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Canada

Architectural and  
Engineering Services

Ontario Region

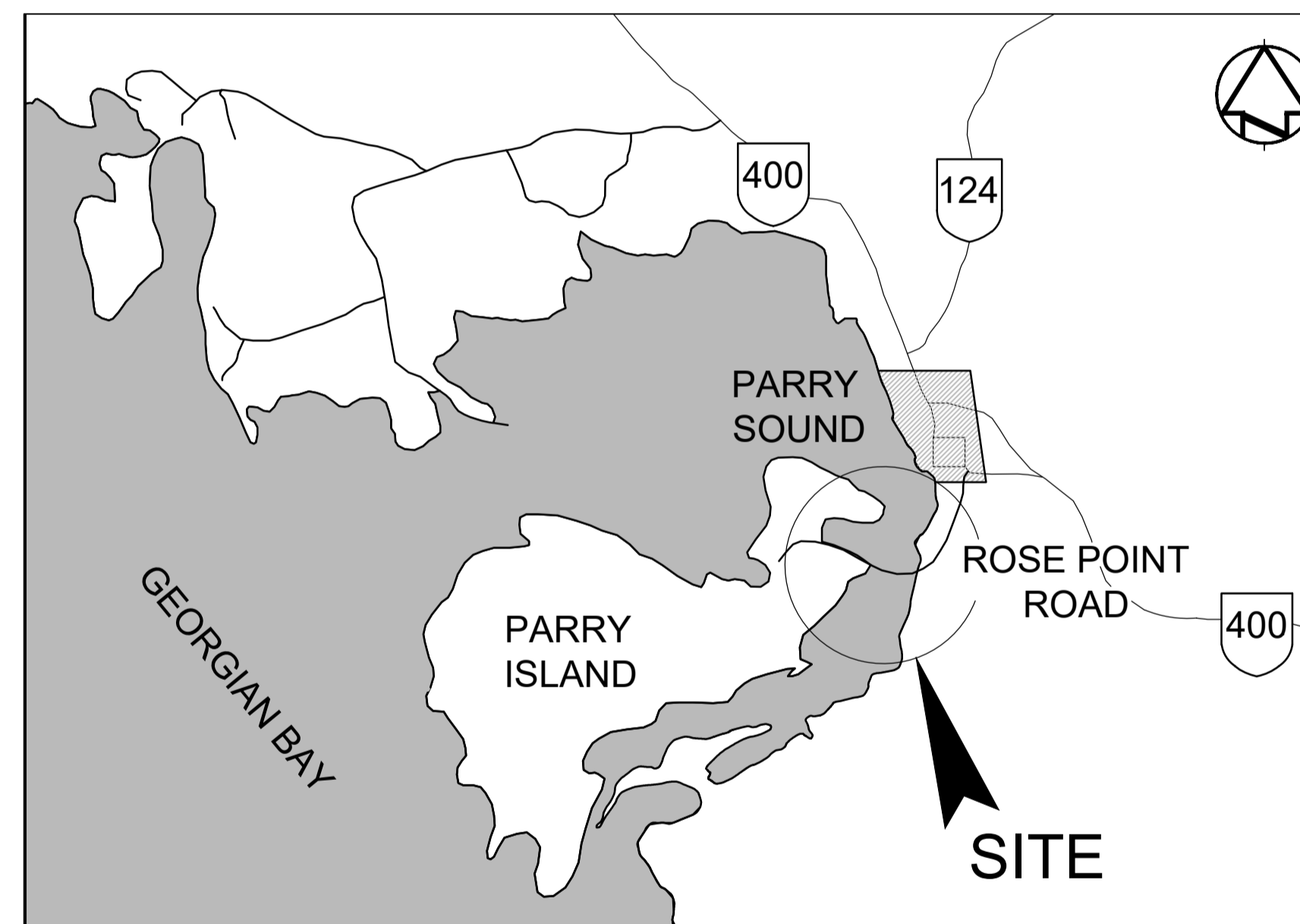
Travaux publics  
Services gouvernementaux  
Canada

Services d'architecture  
et de génie

Région de l'Ontario

# 146 ROSE POINT ROAD, SEGUIN, ON.

## WASAUKSING SWING BRIDGE HISTORIC SITE OF CANADA



SITE PLAN

# PIER AND FENDER REHABILITATION WASAUKSING SWING BRIDGE

PWGSC Proj. No.: R.089868.004

Canada

### LIST OF DRAWINGS

#### BRIDGE

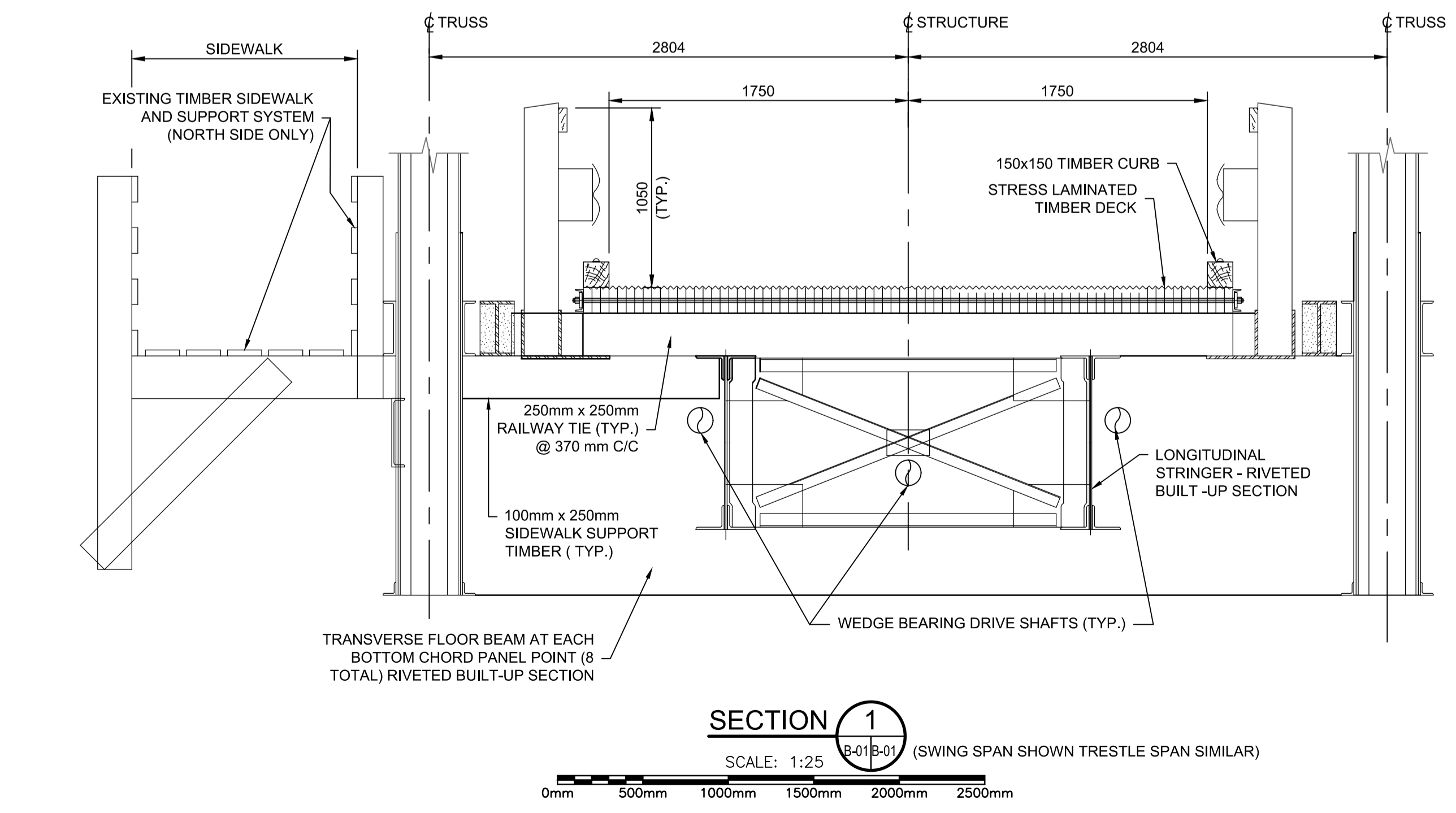
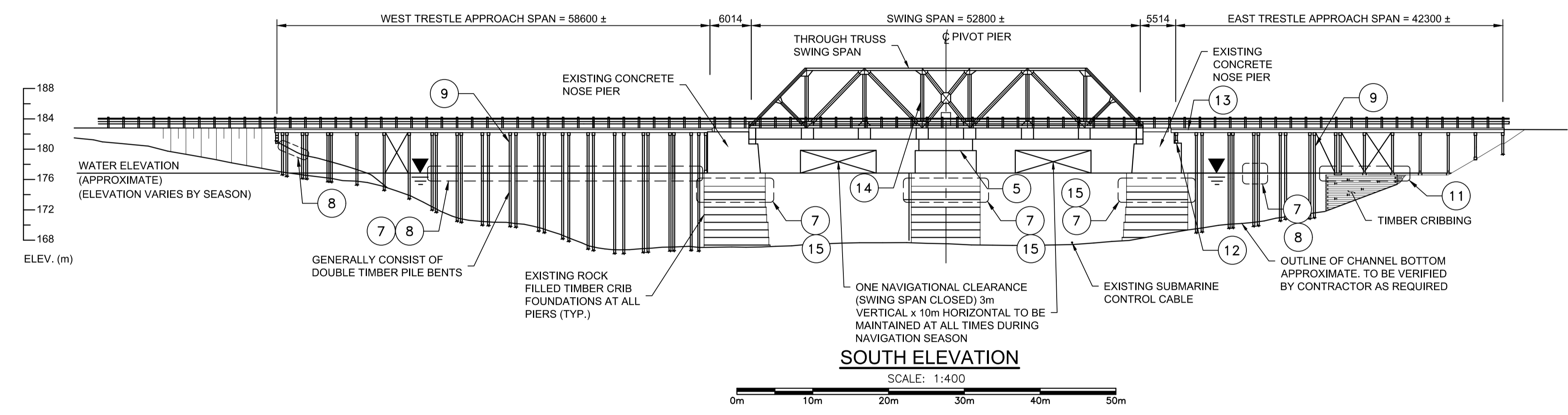
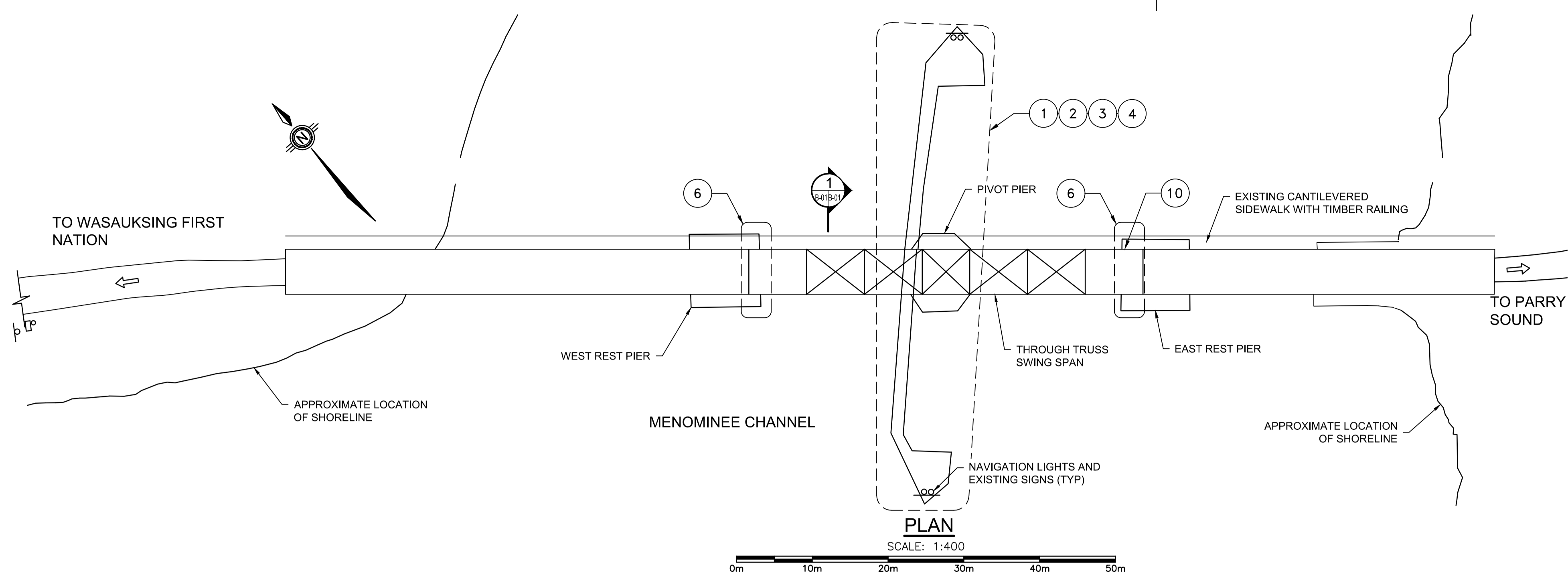
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- B-02 SITE PLAN
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# PARSONS

ISSUED FOR  
TENDER



**GENERAL NOTES**

- DIMENSIONS SHOWN ARE IN MILLIMETRES AND ELEVATIONS IN METRES UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS OF EXISTING ELEMENTS SHOWN SHALL BE CONSIDERED APPROXIMATE.
- DESIGN**
- DESIGNED TO CSA S6-19 CANADIAN HIGHWAY BRIDGE DESIGN CODE (CHBDC).
- THE WASAUKSING SWING BRIDGE IS POSTED WITH A MAXIMUM 10 TONNE PER AXLE LIMITED AND A POSTED SPEED LIMIT OF 10KM/H.

**TIMBER**

- ALL TIMBER USED FOR FENDERS SYSTEM, TIMBER CRIBBING AND TIMBER TRESTLE TO BE SPF SS. ALL TIMBER SIZES SHOWN ARE NOMINAL.
- ALL WOOD TO BE PRESSURE-TREATED WITH PRESERVATIVE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CSA STANDARD 080 SERIES-15 INCLUDING CUT ENDS OF TIMBER.

**STEEL**

- STEEL TO BE CAN/CSA G40.20/G40.21 300W.
- STEEL FOR DRIFT PINS TO HAVE A YIELD STRENGTH OF 280 MPa IN ACCORDANCE WITH CAN/CSA G40.21.
- DRIFT PIN CONNECTING MEMBERS TO HAVE A MINIMUM EMBEDMENT OF 150 mm INTO THE LOWER MEMBER.
- HOLES FOR DRIFT PINS TO BE PRE-BORED NOT LESS THAN 0.8 mm NOR MORE THAN 1.0 mm SMALLER THAN THE DRIFT PIN DIAMETER.

**CONCRETE**

- CONCRETE MATERIALS AND METHODS OF CONSTRUCTION TO CSA-A23.1 AND METHODS OF TEST FOR CONCRETE TO CSA-A23.1-14/A23.2-14.
- SHRINKAGE REDUCING ADMIXTURE TO PRODUCE LOW SHRINKAGE CONCRETE IN COMPLIANCE WITH CSA-A23.1-14/A23.2-14.
- CONCRETE SURFACES TO RECEIVE NEW CONCRETE TO BE CLEANED AND ROUGHENED TO A MINIMUM 5 mm AMPLITUDE IN ACCORDANCE WITH CSA-A23.1-14/A23.2-14 CLAUSE 7.2.2.

**CLEAR COVER TO REINFORCING STEEL**  
70±20 UNLESS OTHERWISE NOTED

**REINFORCING STEEL**

- REINFORCING STEEL SHALL BE GRADE 400W.
- UNLESS SHOWN OTHERWISE, TENSION LAP SPLICES FOR REINFORCING STEEL BARS SHALL BE CLASS 'B'.
- BAR MARKS WITH PREFIX 'G' DENOTE HOT-DIPPED GALVANIZED BARS, BEND BARS BEFORE GALVANIZING.
- BAR HOOKS SHALL HAVE STANDARD HOOK DIMENSIONS USING MINIMUM BEND DIAMETERS, WHILE STIRRUPS AND TIES SHALL HAVE MINIMUM HOOK DIMENSIONS. ALL HOOKS SHALL BE IN ACCORDANCE WITH THE STRUCTURAL STANDARD S512-1 UNLESS INDICATED OTHERWISE.
- DOWELS SHALL BE GROUTED WITH APPROVED EPOXY ADHESIVE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS OR APPROVED EPOXY BASED ALTERNATIVE DOWELS SHALL HAVE MINIMUM EMBEDMENT AS FOLLOWS UNLESS NOTED OTHERWISE.

BAR	MIN. EMBEDMENT LENGTH (mm)
15M / G15M	300

**WORK DESCRIPTION**

THE FOLLOWING SCOPE OF WORK IS NOT INTENDED TO BE A COMPREHENSIVE LIST OF ALL ITEMS REQUIRED TO COMPLETE THE REHABILITATION WORK, NOR IS IT INTENDED TO BE A SEQUENCE OF WORK.

- INSTALL TEMPORARY BUOYS FOR THE PARTIAL CLOSURE OF THE NAVIGATION CHANNEL
- REMOVE AND SALVAGE ROCK BALLAST FROM FENDER SYSTEM
- REMOVE EXISTING FENDER SYSTEM, CUT PILES, AND RECONSTRUCT FENDER SYSTEM
- PLACE SALVAGED AND NEW ROCK BALLAST INTO RECONSTRUCTED FENDER SYSTEM
- PERFORM STEEL REPAIRS IN THE DRUM GIRDER ON THE PIVOT PIER.
- PERFORM CONCRETE REPAIRS ON THE NOSING PIERS, INCLUDING REPLACING JOINT ARMOURING.
- INSTALLATION OF TURBIDITY CURTAIN TO ISOLATE BENTS REQUIRING PILE JACKETS AND PIERS.
- INSTALLATION OF PILE JACKETS ON DETERIORATED PILES ON THE WEST AND EAST TRESTLE.
- REPAIR TIMBER TRESTLES INCLUDING SHIMMING, REPLACING TIMBER BRACES AND REPLACING TIMBER BRACE HARDWARE.
- INSTALLATION OF HAUL BLOCK ON NORTH END OF EAST NOSING PIER.
- REPAIR TIMBER CRIBBING BENEATH BENTS 5-7 ON EAST TRESTLE.
- REPLACE BENT 12 ON THE EAST TRESTLE.
- INSTALLATION OF ADDITIONAL STRINGER BETWEEN BENT 11 AND 12 ON THE EAST TRESTLE.
- REPLACE LADDER ON TRUSS.
- PERFORM REPAIRS TO TIMBER CRIBBING BENEATH CONCRETE PIERS.

**CONSTRUCTION NOTES**

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DETAILS AND ELEVATIONS OF THE EXISTING STRUCTURE AND UTILITIES THAT ARE RELEVANT TO THE WORK SHOWN ON THE DRAWINGS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE DEPARTMENTAL REPRESENTATIVE AND THE PROPOSED ADJUSTMENT OF THE WORK REQUIRED SHALL BE SUBMITTED FOR APPROVAL TO THE DEPARTMENTAL REPRESENTATIVE. CONTRACTOR TO CONFIRM ALL TIMBER LENGTHS AND SIZES PRIOR TO ORDERING MATERIAL.
- CONTRACTOR TO INSTALL BRIDGE NIGHTLY CLOSURE SIGNS IN ADVANCE OF ANY CONSTRUCTION WORK THAT REQUIRES TEMPORARY BRIDGE CLOSURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. LANE CLOSURES ARE LIMITED TO 6 HOURS AT A TIME BETWEEN 11:55PM TO 6:00AM.
- THE WASAUKSING SWING BRIDGE IS POSTED WITH A MAXIMUM 10 TONNE PER AXLE LIMIT AND A SPEED LIMIT OF 10KM/H. THE CONTRACTOR MUST OBSERVE THIS POSTING AT ALL TIMES OF CONSTRUCTION.
- THE CONTRACTOR TO ENSURE THE STABILITY OF ALL COMPONENTS DURING HANDLING, TRANSPORTATION, AND ERECTION AND UNTIL COMPONENTS ARE IN THEIR FINAL LOCATION WITH ALL PERMANENT BRACING, CONNECTIONS AND SUPPORTS IN PLACE.
- ALL PROPRIETARY PRODUCTS SHALL BE USED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- MAINTAIN ONE NAVIGATIONAL CLEARANCE THROUGHOUT CONSTRUCTION DURING NAVIGATION SEASON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- CHAMFER ALL EXPOSED CONCRETE EDGES TO 20X20 UNLESS NOTED OTHERWISE.
- ALL CONSTRUCTION JOINTS TO BE NEAT, STRAIGHT, HORIZONTAL OR VERTICAL LINES AND FORMS TO BE KEPT TIGHT FROM POUR TO POUR.
- THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY REMOVAL AND REPLACEMENT WORK REQUIRED FOR THE COMPLETION OF THIS PROJECT.
- MINIMIZE DUST AND NOISE.
- REINSTATE AND MAKE GOOD ALL DISRUPTED AREAS TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE AFTER COMPLETION OF THE WORK.

**LIST OF ABBREVIATIONS**

ABUT	ABUTMENT
BRGS	BEARINGS
CL	CENTRELINE
CJ	CONSTRUCTION JOINT
CONT	CONTINUOUS
DIA	DIAMETER
EL	ELEVATION
IF	INSIDE FACE
MIN	MINIMUM
OF	OUTSIDE FACE
PL	PLATE
SHLD	SHOULDER
STA	STATION
T/B	TOP OF BEARING
T/P	TOP OF PAVEMENT
THK	THICK
TOC	TOP OF CONCRETE
TPG	THROUGH PLATE GIRDER
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
WP	WORKING POINT



revision	description	date
1	ISSUED FOR TENDER	2020/11/23

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

A	Detail No.
B	drawing no. - where detail required
C	drawing no. - where detailed

project title  
titre du projet  
**SEGUIN,** Ontario

WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**GENERAL ARRANGEMENT**

drawn by  
dessiné par  
**RICHARD DYNKA**

designed by  
conçue par  
**CARA WADDELL**

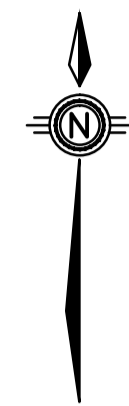
approved by  
approuvé par  
**MICHAEL HOFTYZER**

bid  
offre  
**MEHDI SHABESTARY** project manager  
administrateur de projets

project date  
date du projet  
**2020/11/23**

project no.  
no. du projet  
**R.089868.004**

drawing no.  
dessiné no.  
**B-01**



**NOTES:**

1. NO WORK ON THE DECONSTRUCTION OF THE FENDER SYSTEM SHALL COMMENCE UNTIL THE WARNING SIGNS HAVE BEEN ERECTED AND THE BUOYS HAVE BEEN INSTALLED TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
2. THE ALTERNATE CHANNEL THAN SHOWN CAN BE CLOSED. WARNING SIGNS AND CAUTIONARY BUOYS WILL BE SHIFTED ACCORDINGLY.
3. THE LOCATIONS OF CONSTRUCTION STAGING AND STORAGE AREAS ARE SUBJECT TO PUBLIC SERVICES AND PROCUREMENT CANADA (PSPC) AND WASAUKSING FIRST NATIONS (WFN) APPROVAL. AREAS USED FOR STAGING AND STORAGE SHALL BE MINIMIZED.
4. ALL LANDS USED SHALL BE REINSTATED TO ORIGINAL OR BETTER CONDITION.
5. ACCESS TO OPERATOR'S HOUSE MUST BE MAINTAINED AT ALL TIMES.
6. THE EXACT LOCATION OF TURBIDITY CURTIAN AND HEAVY DUTY SILT BARRIER FENCE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
7. REINSTATE EXISTING SIGNS AT THE ENDS OF THE FENDER PIER. SEE DRAWINGS E-01 AND E-02 FOR INSTALLATION OF NEW FENDER LIGHTS.

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**PARSONS**



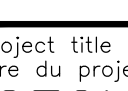


**SITE PLAN**

NTS

revision	description	date	VALUE
1	ISSUED FOR TENDER	2020/11/23	

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	A Detail No. No. du détail
	B drawing no. - where detail required dessin no. - où détail exigé
	C drawing no. - where detailed dessin no. - où détaillé

project title  
titre du projet  
**SEGUIN, Ontario**

WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**SITE PLAN**

drawn by  
dessiné par  
**RICHARD DYNKA**

designed by  
conçu par  
**CARA WADDELL**

approved by  
approuvé par  
**MICHAEL HOFTYZER**

tender  
soumission  
**MEHDI SHABESTARY**

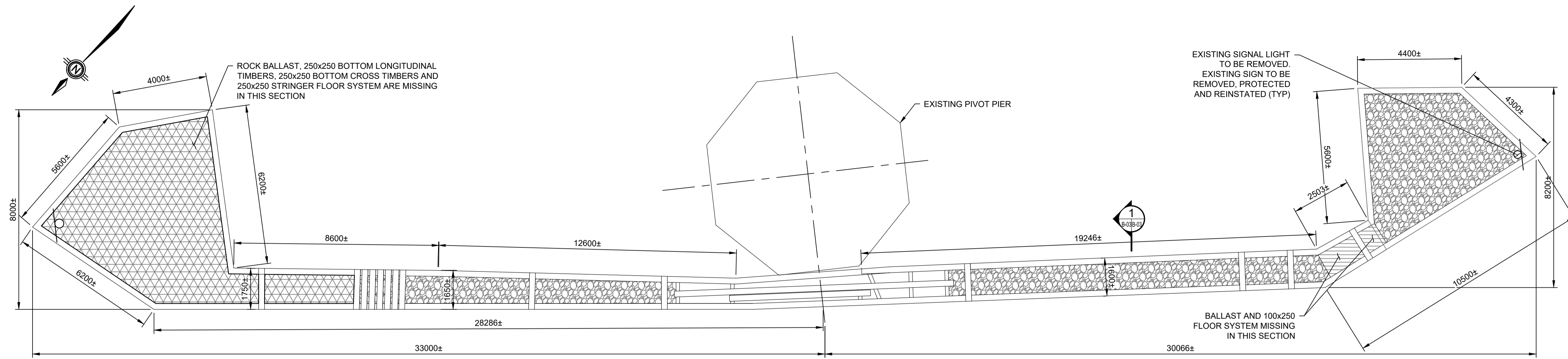
project manager  
administrateur  
de projets

project date  
date du projet  
**2020/11/23**

project no.  
no. du projet  
**R.089868.004**

drawing no.  
dessiné no.  
**B-02**

**PARSONS**

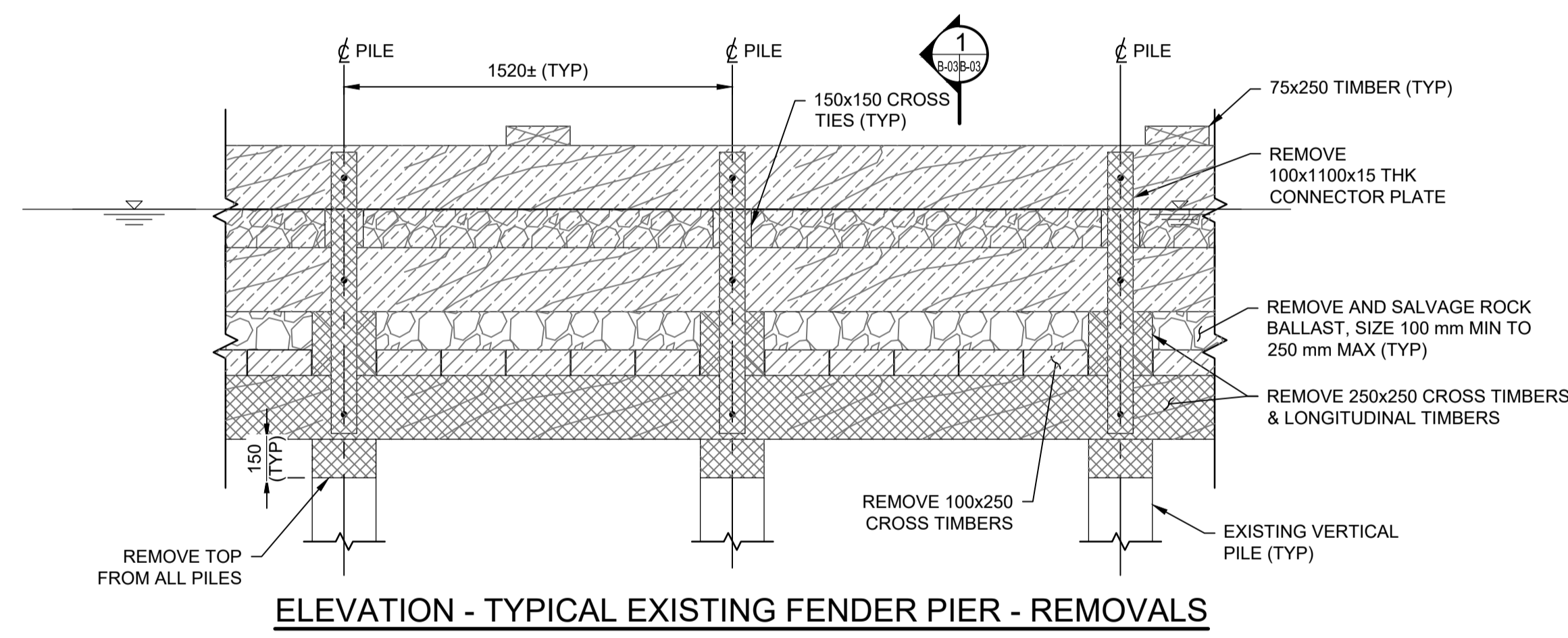


**TIMBER FENDER PLAN**

SCALE : 1:100  
0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

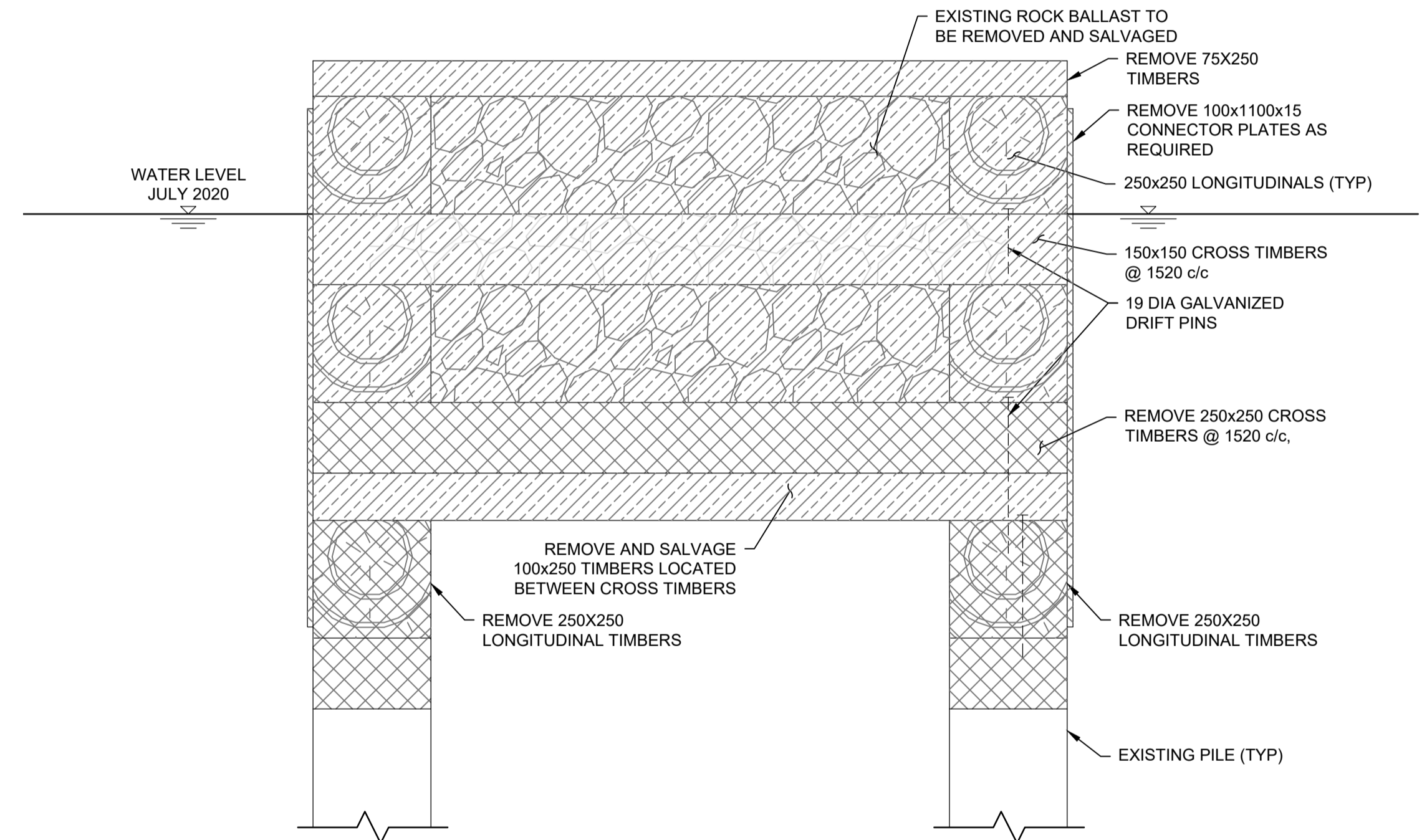
**LEGEND**

	REMOVAL ACCORDINGLY
	DENOTES REMOVE
	DENOTES EXISTING BALLAST
	DENOTES MISSING BALLAST



**ELEVATION - TYPICAL EXISTING FENDER PIER - REMOVALS**

SCALE : 1:20  
0mm 500mm 1000mm 1500mm 2000mm 2500mm



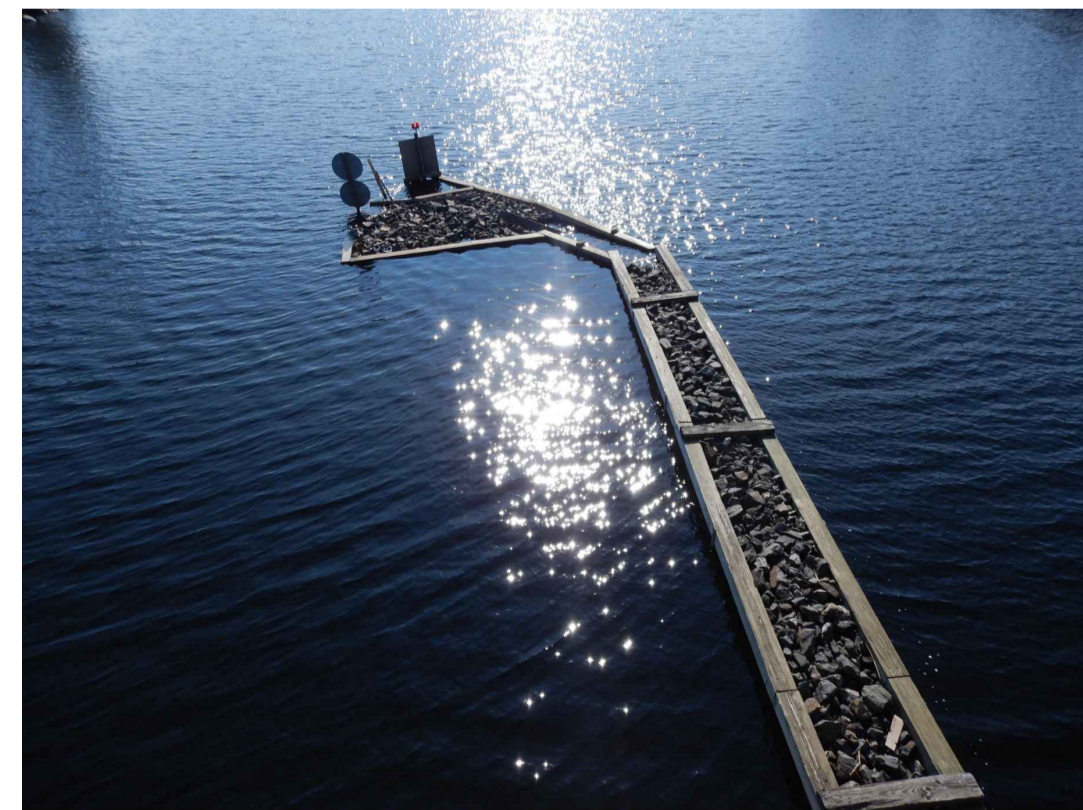
**EXISTING FENDER PIER SECTION 1**

SCALE : 1:10  
0m 100 200 300 400 500 600 700 800 900 1000mm

- NOTES:**
- EXISTING LIGHTS, SIGNS AND CABLE TO BE REMOVED AND PROTECTED THROUGHOUT CONSTRUCTION WORK. EXISTING CABLE IS SECURED TO TOP OF TIMBER CRIBBING.
  - CONTRACTOR IS TO REMOVE ALL ROCK BALLAST FROM TIMBER CRIBS PRIOR TO DISMANTLING. ANY ROCK BALLAST THAT FALLS TO THE RIVERBED DURING CONSTRUCTION SHALL BE RETRIEVED.
  - CONTRACTOR TO INSTALL NAVIGATIONAL SIGNS AND BUOYS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS PRIOR TO COMMENCEMENT OF WORK.



**NORTH SIDE FENDER**  
NTS



**SOUTH SIDE FENDER**  
NTS

1	ISSUED FOR TENDER	2020/11/23
revision		date

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C	drawing no. - where detailed

project title  
titre du projet  
**SEGUIN, Ontario**  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
**PIER AND FENDER REHABILITATION**

drawing title  
titre du dessin  
**FENDER PIER REPAIR DETAILS SHEET 1**

drawn by  
dessiné par  
**RICHARD DYNKA**

designed by  
conç par  
**CARA WADDELL**

approved by  
approuvé par  
**MICHAEL HOFTYZER**

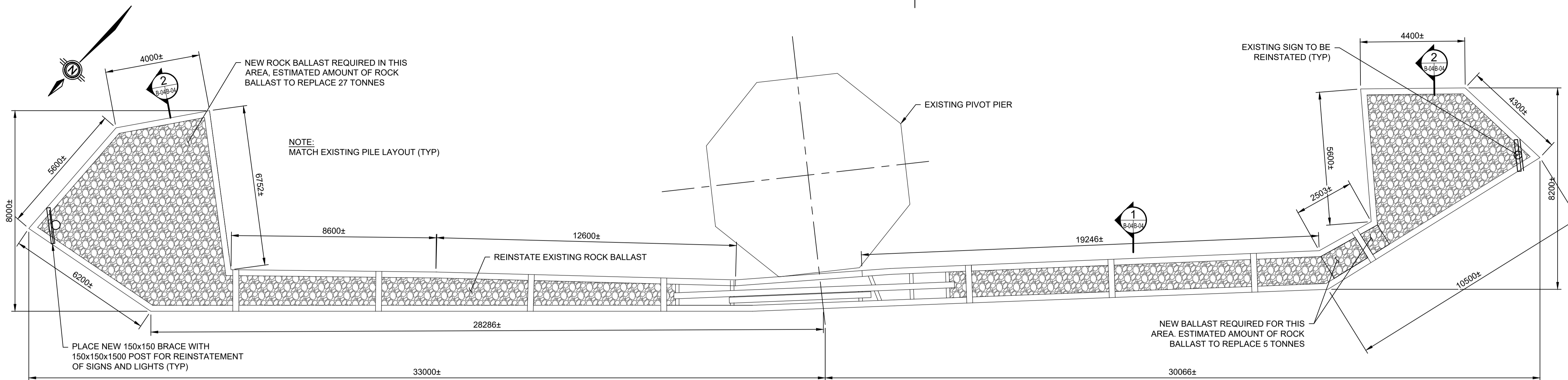
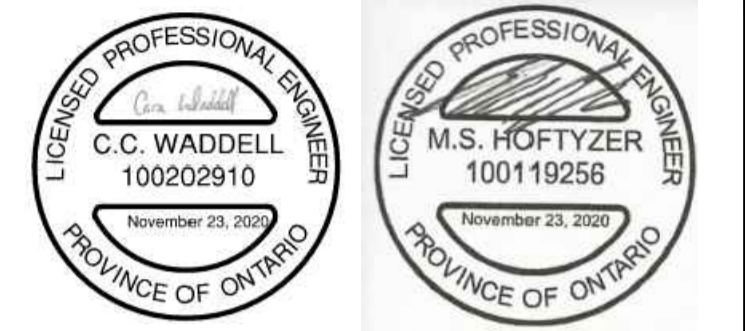
bid offer  
offre  
**MEHDI SHABESTARY** project manager  
administrateur de projets

project date  
date du projet  
**2020/11/23**

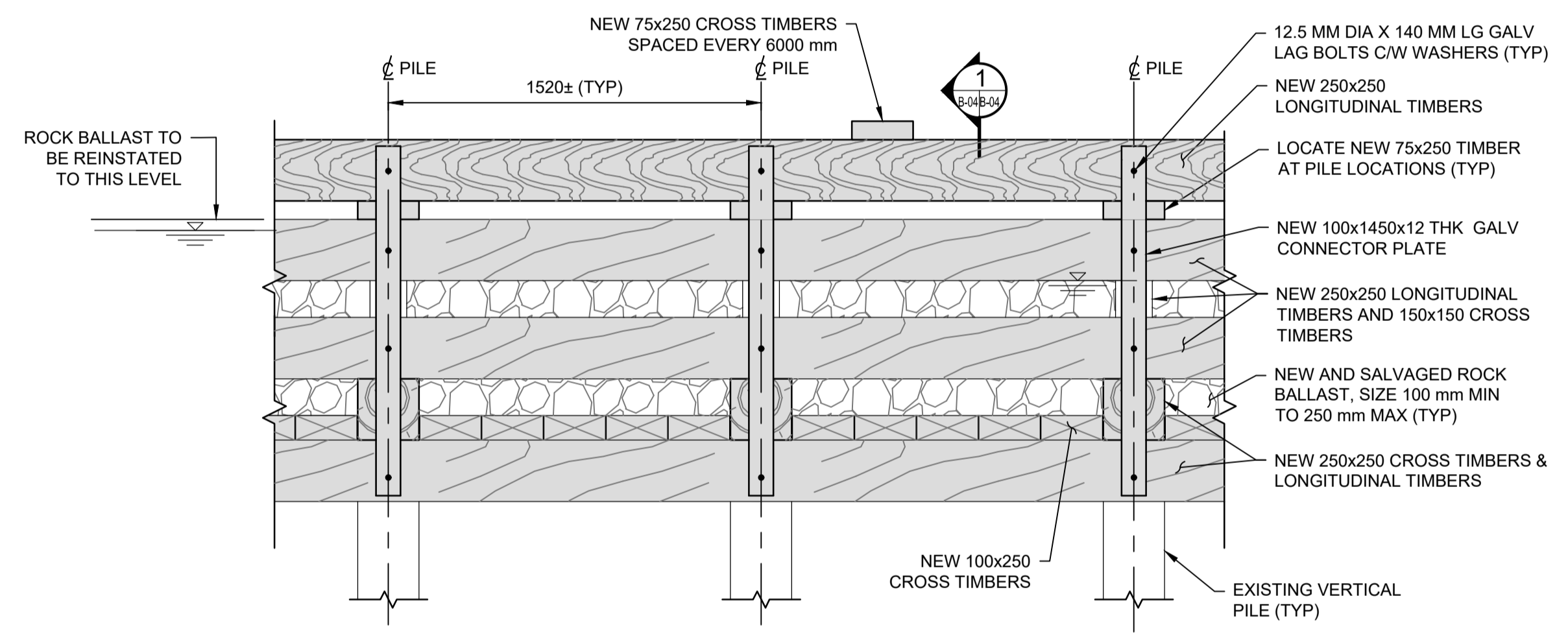
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**R.089868.004**

drawing no.  
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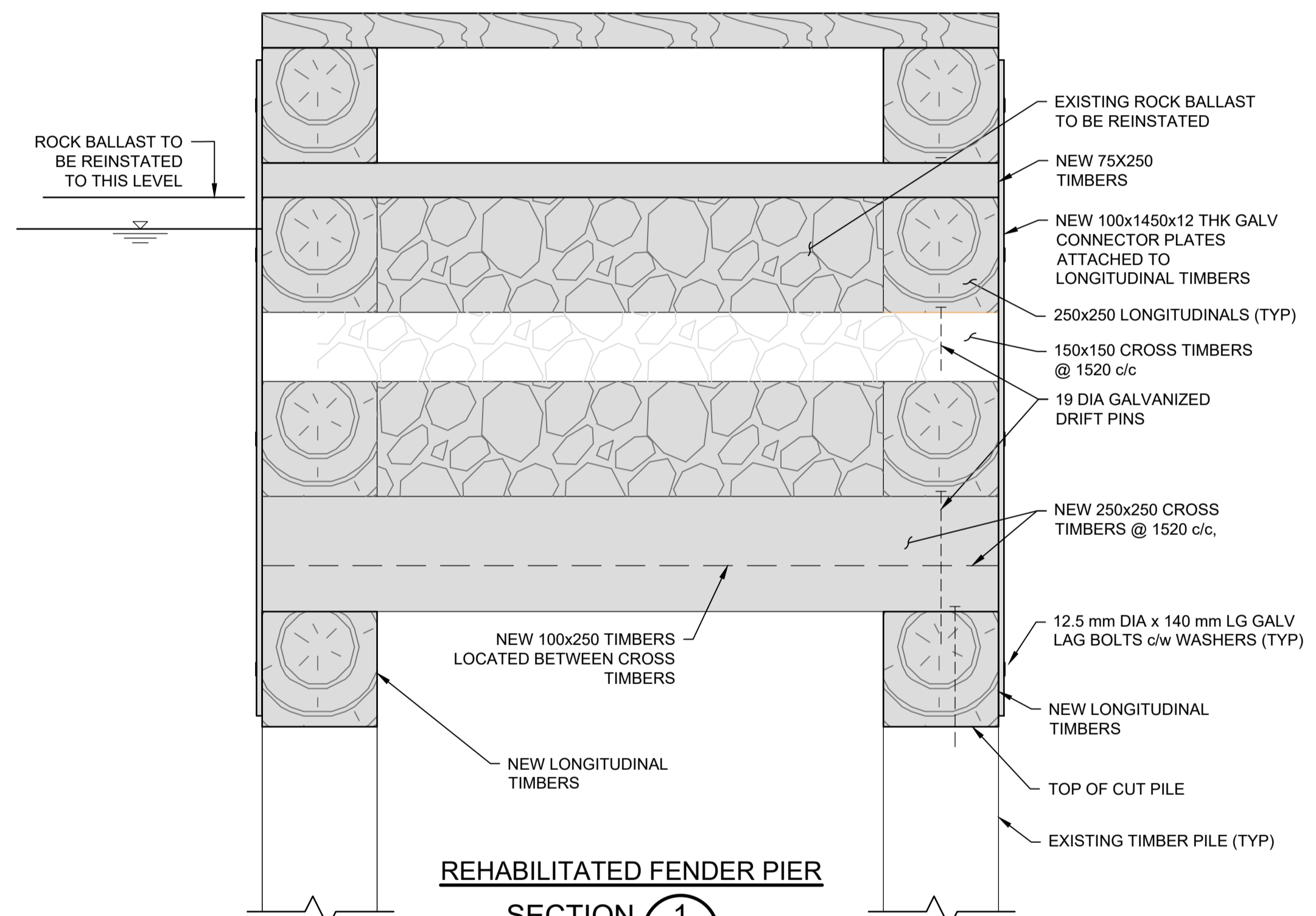
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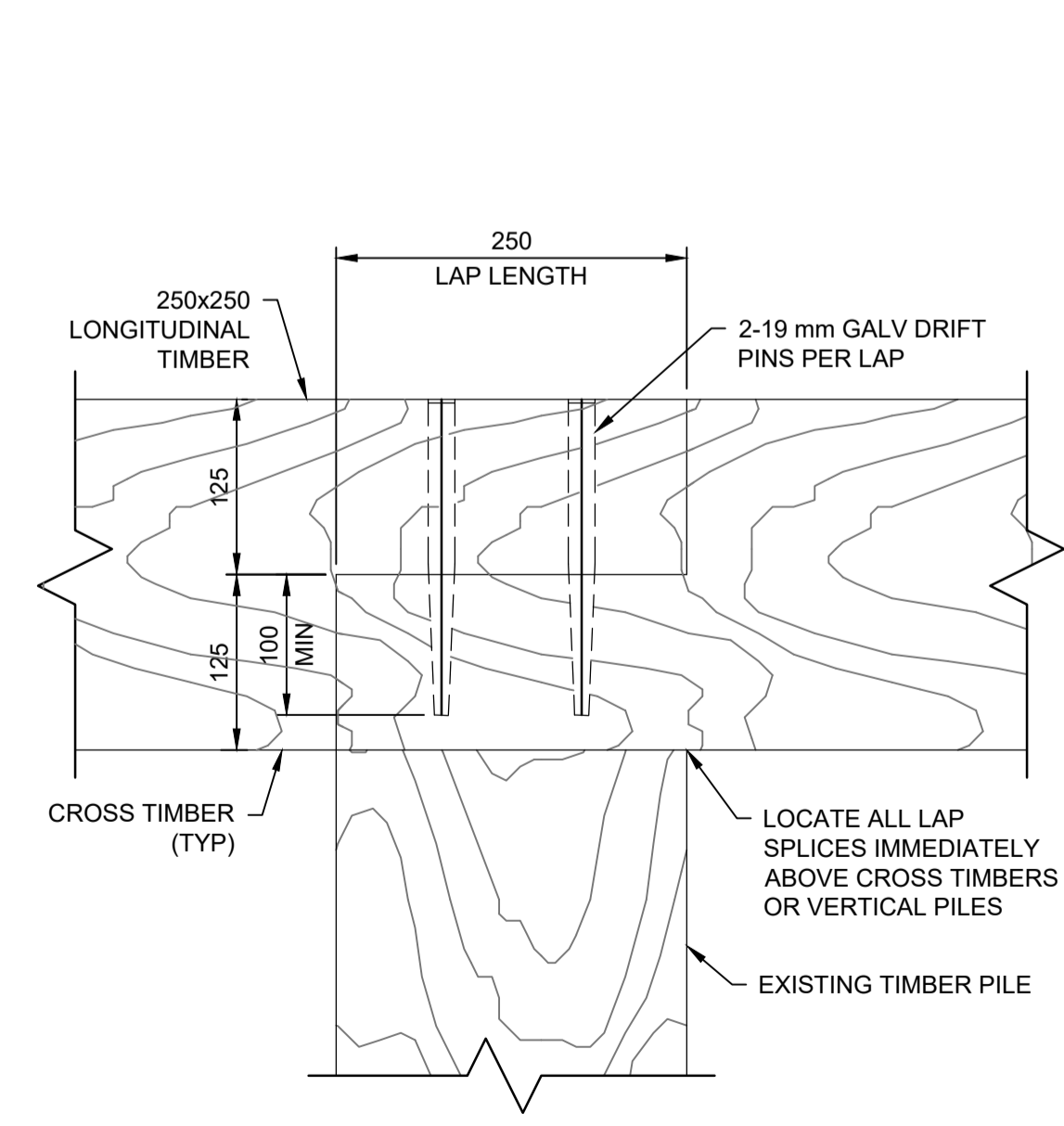
**TIMBER FENDER PLAN**  
SCALE : 1:100



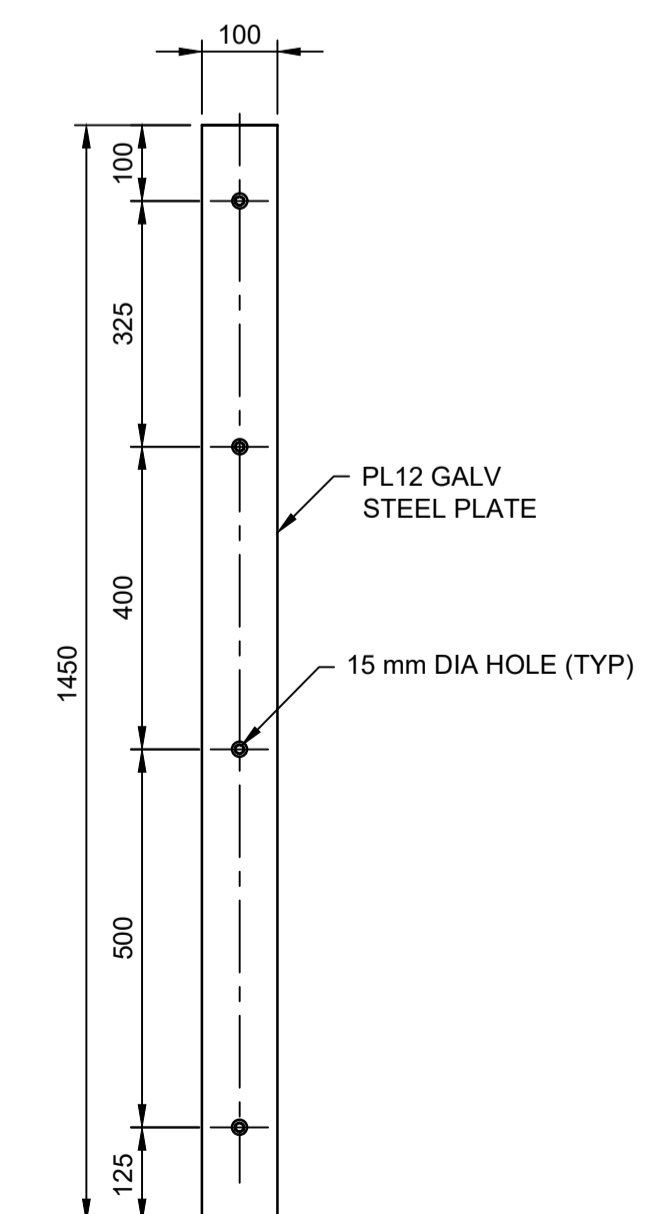
**ELEVATION - TYPICAL FENDER PIER - RECONSTRUCTION**  
SCALE : 1:20



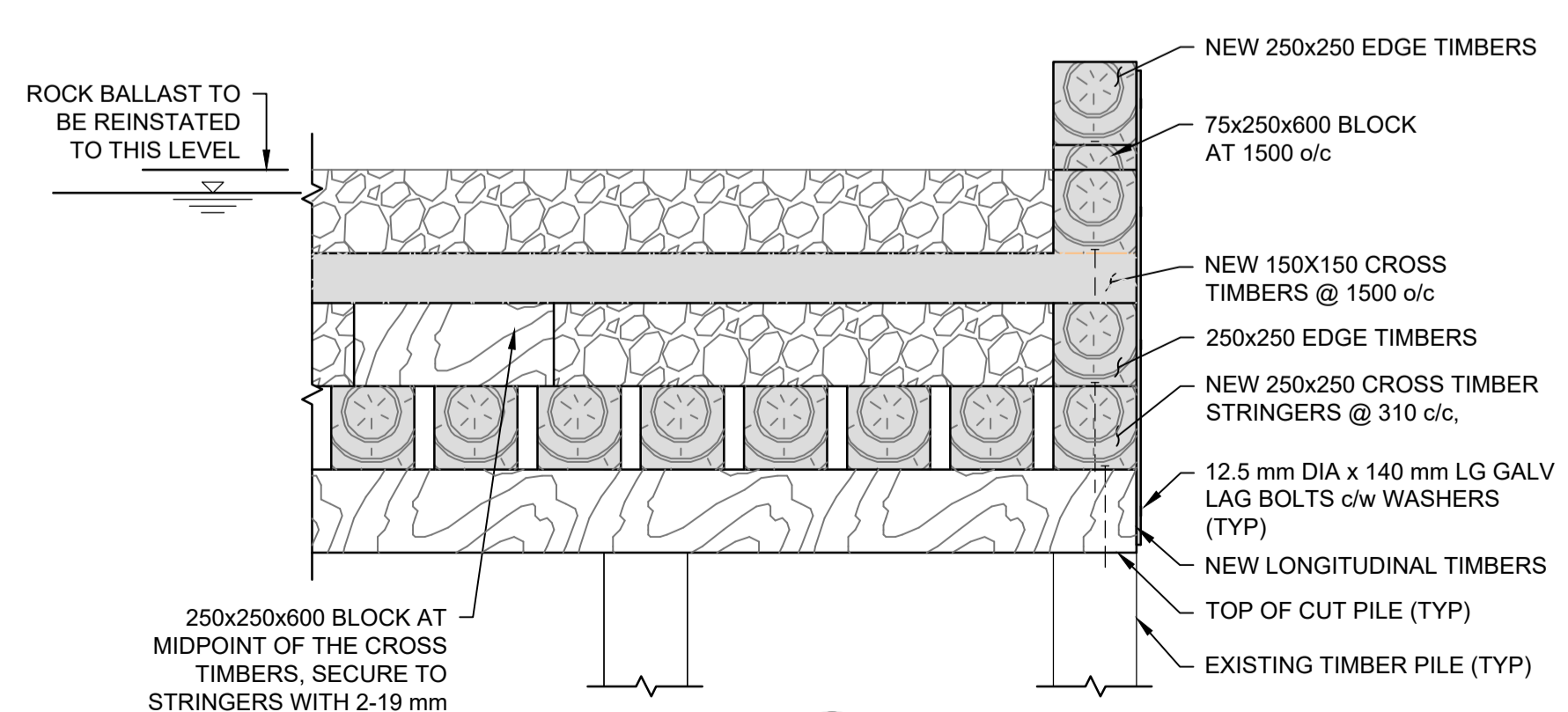
**REHABILITATED FENDER PIER SECTION 1**  
SCALE : 1:10



**TYPICAL LAP SPlice**  
SCALE: 1:5



**TYPICAL CONNECTOR PLATE DETAIL**  
1:10



**REHABILITATED FENDER PIER SECTION 2**  
SCALE : 1:10

- NOTES:**
1. THE STEEL FOR DRIFT PINS SHALL HAVE A YIELD STRENGTH OF 280 MPa IN ACCORDANCE WITH CAN.CSA G40.20.
  2. HOLES FOR ALL FASTENERS (DRIFT PINS, LAG BOLTS) SHALL BE PRE-BORED. HOLES SHALL BE PROPERLY ALIGNED.
  3. DRIFT PINS SHALL BE DRIVEN BY A HAMMER NOT LARGER THAN 0.5 kg TO MAKE CONNECTION.
  4. HOLES FOR LAG BOLTS SHALL BE PREDRILLED AND HAVE THE SAME DIAMETER AND DEPTH AS THE SHANK OF THE BOLT PLUS A LEAD HOLE FOR THE THREADED PORTION WITH A DIAMETER OF 75% OF THE SHANK DIAMETER. HOLES FOR DRIFT PINS SHALL BE 1.5 mm SMALLER THAN THE PIN DIAMETER.
  5. LAG BOLTS SHALL BE INSTALLED BY TURNING.
  6. LAG BOLTS BY DRIVING IS NOT PERMITTED.
  7. STEEL FOR FASTENER PLATES SHALL CONFORM TO CSA G40.21 GRADE 300W.
  8. ALL FASTENERS AND PLATES SHALL BE HOT DIP GALVANIZED TO CSA G164.
  9. ALL DRIFT PINS SHALL HAVE A MINIMUM EMBEDMENT OF 150 mm INTO THE LOWER MEMBER IN THE CONNECTION EXCEPT AT SPLICES.

**LEGEND**

■ DENOTES NEW TIMBER

revision	description	date
1	ISSUED FOR TENDER	2020/11/23

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A	Detail No.
B	drawing no. - where detail required
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project title  
titre du projet  
**SEGUIN,** Ontario

WASAUKSING SWING BRIDGE  
146 ROSE POINT  
**PIER AND FENDER REHABILITATION**

drawing title  
titre du dessin  
**FENDER PIER REPAIR DETAILS SHEET 2**

drawn by  
dessiné par  
**RICHARD DYNKA**

designed by  
conçue par  
**CARA WADDELL**

approved by  
approuvé par  
**MICHAEL HOFTYZER**

bid  
offre  
**MEHDI SHABESTARY**

project date  
date du projet  
**2020/11/23**

project no.  
no. du projet  
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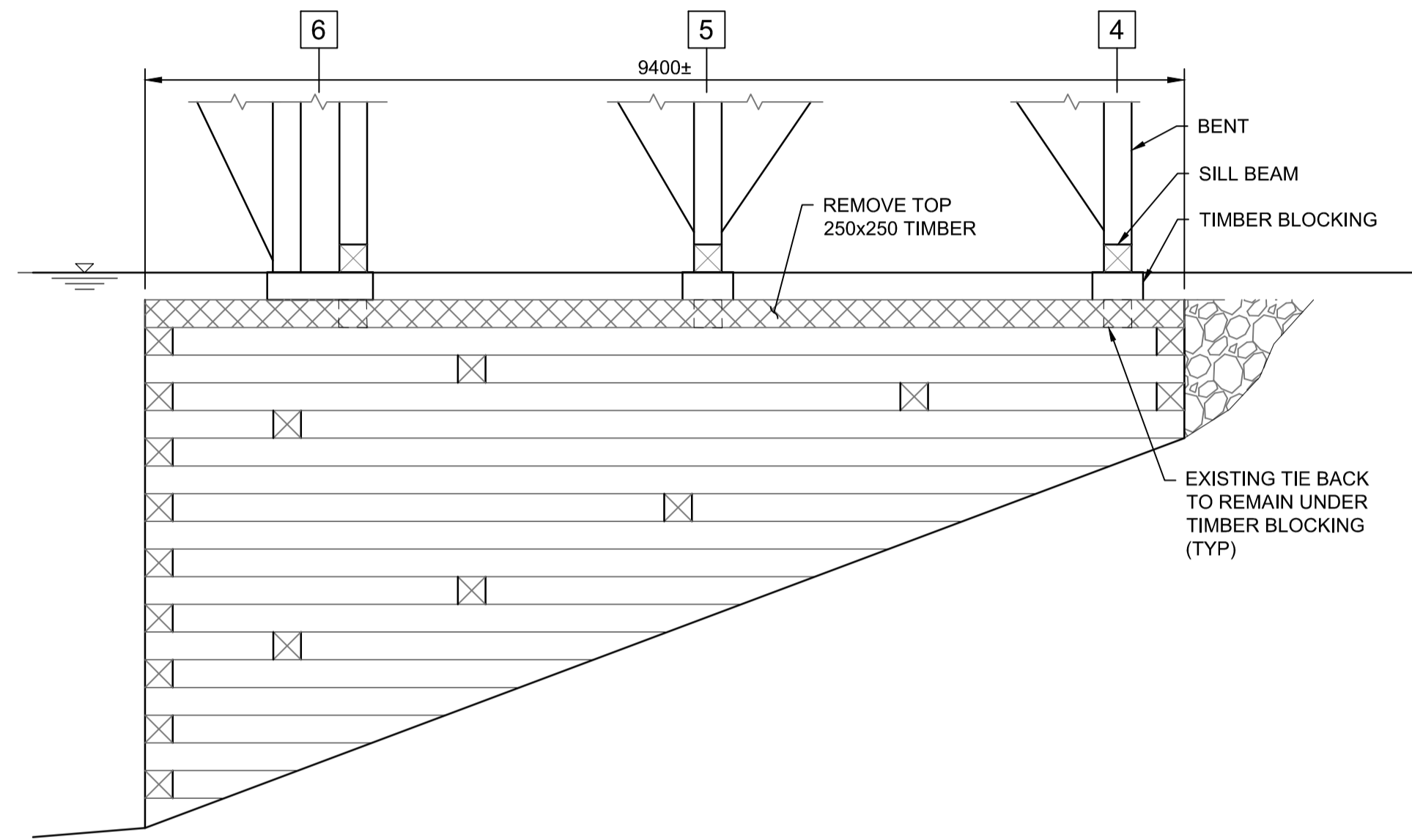
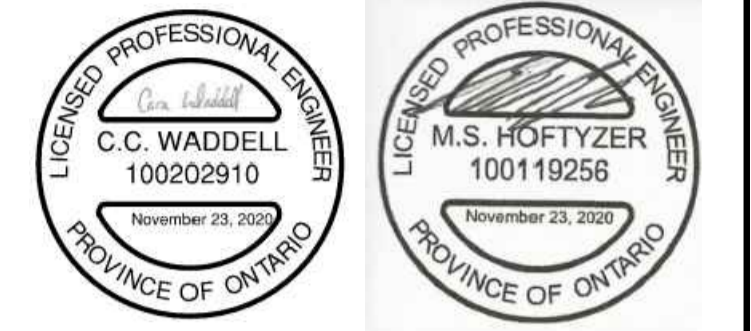
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dessiné no.  
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project manager  
administrateur de projets

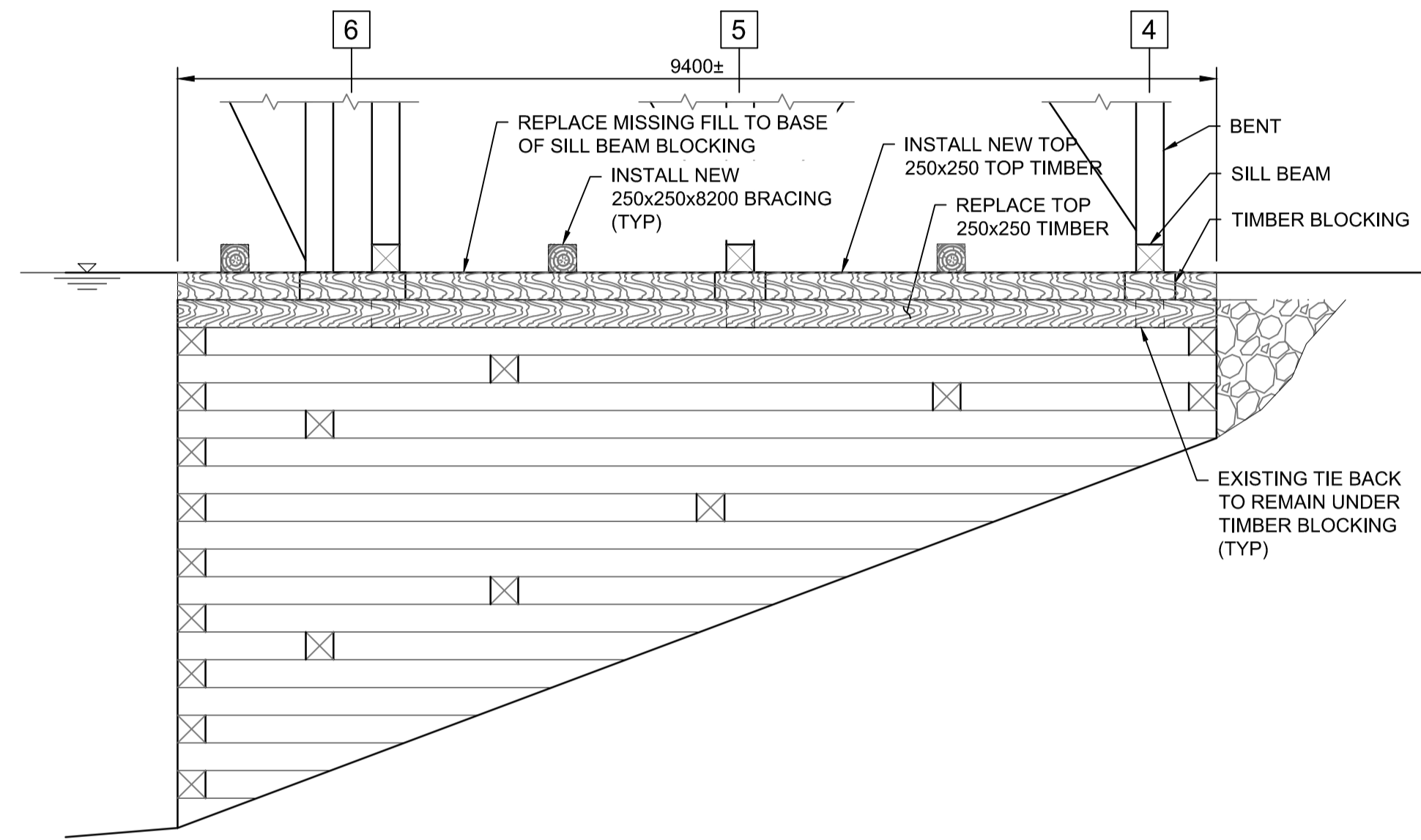
**NOTES**

1. CONTRACTOR TO ENSURE STABILITY OF THE BENTS THROUGHOUT THE REPAIRS TO THE TIMBER CRIBBING.
2. CONTRACTOR TO TEMPORARILY REMOVE AND REPLACE BALLAST AS REQUIRED TO COMPLETE THE REPLACEMENT OF THE TOP TIMBERS.
3. THE STEEL FOR DRIFT PINS SHALL HAVE A YIELD STRENGTH OF 280MPA IN ACCORDANCE WITH CAN.CSA G40.20.
4. HOLES FOR ALL FASTENERS SHALL BE PRE-BORED. HOLES SHALL BE PROPERLY ALIGNED.
5. DRIFT PINS SHALL BE DRIVEN BY A HAMMER NOT LARGER THAN 0.5KG TO MAKE CONNECTION.
6. HOLES FOR DRIFT PINS SHALL BE 1.5 mm SMALLER THAN THE PIN DIAMETER.
7. ALL DRIFT PINS SHALL HAVE A MINIMUM EMBEDMENT OF 150 mm INTO THE LOWER MEMBER IN THE CONNECTION.
8. CONTRACTOR TO CONFIRM ALL TIMBER LENGTHS AND SIZES PRIOR TO ORDERING THE MATERIAL.
9. REPLACE MISSING FILL TO BASE OF SILL BEAM BLOCKING THROUGHOUT ENTIRE CRIBBING.
10. ESTIMATED AMOUNT OF ADDITIONAL ROCK BALLAST IS 29 TONNES.

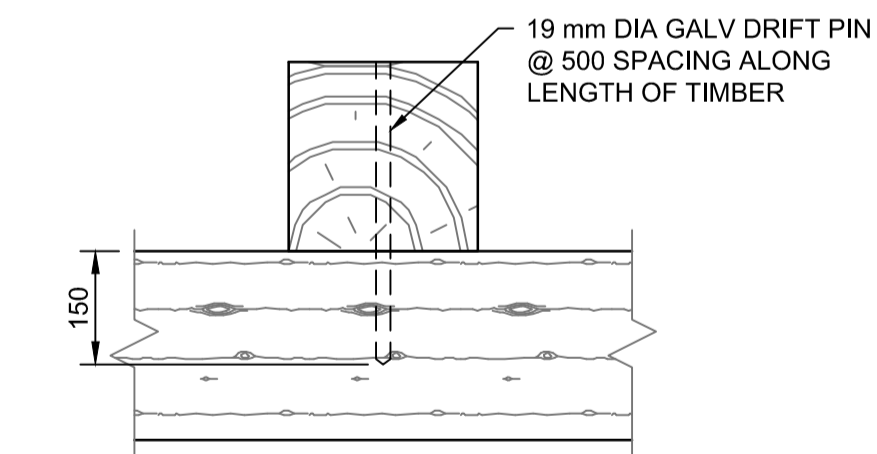
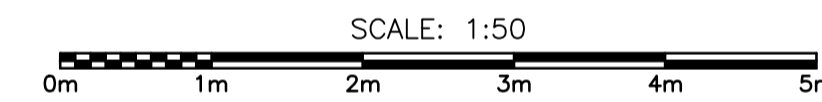
**PARSONS**



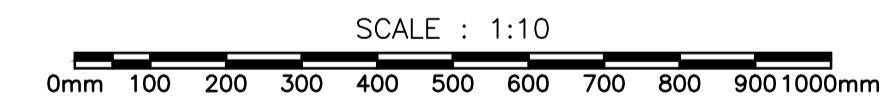
**REMOVALS**  
**SOUTH ELEVATION - CRIBBING SOUTH THRESTLE**



**REHABILITATION**  
**SOUTH ELEVATION - CRIBBING SOUTH THRESTLE**

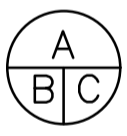




**TYPICAL CONNECTION DETAIL**



1	ISSUED FOR TENDER	2020/11/23
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project title / titre du projet  
**SEGUIN, Ontario**  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title / titre du dessin  
**EAST TRESTLE  
TIMBER CRIBBING REPAIRS**

drawn by / dessiné par  
RICHARD DYNKA

designed by / conçu par  
CARA WADDELL

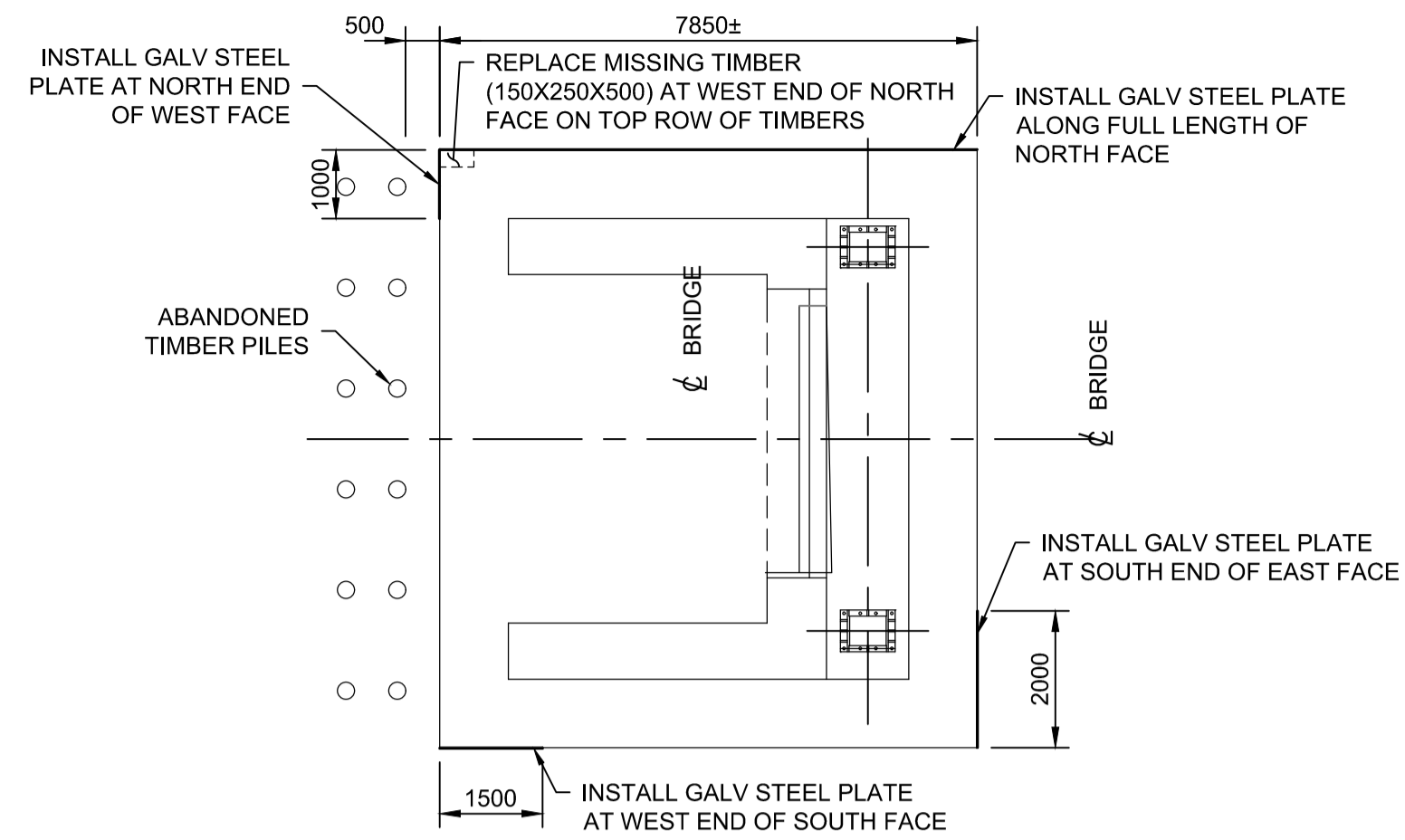
approved by / approuvé par  
MICHAEL HOFTYZER

bid / offre  
MEHDI SHABESTARY project manager / administrateur de projets

project date / date du projet  
2020/11/23

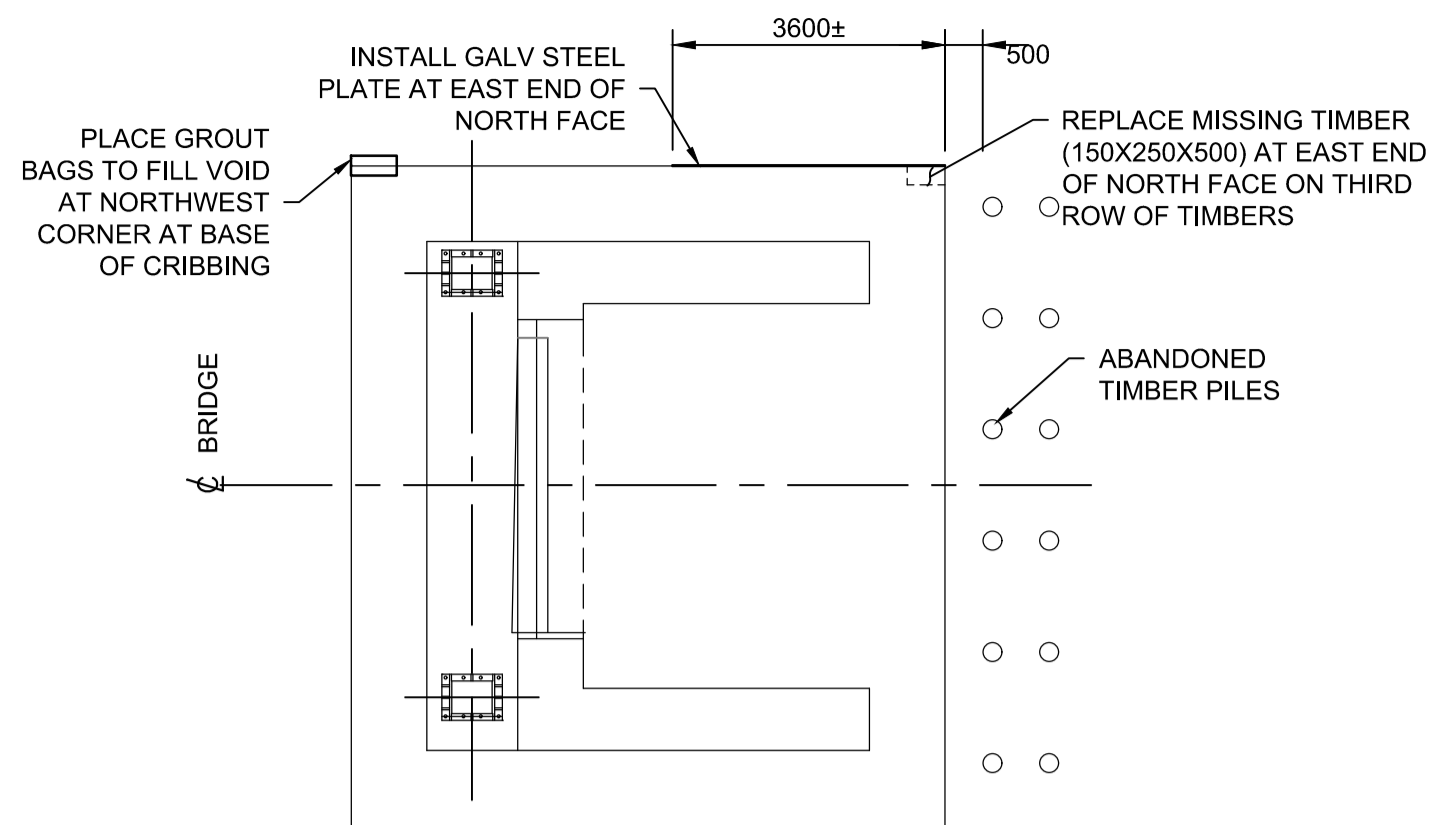
project no. / no. du projet  
R.089868.004

drawing no. / dessiné no.  
B-05



WEST REST PIER PLAN

1:100

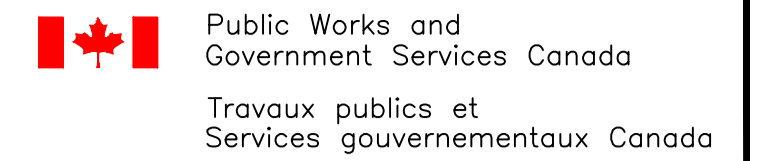


EAST REST PIER PLAN

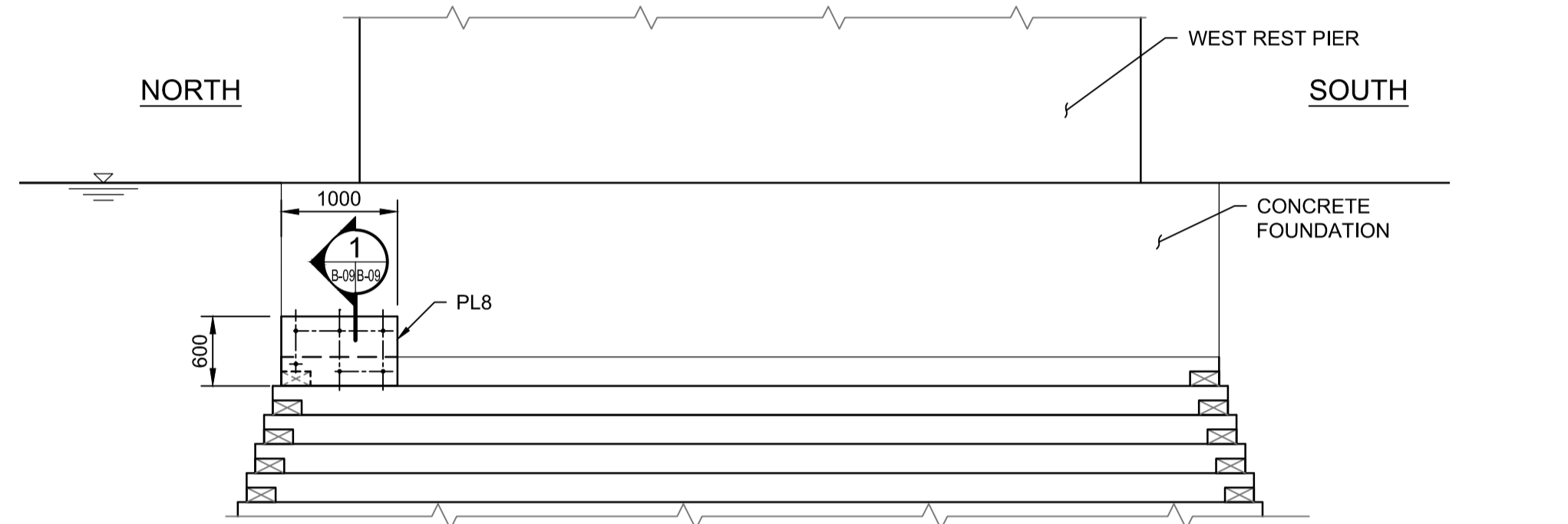
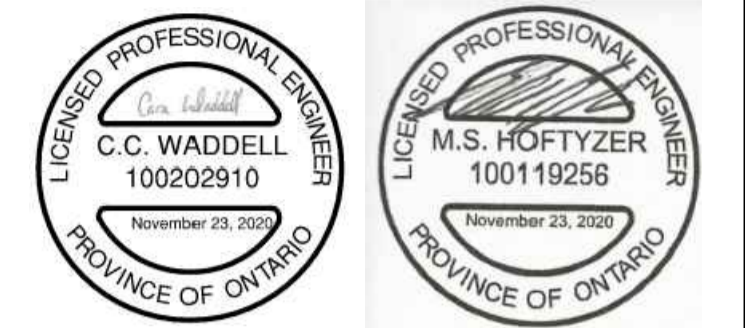
1:100

NOTES

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS B-05 AND B-09.
- THE ABANDONED TIMBER BENTS NEXT TO THE PIER CAN BE CUT AND REMOVED TO FACILITATE INSTALLATION OF THE STEEL PLATE.

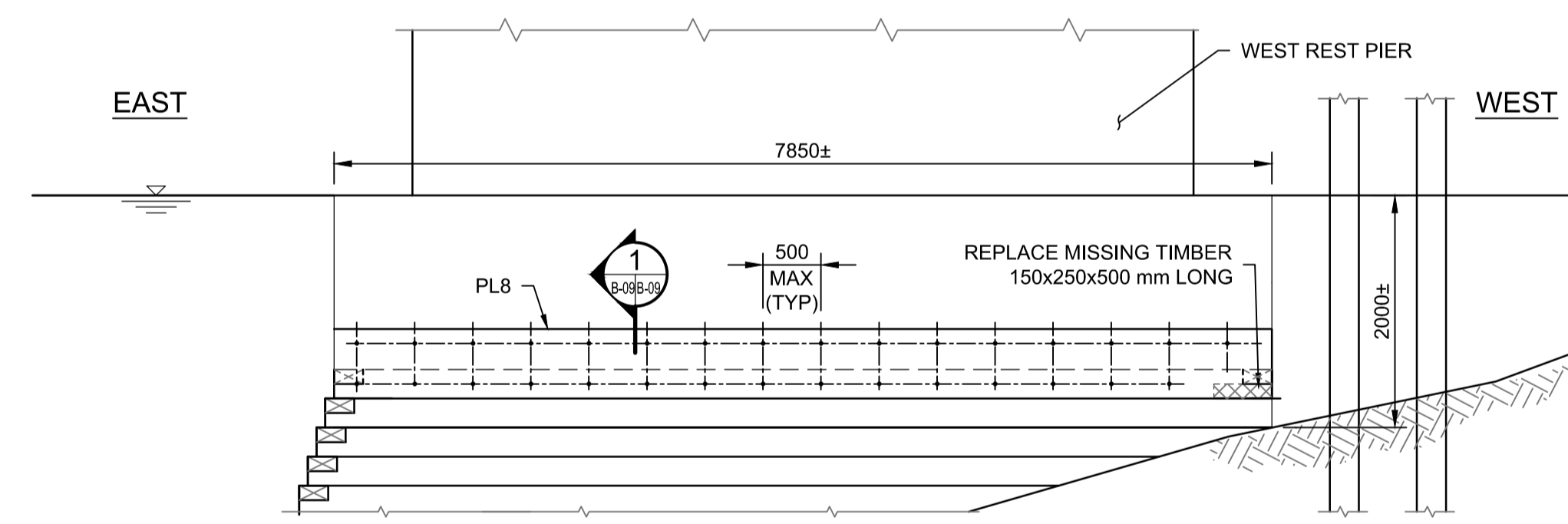


PARSONS



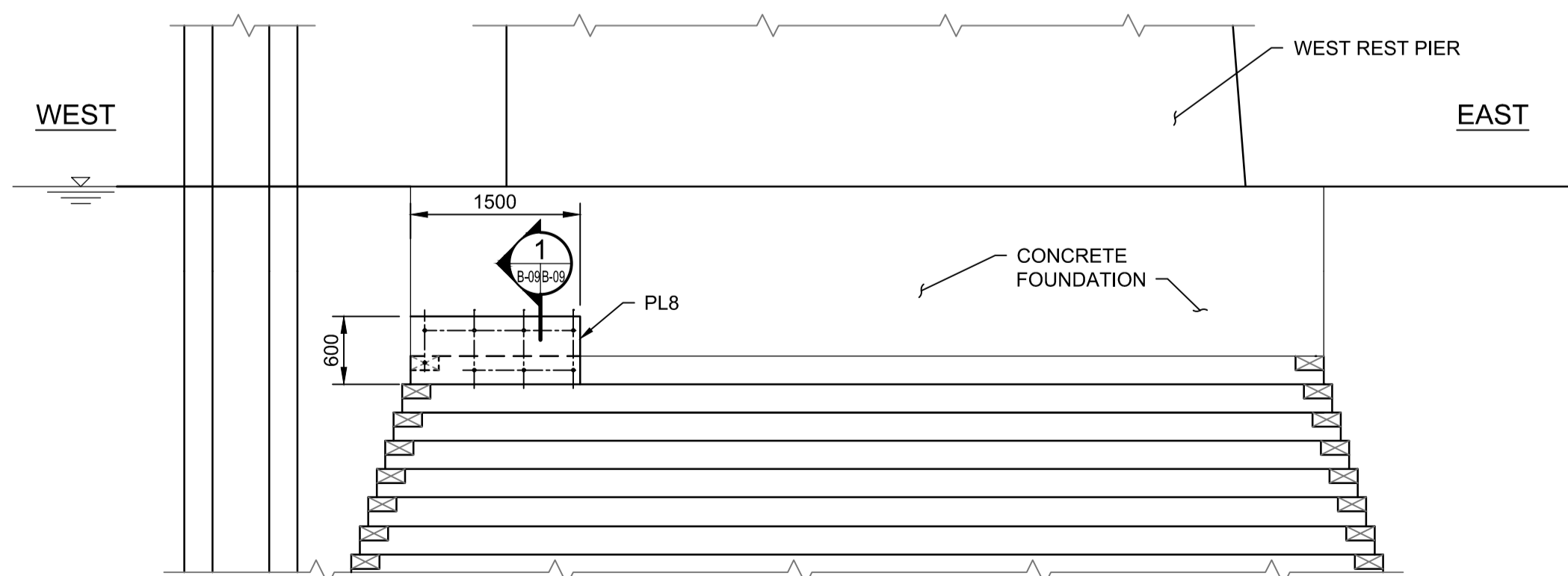
WEST ELEVATION - CRIBBING WEST REST PIER

SCALE: 1:50



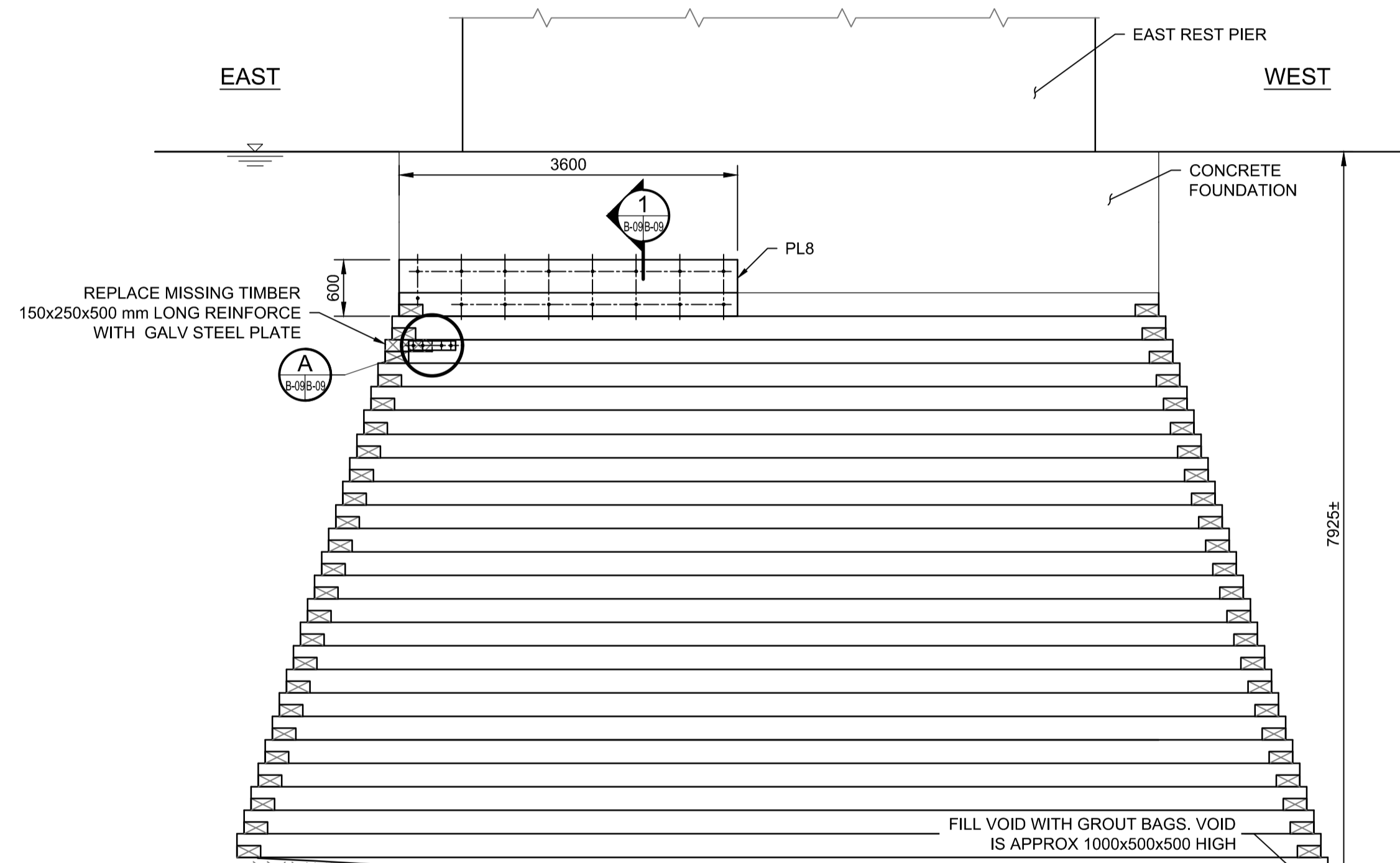
NORTH ELEVATION - CRIBBING WEST REST PIER

SCALE: 1:50



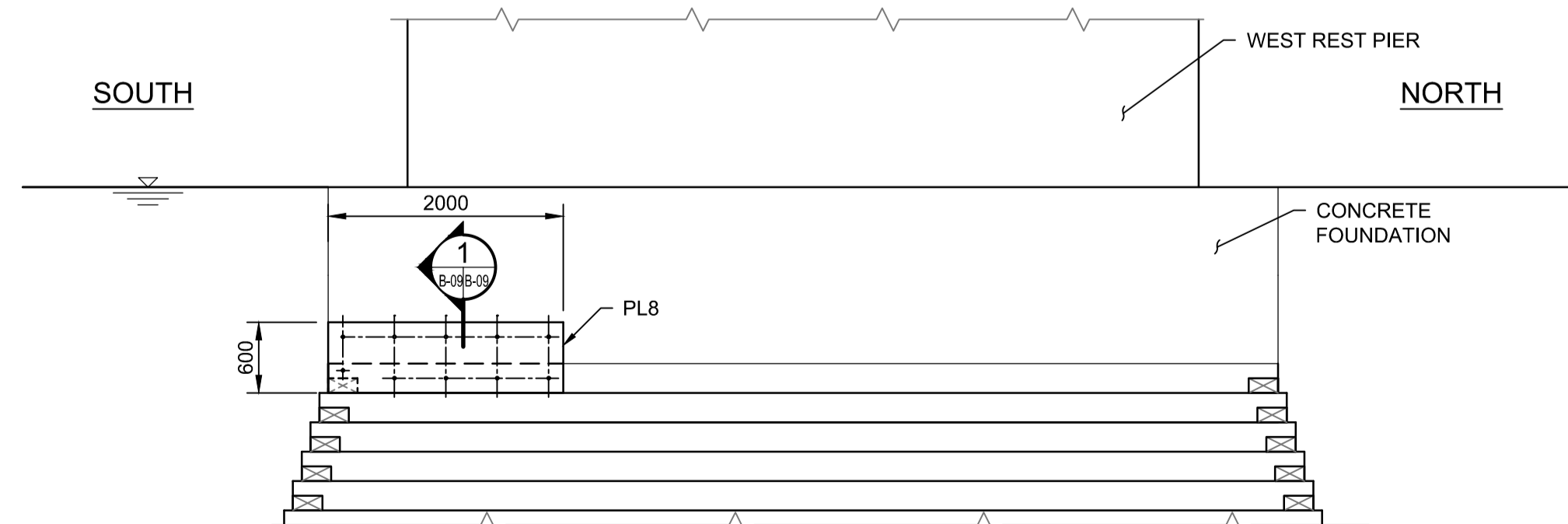
SOUTH ELEVATION - CRIBBING WEST REST PIER

SCALE: 1:50



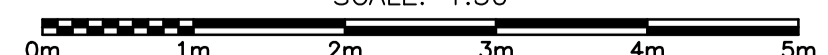
NORTH ELEVATION - CRIBBING EAST REST PIER

SCALE: 1:50



EAST ELEVATION - CRIBBING WEST REST PIER

SCALE: 1:50



1	ISSUED FOR TENDER	2020/11/23
revision		date

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

A	Detail No.
B	drawing no. - where detail required
C	drawing no. - where detailed

project title  
titre du projet  
**SEGUIN,** Ontario

WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**EAST AND WEST TRESTLE  
TIMBER CRIBBING REPAIRS**

drawn by / dessiné par: RICHARD DYNKA

designed by / conçu par: CARA WADDELL

approved by / approuvé par: MICHAEL HOFTYZER

bid / offre: MEHDI SHABESTARY project manager / administrateur de projets

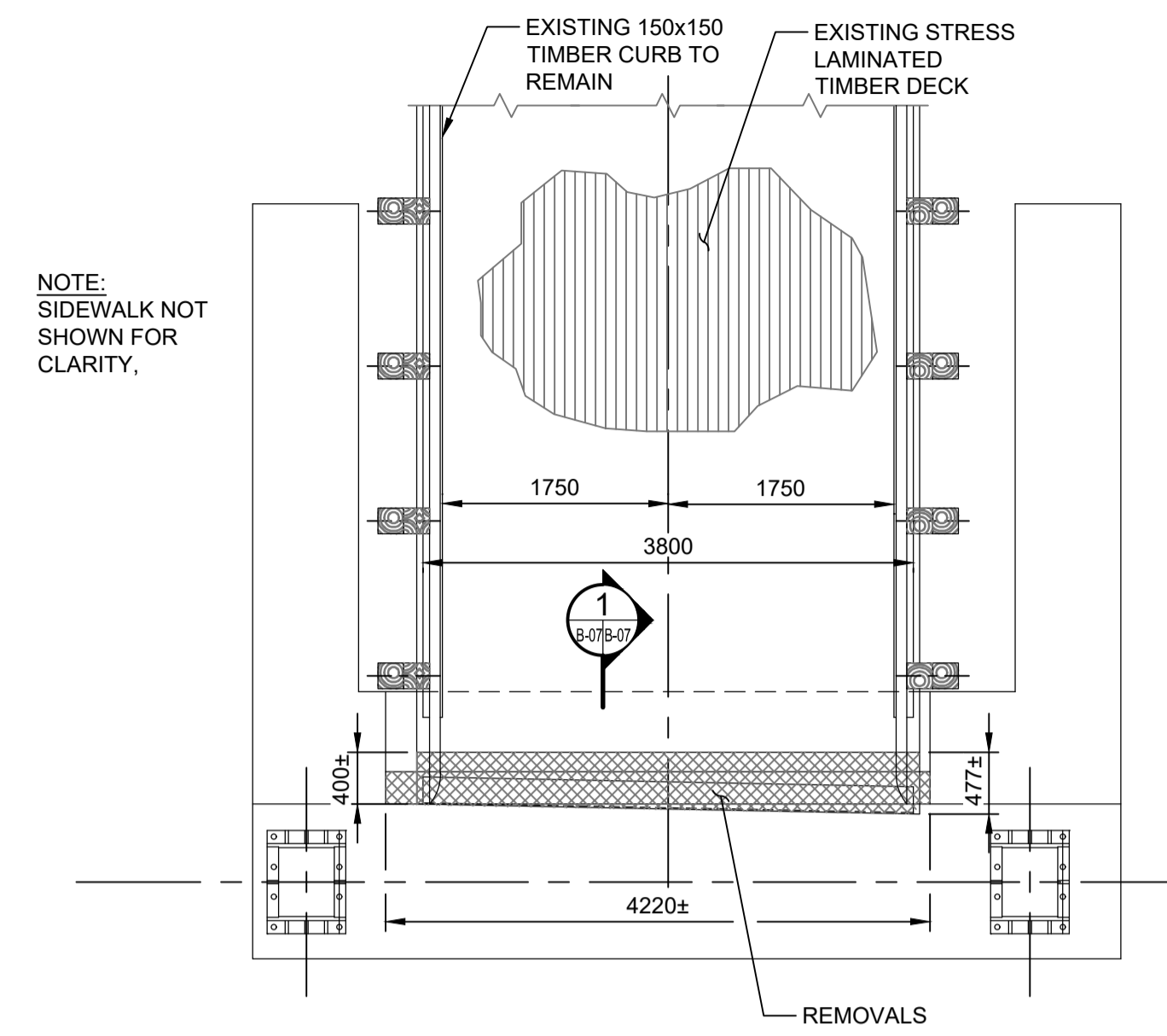
project date / date du projet: 2020/11/23

project no. / no. du projet: R.089868.004

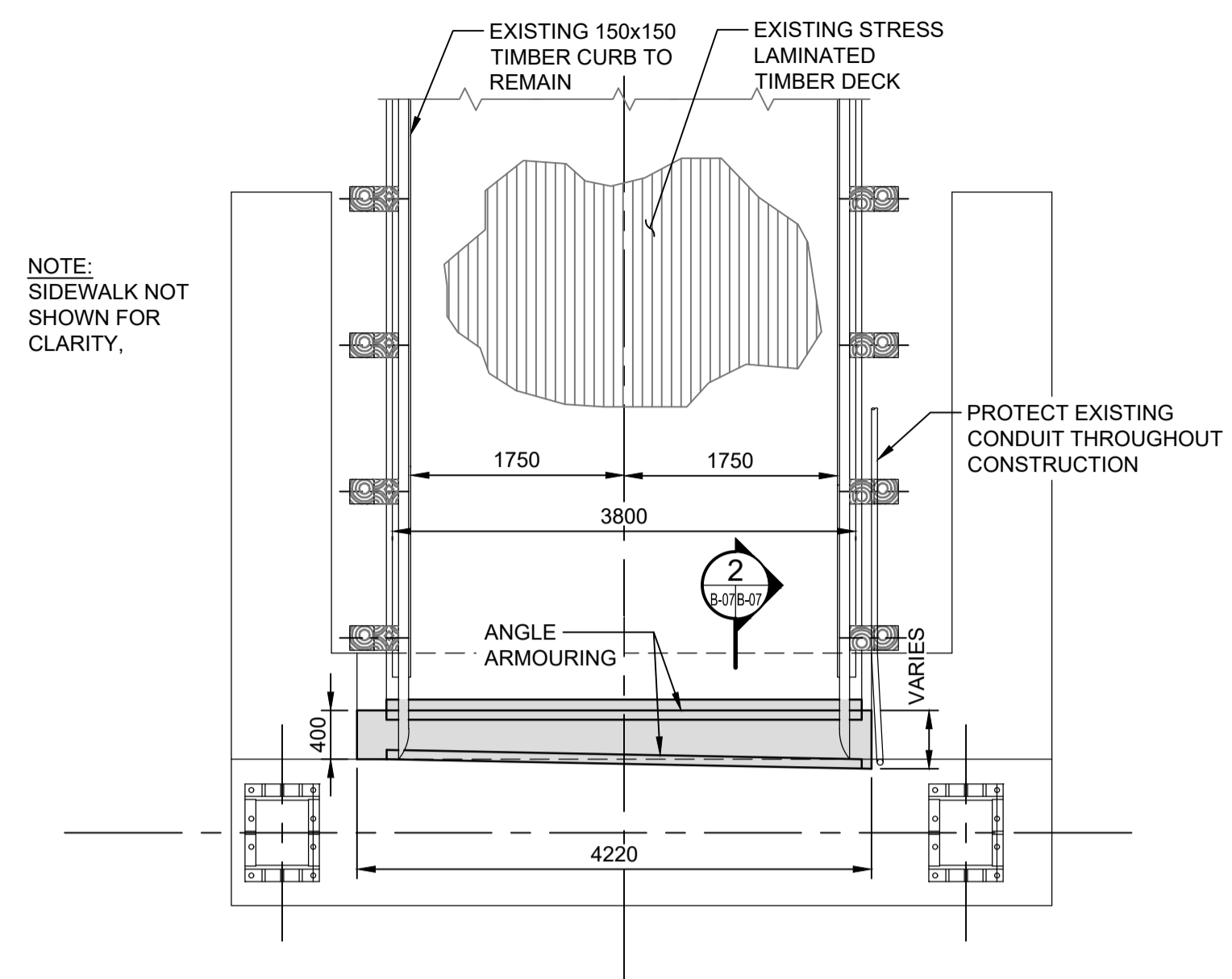
drawing no. / dessiné no.: B-06



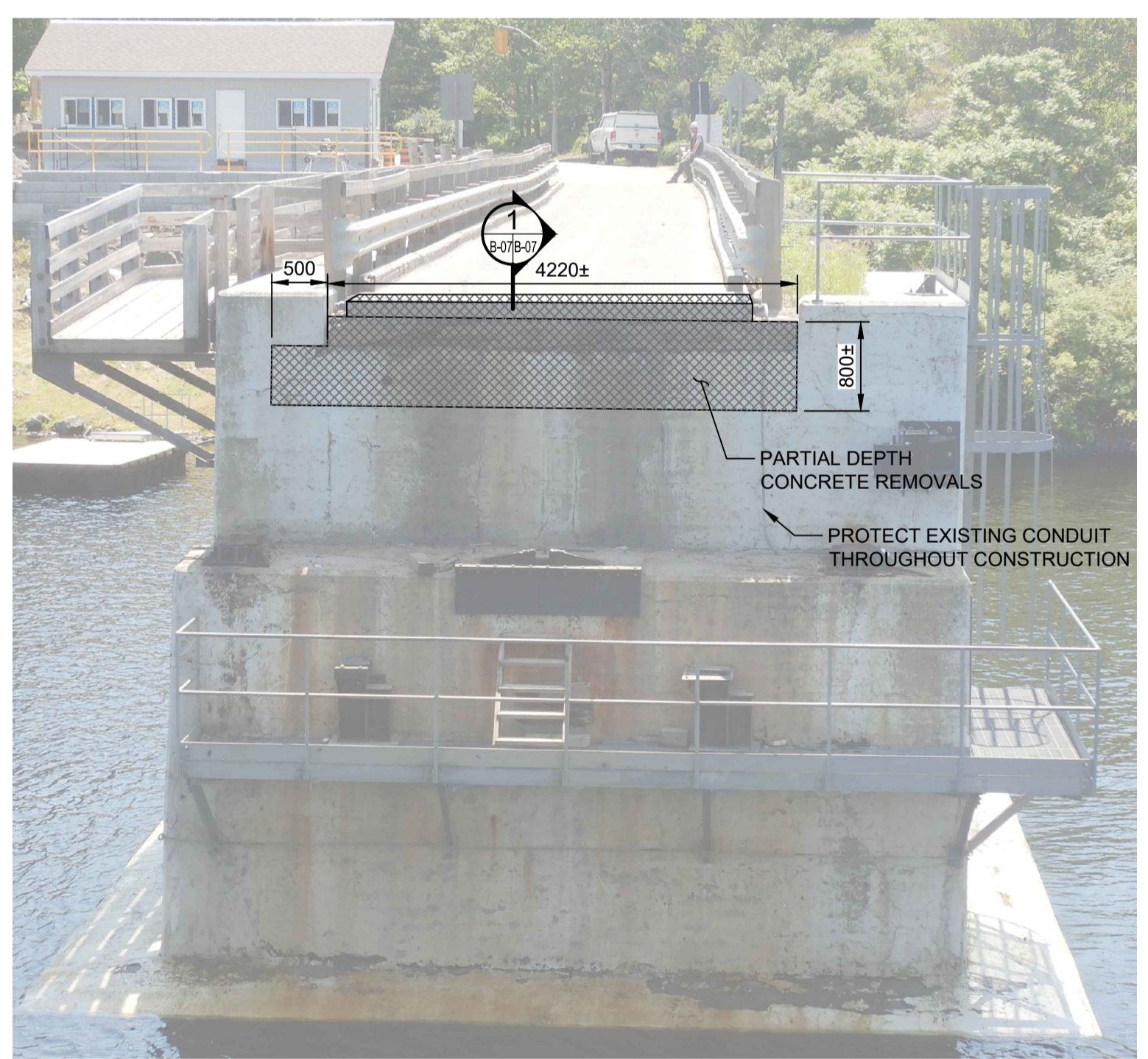
- NOTES:**
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS B-08.
  - EXISTING STRUCTURE DETAILS, ELEVATIONS AND DIMENSIONS SHOWN ARE APPROXIMATE ONLY AND BASED ON THE AVAILABLE REFERENCE DRAWINGS, AND MUST BE FIELD-VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONCRETE REMOVAL.
  - AREAS OF PARTIAL DEPTH REMOVALS SHOWN ON THE PIER ARE APPROXIMATE ONLY. LOCATION AND EXTENT OF UNSOUND CONCRETE REQUIRING REMOVAL SHALL BE DETERMINED IN THE FIELD BY THE DEPARTMENTAL REPRESENTATIVE. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR THIS OPERATION IN THEIR WORK SCHEDULE. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFE ACCESS MEASURES IN A TIMELY MANNER TO ALLOW FOR THE INSPECTION AND TO COMPLETE THE WORK.
  - LIMITS OF ALL REMOVALS SHALL BE SAWCUT AT LEAST 25MM DEEP OR TO THE FIRST LAYER OF REINFORCING STEEL, WHICHEVER IS LESS.
  - FOR DETAILS OF PARTIAL DEPTH REMOVALS OF UNSOUND CONCRETE SEE DRAWING B-15.
  - CUT ENDS OF STEEL CHANNELS TO BE COATED WITH ZINC PRIMER.
  - ALIGNMENT OF CONCRETE BALLAST WALL AND STEEL ARMOURING TO BE GOVERNED BY GAP FROM EDGE OF STEEL ARMOURING OF SWING SPAN PER DETAIL. SEE DWG.
  - TOP OF CONCRETE BALLAST WALL ELEVATION TO MATCH TOP OF STEEL ARMOURING ON SWING SPAN.
  - DOWEL ADHESIVE SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. DOWEL EMBEDMENT SHALL BE AS SPECIFIED. HOLES FOR DOWELS SHALL BE 19MM DIA.
  - ABRASIVE BLAST CLEAN ALL REINFORCING STEEL THAT IS TO BE RETAINED.
  - CONCRETE SURFACES TO BE ABRASIVE BLAST CLEANED AND A BONDING AGENT SHALL BE APPLIED PRIOR TO CASTING NEW CONCRETE.



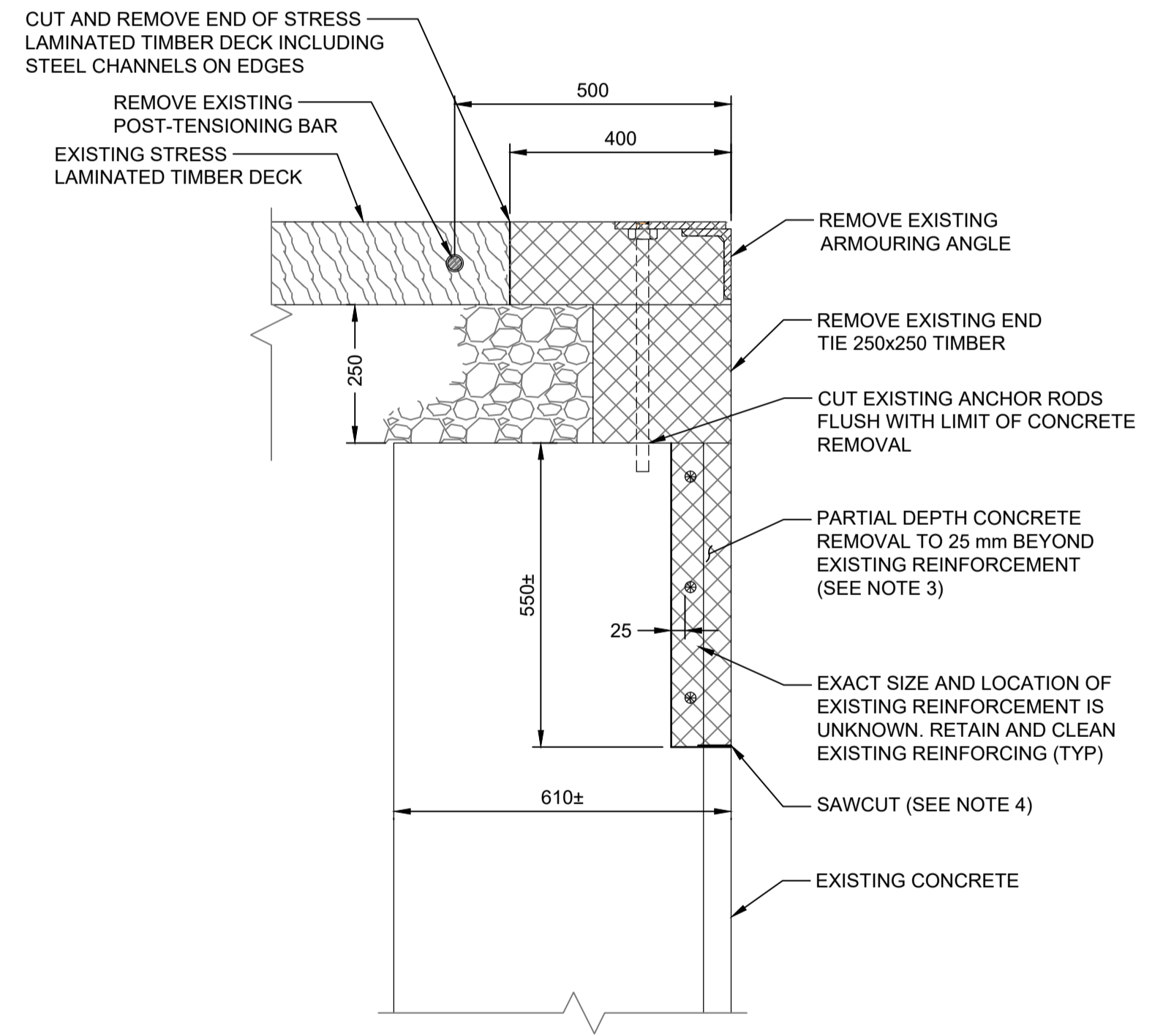
**EAST REST PIER PLAN REMOVALS**



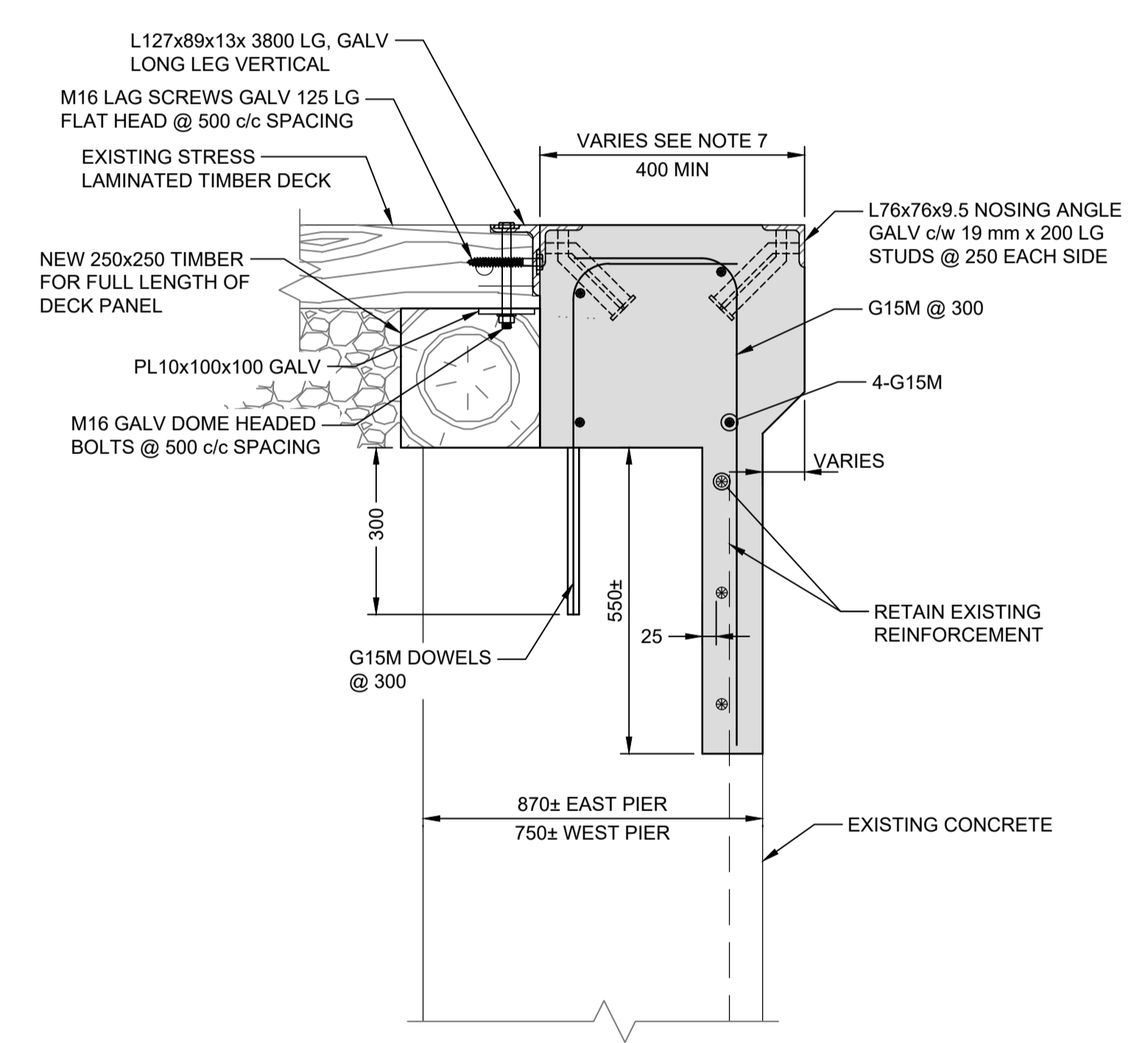
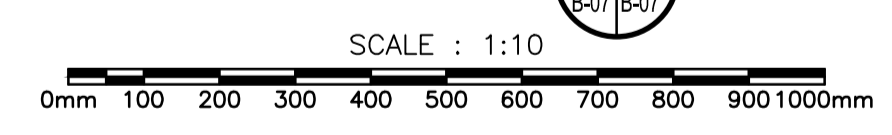
**EAST REST PIER PLAN REHABILITATION**



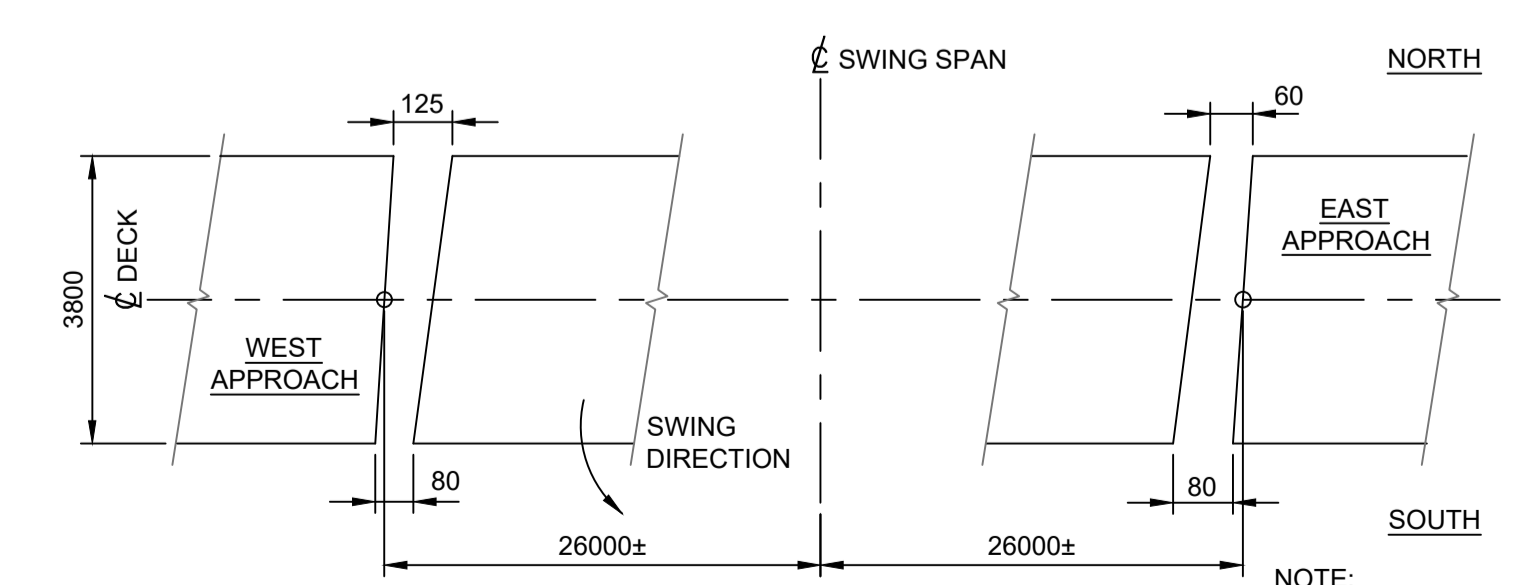
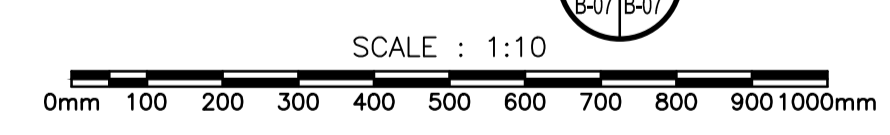
**EAST REST PIER ELEVATION**



**SECTION 1 REMOVALS**



**SECTION 2 REHABILITATION**



**PLAN - STEEL ARMOURING GAP DETAIL**

revision	description	date
1	ISSUED FOR TENDER	2020/11/23

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

A B/C	A Detail No.	No. du détail
	B drawing no. - where detail required	dessin no. - où détail exigé
	C drawing no. - where detailed	dessin no. - où détaillé

project title  
 titre du projet  
**SEGUIN, Ontario**  
**WASAUKSING SWING BRIDGE**  
**146 ROSE POINT**  
**PIER AND FENDER**  
**REHABILITATION**

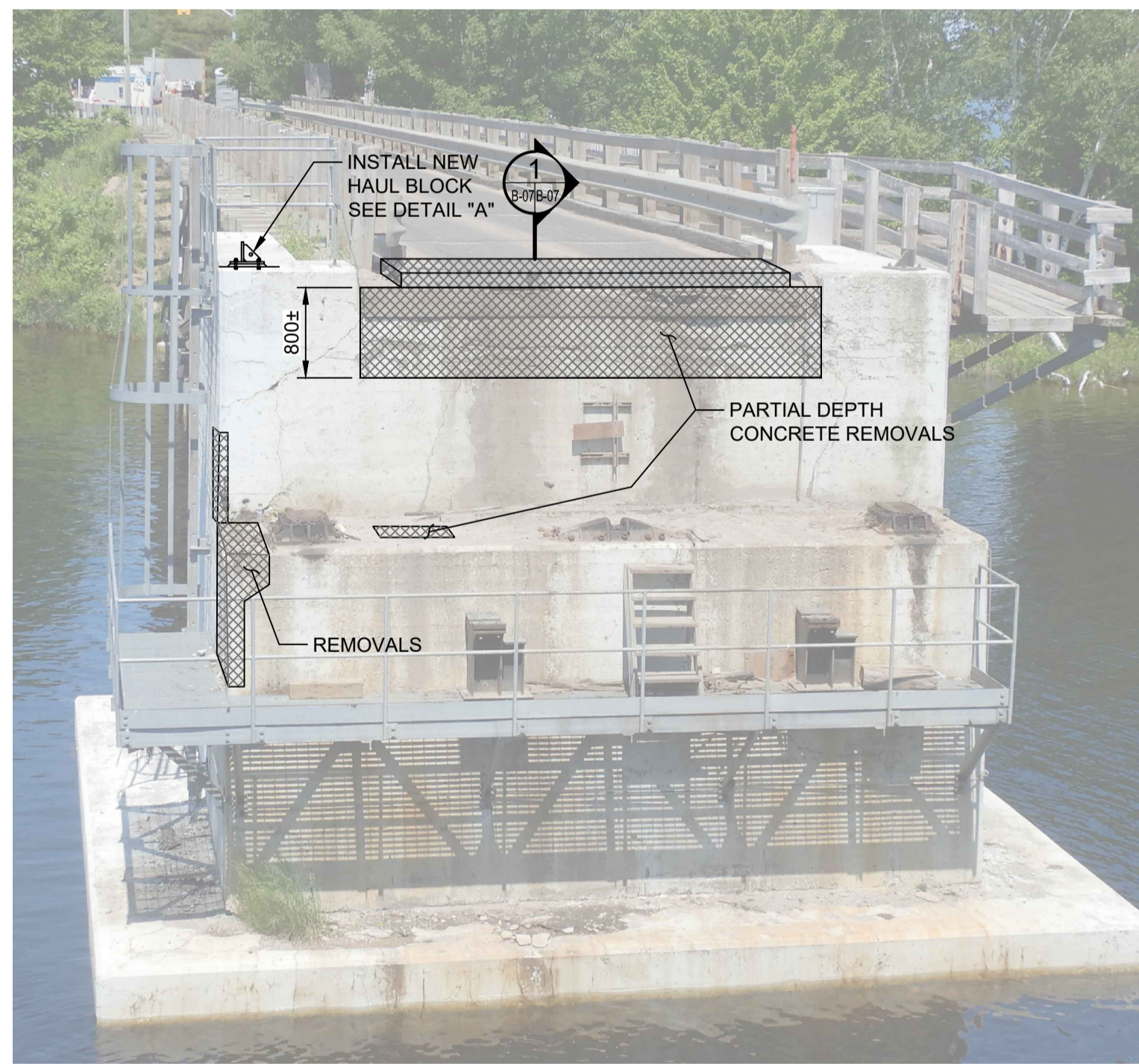
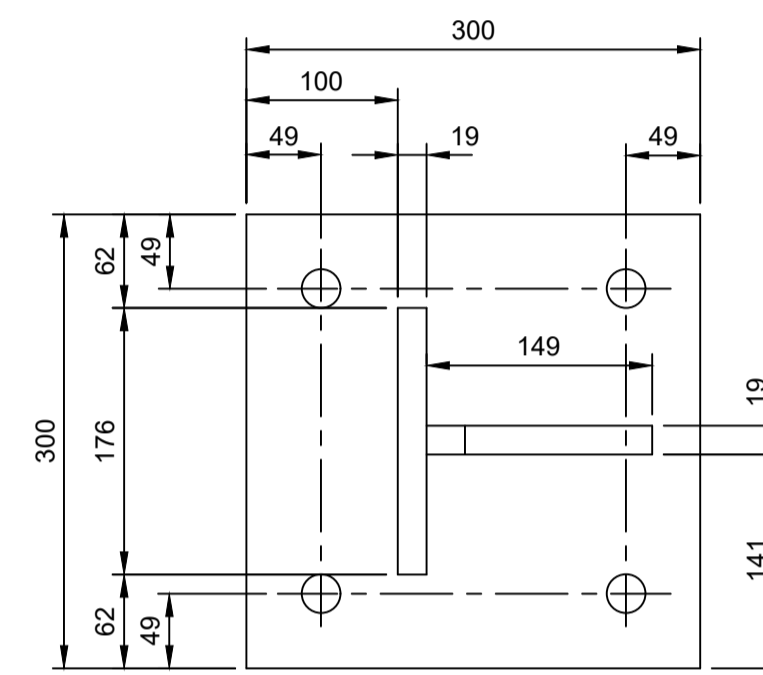
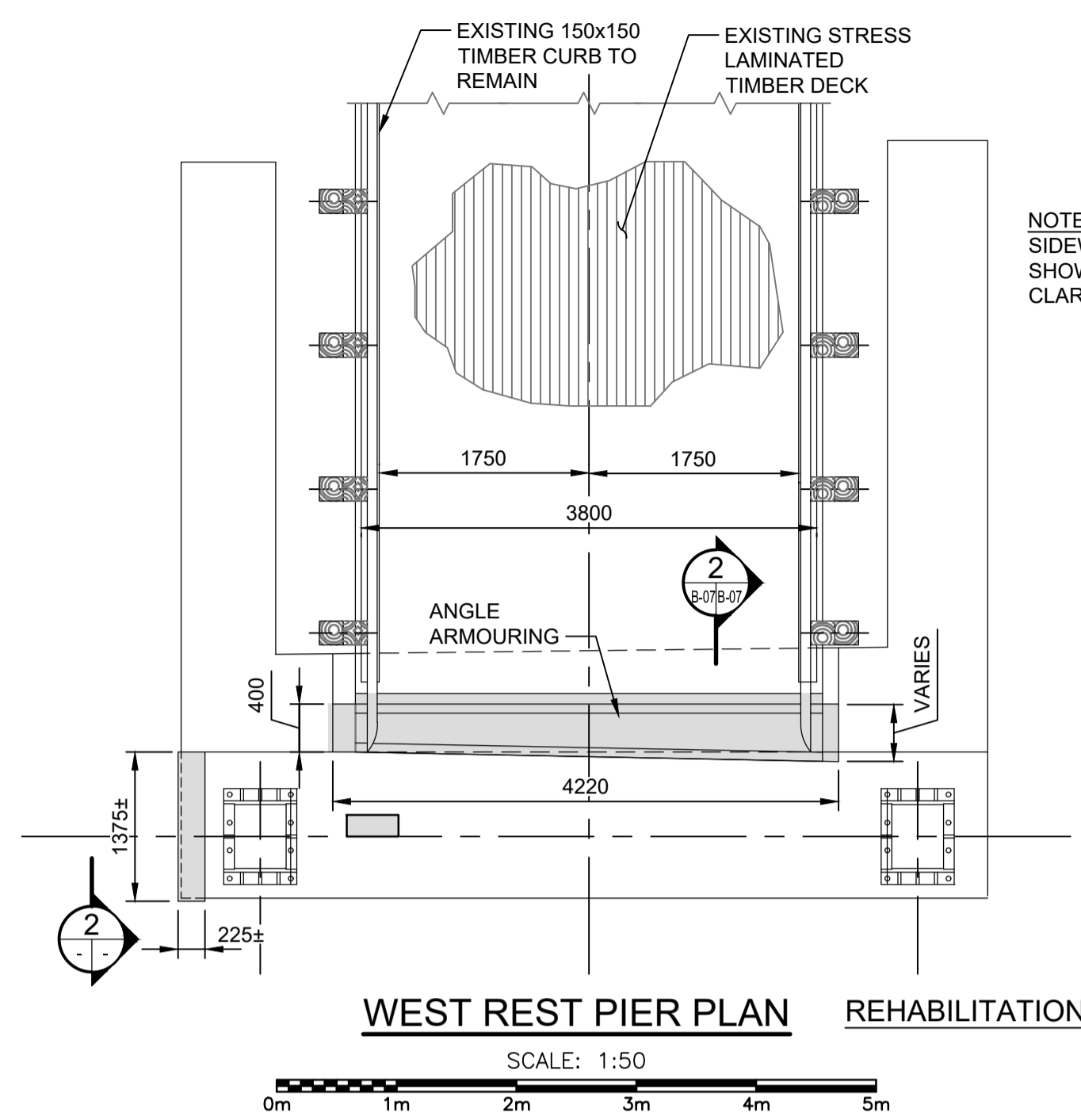
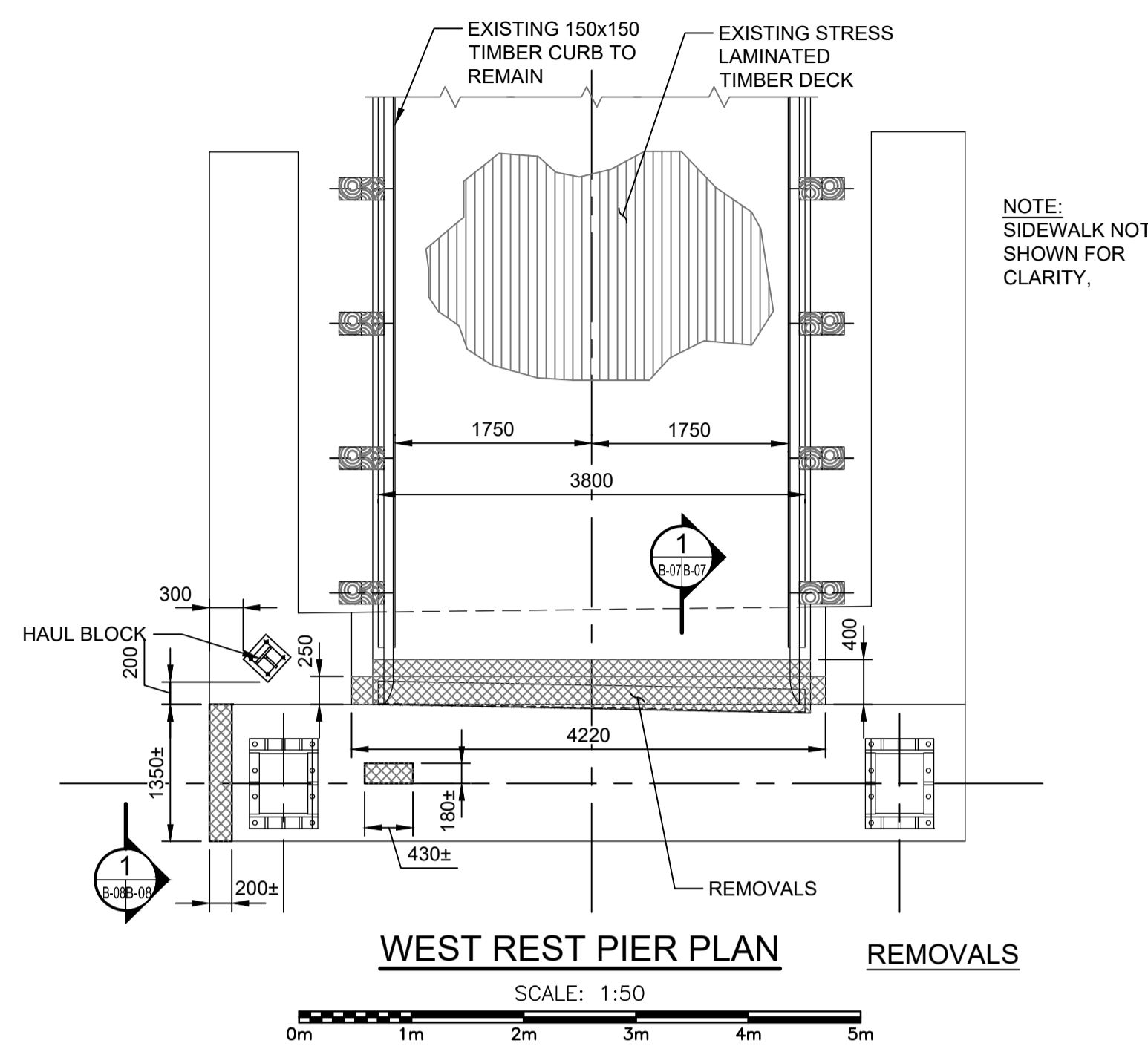
drawing title  
 titre du dessin  
**EAST REST PIER REPAIRS**

drawn by dessiné par	<b>RICHARD DYNKA</b>
designed by conçu par	<b>CARA WADDELL</b>
approved by approuvé par	<b>MICHAEL HOFTYZER</b>
tender soumission	<b>MEHDI SHABESTARY</b>
project manager administrateur de projets	<b>MEHDI SHABESTARY</b>
project date date du projet	<b>2020/11/23</b>
project no. no. du projet	<b>R.089868.004</b>
drawing no. dessiné no.	<b>B-07</b>

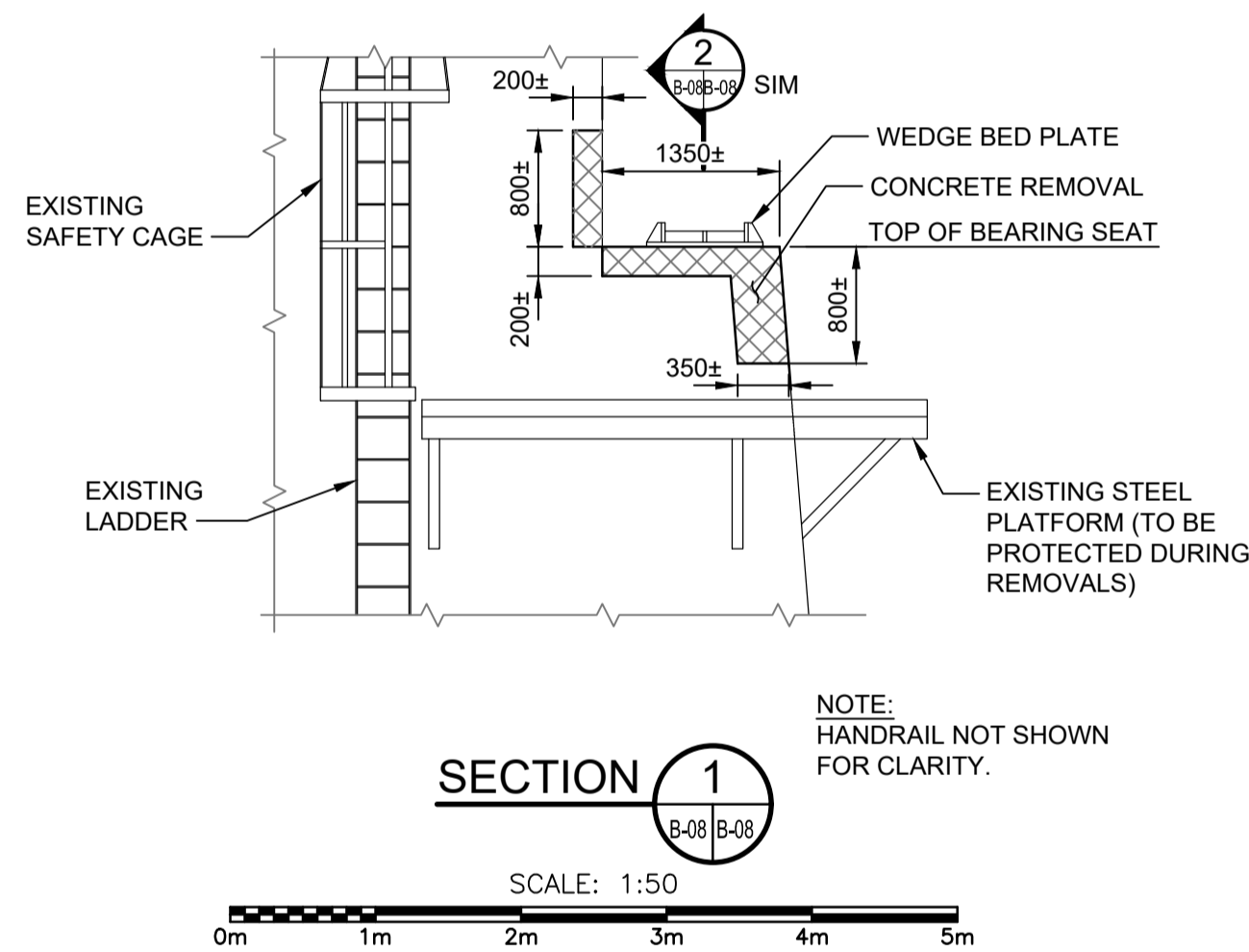


**NOTES:**

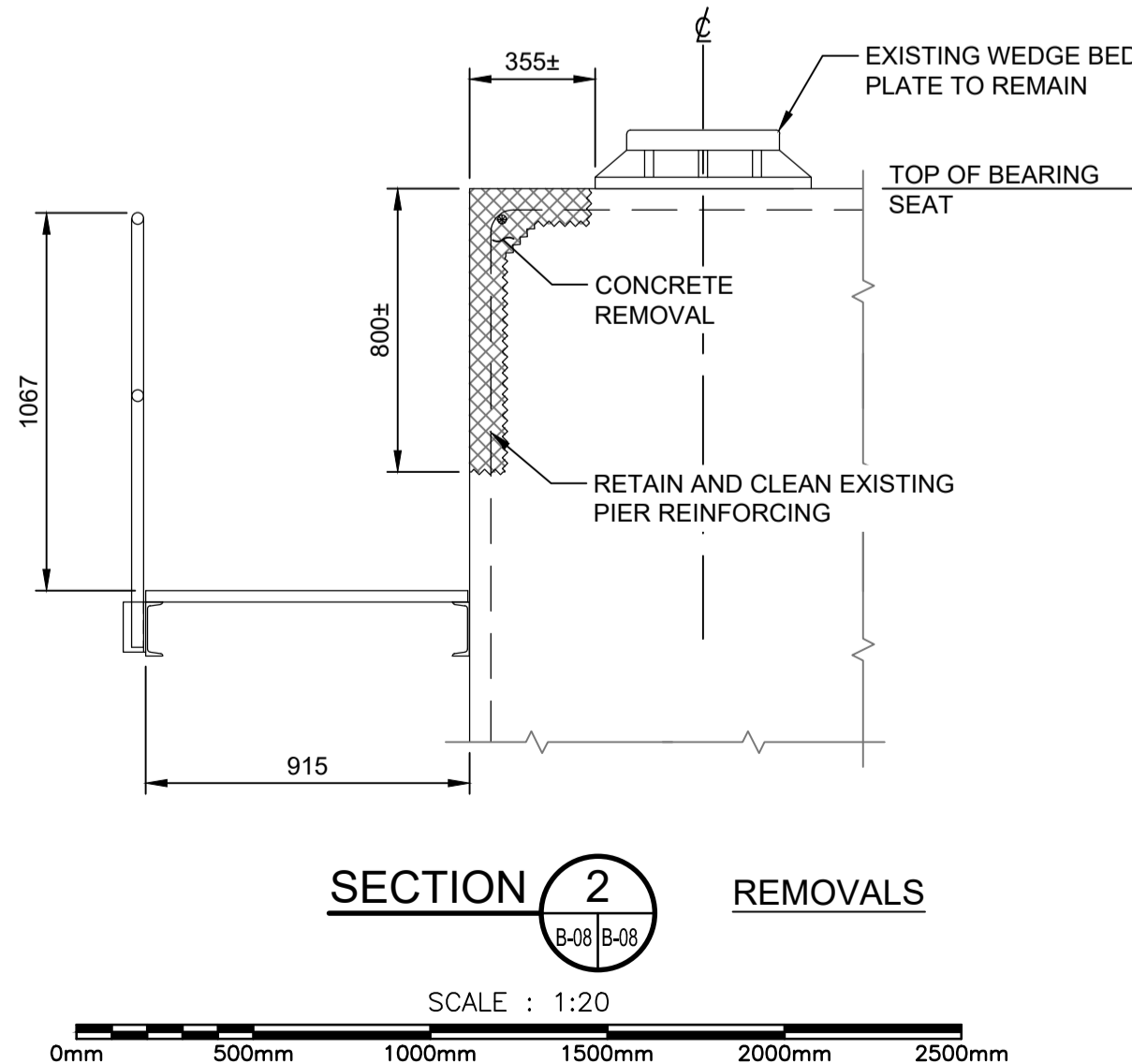
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS B-07.
2. EXISTING STRUCTURE DETAILS, ELEVATIONS, AND DIMENSIONS SHOWN ARE APPROXIMATE ONLY AND BASED ON THE AVAILABLE REFERENCE DRAWINGS, AND MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONCRETE REMOVAL.
3. FOR DETAILS OF CONCRETE PATCH REPAIRS SEE DRAWING B-15.
4. AREAS OF PARTIAL DEPTH REMOVALS SHOWN ON THE PIER ARE APPROXIMATE ONLY LOCATION AND EXTENT OF UNSOUND CONCRETE REQUIRING REMOVAL SHALL BE DETERMINED IN FIELD BY THE DEPARTMENTAL REPRESENTATIVE. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR THIS OPERATION IN THEIR WORK SCHEDULE. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFE ACCESS MEASURES IN A TIMELY MATTER TO ALLOW FOR THE INSPECTION AND TO COMPLETE THE WORK.
5. HAUL BLOCK TO BE CSA G40.21 GRADE 300W.



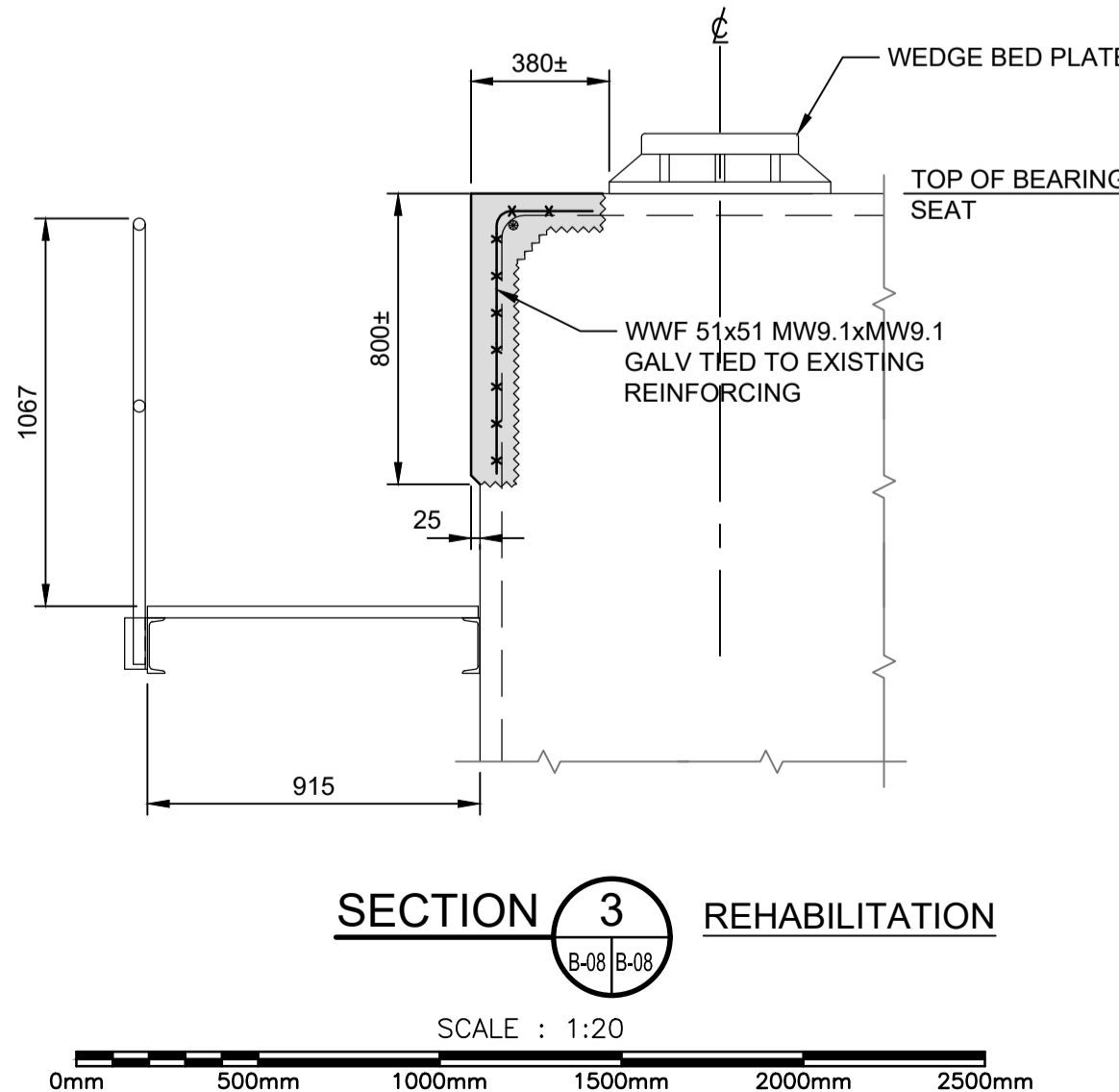
**WEST REST PIER ELEVATION**



**SECTION 1**



**SECTION 2**



**SECTION 3**

revision	description	date
1	ISSUED FOR TENDER	2020/11/23

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

A	Detail No.	
B	No. du détail	
B/C	drawing no. - where detail required	
	dessin no. - où détail exigé	
C	drawing no. - where detailed	
	dessin no. - où détaillé	

project title  
titre du projet  
**SEGUIN,** Ontario  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**WEST REST PIER REPAIRS**

drawn by  
dessiné par  
**RICHARD DYNKA**

designed by  
conçue par  
**CARA WADDELL**

approved by  
approuvé par  
**MICHAEL HOFTYZER**

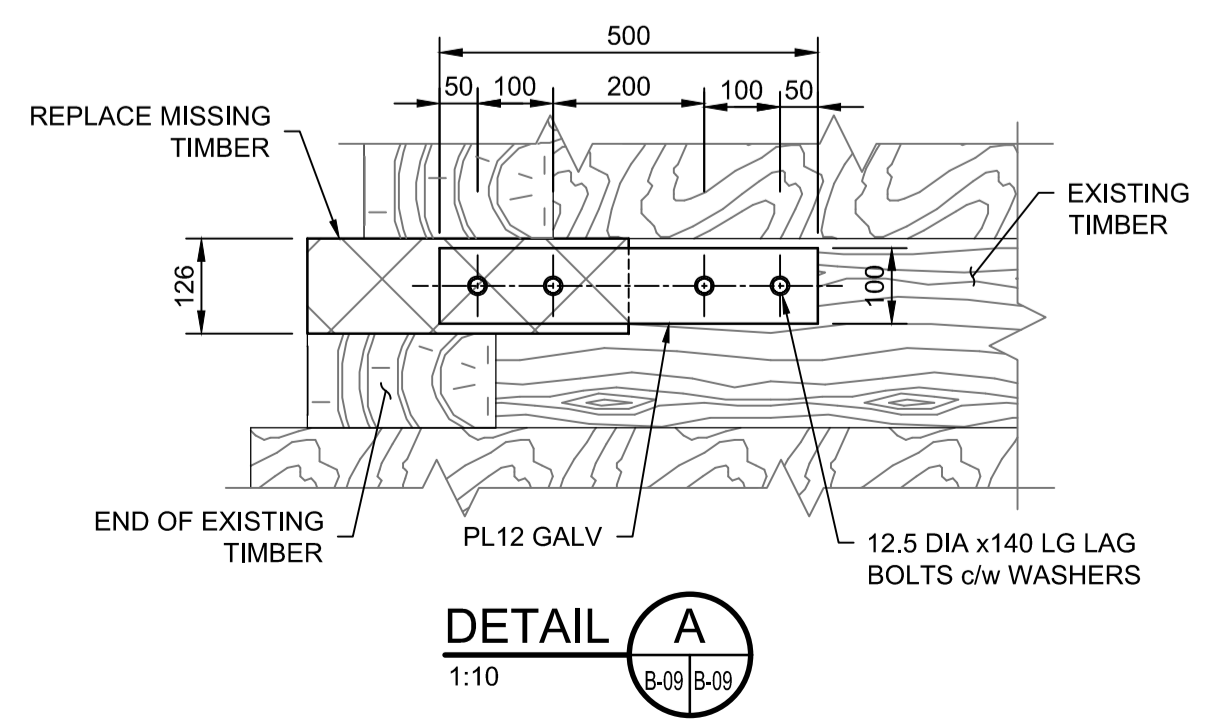
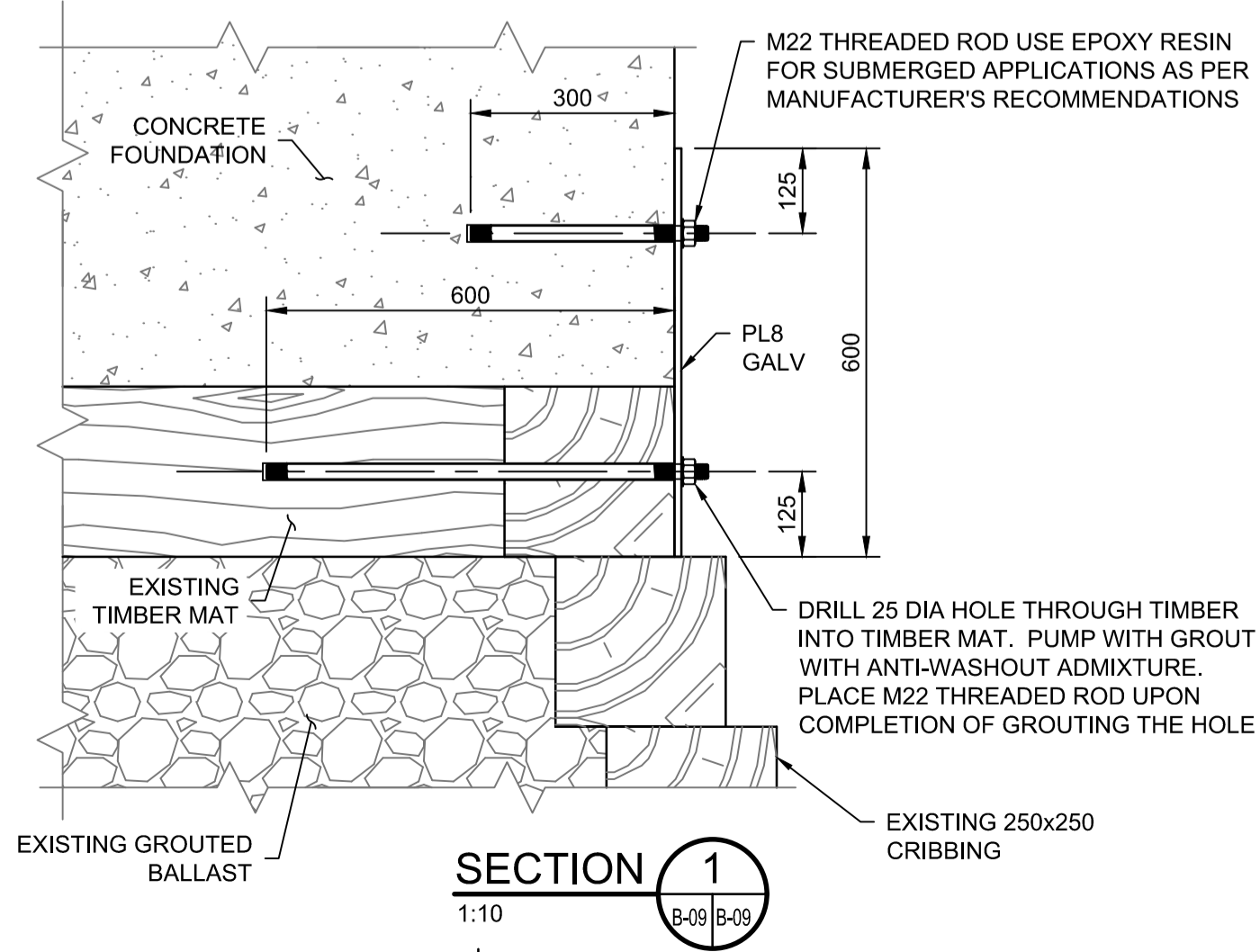
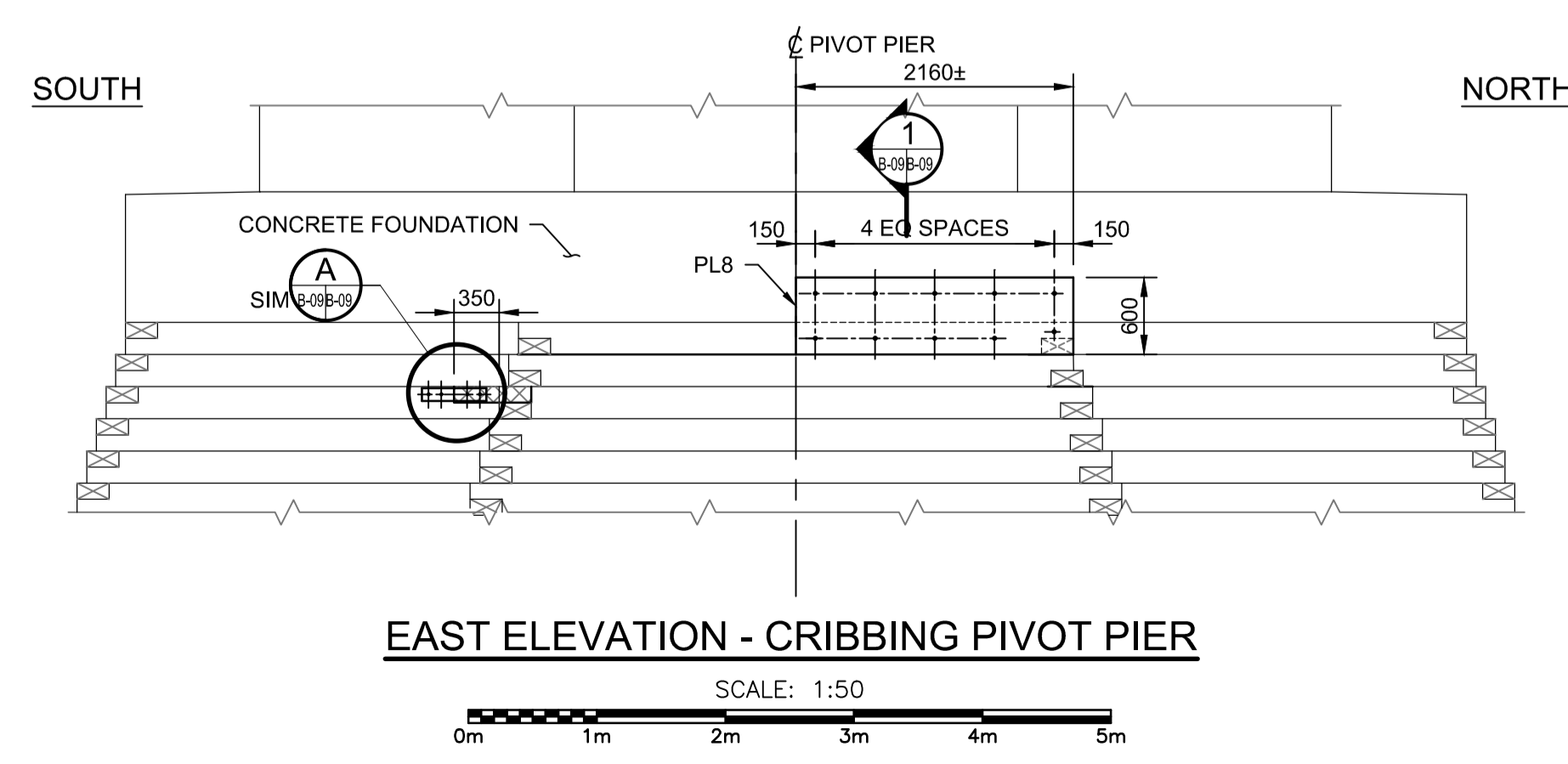
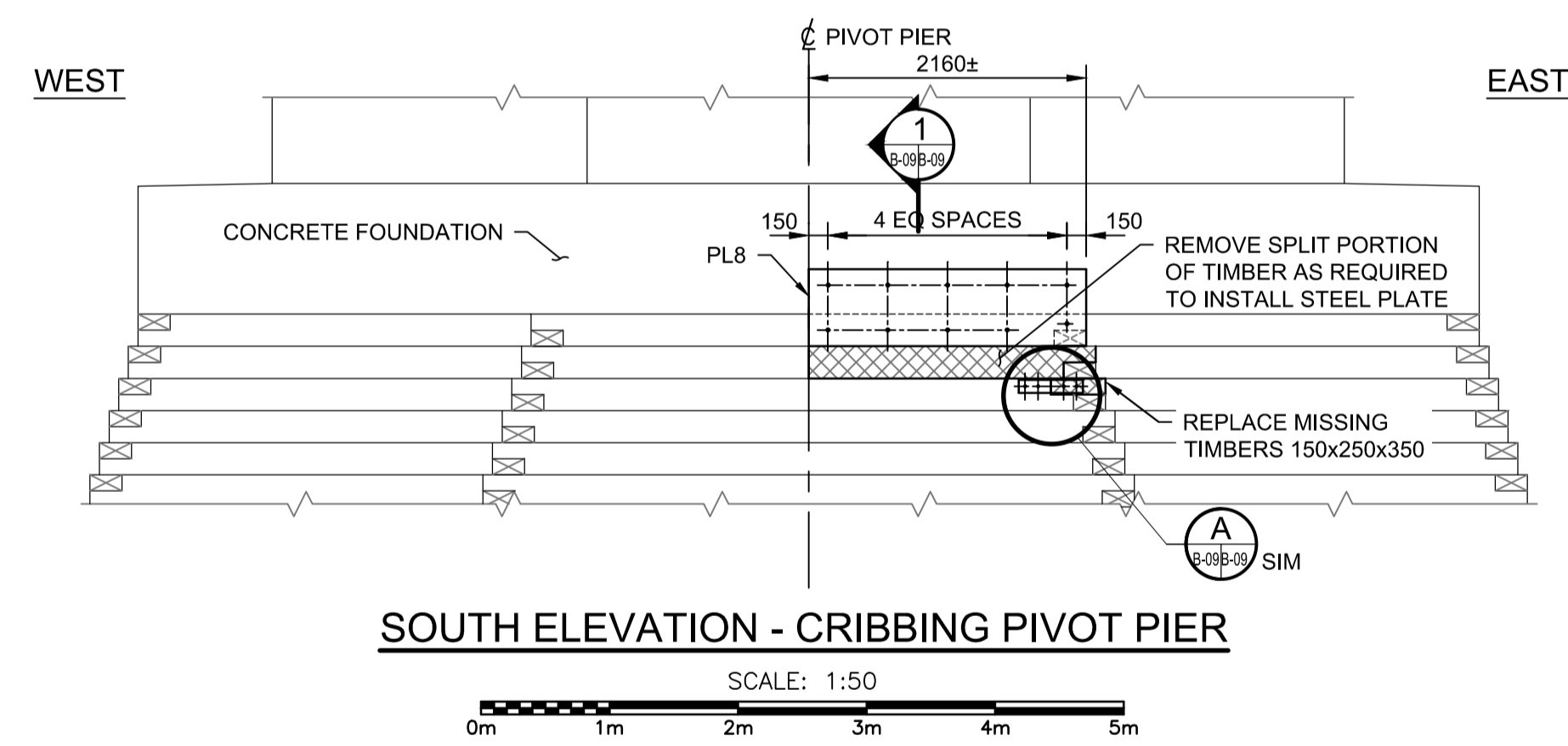
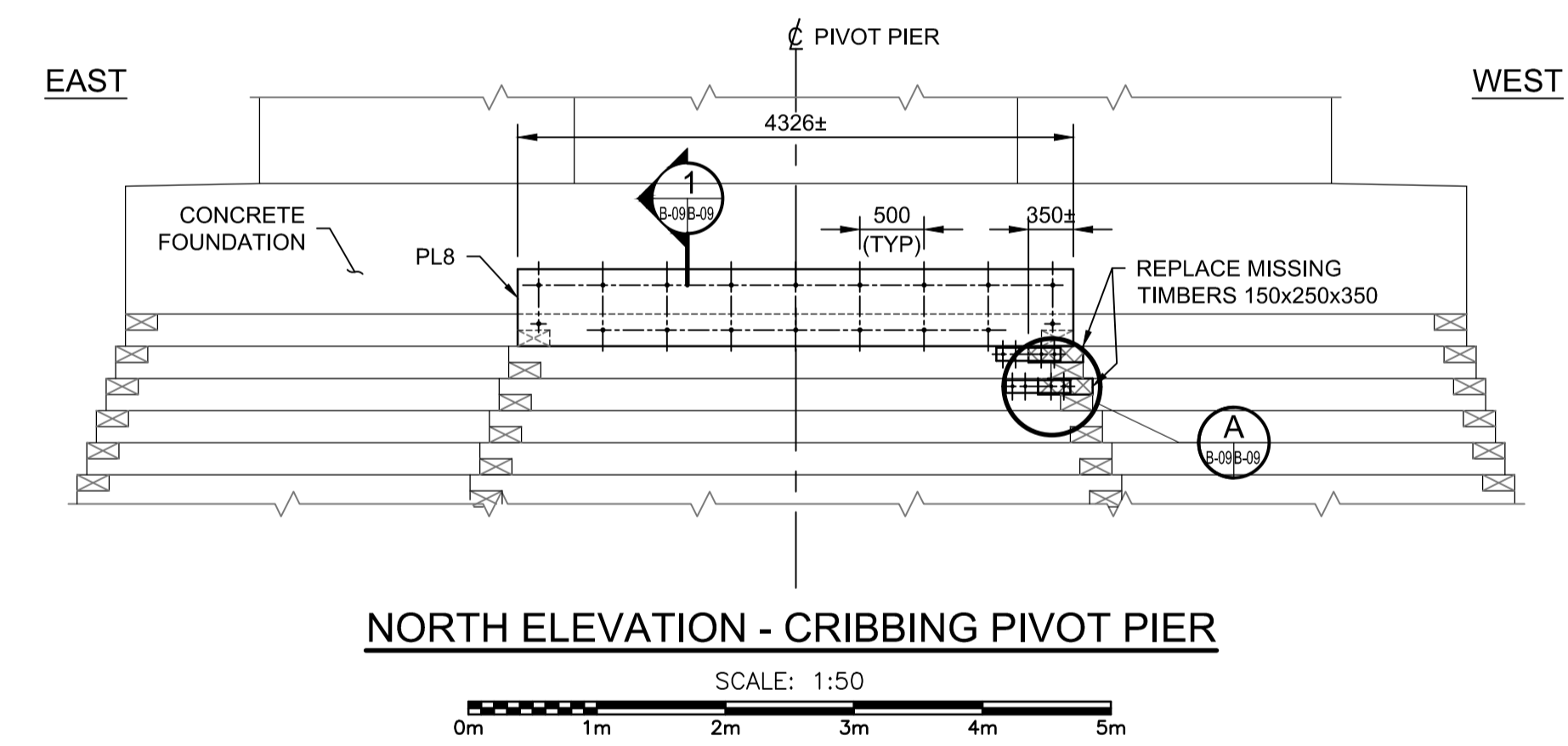
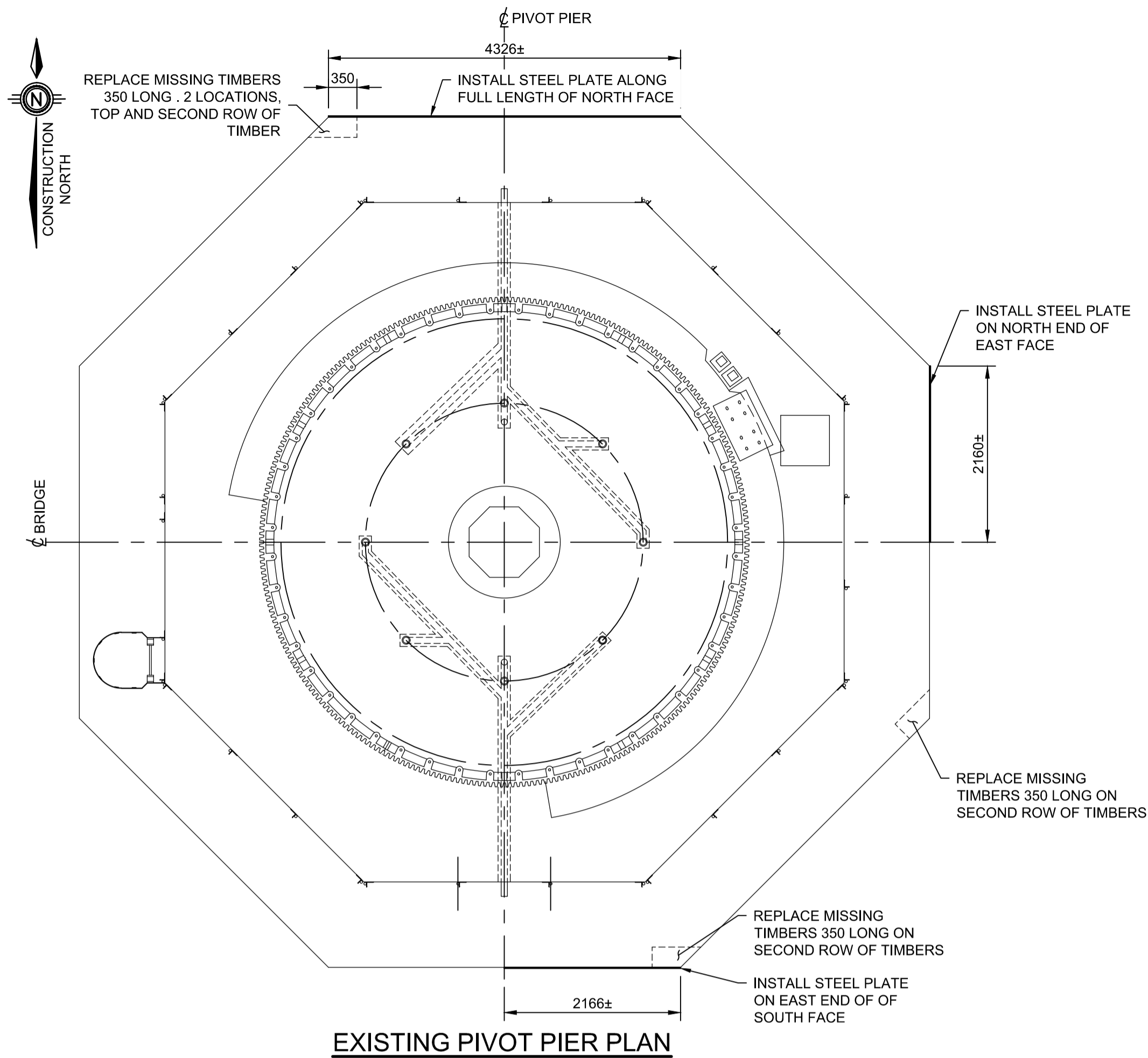
tender  
soumission  
**MEHDI SHABESTARY**

project manager  
administrateur  
de projets

project date  
date du projet  
**2020/11/23**

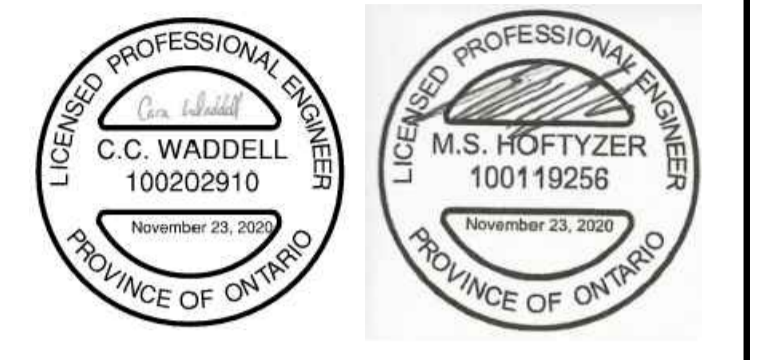
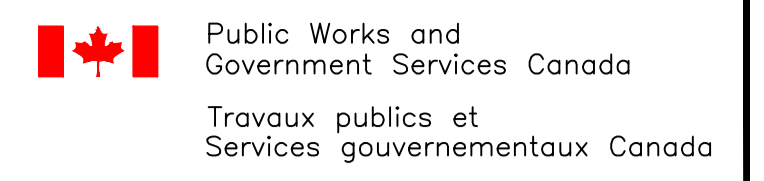
project no.  
no. du projet  
**R.089868.004**

drawing no.  
dessiné no.  
**B-08**



NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS B-06 AND B-08.
2. HOLES FOR LAG BOLTS SHALL BE PREDRILLED AND HAVE THE SAME DIAMETER AND DEPTH AS THE SHANK OF THE BOLT PLUS A LEAD HOLE FOR THE THREADED PORTION WITH A DIAMETER OF 75% OF THE SHANK DIAMETER. HOLES FOR DRIFT PINS SHALL BE 1.5 MM SMALLER THAN THE PIN DIAMETER.
3. LAG BOLTS SHALL BE INSTALLED BY TURNING.
4. LAG BOLTS BY DRIVING IS NOT PERMITTED.
5. STEEL FOR FASTENER PLATES SHALL CONFORM TO CSA G40.21 GRADE 300W.
6. ALL FASTENERS AND PLATES SHALL BE HOT DIP GALVANIZED TO CSA G164.
7. IT IS ASSUMED THAT THERE IS A TIMBER MAT IN LINE WITH THE TOP TIMBER.
8. THE TOP 1000 mm OF THE BALLAST WITHIN THE TIMBER CRIBBING HAS BEEN PREVIOUSLY GROUTED.
9. THE BASE OF THE CONCRETE FOUNDATION ALONG THE TIMBER CRIBBING IS IRREGULAR WITH NUMEROUS SPALLS.
10. SEAL STEEL PLATE AGAINST CONCRETE AND TIMBER PRIOR TO PUMPING GROUT.



1	ISSUED FOR TENDER	2020/11/23
revision		date

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

A	Detail No.
B	drawing no. - where detail required
C	drawing no. - where detailed

project title  
titre du projet  
**SEGUIN,** Ontario  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**PIVOT PIER TRESTLE  
TIMBER CRIBBING REPAIRS**

drawn by  
dessiné par RICHARD DYNKA

designed by  
conçue par CARA WADDELL

approved by  
approuvé par MICHAEL HOFTYZER

bid  
offre MEHDI SHABESTARY project manager  
administrateur de projets

project date  
date du projet 2020/11/23

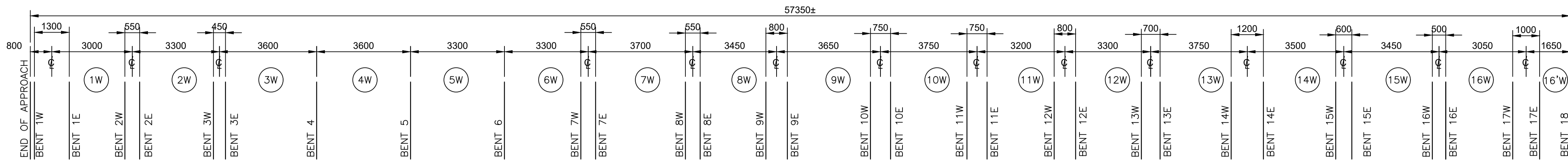
project no.  
no. du projet R.089868.004

drawing no.  
dessiné no. B-09

H:\IS04\75661\1000\DWG\SE-09 PIVOT PIER TIMBER CRIBBING REPAIRS.dwg  
Nov 23, 2020 - 4:10pm  
REVISED BY: AKL

WEST

EAST



WEST APPROACH SPAN - SOUTH ELEVATION

NOTES

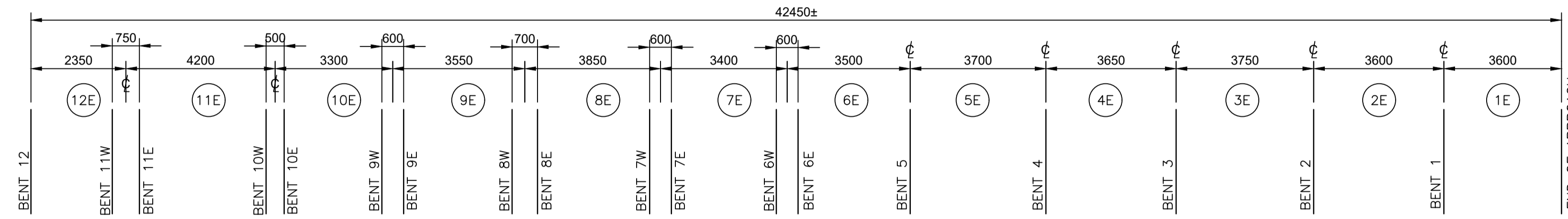
THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS B-11 & B-12.

**PARSONS**



WEST

EAST



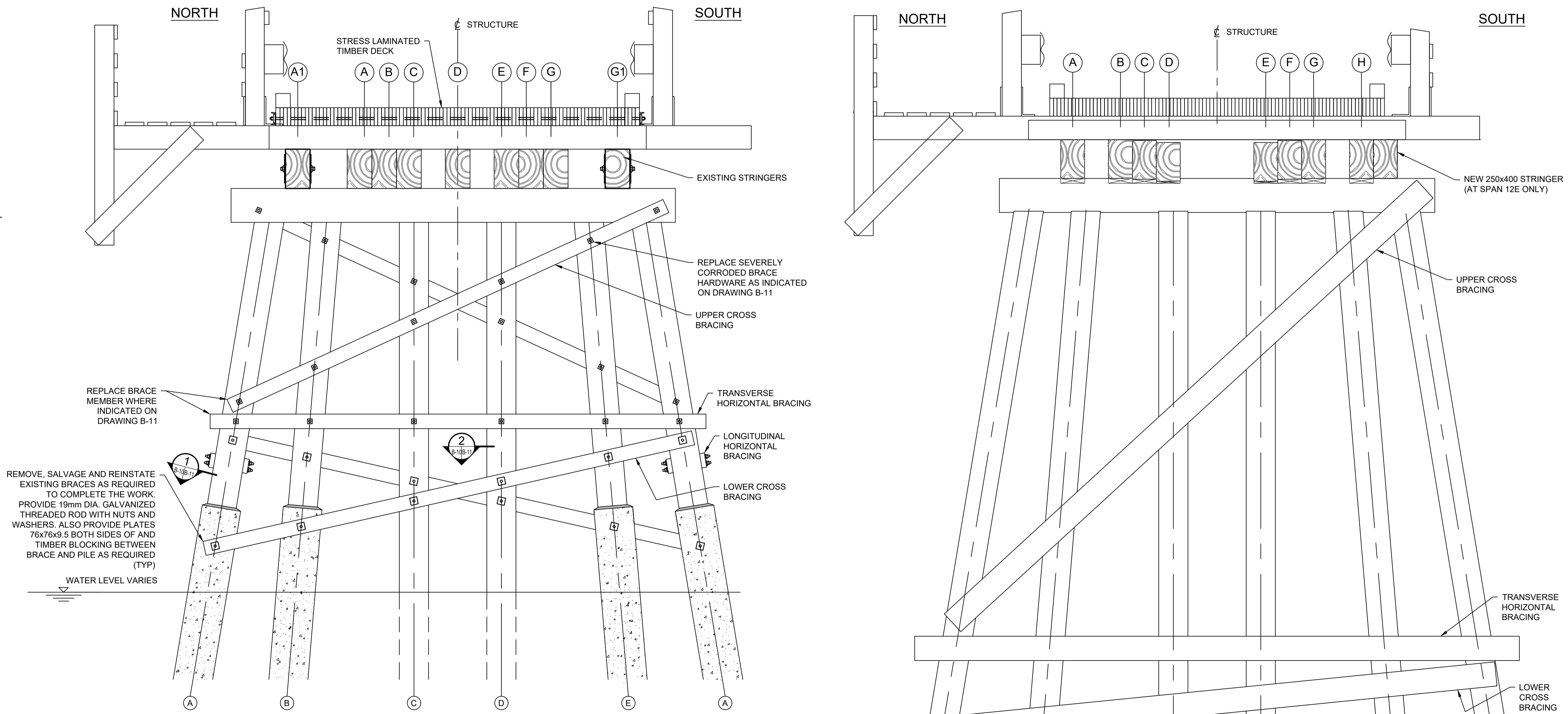
EAST APPROACH SPAN - SOUTH ELEVATION

NORTH

SOUTH

NORTH

SOUTH



TYPICAL ELEVATION - WEST TRESTLE PILE JACKETS (BENT 10 SHOWN)

ELEVATION - EAST TRESTLE BENT 4 EAST

1	ISSUED FOR TENDER	2020/11/23
revision		date

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

- A Detail No. du détail
- B drawing no. - where detail required dessin no. - où détail exigé
- C drawing no. - where detailed dessin no. - où détaillé

project title  
titre du projet  
**SEGUIN,** Ontario  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**TIMBER TRESTLE REPAIRS  
SHEET 1**

drawn by  
dessiné par  
RICHARD DYNKA

designed by  
conçue par  
CARA WADDELL

approved by  
approuvé par  
MICHAEL HOFTYZER

bid  
offre  
MEHDI SHABESTARY

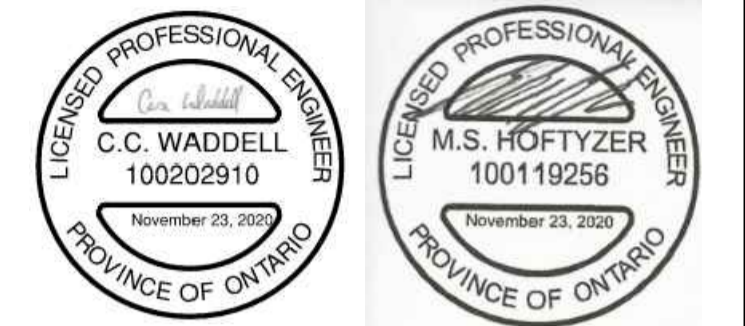
project date  
date du projet  
2020/11/23

project no.  
no. du projet  
R.089868.004

drawing no.  
dessiné no.  
B-10

project manager  
administrateur de projets

**PARSONS**



**CONSTRUCTION NOTES**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS B-10 & B-12.
- LENGTH AND DEPTH OF AFFECTED AREA SHALL BE VERIFIED BY THE CONTRACTOR ON SITE PRIOR TO PROCUREMENT OF MATERIAL.
- REMOVE LOOSE AND DETERIORATED WOOD FIBER FROM PILE EXTERIOR PRIOR TO INSTALLATION OF JACKET AS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
- SUPPORT JACKET DURING POURING BY RATCHET STRAPS OR BY OTHER MEANS AS APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
- TIMBER FOR BRACING SHALL BE EQUIVALENT TO EXISTING. CONTRACTOR TO CONFIRM ALL LENGTHS AND SIZES PRIOR TO ORDERING THE MATERIAL.
- THREADED ROD TO CONFORM TO ASTM A307.
- THREADED ROD HOLES IN WOOD TO BE DRILLED NOT LESS THAN 1.0 mm NOR MORE THAN 2.0 mm LARGER THAN THE THREADED ROD DIAMETER.
- ALL HARDWARE, FASTENERS AND PLATES TO BE HOT-DIP GALVANIZED IN ACCORDANCE WITH CSA G164.

**LOCATION OF TIMBER BRACING REPLACEMENT**

- WEST APPROACH SPAN  
BENT 15E - LOWER CROSS-BRACING  
BENT 16E - TRANSVERSE HORIZONTAL BRACING  
BENT 16E - LOWER CROSS-BRACING  
SPAN 4W - NORTH SIDE LONGITUDINAL HORIZONTAL BRACING

**LOCATION OF TIMBER BRACING HARDWARE REPLACEMENT**

- EAST APPROACH SPAN  
BENT 8E - TRANSVERSE CROSS-BRACING  
WEST APPROACH SPAN  
BENT 4 - UPPER CROSS - BRACING  
BENT 6 - UPPER CROSS - BRACING  
BENT 8E - TRANSVERSE HORIZONTAL BRACING

**PILES THAT REQUIRE SHIMMING**

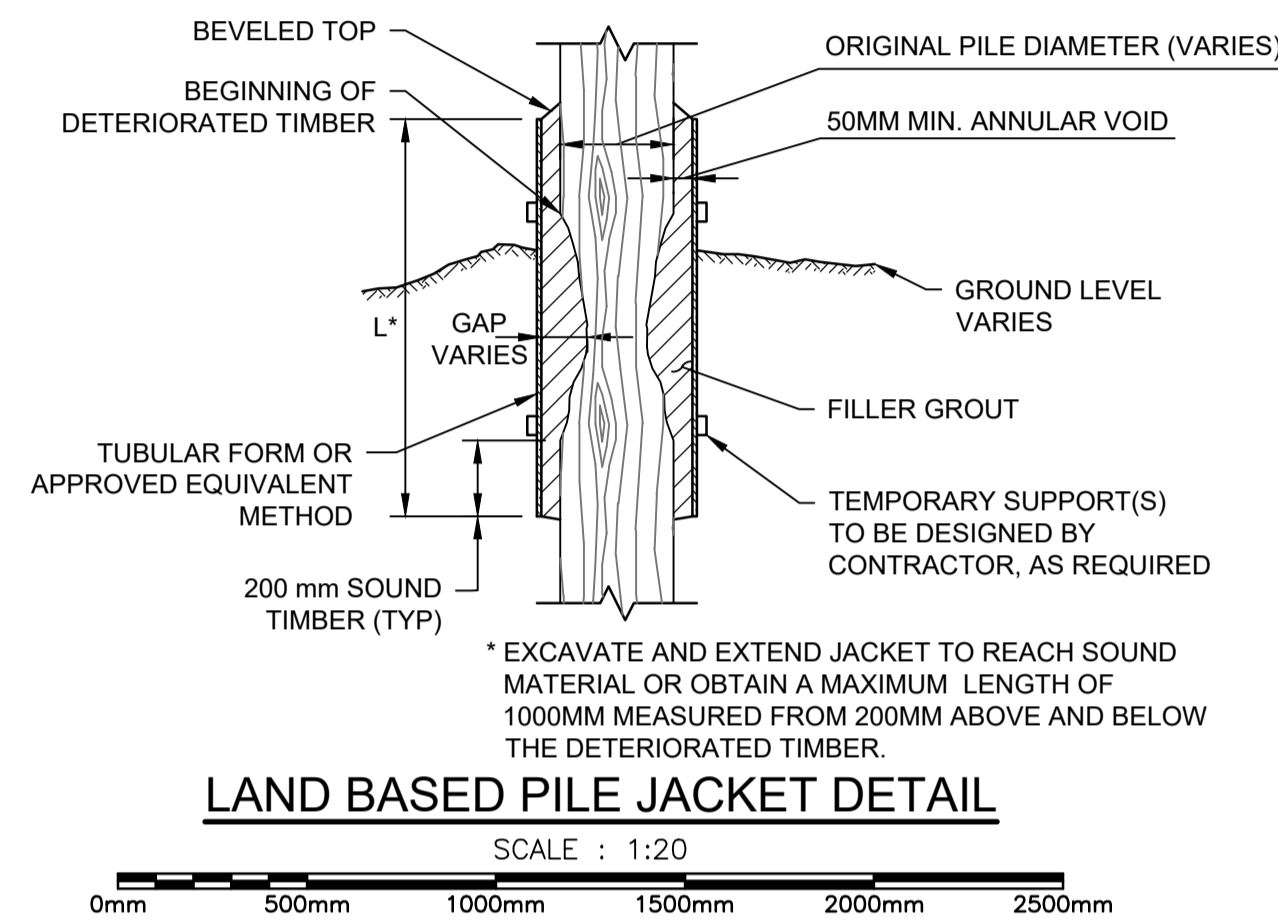
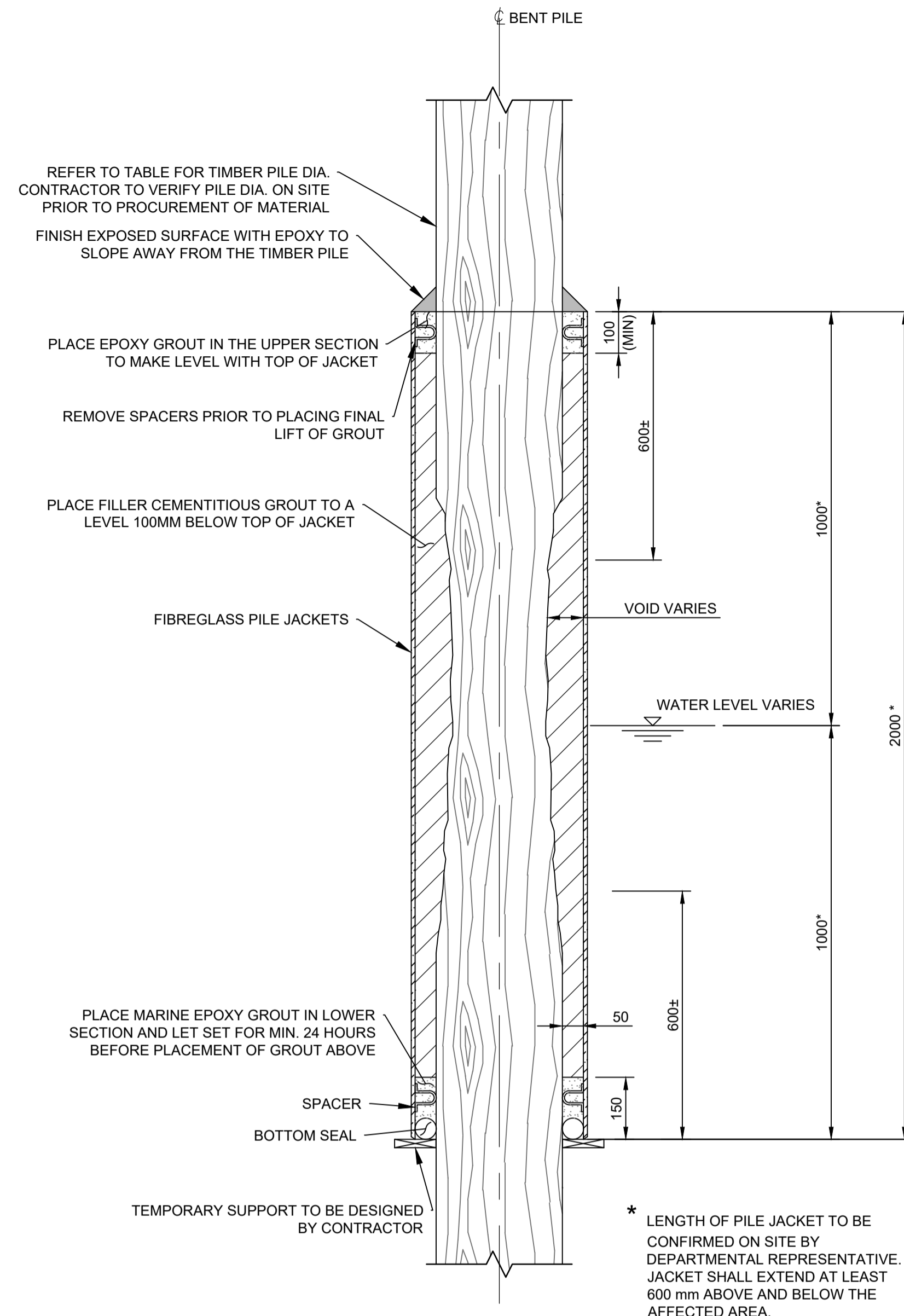
- WEST APPROACH SPAN  
BENT 1E - PILES C, D & F  
BENT 2E - PILES A & F  
BENT 3E - PILES A & F  
BENT 4 - PILE C  
BENT 8E - PILES A  
BENT 9E - PILES A & B

**STRINGERS THAT REQUIRE SHIMMING**

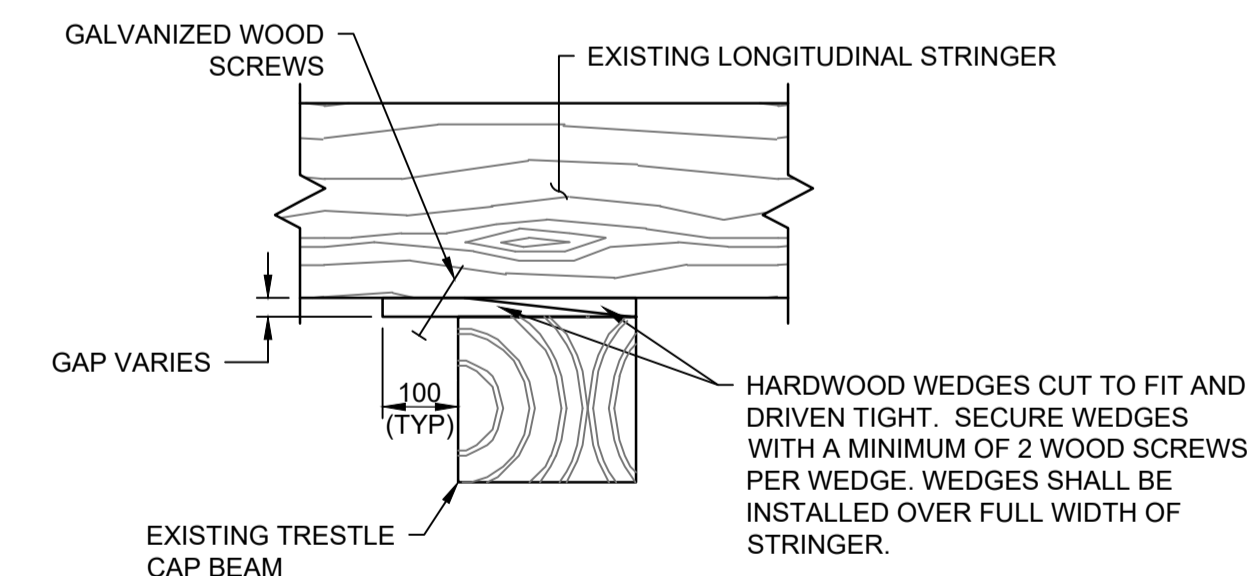
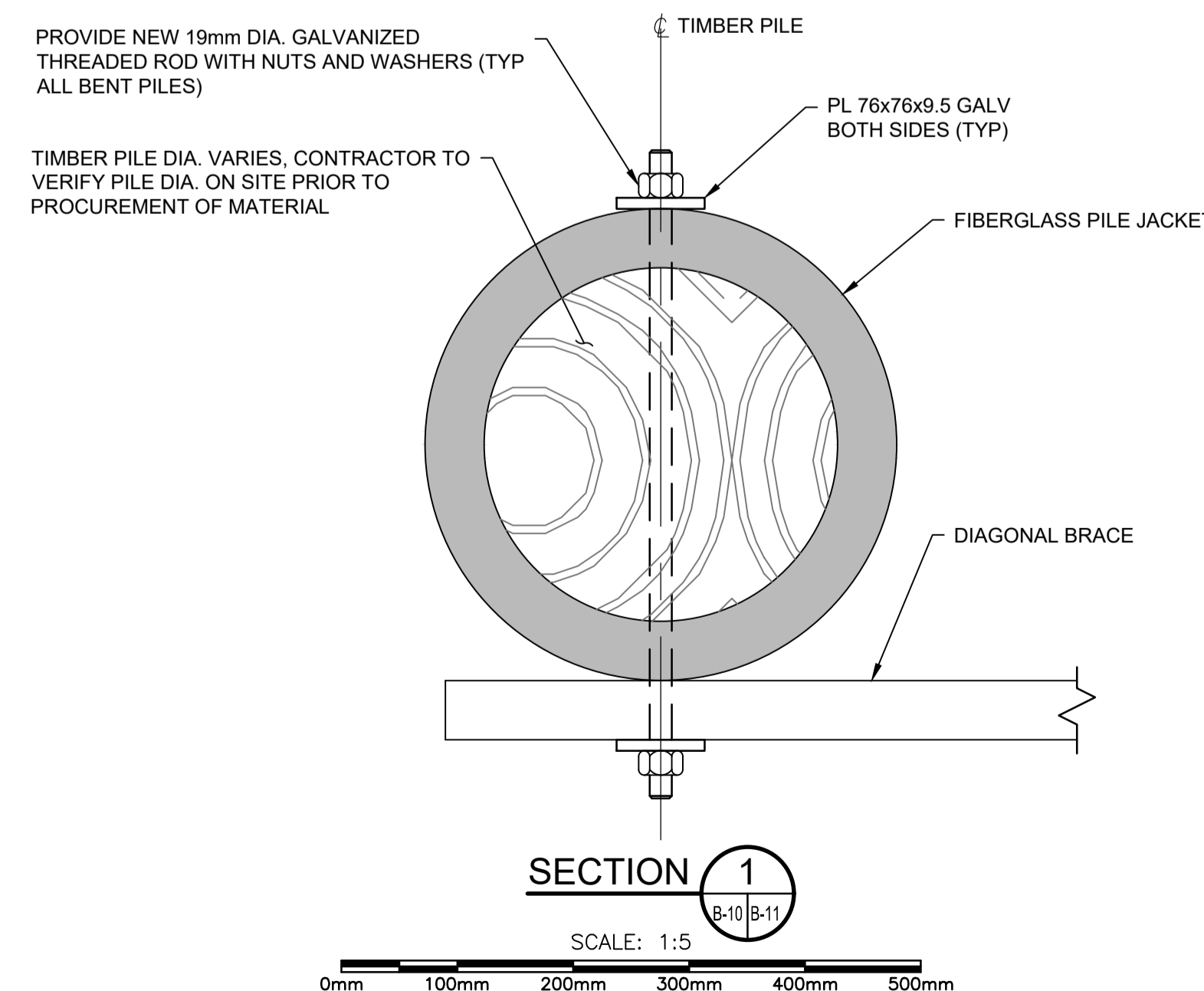
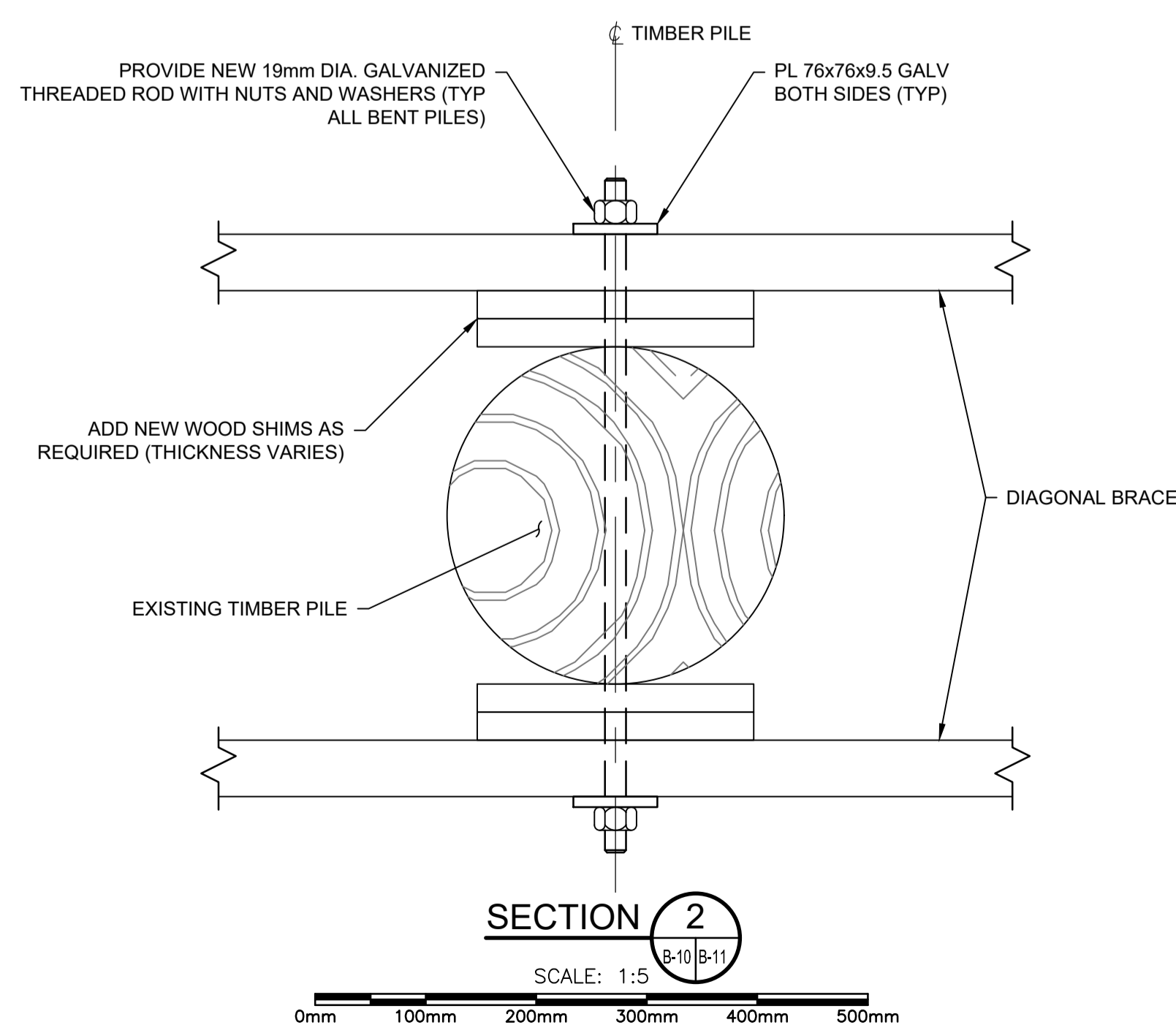
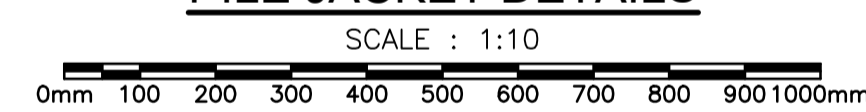
- EAST TRESTLE SPAN  
BENT 3E - ALL STRINGERS  
BENT 6E - STRINGER B  
WEST TRESTLE SPAN  
BENT 1E - STRINGERS D & G  
SPAN 6W - STRINGER C  
SPAN 7W - STRINGER D  
SPAN 9W - STRINGERS E & G

**PILES THAT REQUIRE JACKETS**

- EAST TRESTLE SPAN  
BENT 9 - PILE D (375), PILE E (350) - WATER  
WEST TRESTLE SPAN  
BENT 1 - PILE B - LAND  
BENT 2 - PILE B - LAND  
BENT 3 - PILE C - LAND  
BENT 7E - PILE D (270) - WATER  
BENT 10E - PILE A (370) - WATER  
BENT 11E - PILE A (270), PILE B (340), PILE D (270) - WATER  
BENT 12E - PILE B (290), PILE C (250) - WATER  
BENT 14E - PILE D (230) - WATER  
BENT 15E - PILE B (280) - WATER  
BENT 16E - PILE E (280) - WATER  
BENT 17W - PILE C (250) - WATER

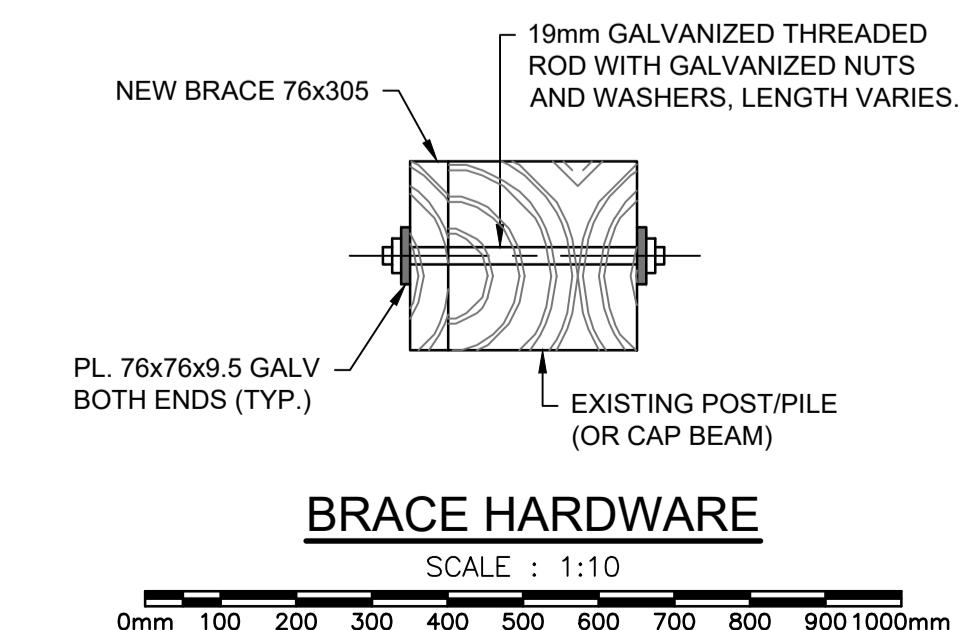
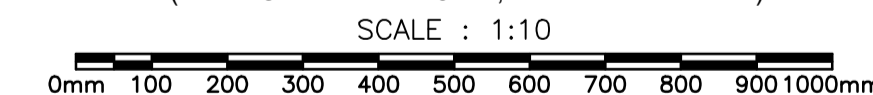


**PILE JACKET DETAILS**



**STRINGER SHIM DETAIL**

(STRINGER SHIM SHOWN, PILE SHIM SIMILAR)



**BRACE HARDWARE**

SCALE: 1:10

1	ISSUED FOR TENDER	2020/11/23
revision		date

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

A	Detail No.
B	No. du détail
C	drawing no. - where detail required dessin no. - où détail exigé
	drawing no. - where detailed dessin no. - où détaillé

project title  
titre du projet  
**SEGUIN,** Ontario  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**TIMBER TRESTLE REPAIRS  
SHEET 2**

drawn by  
dessiné par  
RICHARD DYNKA

designed by  
conc par  
CARA WADDELL

approved by  
approuvé par  
MICHAEL HOFTYZER

bid  
offre  
MEHDI SHABESTARY

project date  
date du projet  
2020/11/23

project no.  
no. du projet  
R.089868.004

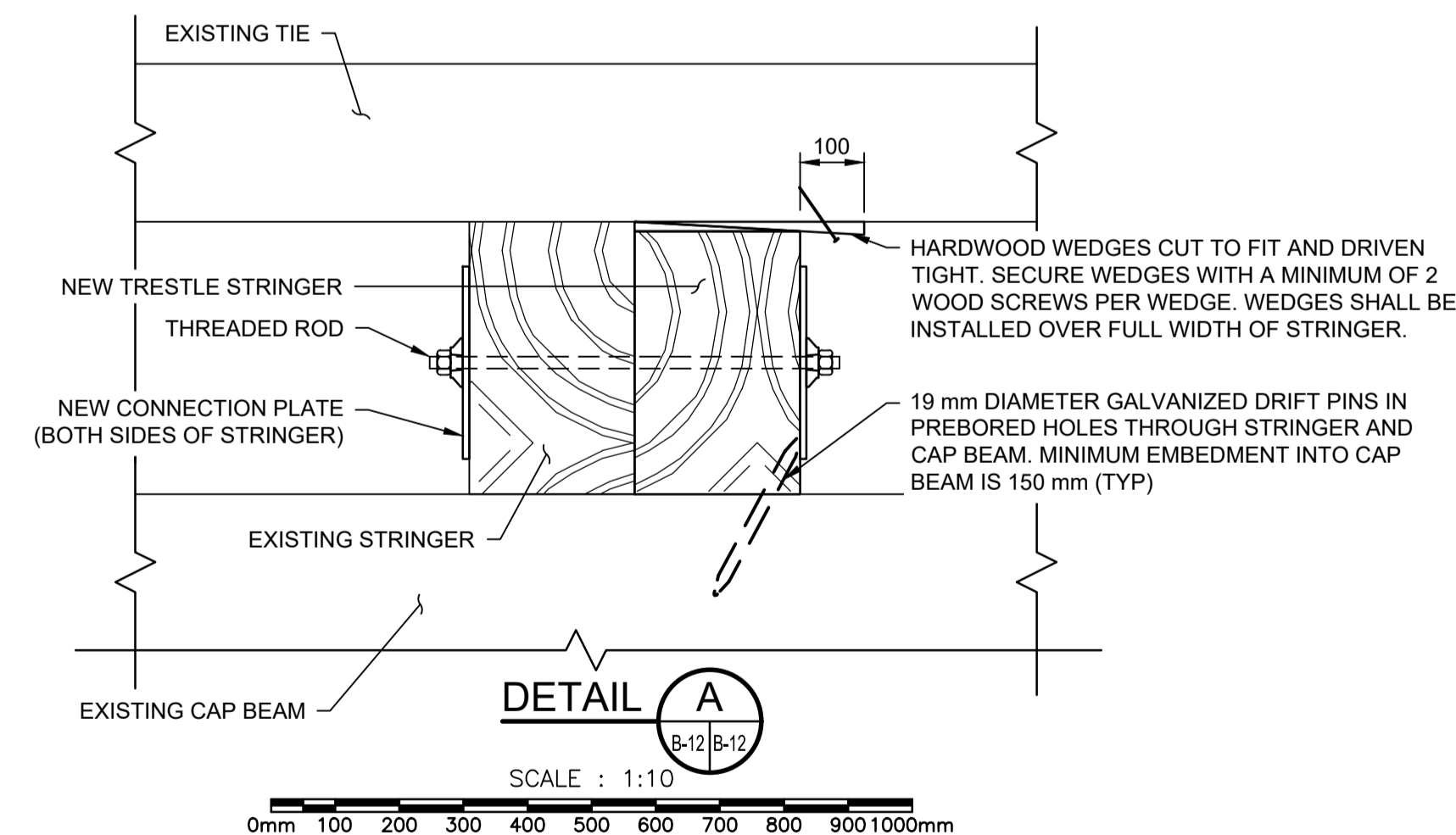
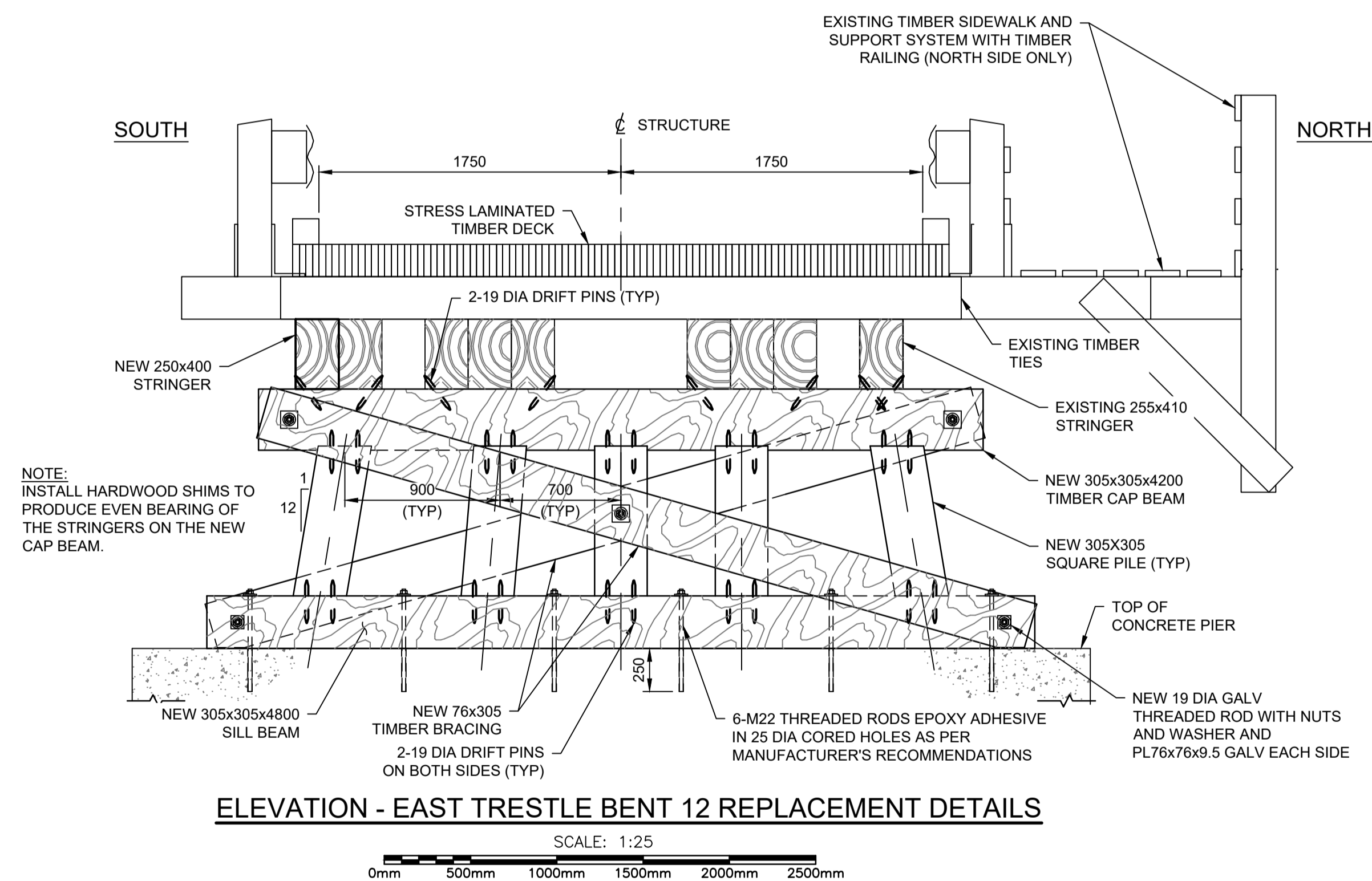
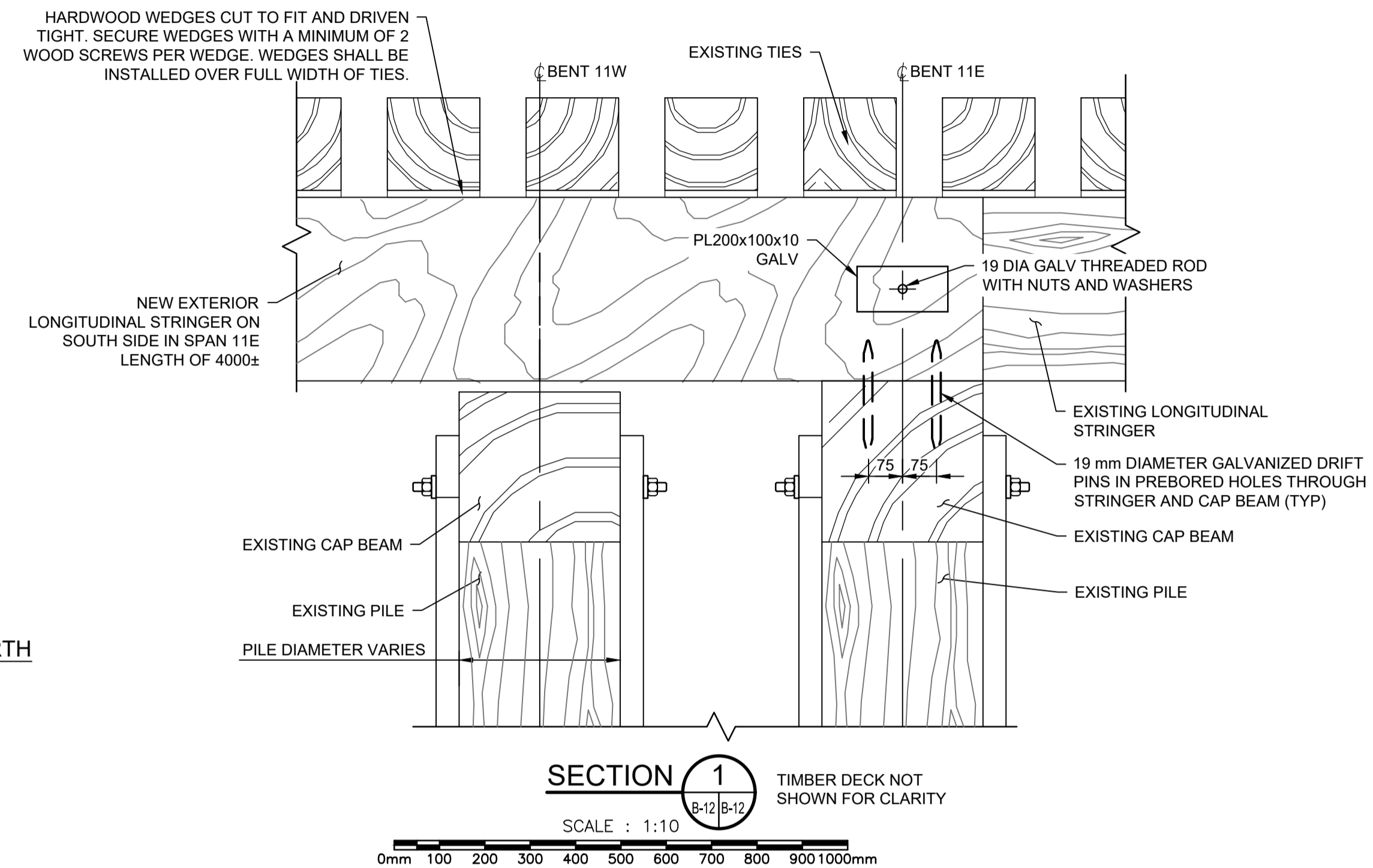
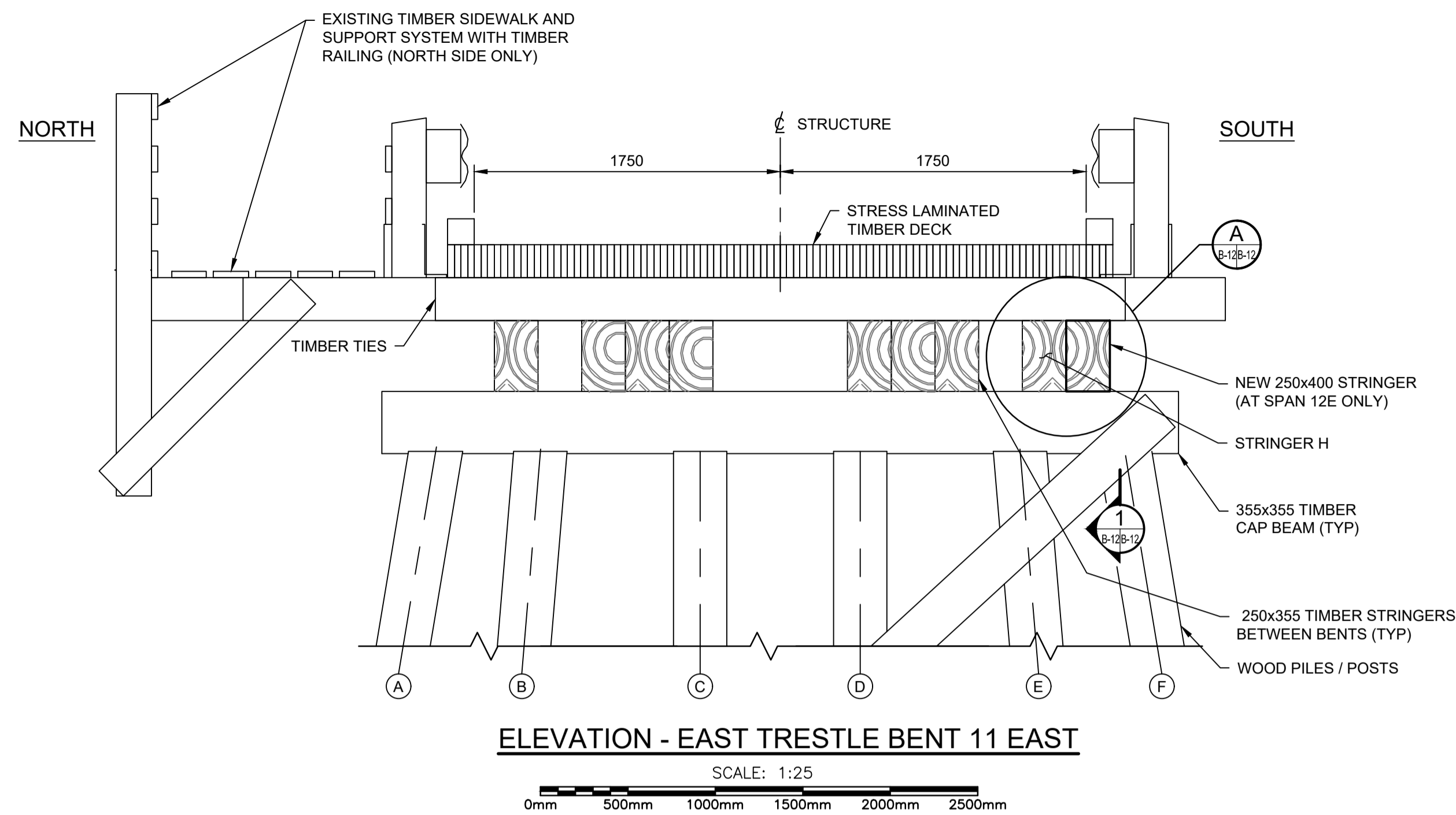
drawing no.  
dessiné no.  
B-11

**PARSONS**



**NOTES**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS B-10 & B-11.
2. EXISTING TIE RODS THROUGH THE TIMBER TIES CAN BE REMOVED TO FACILITATE THE INSTALLATION OF THE STRINGER WITH DEPARTMENTAL REPRESENTATIVE APPROVAL.
3. ANCHOR BOLTS FOR RAILING SYSTEM BOLTS TO BE PROTECTED DURING INSTALLATION OF STRINGER.
4. STRINGERS ARE CURRENTLY NOT BEARING ON BENT 12 AND ARE BEARING ON CONCRETE PIER.
5. FOLLOWING INSTALLATION OF BENT 12 AND PROPER SHIMMING, CUT ENDS OF STRINGERS BETWEEN BENT 12 AND THE CONCRETE PIER.
6. CONTRACTOR TO CONFIRM ALL TIMBER LENGTHS PRIOR TO ORDERING MATERIAL.



**PHOTO OF BENT 12**  
NTS

1	ISSUED FOR TENDER	2020/11/23
revision		date

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

A	Detail No.
B	No. du détail
B/C	drawing no. - where detail required / dessin no. - où détail exigé
C	drawing no. - where detailed / dessin no. - où détaillé

project title / titre du projet  
**SEGUN, Ontario**  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER REHABILITATION

drawing title / titre du dessin  
**TIMBER TRESTLE REPAIRS SHEET 3**

drawn by / dessiné par  
RICHARD DYNKA

designed by / conçu par  
CARA WADDELL

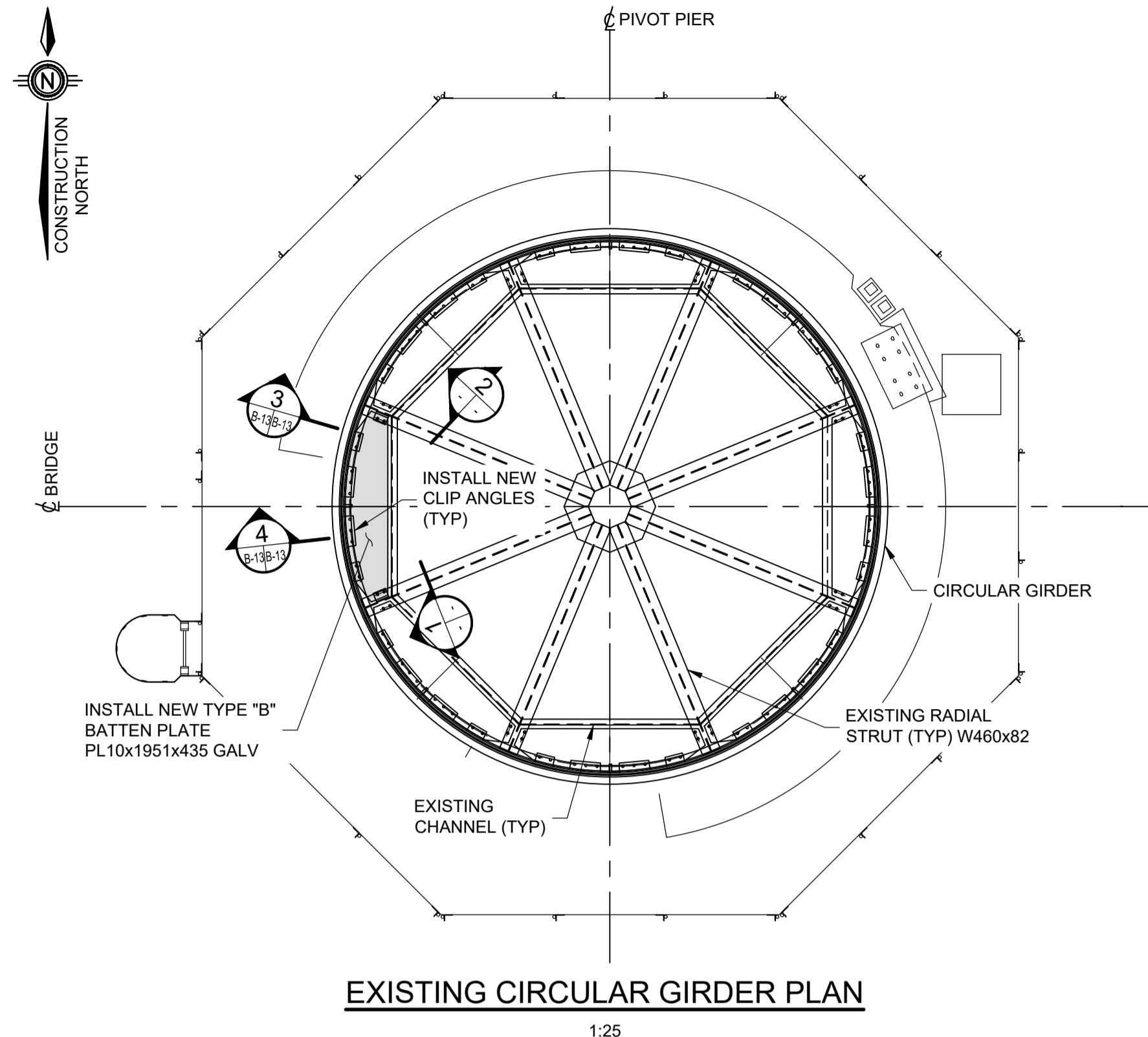
approved by / approuvé par  
MICHAEL HOFTYZER

bid / offre  
MEHDI SHABESTARY

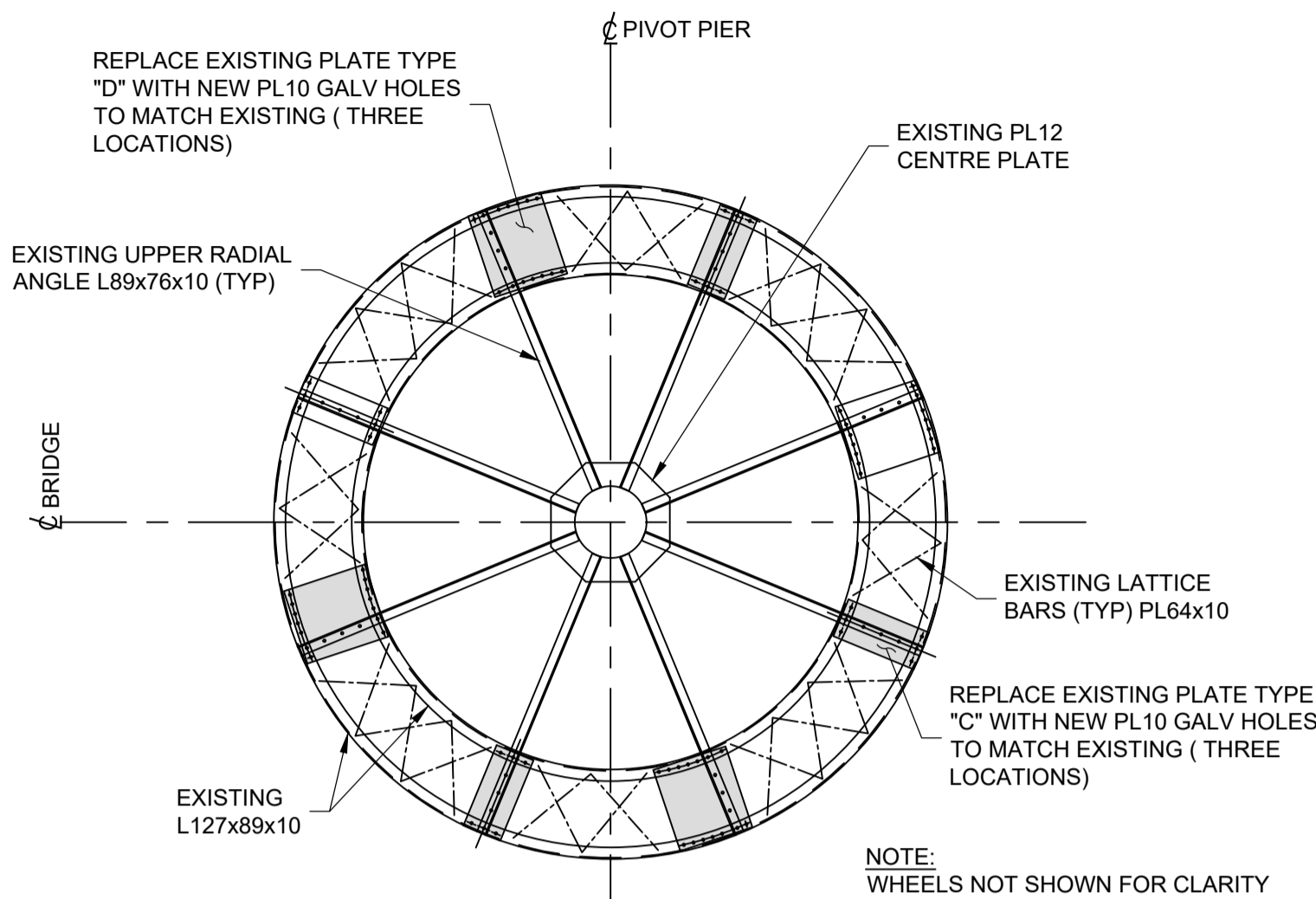
project date / date du projet  
2020/11/23

project no. / no. du projet  
R.089868.004

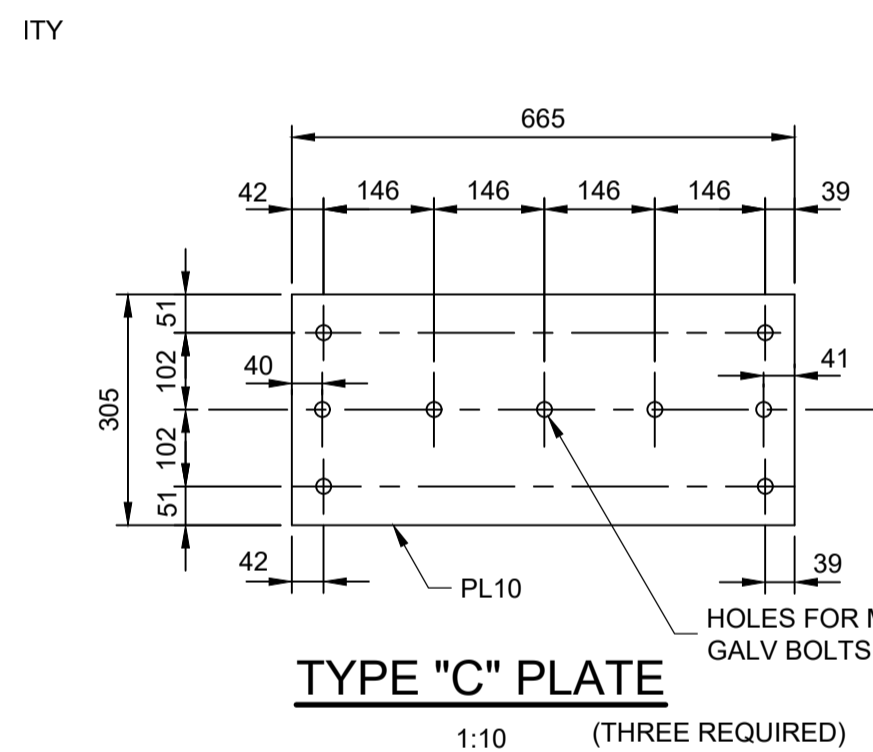
drawing no. / dessiné no.  
B-12



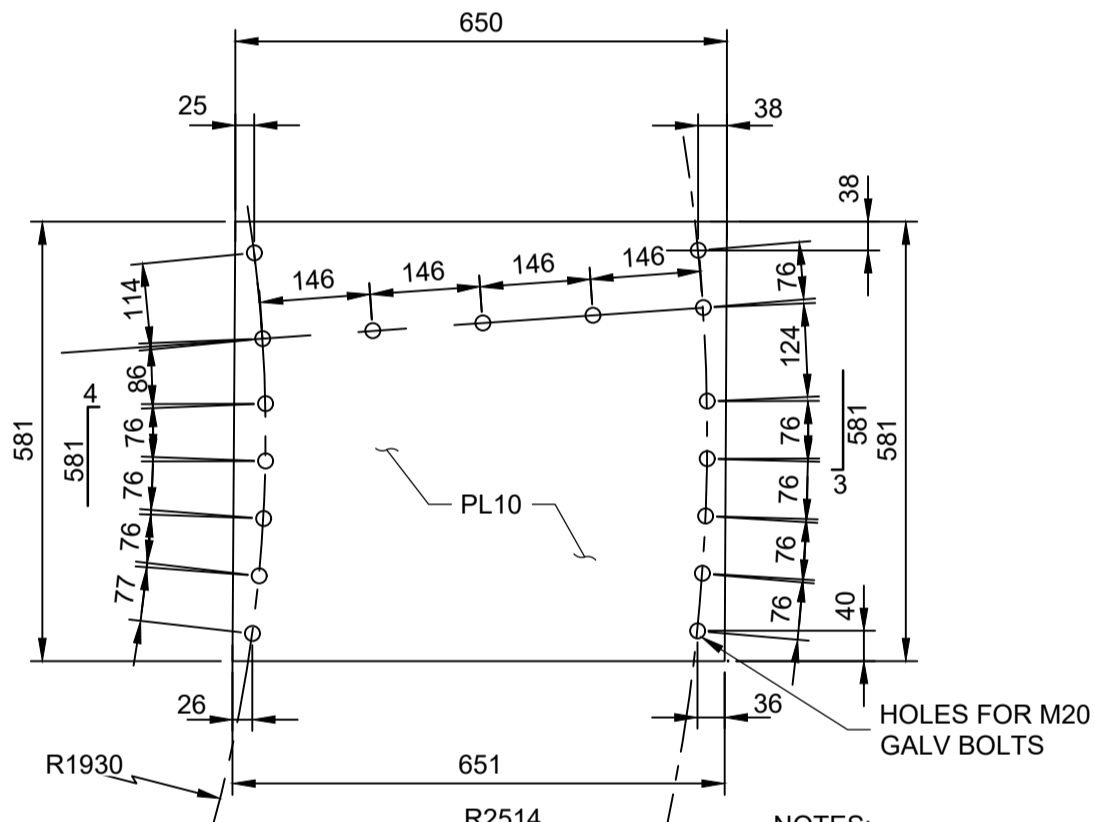
EXISTING CIRCULAR GIRDER PLAN  
1:25



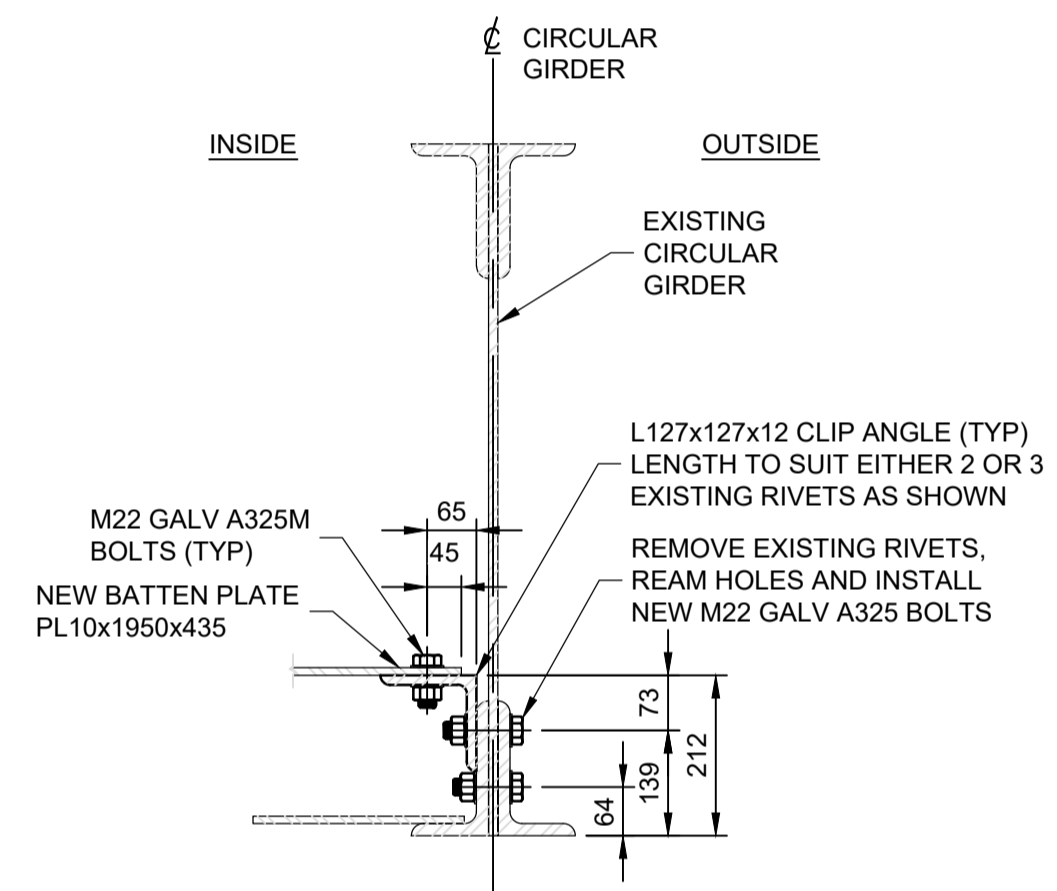
PLAN OF LOWER RING & LOWER TREAD  
1:25



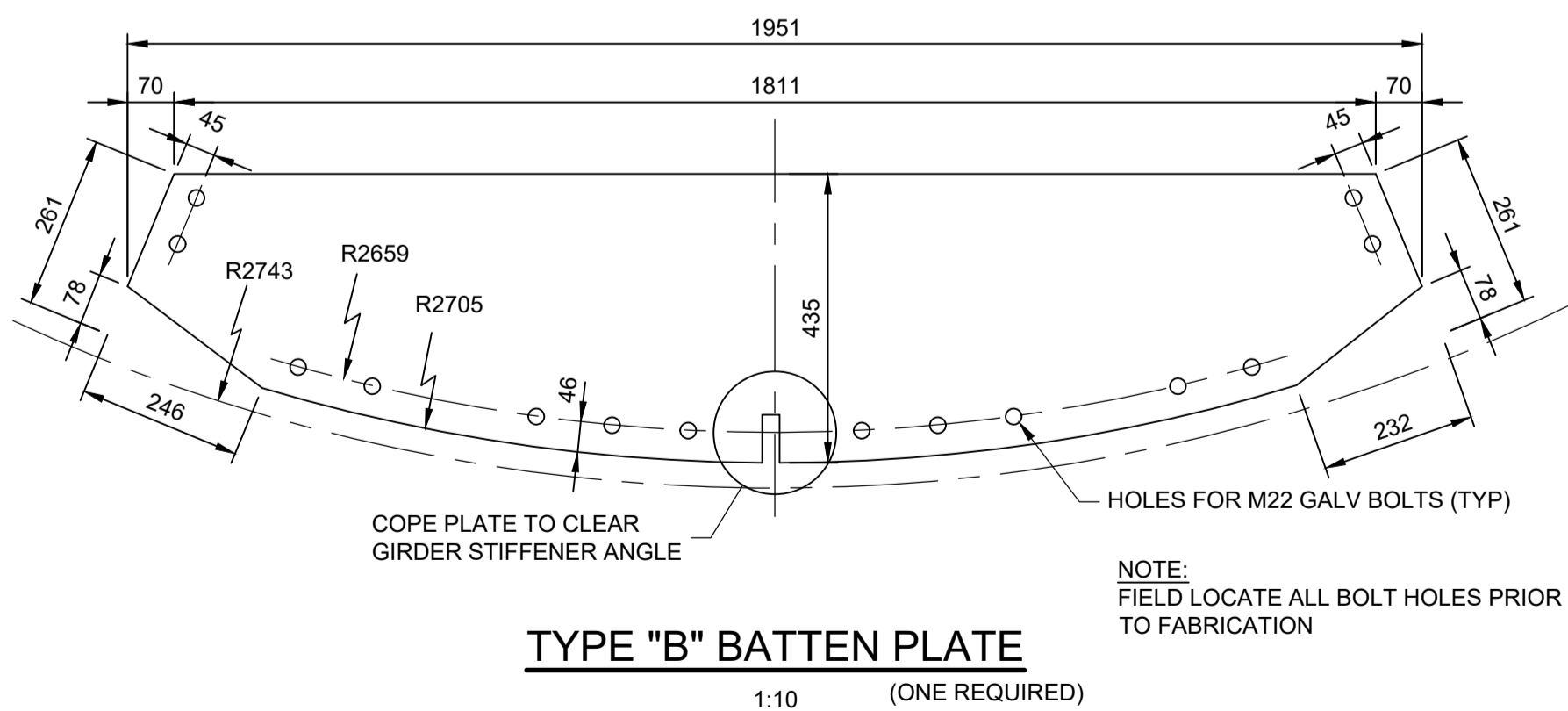
TYPE "C" PLATE  
1:10 (THREE REQUIRED)



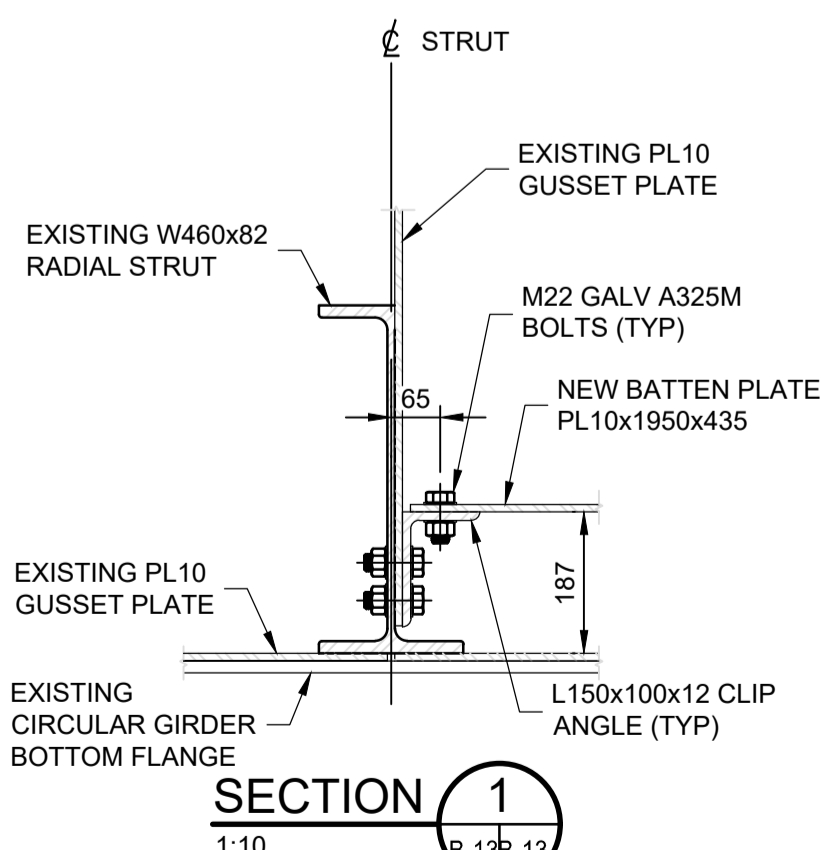
TYPE "D" PLATE  
1:10 (THREE REQUIRED)



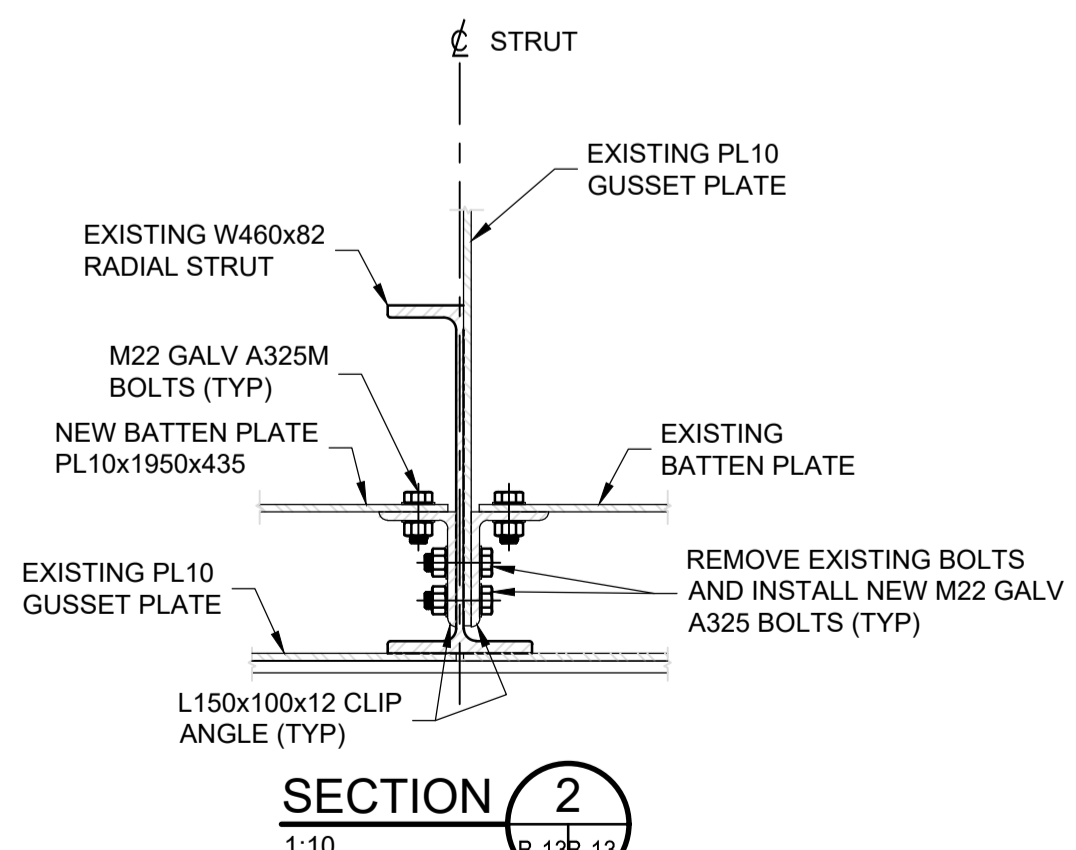
SECTION 4  
1:10 B-13B-13



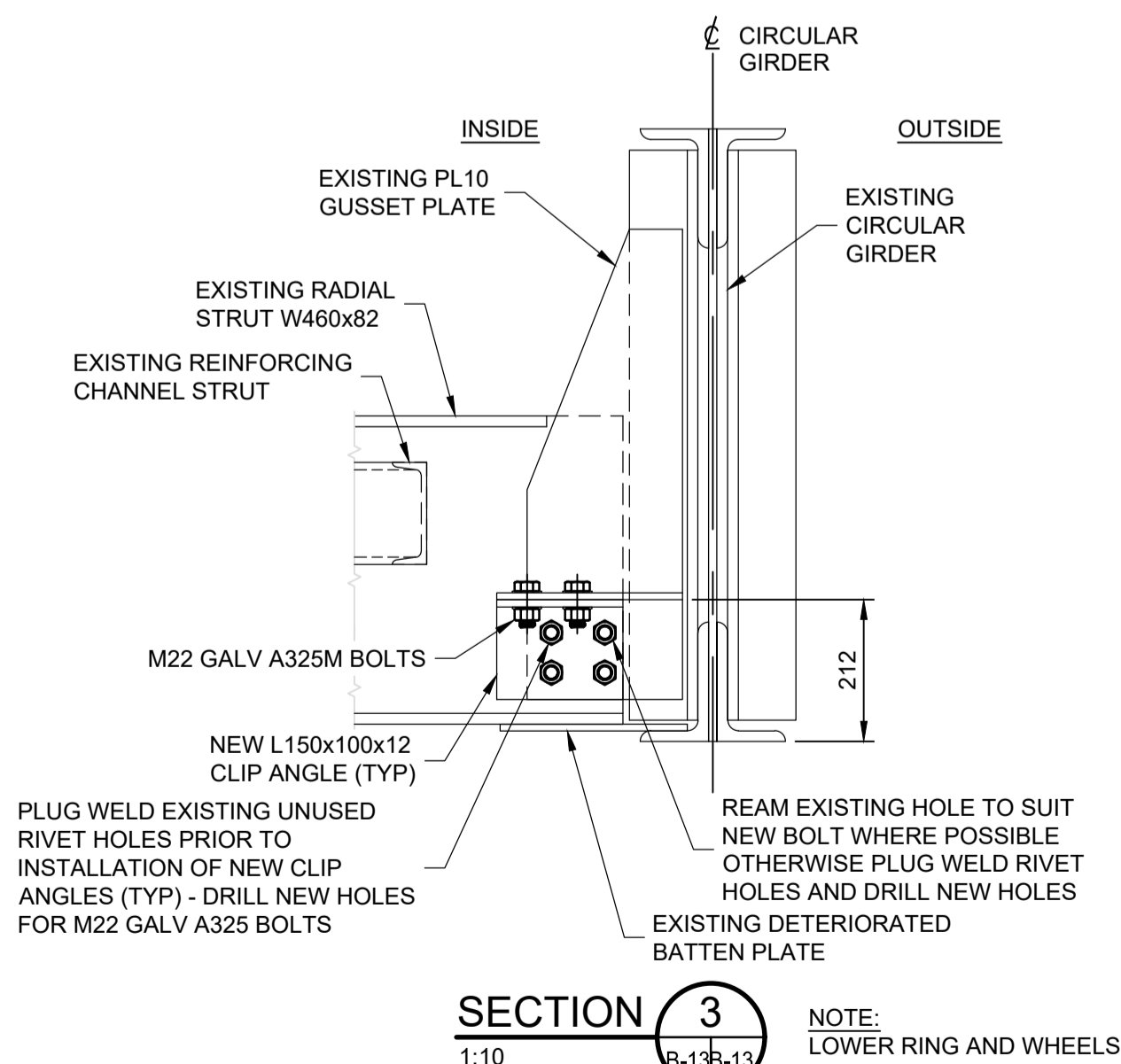
TYPE "B" BATTEN PLATE  
1:10 (ONE REQUIRED)



SECTION 1  
1:10 B-13B-13



SECTION 2  
1:10 B-13B-13



SECTION 3  
1:10 B-13B-13

NOTES:

- ALL STRUCTURAL STEEL SHALL CONFORM TO CSA STANDARD CAN/CSA-G40.20/G40.21 (LATEST EDITION) GRADE 300W.
- BOLTS SHALL BE GALVANIZED A325M TYPE 1, M22 AND M20 UNLESS NOTED OTHERWISE. BOLT THREADS SHALL BE EXCLUDED FROM THE SHEAR PLANES.
- HOLES FOR 22MM DIA. BOLTS SHALL BE 24MM DIA. AND HOLES FOR 20MM DIA. BOLTS SHALL BE 22MM. ALL HOLES SHALL BE DRILLED OR SUB-PUNCHED AND REAMED.
- ALL BOLTS SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD.
- BOLT HEADS SHALL BE LOCATED ON THE EXTERIOR FACES OF THE STRUCTURAL STEEL COMPONENTS.
- DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND ARE BASED ON PREVIOUS CONTRACT DRAWINGS. THE CONTRACTOR SHALL VERIFY THIS INFORMATION IN THE FIELD BEFORE COMMENCEMENT OF THE STRUCTURAL STEEL SHOP DRAWINGS AND PROMPTLY REPORT ANY DISCREPANCIES TO THE DEPARTMENTAL REPRESENTATIVE.
- THE CONTRACTOR SHALL ENSURE THE STABILITY OF ALL COMPONENTS DURING THE STEEL REHABILITATION AND REPLACEMENT, AND UNTIL THE STRUCTURAL STEEL IS IN ITS FINAL LOCATION WITH ALL PERMANENT BRACING, CONNECTIONS AND SUPPORTS IN PLACE.
- STEEL PLATES AND ANGLES TO BE COATED WITH TWO COATS OF BARRUST 233.



revision	description	date	VALUE
1	ISSUED FOR TENDER	2020/11/23	

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

	A Detail No. No. du détail
A	
B	drawing no. - where detail required dessin no. - où détail exigé
C	drawing no. - where detailed dessin no. - où détaillé

project title / titre du projet: SEGUIN, Ontario  
WASAUKSING SWING BRIDGE 146 ROSE POINT  
PIER AND FENDER REHABILITATION

STEEL REPAIR DETAILS

drawn by / dessiné par: RICHARD DYNKA

designed by / conc par: CARA WADDELL

approved by / approuvé par: MICHAEL HOFTYZER

tender / soumission: MEHDI SHABESTARY  
project manager / administrateur de projets

project date / date du projet: 2020/11/23

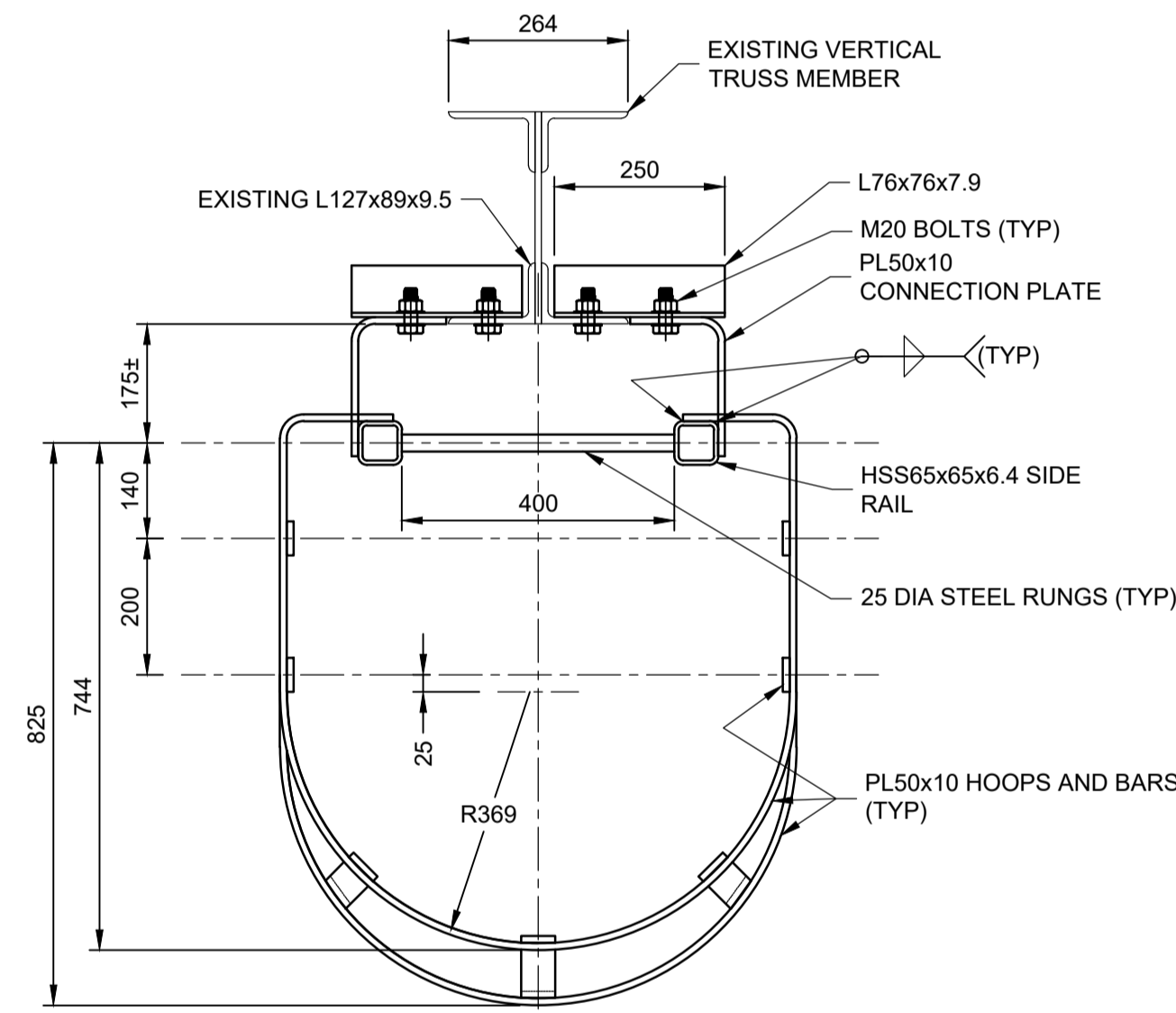
project no. / no. du projet: R.089868.004

drawing no. / dessiné no.: B-13

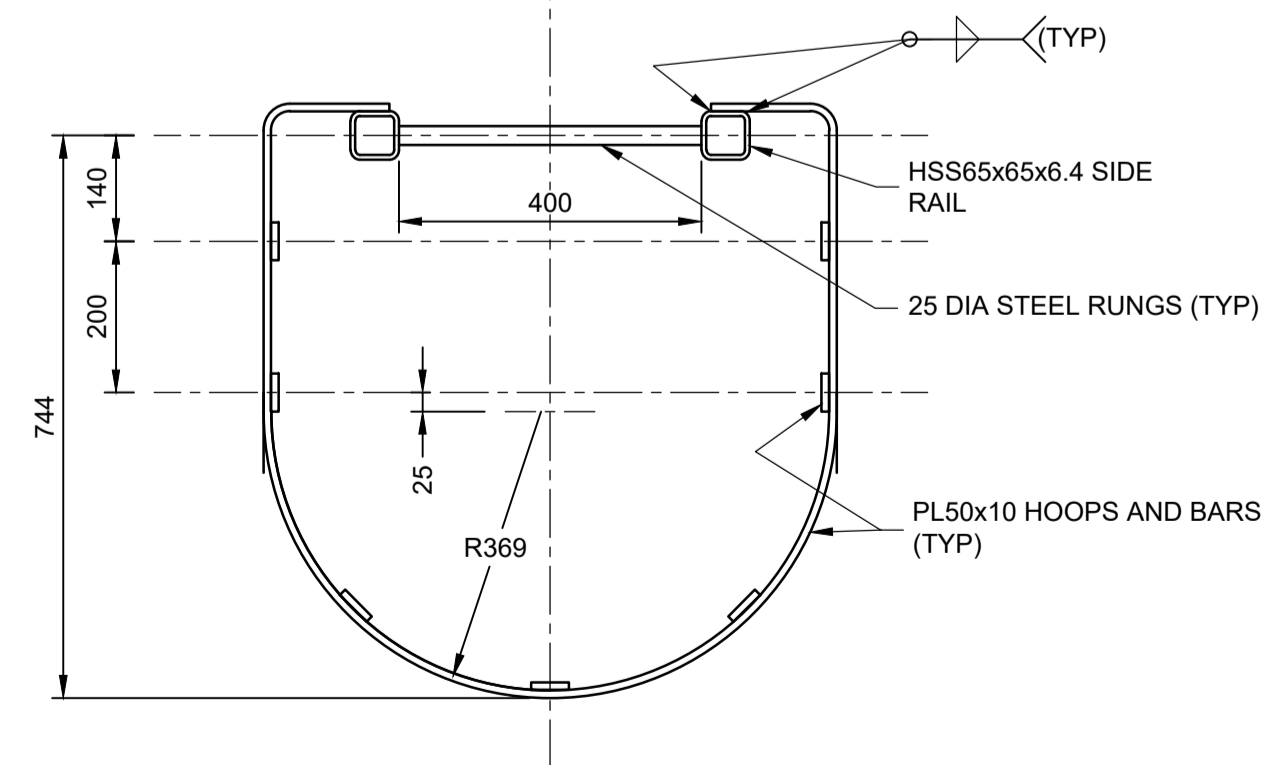


**SOUTH ELEVATION - EXISTING ACCESS LADDER**

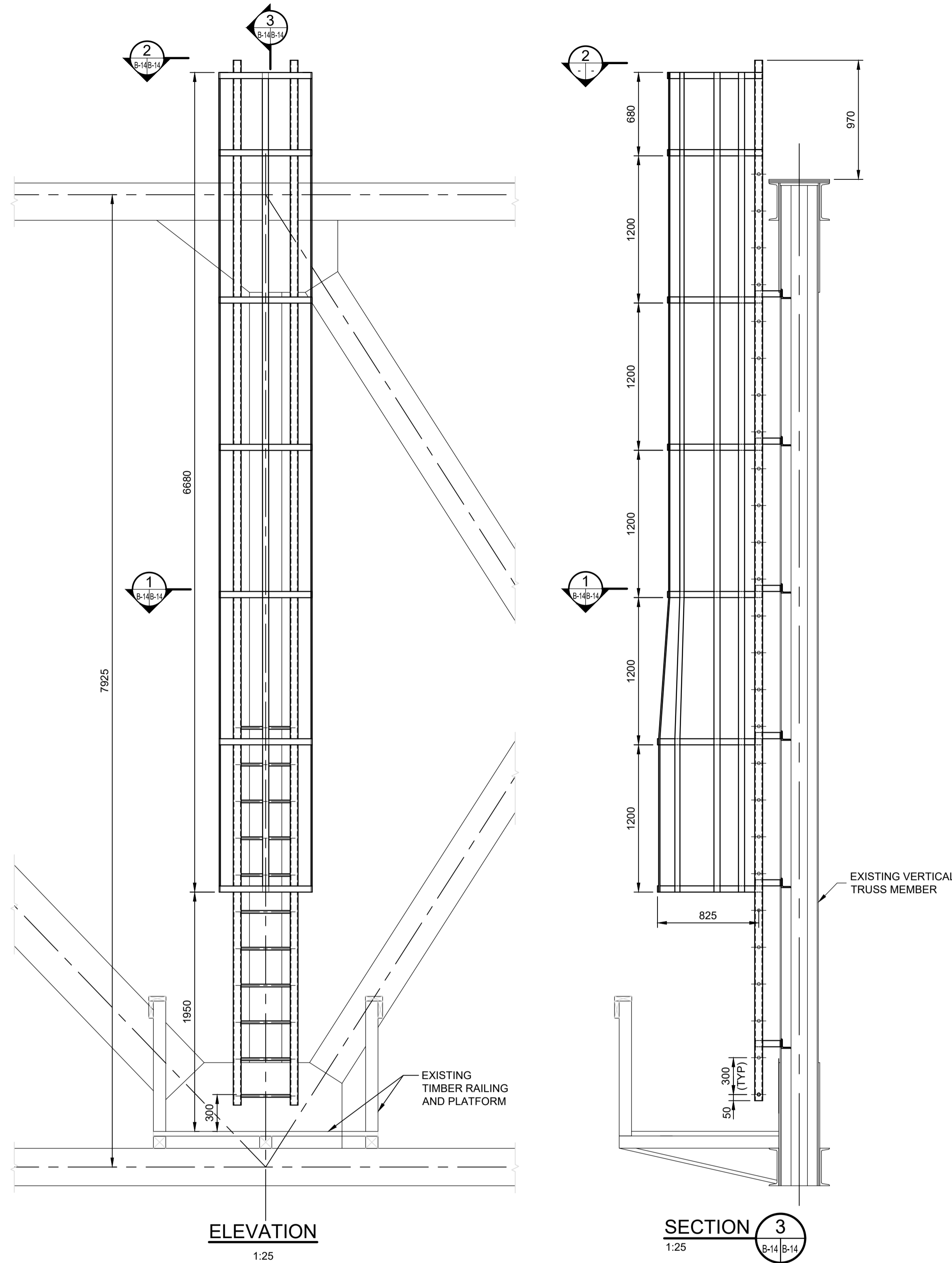
NTS



**SECTION 1**  
1:10



**SECTION 2**  
1:10



**ELEVATION**  
1:25

**SECTION 3**  
1:25

**NOTES:**

1. ALL COMPONENTS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH CSA G164-18. ANY WELDING AFTER GALVANIZING SHALL BE COATED WITH 2 COATS OF ZINC RICH PAINT FOLLOWING CLEANING OF THE WELD AND HEAT AFFECTED AREA AS PER ASTM A790-20.
2. ALL STRUCTURAL STEEL SHALL BE CSA G40.21 GRADE 300W.
3. ALL BOLTS SHALL BE A325 GALVANIZED HIGH STRENGTH BOLTS OF THE SIZE INDICATED ON THE DRAWINGS.
4. ALL WELDS SHALL BE SEAL WELDS (WELDS ALL AROUND) TO FACILITATE GOOD GALVANIZING PRACTICES.
5. FIELD WELDING IS NOT PERMITTED WITHOUT THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE.

Public Works and  
Government Services Canada  
Architectural and Engineering Services  
Ontario Region  
Travaux publics et  
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**PARSONS**



revision	description	date	VALUE
1	ISSUED FOR TENDER	2020/11/23	

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- A Detail No.  
No. du détail
- B drawing no. - where detail required  
dessin no. - où détail exigé
- C drawing no. - where detailed  
dessin no. - où détaillé

project title  
titre du projet  
**SEGUIN,** Ontario  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**ACCESS LADDER AND  
CAGE DETAILS**

drawn by  
dessiné par **RICHARD DYNKA**

designed by  
conçu par **CARA WADDELL**

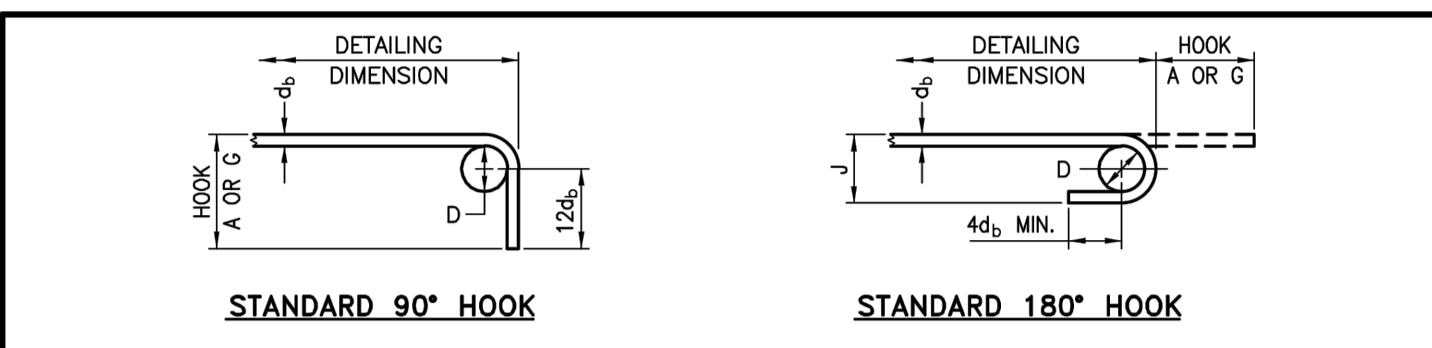
approved by  
approuvé par **MICHAEL HOFTYZER**

tender  
soumission **MEHDI SHABESTARY** project manager  
administrateur de projets

project date  
date du projet **2020/11/23**

project no.  
no. du projet **R.089868.004**

drawing no.  
dessiné no. **B-14**



MINIMUM BENDING PIN DIAMETER, D, mm

BAR SIZE	STEEL GRADE	
	400R (2)	400W
10M	70	60
15M	100	90
20M	120	100
25M	150	150
30M	250	200
35M	300	250
45M	450 (1)	400
55M	600 (1)	550

(1) Special fabrication is required for bends exceeding 90° for bars of these sizes and grade.  
 (2) For stainless steel, with  $F_y = 500$ , use the same D as for 400R.

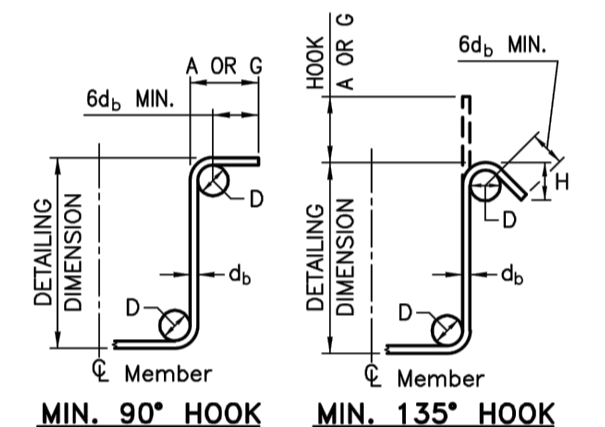
STANDARD HOOK DIMENSIONS

BAR SIZE	90° HOOKS		180° HOOKS			
	A OR G (mm)		A OR G (mm)		J (mm)	
	400R	400W	400R	400W	400R	400W
10M	180	180	140	130	90	80
15M	260	250	180	170	130	120
20M	310	300	220	200	160	140
25M	400	400	280	280	200	200
30M	510	490	400	350	310	260
35M	610	590	480	430	370	320
45M	790	770	680	630	540	490
55M	1030	1010	900	850	710	660

NOTE: All Hook Dimensions are according to the CHBDC-2014.

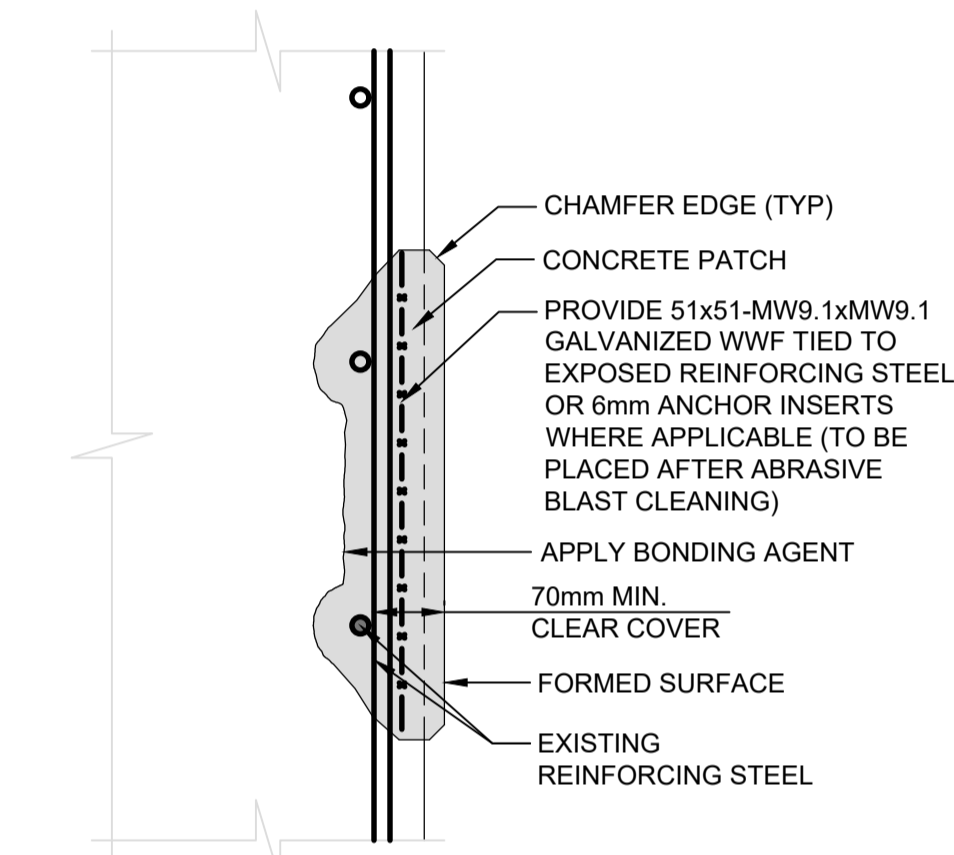
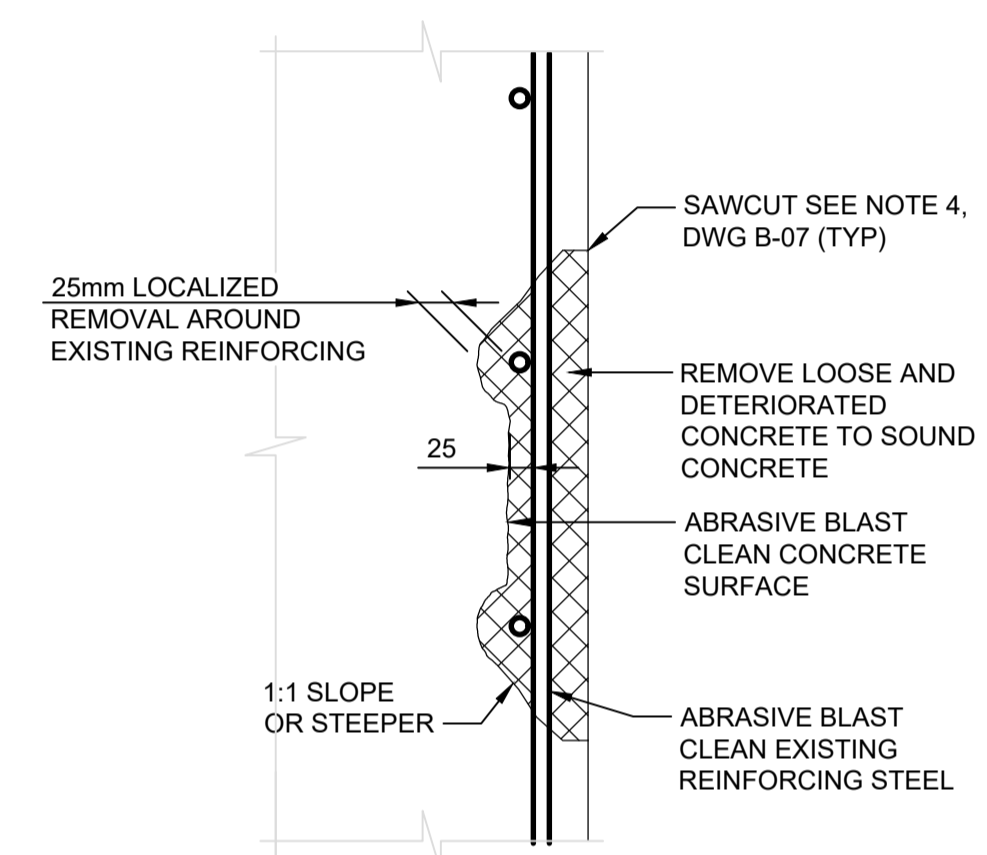
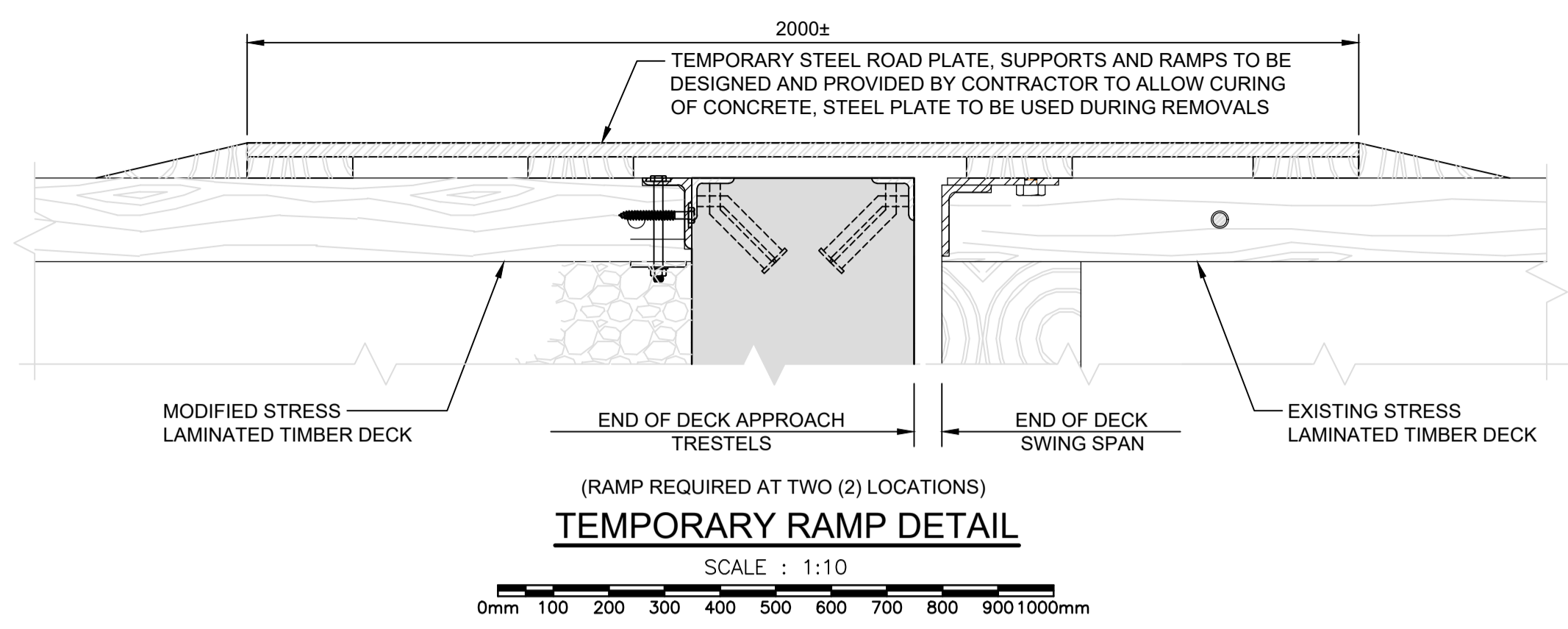
MINIMUM STIRRUP AND TIE HOOK DIMENSIONS

BAR SIZE	BAR DIAM. $d_b$ (mm)	PIN DIAM. D (mm)	90°		135°	
			A OR G (mm)	A OR G (mm)	H (approx.) (mm)	H (approx.) (mm)
10M	11.3	45	100	100	70	70
15M	16.0	65	140	140	100	100
20M	19.5	80	180	175	115	115
25M	25.2	100	230			



**HOOK DIMENSIONS FOR REINFORCING STEEL BARS**

Date	Sept. 2016	Rev	
<b>SS12-1</b>			



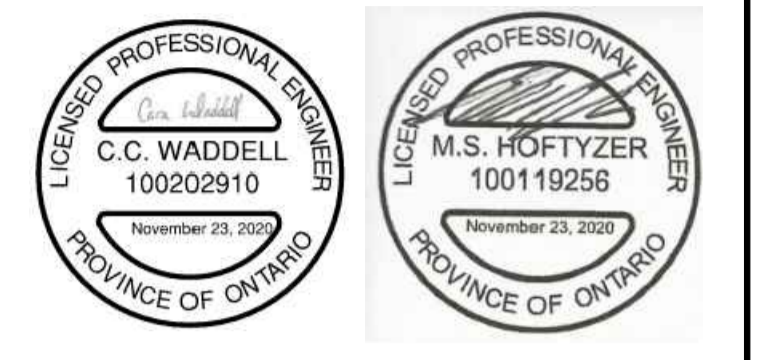
**NOTES:**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH B-07 AND B-08.
- WHENEVER TEMPORARY STEEL ROAD PLATES AND RAMPS ARE IN PLACE THE CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG THE ENTIRE LIMITS OF THE BRIDGE.
- RAMP TO REMAIN IN PLACE UNTIL CONCRETE REACHES A MINIMUM COMPRESSIVE STRENGTH OF 25MPa.
- REFER TO CONTRACT SPECIFICATIONS FOR ALLOWABLE ROAD CLOSURES AND OPERATIONAL RESTRAINTS ASSOCIATED WITH CONTRACTOR'S REQUIREMENTS TO AVOID CONFLICTS WITH CHANNEL NAVIGATION.

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 Architectural and Engineering Services  
 Ontario Region

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 Services d'architecture et de génie  
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**PARSONS**



revision	description	date	VALUE
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project title / titre du projet  
**SEGUIN, Ontario**

WASAUKSING SWING BRIDGE  
 146 ROSE POINT  
 PIER AND FENDER REHABILITATION

drawing title / titre du dessin  
**STANDARD DETAILS**

drawn by / dessiné par  
**RICHARD DYNKA**

designed by / conc par  
**CARA WADDELL**

approved by / approuvé par  
**MICHAEL HOFTYZER**

tender soumission / project manager administrateur de projets  
**MEHDI SHABESTARY**

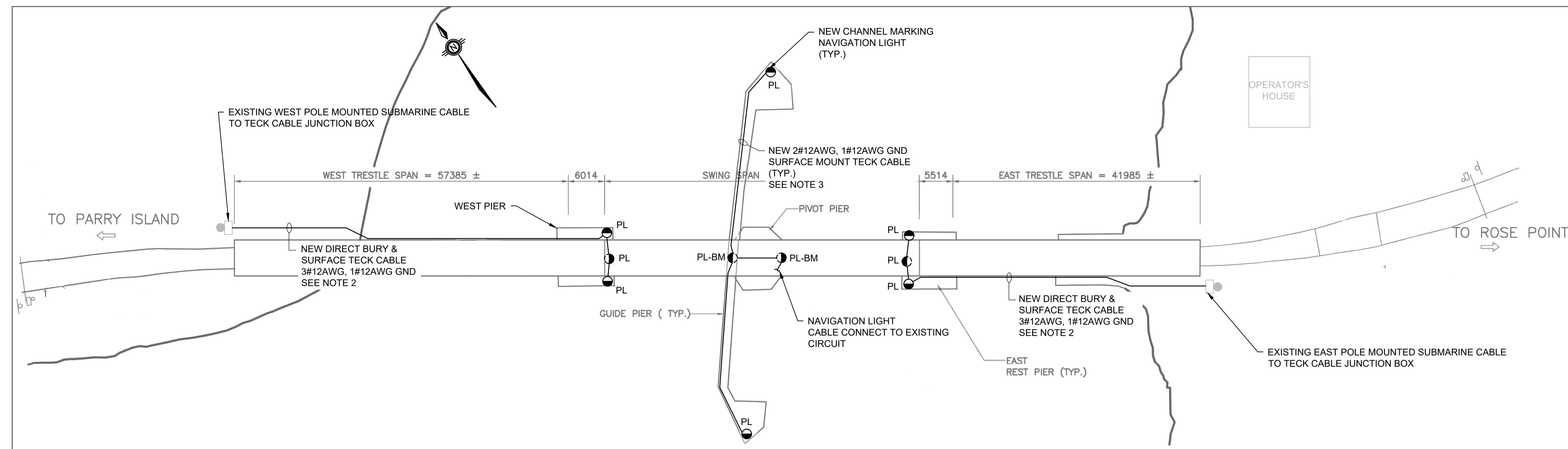
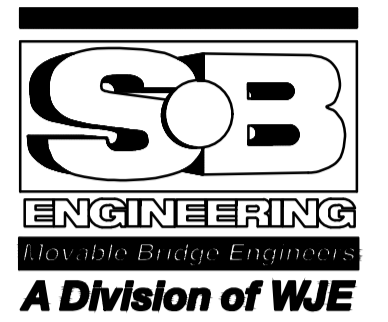
project date / date du projet  
**2020/11/23**

project no. / no. du projet  
**R.089868.004**

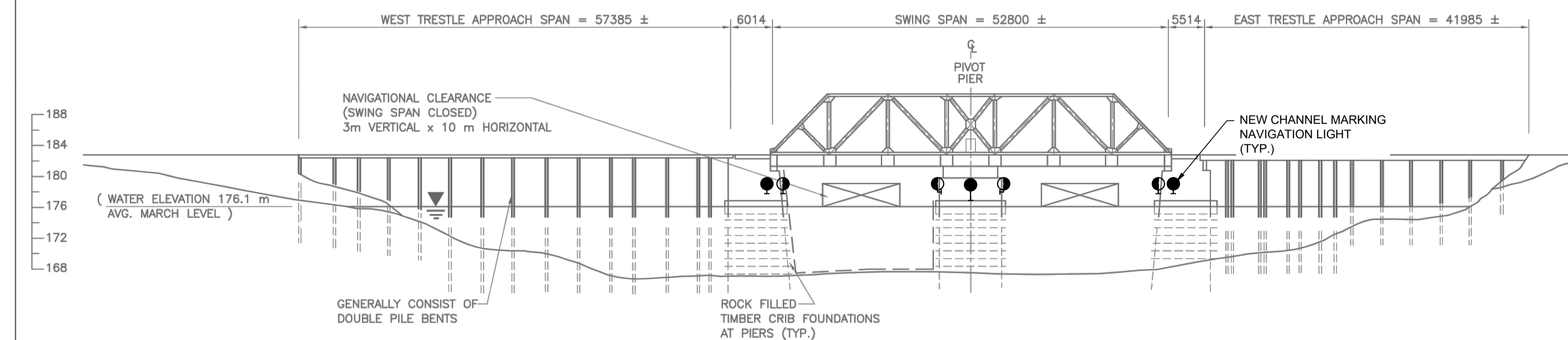
drawing no. / dessiné no.  
**B-15**



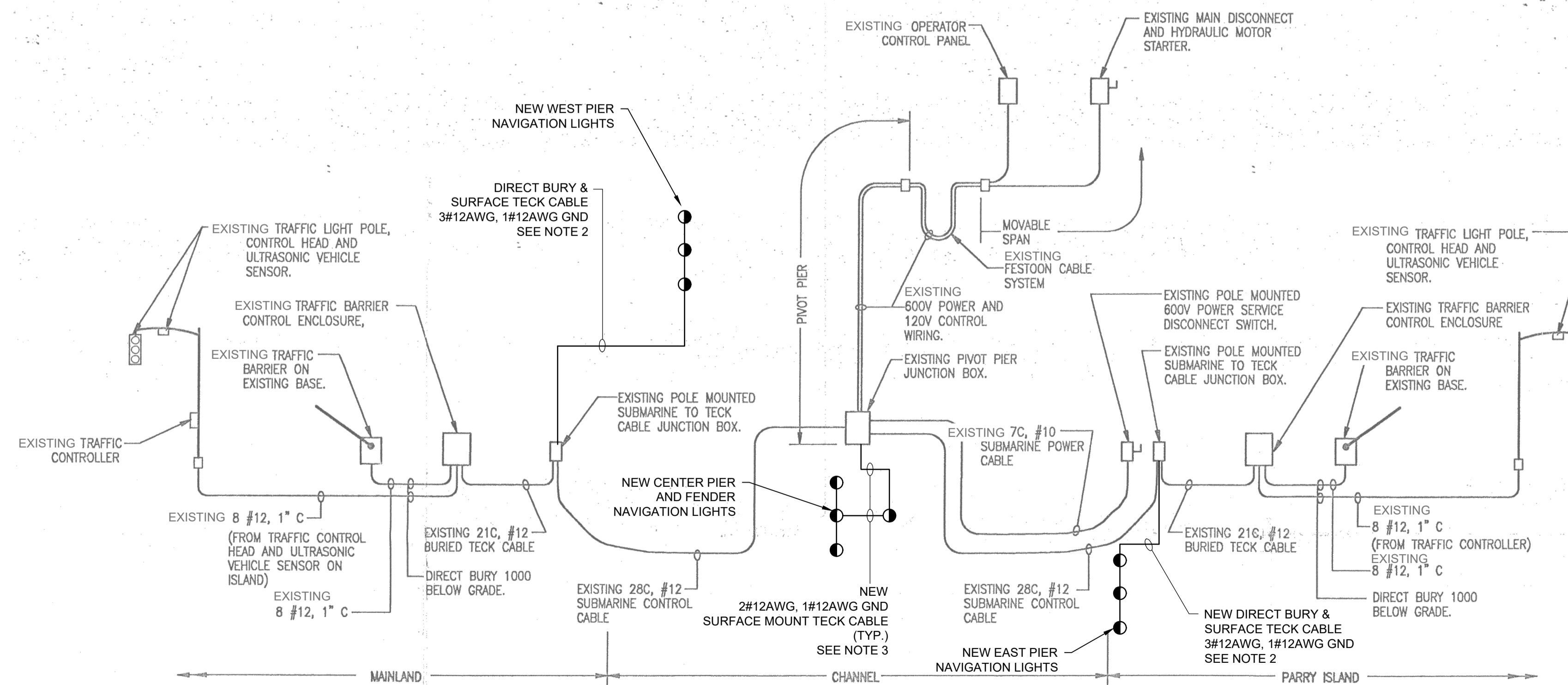
**PARSONS**



**PLAN**  
NTS



**ELEVATION**  
NTS



**BLOCK DIAGRAM**  
NTS

**NOTES:**

1. NEW CHANNEL MARKING NAVIGATION LIGHTS SHALL BE INSTALLED AT THE LOCATION AS INDICATED. "PL" DENOTES PIER LIGHT, "PL-BM" DENOTES BRACKET MOUNTED PIER LIGHT. ALL NAVIGATION LIGHTS SHALL USE MEDIUM BASE 120V LED LAMP FROM THE MANUFACTURER.
2. 3#12AWG, 1#12 AWG GND TECK CABLE, ONE ON EACH SIDE OF THE BRIDGE APPROACH SHALL CONNECT TO THE CORRESPONDING SUBMARINE CABLE JUNCTION BOX AS INDICATION AND UTILIZE THE SPARE CONDUCTORS IN THE JUNCTION BOX FOR THE NAVIGATION LIGHT CIRCUIT. ALL CHANNEL MARKING NAVIGATION LIGHTS SHALL BE CONNECTED TO THE SAME CIRCUIT AND BE ON 120V AC POWER SOURCE. THE DIRECT BURIED SECTION OF THE TECK CABLE SHALL BE MINIMUM 1000mm BELOW GROUND. ONE OF THE THREE CONDUCTORS INSIDE THE TECK CABLE TO BE SPARE AND BE LABELED AND CAPPED.
3. 2#12AWG, 1#12AWG GND TECK CABLES SHALL BE USED FOR THE CONNECTIONS BETWEEN THE NAVIGATION LIGHTS.
4. CONTRACTOR TO PROVIDE ALL STAINLESS STEEL MOUNTING HARDWARE AS REQUIRED FOR THE INSTALLATION.

1	ISSUED FOR TENDER	2020/11/23
revision		date

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A B C	A	Detail No.
	B	drawing no. - where detail required dessin no. - où détail exigé
	C	drawing no. - where detailed dessin no. - où détaillé

project title  
titre du projet  
**SEGUIN,** Ontario

**WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION**

drawing title  
titre du dessin  
**FENDER LIGHT SITE PLAN**

drawn by  
dessiné par  
**LIN XU**

designed by  
conçu par  
**LIN XU**

approved by  
approuvé par  
**GARETH REES**

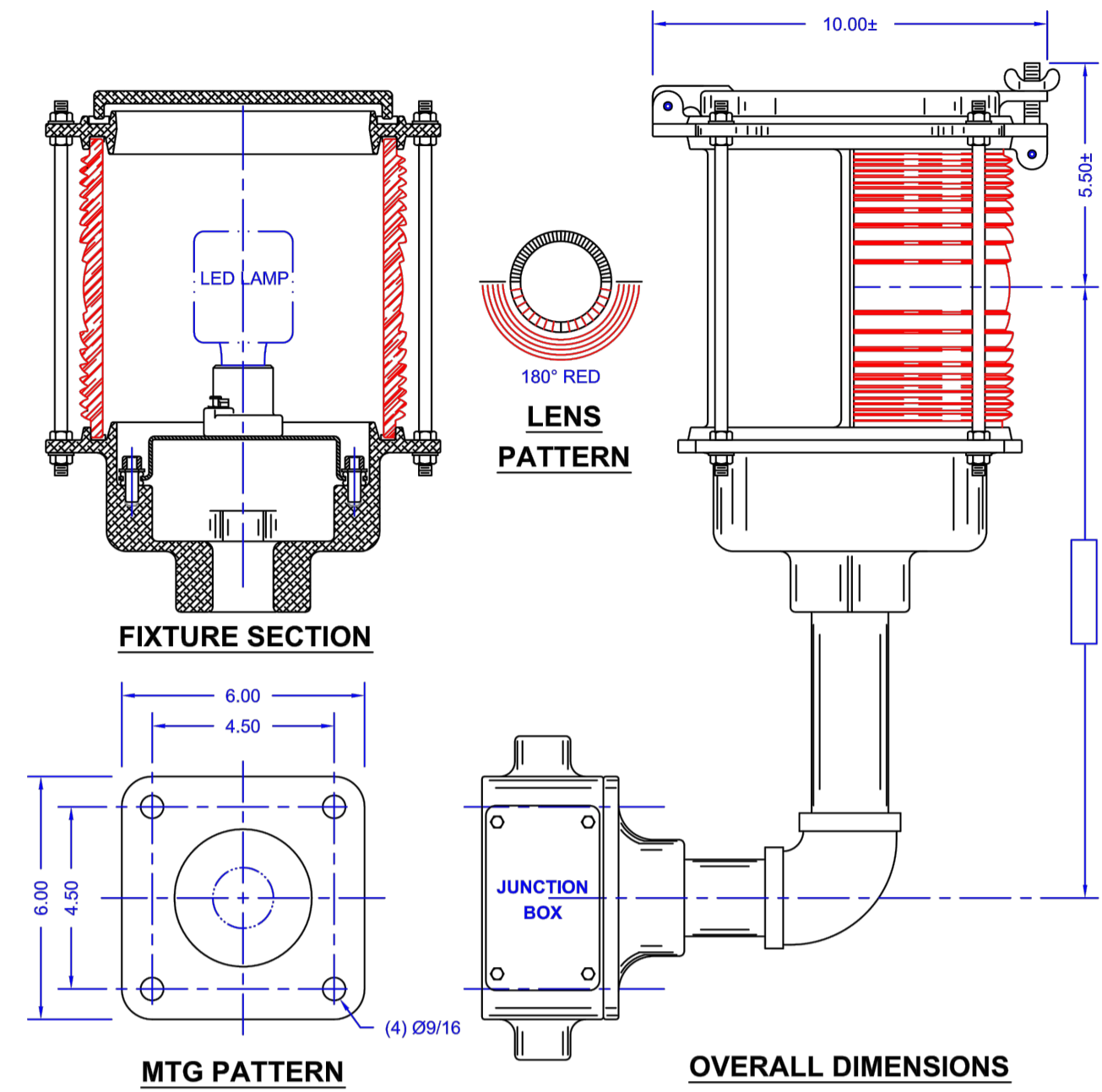
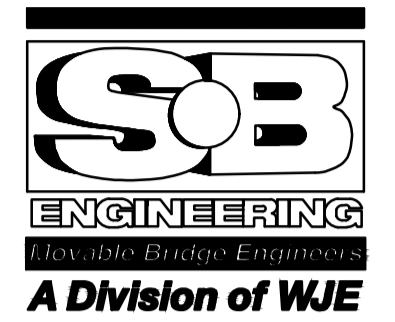
bid  
offre  
**MEHDI SHABESTARY** project manager  
administrateur de projets

project date  
date du projet  
**2020/11/23**

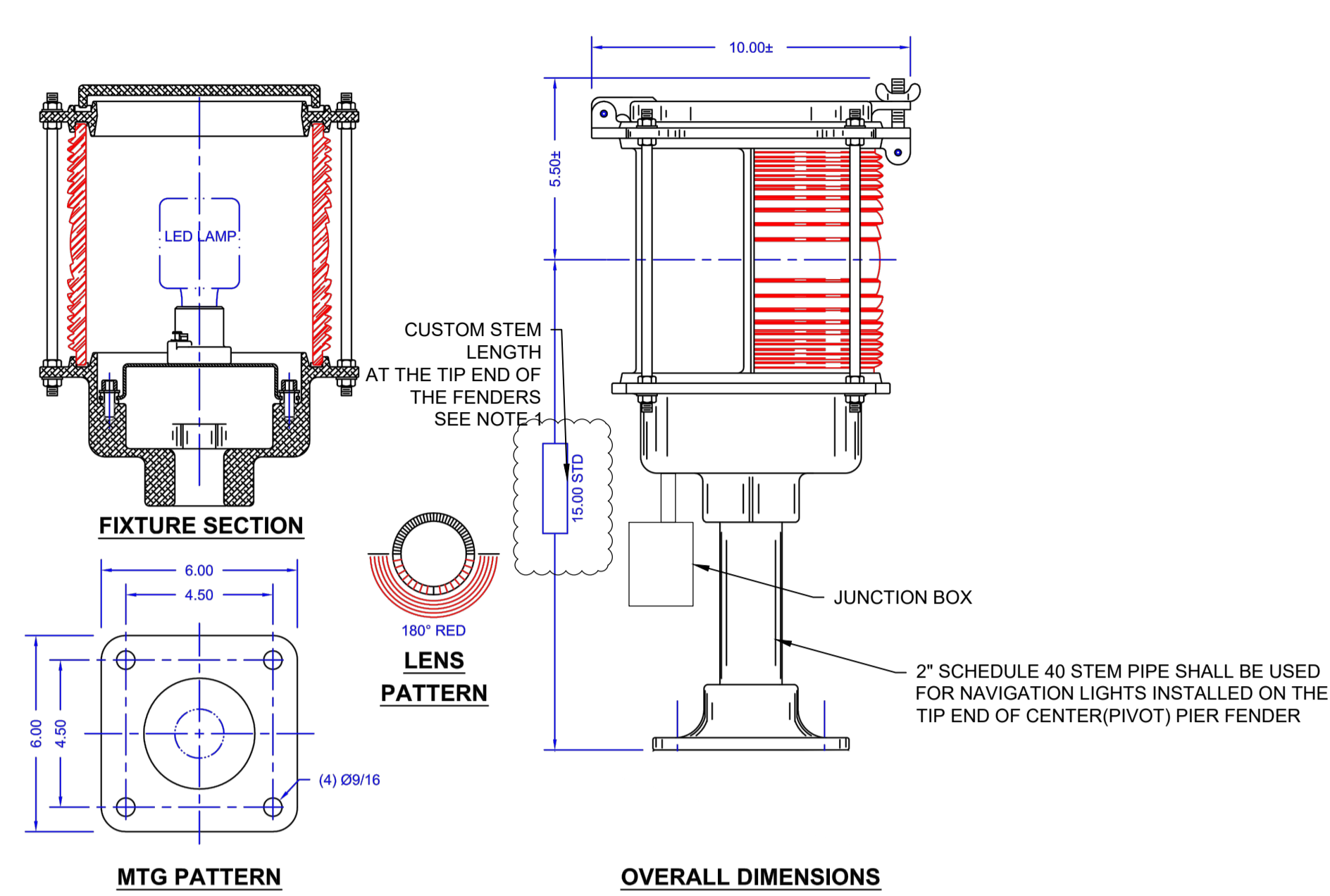
project no.  
no. du projet  
**R.089868.004**

drawing no.  
dessiné no.  
**E-01**

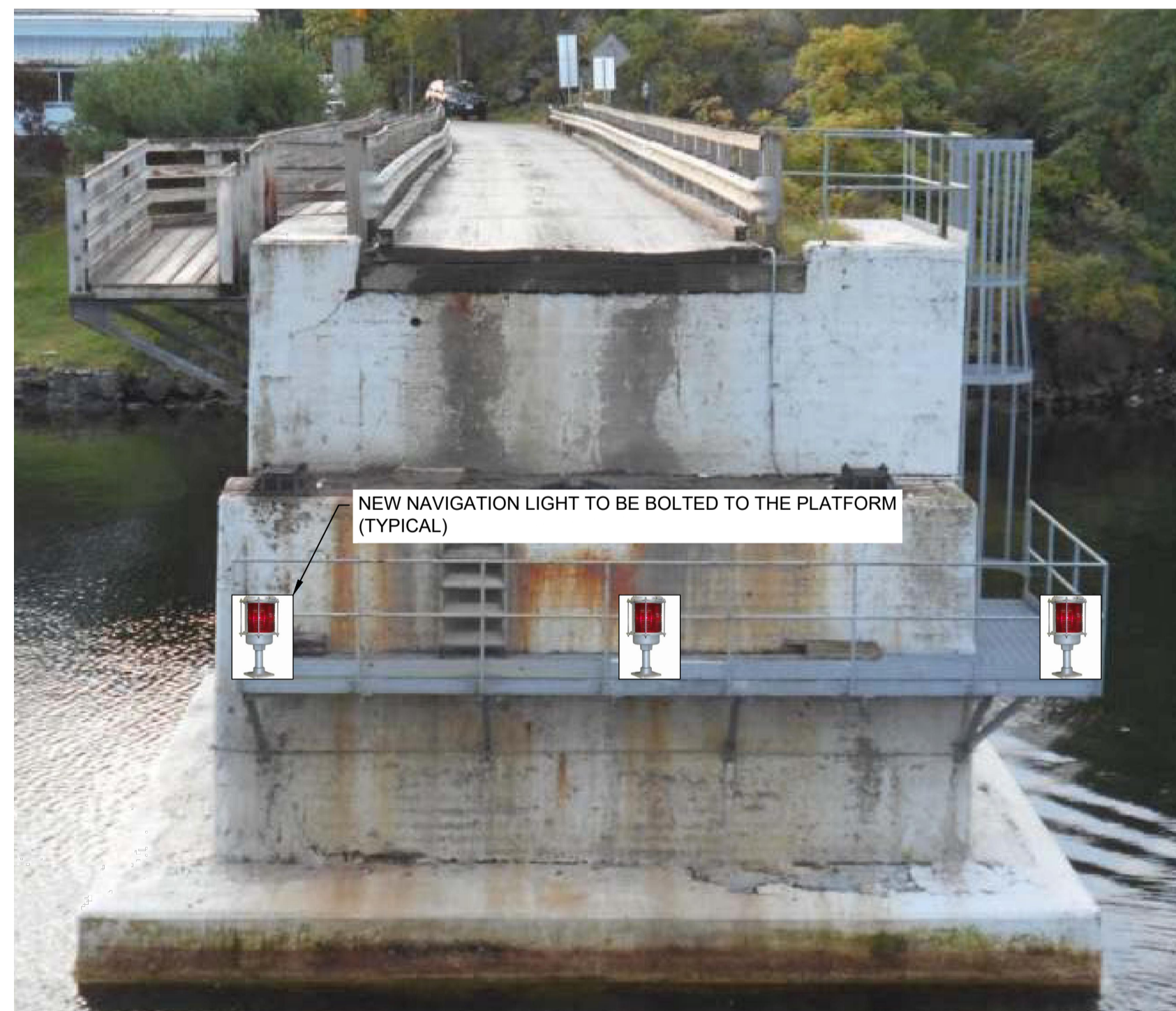
**PARSONS**



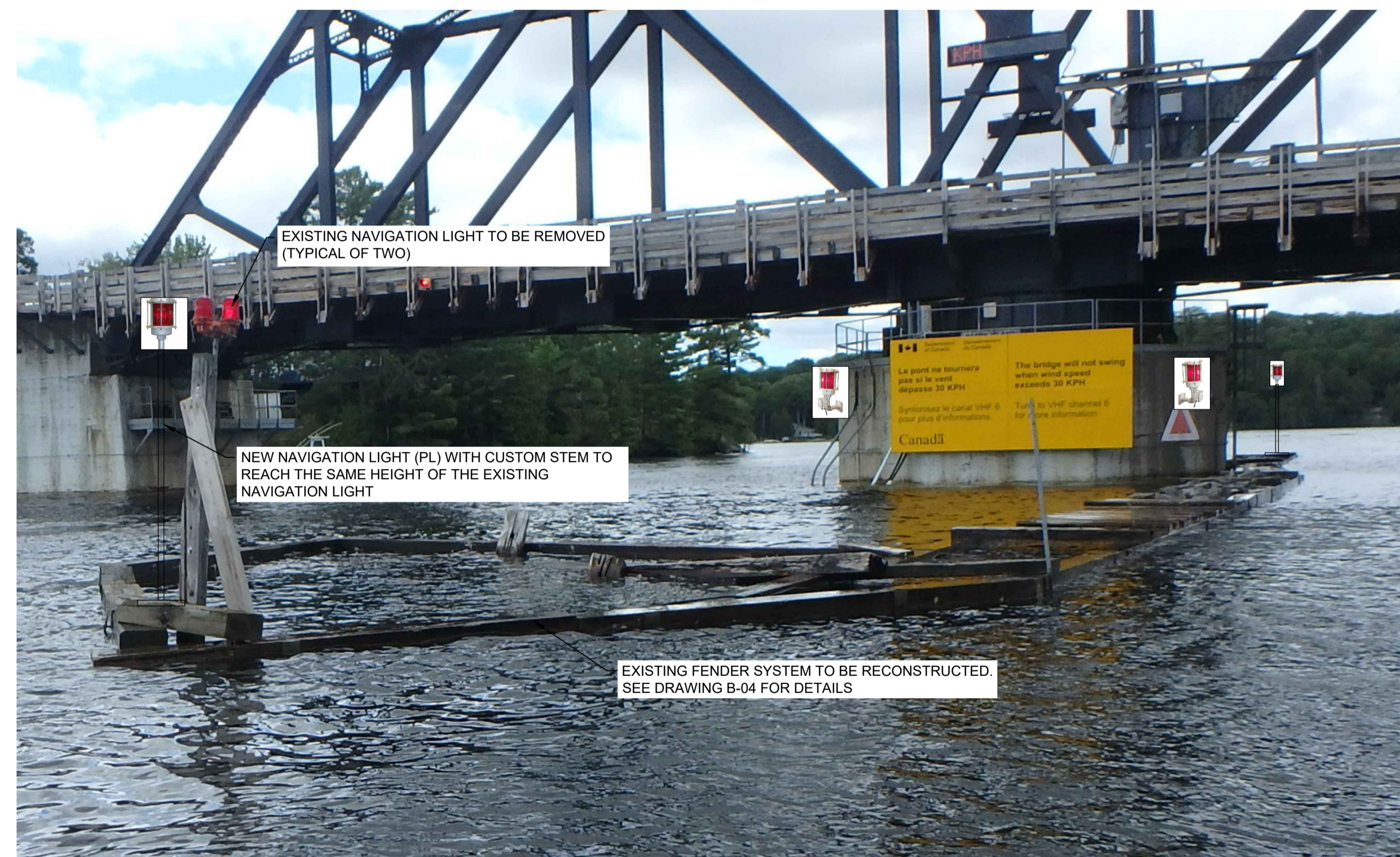
TYPICAL PL-BM BRACKET-MOUNTED PIER LIGHT  
BASIC DIMENSIONS  
SCALE: NTS



TYPICAL PL PIER LIGHT BASIC DIMENSIONS  
SCALE: NTS



PL-BM NAVIGATION LIGHT MOUNTING ON EAST PIER (WEST PIER SIMILAR)  
SCALE: NTS



PIVOT PIER AND FENDER NAVIGATION LIGHT MOUNTING (APPROXIMATE LOCATIONS)  
SCALE: NTS

**NOTES:**

- CUSTOM STEM HEIGHT SHALL BE ORDERED DIRECTLY THROUGH THE MANUFACTURER. THE JUNCTION BOX FOR THE NAVIGATION LIGHTS SHALL BE NEAR THE LAMP AS INDICATED.
- ALL NAVIGATION LIGHTS, WHEN MOUNTED SHALL BE APPROXIMATELY AT THE SAME ELEVATION IF POSSIBLE.

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project title  
titre du projet  
**SEGUIN,** Ontario  
WASAUKSING SWING BRIDGE  
146 ROSE POINT  
PIER AND FENDER  
REHABILITATION

drawing title  
titre du dessin  
**FENDER LIGHT DETAILS**

drawn by  
dessiné par  
LIN XU

designed by  
conçue par  
LIN XU

approved by  
approuvé par  
GARETH REES

bid  
offre  
MEHDI SHABESTARY

project manager  
administrateur  
de projets

project date  
date du projet  
2020/11/23

project no.  
no. du projet  
R.089868.004

drawing no.  
dessiné no.  
E-02