

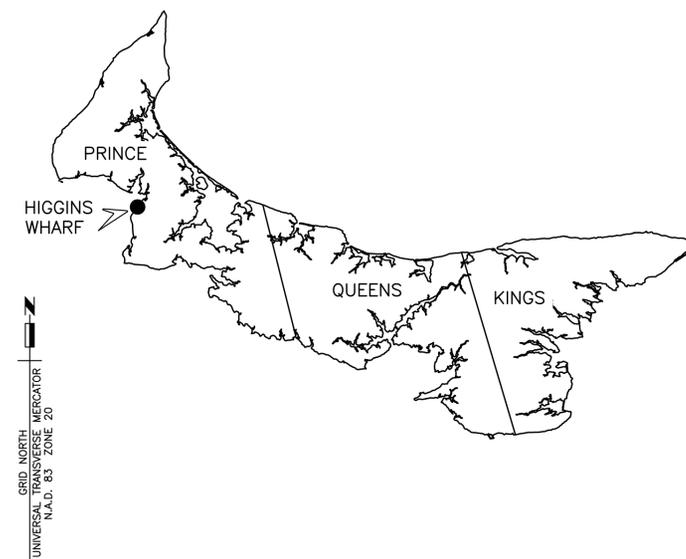


Fisheries and Oceans  
Canada

Small Craft Harbours  
Maritimes / Gulf Region

Pêches et Océans  
Canada

Ports pour Petits Bateaux  
Région des Maritimes / Golfe



MAP OF PRINCE EDWARD ISLAND

## REPLACE WHARF 404

HIGGINS SHORE  
PRINCE COUNTY,  
PRINCE EDWARD ISLAND

PROJECT NO. 723274

### DRAWING LIST

DRAWING NO.	TITLE
S1 OF 8	EXISTING CONDITIONS PLAN AND SECTIONS
S2 OF 8	DEMOLITION AND REMOVALS PLAN AND SECTIONS
S3 OF 8	NEW WHARF PLAN AND CROSS-SECTION
S4 OF 8	CROSS-SECTION AND DETAILS
S5 OF 8	SECTIONS AND DETAILS
S6 OF 8	STEEL SHEET PILING SECTIONS AND DETAILS
S7 OF 8	MISCELLANEOUS DETAILS
S8 OF 8	BOREHOLE DATA

Canada

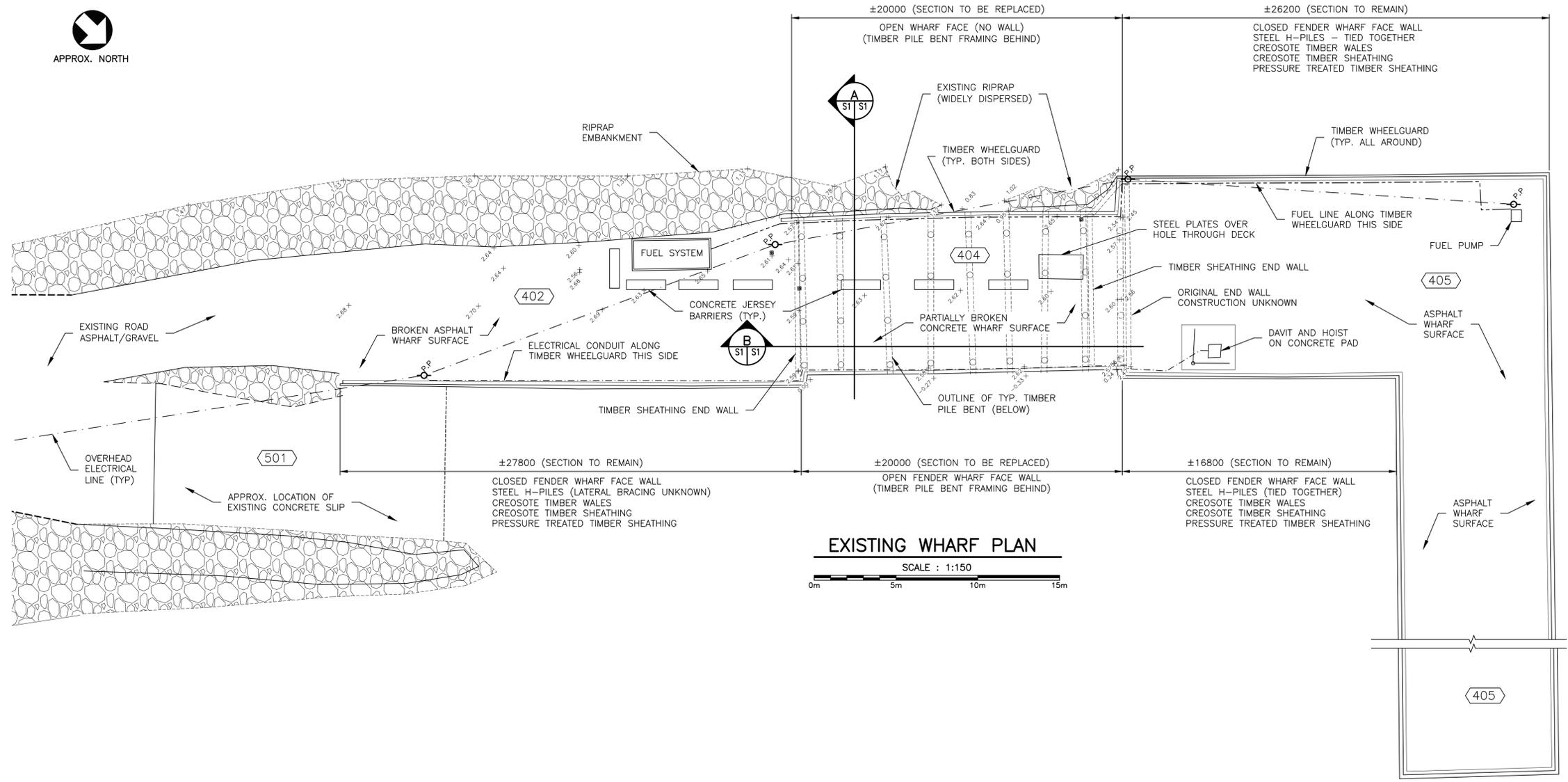


APPROX. NORTH

**LEGEND**

POWER POLE	○ P.P.
OVERHEAD ELECTRICAL LINE	---
ELECTRICAL CONDUIT/WIRE	----
FUEL LINE	----
SPOT ELEVATION	0.00
STRUCTURE NUMBER	000

- NOTES:**
1. THE FIELD WORK FOR THIS SURVEY WAS EXECUTED ON JAN. 07, 2020, BY WSP CANADA.
  2. ELEVATIONS DEPICTED WITH A (+) ARE ABOVE 0.0m LNT DATUM AND THOSE WITH A (-) ARE BELOW 0.0m LNT DATUM. ALL ELEVATIONS ARE IN METERS.
  3. ELEVATIONS ARE REFERENCED TO CHS BENCHMARK 1835 (PEI 1452) HAVING A PUBLISHED ELEVATION OF 5.602m.



**EXISTING WHARF PLAN**  
SCALE : 1:150

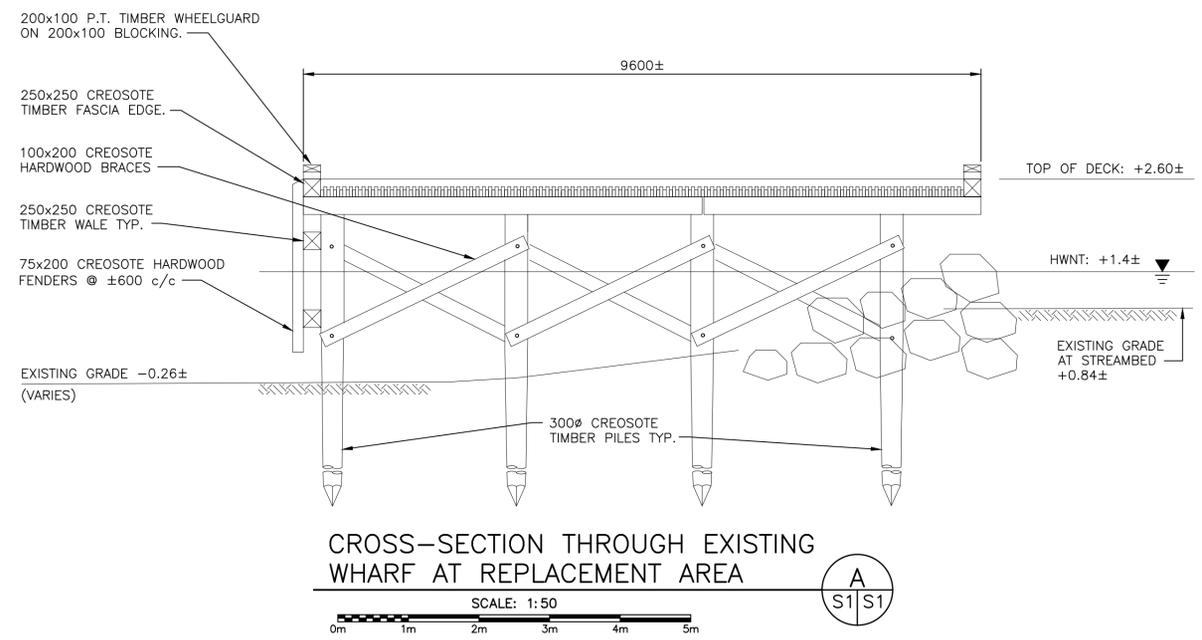


0	ISSUED FOR TENDER	OCT 8 2020
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project		project

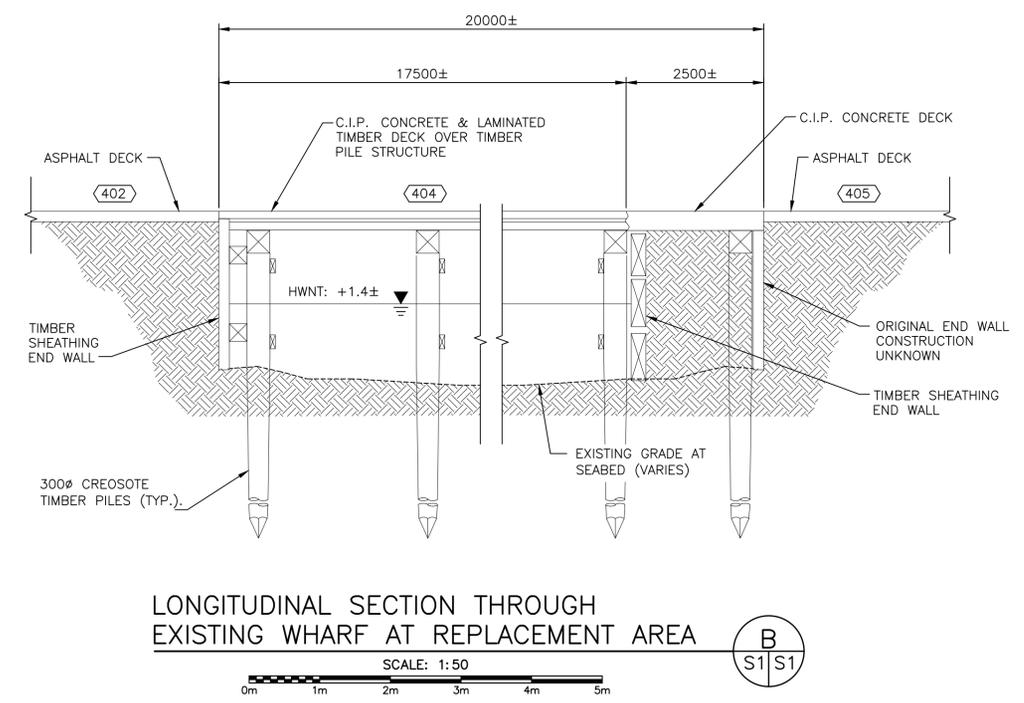
**REPLACE WHARF 404**  
**HIGGINS SHORE**  
**PRINCE EDWARD COUNTY**  
**PRINCE EDWARD ISLAND**

**EXISTING CONDITIONS**  
**PLAN AND**  
**SECTIONS**

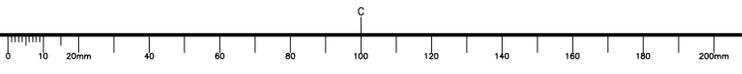
designed W. ENMAN	conçu
date OCT 2020	
drawn D. BEAMAN	dessiné
date OCT 2020	
approved	approuvé
date	
Tender	Soumission
PWGSC Project Manager Administrateur de projets TPSGC	
project number	no. du projet
<b>723274</b>	
drawing no.	no. du dessin
<b>S1 of 8</b>	



**CROSS-SECTION THROUGH EXISTING WHARF AT REPLACEMENT AREA**  
SCALE: 1:50



**LONGITUDINAL SECTION THROUGH EXISTING WHARF AT REPLACEMENT AREA**  
SCALE: 1:50





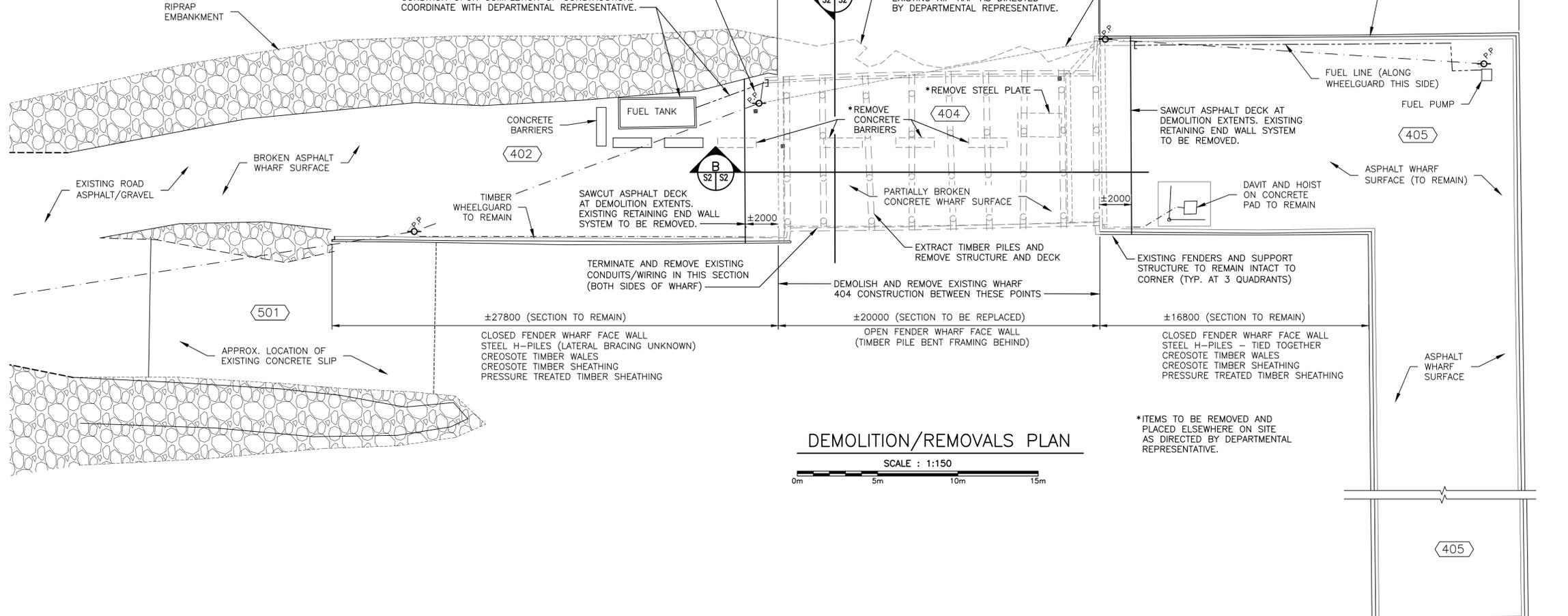
APPROX. NORTH

TEMPORARILY RELOCATE OR HOLD POWER POLES AS REQUIRED TO FACILITATE DEMOLITION/NEW CONSTRUCTION. REINSTATE TO ORIGINAL CONDITION UPON COMPLETION OF CONSTRUCTION. COORDINATE WITH ELECTRICAL UTILITY.

EXISTING FUEL SYSTEM IS TO REMAIN. FUEL LINE IS TO BE DISCONNECTED AS REQUIRED TO FACILITATE DEMOLITION/NEW CONSTRUCTION. FUEL LINE AND SYSTEM IS TO BE REINSTATED TO ORIGINAL CONDITION UPON COMPLETION OF CONSTRUCTION. COORDINATE WITH DEPARTMENTAL REPRESENTATIVE.

±20000 (SECTION TO BE REPLACED)  
OPEN WHARF FACE (NO WALL)  
(TIMBER PILE BENT FRAMING BEHIND)

±26100 (SECTION TO REMAIN)  
CLOSED FENDER WHARF FACE WALL  
STEEL H-PILES - TIED TOGETHER  
CREOSOTE TIMBER WALES  
CREOSOTE TIMBER SHEATHING  
PRESSURE TREATED TIMBER SHEATHING



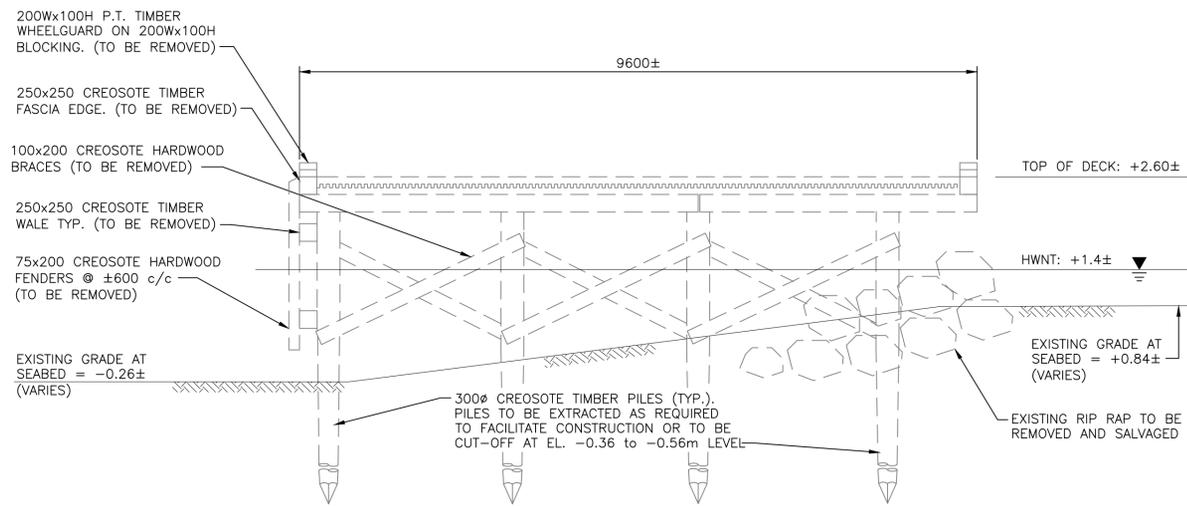
### DEMOLITION/REMOVALS PLAN

SCALE : 1:150  
0m 5m 10m 15m

\*ITEMS TO BE REMOVED AND PLACED ELSEWHERE ON SITE AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE.

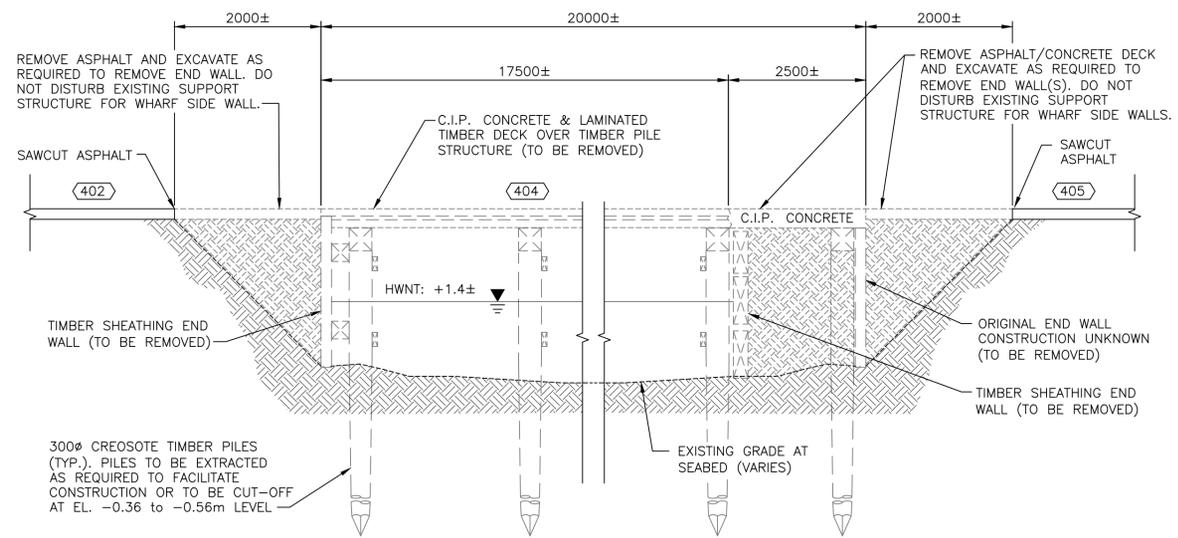
### LEGEND

- POWER POLE ..... ○ P.P.
- OVERHEAD ELECTRICAL LINE ..... —
- ELECTRICAL CONDUIT/WIRE ..... - - -
- FUEL LINE ..... —
- SPOT ELEVATION ..... 0.00
- STRUCTURE NUMBER ..... (000)



### CROSS-SECTION THROUGH EXISTING WHARF AT REPLACEMENT AREA

SCALE: 1:50  
0m 1m 2m 3m 4m 5m



### LONGITUDINAL SECTION THROUGH EXISTING WHARF AT REPLACEMENT AREA

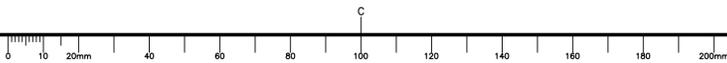
SCALE: 1:50  
0m 1m 2m 3m 4m 5m

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project: REPLACE WHARF 404  
HIGGINS SHORE  
PRINCE EDWARD COUNTY  
PRINCE EDWARD ISLAND

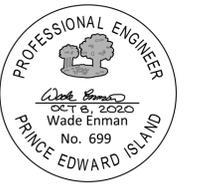
### DEMOLITION AND REMOVALS PLAN AND SECTIONS

designed W. ENMAN	conçu
date OCT 2020	
drawn D. BEAMAN	dessiné
date OCT 2020	
approved	approuvé
date	
Tender	Soumission
PWGC Project Manager Administrateur de projets TPSGC	
project number 723274	no. du projet
drawing no. S2 of 8	no. du dessin



**LEGEND**

POWER POLE	.....	P.P.
OVERHEAD ELECTRICAL LINE	.....	
ELECTRICAL CONDUIT/WIRE	.....	
FUEL LINE	.....	
SPOT ELEVATION	.....	0.00
STRUCTURE NUMBER	.....	000
NEW MOORING CLEAT	.....	M
NEW LADDER	.....	L

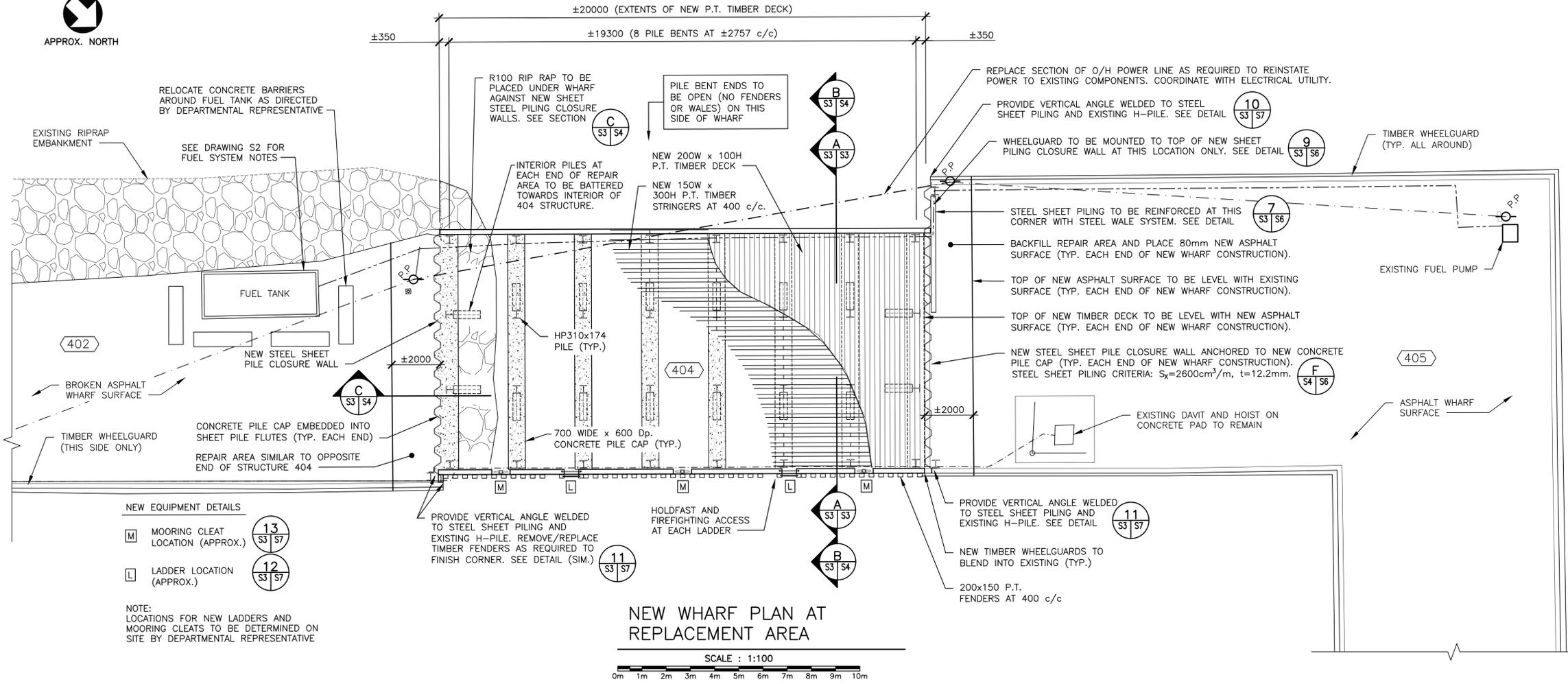


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revisions		date
project		projct

**REPLACE WHARF 404**  
**HIGGINS SHORE**  
**PRINCE COUNTY**  
**PRINCE EDWARD ISLAND**

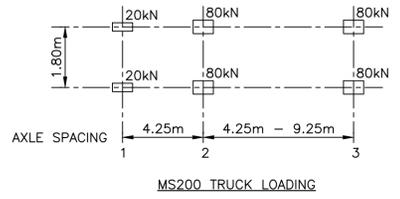
**NEW WHARF PLAN AND CROSS-SECTION**

designed	W. ENMAN	conçu
date	OCT 2020	
drawn	D. BEAMAN	dessiné
date	OCT 2020	
approved		approuvé
date		
Tender		Soumission
PWGSC Project Manager	Administrateur de projets TPSCG	
project number		no. du projet
	<b>723274</b>	
drawing no.		no. du dessin
	<b>S3 of 8</b>	



**SPECIFIED DESIGN LOADS:**

- UNIFORM LOAD EQUAL TO 15.0 kPa;
- VEHICLE LOADING AS FOLLOWS:



**TIMBER NOTES:**

- ALL TIMBER TO BE TREATED TO CAN/CSA-080 FOR MARINE CONSTRUCTION COASTAL WATER, UNLESS OTHERWISE NOTED.
- FASTENERS: ASTM A307 ANCHOR RODS, SIZE AS INDICATED ON THE DRAWINGS.
- GALVANIZE ALL HARDWARE TO CSA G164, MINIMUM ZINC COATING OF 610 g/m<sup>2</sup>, UNLESS OTHERWISE NOTED.
- PRE-DRILL TIMBERS FOR LAG SCREWS.

GRADES OF TIMBER		
MEMBER	SPECIES	GRADE
STRINGERS	SPRUCE-PINE-FIR	SELECT STRUCTURAL
OTHER MEMBERS	SPRUCE-PINE-FIR	No. 1/2

**CONCRETE NOTES:**

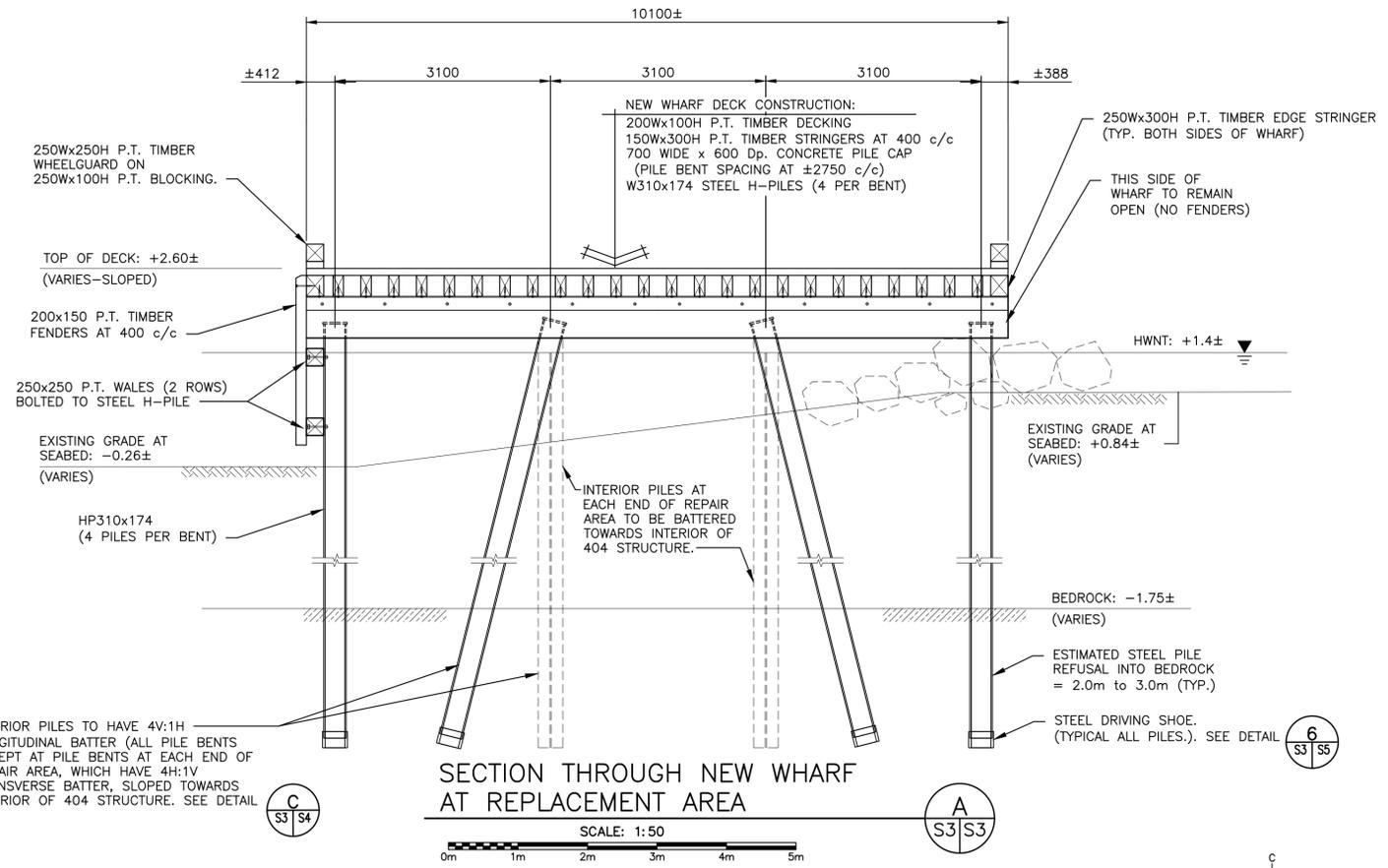
- ALL CONCRETE WORK TO BE IN ACCORDANCE WITH CAN/CSA A23.1, CAN/CSA A23.2 AND CAN/CSA A23.3.
- CONCRETE CLASS OF EXPOSURE = C1, MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 35 MPa, 20mm MAX AGGREGATE SIZE, MAX WATER CEMENT RATIO = 0.40, AIR ENTRAINMENT = 6% - 8%.
- COVER TO REINFORCING = 75mm, UNLESS OTHERWISE NOTED.
- REINFORCING STEEL TO CSA G30.18, GRADE 400W.

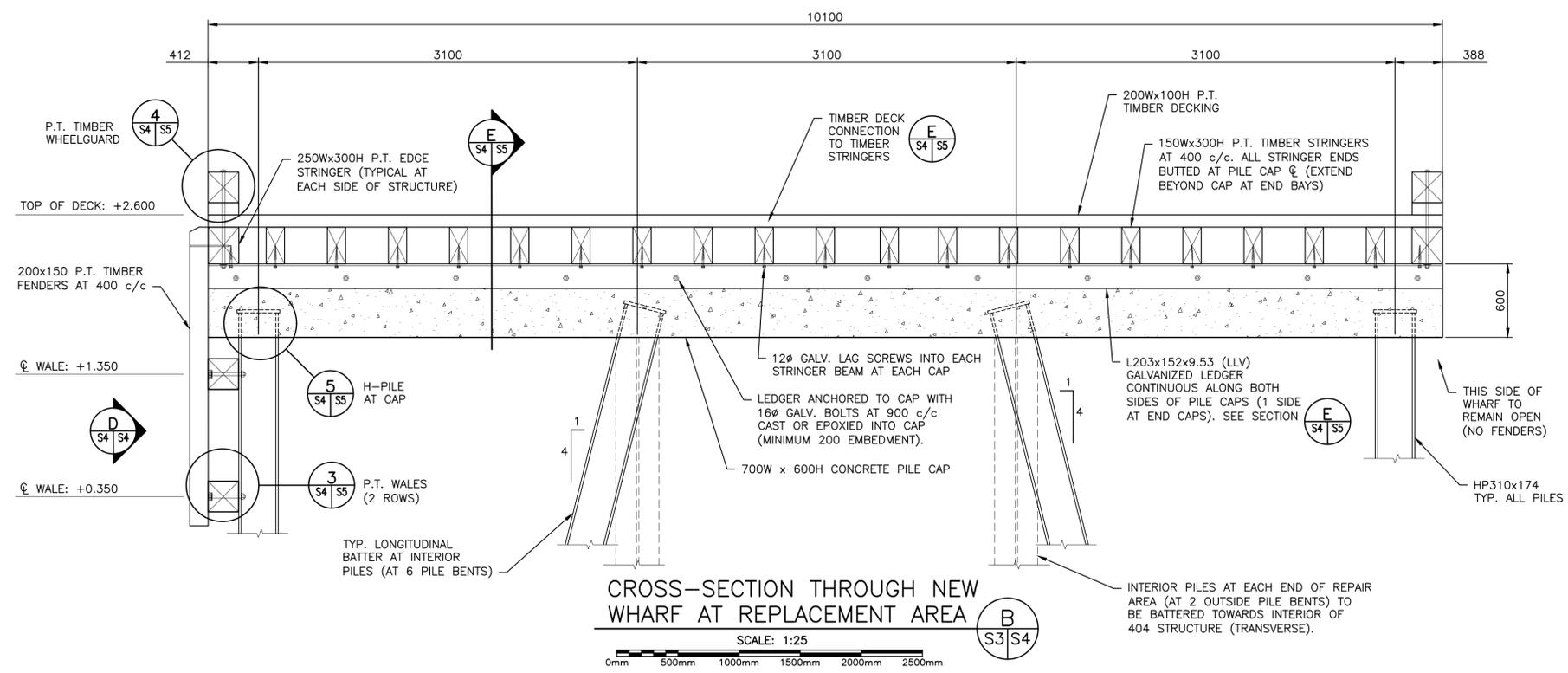
**METAL NOTES:**

- STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS: A. ROLLED SECTION OR PLATE TO CAN/CSA G40.21M, GRADE 350W.
- ALL STEEL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH CAN/CSA S16.1, LATEST EDITION.

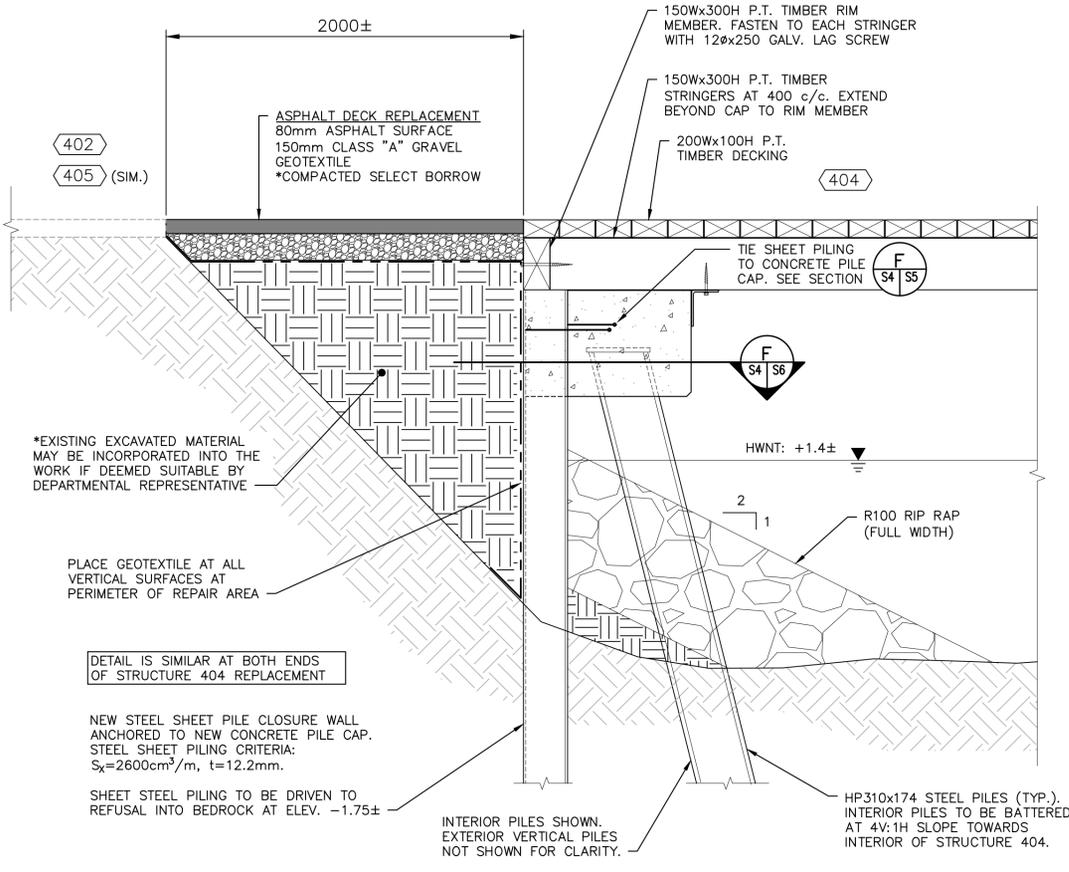
**GENERAL NOTES:**

- DO NOT SCALE FROM THE DRAWINGS.
- ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
- GEOTECHNICAL INFORMATION AS PER REPORT BY WSP, PROJECT NUMBER 191-11272, DATED NOVEMBER 2018. THE CONTRACTOR MUST REVIEW THE COMPLETE GEOTECHNICAL REPORT, AVAILABLE UPON REQUEST.
- ANY STOCKPILING OF MATERIAL ON SITE WILL BE AT A LOCATION COORDINATED WITH THE DEPARTMENTAL REPRESENTATIVE AND THE LOCAL HARBOUR AUTHORITY.
- THE CONTRACTOR SHALL BE HELD TO HAVE VISITED THE SITE AND TO HAVE BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO COMMENCING THE WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE DEPARTMENTAL REPRESENTATIVE IN WRITING OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE PLAN BEFORE STARTING THE WORK.
- CONTRACTOR TO COORDINATE ALL WORK WITH DEPARTMENTAL REPRESENTATIVE AND THE LOCAL HARBOUR AUTHORITY. NO WORK SHALL BE COMPLETED IN SUCH A MANNER AS TO INTERFERE WITH HARBOUR OPERATIONS IN ANY WAY.
- ALL COUNTERSUNK BOLTS TO BE FILLED WITH NON-SHRINK GROUT DESIGNED FOR A MARINE ENVIRONMENT.
- CONTRACTOR TO ENSURE TYPICAL FACILITY OPERATION IS NOT INTERRUPTED.

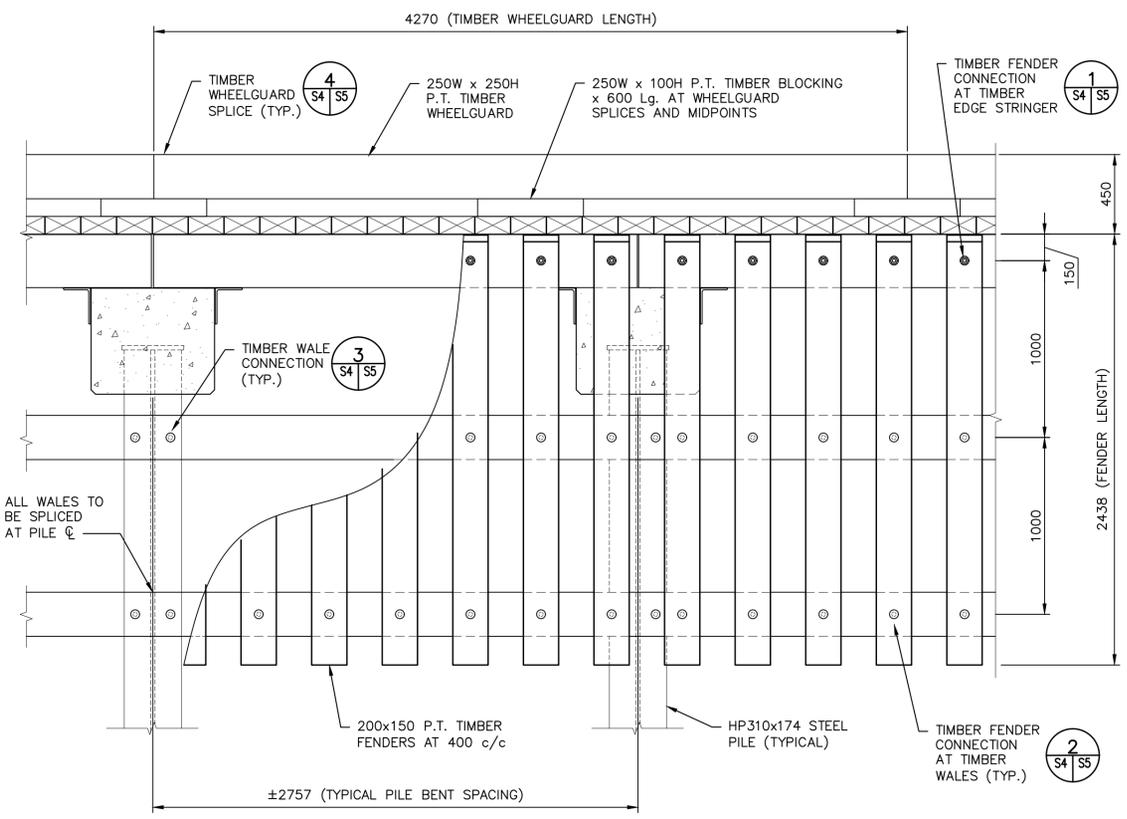




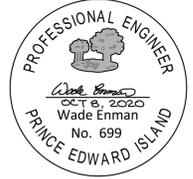
CROSS-SECTION THROUGH NEW WHARF AT REPLACEMENT AREA  
SCALE: 1:25



SECTION THROUGH CLOSURE WALLS AT EACH END OF STRUCTURE 404 REPLACEMENT AREA  
SCALE: 1:20



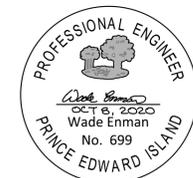
TYPICAL FRONT ELEVATION OF NEW WHARF REPLACEMENT  
SCALE: 1:20



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revisions		date
project		project
<b>REPLACE WHARF 404</b>		
<b>HIGGINS SHORE PRINCE COUNTY PRINCE EDWARD ISLAND</b>		
drawing		dessin
<b>CROSS-SECTION AND DETAILS</b>		
designed	W. ENMAN	conçu
date	OCT 2020	
drawn	D. BEAMAN	dessiné
date	OCT 2020	
approved		approuvé
date		
Tender		Soumission
PWGC Project Manager	Administrateur de projets TPSGC	
project number		no. du projet
	<b>723274</b>	
drawing no.		no. du dessin
	<b>S4 of 8</b>	

**NOTES:**

1. ALL DIMENSIONS ARE mm U.N.O.
2. BOLTS: DOME OR HEXAGONAL HEAD AS SHOWN ON DRAWINGS. HOLES FOR BOLTS SHALL BE DRILLED WITH A DIAMETER 1.5mm LARGER THAN BOLT.
3. STEEL WASHERS SHALL BE PLACED UNDER ALL NUTS AND HEXAGONAL BOLT HEADS. NUTS MUST BE TIGHTENED WITHOUT CRUSHING WOOD MEMBERS.
4. SPIKES: SPIRAL SPIKES TO BE DRIVEN IN PRE-DRILLED HOLES THAT ARE 75% OF THE SPIKE DIAMETER. SPIKES TO BE DRIVEN IN AT 15° ANGLE OFFSET FROM THE PLANE PERPENDICULAR TO THE SURFACE. DRIVE SPIKES TO SET THE HEADS SLIGHTLY BELOW THE SURFACE.
5. ALL FASTENERS AND HARDWARE TO BE HOT DIP GALVANIZED.
6. ALL TIMBER TO BE PRESSURE TREATED WITH CCA (SEE SPECS). ALL WOOD TO BE INCISED BEFORE APPLYING PRESERVATIVE TREATMENT.
7. ALL FIELD CUT SURFACES OF TIMBER MEMBERS TO BE FIELD TREATED AS PER SPECIFICATIONS.

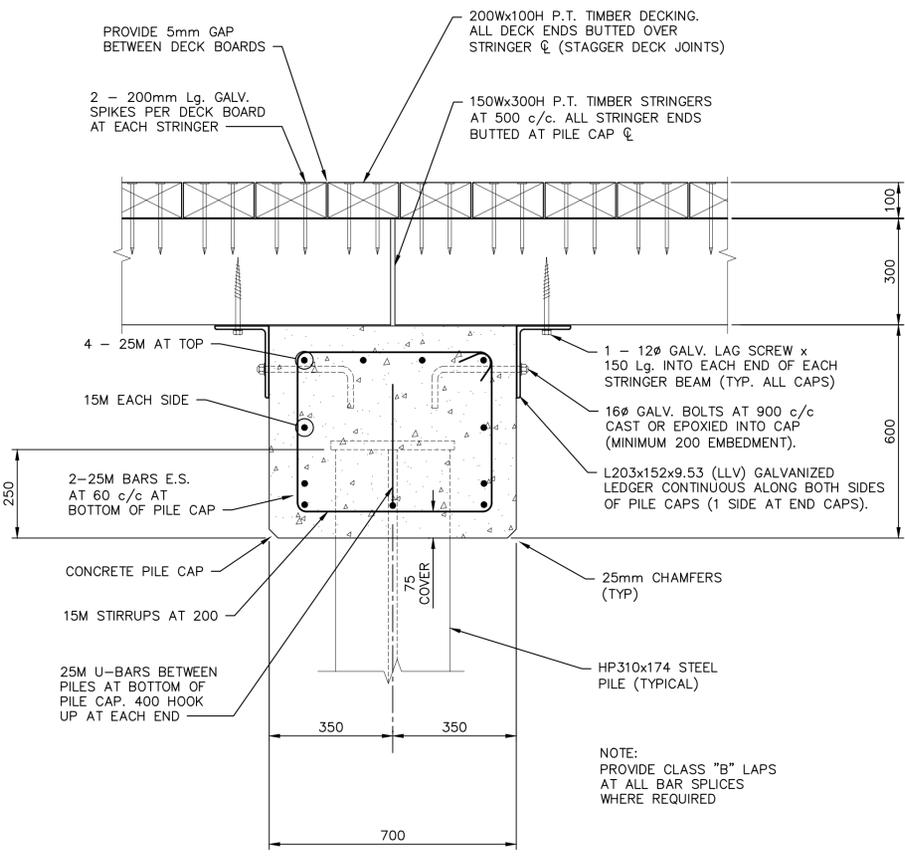


0	ISSUED FOR TENDER	OCT 8 2020
revisions		date
project		project

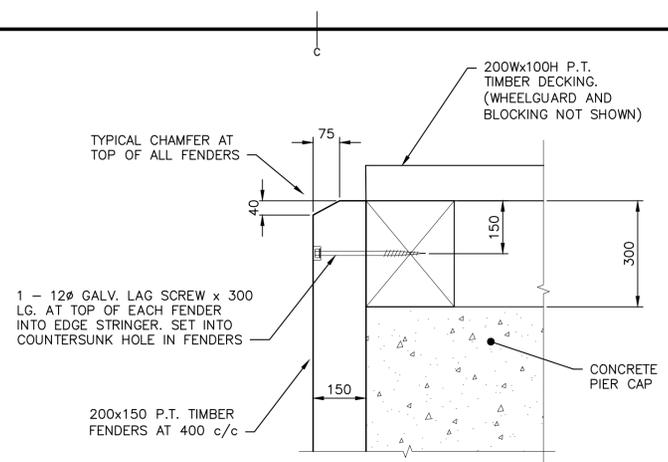
**WHARF RECONSTRUCTION**  
**HIGGINS SHORE**  
**PRINCE COUNTY**  
**PRINCE EDWARD ISLAND**

**SECTIONS AND DETAILS**

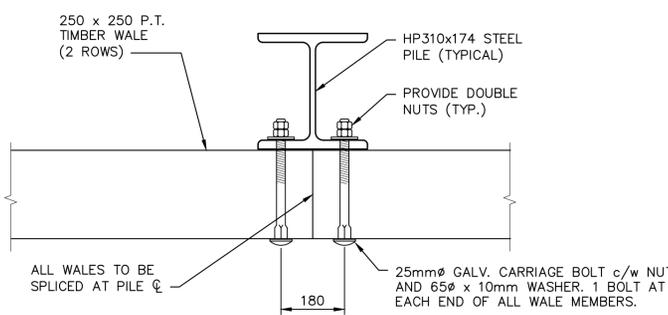
designed	W. ENMAN	conçu
date	OCT 2020	
drawn	D. BEAMAN	dessiné
date	OCT 2020	
approved		approuvé
date		
Tender		Soumission
PWGSC Project Manager	Administrateur de projets TPSGC	
project number	no. du projet	
	<b>723274</b>	
drawing no.	no. du dessin	
	<b>S5 of 8</b>	



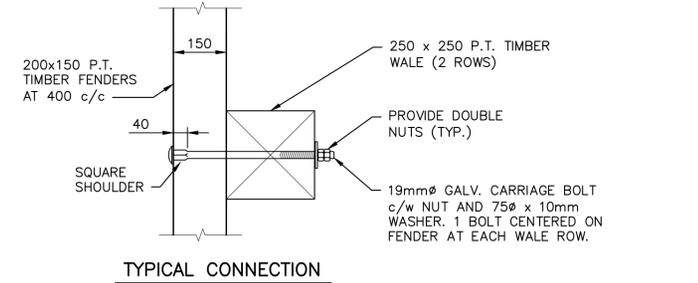
**TYPICAL PILE CAP SECTION**  
SCALE : 1:10



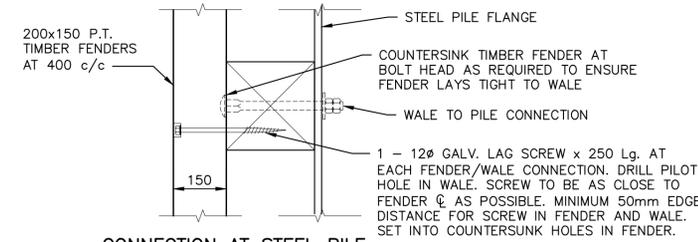
**TYPICAL FENDER CONNECTION TO EDGE STRINGER AT TOP**  
SCALE : 1:10



**TYPICAL WALE CONNECTION TO STEEL PILES**  
SCALE : 1:10

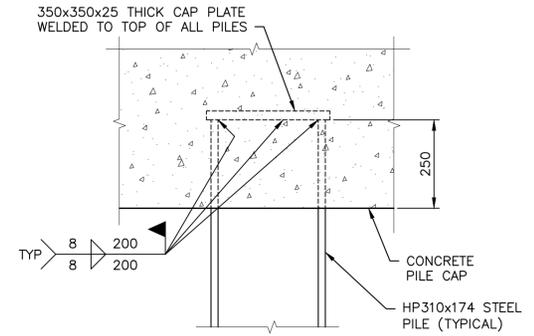


**TYPICAL CONNECTION**

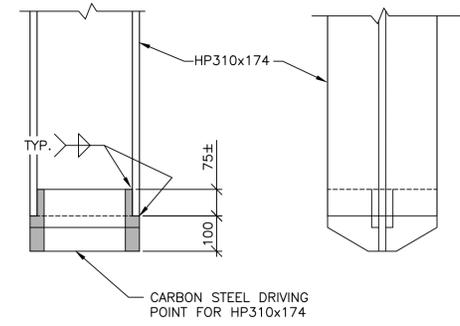


**CONNECTION AT STEEL PILE INTERFERENCE (IF APPLICABLE)**

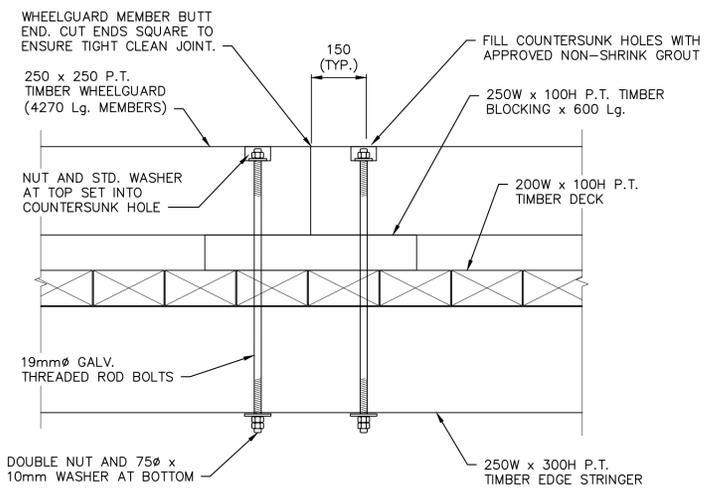
**TYPICAL FENDER CONNECTION TO TIMBER WALE (2 ROWS)**  
SCALE : 1:10



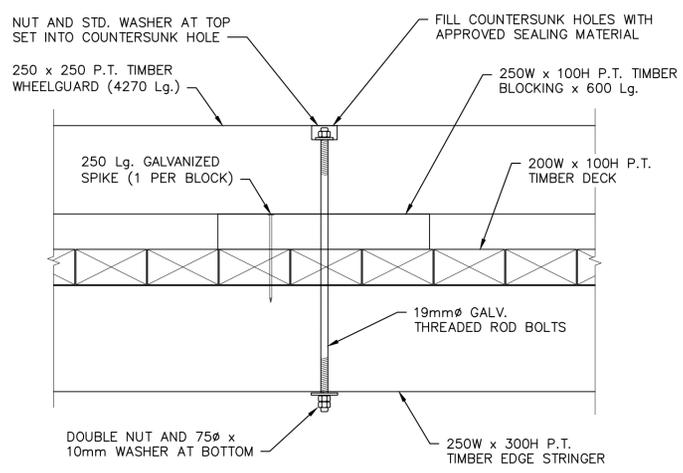
**STEEL PILE CAP**  
SCALE : 1:10



**STEEL PILE DRIVING POINT**  
SCALE : 1:10

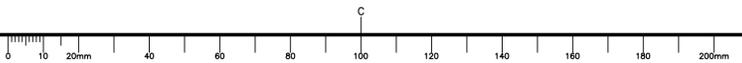


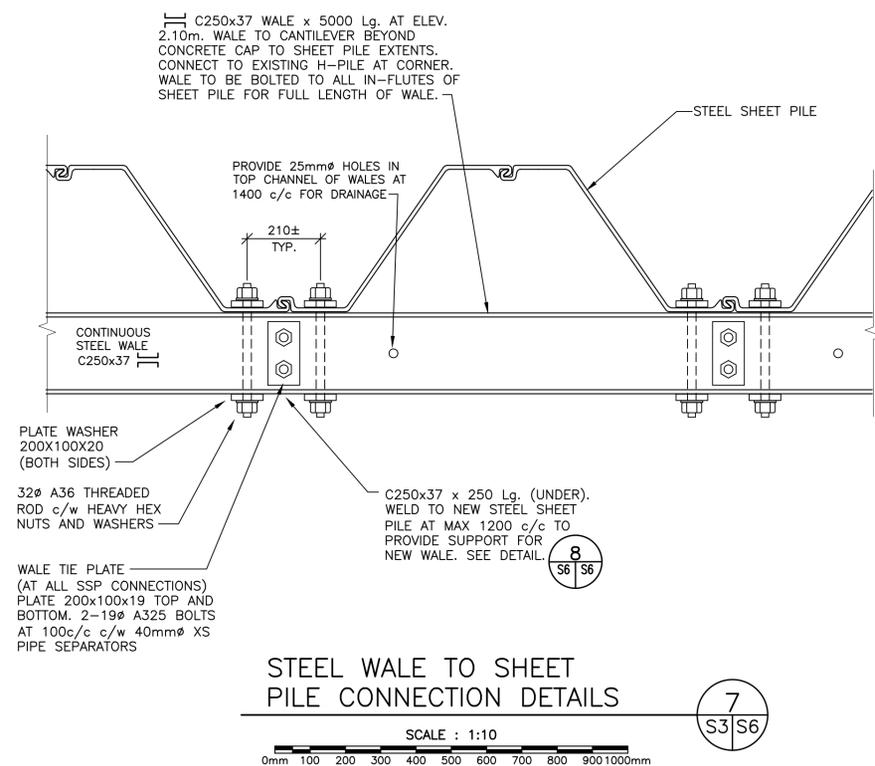
**CURB BLOCKING AT ENDS**



**CURB BLOCKING AT MIDSPAN**

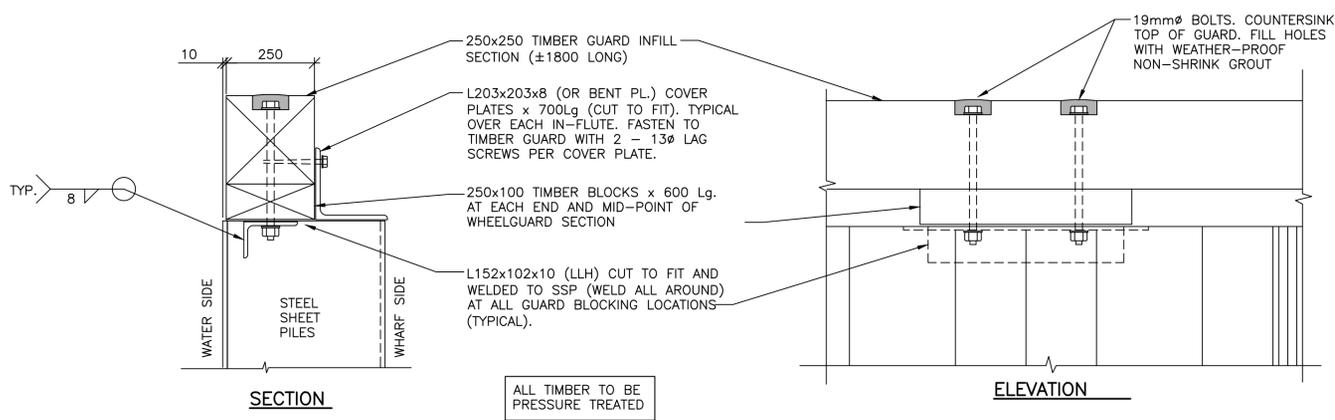
**TYPICAL WHEELGUARD ANCHORAGE**  
SCALE : 1:10





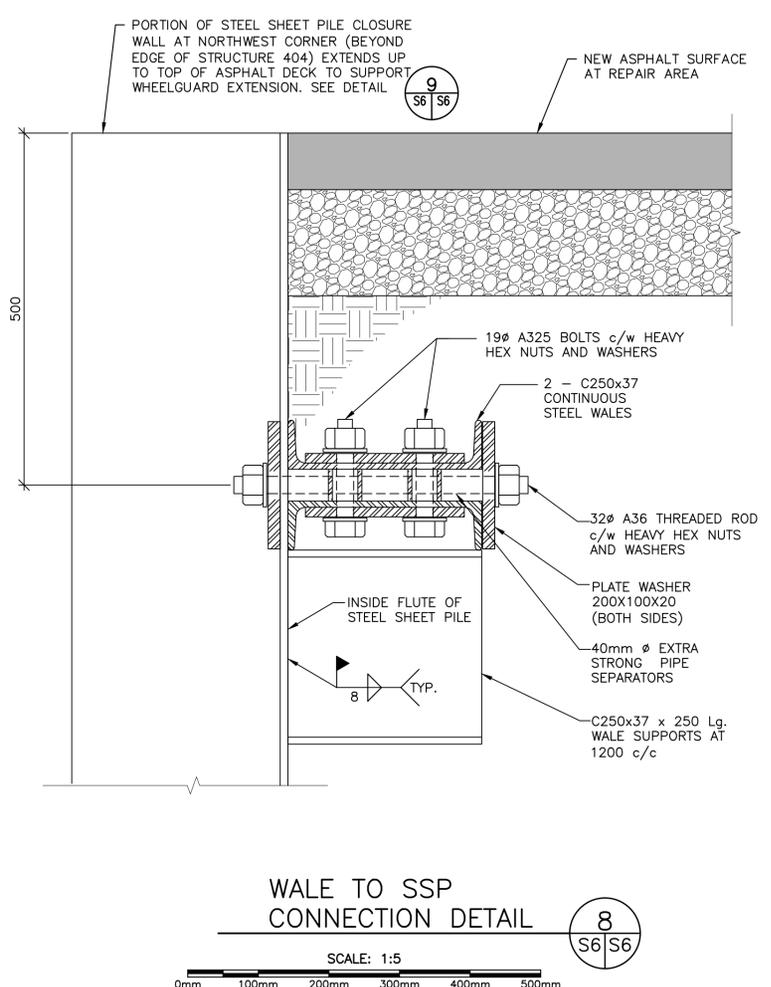
STEEL WALE TO SHEET PILE CONNECTION DETAILS

7 S3/S6



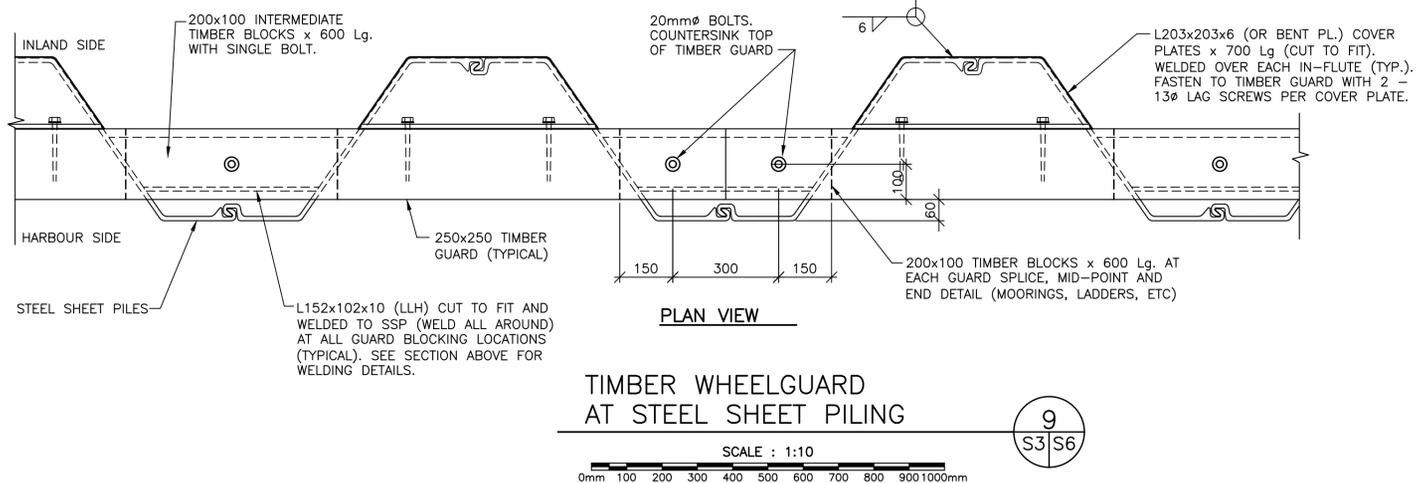
TIMBER WHEELGUARD AT STEEL SHEET PILING

9 S3/S6



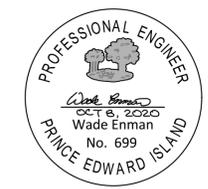
WALE TO SSP CONNECTION DETAIL

8 S6/S6



STEEL SHEET PILE ATTACHMENT TO CONCRETE PILE CAP AT CLOSURE WALLS

F S3/S6



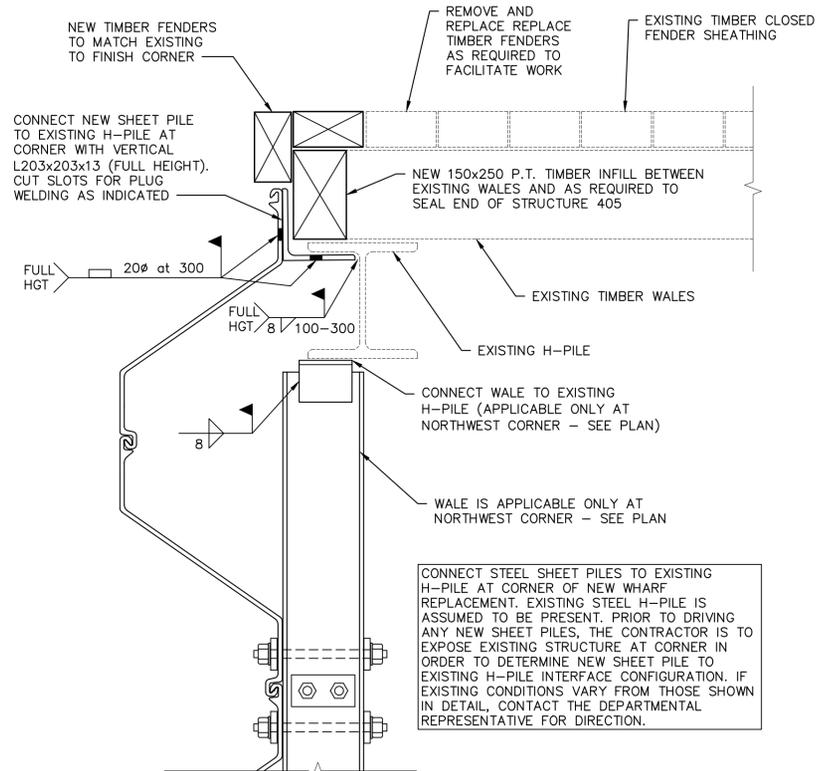
0	ISSUED FOR TENDER	OCT 8 2020
revisions		date

project project  
**WHARF RECONSTRUCTION**  
**HIGGINS SHORE**  
**PRINCE COUNTY**  
**PRINCE EDWARD ISLAND**

drawing dessin  
**STEEL SHEET PILING SECTIONS AND DETAILS**

designed W. ENMAN	conçu
date OCT 2020	
drawn D. BEAMAN	dessiné
date OCT 2020	
approved	approuvé
date	
Tender	Soumission

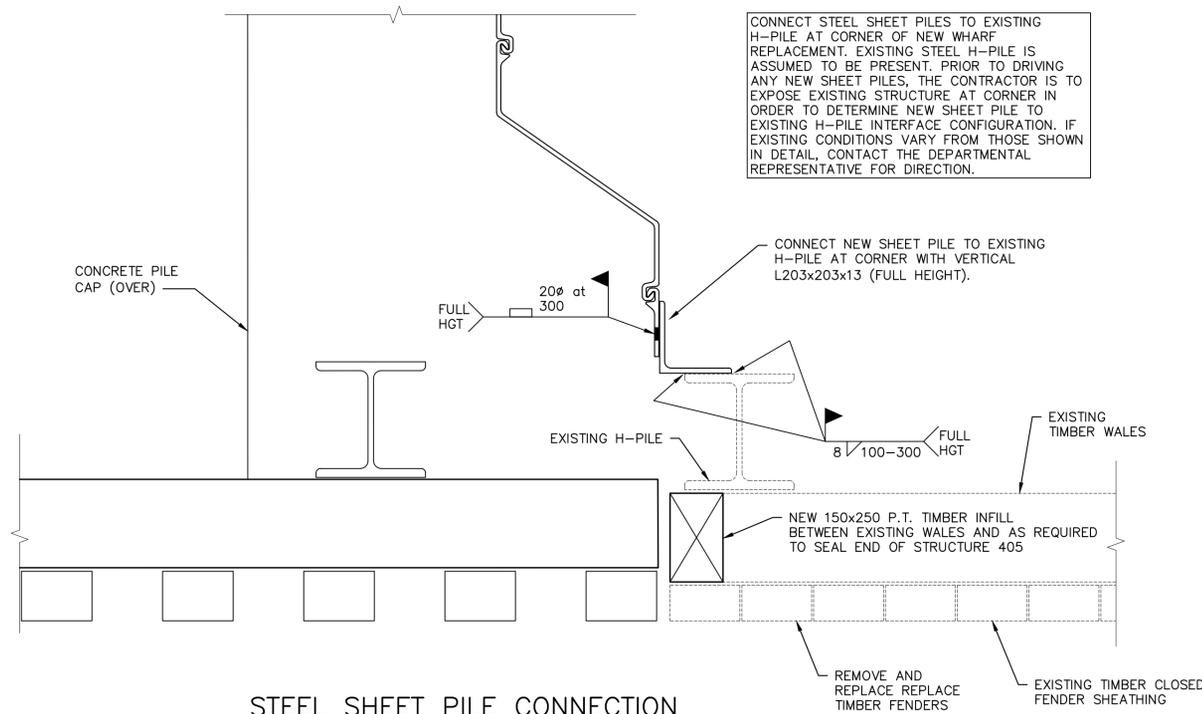
PWGSC Project Manager Administrateur de projets TPSGC  
 project number no. du projet  
**723274**  
 drawing no. no. du dessin



STEEL SHEET PILE CONNECTION AT NORTHWEST CORNER

SCALE : 1:10

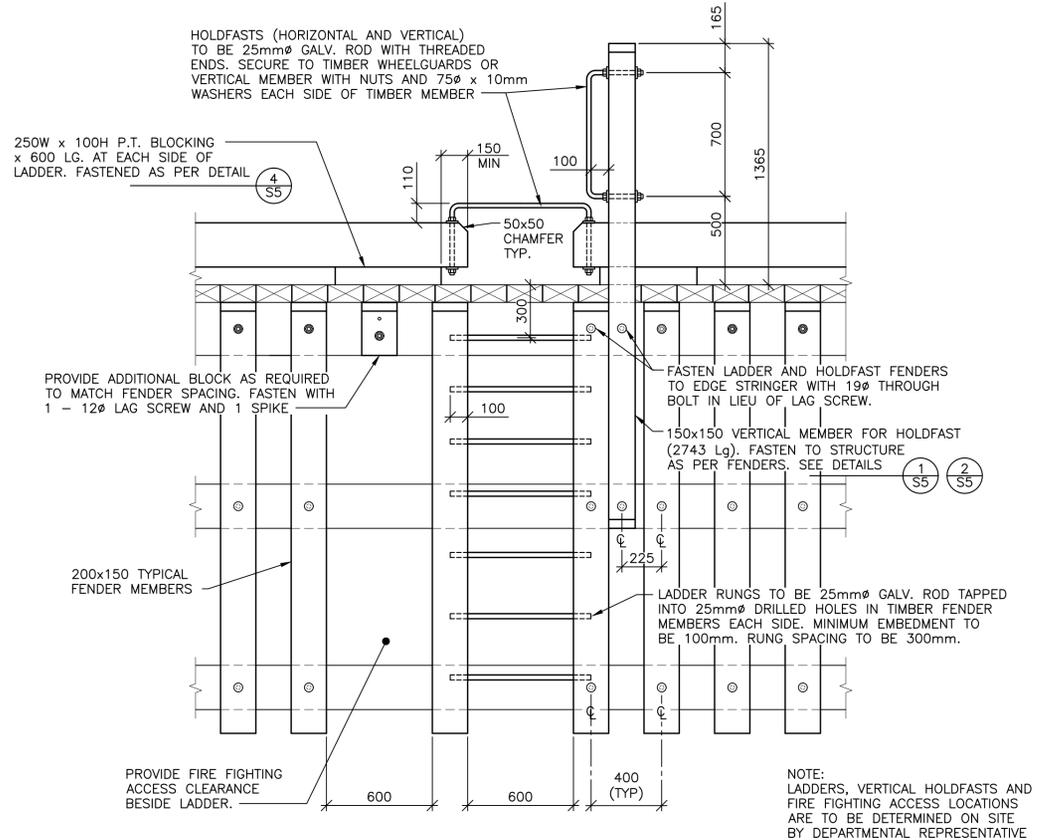
10  
S3/S7



STEEL SHEET PILE CONNECTION AT NORTHEAST CORNER

SCALE : 1:10

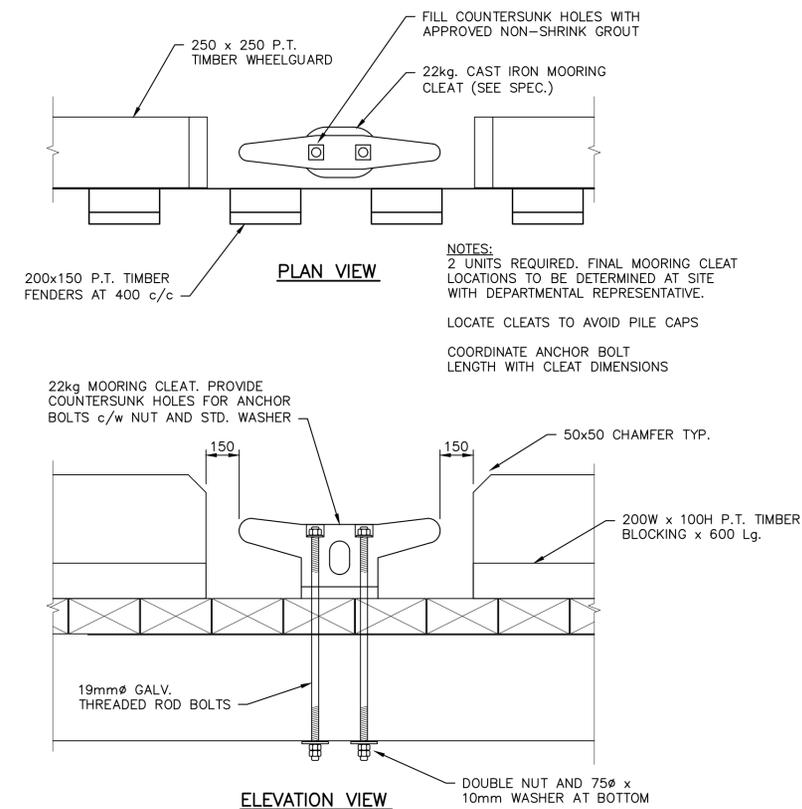
11  
S3/S7



LADDER DETAIL (2 UNITS REQUIRED)

SCALE : 1:20

12  
S3/S7



TYPICAL MOORING CLEAT

SCALE : 1:10

13  
S3/S7



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revisions		date
project		project

WHARF RECONSTRUCTION  
HIGGINS SHORE  
PRINCE EDWARD ISLAND

MISCELLANEOUS DETAILS

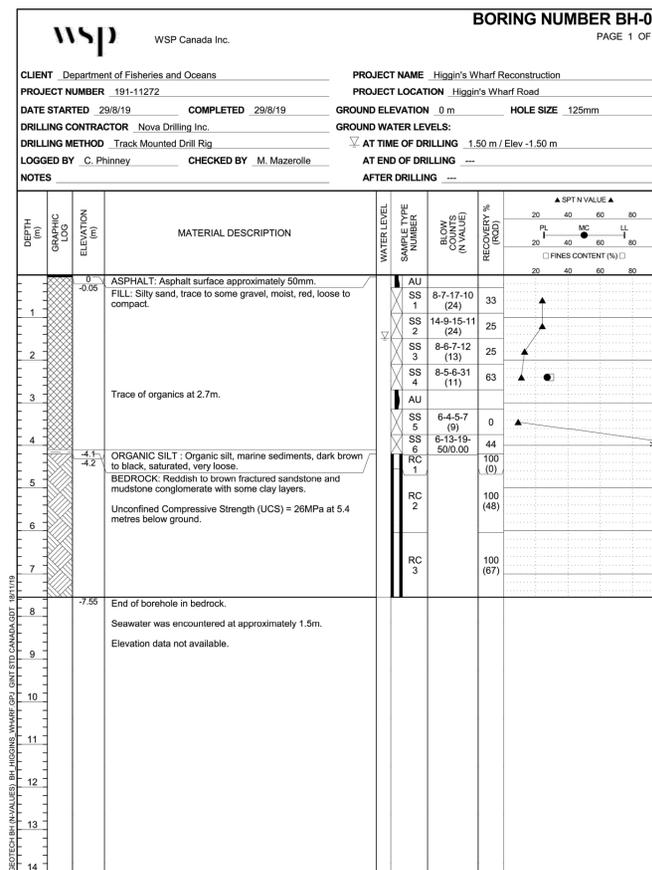
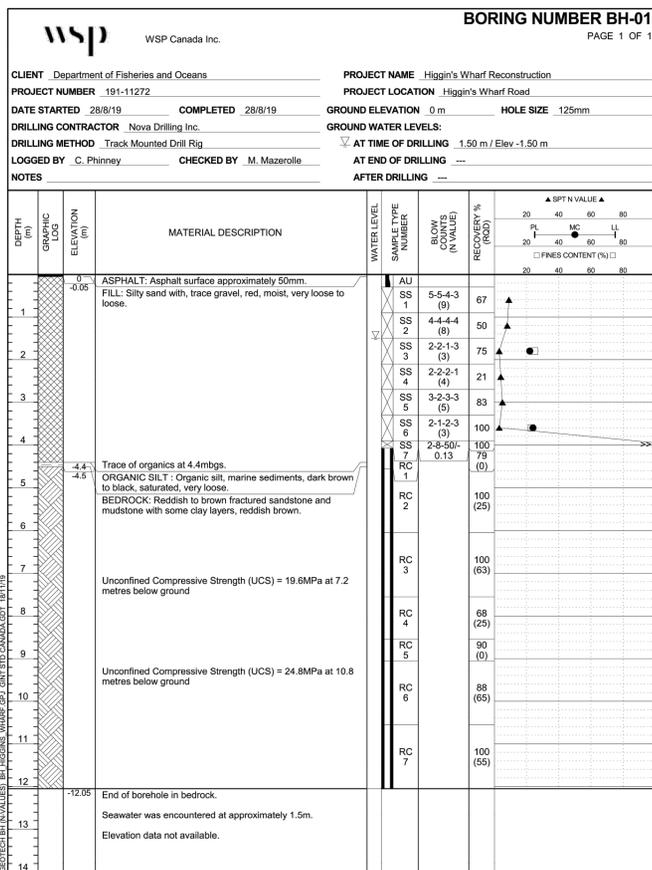
designed W. ENMAN	conçu
date OCT 2020	
drawn D. BEAMAN	dessiné
date OCT 2020	
approved	approuvé
date	
Tender	Soumission

PWGSC Project Manager / Administrateur de projets TPSGC  
project number / no. du projet  
723274  
drawing no. / no. du dessin



<p><b>WSP Canada Inc.</b> 1070 St. George Boulevard, Suite 160 Moncton, New Brunswick, Canada E1E 4K7 T 506-857-1675 www.wsp.com</p>	PROJECT: <b>HIGGIN'S WHARF HIGGIN'S WHARF ROAD, TYNE VALLEY, PEI</b>	SUPPLEMENTAL: ADDENDUM: <input type="checkbox"/> DIRECTIVE: <input type="checkbox"/> CHANGE ORDER: <input type="checkbox"/> REVISION: 1
	TITLE: <b>HIGGIN'S WHARF BOREHOLE SKETCH</b>	DATE: (YYYY/MM/DD) <b>2019/08/28-29</b> PROJECT NO: 191-11272 SUPPLEMENTAL NO: 1
DRAWN BY: <b>C. PHINNEY</b> CHECKED BY: <b>M. MAZEROLLE</b>	SCALE: <b>NTS</b>	

WSP REF. NO.: ----- K:\MONCTON\2019\191-11272 - HIGGIN'S WHARF - GEOTECH\GEOTECH\191-11272\_HIGGIN'S WHARF\_BH\_SKETCH.DWG GEOT-MAP PRINTED: 3:59 PM 2020/01/24 BY: MARCMAZEROLLE



0	ISSUED FOR TENDER	OCT 8 2020
revisions		date

project project  
**WHARF RECONSTRUCTION**  
**HIGGINS SHORE**  
**PRINCE COUNTY**  
**PRINCE EDWARD ISLAND**

drawing dessin  
**BOREHOLE DATA**

designed	W. ENMAN	conçu
date	OCT 2020	
drawn	D. BEAMAN	dessiné
date	OCT 2020	
approved		approuvé
date		
Tender		Soumission
PWGC Project Manager	Administrateur de projets TPSGC	
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	<b>723274</b>	
drawing no.	no. du dessin	
	<b>S8 of 8</b>	