIN K. JIM
NO. 1741

DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY

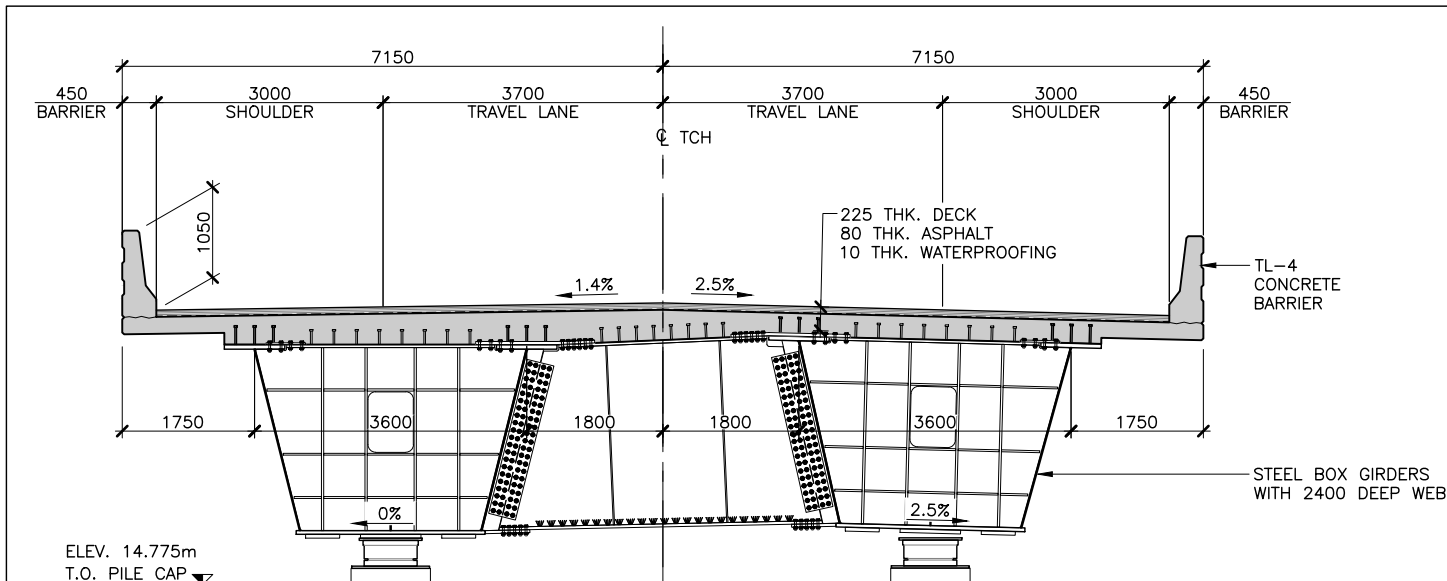
Prince Edward Island
CANADA

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Fax 902 368 5395
http://www.gov.pe.ca/

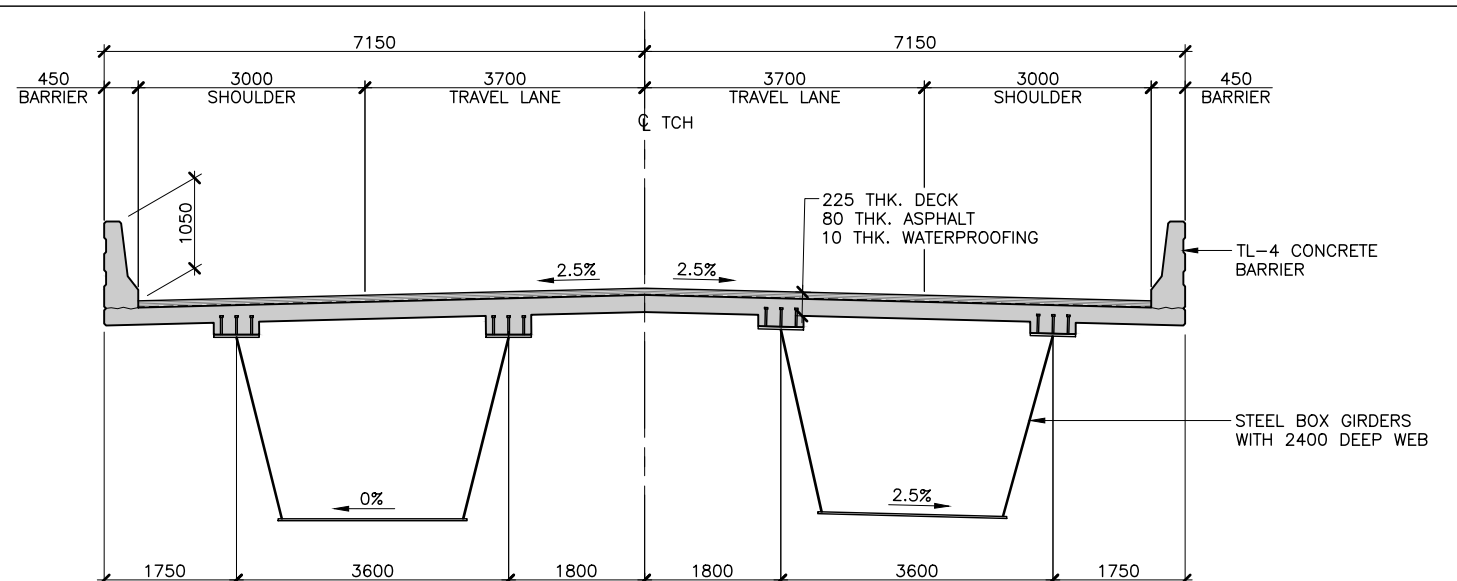
PO Box 2000
Charlottetown
Prince Edward Island
Canada C1A 7N8

NOTES: ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP). MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE. ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V.

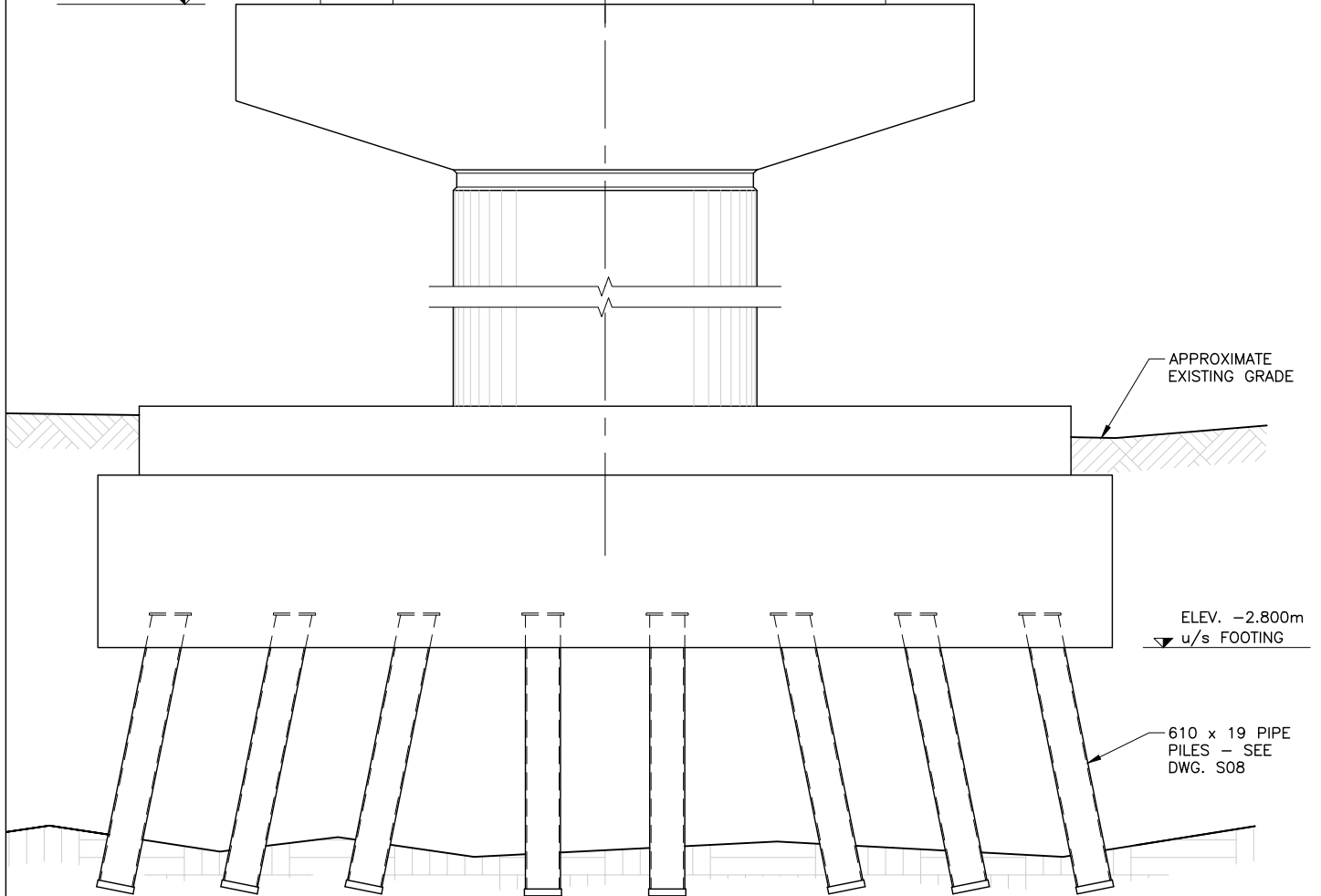
SURVEY BY:	SCALE:	No.	REVISIONS	DATE	GENERAL ARRANGEMENT	SHEET No.
T.I.E.	AS NOTED	B	ISSUED FOR 70% REVIEW	DEC.08/17	- SHEET No. 1	S01
DRAWN BY:	DATE:	C	ISSUED FOR 95% REVIEW	JAN.17/18	COUNTY: QUEENS CONTROL SECTION: SECTION	
APPROVED BY:	DATE:	0	ISSUED FOR TENDER	JAN.26/18	STATIONING:	
PROJECT No.: 172623.00	FILE No.:					



A SECTION—AT PIER
S01 1:100



B SECTION—BRIDGE CROSS SECTION
S01 1:100 (NORMAL CROWN)



C SECTION—BRIDGE CROSS SECTION
S01 1:100 (LEVEL CROWN AT STA. 2+551.280)

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OF THE PROVINCE OF
PRINCE EDWARD ISLAND
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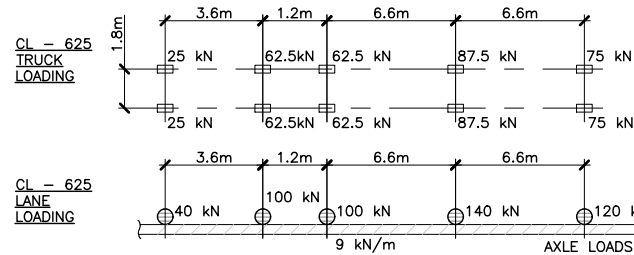
Colin Kijim
COLIN KIJIM
NO. 1741

DATE: JAN. 26/18

LICENSED
PROFESSIONAL ENGINEER
PROVINCE OF
PRINCE EDWARD ISLAND

GENERAL NOTES:

- GENERAL REQUIREMENTS GOVERNING DESIGN, MATERIALS, AND CONSTRUCTION ARE AS FOLLOWS:
 - LOADING CONSTRUCTION AND GENERAL DESIGN TO CSA-S6-14, WITH LATEST REVISIONS.
 - PRINCE EDWARD ISLAND DEPARTMENT OF TRANSPORTATION, INFRASTRUCTURE AND ENERGY (PEITIE) GENERAL PROVISION AND CONTRACT SPECIFICATIONS.
- ALL DIMENSIONS SHOWN IN MILLIMETRES.
- ALL ELEVATIONS SHOWN IN METRES.
- ALL SPECIFICATION NOTES TO REFLECT THE "LATEST EDITION" AT TIME OF TENDER.
- LIVE LOADS CL-625.



- FOUNDATION DESIGN BASED ON INFORMATION PROVIDED IN GEOTECHNICAL REPORT PREPARED BY JOOSE ENVIRONMENTAL CONSULTING INC. REPORT - PROJECT NUMBER JEO252, DATED SEPTEMBER 28, 2017. ADDITIONAL INFORMATION PROVIDED THROUGH EMAIL CORRESPONDENCE.
- EXISTING ALIGNMENT INFORMATION, SURVEY INFORMATION AND WATER LEVELS PROVIDED BY PIETIE.
- ANY DISCREPANCIES BETWEEN DRAWING AND FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- BARRIER DESIGNED FOR TL-4 IMPACT LOADING AS PER CSA-S6-14.
- COORDINATES ARE NAD83, AND ELEVATIONS ARE TO PEI GRID DATUM.
- APPLY WATERPROOFING MEMBRANE IN ACCORDANCE WITH S6-14.
- APPLY TWO COATS OF A SELF PENETRATING SILANE SEALER TO ALL EXPOSED CONCRETE SURFACES ON THE BRIDGE EXCEPT FOR: THE BRIDGE DECK DRIVING SURFACE, SOFFIT, APPROACH SLAB. SEALER SHALL BE APPLIED TO A DEPTH OF 600mm BELOW PROPOSED FINISHED GRADE. THE SEALER SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. CONCRETE SHALL BE MOISTENED FOR 7 DAYS AND AIR DRIED FOR AN ADDITIONAL 14 DAYS BEFORE APPLYING THE SEALER.
- PROVIDE SEDIMENT CONTROL MEASURES AS SPECIFIED IN THE PEITIE ENVIRONMENTAL PROTECTION PLAN.
- SUPPLY AND INSTALL ASPHALT SEALANT AT EACH OF THE APPROACH SLABS AT BOTH EAST AND WEST ABUTMENTS. THE SEALANT SHALL BE BERAM 195 LM LOW MODULUS HOT APPLIED JOINT SEALANT, OR APPROVED EQUAL.
- SUPPLY AND INSTALL COMPRESSION SEAL EXPANSION JOINTS, AT THE END OF APPROACH SLAB AT BOTH THE EAST AND WEST ABUTMENTS, AS DETAILED ON THE DRAWINGS, EXCEPT AS MODIFIED HEREIN. THE DIMENSIONS AND DETAILS OF THE EXPANSION JOINT SHALL CONFORM TO THAT STATED ON THE DRAWINGS, WITH THE COMPRESSION SEAL CONFORMING TO DS BROWN CA-4000 COMPRESSION SEALS, OR APPROVED EQUIVALENT. ALL EXPANSION JOINT COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF CSA-S6-14 CANADIAN HIGHWAY BRIDGE DESIGN CODE AND THE DETAIL ON THE TENDER DRAWINGS. THE DESIGN HIGHWAY LIVE LOAD SHALL BE CL625. INSTALLATION OF THE JOINTS SHALL BE UNDERTAKEN BASED ON THE MANUFACTURERS RECOMMENDATIONS, UTILIZING THE JOINT GAP TABLE PROVIDED ON THE TENDER DRAWINGS. THE CONTRACTOR SHALL SUBMIT "SHOP DRAWINGS" TO THE DEPARTMENT FOR APPROVAL PRIOR TO FABRICATION. THE SHOP DRAWINGS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER REGISTERS TO PRACTICE IN THE PROVINCE OF PRINCE EDWARD ISLAND. ALL EXPOSED STEEL SURFACES SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH CSA STANDARD G164. ALL MINOR DAMAGE TO THE GALVANIZING SHALL BE TOUCHED UP WITH INORGANIC ZINC PAINT (GALVICON OR EQUIVALENT).
- THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE BRIDGE ERECTION PROCEDURE AND SHALL ENSURE THE STABILITY OF ALL COMPONENTS THROUGHOUT CONSTRUCTION.

CONCRETE NOTES:

- ALL EXPOSED CORNERS OF CONCRETE TO HAVE 25mm CHAMFERS.
- LOCATION OF CONSTRUCTION JOINTS AND SEQUENCE OF CONCRETE PLACEMENT TO BE APPROVED BY THE ENGINEER.
- ALL REINFORCEMENT TO BE INSPECTED BY THE ENGINEER PRIOR TO CLOSING FORMWORK OR PLACING CONCRETE.
- BACKFILL IMMEDIATELY BEHIND ABUTMENTS TO BE GRANULAR 'A' MATERIAL AS PER PEITIE GENERAL PROVISIONS AND CONTRACT SPECIFICATIONS.
- EACH PHASE OF WORK TO BE INSPECTED BY THE ENGINEER PRIOR TO PROCEEDING TO THE NEXT PHASE OF WORK.
- IF DEWATERING BEHIND COFFERDAMS/ENVIRONMENTAL CONTROLS IS NOT ACHIEVABLE, ALL CONCRETING UNDERWATER SHALL BE COMPLETED BY TREMIE METHOD (TYPICAL ABUTMENTS, PIERS AND WINGWALLS).
- COVER TO GFRP REINFORCING: 50mm UNLESS OTHERWISE NOTED.
- CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS - 45 MPa

PILE NOTES:

- PILE MATERIAL:
 - STEEL PIPE PILES: 508 x 13 TO CSA/CSA G40.21-350W.
 - STEEL PLATES AND BAR STOCK TO G40.21 - LATEST EDITION, GRADE 350W.
 - WELDING MATERIAL TO CSA G40.1 - LATEST EDITION.
 - WELDING TO BE IN ACCORDANCE WITH CSA W59 - LATEST EDITION.
 - PILES ARE TO BE DRIVEN OPEN-ENDED AND FITTED WITH DRIVING SHOES.
- PILE "SET CRITERIA": (REFERENCE JOOSE ENVIRONMENTAL GEOTECHNICAL REPORT PROJECT NUMBER JEO252, DATED SEPTEMBER 28, 2017).
 - RATED HAMMER ENERGY OF 350 J/cm sq. OF STEEL CROSS SECTIONAL AREA.
 - PILES SHALL BE DRIVEN TO REFUSAL. REFUSAL SHALL BE CONSIDERED AS 10 BLOWS FOR THE LAST 25mm OF PILE PENETRATION.
 - 25% OF PILES AT EACH ABUTMENT AND PIER SHOULD BE RESTRUCK A MINIMUM OF 48 HOURS AFTER INITIAL DRIVING REFUSAL IS OBTAINED. IF RELAXATION OCCURS, ALL PILES SHOULD BE REDRIVEN TO THE REFUSAL CRITERIA AND THE CYCLE REPEATED UNTIL THE REFUSAL CRITERIA IS MAINTAINED DURING RE-STRIKE.
 - DRIVE SHOES SHALL BE USED TO PROTECT PILES DURING DRIVING.
 - REFERENCE SPECIAL PROVISIONS AND PEITIE GENERAL PROVISIONS AND CONTRACT SPECIFICATIONS FOR PDA TESTING REQUIREMENTS.
 - CONTRACTOR SHALL PROVIDE TO THE ENGINEER FULL DETAILS ON THE METHOD OF INSTALLATION AND EQUIPMENT PRIOR TO COMMENCING THE WORK.
 - REQUIRED MINIMUM PILE CAPACITIES AT ULTIMATE LIMIT STATES:
 - 508 x 13 PIPE PILES: 1482 kN COMPRESSION.

STEEL NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING C.S.A. STANDARDS AND A.S.T.M. STANDARDS:
 - WEBS, FLANGE PLATES, STIFFENERS, DIAPHRAGMS TO G40.21M - 350WT CAT 2.
 - ANGLES, HSS BRACES, AND MISC. PLATES TO G40.21M - 350W OR EQUIVALENT.
 - GALVANIZED HIGH STRENGTH BOLTS ASTM F3125 GRADE A325 TYPE 1, THREADS TO BE EXCLUDED FROM ALL SHEAR PLANES (U.N.O.).
- ALL WELDING SHALL BE IN ACCORDANCE WITH C.S.A. STANDARD W59 LATEST EDITION.
- SHEAR STUD CONNECTORS SHALL BE MANUFACTURED OF C-1015, C-1017, OR C-1020 COLD DRAWN STEEL CONFORMING TO A.S.T.M. A-108-73.
- FABRICATE, DELIVER TO SITE AND ERECT STEELWORK IN ACCORDANCE WITH CSA-S6-14.
- COAT ALL STEEL IN ACCORDANCE WITH SPECIFICATIONS. PRIMER COAT ONLY ON ALL INSIDE SURFACES OF BOX. NO PAINT ON TOP SURFACES OF TOP FLANGES.
- GRIND ALL 25mm STIFFENERS TO BEAR AT BOTTOM, THEN WELD.
- ALL FAYING SURFACES AT BOLTED CONNECTIONS SHALL BE CLASS B, OR BETTER. ALL BOLTS BROUGHT TO SLIP CRITICAL CONDITION BY TURN OF NUT METHOD.
- AFTER GIRDERS HAVE BEEN ERECTED, A VERTICAL PROFILE SHALL BE COMPLETED FOR EACH FLANGE AND SUBMITTED TO THE ENGINEER FOR REVIEW.

DECK AND BARRIER NOTES:

- CONCRETE MATERIALS AND METHODS OF CONSTRUCTION TO CSA - A23.1, AND METHODS OF TEST FOR CONCRETE TO CSA - A23.2;
- DECK SLAB AND CURBS HIGH PERFORMANCE CONCRETE 45 MPa, AIR CONTENT 6.5%, ±1.5%, W/C = 0.35 MAX.
- REINFORCING TO BE GFRP TO CSA S806/807.
- CONCRETE COVER TO REINFORCEMENT AS NOTED ON DRAWINGS.
- ALL EXPOSED CORNERS TO HAVE A 25mm CHAMFER.
- CONCRETE TO BE PLACED UNIFORMLY ACROSS THE WIDTH OF DECK.

GFRP REINFORCING NOTES:

- CONCRETE COVER TO GFRP BARS AS FOLLOWS:
 - TOP OF DECK - 50mm
 - DECK SOFFIT - 35mm
 - ALL OTHER - 50mm U.N.O.
- REINFORCING SHALL BE GLASS FIBER REINFORCING POLYMER (GFRP) WITH A MINIMUM GUARANTEED TENSILE STRENGTH (T_u) AND A MINIMUM TENSILE MODULUS OF ELASTICITY (E) AS FOLLOWS:

STRAIGHT BARS		
SIZE	f_{FRP_u} (MPa)	E (GPa)
13M	1100	60
15M	1100	60
20M	1100	60
25M	1000	60
32M	900	60

BENT BARS		
SIZE	f_{FRP_u} (MPa)	E (GPa)
13M	450	50
15M	450	50
20M	450	50
22M	450	50
25M	450	50

- SAW CUTS NOT PERMITTED.
- ALL WORK TO CONFORM TO TECHNICAL SPECIFICATIONS FOR GFRP PRODUCT.
- HEADED BAR PULL OUT STRENGTH:
 - 15M - 148kN
 - 20M - 182kN

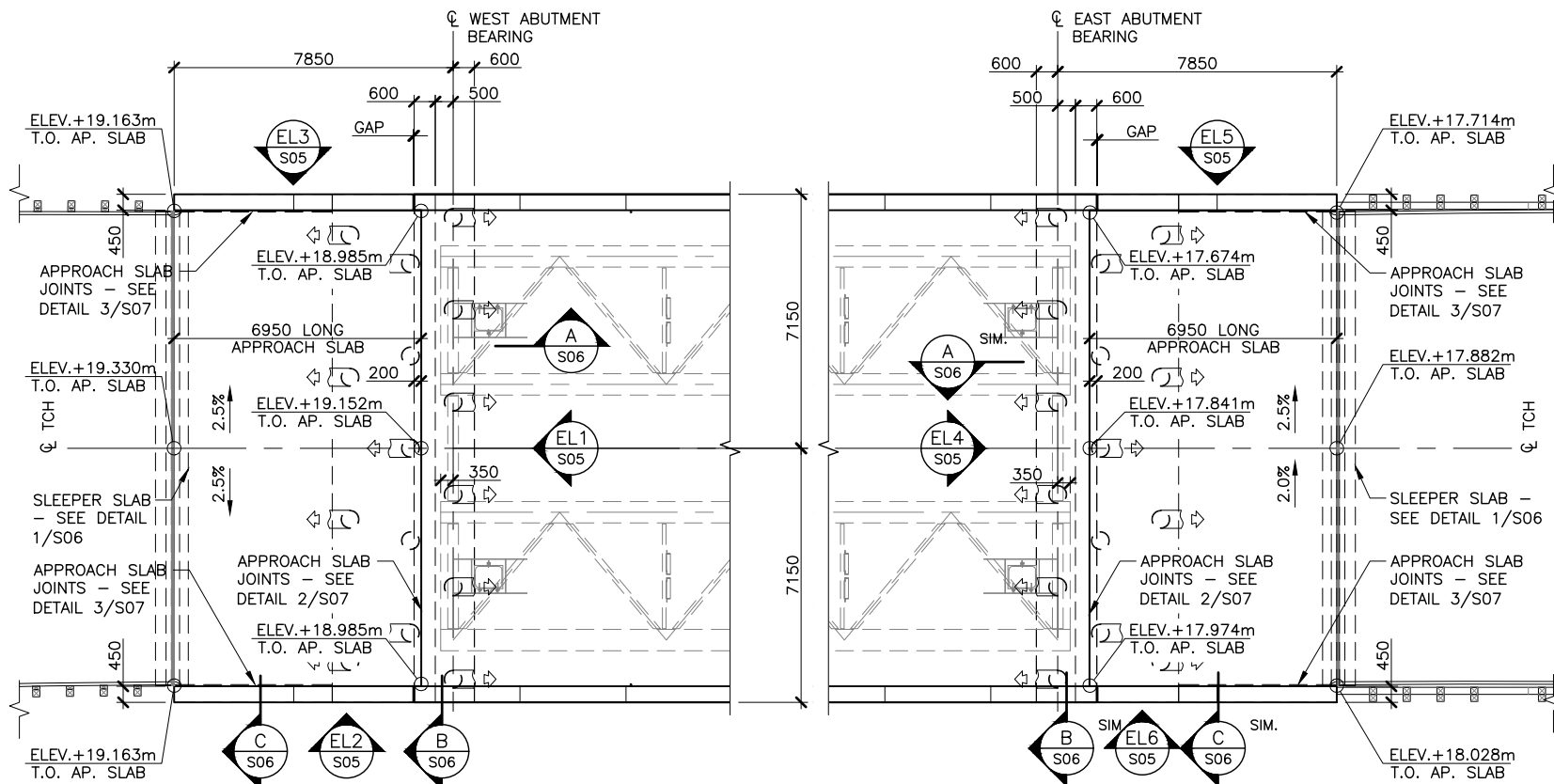
THE ASSOCIATION OF
PROFESSIONAL ENGINEERS
OF THE PROVINCE OF
PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2017

Colin K. Jim

COLIN K. JIM
No. 1741

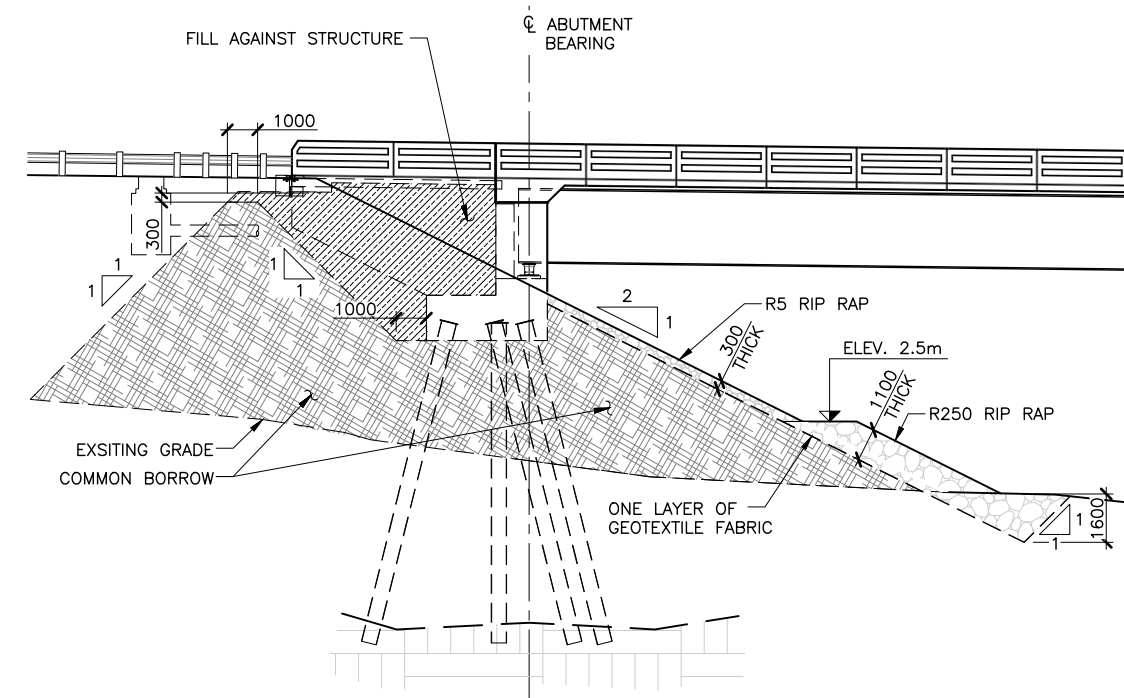
DATE: JAN. 26/18

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PRINCE EDWARD ISLAND

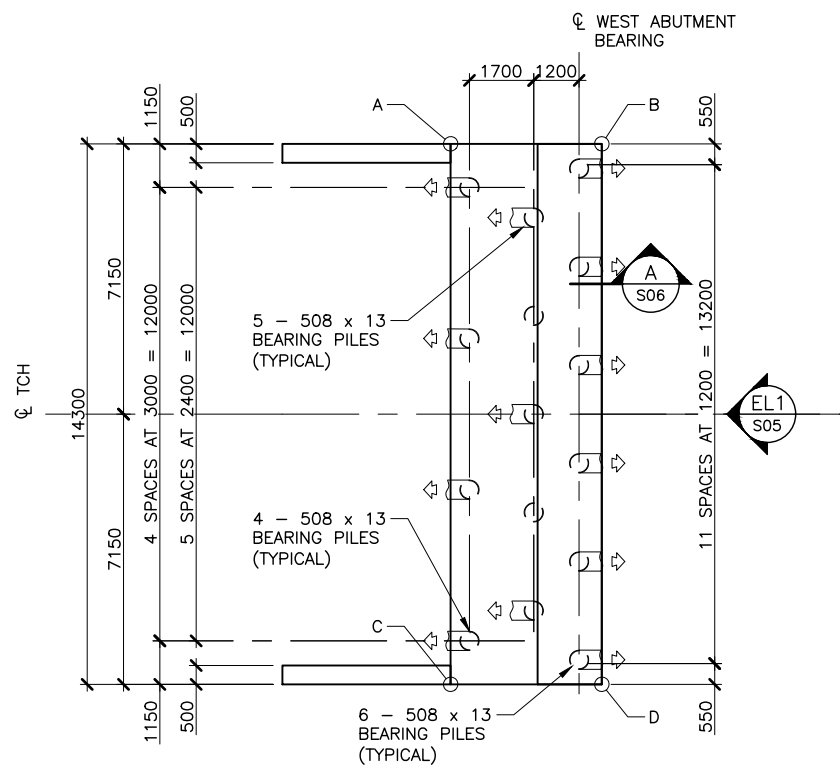


PLAN— WEST ABUTMENT APPROACH SLAB
1:200

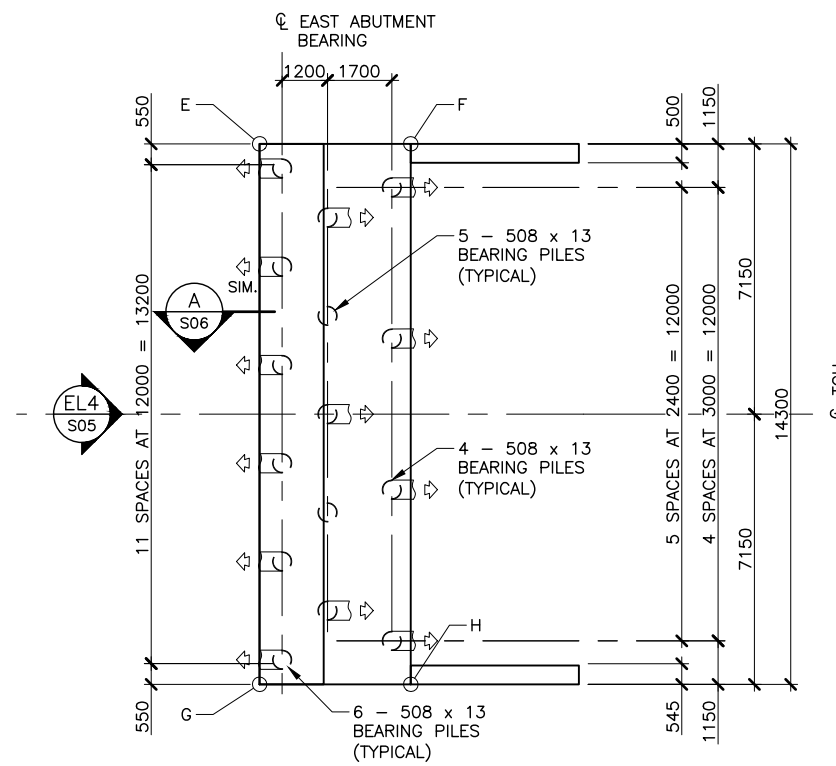
PLAN— EAST ABUTMENT APPROACH SLAB
1:200



1 **DETAIL—STRUCTURAL FILL**
S01 1:250



PLAN— WEST ABUTMENT PILE CAP AND PILE LAYOUT
1:200



PLAN— EAST ABUTMENT PILE CAP AND PILE LAYOUT
1:200

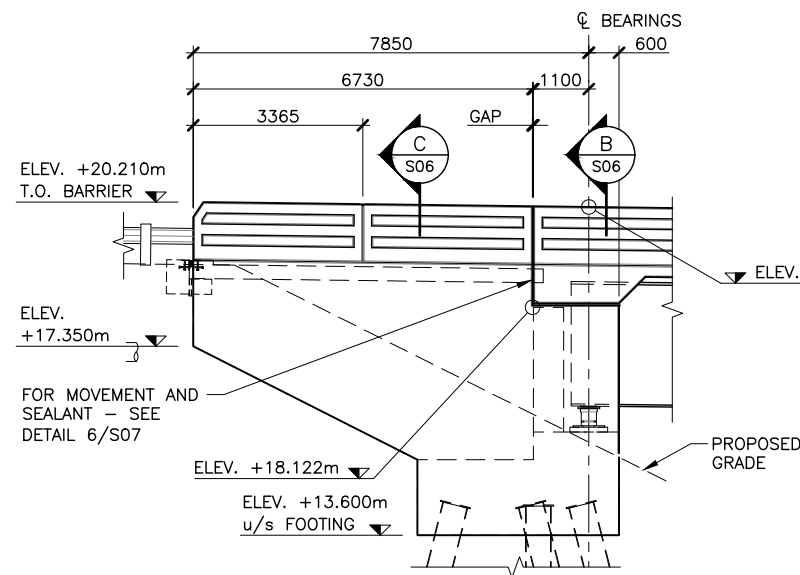
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B	687,214.359	380,689.977
C	687,199.819	380,692.988
D	687,201.655	380,696.541
E	687,274.406	380,806.179
F	687,276.242	380,809.733
G	687,261.702	380,812.744
H	687,263.538	380,816.298

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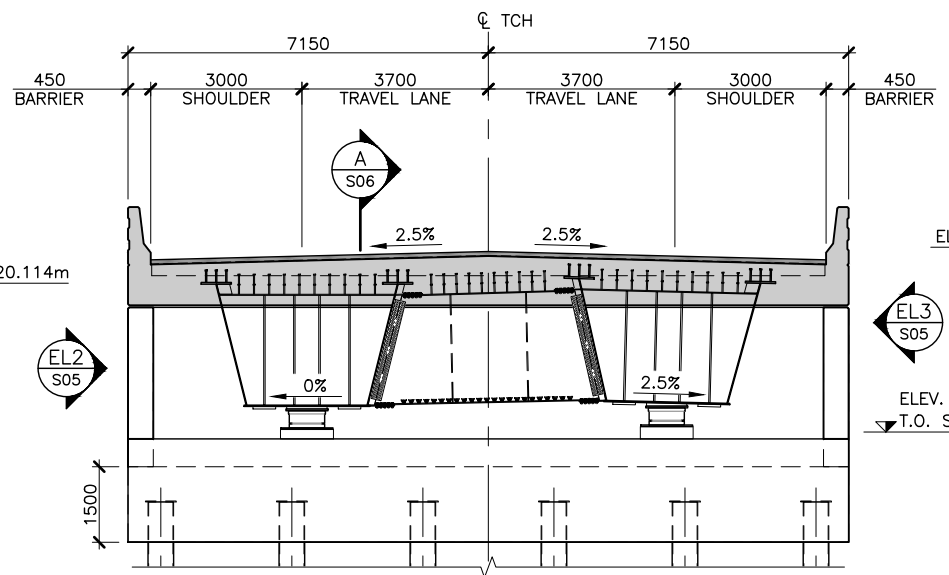
Colin Kujim
COLIN KUJIM
No. 1741

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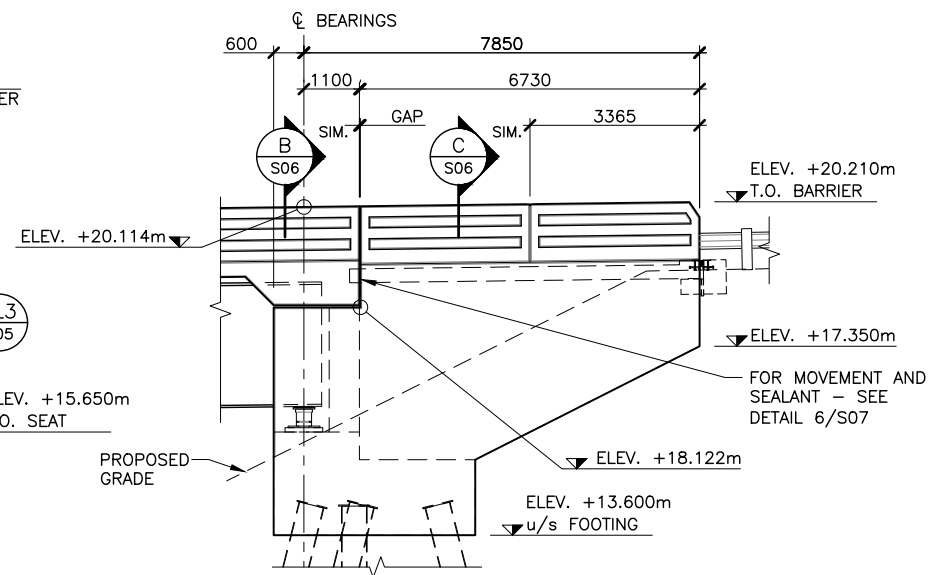
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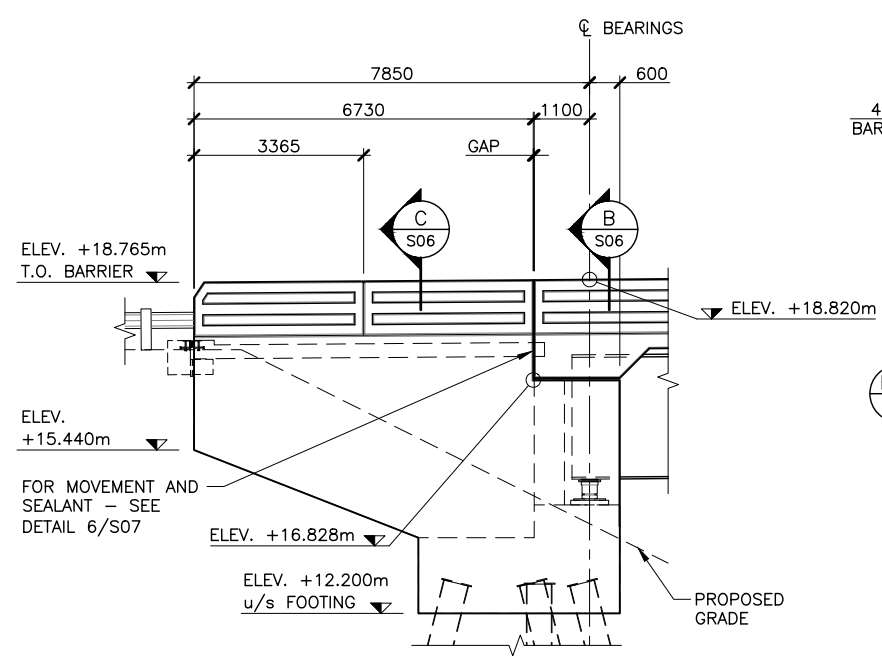
EL2 ELEVATION—SOUTHWEST WINGWALL
S04 1:150



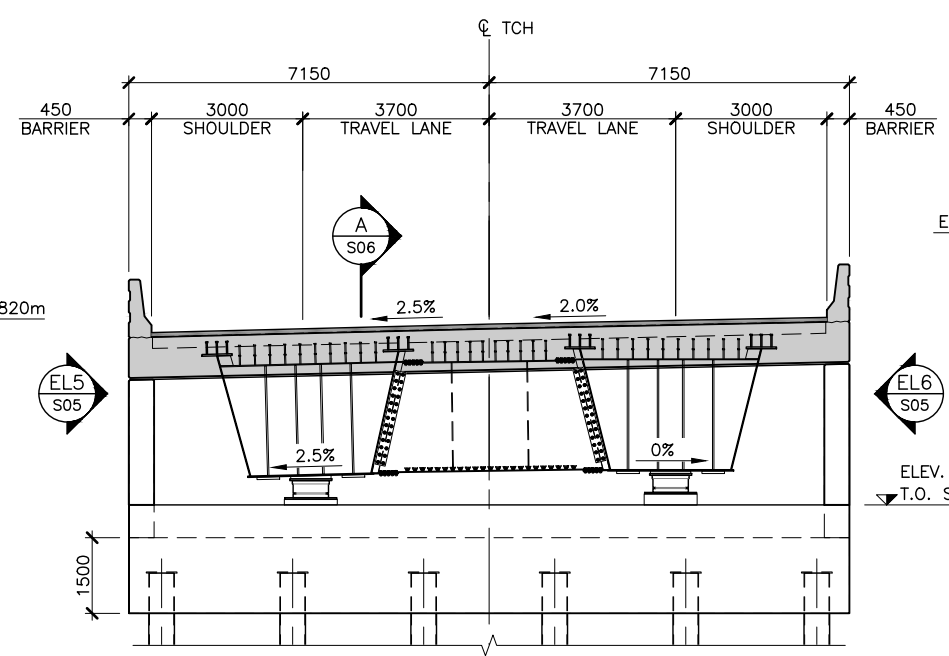
EL1 ELEVATION—WEST ABUTMENT
S04 1:150



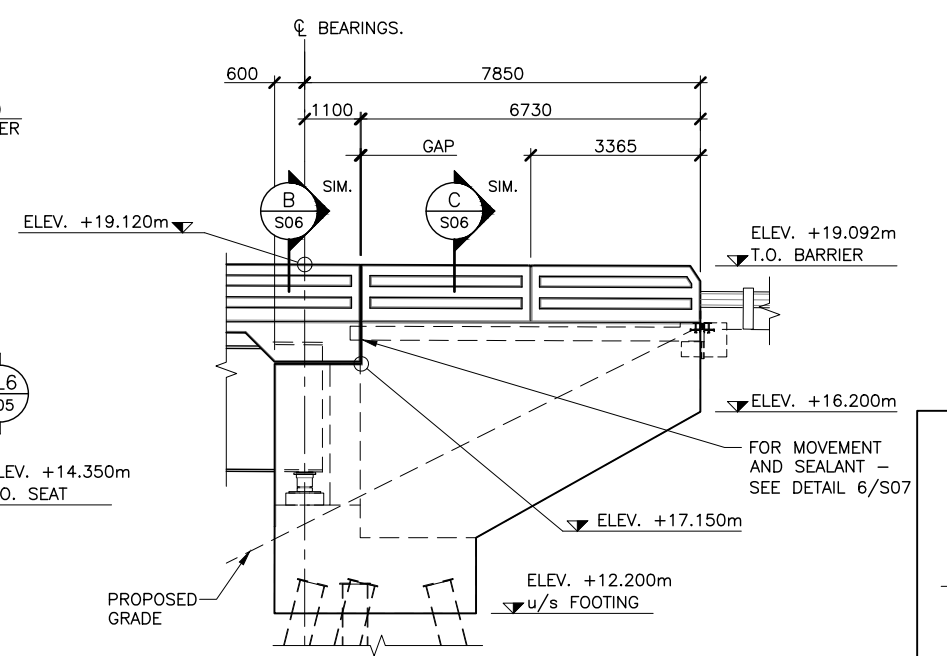
EL3 ELEVATION—NORTHWEST WINGWALL
S04 1:150



EL5 ELEVATION—NORTHEAST WINGWALL
S04 1:150



EL4 ELEVATION—EAST ABUTMENT
S04 1:150



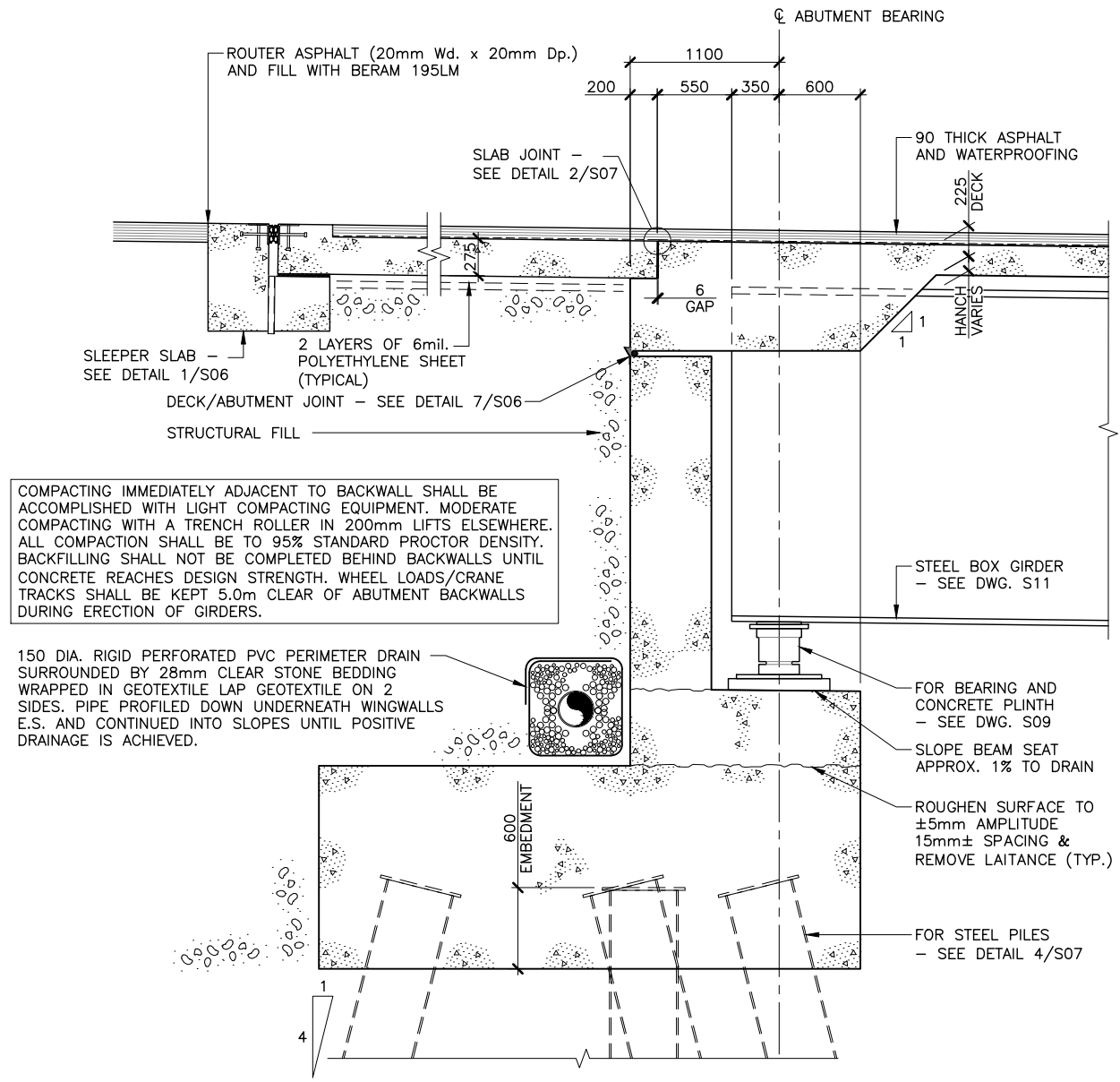
EL6 ELEVATION—SOUTHEAST WINGWALL
S04 1:150

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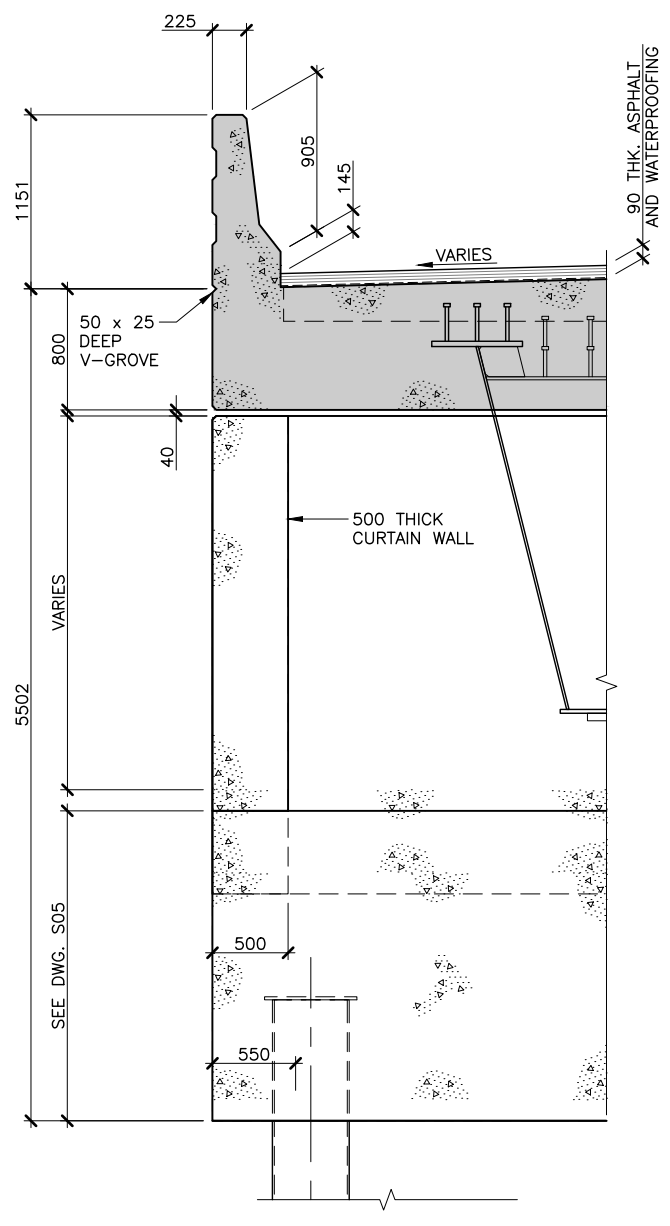
Colin K. Jim
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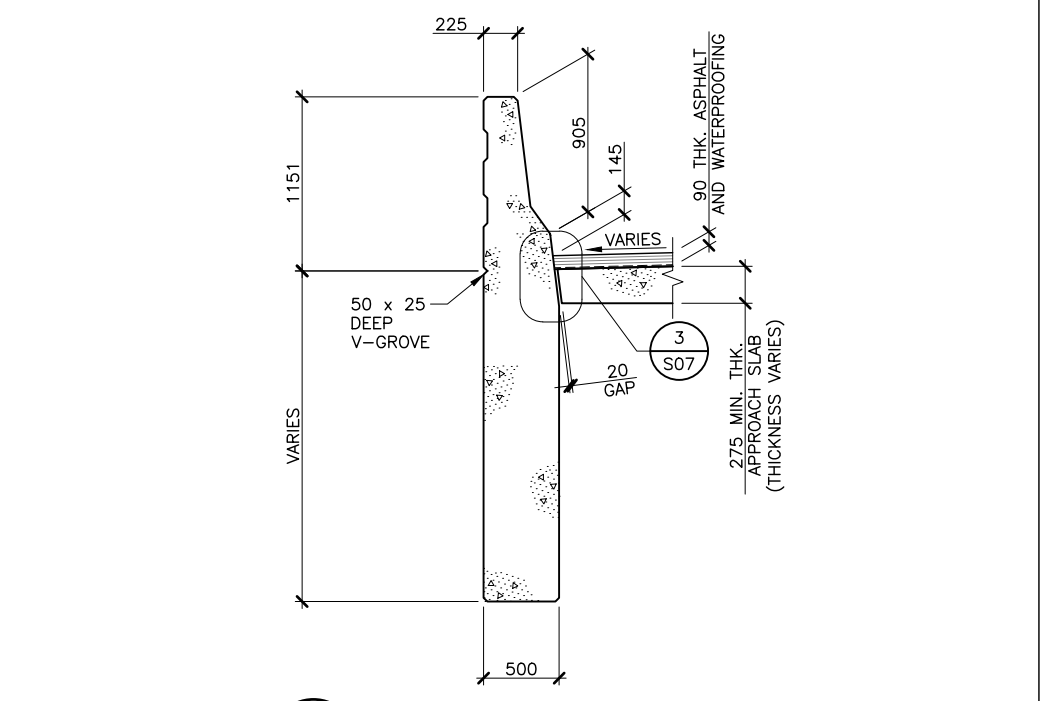
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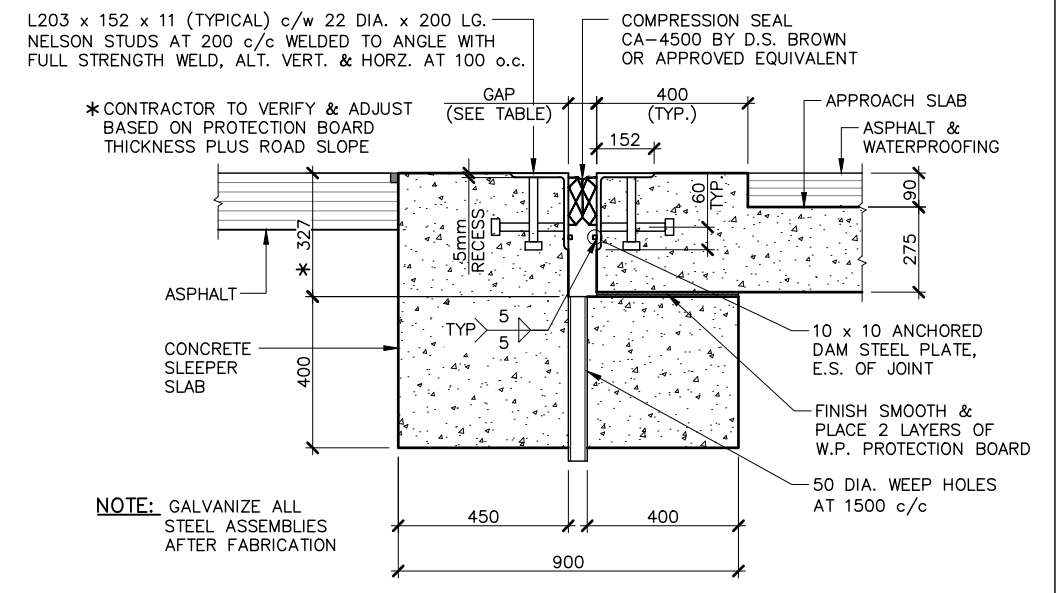
A SECTION—THROUGH WEST ABUTMENT
S04 1:50



B SECTION—WEST ABUTMENT
S04 1:50



C SECTION—THROUGH WINGWALL
S04 1:50



NOTE: GALVANIZE ALL STEEL ASSEMBLIES AFTER FABRICATION

TEMP (°C)	-19	0	+10	+15	+20	+25	+39
GAP (mm)	81	70	64	60	57	53	43

1 DETAIL (TYPICAL SLEEPER SLAB)
S04 1:20

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

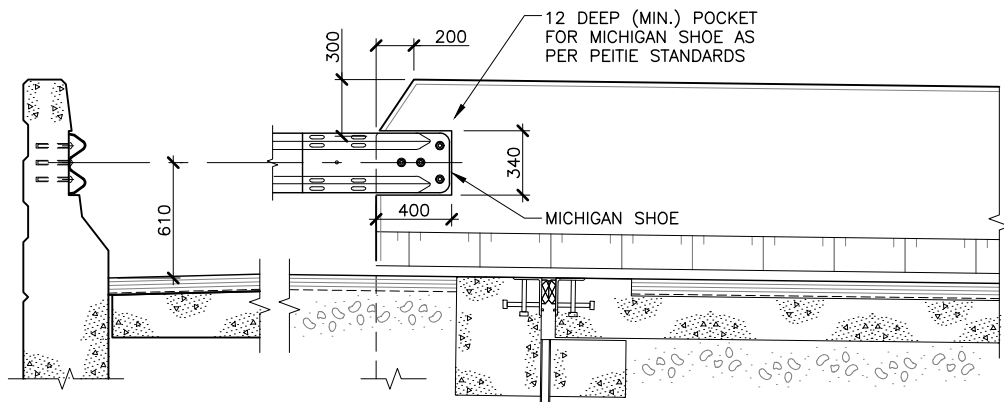
COLIN K. JIM
NO. 1741
DATE: JAN. 26/18
LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND

DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY

Tel 902 368 5100 PO Box 2000
Fax 902 368 5395 Charlottetown
http://www.gov.pe.ca/ Prince Edward Island
Canada C1A 7N8

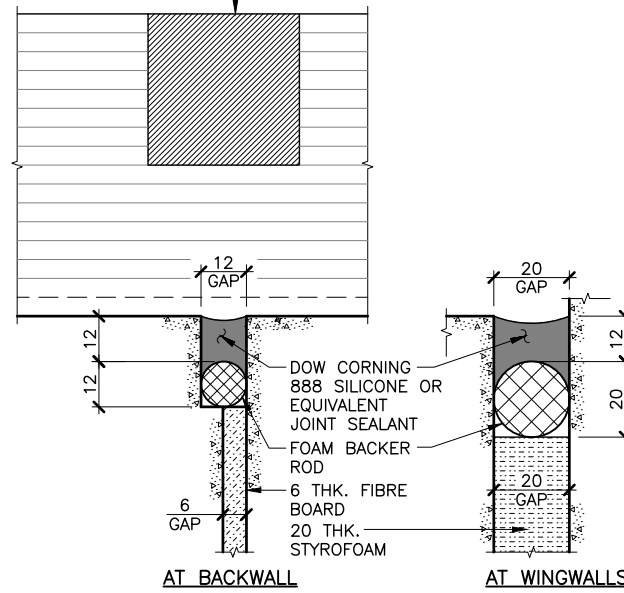
NOTES: ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP) MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V

SURVEY BY:	T. I. E.	SCALE:	AS NOTED	No.	REVISIONS	DATE	ABUTMENT SECTIONS		SHEET No.
DRAWN BY:	J. D. P.	DATE:	JULY 2017	B	ISSUED FOR 70% REVIEW	DEC.08/17			S06 OF
APPROVED BY:	C. K. J.	DATE:		C	ISSUED FOR 95% REVIEW	JAN.17/18	COUNTY:	QUEENS CONTROL SECTION: SECTION	
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18	STATIONING:		

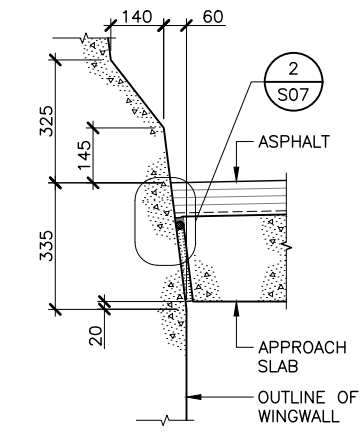


1 TYPICAL TRAFFIC GUARDRAIL
DETAIL—CONNECTION TO TRANSITION BLOCK
S01 1:40

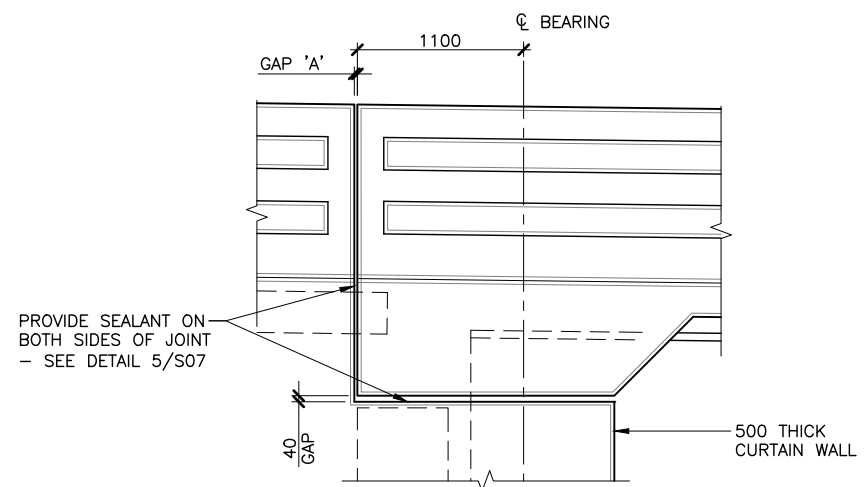
ROUTER ASPHALT ABOVE FIBRE BOARD (20 WIDE x 20 DEEP) AND FILL WITH HOT APPLIED LOW-MODULUS SEALANT, BERAM 195 LM JOINT SYSTEM, OR APPROVED EQUIVALENT



2 DETAIL APPROACH SLAB JOINTS
S04 1:2

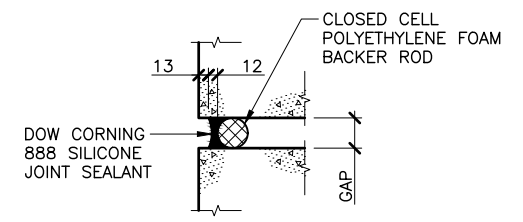


3 DETAIL WINGWALL/APPROACH
SLAB INTERFACE
S04 1:20

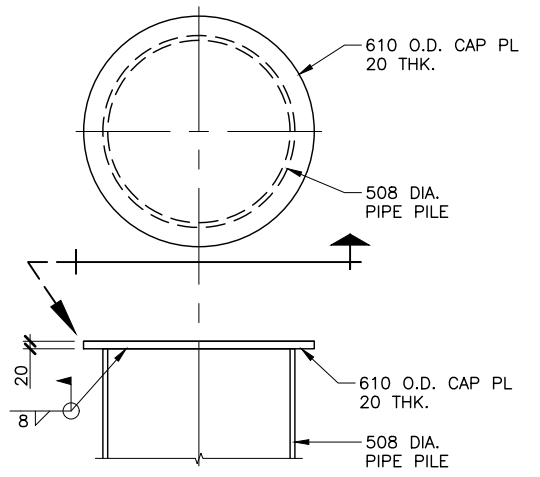


ABUTMENT JOINT GAP TABLE		TEMP °C						
GAP	LOCATION	-25	-15	-5	+5	+15	+25	+35
'A'	ABUTMENT JOINT	68	61	54	47	40	33	26

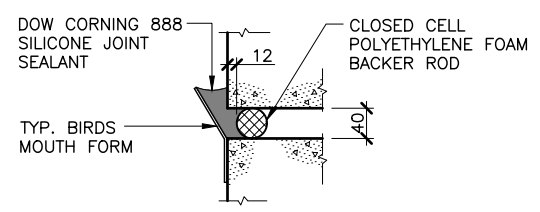
6 DETAIL—BARRIER EXPANSION JOINT
S05 1:50



5 DETAIL (ABUTMENT JOINTS)
S06 1:10



4 DETAIL PILE CAP
S06 1:20



7 DETAIL (DECK/ABUTMENT
JOINT SEAL)
S06 1:10

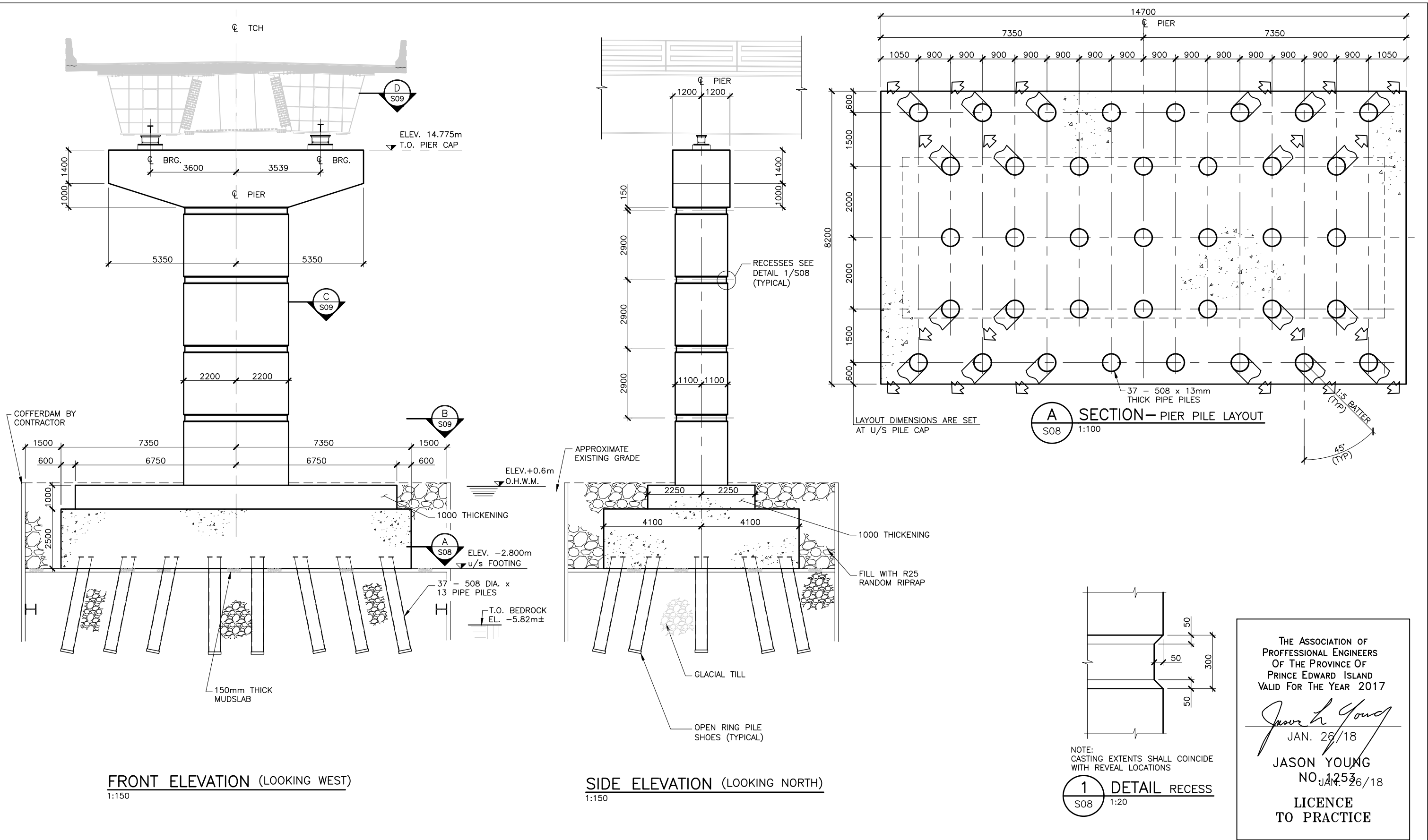
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

COLIN K. JIM
NO. 1741

DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND



FRONT ELEVATION (LOOKING WEST)
1:150

SIDE ELEVATION (LOOKING NORTH)
1:150

A SECTION - PIER PILE LAYOUT
S08 1:100

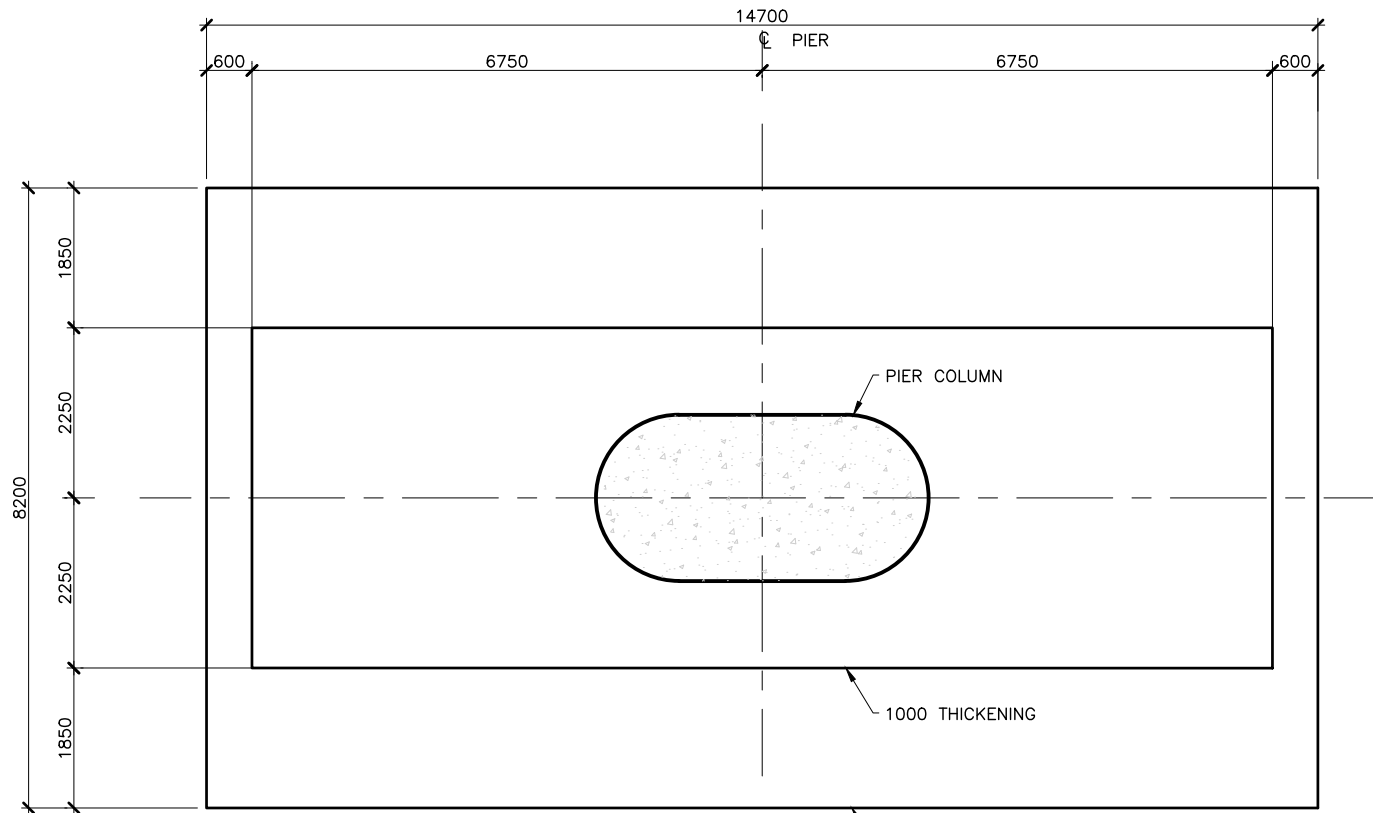
1 DETAIL RECESS
S08 1:20

THE ASSOCIATION OF
PROFESSIONAL ENGINEERS
OF THE PROVINCE OF
PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2017

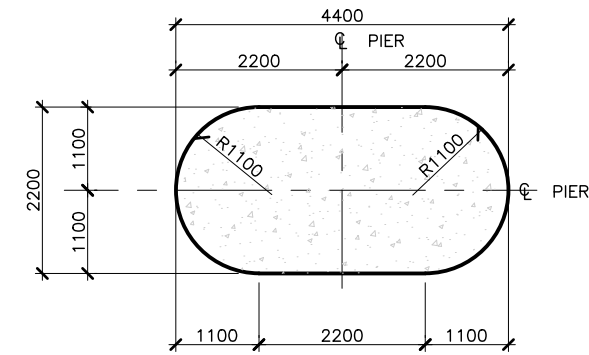
Jason Young
JAN. 26/18

JASON YOUNG
NO. 1253
JAN. 26/18

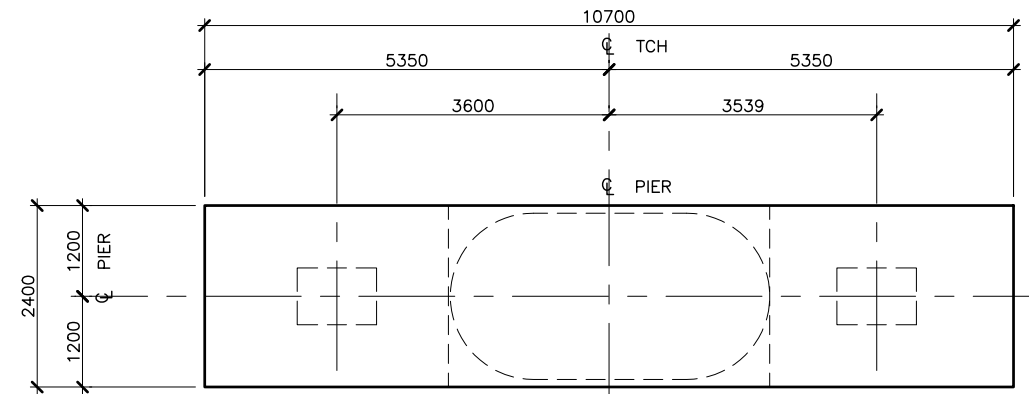
**LICENCE
TO PRACTICE**



B SECTION - PIER PILE CAP
S08 1:100



C SECTION - PIER COLUMN
S08 1:100



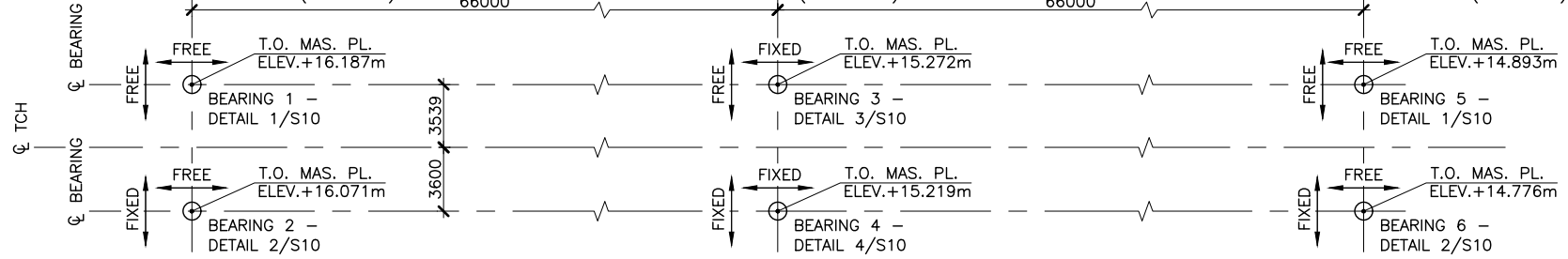
D SECTION - PIER CAP PLAN
S08 1:100

THE ASSOCIATION OF
PROFESSIONAL ENGINEERS
OF THE PROVINCE OF
PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2017

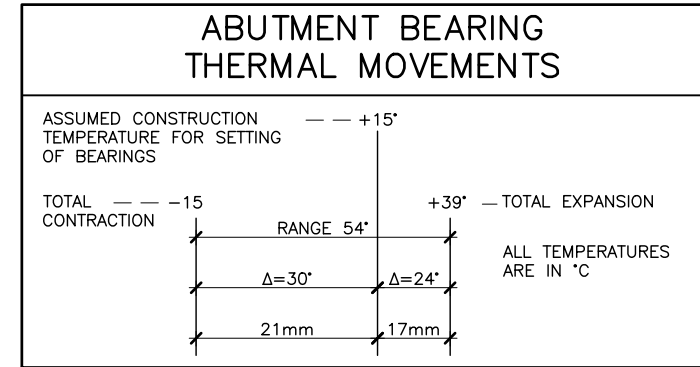
Jason Young
JAN. 26/18

JASON YOUNG
NO. 1253

LICENCE
TO PRACTICE



BEARING LAYOUT PLAN
N.T.S.



NOTES:

- BEARING DETAILS AND DIMENSIONS SHOWN ARE BASED ON GOODCO Z-TECH POT BEARINGS. ALTERNATE SYSTEMS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
- FOR ACCEPTABLE BEARING SYSTEMS SEE SPECIFICATIONS.
- BEARINGS TO BE REMOVABLE FOR REPLACEMENT.
- THE BEARING MANUFACTURER MUST COORDINATE ALL DIMENSIONAL CHANGES WITH THE GENERAL CONTRACTOR.
- LOCKNUTS REQUIRED ON ALL BEARING ASSEMBLIES.
- BEARING MANUFACTURER TO PROVIDE BEARING ASSEMBLY COMPLETE WITH ANCHORAGE TO SUPERSTRUCTURE.
- BEARING ASSEMBLY SOLE PLATES TO ACCOMMODATE TRANSVERSE DECK SLOPES AND LONGITUDINAL ROAD SLOPES, DEAD LOAD ROTATION AND RESIDUAL CAMBER SUCH THAT BEARING IS LEVEL UNDER PERMANENT DEAD LOAD CONDITIONS.
- GALVANIZE ALL STEEL.
- THERMAL ZINC-SPRAY/ZINC-METALIZE GALVANIZED SURFACES DAMAGED BY FIELD WELDS.
- CONTROL HEAT FOR FIELD WELDS SO AS NOT TO DAMAGE BEARING. BEARING DAMAGED BY WELDS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE CONTRACT.
- REMOVE ALL TEMPORARY/SHIPPING HARDWARE FOLLOWING BEARING INSTALLATION.

LEGEND:

- SW - SOUTH WEST
- SE - SOUTH EAST
- NW - NORTH WEST
- NE - NORTH EAST
- PN - PIER NORTH
- PS - PIER SOUTH

SCHEDULE OF POT BEARINGS

SERVICEABILITY LIMIT STATE (SLS)

LOCATION NUMBER	LOCATION	REFERENCE BEARING SIZE	DEAD LOAD (kN)	LIVE LOAD MAX. (kN)	LIVE LOAD MIN. (kN)	TOTAL LOAD MAX. (kN)	TOTAL LOAD MIN. (kN)	TRANSVERSE DEAD LOAD (kN)	LONGITUDINAL BRAKING LOAD (kN)	TRANSVERSE WIND LOAD ON LIVE (kN)	TRANSVERSE WIND LOAD (kN)	LONGITUDINAL TRANSLATIONS (mm)	TRANSVERSE TRANSLATIONS (mm)	LIVE LOAD ROTATION (rad)	INSTALLATION TOLERANCE (rad)	ADDITIONAL LONGITUDINAL ROTATIONAL REQUIREMENTS (rad)
BEARING 1 (FREE)	NW	PM3000	2013	948	-160	2961	1853	-	-	-	-	SEE TABLE	SEE TABLE	0.0026	±0.0035	±0.0174
BEARING 2 (UNI-LONGITUDINAL)	SW	PMCG3000	2013	948	-160	2961	1853	419	-	129	419	SEE TABLE	NONE	0.0026	±0.0035	±0.0174
BEARING 3 (UNI-TRANSVERSE)	PN	PMG10000	7582	1801	-196	9383	7386	-	155	-	-	NONE	SEE TABLE	0.0015	±0.0035	±0.0174
BEARING 4 (FIXED)	PS	PF10000	7582	1801	-196	9383	7386	581	155	174	581	NONE	NONE	0.0015	±0.0035	±0.0174
BEARING 5 (FREE)	NE	PM3000	2013	948	-160	2961	1853	-	-	-	-	SEE TABLE	SEE TABLE	0.0026	±0.0035	±0.0174
BEARING 6 (UNI-LONGITUDINAL)	SE	PMCG3000	2013	948	-160	2961	1853	419	-	129	419	SEE TABLE	NONE	0.0026	±0.0035	±0.0174

ULTIMATE LIMIT STATE (ULS)

LOCATION NUMBER	LOCATION	REFERENCE BEARING SIZE	VERTICAL LOADS					HORIZONTAL LOADS					DISPLACEMENTS		
			DEAD LOAD MAX. (kN)	LIVE LOAD MAX. ULS 1 (kN)	TOTAL LOAD MAX. ULS 1 (kN)	DEAD LOAD MIN. (kN)	WIND LOAD MIN. (kN)	TOTAL LOAD MIN. ULS 4 (kN)	LONGITUDINAL SEISMIC LOAD ULS 5 (kN)	TRANSVERSE SEISMIC LOAD ULS 5 (kN)	LONGITUDINAL BRAKING LOAD ULS 1 (kN)	TOTAL LONGITUDINAL LOAD ULS 1 (kN)	TRANSVERSE WIND LOAD ULS 4 (kN)	TRANSLATIONS (mm)	LIVE LOAD ROTATION ULS 1 (rad)
BEARING 1 (FREE)	NW	PM3000	2476	1791	4267	1748	-723.8	1024	-	-	-	-	-	±25	±0.0049
BEARING 2 (UNI-LONGITUDINAL)	SW	PMCG3000	2476	1791	4267	1748	-723.8	1024	-	403	-	-	586.6	±25	±0.0049
BEARING 3 (UNI-TRANSVERSE)	PN	PMG10000	9283	3401	12684	6611	-2205	4406	1161	-	263.5	263.5	-	NONE	±0.0027
BEARING 4 (FIXED)	PS	PF10000	9283	3401	12684	6611	-2205	4406	1161	1516	263.5	263.5	813.4	NONE	±0.0027
BEARING 5 (FREE)	NE	PM3000	2476	1791	4267	1748	-723.8	1024	-	-	-	-	-	±25	±0.0049
BEARING 6 (UNI-LONGITUDINAL)	SE	PMCG3000	2476	1791	4267	1748	-723.8	1024	-	403	-	-	586.6	±25	±0.0049

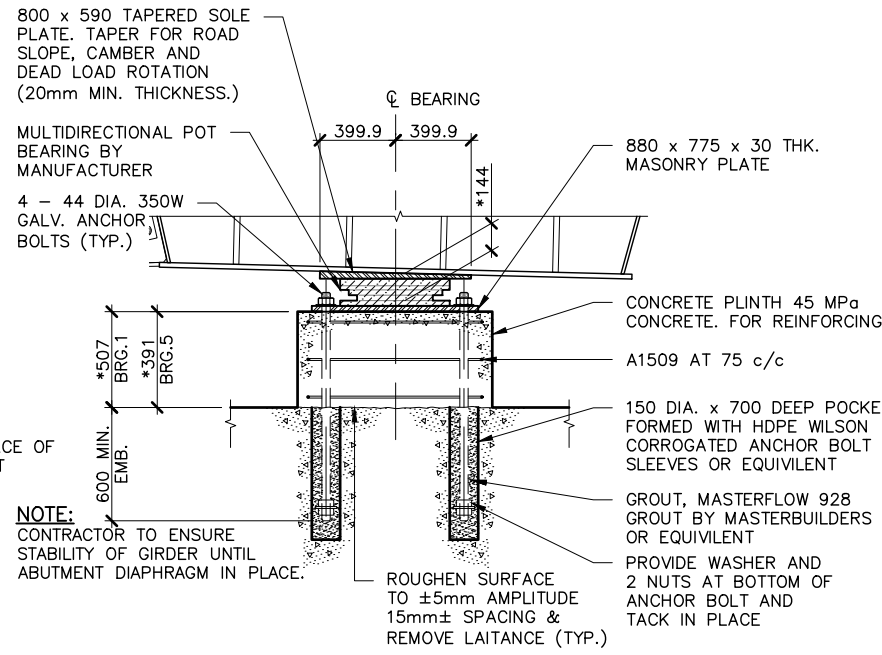
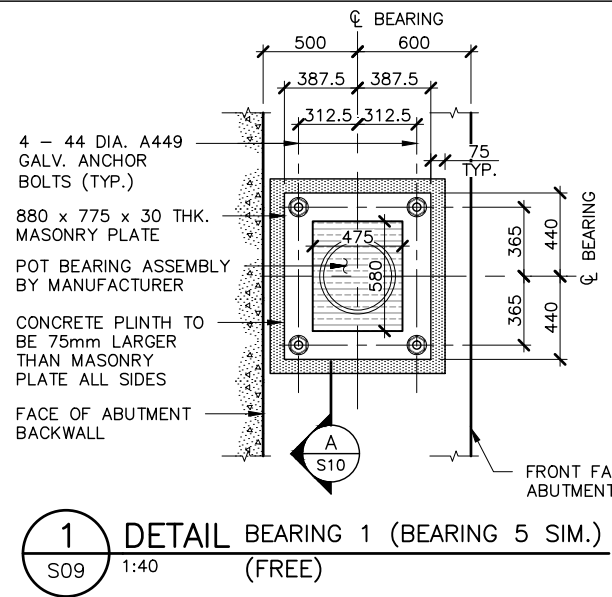
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

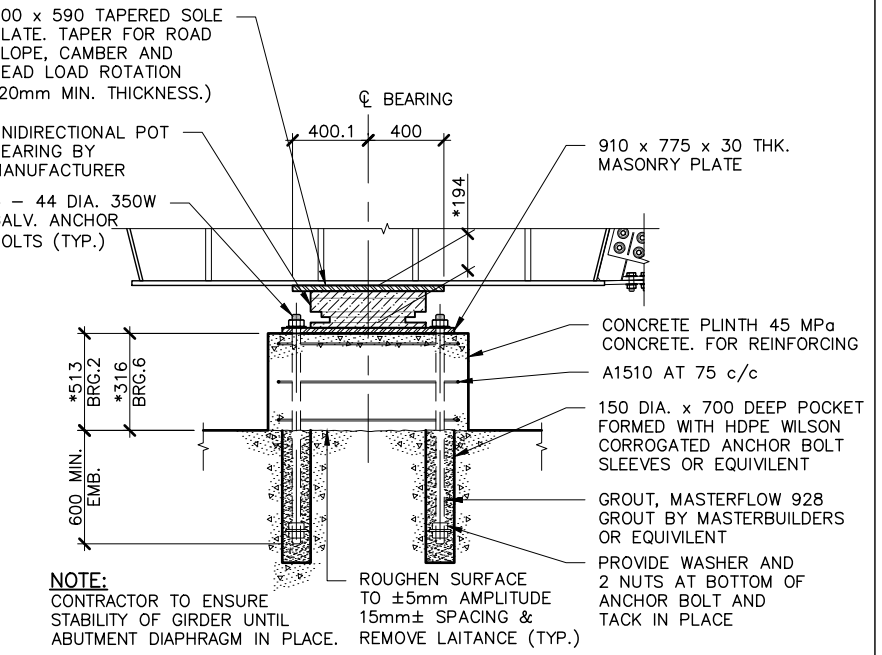
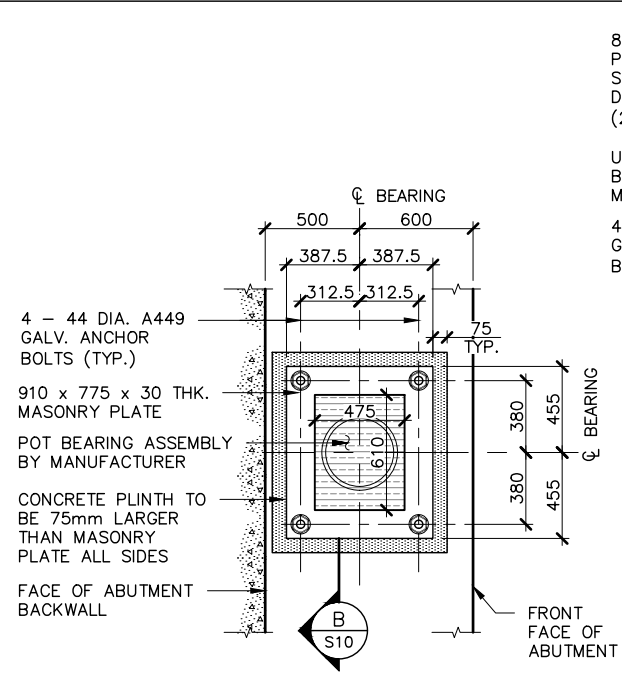
COLIN K. JIM
No. 1741

DATE: JAN. 26/18

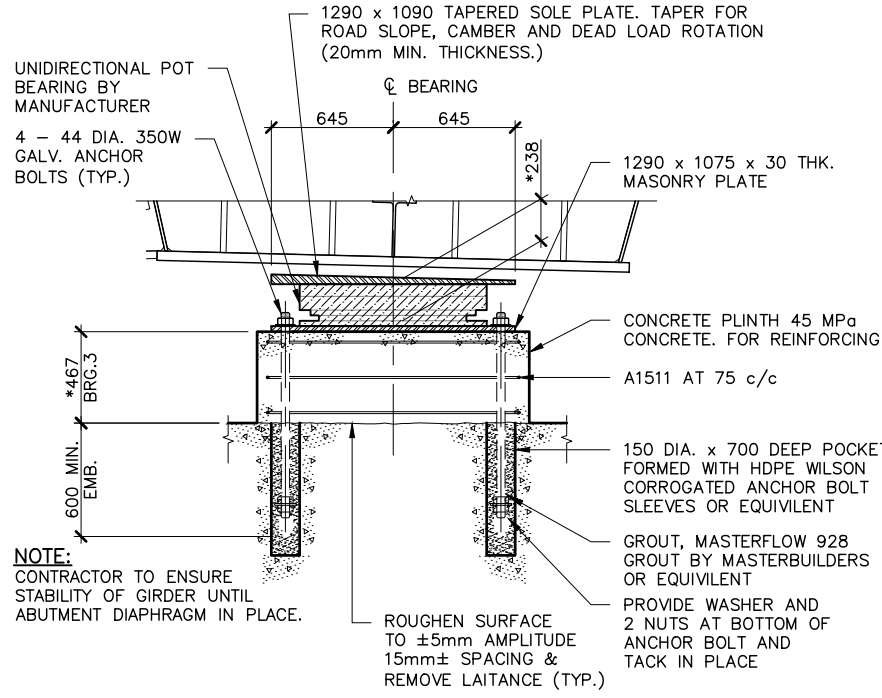
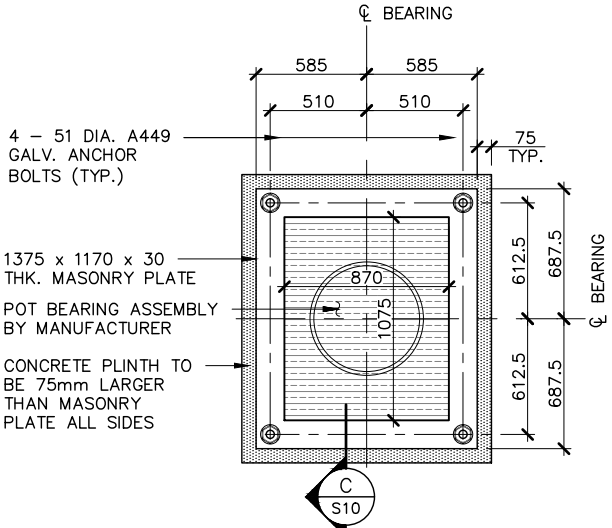
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND



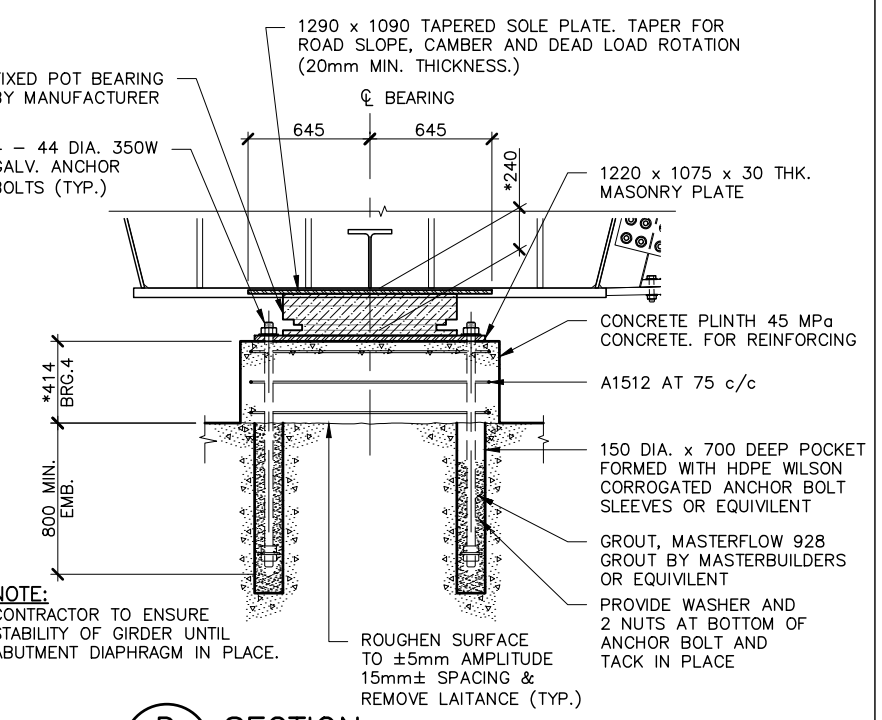
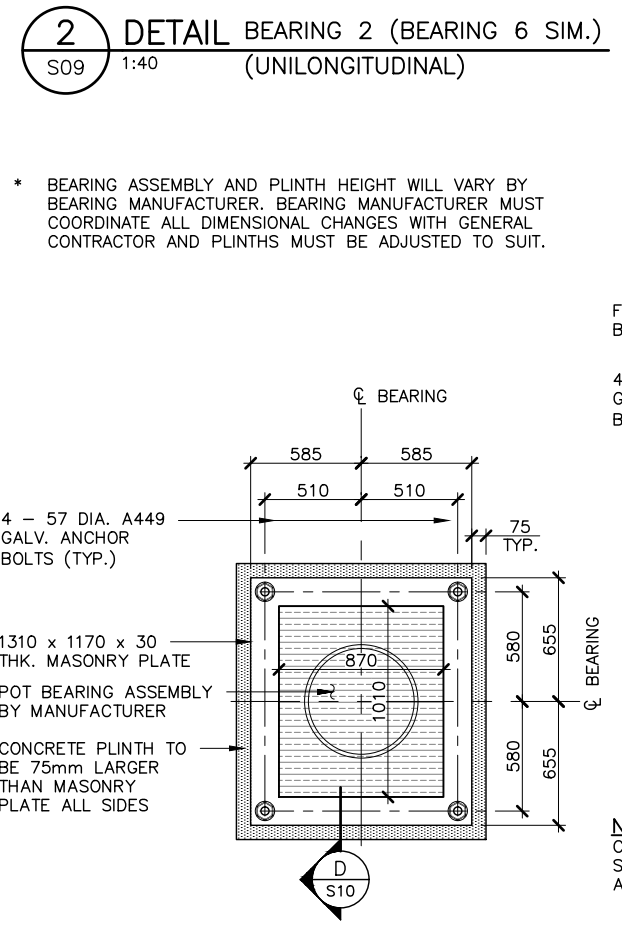
A SECTION BEARING 1 (BEARING 5 SIM.)
S10 1:40 (FREE)



B SECTION BEARING 2 (BEARING 6 SIM.)
S10 1:40 (UNILONGITUDINAL)



C SECTION BEARING 3 (UNITRANSVERSE)
S10 1:40



D SECTION BEARING 4 (FIXED)
S10 1:40

* BEARING ASSEMBLY AND PLINTH HEIGHT WILL VARY BY BEARING MANUFACTURER. BEARING MANUFACTURER MUST COORDINATE ALL DIMENSIONAL CHANGES WITH GENERAL CONTRACTOR AND PLINTHS MUST BE ADJUSTED TO SUIT.

3 DETAIL BEARING 3 (UNITRANSVERSE)
S09 1:40

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

COLIN K. JIM
NO. 1741

DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY

Prince Edward Island

Tel 902 368 5100
Fax 902 368 5395
http://www.gov.pe.ca/

PO Box 2000
Charlottetown
Prince Edward Island
Canada C1A 7N8

NOTES: ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP) MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V

SURVEY BY:	T. I. E.	SCALE:	AS NOTED	No.	REVISIONS	DATE		SHEET No.
DRAWN BY:	J. D. P.	DATE:	JULY 2017	A	ISSUED FOR 70% REVIEW	DEC.08/17	BEARING DETAILS - SHEET No. 2	S11 OF
APPROVED BY:	C. K. J.	DATE:		B	ISSUED FOR 95% REVIEW	JAN.17/18	COUNTY: QUEENS CONTROL SECTION: SECTION	
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18	STATIONING:	



THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

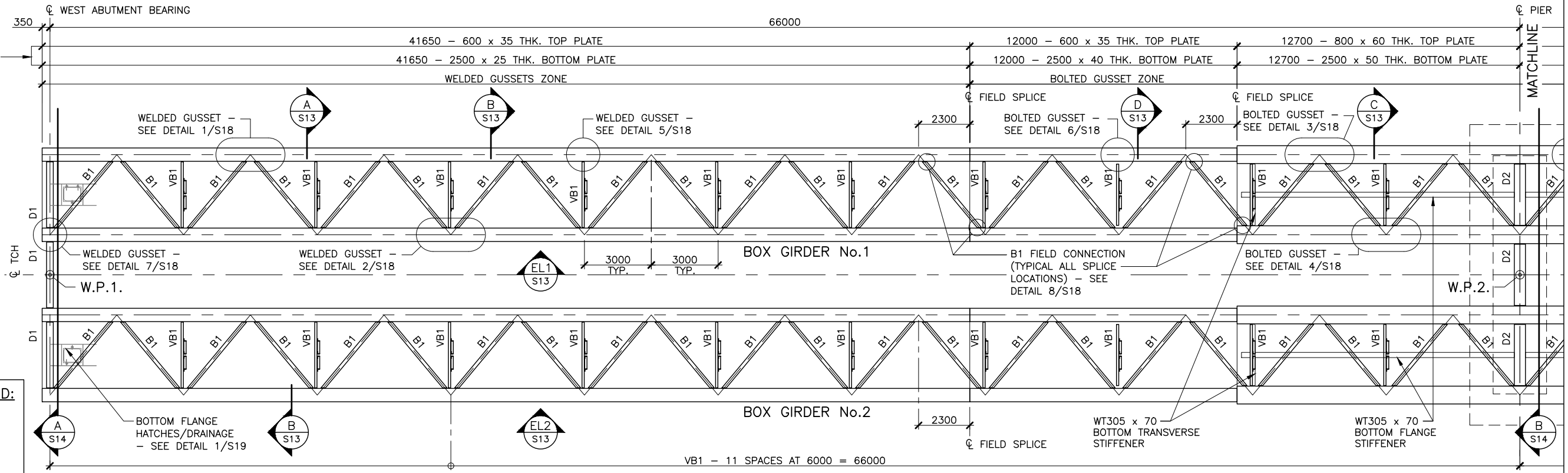
Colin Kujim
COLIN KUJIM
NO. 1741

DATE: JAN. 26/18

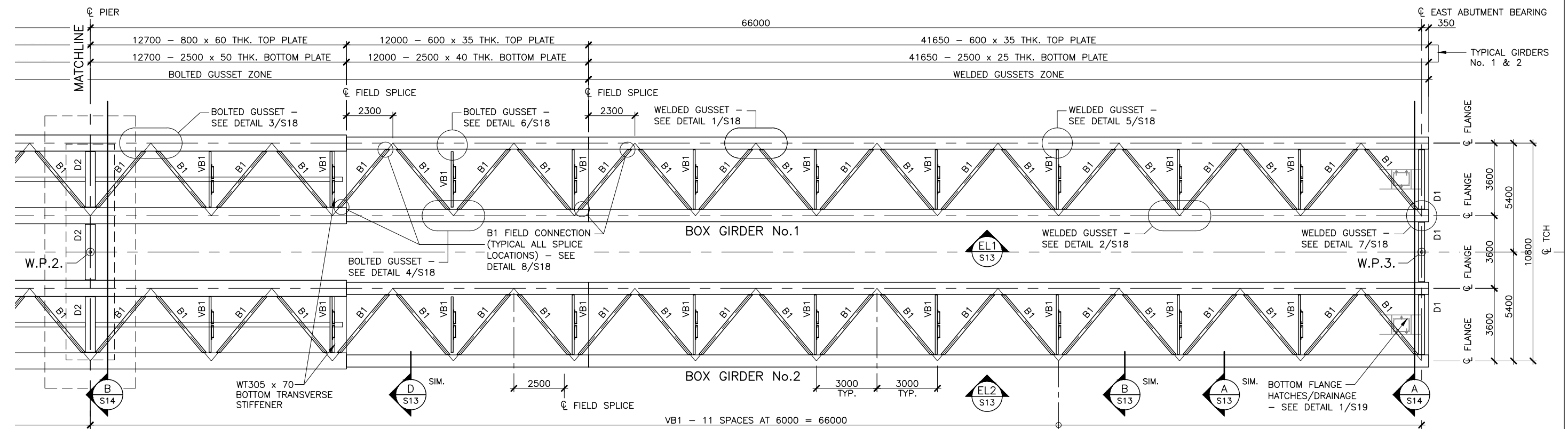
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

BOX GIRDER MEMBER LEGEND:

- B1 - HSS 152 x 152 x 8.0
- VB1 - VERTICAL BRACE
SEE SECTION A/S13
- D1 - ABUTMENT DIAPHRAGMS
SEE SECTION A/S14
- D2 - PIER DIAPHRAGM
SEE SECTION B/S14



GIRDER PLAN - WEST ABUTMENT TO PIER
1:200



GIRDER PLAN - PIER TO EAST ABUTMENT
1:200

DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY

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CANADA

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Prince Edward Island
Canada C1A 7N8

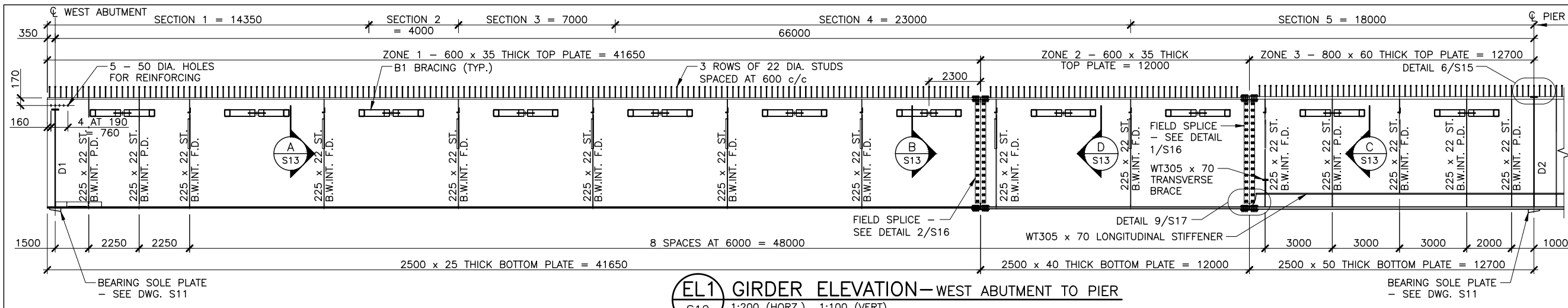
NOTES:

ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP)

MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE

ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V

SURVEY BY: T. I. E.	SCALE: AS NOTED	No.	REVISIONS	DATE	GIRDER LAYOUT PLAN	SHEET No. S12 OF
DRAWN BY: J. D. P.	DATE: JULY 2017	A	ISSUED FOR 70% REVIEW	DEC.08/17		
APPROVED BY: C. K. J.	DATE:	B	ISSUED FOR 95% REVIEW	JAN.17/18		
PROJECT No.: 172623.00	FILE No.:	0	ISSUED FOR TENDER	JAN.26/18		
				COUNTY: QUEENS		



EL1 GIRDER ELEVATION - WEST ABUTMENT TO PIER
 S12 1:200 (HORZ.) 1:100 (VERT)

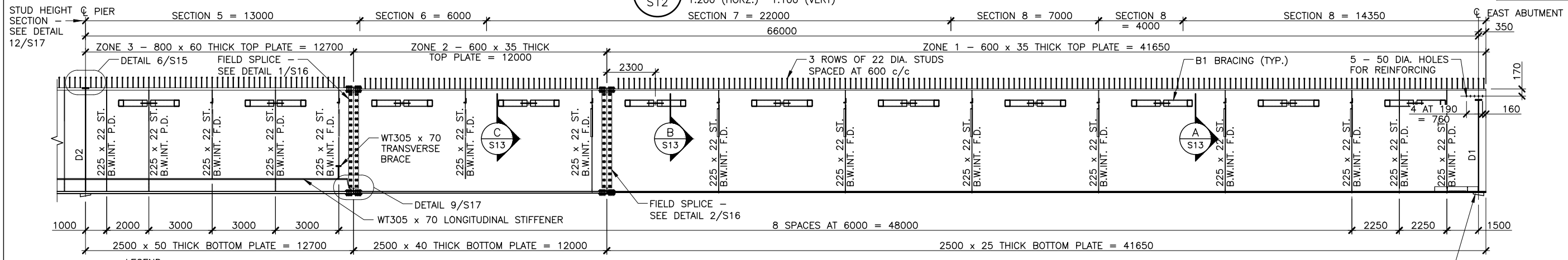
STUD HEIGHT SECTION - SEE DETAIL 12/S17

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin Kujim
 COLIN KUJIM
 No. 1741

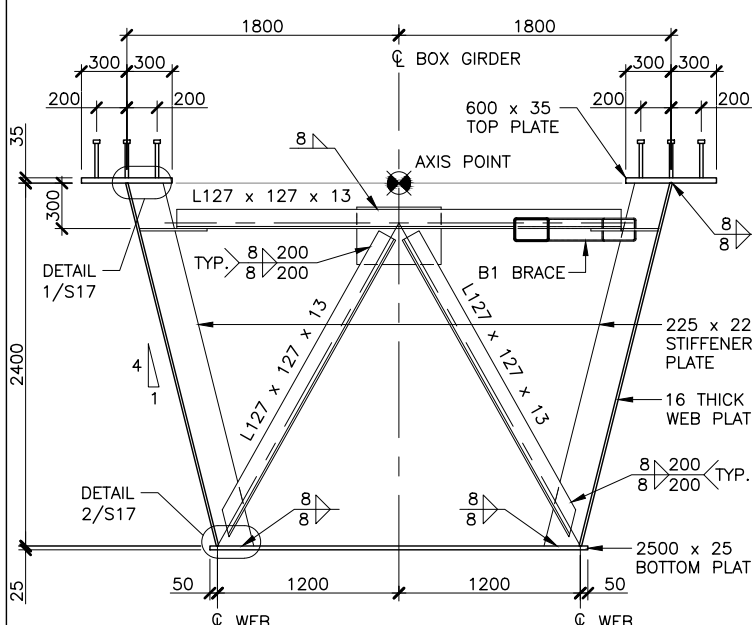
DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
 PROVINCE OF PRINCE EDWARD ISLAND

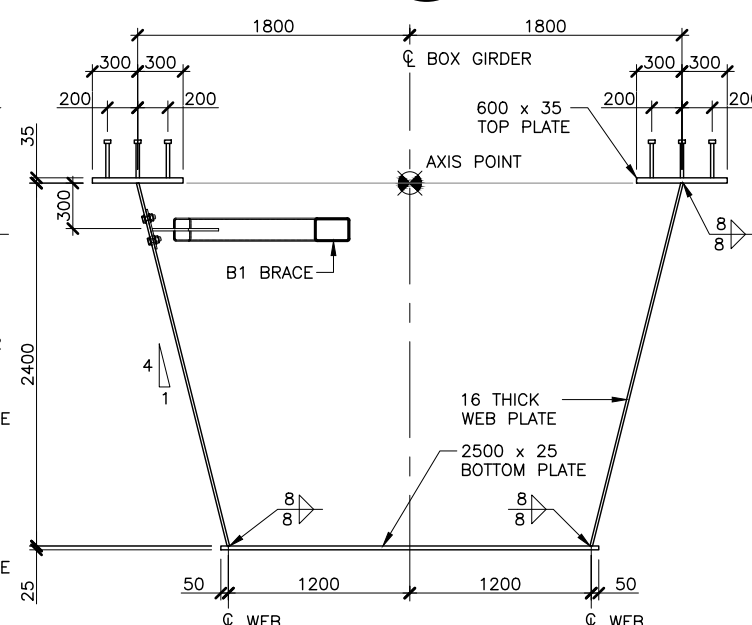


EL2 GIRDER ELEVATION - PIER TO EAST ABUTMENT
 S12 1:200 (HORZ.) 1:100 (VERT)

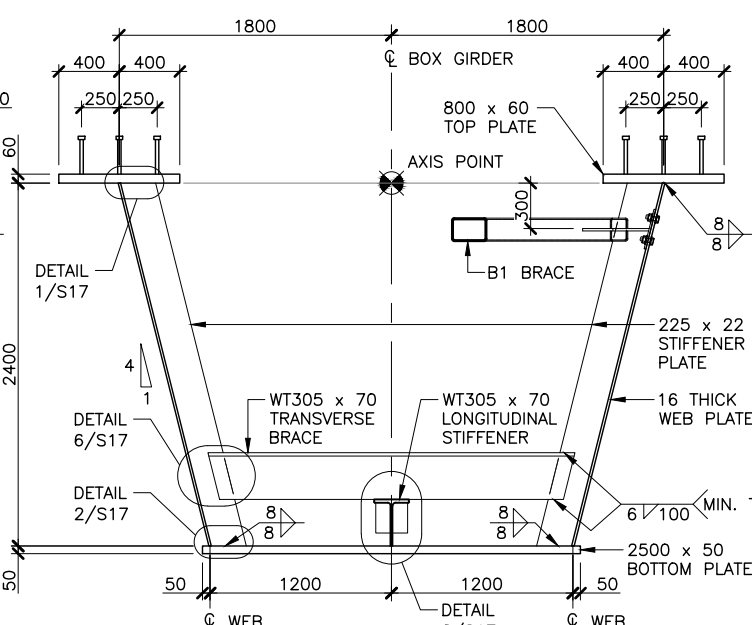
LEGEND:
 ST. B.W.INT.F.D. = STIFFENERS BOTH SIDE OF WEBS INTERIOR - FULL DEPTH
 ST. B.W.INT.P.D. = STIFFENERS BOTH SIDE OF WEBS INTERIOR - PARTIAL DEPTH (75mm FROM TOP OF BOTTOM FLANGE) - SEE DETAIL 5/S17



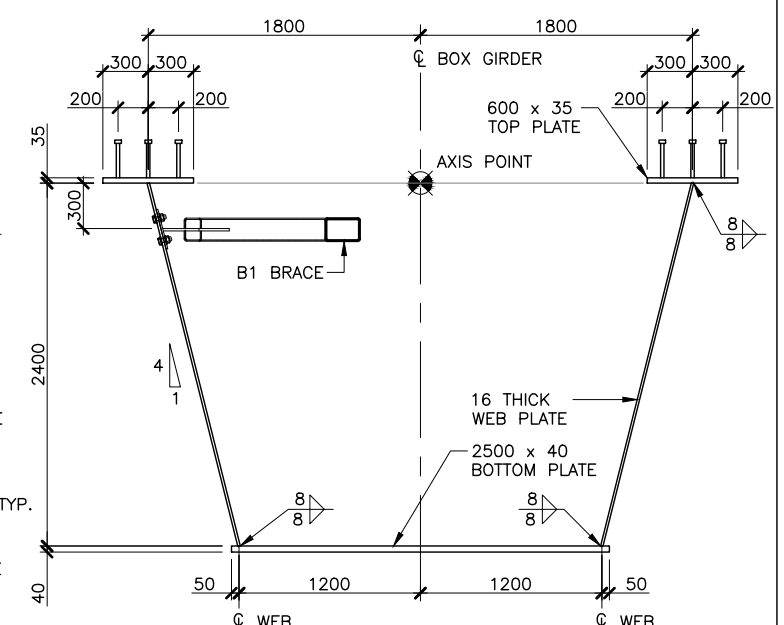
A SECTION - TYPICAL VB1
 S12 1:50



B SECTION - ZONE 1
 S12 1:50



C SECTION - ZONE 3
 S12 1:50



D SECTION - ZONE 2
 S12 1:50

DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY

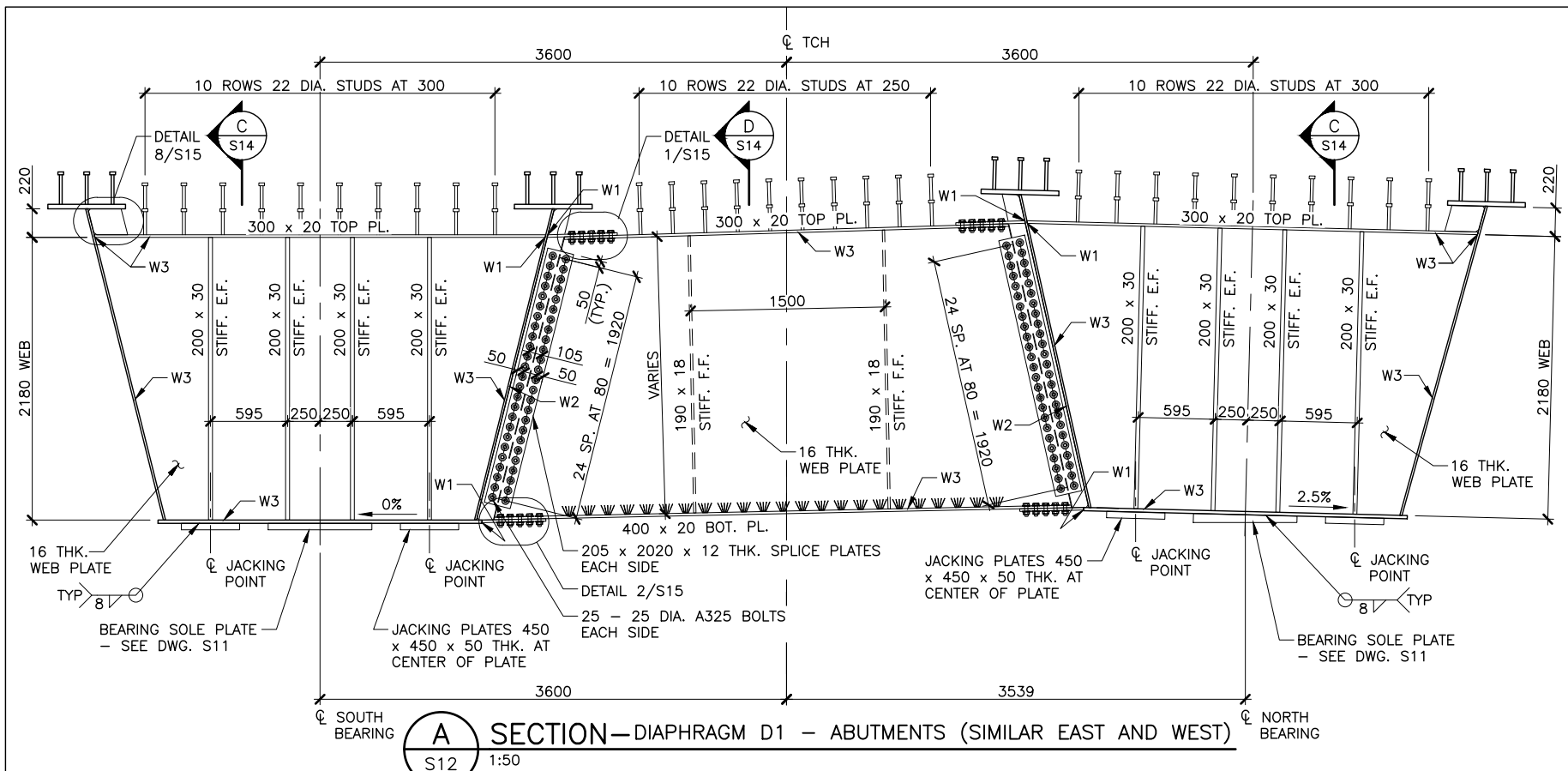
Prince Edward Island
 CANADA

Tel 902 368 5100
 Fax 902 368 5395
 http://www.gov.pe.ca/

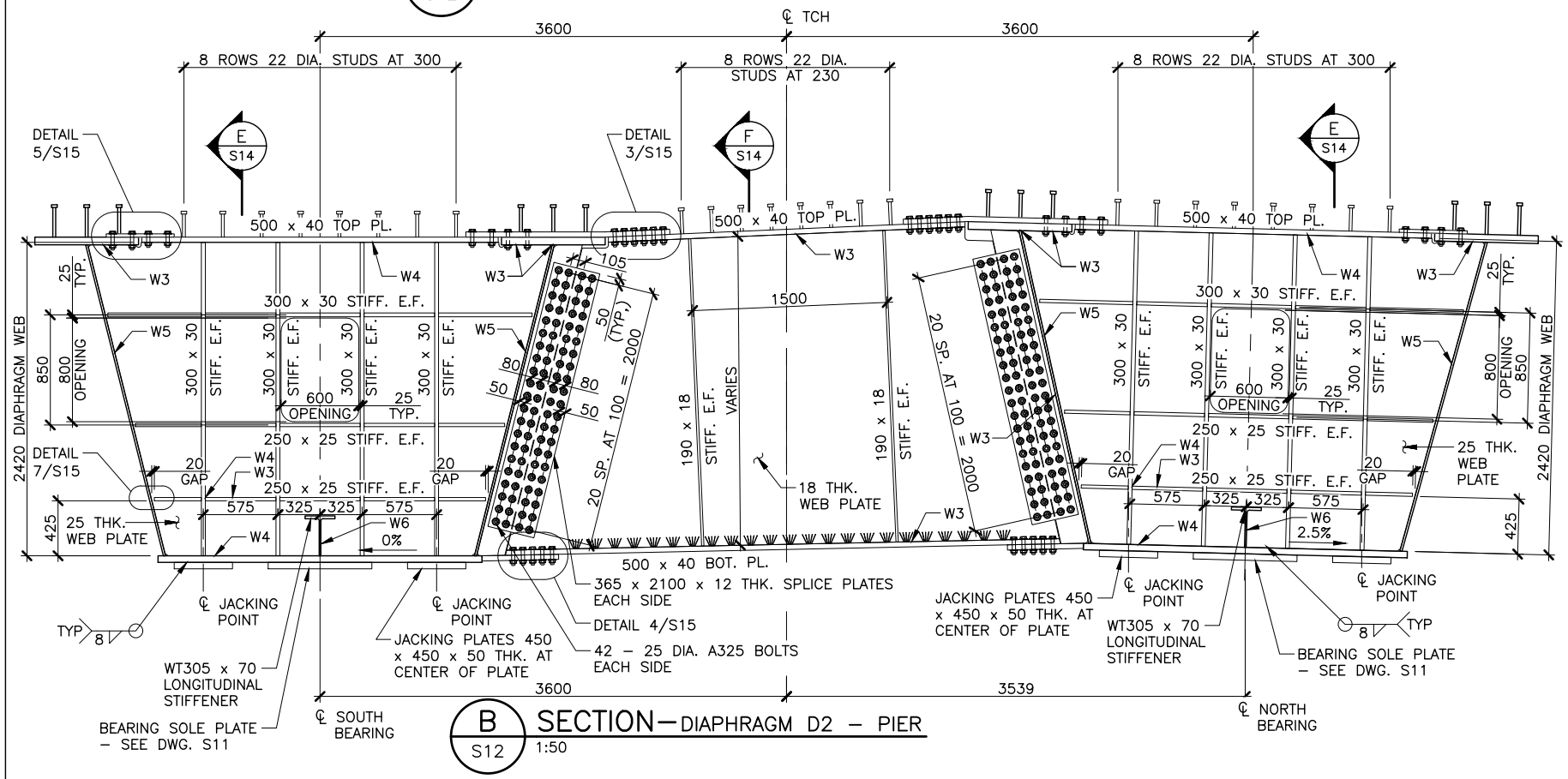
PO Box 2000
 Charlottetown
 Prince Edward Island
 Canada C1A 7N8

NOTES: ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP). MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE. ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V.

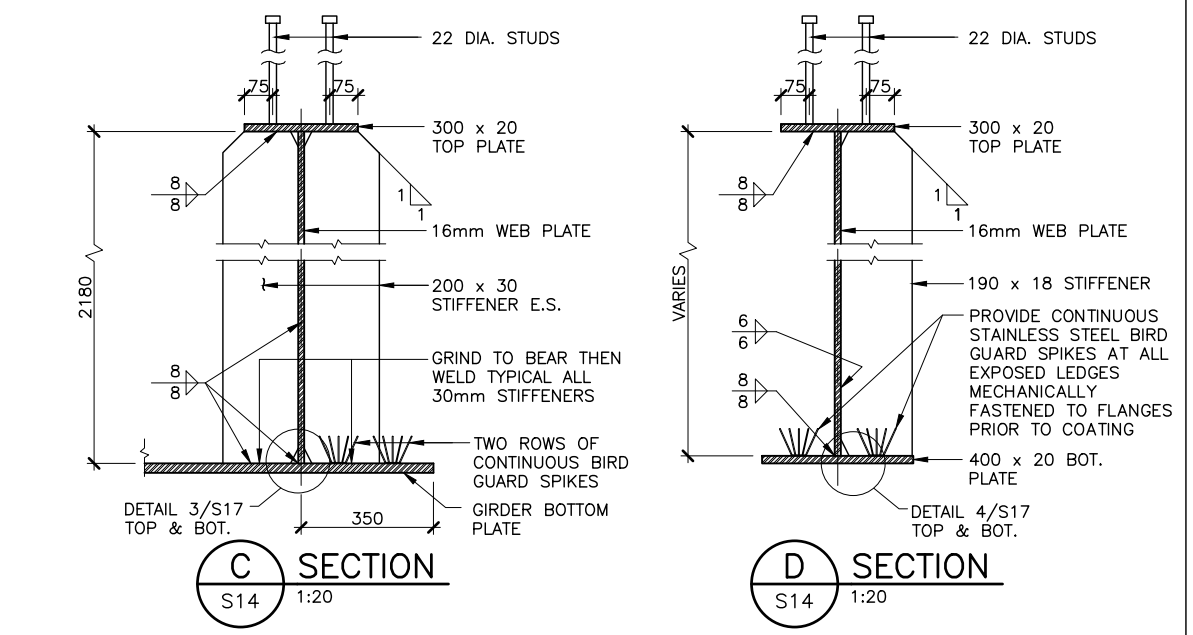
SURVEY BY:	T. I. E.	SCALE:	AS NOTED	No.	REVISIONS	DATE		GIRDER ELEVATION AND SECTIONS	SHEET No.
DRAWN BY:	J. D. P.	DATE:	JULY 2017	A	ISSUED FOR 70% REVIEW	DEC.08/17			S13 OF
APPROVED BY:	C. K. J.	DATE:		B	ISSUED FOR 95% REVIEW	JAN.17/18	COUNTY:	QUEENS CONTROL SECTION: SECTION	
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18	STATIONING:		



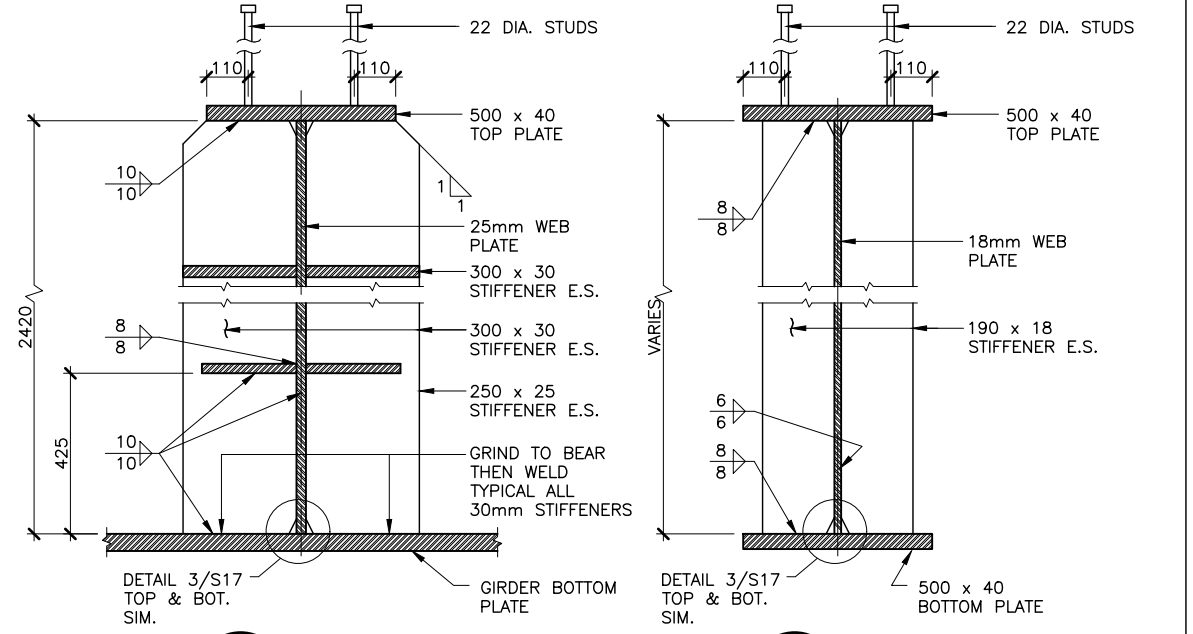
A SECTION - DIAPHRAGM D1 - ABUTMENTS (SIMILAR EAST AND WEST)
S12 1:50



B SECTION - DIAPHRAGM D2 - PIER
S12 1:50



C SECTION S14 1:20



E SECTION S14 1:20

DIAPHRAGM WELDS:

W1 - CP W2 - 6/6 W3 - 8/8 W4 - 10/10

W5 - 12/12 W6 - 6/6 ALL AROUND

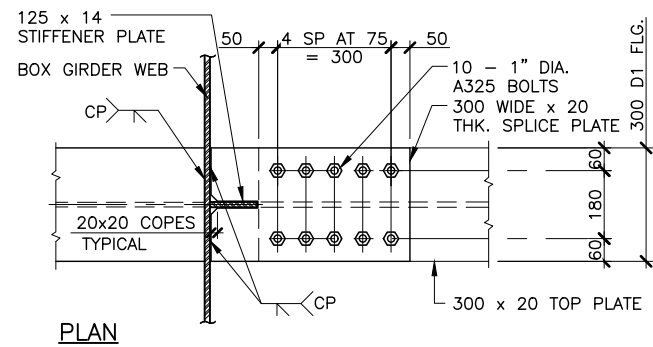
THE ASSOCIATION OF
PROFESSIONAL ENGINEERS
OF THE PROVINCE OF
PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2017

Colin Kijim
COLIN KIJIM
NO. 1741

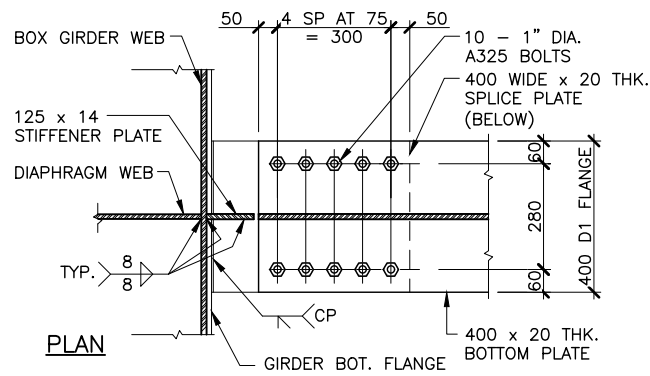
DATE: JAN. 26/18

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PROFESSIONAL ENGINEER
PROVINCE OF
PRINCE EDWARD ISLAND

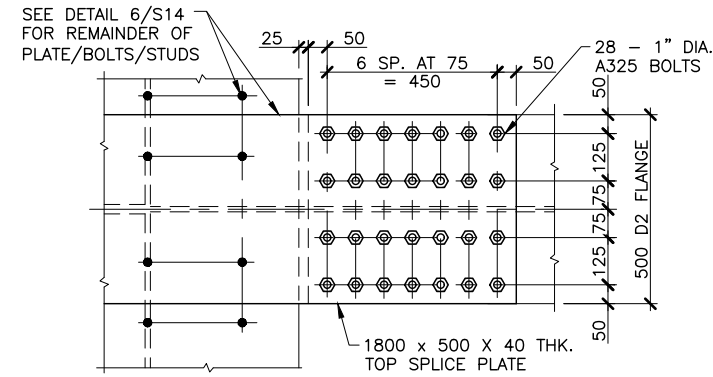
No.	REVISIONS	DATE
A	ISSUED FOR 70% REVIEW	DEC.08/17
B	ISSUED FOR 95% REVIEW	JAN.17/18
0	ISSUED FOR TENDER	JAN.26/18



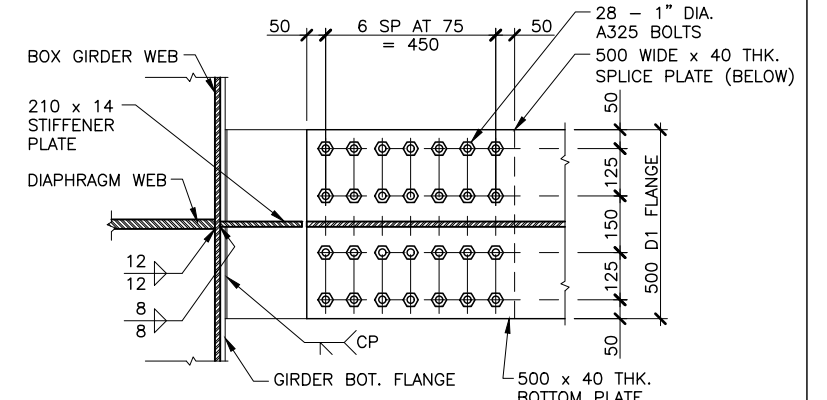
PLAN



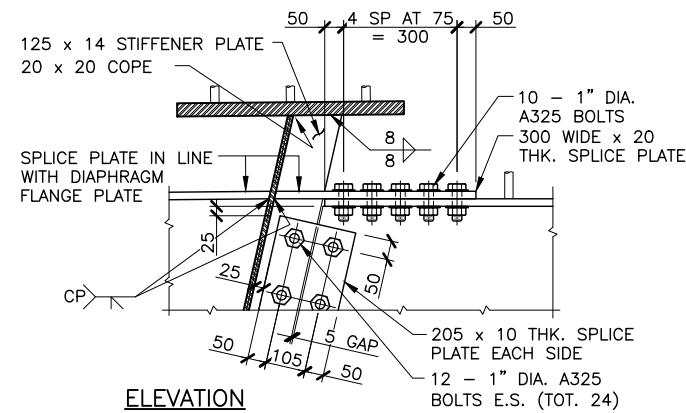
PLAN



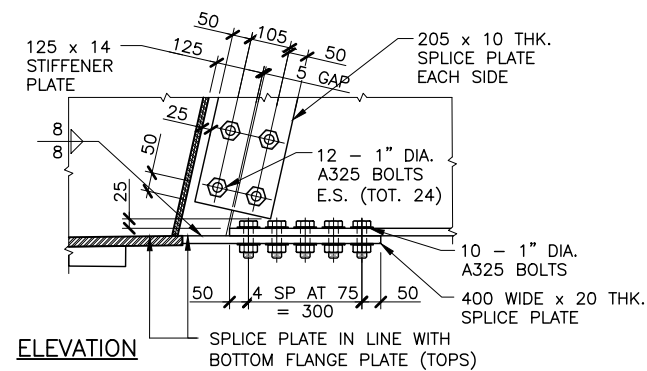
PLAN



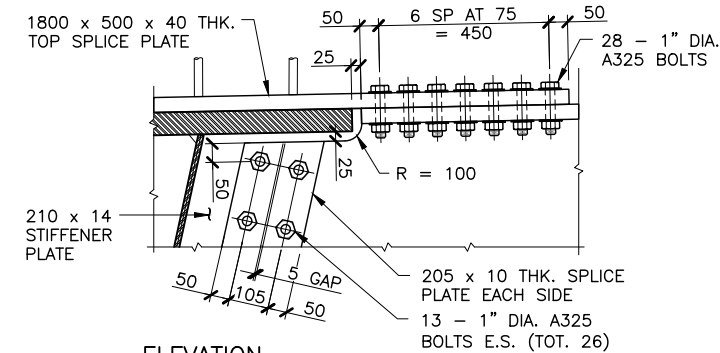
PLAN



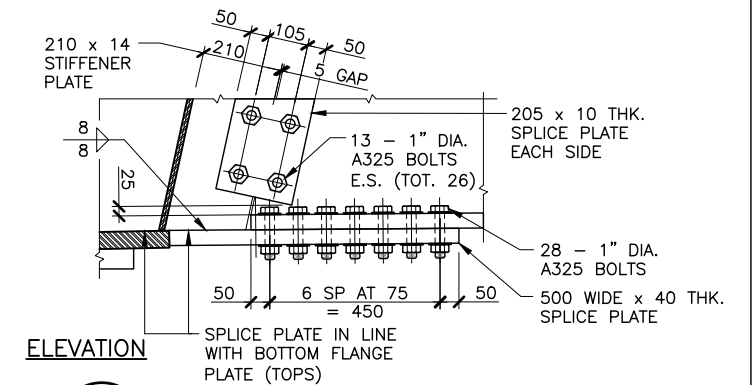
ELEVATION



ELEVATION



ELEVATION



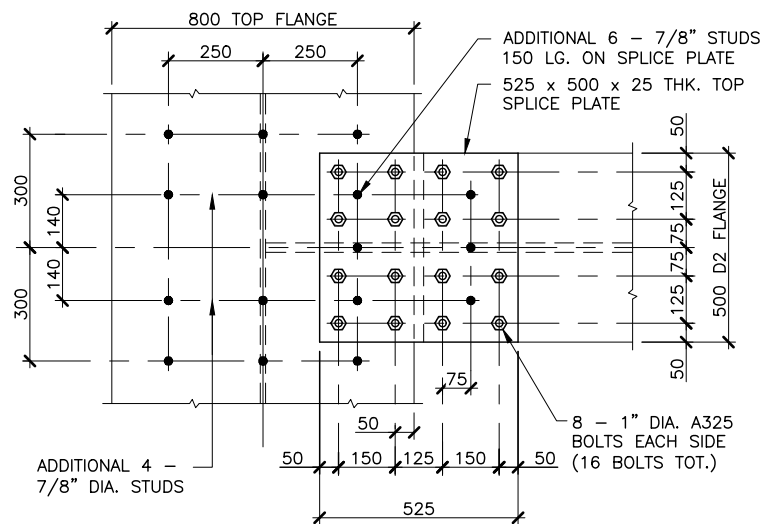
ELEVATION

1 DETAIL (D1 - TOP CONNECTION)
S14 1:20

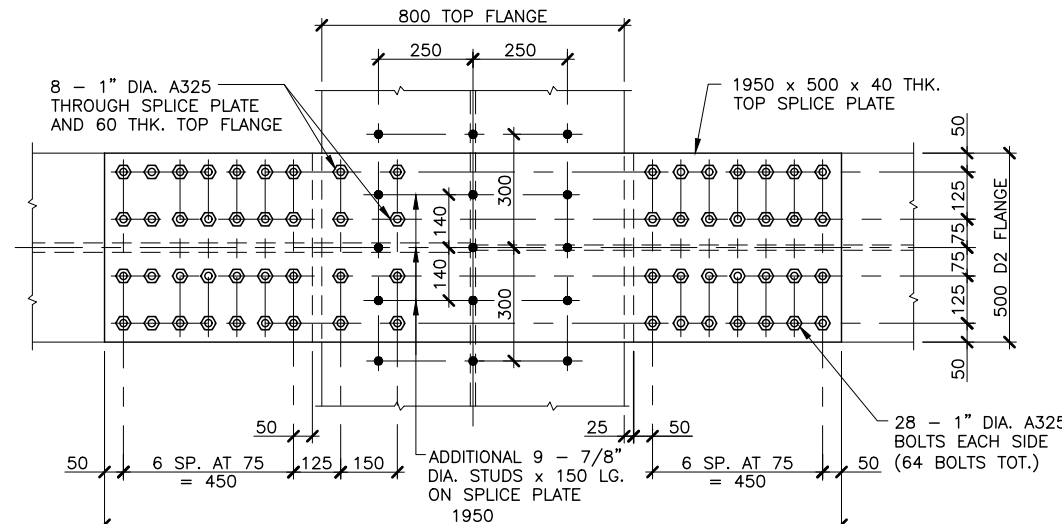
2 DETAIL (D1 - BOTTOM CONNECTION)
S14 1:20

3 DETAIL (D2 - TOP CONNECTION)
S14 1:20

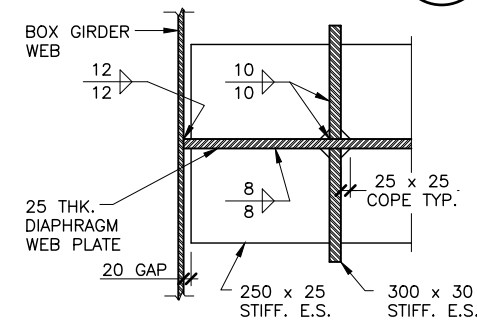
4 DETAIL (D2 - BOTTOM CONNECTION)
S14 1:20



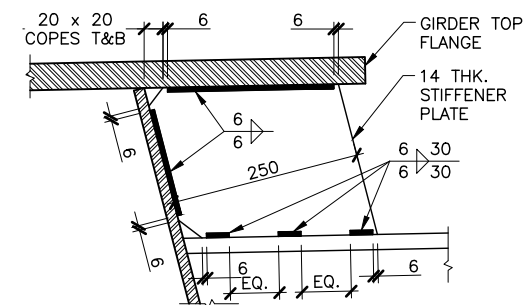
5 DETAIL (TOP CONNECTION)
S14 1:20



6 DETAIL (TOP CONNECTION)
S14 1:20



7 DETAIL
S14 1:20



8 DETAIL (STIFFENER PLATE)
S14 1:10

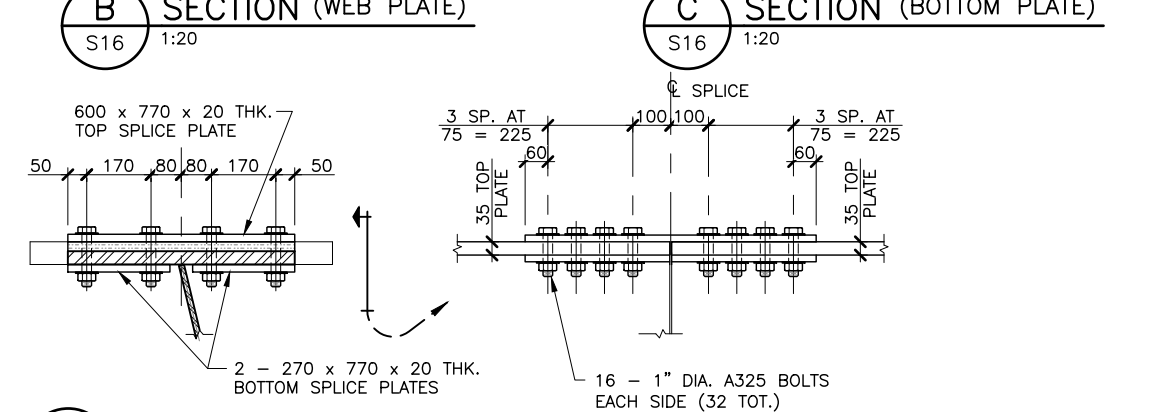
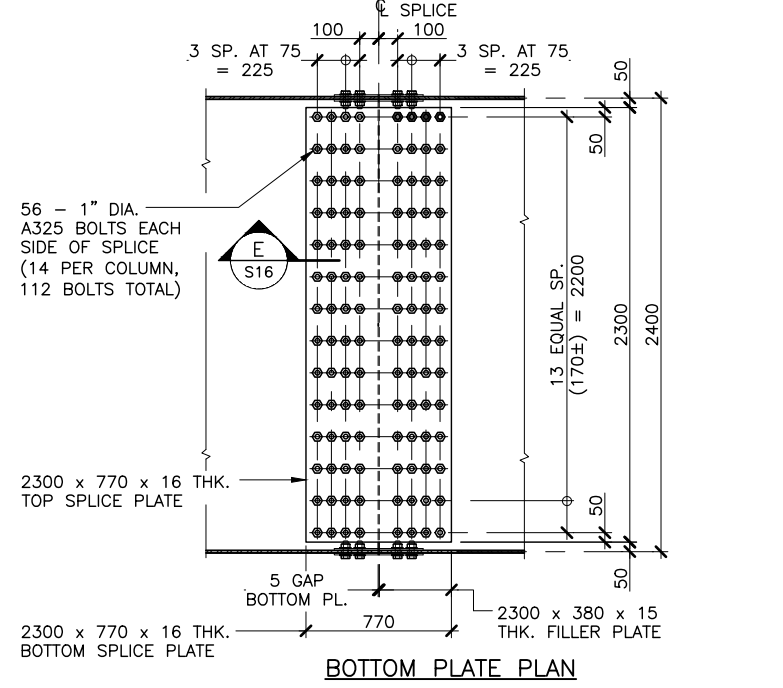
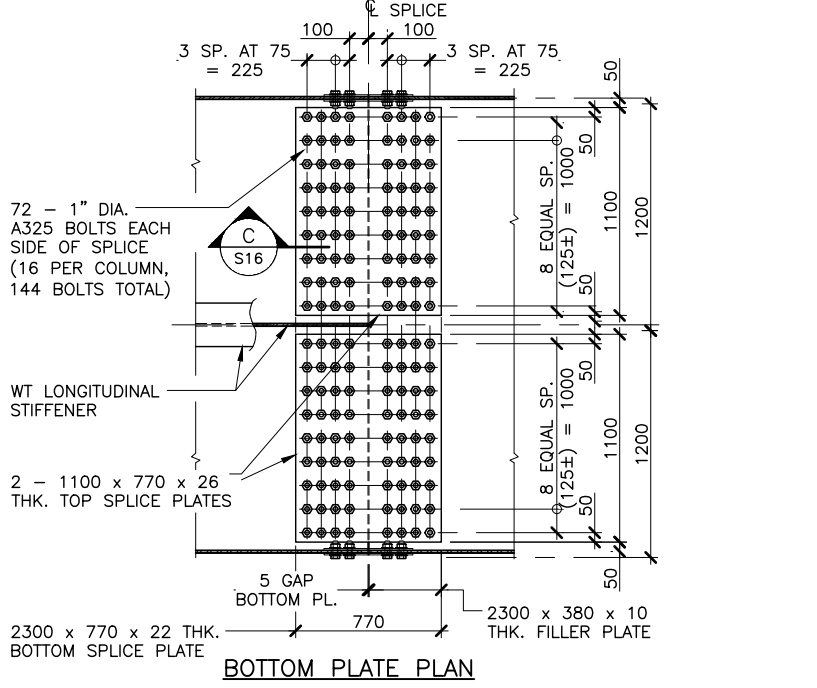
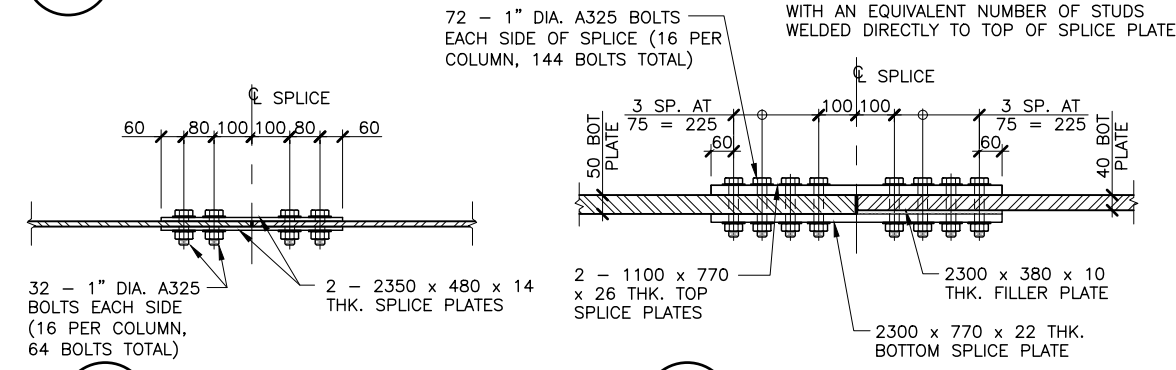
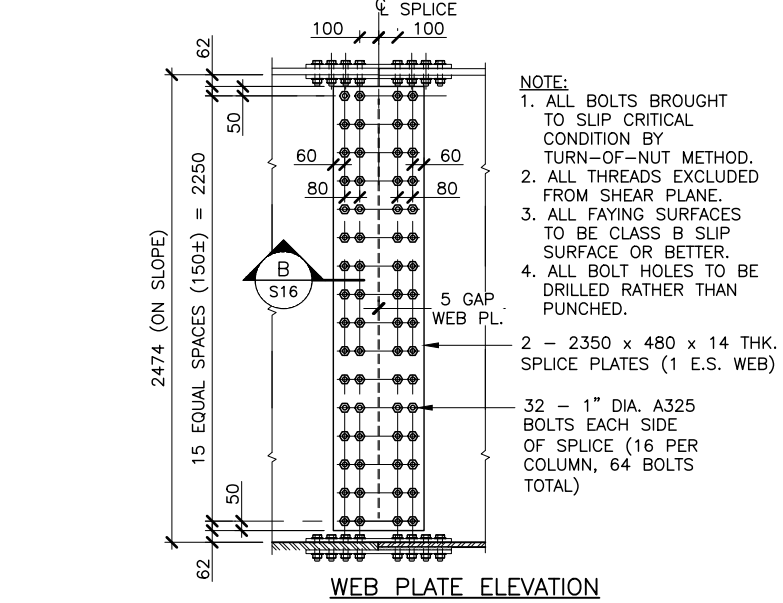
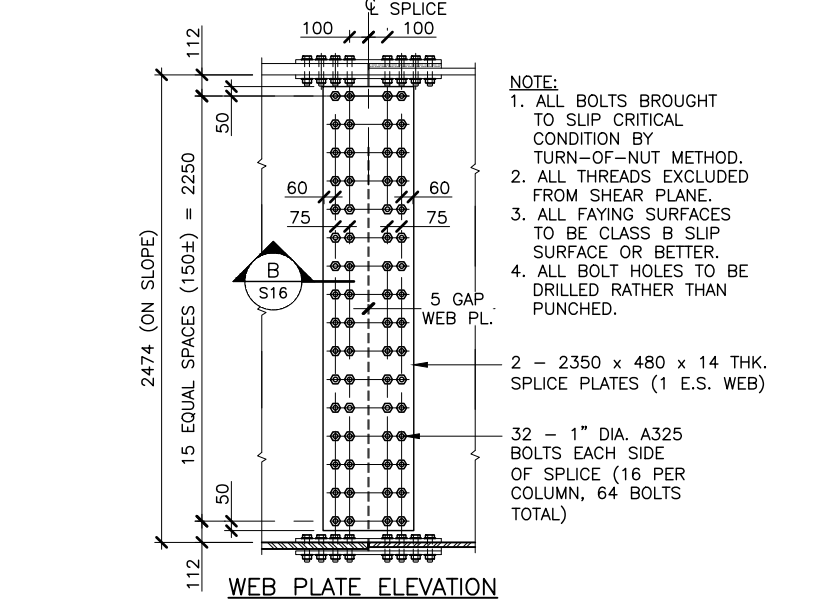
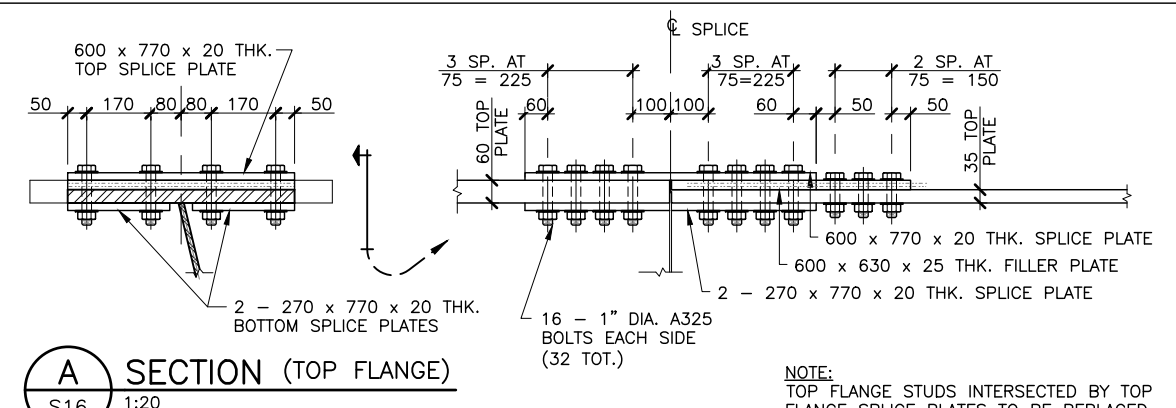
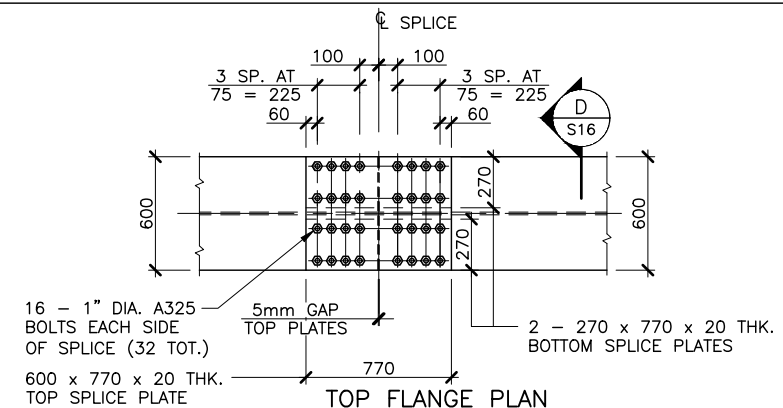
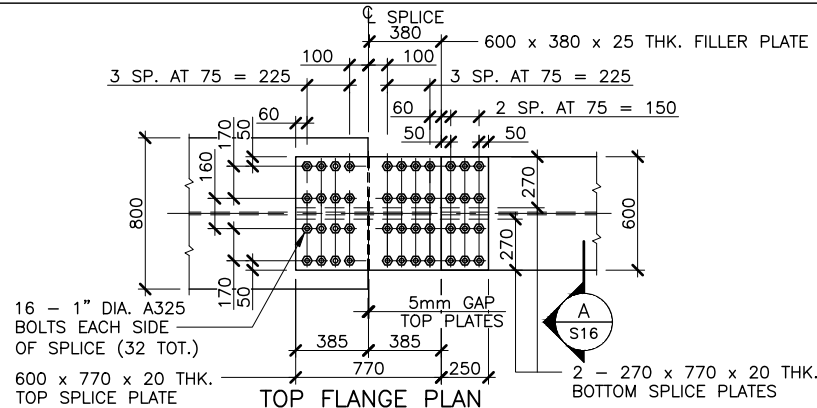
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

COLIN K. JIM
NO. 1741

DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND



1 DETAIL (GIRDER SPLICE)
S13 1:40

2 DETAIL (GIRDER SPLICE)
S13 1:40

D SECTION (TOP FLANGE)
S16 1:20

E SECTION (BOTTOM PLATE)
S16 1:20

NOTE:
TOP FLANGE STUDS INTERSECTED BY TOP FLANGE SPLICE PLATES TO BE REPLACED WITH AN EQUIVALENT NUMBER OF STUDS WELDED DIRECTLY TO TOP OF SPLICE PLATE

72 - 1" DIA. A325 BOLTS EACH SIDE OF SPLICE (16 PER COLUMN, 144 BOLTS TOTAL)

B SECTION (WEB PLATE)
S16 1:20

C SECTION (BOTTOM PLATE)
S16 1:20

D SECTION (TOP FLANGE)
S16 1:20

NOTE:
TOP FLANGE STUDS INTERSECTED BY TOP FLANGE SPLICE PLATES TO BE REPLACED WITH AN EQUIVALENT NUMBER OF STUDS WELDED DIRECTLY TO TOP OF SPLICE PLATE

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

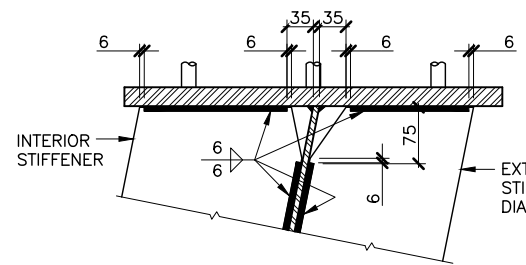
COLIN K. JIM
NO. 1741

DATE: JAN. 26/18

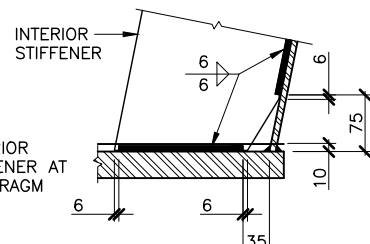
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

No.	REVISIONS	DATE
A	ISSUED FOR 70% REVIEW	DEC.08/17
B	ISSUED FOR 95% REVIEW	JAN.17/18
0	ISSUED FOR TENDER	JAN.26/18

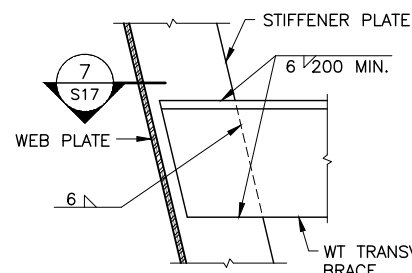
GIRDER SPLICE DETAILS		S16
COUNTY:	QUEENS	
STATIONING:	CONTROL SECTION:	SECTION



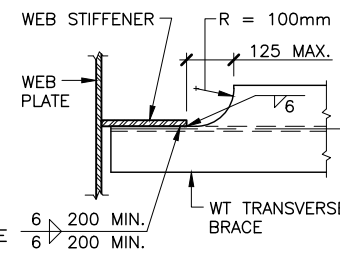
1 DETAIL
S13 1:10



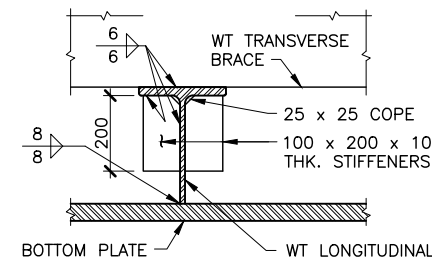
2 DETAIL
S13 1:10



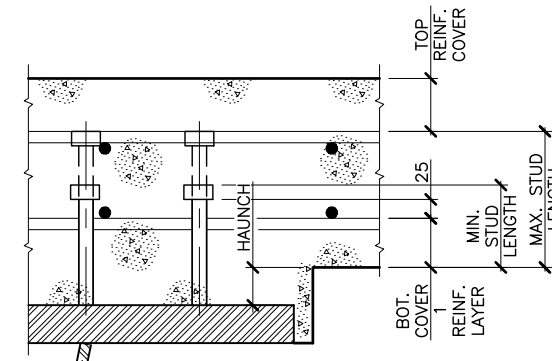
6 DETAIL
S13 1:20



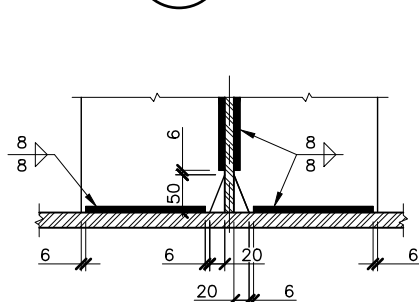
7 DETAIL
S13 1:20



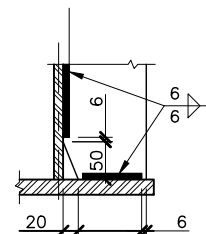
8 DETAIL
S13 1:20



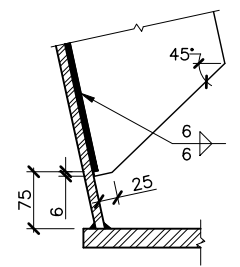
11 DETAIL (TYPICAL STUD LENGTHS)
S17 1:10



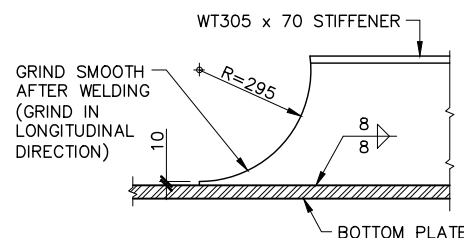
3 DETAIL
S13 1:10



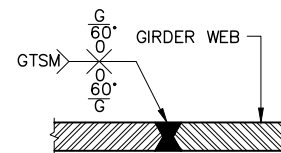
4 DETAIL
S13 1:10



5 DETAIL
S13 1:10



9 DETAIL (TEE TERMINATION)
S13 1:20



10 DETAIL (TYPICAL WELDING)
S13 1:20

GIRDER	FLANGE	STUD HEIGHTS (mm)									
		SECTION									
1	1	152	178	203	229	229	229	229	203	178	152
	2	152	178	203	229	229	229	229	203	178	152
2	1	250	305	305	356	305	356	356	356	356	305
	2	152	178	203	229	229	305	356	356	356	356

NOTE:
STUD HEIGHTS CALCULATED BASED ON THEORETICAL DEFLECTIONS AND CAMBERS.
CONTRACTOR TO PERFORM INDEPENDENT DETERMINATION OF STUD HEIGHTS BASED
ON ACTUAL SELF WEIGHT GIRDER DEFLECTIONS. STUD HEIGHT TOLERANCES ARE
PRESENTED IN DETAIL 11/S17.

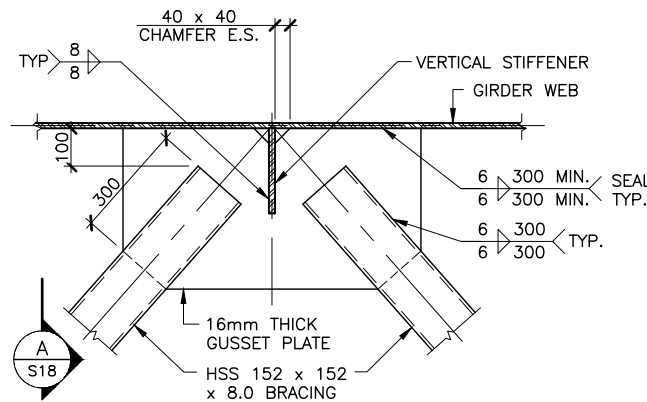
12 DETAIL STUD HEIGHTS
S13 1:1

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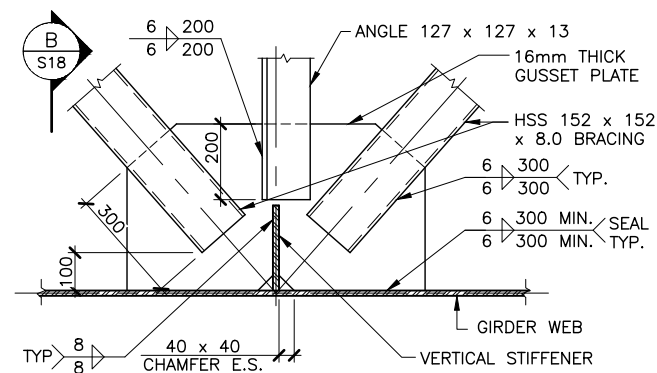
Colin Kujim
COLIN KUJIM
No. 1741

DATE: JAN. 26/18

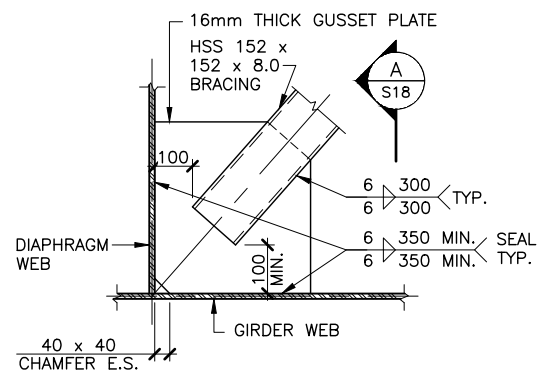
LICENSED
PROFESSIONAL ENGINEER
PROVINCE OF
PRINCE EDWARD ISLAND



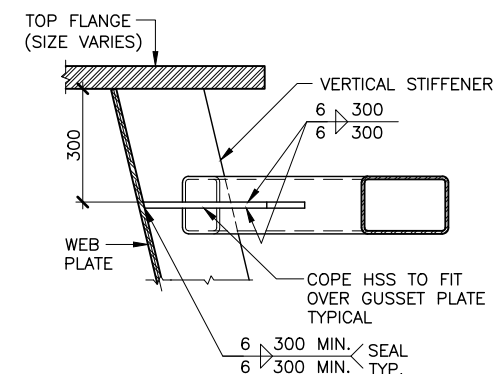
1 DETAIL (WELDED GUSSET PLATE)
S12 1:20



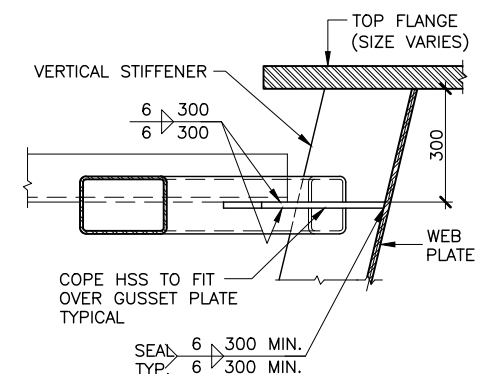
2 DETAIL (WELDED GUSSET PLATE)
S12 1:20



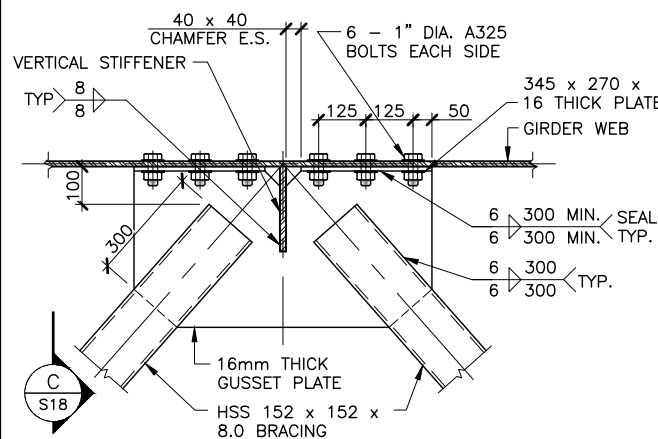
7 DETAIL (WELDED GUSSET PLATE)
S12 1:20



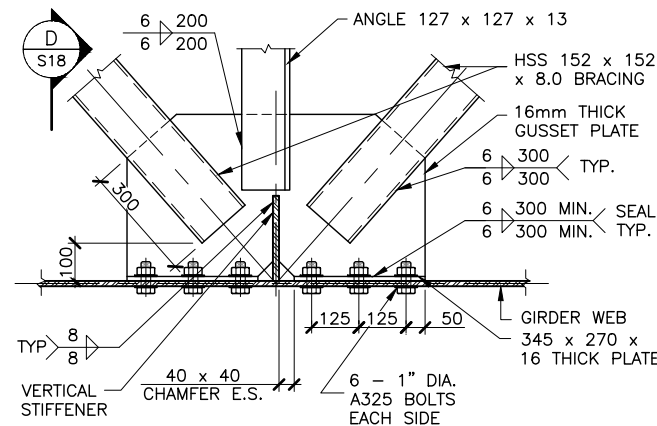
A SECTION
S18 1:20



B SECTION
S18 1:20



3 DETAIL (BOLTED GUSSET PLATE)
S12 1:20



4 DETAIL (BOLTED GUSSET PLATE)
S12 1:20

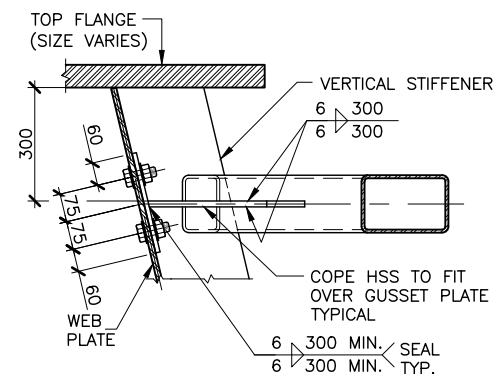
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

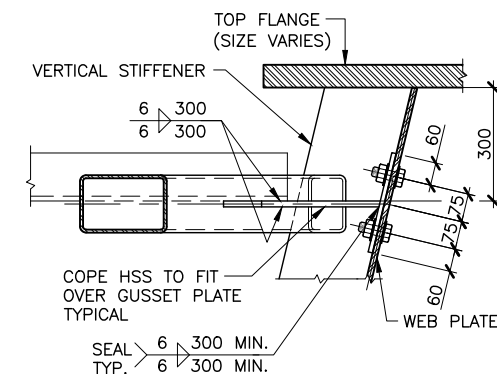
COLIN K. JIM
No. 1741

DATE: JAN. 26/18

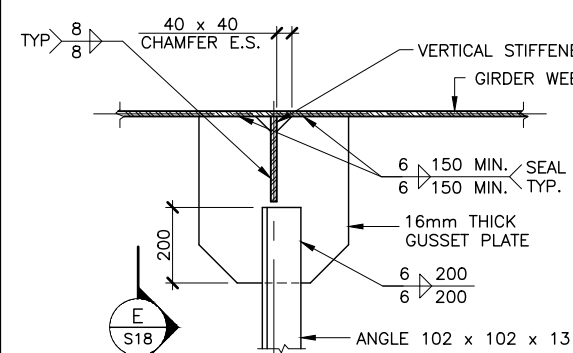
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND



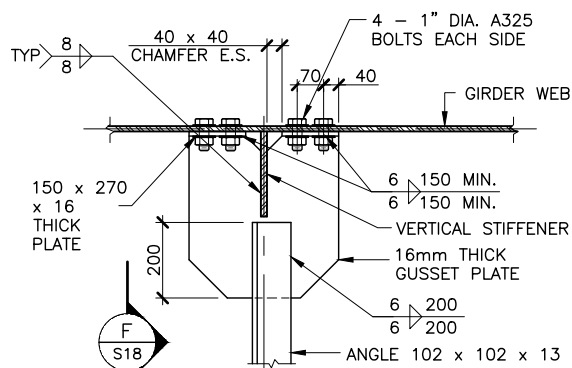
C SECTION
S18 1:20



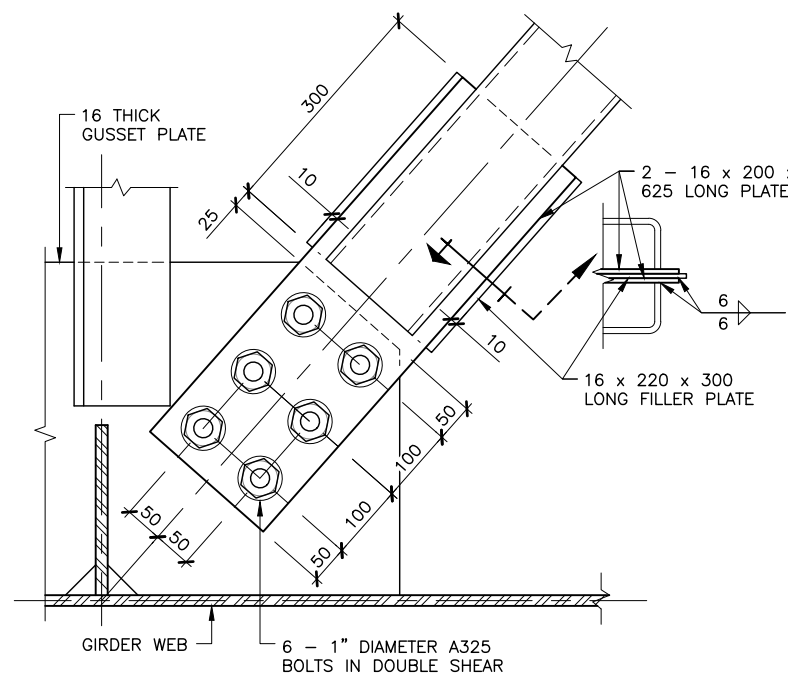
D SECTION
S18 1:20



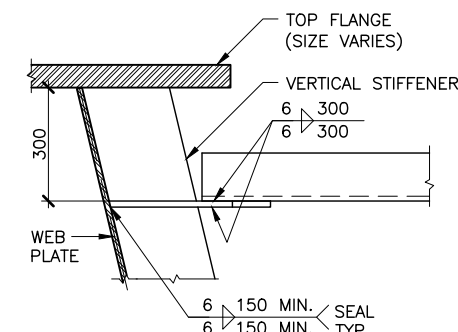
5 DETAIL (WELDED GUSSET PLATE)
S12 1:20



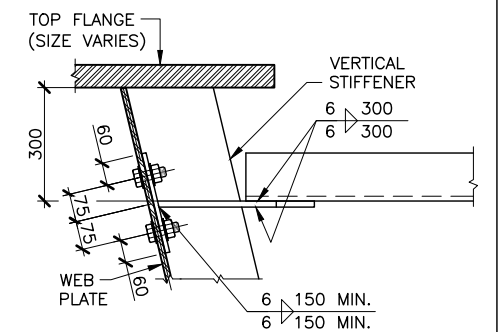
6 DETAIL (BOLTED GUSSET PLATE)
S12 1:20



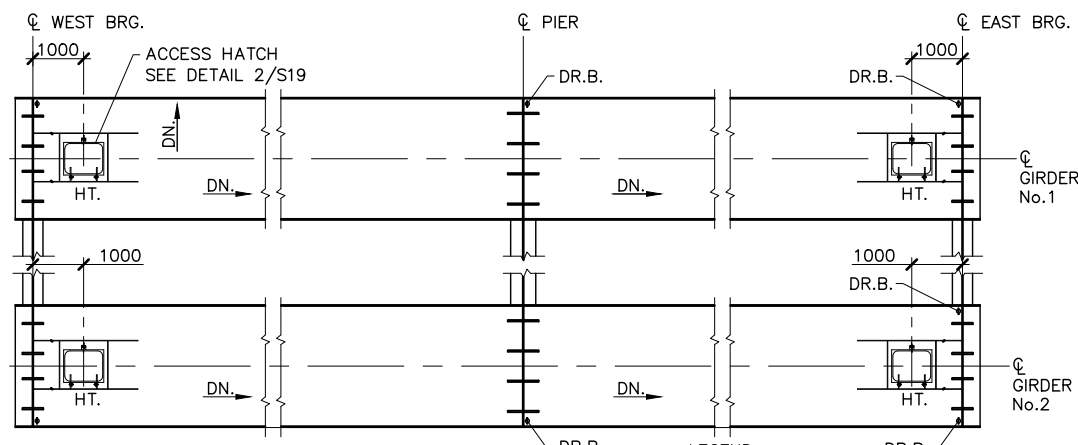
8 DETAIL (B1 FIELD CONNECTION)
S12 1:10



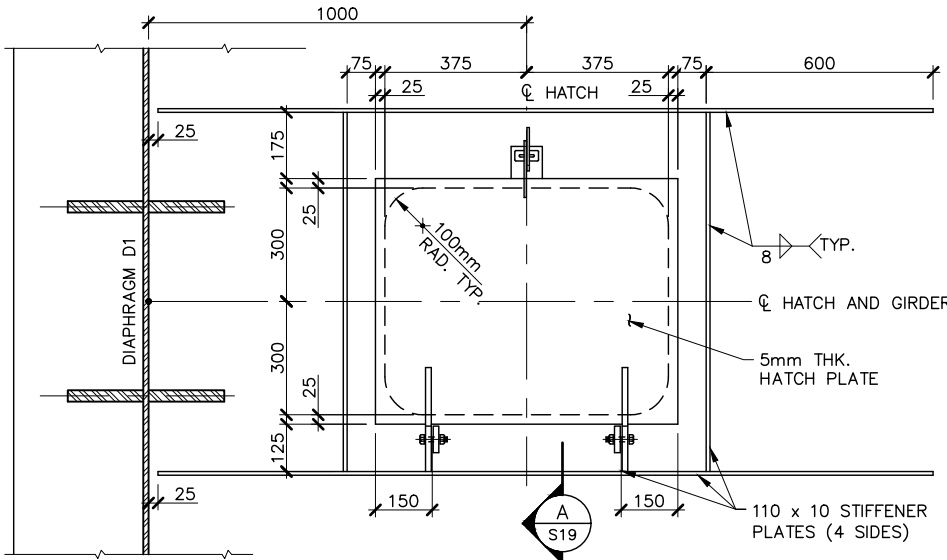
E SECTION
S18 1:20



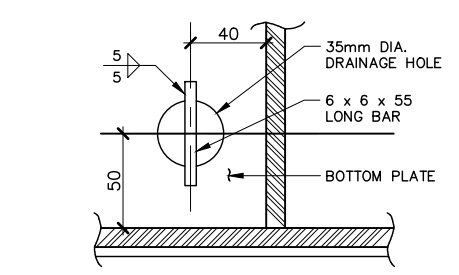
F SECTION
S18 1:20



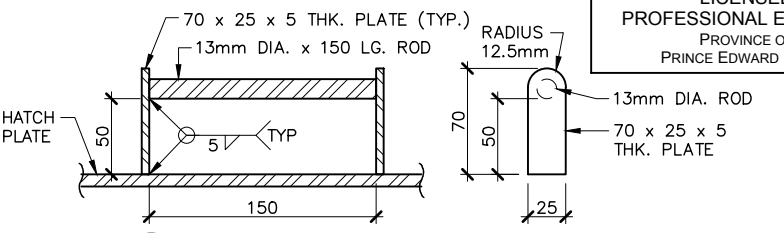
LEGEND:
 DR.B. — DRAINAGE HOLE IN BOTTOM PLATE SEE DETAIL 4/S19
 HT. — ACCESS HATCH SEE DETAIL 2/S19



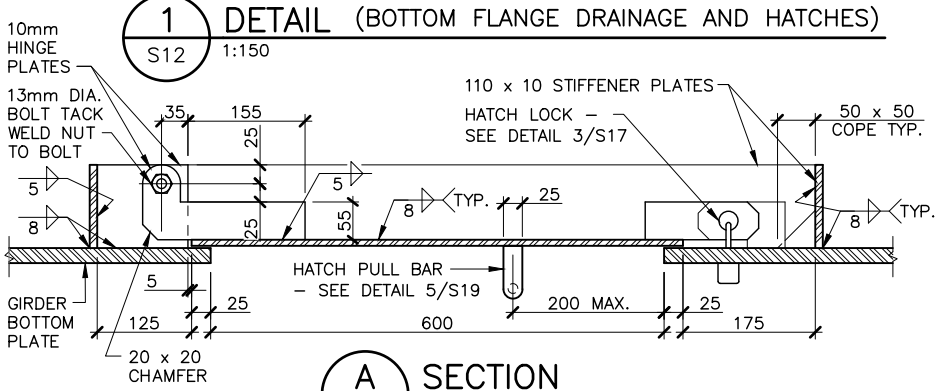
2 DETAIL (ACCESS HATCH)
 S19 1:20



4 DETAIL (DRAINAGE HOLE)
 S19 1:4

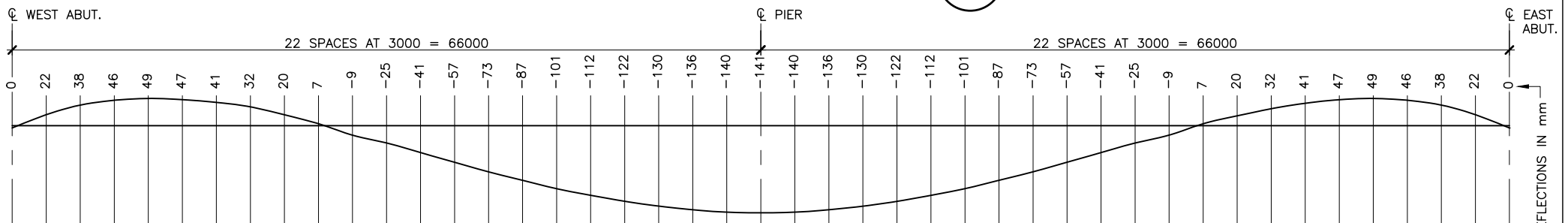


5 DETAIL (HATCH PULL BAR)
 S19 1:5

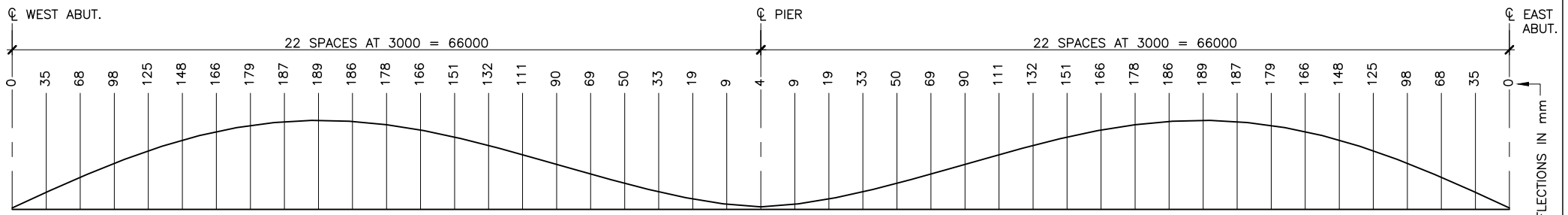


1 DETAIL (BOTTOM FLANGE DRAINAGE AND HATCHES)
 S12 1:150

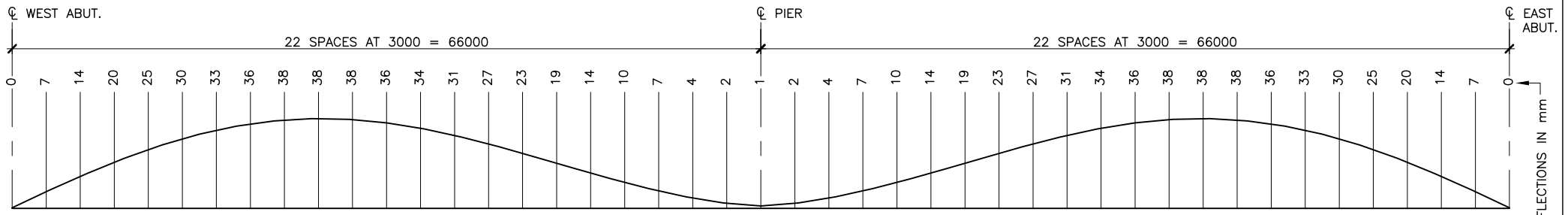
A SECTION
 S19 1:10



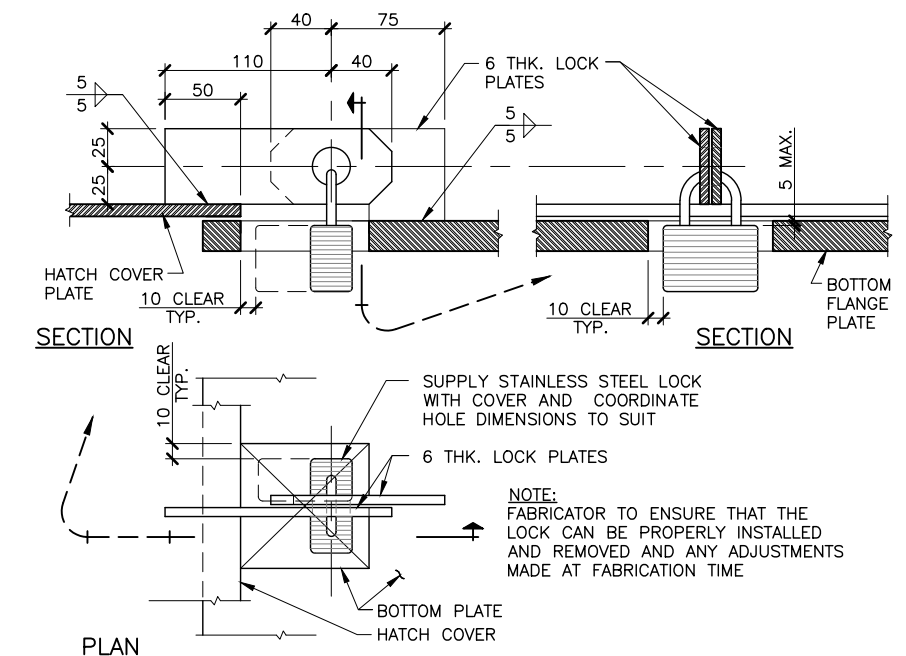
CAMBER / WEB CUT DIAGRAM
 HORIZ. 1:500, VERT. 1:40



TOTAL DEAD LOAD DEFLECTION
 HORIZ. 1:500, VERT. 1:40



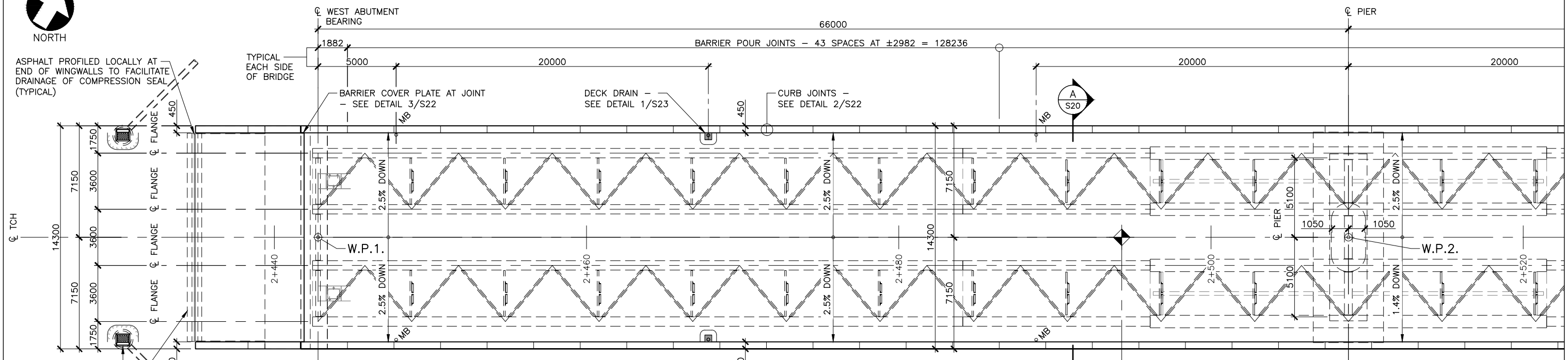
BARE STEEL DEFLECTION
 HORIZ. 1:500, VERT. 1:40



3 DETAIL (HATCH LOCK)
 S19 1:5

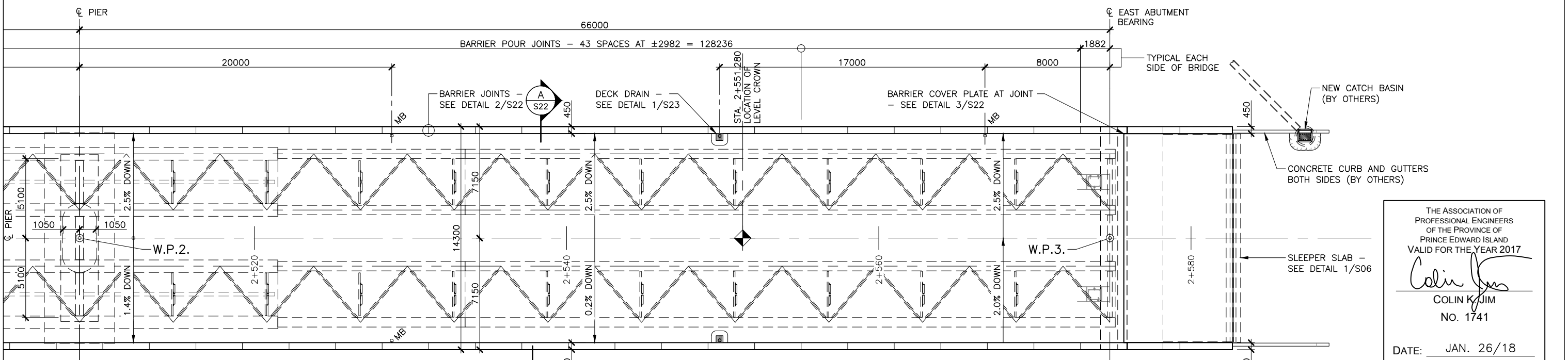


ASPHALT PROFILED LOCALLY AT END OF WINGWALLS TO FACILITATE DRAINAGE OF COMPRESSION SEAL (TYPICAL)



DECK PLAN - WEST ABUTMENT TO PIER
1:250

LEGEND:
MB = MEMBRANE DRAIN (7 REQUIRED)
- SEE DETAIL 1/S22



DECK PLAN - PIER TO EAST ABUTMENT
1:250

LEGEND:
MB = MEMBRANE DRAIN (7 REQUIRED)
- SEE DETAIL 1/S22

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Colin K. Jim
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LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY

Prince Edward Island
CANADA

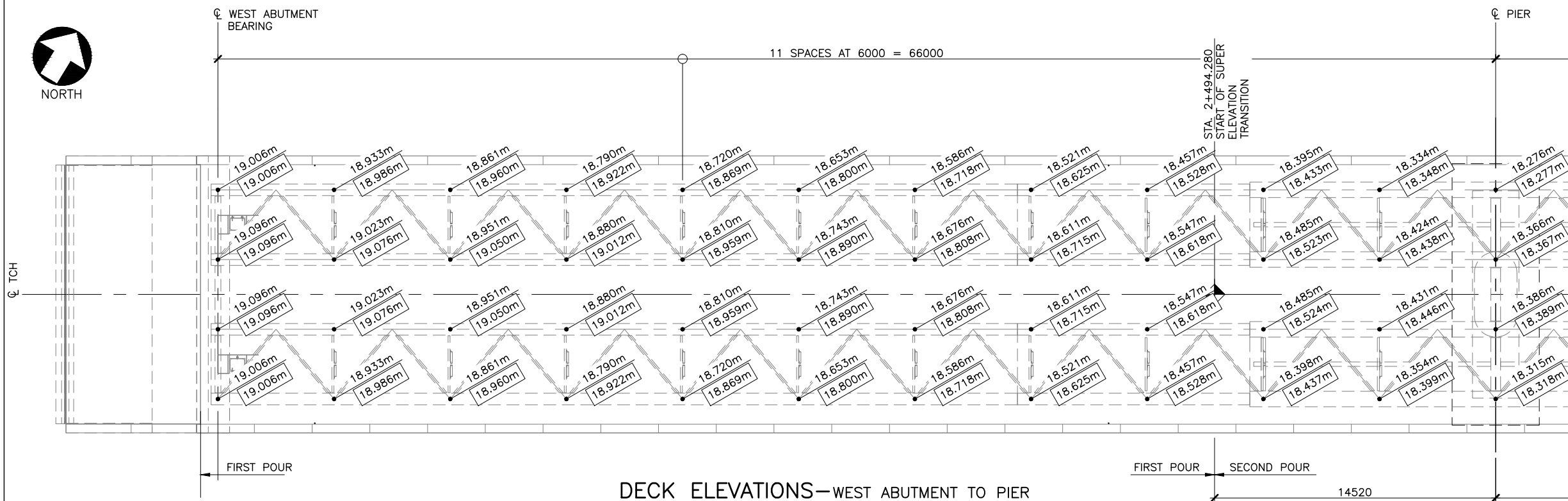
Tel 902 368 5100
Fax 902 368 5395
http://www.gov.pe.ca/

PO Box 2000
Charlottetown
Prince Edward Island
Canada C1A 7N8

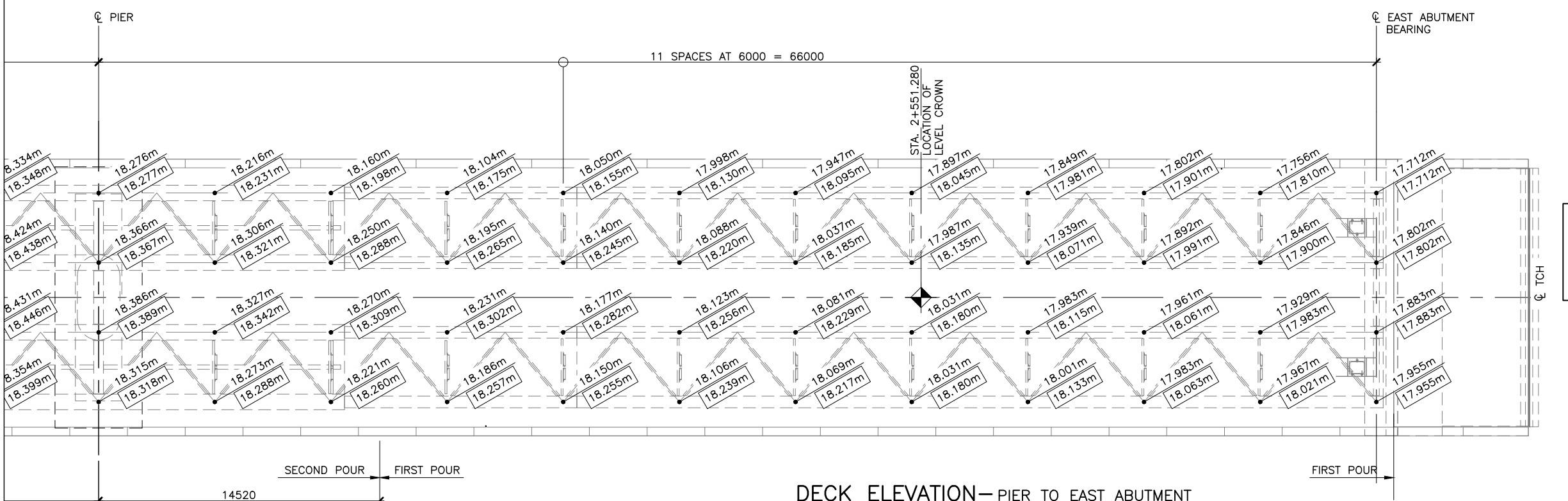
NOTES:
ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP)
MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE
ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V

SURVEY BY:	T. I. E.	SCALE:	AS NOTED	No.	REVISIONS	DATE			
DRAWN BY:	J. D. P.	DATE:	JULY 2017	A	ISSUED FOR 70% REVIEW	DEC.08/17			
APPROVED BY:	C. K. J.	DATE:		B	ISSUED FOR 95% REVIEW	JAN.17/18	COUNTY:	QUEENS	CONTROL SECTION: SECTION
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18	STATIONING:		

SHEET No.
S20
OF

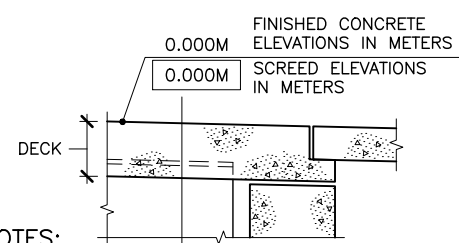


DECK ELEVATIONS—WEST ABUTMENT TO PIER
1:250



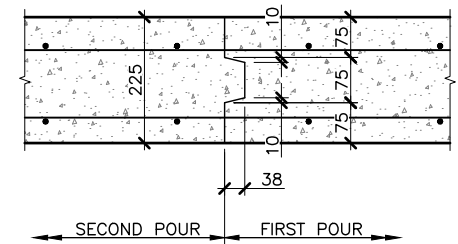
DECK ELEVATION—PIER TO EAST ABUTMENT
1:250

DECK ELEVATIONS LEGEND:



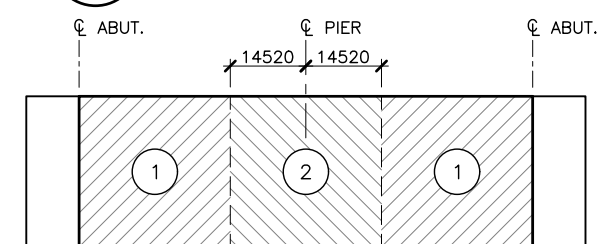
NOTES:

- SCREED ELEVATIONS ARE BASED ON THE DECK PROFILE ELEVATIONS PRIOR TO PLACING CONCRETE DECK, BARRIERS, HAUNCHES, AND ASPHALT SURFACE
- SCREED ELEVATIONS ARE BASED ON THE POUR SEQUENCE SHOWN IN DETAIL 2/S21 AND ASSUMES THE CONCRETE IN POUR 1 REACHES 25MPa PRIOR TO EXECUTING POUR 2. IF THE POUR SEQUENCE VARIES FROM WHAT IS SHOWN IN DETAIL 2/S19 THE GIVEN SCREED ELEVATIONS MAY NOT BE VALID AND THE CONTRACTOR MUST REVISE THE SCREED ELEVATIONS AS REQUIRED.
- MAX FACTORED SCREED MACHINE LOAD PER SIDE OF BRIDGE ASSUMED TO BE 30KN AT A DISTANCE OF 1750MM FROM CENTRELINE OF EXTERIOR FLANGE.



NOTE: TERMINATE KEY 80mm IN FROM EDGE OF DECK (BOTH SIDES)

1 DETAIL—CONSTRUCTION JOINT
N.T.S.



2 DETAIL—DECK CASTING SEQUENCE
N.T.S.

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

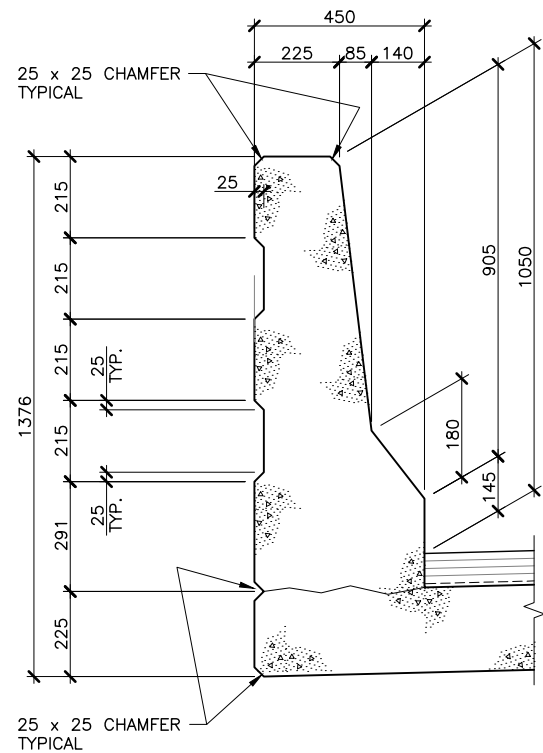
Colin Kujim

COLIN KUJIM
NO. 1741

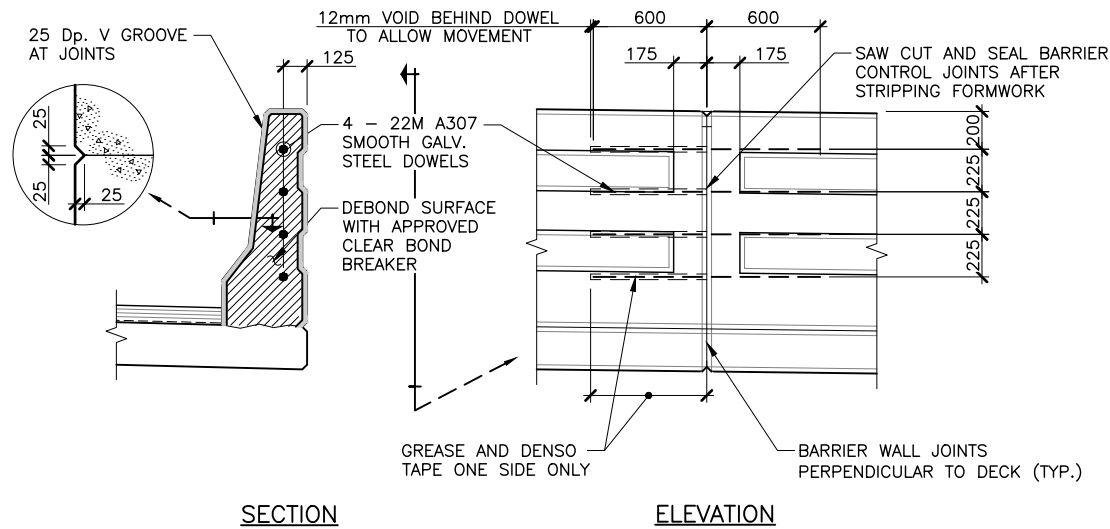
DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

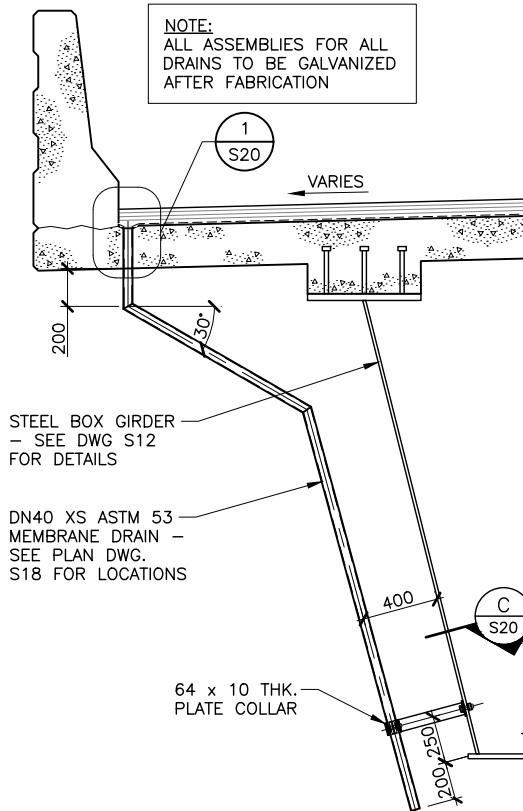
SURVEY BY:	SCALE:	No.	REVISIONS	DATE
T. I. E.	AS NOTED	A	ISSUED FOR 70% REVIEW	DEC.08/17
DRAWN BY:	DATE:	B	ISSUED FOR 95% REVIEW	JAN.17/18
J. D. P.	JULY 2017	0	ISSUED FOR TENDER	JAN.26/18
APPROVED BY:	DATE:			
C. K. J.				
PROJECT No.: 172623.00	FILE No.:			



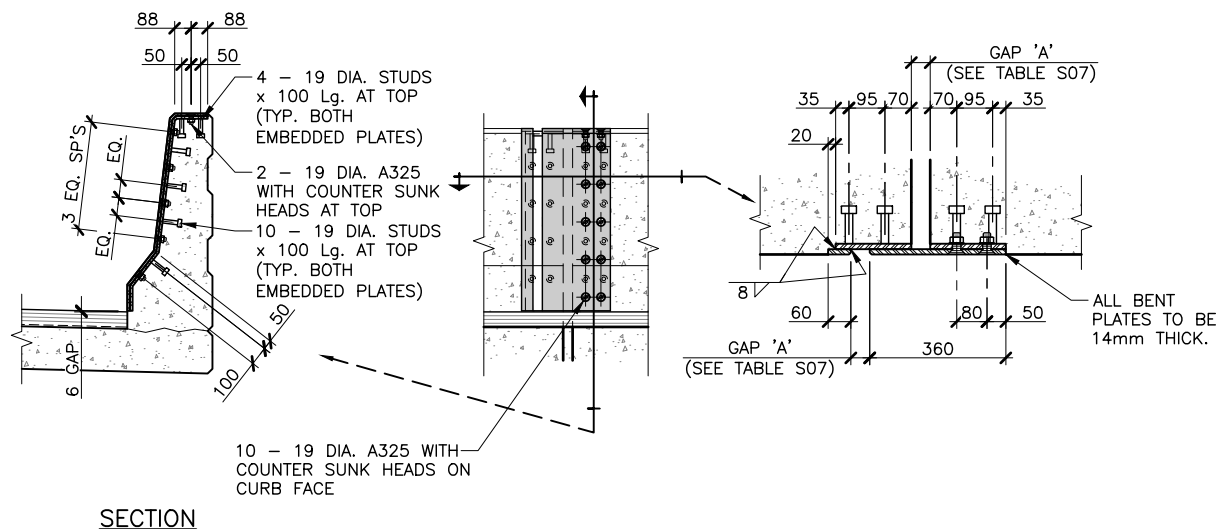
A SECTION—TYPICAL BARRIER PANEL
S20 1:20



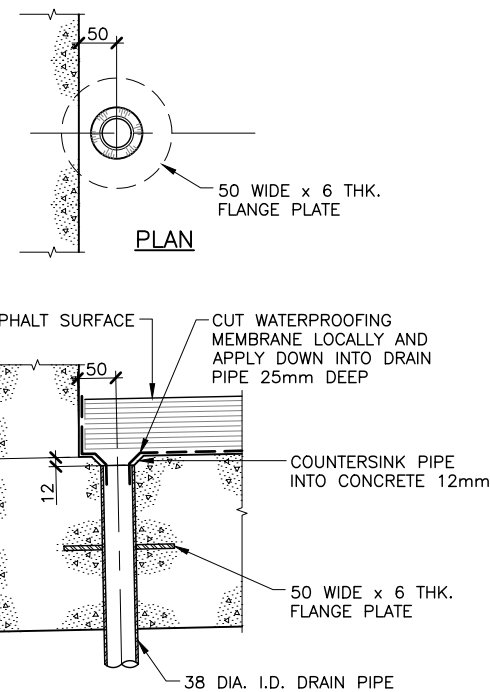
2 DETAIL BARRIER CONTROL JOINTS
S20 1:40



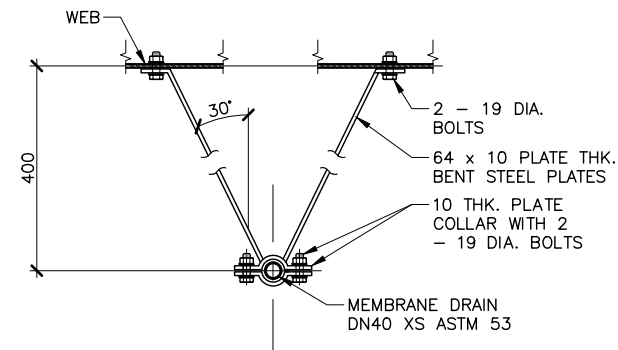
B SECTION MEMBRANE DRAIN
S20 1:40



3 COVER PLATE DETAILS FOR BARRIER AT EAST AND WEST EXPANSION JOINTS
S20 1:40



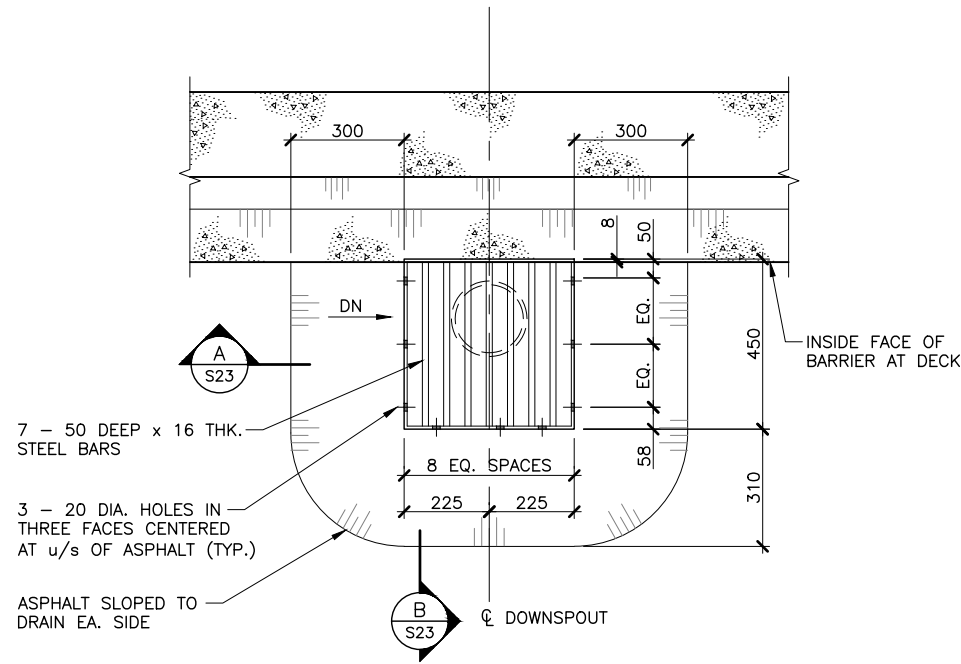
1 DETAIL MEMBRANE DRAIN
S20 1:10



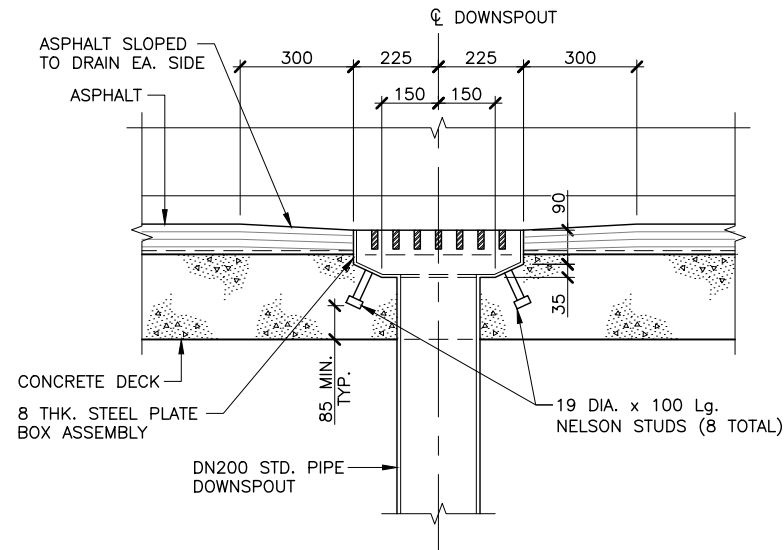
C SECTION MEMBRANE DRAIN PLATE COLLAR
S20 1:20

NOTE:
ALL STEEL TO BE GALVANIZED FOLLOWING FABRICATION. PROVIDE 3mm NEOPRENE GASKETS/WASHERS BETWEEN ALL GALVANIZED HARDWARE AND GIRDER STEEL

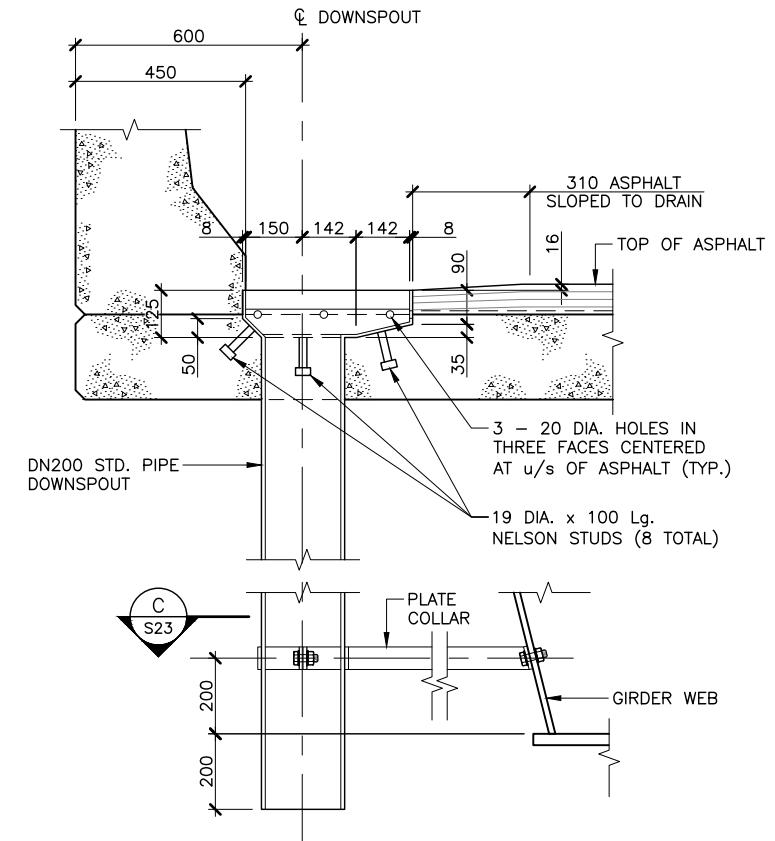
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Colin K. Jim
COLIN K. JIM
No. 1741
DATE: JAN. 26/18
LICENSED PROFESSIONAL ENGINEER PROVINCE OF PRINCE EDWARD ISLAND



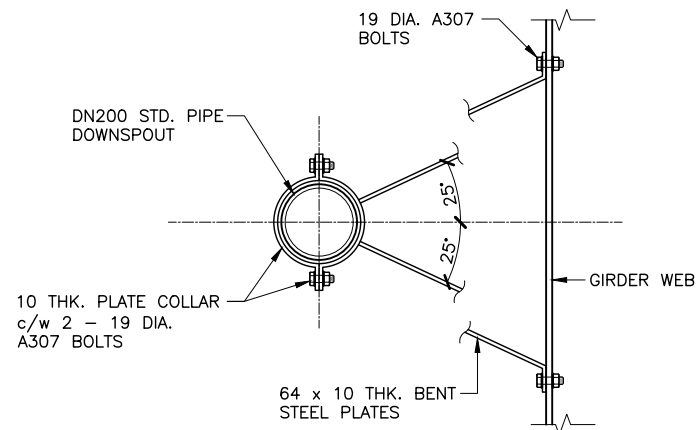
1 DETAIL ROAD DRAIN
S20 1:20



A SECTION ROAD DRAIN
S23 1:20



B SECTION ROAD DRAIN
S23 1:20



NOTE:
ALL STEEL TO BE GALVANIZED FOLLOWING FABRICATION. PROVIDE 3mm NEOPRENE GASKETS/WASHERS BETWEEN ALL GALVANIZED HARDWARE AND GIRDER STEEL

C SECTION ROAD DRAIN
S23 1:20

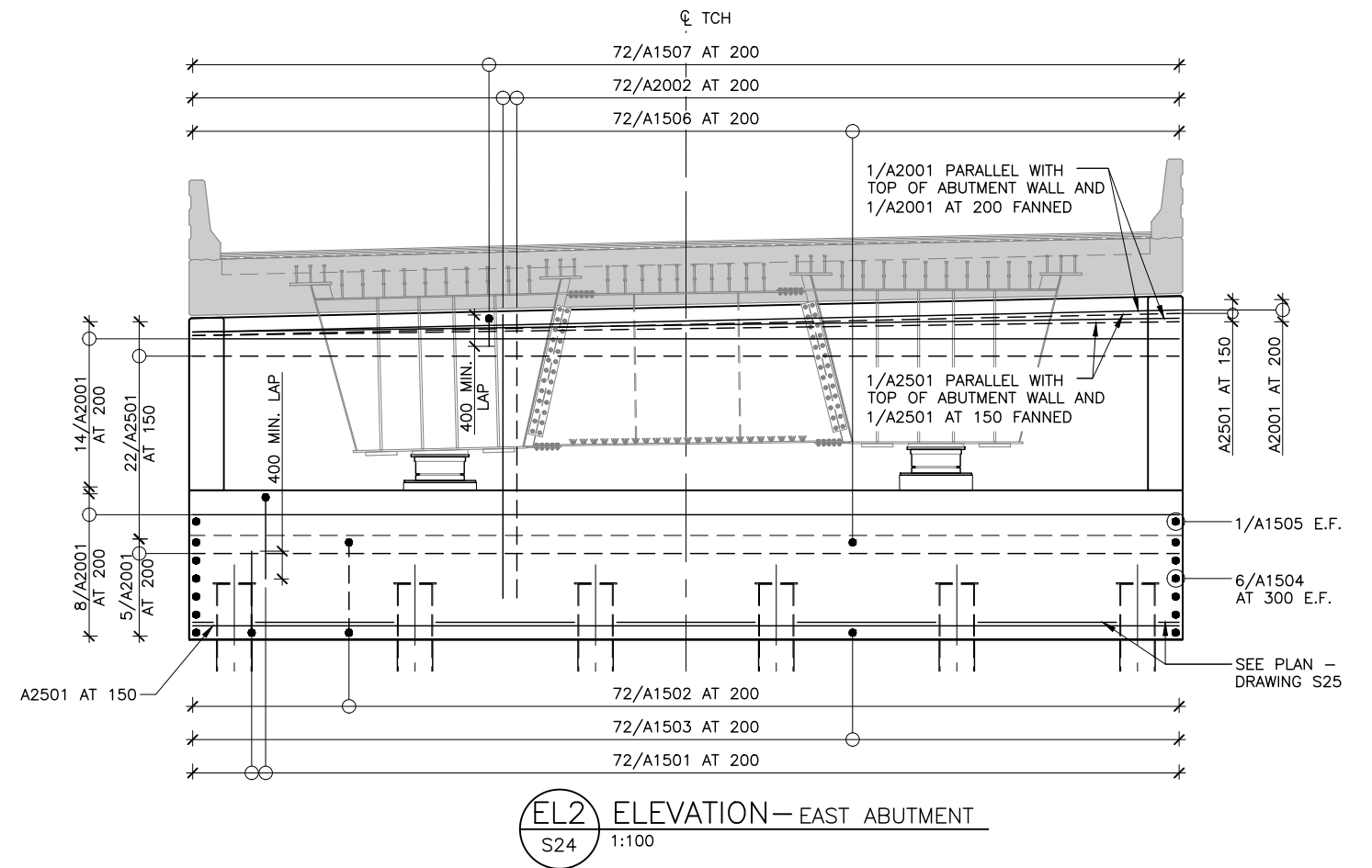
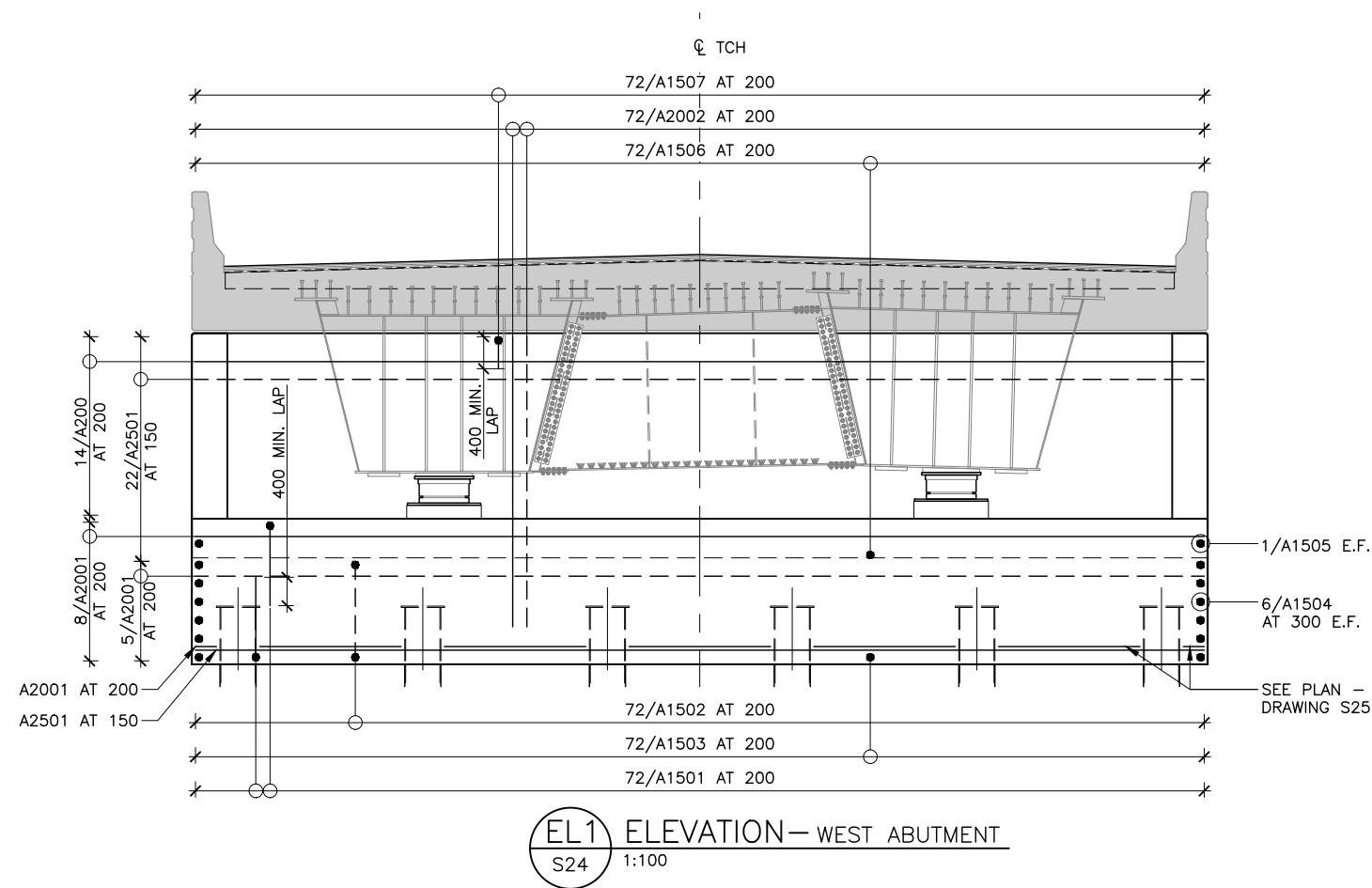
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin Kujim

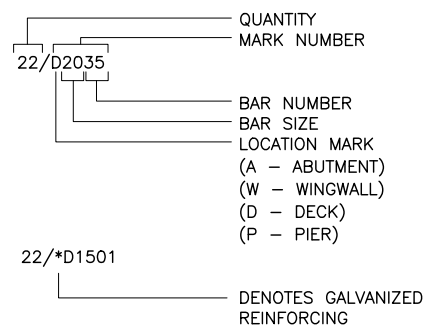
COLIN KUJIM
No. 1741

DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND



REINFORCING LEGEND



- N.F. - NEAR FACE
- F.F. - FAR FACE
- E.F. - EACH FACE
- E.W. - EACH WAY
- I.F. - INSIDE FACE
- O.F. - OUTSIDE FACE
- T.U.L. - TOP UPPER LAYER
- T.L.L. - TOP LOWER LAYER
- B.U.L. - BOTTOM UPPER LAYER
- B.L.L. - BOTTOM LOWER LAYER

DEPT OF TRANSPORTATION, INFRASTRUCTURE, AND ENERGY
Prince Edward Island
 CANADA
 Tel 902 368 5100
 Fax 902 368 5395
 http://www.gov.pe.ca/
 PO Box 2000
 Charlottetown
 Prince Edward Island
 Canada C1A 7N8

NOTES: ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP)
 MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE
 ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V

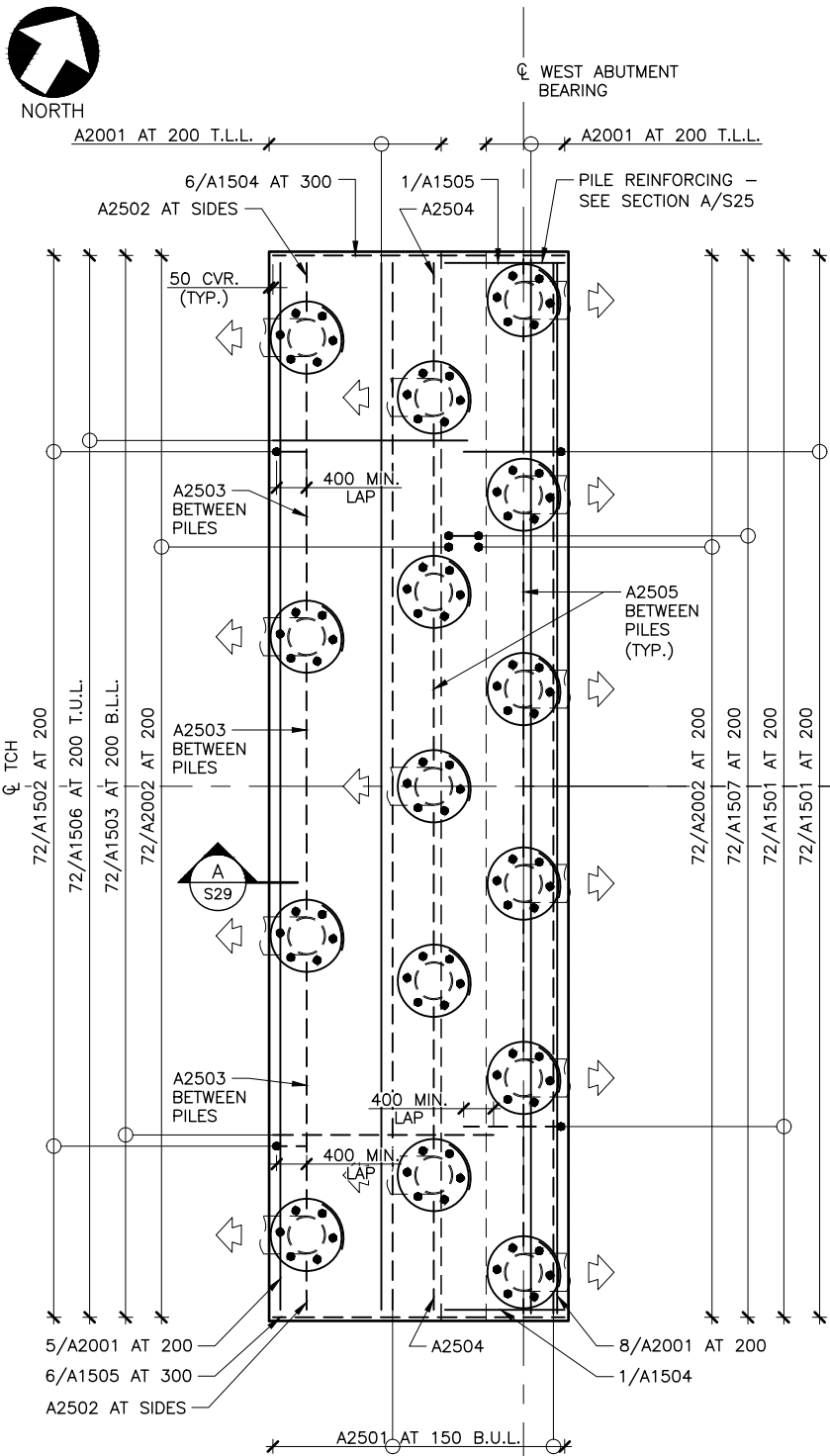
SURVEY BY:	SCALE:	No.	REVISIONS	DATE	COUNTY:	STATIONING:	ABUTMENT REINFORCING	SHEET No.
T. I. E.	AS NOTED	A	ISSUED FOR 70% REVIEW	DEC.08/17	QUEENS			S24 OF
DRAWN BY:	DATE:	B	ISSUED FOR 95% REVIEW	JAN.17/18				
APPROVED BY:	DATE:	0	ISSUED FOR TENDER	JAN.26/18				
PROJECT No.:	FILE No.:							
172623.00								

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

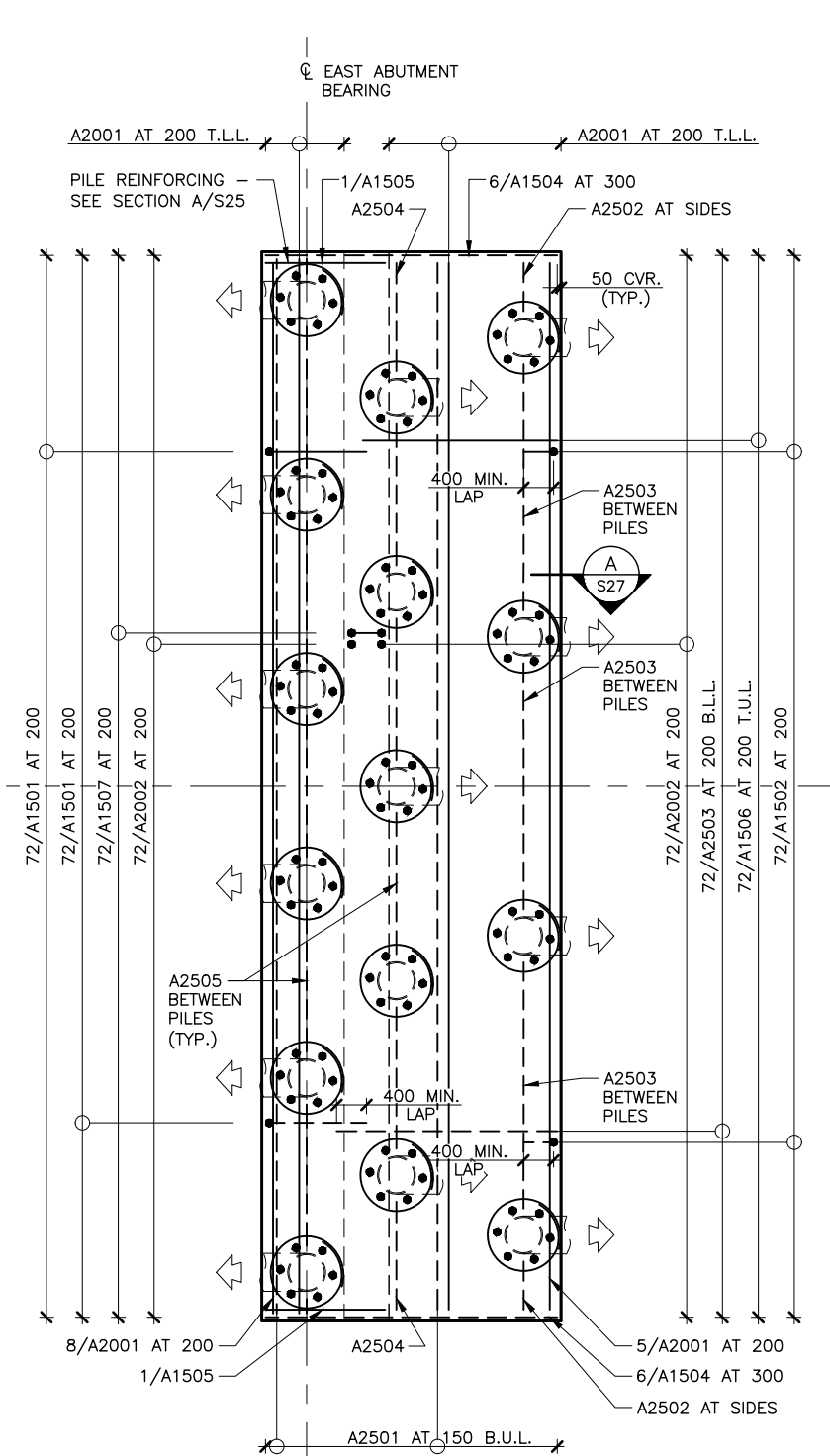
 COLIN K. JIM
 NO. 1741
 DATE: JAN. 26/18
 LICENSED PROFESSIONAL ENGINEER
 PROVINCE OF PRINCE EDWARD ISLAND



NORTH



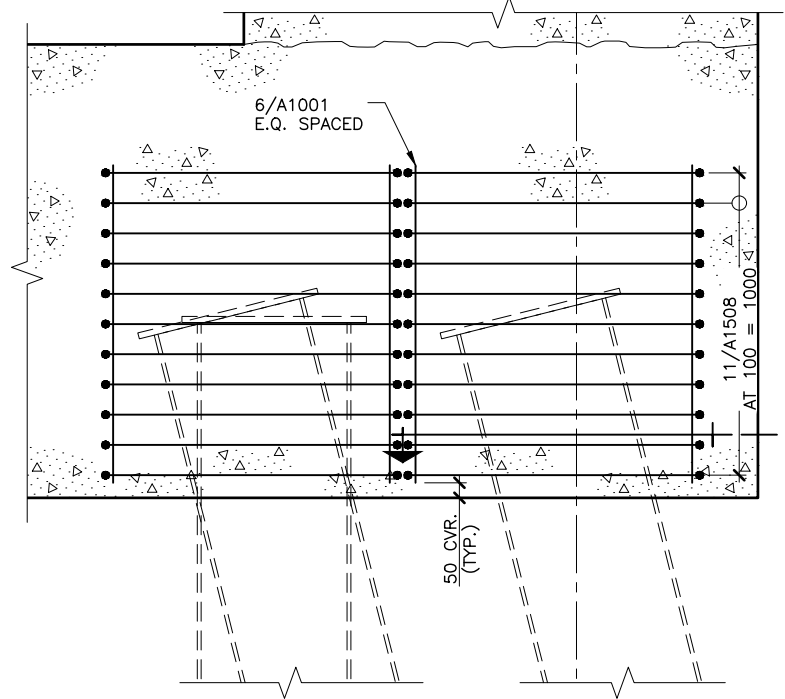
PILE CAP REINFORCING PLAN
1:100 (WEST ABUTMENT)



PILE CAP REINFORCING PLAN
1:100 (EAST ABUTMENT)

REINFORCING LEGEND

- 22/D2035
- 22/*D1501
- QUANTITY
- MARK NUMBER
- BAR NUMBER
- BAR SIZE
- LOCATION MARK
- (A - ABUTMENT)
- (W - WINGWALL)
- (D - DECK)
- (P - PIER)
- DENOTES GALVANIZED REINFORCING
- N.F. - NEAR FACE
- F.F. - FAR FACE
- E.F. - EACH FACE
- E.W. - EACH WAY
- I.F. - INSIDE FACE
- O.F. - OUTSIDE FACE
- T.U.L. - TOP UPPER LAYER
- T.L.L. - TOP LOWER LAYER
- B.U.L. - BOTTOM UPPER LAYER
- B.L.L. - BOTTOM LOWER LAYER



A SECTION - TYPICAL ABUTMENT PILE REINFORCING
S24 1:25

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

COLIN K. JIM
NO. 1741

DATE: JAN. 26/18

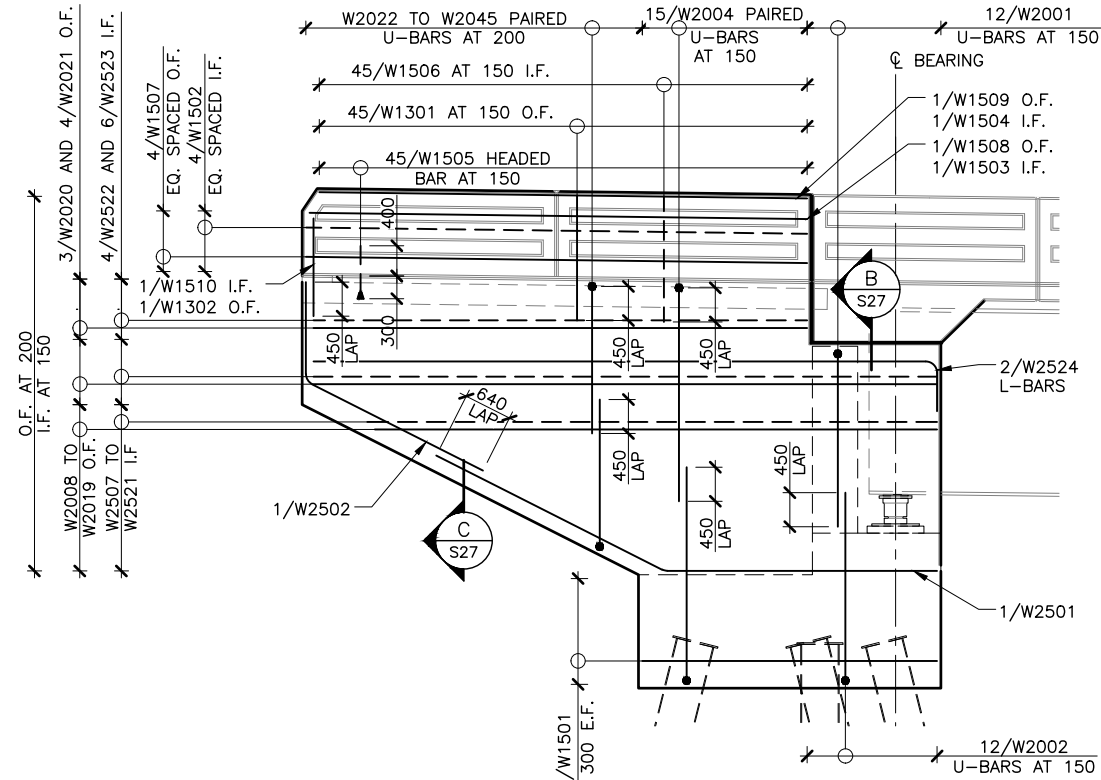
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

THE ASSOCIATION OF
PROFESSIONAL ENGINEERS
OF THE PROVINCE OF
PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2017

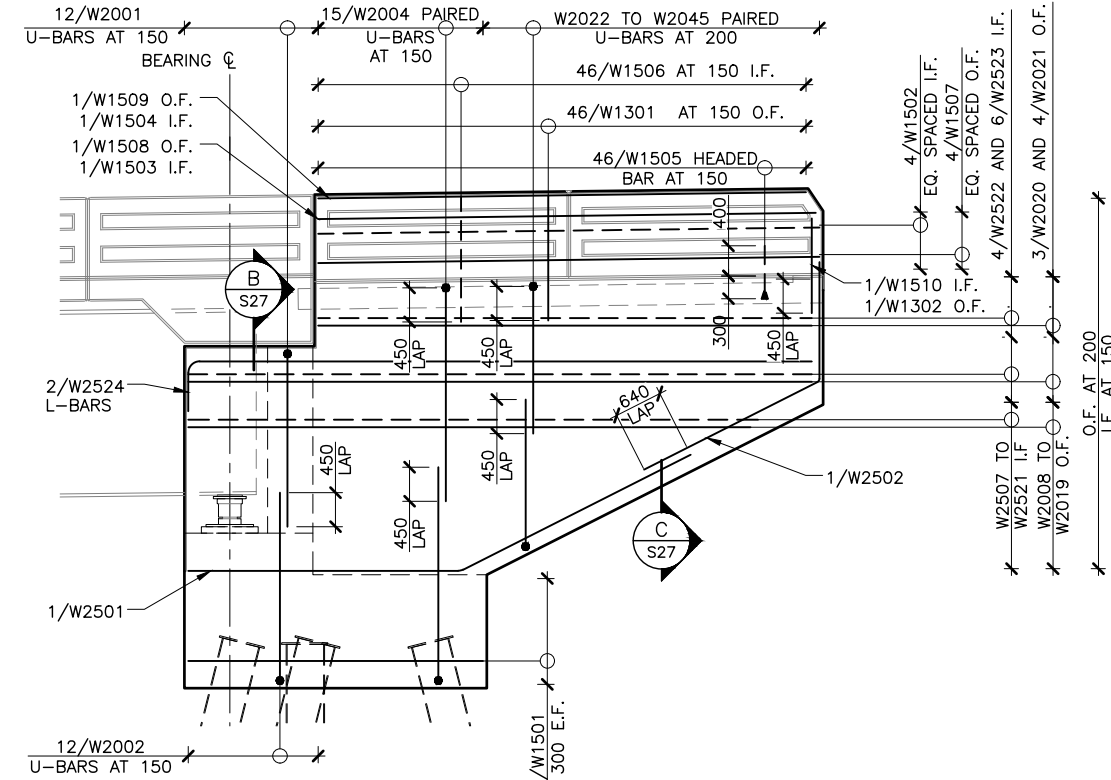
Colin K. Jim
COLIN K. JIM
NO. 1741

DATE: JAN. 26/18

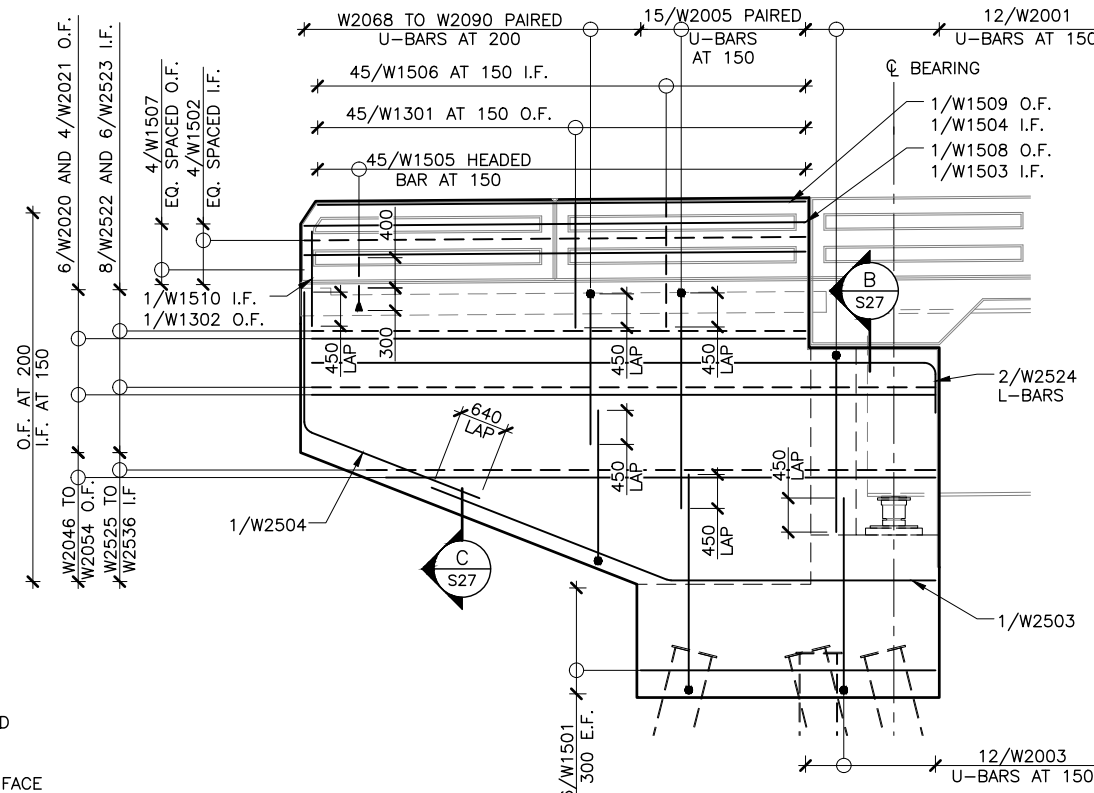
LICENSED
PROFESSIONAL ENGINEER
PROVINCE OF
PRINCE EDWARD ISLAND



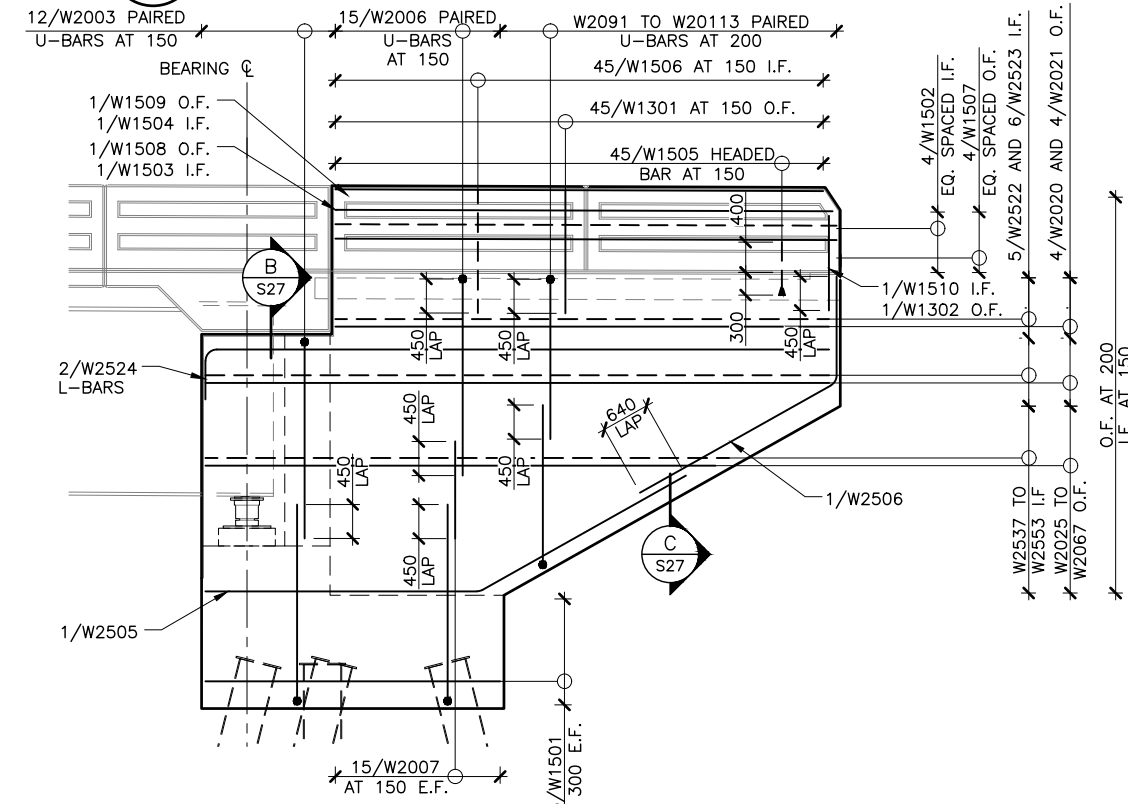
EL1 ELEVATION—SOUTHWEST WINGWALL
S26 1:100



EL2 ELEVATION—NORTHWEST WINGWALL
S26 1:100

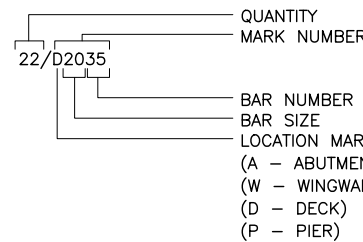


EL3 ELEVATION—NORTHEAST WINGWALL
S26 1:100



EL4 ELEVATION—SOUTHEAST WINGWALL
S26 1:100

REINFORCING LEGEND



QUANTITY
MARK NUMBER

BAR NUMBER
BAR SIZE
LOCATION MARK
(A - ABUTMENT)
(W - WINGWALL)
(D - DECK)
(P - PIER)

DENOTES GALVANIZED
REINFORCING

N.F. - NEAR FACE
F.F. - FAR FACE
E.F. - EACH FACE
E.W. - EACH WAY
I.F. - INSIDE FACE

O.F. - OUTSIDE FACE
T.U.L. - TOP UPPER LAYER
T.L.L. - TOP LOWER LAYER
B.U.L. - BOTTOM UPPER LAYER
B.L.L. - BOTTOM LOWER LAYER

NOTES:

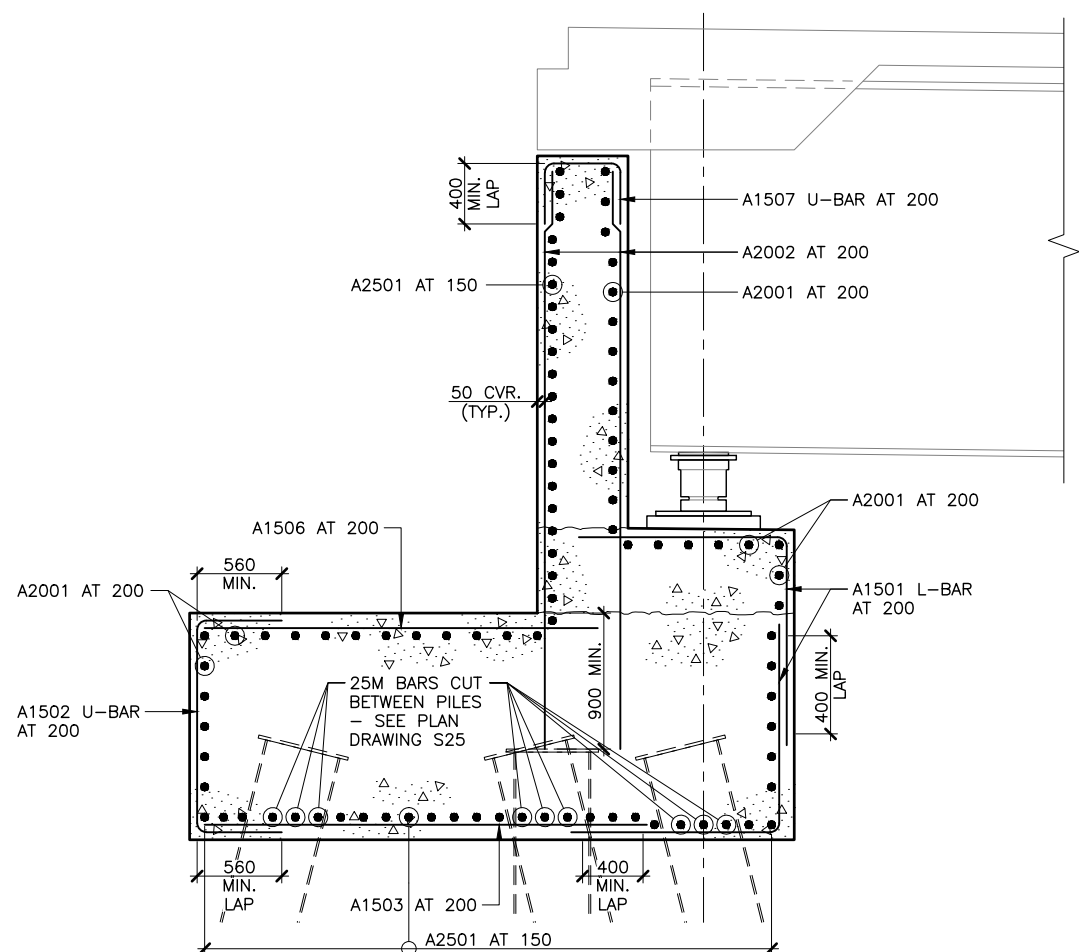
ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP)
MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE
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SURVEY BY: T. I. E. SCALE: AS NOTED
DRAWN BY: J. D. P. DATE: JULY 2017
APPROVED BY: C. K. J. DATE:
PROJECT No.: 172623.00 FILE No.:

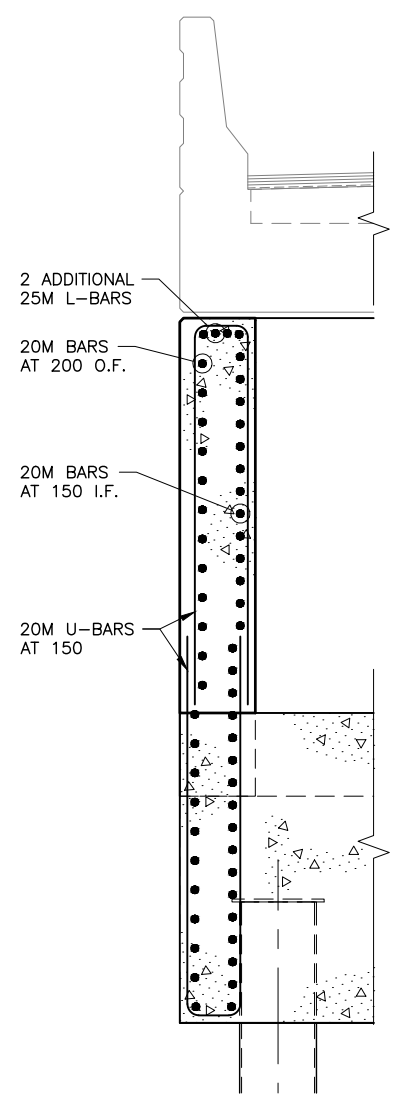
No.	REVISIONS	DATE
A	ISSUED FOR 70% REVIEW	DEC.08/17
B	ISSUED FOR 95% REVIEW	JAN.17/18
0	ISSUED FOR TENDER	JAN.26/18

COUNTY:	QUEENS	CONTROL SECTION:	SECTION
STATIONING:			

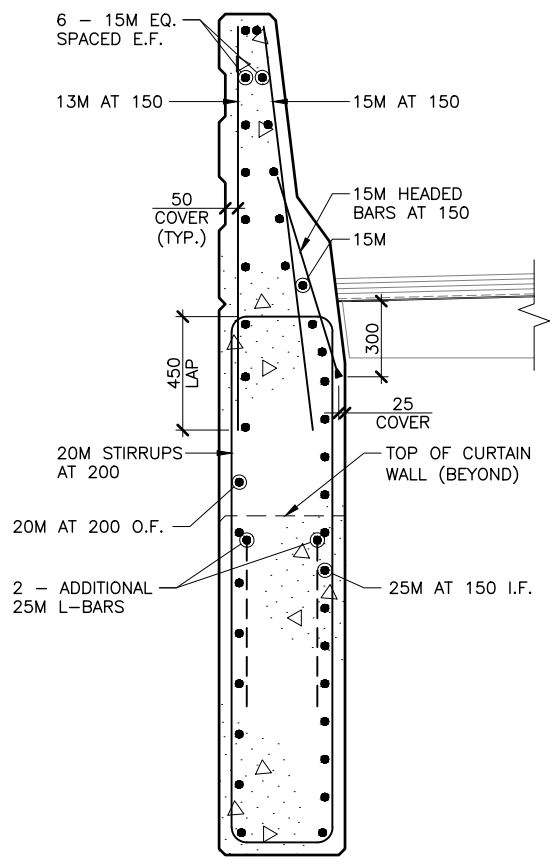
SHEET No.
S26
OF



A SECTION - ABUTMENT PILE REINFORCING
S25 1:50



B SECTION - THROUGH CURTAIN WALL
S26 1:50



C SECTION - THROUGH WINGWALL
S26 1:30

REINFORCING LEGEND

- 22/D2035 — QUANTITY
 - 22/D2035 — MARK NUMBER
 - 22/D2035 — BAR NUMBER
 - 22/D2035 — BAR SIZE
 - 22/D2035 — LOCATION MARK (A - ABUTMENT, W - WINGWALL, D - DECK, P - PIER)
 - 22/*D1501 — DENOTES GALVANIZED REINFORCING
-
- N.F. - NEAR FACE
 - F.F. - FAR FACE
 - E.F. - EACH FACE
 - E.W. - EACH WAY
 - I.F. - INSIDE FACE
 - O.F. - OUTSIDE FACE
 - T.U.L. - TOP UPPER LAYER
 - T.L.L. - TOP LOWER LAYER
 - B.U.L. - BOTTOM UPPER LAYER
 - B.L.L. - BOTTOM LOWER LAYER

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin Kujim

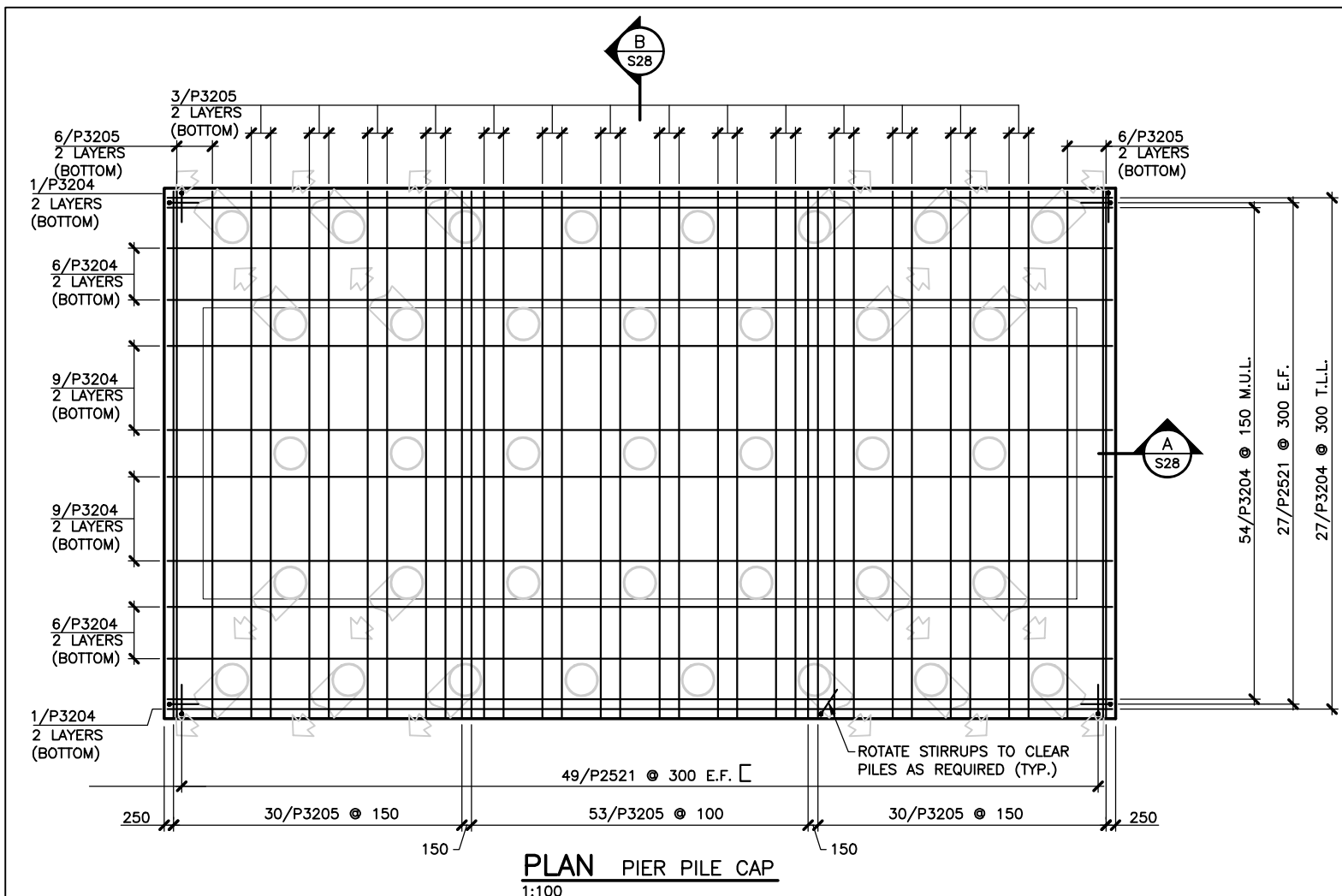
COLIN KUJIM
No. 1741

DATE: JAN. 26/18

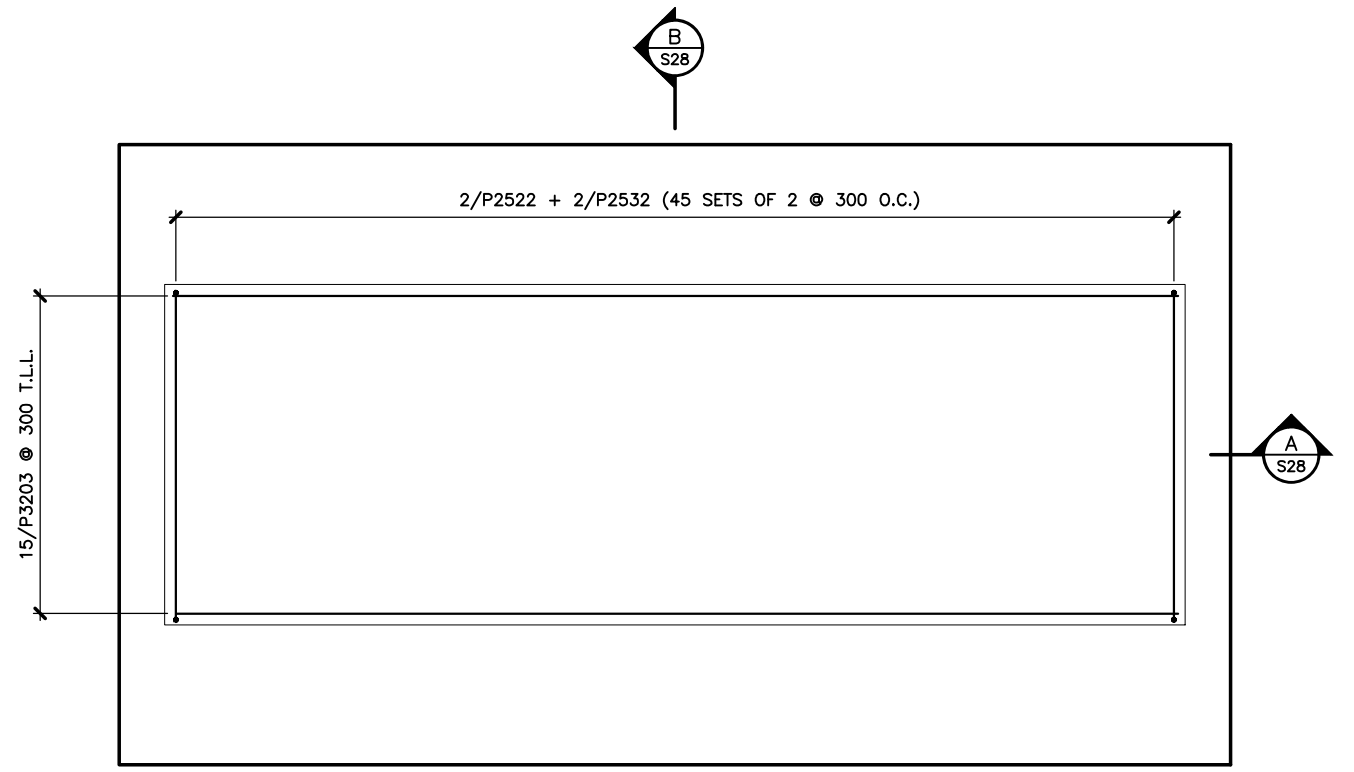
LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

SURVEY BY:	T. I. E.	SCALE:	AS NOTED	No.	REVISIONS	DATE
DRAWN BY:	J. D. P.	DATE:	JULY 2017	A	ISSUED FOR 70% REVIEW	DEC.08/17
APPROVED BY:	C. K. J.	DATE:		B	ISSUED FOR 95% REVIEW	JAN.17/18
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18

COUNTY:	QUEENS	CONTROL SECTION:	SECTION
STATIONING:			



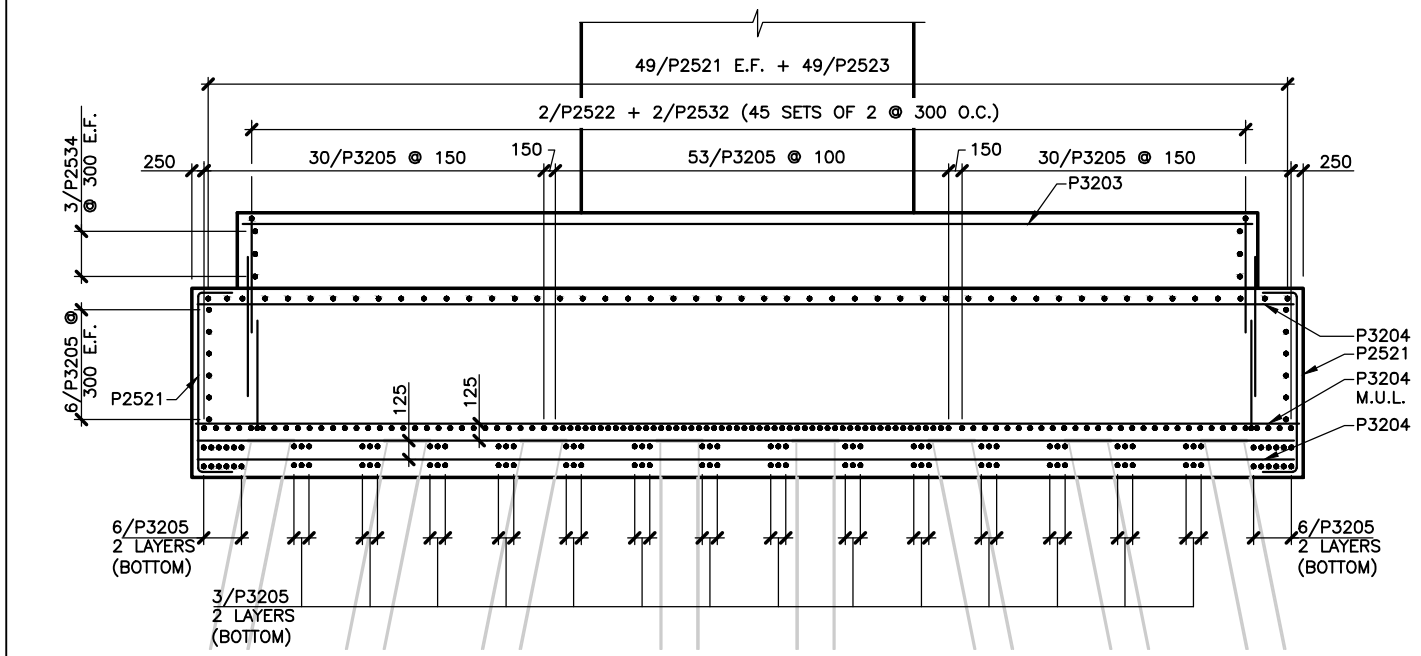
PLAN PIER PILE CAP
1:100



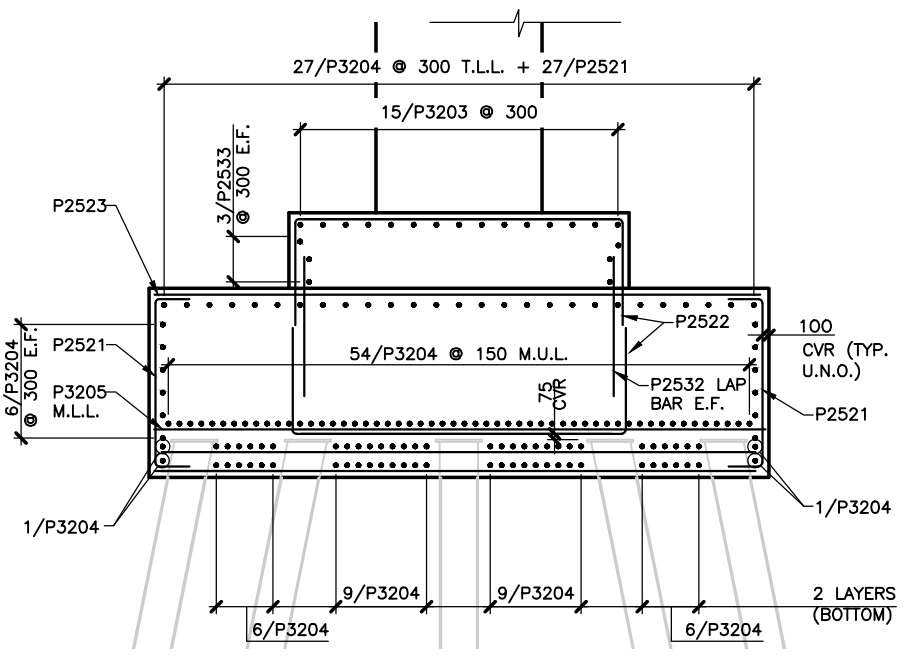
PLAN PIER UPSTAND
1:100

REINFORCING LEGEND

- QUANTITY
 - MARK NUMBER
 - BAR NUMBER
 - BAR SIZE
 - LOCATION MARK
 - (A - ABUTMENT)
 - (D - DECK)
 - (P - PIER)
-
- N.F. - NEAR FACE
 - F.F. - FAR FACE
 - E.F. - EACH FACE
 - E.W. - EACH WAY
 - I.F. - INSIDE FACE
 - O.F. - OUTSIDE FACE
 - T.U.L. - TOP UPPER LAYER
 - T.L.L. - TOP LOWER LAYER
 - B.U.L. - BOTTOM UPPER LAYER
 - B.L.L. - BOTTOM LOWER LAYER
 - M.U.L. - MIDDLE UPPER LAYER
 - M.L.L. - MIDDLE LOWER LAYER



A SECTION
S28 1:100

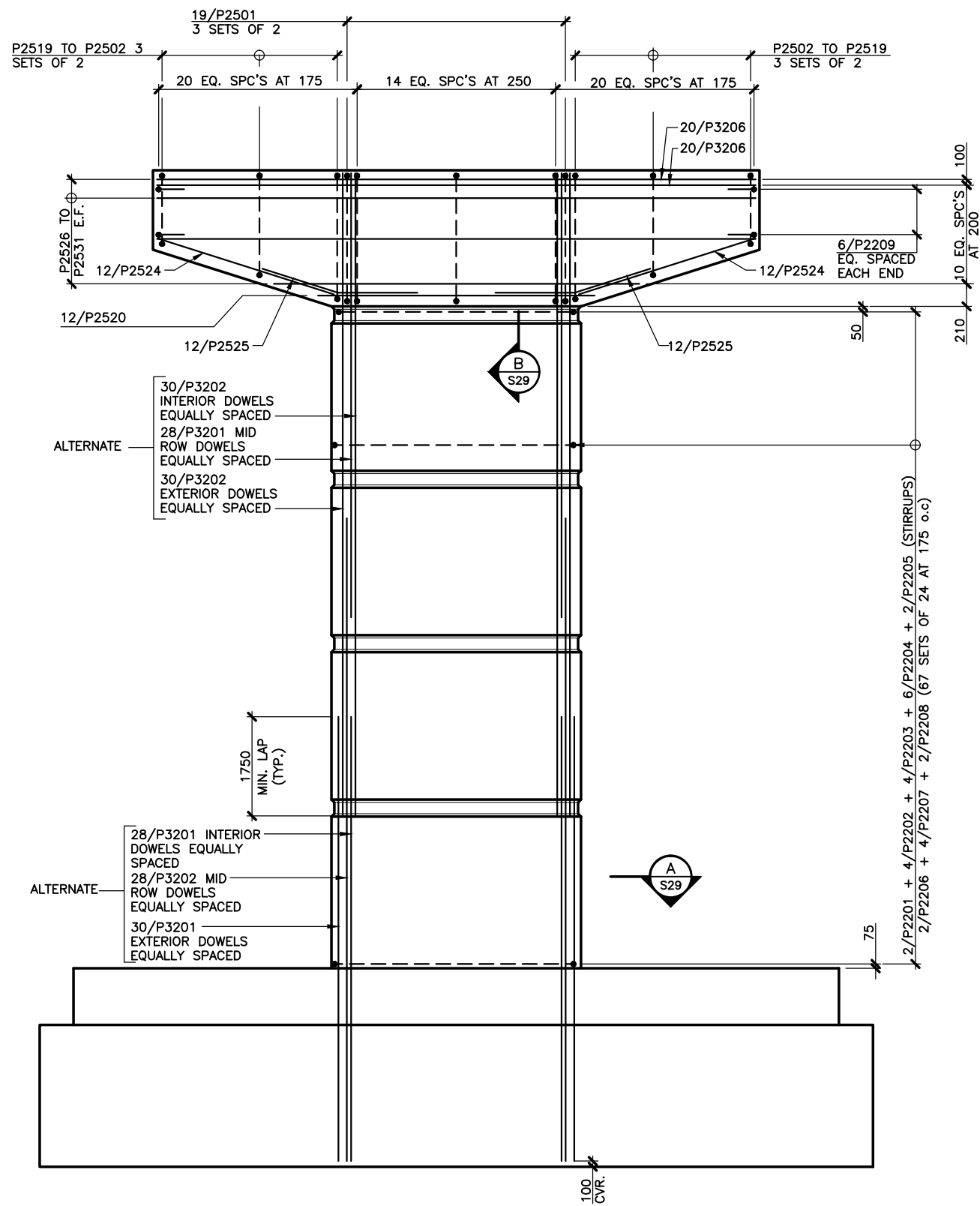


B SECTION
S28 1:100

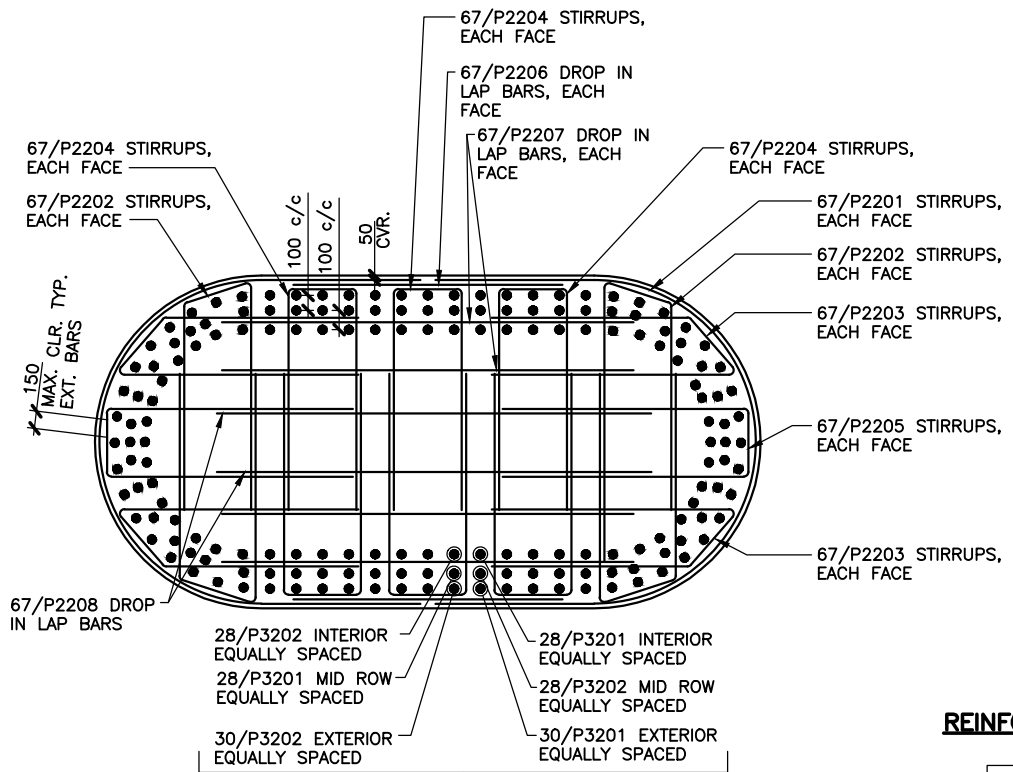
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Jason Young
JAN. 26/18
JASON YOUNG
NO. 1253
LICENCE TO PRACTICE

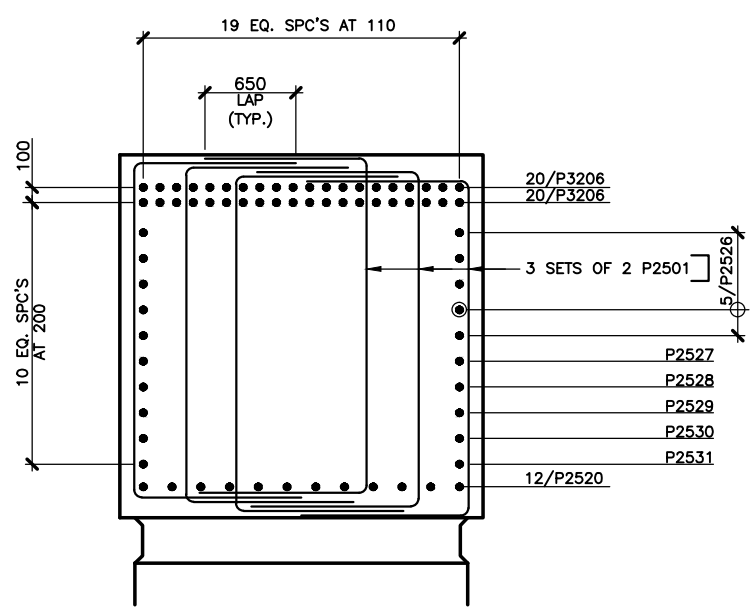
SURVEY BY:	T.I.E.	SCALE:	AS NOTED	No.	REVISIONS	DATE		PIER REINFORCING - SHEET No. 1	SHEET No.
DRAWN BY:	S.C.M.	DATE:	JULY 2017	B	ISSUED FOR 70% REVIEW	DEC.08/17			S28 of
APPROVED BY:	J.L.Y.	DATE:		C	ISSUED FOR 95% REVIEW	JAN.17/18	COUNTY:	QUEENS CONTROL SECTION: SECTION	
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18	STATIONING:		



FRONT ELEVATION (LOOKING WEST)
1:100

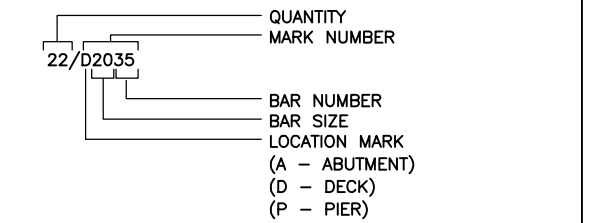


A SECTION
S29 1:50



B SECTION
S29 1:50

REINFORCING LEGEND



- N.F. - NEAR FACE
- F.F. - FAR FACE
- E.F. - EACH FACE
- E.W. - EACH WAY
- I.F. - INSIDE FACE
- O.F. - OUTSIDE FACE
- T.U.L. - TOP UPPER LAYER
- T.L.L. - TOP LOWER LAYER
- B.U.L. - BOTTOM UPPER LAYER
- B.L.L. - BOTTOM LOWER LAYER

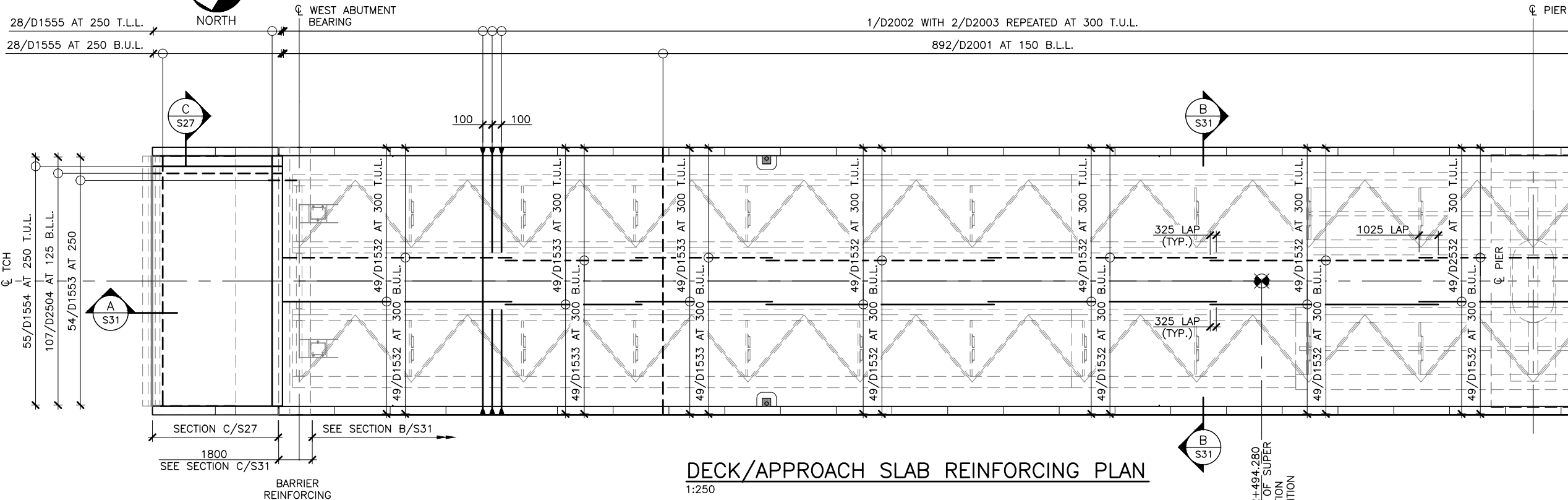
THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Jason Young
JAN. 26/18

JASON YOUNG
NO. 1253

LICENCE TO PRACTICE

SURVEY BY:	T.I.E.	SCALE:	AS NOTED	No.	REVISIONS	DATE		PIER REINFORCING - SHEET No. 2	SHEET No.
DRAWN BY:	S.C.M.	DATE:	JULY 2017	B	ISSUED FOR 70% REVIEW	DEC.08/17			S29 of
APPROVED BY:	J.L.Y.	DATE:		C	ISSUED FOR 95% REVIEW	JAN.17/18	COUNTY:	QUEENS CONTROL SECTION: SECTION	
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18	STATIONING:		



THE ASSOCIATION OF
PROFESSIONAL ENGINEERS
OF THE PROVINCE OF
PRINCE EDWARD ISLAND
VALID FOR THE YEAR 2017

Colin Kujim
COLIN KUJIM
NO. 1741

DATE: JAN. 26/18

LICENSED
PROFESSIONAL ENGINEER
PROVINCE OF
PRINCE EDWARD ISLAND

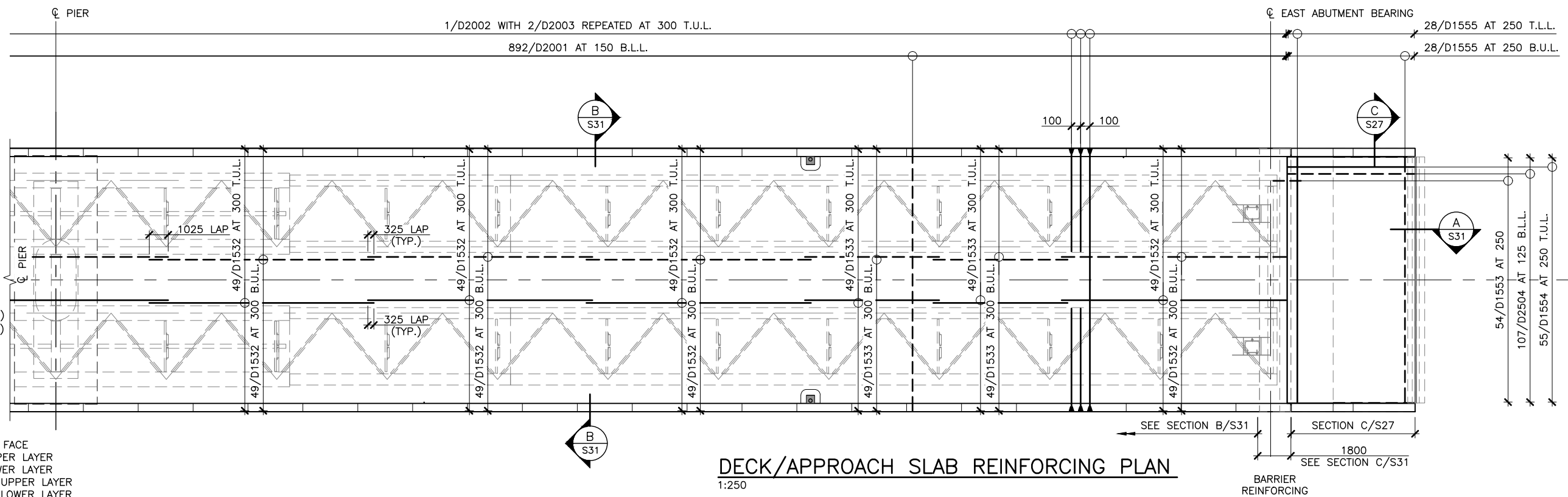
DECK/APPROACH SLAB REINFORCING PLAN
1:250

STA. 2+494.280
START OF SUPER
ELEVATION
TRANSITION

REINFORCING LEGEND

- QUANTITY MARK NUMBER
- BAR NUMBER
- BAR SIZE
- LOCATION MARK (A - ABUTMENT) (W - WINGWALL) (D - DECK) (P - PIER)
- DENOTES GALVANIZED REINFORCING

- N.F. - NEAR FACE
- F.F. - FAR FACE
- E.F. - EACH FACE
- E.W. - EACH WAY
- I.F. - INSIDE FACE
- O.F. - OUTSIDE FACE
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- B.U.L. - BOTTOM UPPER LAYER
- B.L.L. - BOTTOM LOWER LAYER

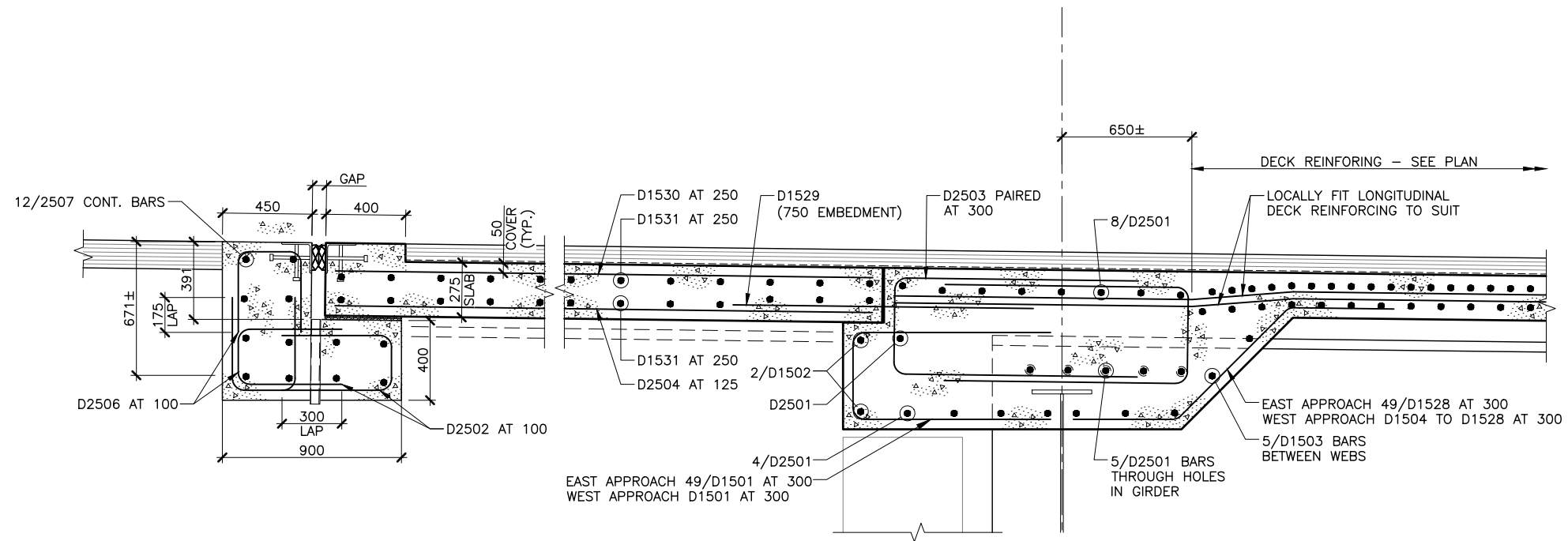


DECK/APPROACH SLAB REINFORCING PLAN
1:250

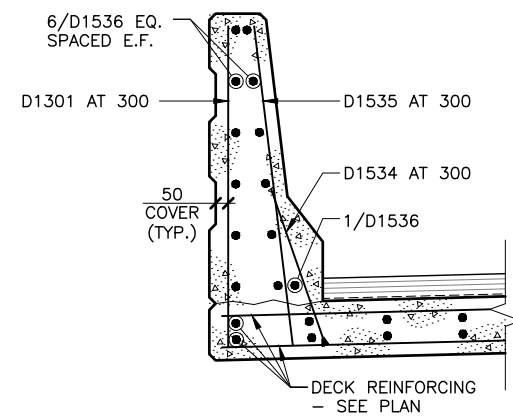
NOTES: ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH TIE'S STANDARD SPECIFICATIONS AND ENVIRONMENTAL PROTECTION PLAN (EPP) MAINTAIN ENVIRONMENTAL CONTROLS UNTIL VEGETATION HAS ESTABLISHED OR AS INSTRUCTED ON SITE ALL DRIVEWAY CULVERTS AND SIDE SLOPES SHALL BE MIN. 3H:1V

SURVEY BY:	T. I. E.	SCALE:	AS NOTED	No.	REVISIONS	DATE
DRAWN BY:	J. D. P.	DATE:	JULY 2017	A	ISSUED FOR 70% REVIEW	DEC.08/17
APPROVED BY:	C. K. J.	DATE:		B	ISSUED FOR 95% REVIEW	JAN.17/18
PROJECT No.:	172623.00	FILE No.:		0	ISSUED FOR TENDER	JAN.26/18

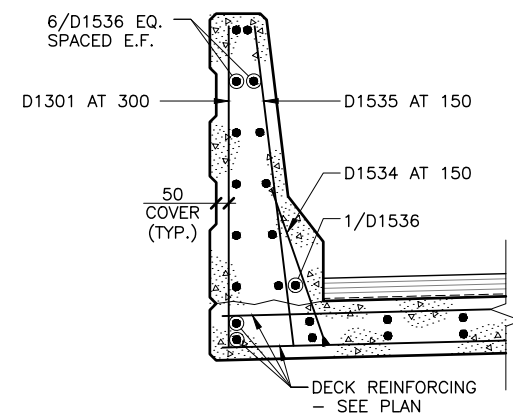
DECK AND APPROACH SLAB REINFORCING PLAN	SHEET No.
COUNTY: QUEENS CONTROL SECTION: SECTION	S30



A SECTION—APPROACH SLAB REINFORCING
S30 1:30



B SECTION—TYPICAL BARRIER REINFORCING
S30 1:30



C SECTION—BARRIER REINFORCING AT END PANEL
S30 1:30

REINFORCING LEGEND

- 22/D2035
- 22/*D1501
- QUANTITY
- MARK NUMBER
- BAR NUMBER
- BAR SIZE
- LOCATION MARK
(A - ABUTMENT)
(W - WINGWALL)
(D - DECK)
(P - PIER)
- DENOTES GALVANIZED REINFORCING

- N.F. - NEAR FACE
- F.F. - FAR FACE
- E.F. - EACH FACE
- E.W. - EACH WAY
- I.F. - INSIDE FACE
- O.F. - OUTSIDE FACE
- T.U.L. - TOP UPPER LAYER
- T.L.L. - TOP LOWER LAYER
- B.U.L. - BOTTOM UPPER LAYER
- B.L.L. - BOTTOM LOWER LAYER

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Colin K. Jim

COLIN K. JIM
No. 1741

DATE: JAN. 26/18

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND

SURVEY BY:	SCALE:	No.	REVISIONS	DATE	STATIONING:	DECK REINFORCING SECTIONS AND DETAILS	SHEET No.
T. I. E.	AS NOTED	A	ISSUED FOR 70% REVIEW	DEC.08/17		QUEENS COUNTY: CONTROL SECTION: SECTION	S31 OF
DRAWN BY:	DATE:	B	ISSUED FOR 95% REVIEW	JAN.17/18			
APPROVED BY:	DATE:	0	ISSUED FOR TENDER	JAN.26/18			
PROJECT No.:	FILE No.:						
172623.00							

CLYDE RIVER BRIDGE – PIER GFRP BARS

REF. DWG. SHEET S28 & S29

MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	LENGTH	QTY.
P2201	10	1100	3142	1100								2000	978	5342	134
P2202	T7			1445	540	1310					133			3295	268
P2203	T7			1500	495	1210					294			3205	268
P2204	17		1450	570	1450									3470	402
P2205	17		1500	600	1500									3600	134
P2206	ST													1770	134
P2207	ST													2720	268
P2208	ST													2970	134
P2209	17	450	2245	450										3145	12

CLYDE RIVER BRIDGE – PIER GFRP BARS

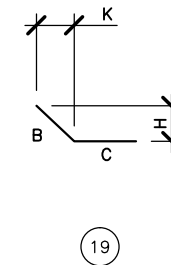
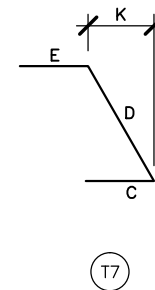
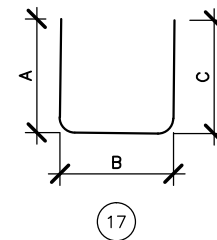
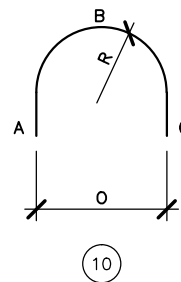
REF. DWG. SHEET S28 & S29

MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	LENGTH	QTY.
P3201	ST													7840	172
P3202	ST													11340	172
P3203	ST													13300	15
P3204	ST													14500	157
P3205	ST													8000	233
P3206	ST													10600	40

CLYDE RIVER BRIDGE – PIER GFRP BARS

REF. DWG. SHEET S28 & S29

MARK	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	LENGTH	QTY.
P2501	17		1115	2300	1115									4530	114
P2502	17		1115	2260	1115									4490	12
P2503	17		1115	2205	1115									4435	12
P2504	17		1115	2150	1115									4380	12
P2505	17		1115	2095	1115									4325	12
P2506	17		1115	2040	1115									4270	12
P2507	17		1115	1985	1115									4215	12
P2508	17		1115	1925	1115									4155	12
P2509	17		1115	1870	1115									4100	12
P2510	17		1115	1815	1115									4045	12
P2511	17		1115	1760	1115									3990	12
P2512	17		1115	1705	1115									3935	12
P2513	17		1115	1650	1115									3880	12
P2514	17		1115	1595	1115									3825	12
P2515	17		1115	1540	1115									3770	12
P2516	17		1115	1485	1115									3715	12
P2517	17		1115	1425	1115									3655	12
P2518	17		1115	1370	1115									3600	12
P2519	17		1115	1315	1115									3545	12
P2520	STR													4540	12
P2521	17		450	2300	450									3200	152
P2522	17		1500	4300	1500									7300	90
P2523	ST													8000	49
P2524	ST													3265	24
P2525	19		1400	1400					425		1335			2800	24
P2526	ST													10600	10
P2527	ST													10350	2
P2528	ST													9090	2
P2529	ST													7830	2
P2530	ST													6570	2
P2531	ST													5310	2
P2532	ST													1840	90
P2533	ST													13300	6
P2534	ST													4300	6



THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2017

Jason Young
JAN. 26/18

JASON YOUNG
NO. 1253

LICENCE TO PRACTICE