

GOVERNMENT
OF CANADA

FISHERIES
AND OCEANS

GOUVERNEMENT
DU CANADA

^
PÊCHES
ET OCEANS



SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION

BIG BAY WHARF #404 REHABILITATION
BIG BAY , ONTARIO
D.F.O PROJECT NO: F2930-180037

DESCRIPTION

SHEET NO.

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| 2. | REMOVAL PLAN | 02 |
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GENERAL NOTES:

1. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH THE NATIONAL MASTER SPECIFICATION (NMS).
2. CONTRACTOR TO ACCESS SITE VIA THE GRIFFITH ISLAND CLUB ENTRANCE AND WITH USE OF A BARGE FOR SELECT CONSTRUCTION.
3. IN WATER CONSTRUCTION TO COMPLY WITH DFO FISHERIES TIMING RESTRICTIONS.
4. SAFEGUARD ALL EXISTING STRUCTURES, SERVICES AND UTILITIES WHICH WILL BE AFFECTED BY THE WORK OF THIS CONTRACT.
5. BEFORE PROCEEDING WITH THE WORK, CHECK AND VERIFY ALL DIMENSIONS AND ALL ELEVATIONS SHOWN ON THE DRAWINGS AND REPORT ANY DISCREPANCIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENVIRONMENTAL PROTECTION AND CONSTRAINTS DURING PERFORMANCE OF THE WORK.
7. ACCESS PERMISSION FOR INSTALLATION SHALL BE COORDINATED WITH SMALL CRAFT HARBOURS.
8. ALL DIMENSIONS IN MILLIMETERS, UNLESS OTHERWISE NOTED.

CONSTRUCTION NOTES:

1. THE LOCATION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UTILITIES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN THE ACCURACY OF THE LOCATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.
2. BEFORE STARTING WORK THE CONTRACTOR SHALL LOCATE ALL UTILITIES AND SHALL PROTECT THEM FROM DAMAGE.
3. ALL WORK SHALL MEET THE MINIMUM STANDARDS OF THE SPECIFICATIONS AND THE OCCUPATIONAL HEALTH AND SAFETY ACT (OHSa).
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENVIRONMENTAL PROTECTION AND CONSTRAINTS DURING PERFORMANCE OF THE WORK.
5. ALL TREES, FACILITIES AND MISCELLANEOUS OBSTRUCTIONS TO THE WORK ARE NOT NECESSARILY SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL COMPLETE A VISUAL SITE REVIEW PRIOR TO THE BID AND PRIOR TO UNDERTAKING THE WORK.
6. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A SECURE SITE PERIMETER FENCE AT ALL TIMES DURING CONSTRUCTION. FENCING SHALL INCLUDE SIGNAGE NOTIFYING PUBLIC OF HAZARDS. LOCKABLE GATES SHALL BE INSTALLED TO PROVIDE VEHICLE AND PERSONNEL ACCESS.
7. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
8. THE CONTRACTOR SHALL PREPARE AND MAINTAIN A WORKING AS-BUILT FULL SIZE 'REDLINE' MARKUP SET OF THE CONTRACT DRAWINGS. WORKING AS BUILTS SHALL BE KEPT CURRENT ON A WEEKLY BASIS AND BE AVAILABLE ON THE JOB SITE AT ALL TIMES. THE 'REDLINE' SET SHALL DEPICT ALL CURRENT VARIATIONS/DEVIATIONS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: ADDENDUMS, CHANGE ORDERS, FIELD ADJUSTMENTS, EXISTING AND NEW UTILITY LINES. MEASUREMENTS ARE TO BE SHOWN FOR ALL CHANGE OF DIRECTION POINTS AND ALL COMPONENTS. THESE SHALL BE SHOWN WITH TWO OFFSET DISTANCES TO PERMANENTLY FIXED FEATURES.

ABBREVIATIONS:

CONC.	CONCRETE	STA.	STATION
CL.	CENTRE LINE	SSP	STEEL SHEET PILES
ELE.	ELEVATION	MISC.	MISCELLANEOUS
EXIST.	EXISTING	mm	MILLIMETERS
GRAN.	GRANULAR	TYP.	TYPICAL
HWL	HIGH WATER LEVEL	WL	WATER LEVEL
I.G.L.D.	INTERNATIONAL GREAT LAKES DATUM	C/W	CONNECTED WITH
m	METERS	U/S	UNDERSIDE
MAX.	MAXIMUM	C/C	CENTRE TO CENTRE
MIN.	MINIMUM	APPROX.	APPROXIMATELY
		DIA.	DIAMETER
		WWF	WELD WIRE FABRIC
		U.O.N	UNLESS OTHERWISE NOTED

REFERENCE PLANS:

EXISTING DETAILS OF THE GOVERNMENT WHARF AND EXTENSION WHARF HAVE BEEN DERIVED FROM DRAWINGS BY RIGGS ENGINEERING DATED 2009.

SURVEY INFORMATION:

1. SURVEY INFORMATION PROVIDED BY FISHERIES AND OCEANS CANADA, MAY 2016.
2. ELEVATIONS ARE PROVIDED IN RELATION TO CHART DATUM (LEVEL 0.00) RELATIVE TO IGLD 1985 (ELEVATION 176.0), UNLESS OTHERWISE NOTED.

MATERIAL SPECIFICATIONS:

1. CONCRETE: IN ACCORDANCE WITH CSA STANDARD A23.1 AND A23.2.

CLASS OF CONCRETE:
CAST IN PLACE 35 MPa

CLEAR COVER TO REINFORCING STEEL:
CAST IN PLACE 70 +/- 20mm UNLESS NOTED OTHERWISE

2. STRUCTURAL CONCRETE: EXPOSURE CLASSIFICATION C-1.
3. REINFORCING STEEL: CSA STANDARD G30.18, GRADE 400W, DEFORMED BARS.
4. STRUCTURAL STEEL: CSA STANDARD G40.20/G40.21, GRADE 350W ROLLED SECTIONS, 350W PLATES.
5. SHEET PILING: CSA STANDARD G40.21, GRADE 350W OR ASTM A572, GRADE 50.
6. BOLTS: ASTM A325M (25mm DIAMETER, UNLESS NOTED OTHERWISE).
7. TIE BACKS: DYWIDAG GRADE 75, #10 OR EQUAL.
8. WELDING: CSA STANDARD W59 PERFORMED BY WELDERS MEETING THE REQUIREMENTS OF CSA STANDARD W47.
9. UNLESS OTHERWISE NOTED THE MINIMUM FILLET WELD SHALL BE AS FOLLOWS:

MATERIAL THICKNESS OF THICKER PART JOINED (mm)	MINIMUM SIZE OF SINGLE PASS FILLET WELD (mm)
TO 12 INCLUSIVE	5
OVER 12 TO 20	6
OVER 20 TO 40	8
OVER 40 TO 60	10
OVER 60 TO 80	12

SHEET PILE NOTES:

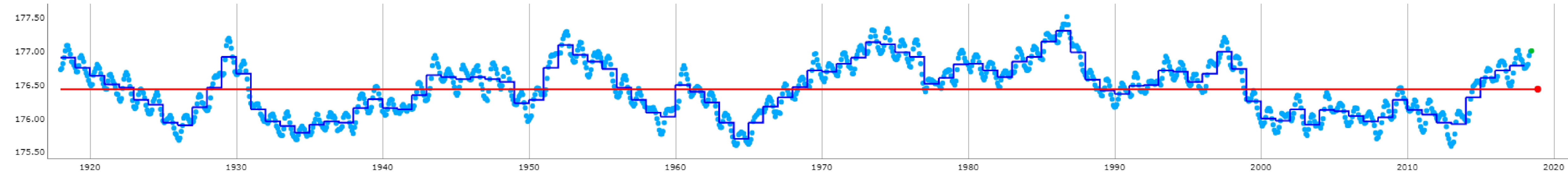
1. CORNER SECTIONS SHALL BE PROVIDED AT ALL BENDS TO SHEETING.
2. MECHANICAL COUPLERS/TURNBUCKLES WITH LOCK NUTS FOR TIES SHALL BE PROVIDED AS REQUIRED TO SUIT THE TIE LENGTHS.
3. DRIVING CAPS SHALL BE USED TO PROTECT THE PILE TOPS DURING INSTALLATION.
4. TOP DRIVING GUIDES SHALL BE USED FOR SHEET PILE ALIGNMENT.
5. THE CONTRACTOR SHALL NOTE THAT THE INSTALLATION OF SHEETING WILL NOT RESULT IN A REDUCTION TO WATER LEVEL ON THE FILL SIDE.
6. THE CONTRACTOR SHALL PROVIDE LAYOUT OF THE SHEET PILE WALL TO SUIT THE EXISTING STRUCTURE ARRANGEMENT. THE CONTRACTOR MAY MAKE MINOR ADJUSTMENTS TO THE WALL LAYOUT SHOWN AS REQUIRED TO ACCOMMODATE PILE SHAPE, INTERLOCKS, BENDS, INTERFACE WITH ADJACENT STEEL SHEET PILE WALLS, EXISTING STRUCTURES, OBSTRUCTIONS, ETC. ALL PROPOSED ADJUSTMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. LOCATION/DETAILS OF WALER SPLICE PLATES ARE SHOWN ON THE DRAWINGS. THE NUMBER AND ACTUAL LOCATION OF EACH WALER SPLICE PLATE IS TO BE DETERMINED BY THE CONTRACTOR TO SUIT THE WALER PIECE LENGTHS.
8. IF ELEVATION OF PROPOSED WALERS IS SUBMERGED DUE TO HIGH WATER LEVELS, ELEVATIONS OF WALERS AND ANCHORS TO BE RAISED UNIFORMLY SUCH THAT THE CENTRELINE OF THE WALERS IS 100mm ABOVE THE WATER LEVEL AS MEASURED AT THE START OF CONSTRUCTION. CONTRACTOR TO SUBMIT NEW PROPOSED WALER ELEVATION TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

LEGEND:

	STEEL SHEET PILE
	GRANULAR A
	CONCRETE
	REMOVALS
	BENCHMARK
	- FIELD WELD
	- SIZE (LENGTH OF LEG)
	DETAIL NUMBER SHEET NUMBER



KEY MAP



SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



REVISIONS:		DATE:
1	33% DESIGN SUBMISSION	2018-07-25
2	ISSUED FOR 99% SUBMISSION	2018-11-23
3	ISSUED FOR TENDER	2018-12-14

SCALE:	CLASS:
N/A	

PROJECT:

BIG BAY WHARF #404
REHABILITATION

DESCRIPTION:

NOTES, ABBREVIATIONS
AND LEGENDS

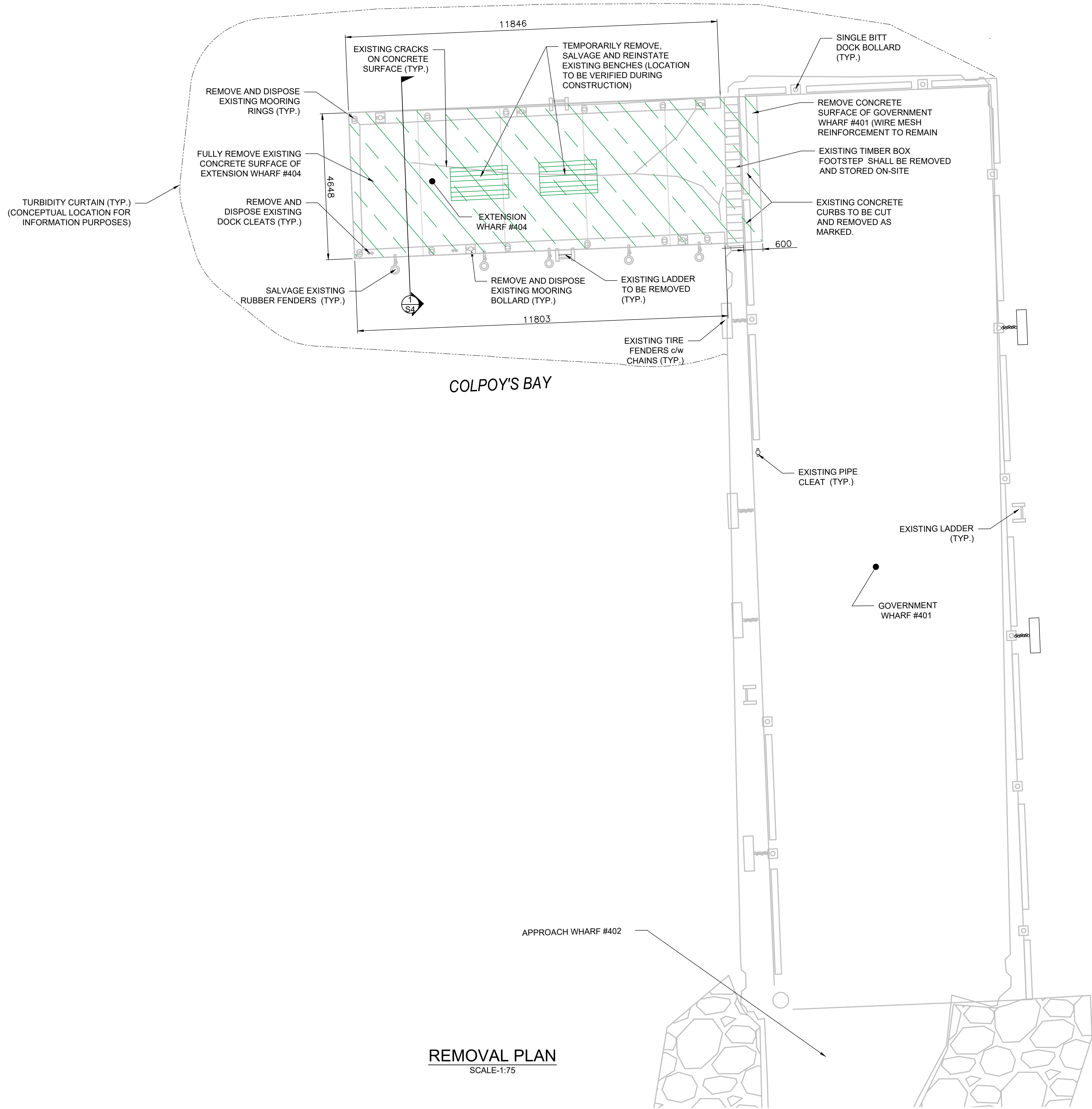
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P.F.	M.N.

DATE:	DATE:
DEC 2018	DEC 2018

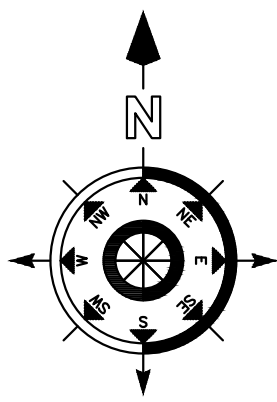
LOCATION:

BIG BAY HARBOUR
ONTARIO

DRAWING NO.:	LOCATOR CODE:
01	4526



REMOVAL PLAN
SCALE: 1:75



SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



- NOTES:
1. TOPO SURVEY AND PHOTOGRAPHS WERE TAKEN ON AUG 3 2016.
 2. CHART DATUM FOR LAKE HURON (GEORGIAN BAY) IS 176.0m ABOVE SEA LEVEL.
 3. WATER LEVEL AT THE TIME OF SURVEY WAS 0.78 ABOVE CHART DATUM.
 4. ELEVATIONS ARE IN METERS RELATIVE TO CHART DATUM. DIMENSIONS ARE IN MILLIMETERS U.O.N.



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DESCRIPTION:

REMOVAL PLAN

DRAWN:	APPROVED:
P.F.	M.N.
DATE:	DATE:
DEC 2018	DEC 2018

LOCATION:

**BIG BAY HARBOUR
ONTARIO**

DRAWING NO.:	LOCATOR CODE:
02	4526

SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



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1. TOPO SURVEY AND PHOTOGRAPHS WERE TAKEN ON AUG 3 2016.
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3. WATER LEVEL AT THE TIME OF SURVEY WAS 0.78 ABOVE CHART DATUM.
4. ELEVATIONS ARE IN METERS RELATIVE TO CHART DATUM. DIMENSIONS ARE IN MILLIMETERS U.O.N.
5. EXISTING ANCHORS AND TIE RODS TO REMAIN U.O.N. CONTRACTORS TO SEEK APPROVAL FROM ENGINEER PRIOR TO ALTERATIONS TO LOCATIONS OR ELEVATIONS OF TIE RODS AND ANCHORS TO AVOID EXISTING STRUCTURES.
6. GEOTEXTILE BLANKET TO BE PLACED ACROSS THE ENTIRE SUBGRADE SURFACE UNDER GRANULAR A FILL FOR THE REHABILITATED DECK.
7. CONCRETE DECK TOP AND GRANULAR BASE TO BE SLOPED TO ALLOW FOR DRAINAGE FLOW TO PERIMETER.



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AS NOTED	

PROJECT:
BIG BAY WHARF #404 REHABILITATION

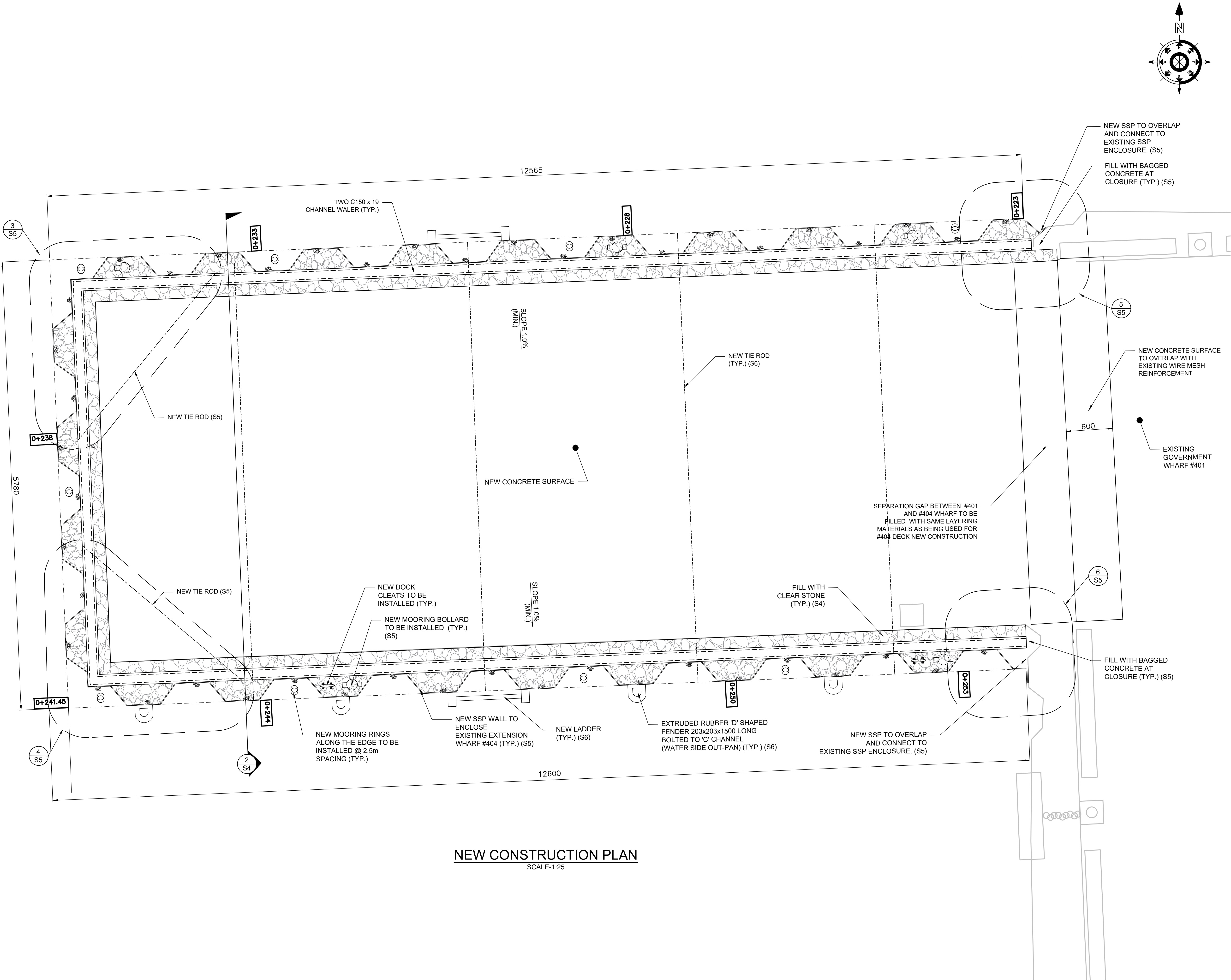
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DRAWN:	APPROVED:
P.F.	M.N.

DATE:	DATE:
DEC 2018	DEC 2018

LOCATION:
BIG BAY HARBOUR ONTARIO

DRAWING NO.:	LOCATOR CODE:
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NEW CONSTRUCTION PLAN
SCALE:1:25

SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



NOTES:

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SCALE:	CLASS:
AS NOTED	

PROJECT:

**BIG BAY WHARF #404
REHABILITATION**

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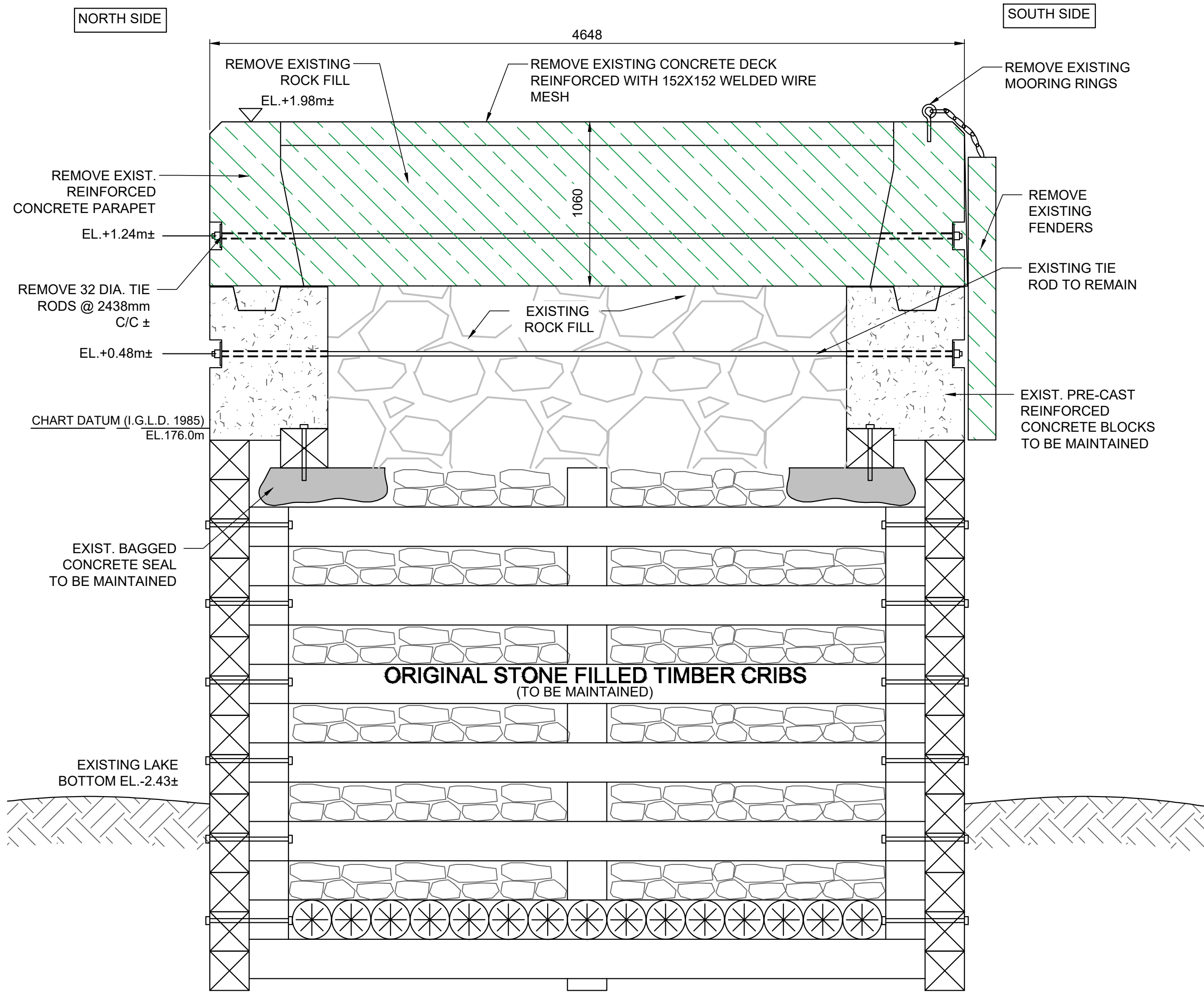
**REMOVAL AND NEW
CONSTRUCTION DETAILS**

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DATE:	DATE:
DEC 2018	DEC 2018

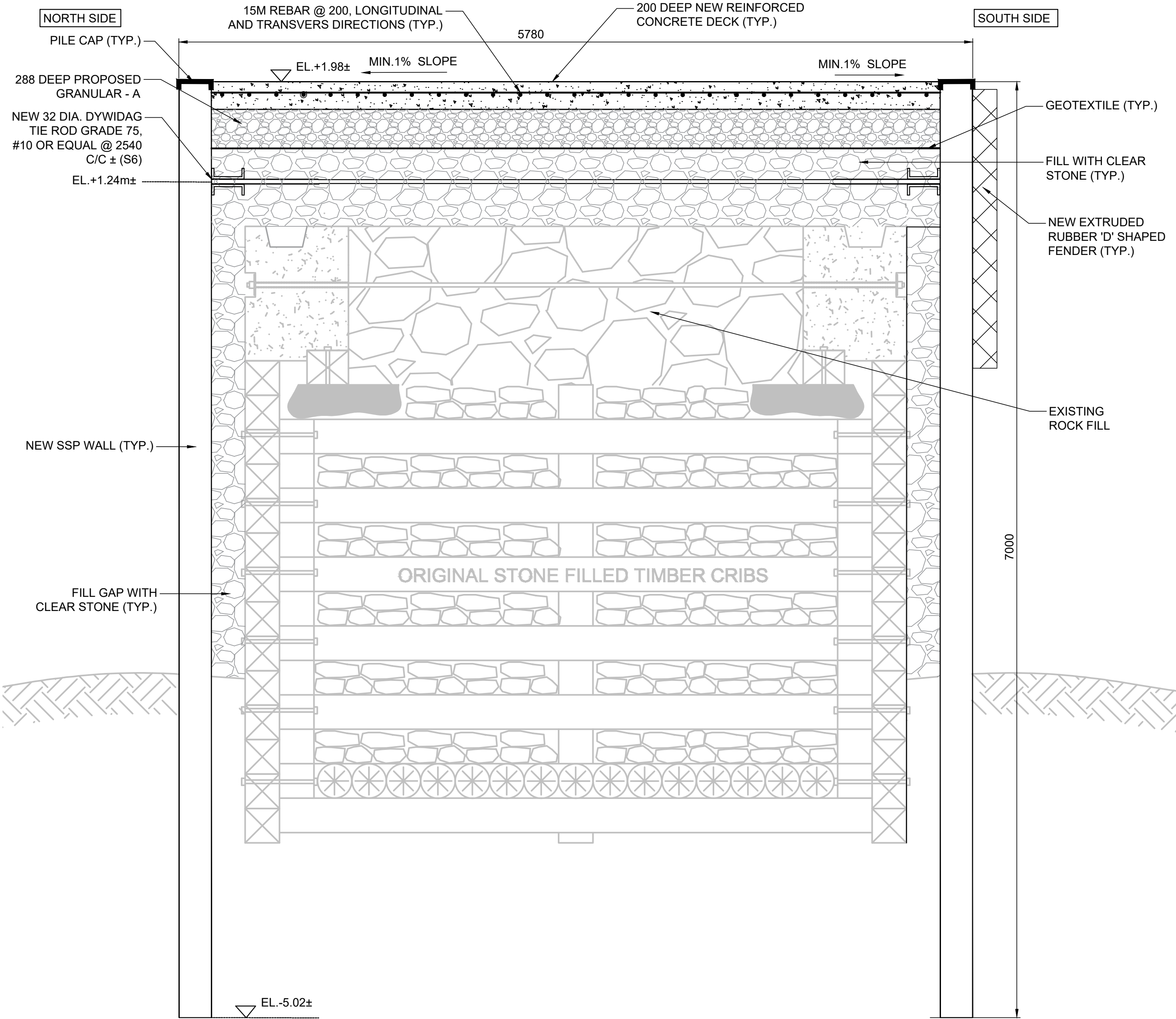
LOCATION:

**BIG BAY HARBOUR
ONTARIO**

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REMOVAL DETAIL 1
SCALE:1:50 S2



NEW CONSTRUCTION DETAIL 2
SCALE:1:50 S3

SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



NOTES:

- ELEVATIONS ARE IN METERS RELATIVE TO CHART DATUM. DIMENSIONS ARE IN MILLIMETERS U.O.N.
- CONTRACTOR TO INSTALL 12x254x80 SPACER PLATES BETWEEN DOUBLE CHANNEL WALER.
- PROVIDE L100x150x10x150 LG CLIPS (LONG LEG VERTICAL) AT LOCATIONS WHERE CONTACT CAN NOT BE MADE BETWEEN UNDERSIDE OF STEEL CAP AND TOP OF STEEL SHEET PILING IN ORDER TO FACILITATE WELDING.
- CONTRACTOR TO ENSURE 150MM (6") DOCK CLEATS AND 120MM (4-3/4") MOORING BOLLARDS ARE SECURED PROPERLY TO THE STEEL BENT PLATE AS PER MANUFACTURER'S INSTRUCTION.



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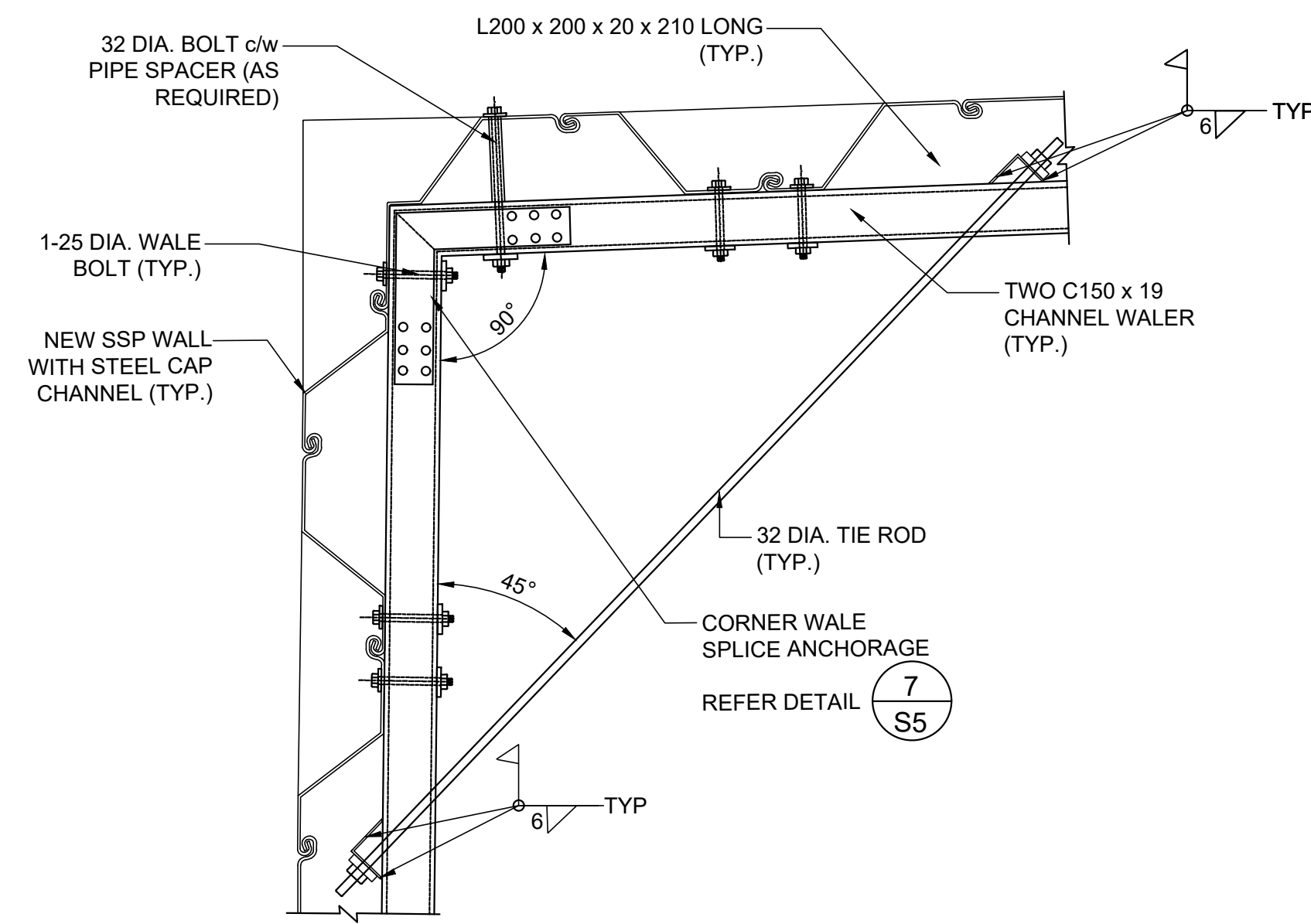
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BIG BAY WHARF #404 REHABILITATION

DESCRIPTION:
SSP CONNECTION DETAILS

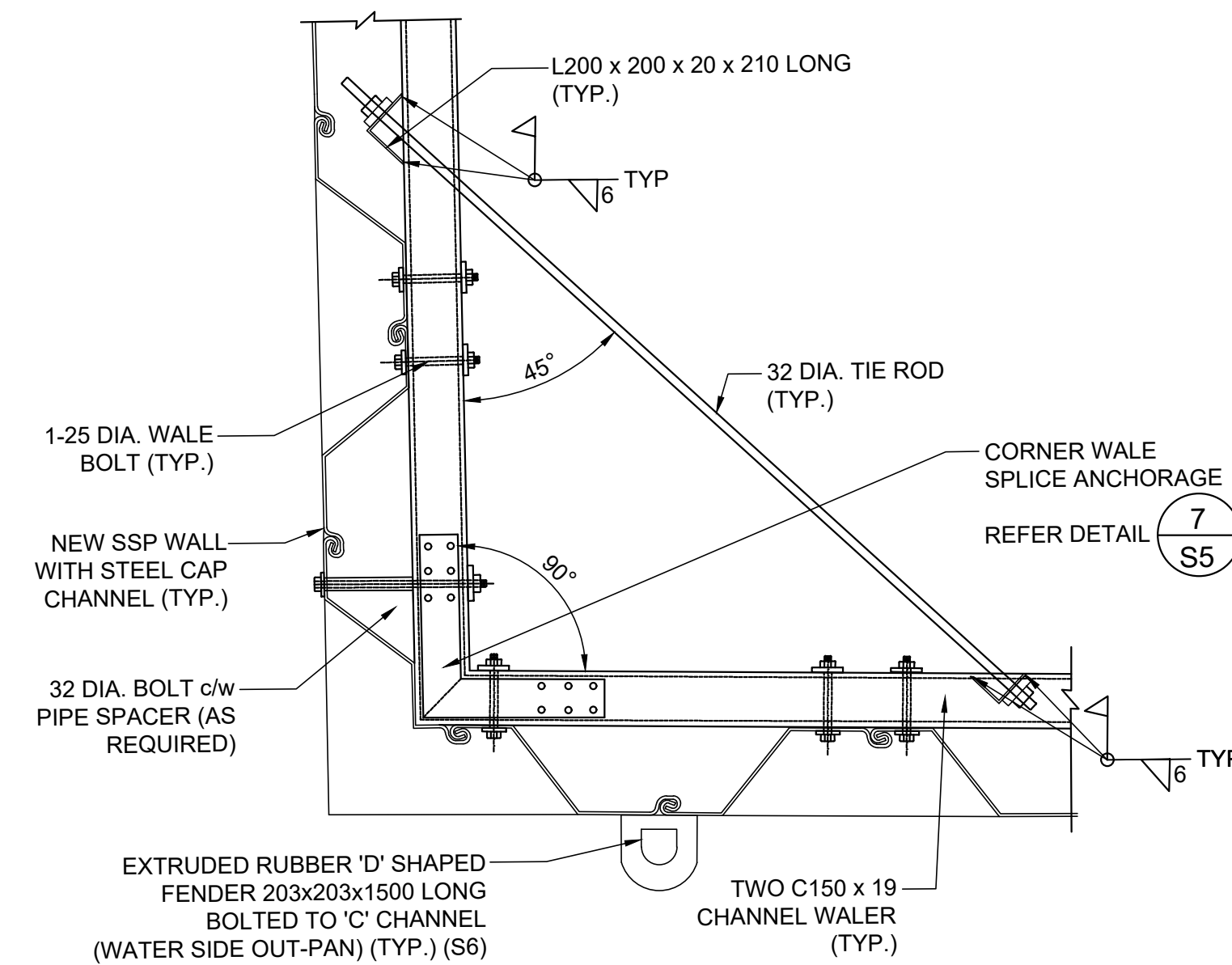
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LOCATION:
BIG BAY HARBOUR ONTARIO

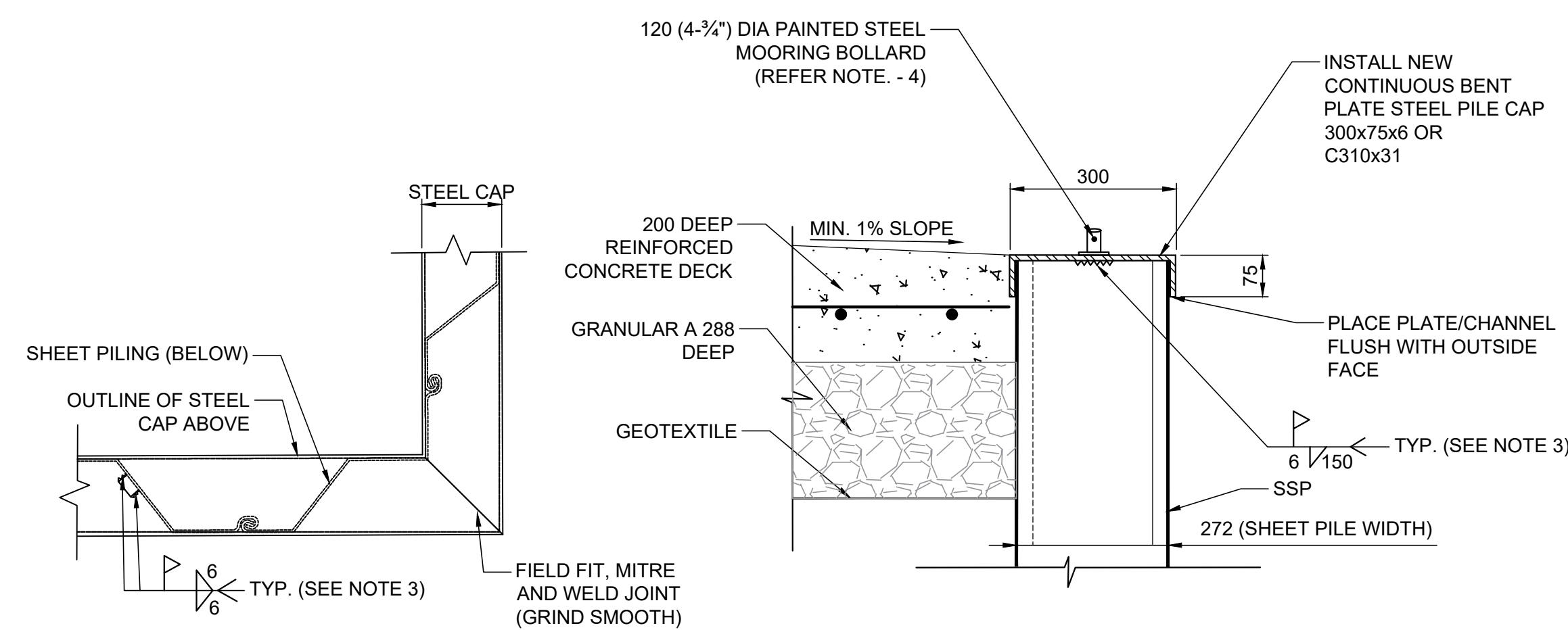
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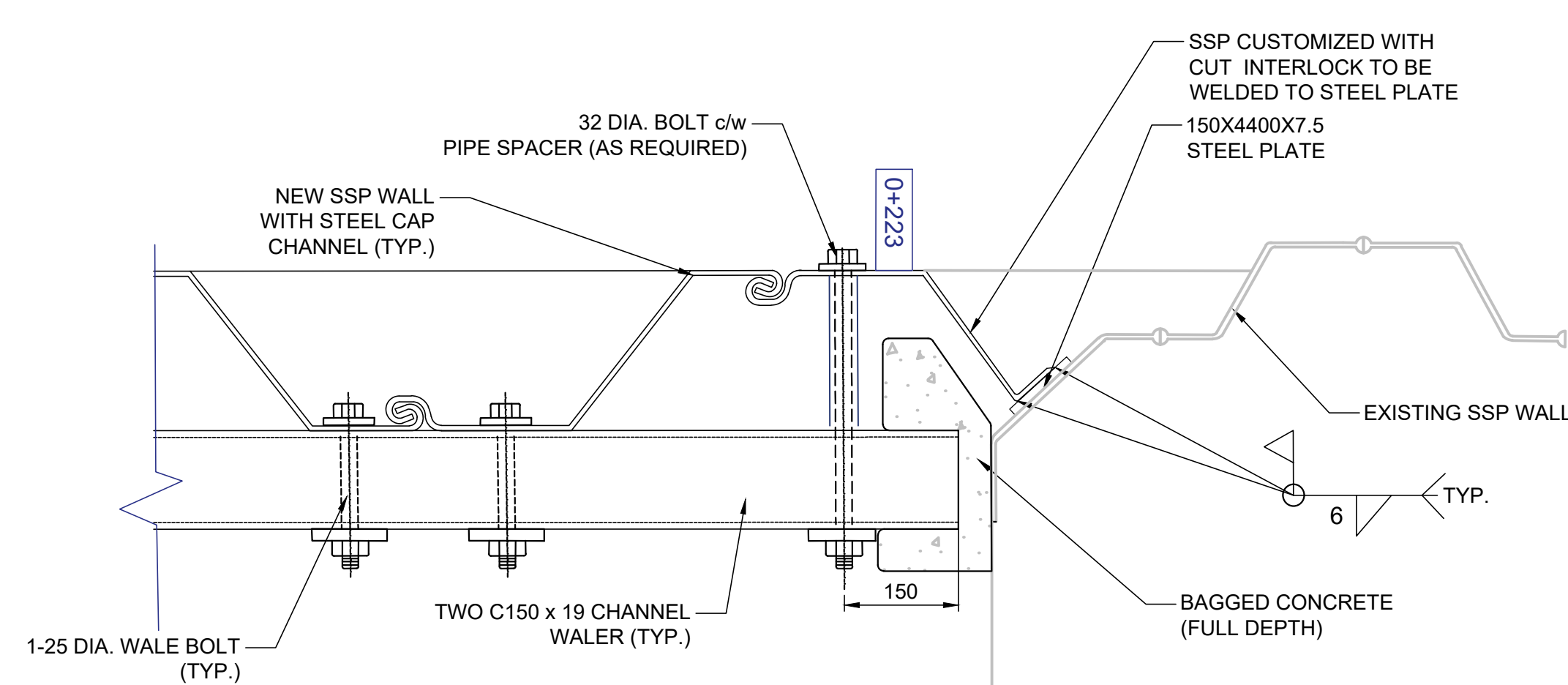
PLAN AT CORNER 3 S3
SCALE-1:20



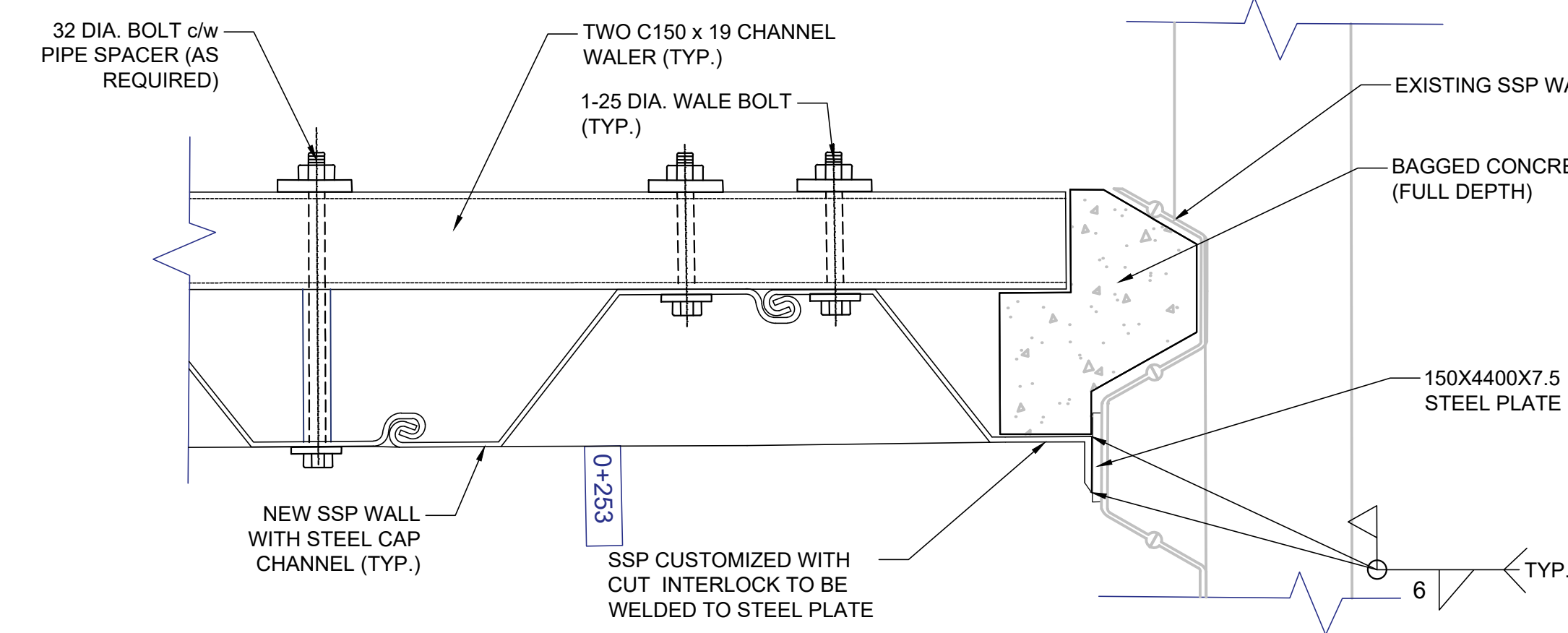
PLAN AT CORNER 4 S3
SCALE-1:20



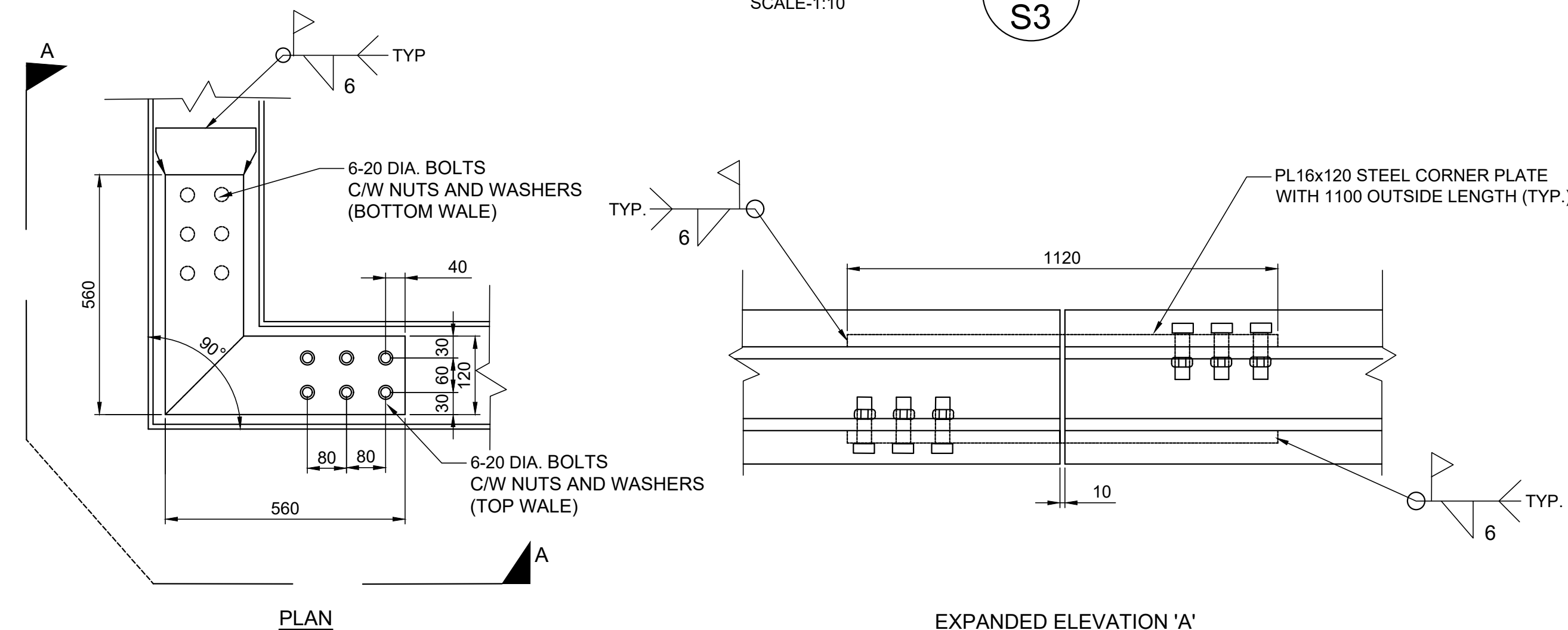
TYPICAL SHEET PILE CAP DETAIL
WITH MOORING BOLLARD INSTALLATION
SCALE 1:10



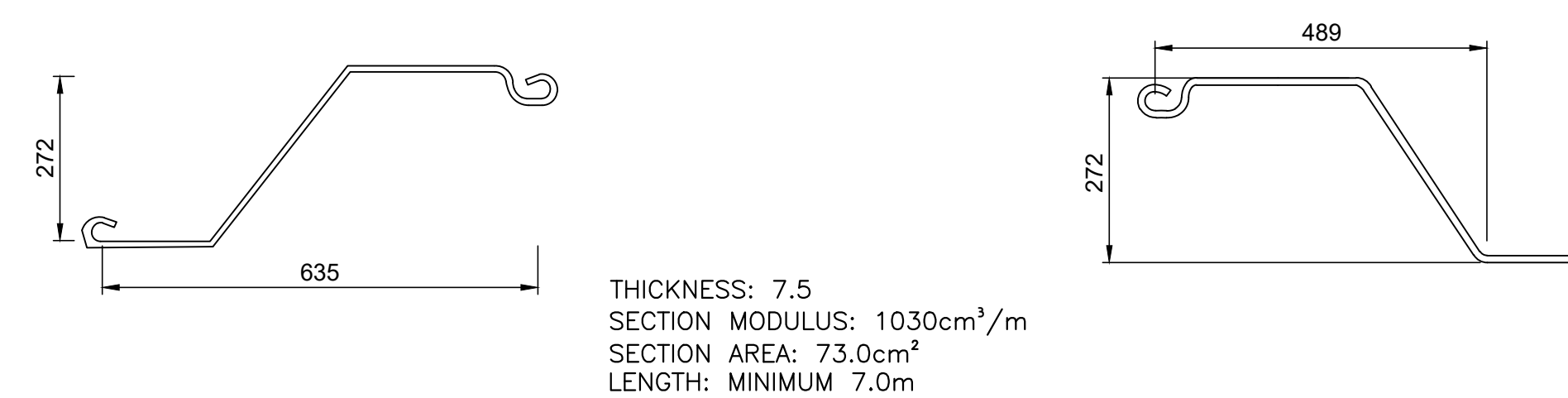
CONNECTION DETAIL 5 S3
SCALE-1:10



CONNECTION DETAIL 6 S3
SCALE-1:10



TYPICAL CORNER WALE
SPLICE DETAIL 7 S5
SCALE-1:10



SHEET PILING MINIMUM
SECTION PROPERTIES
SCALE-1:10

SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



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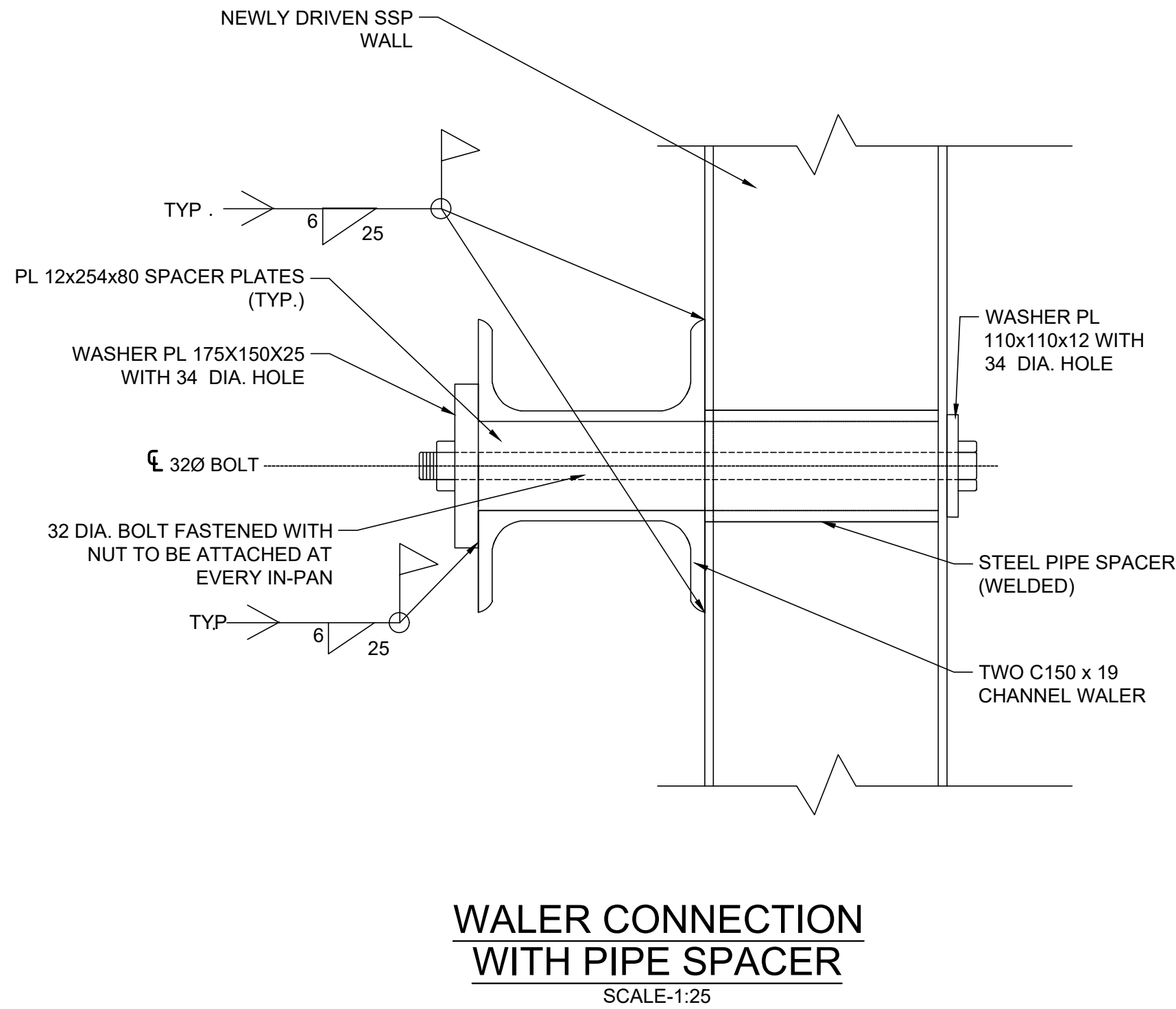
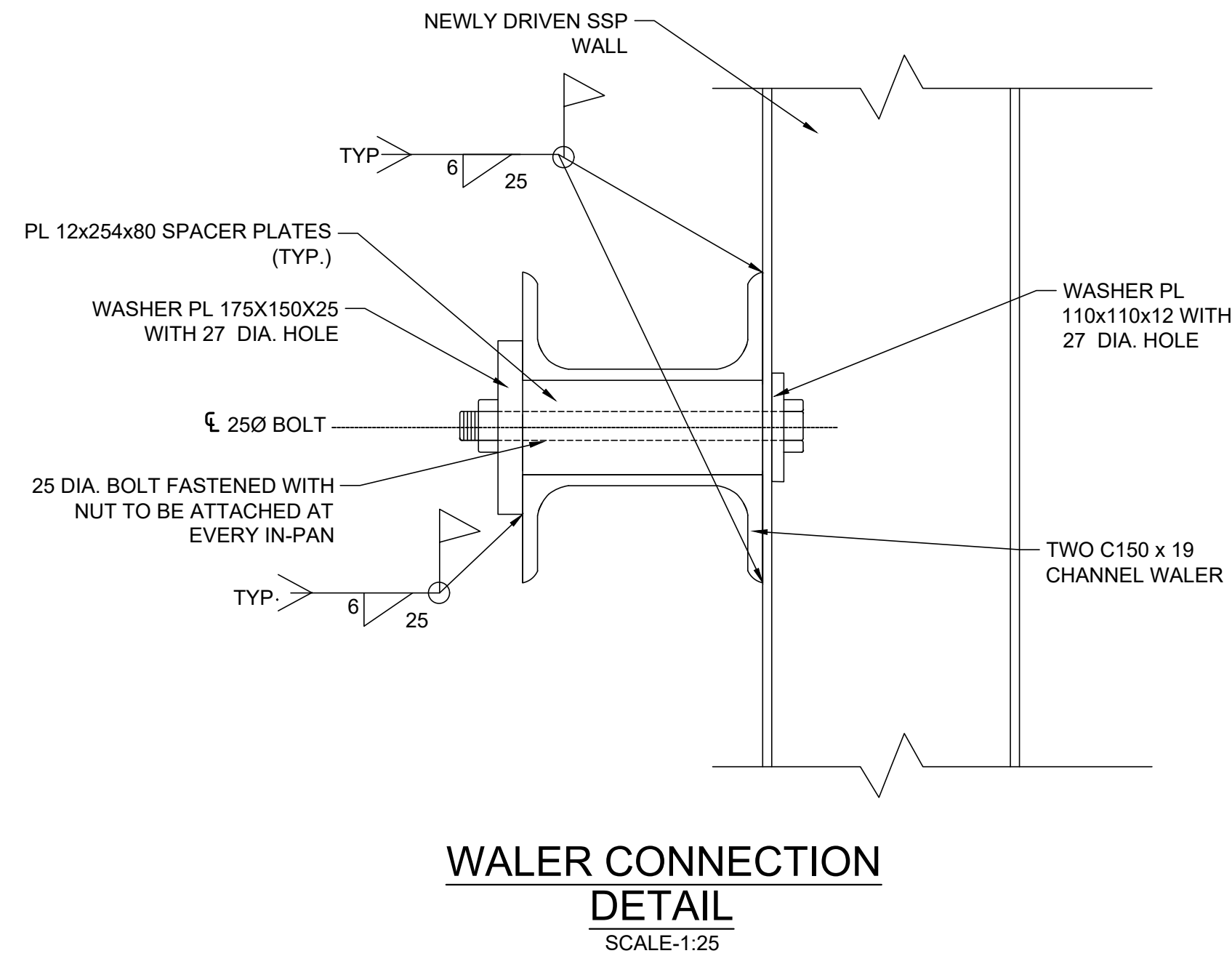
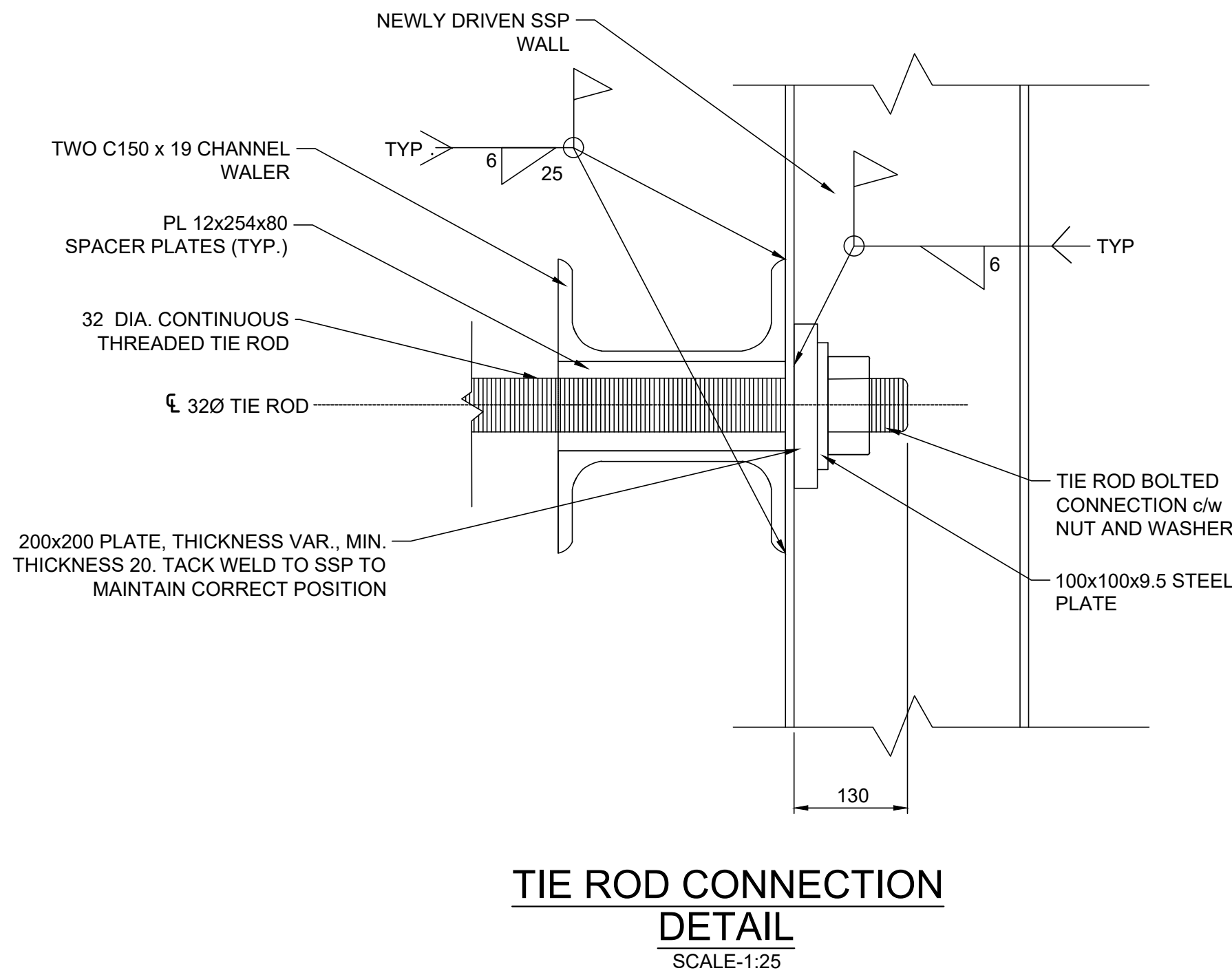
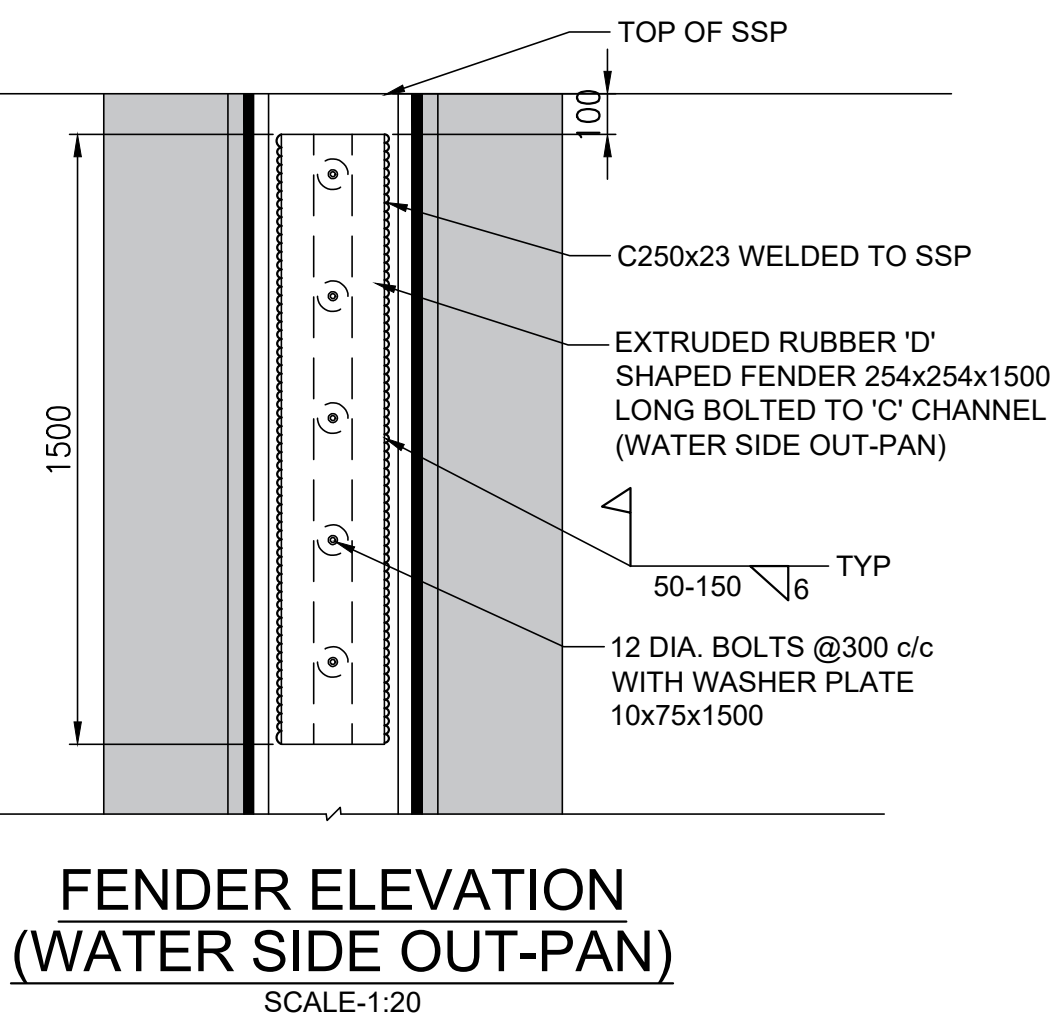
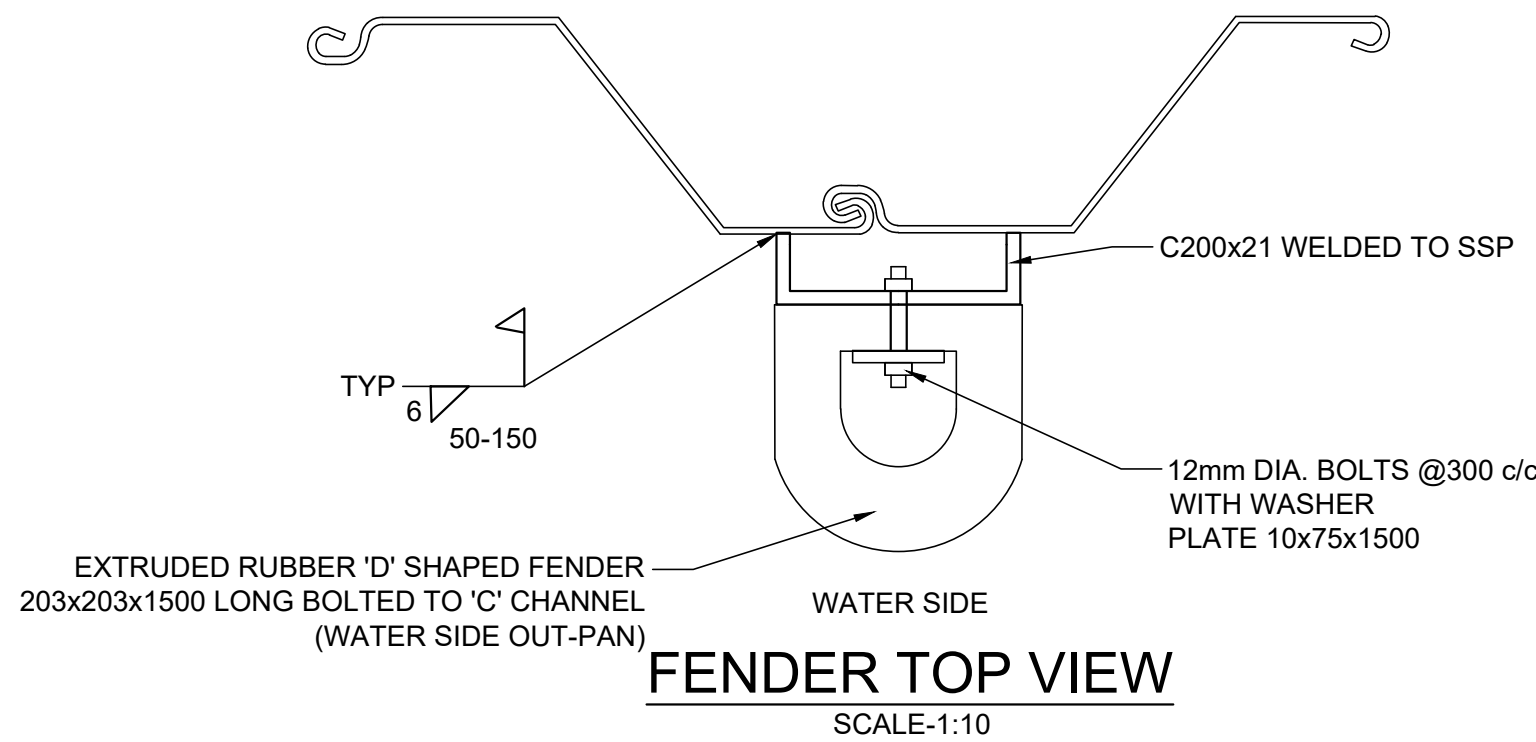
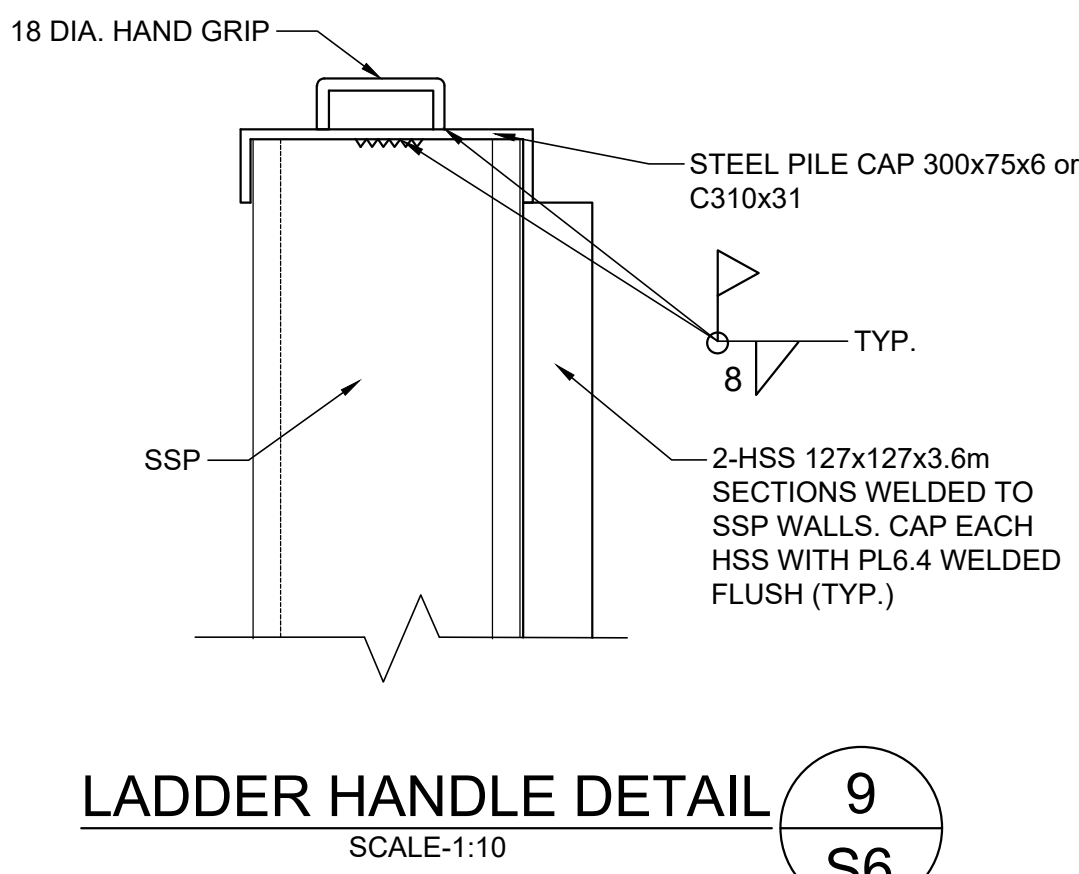
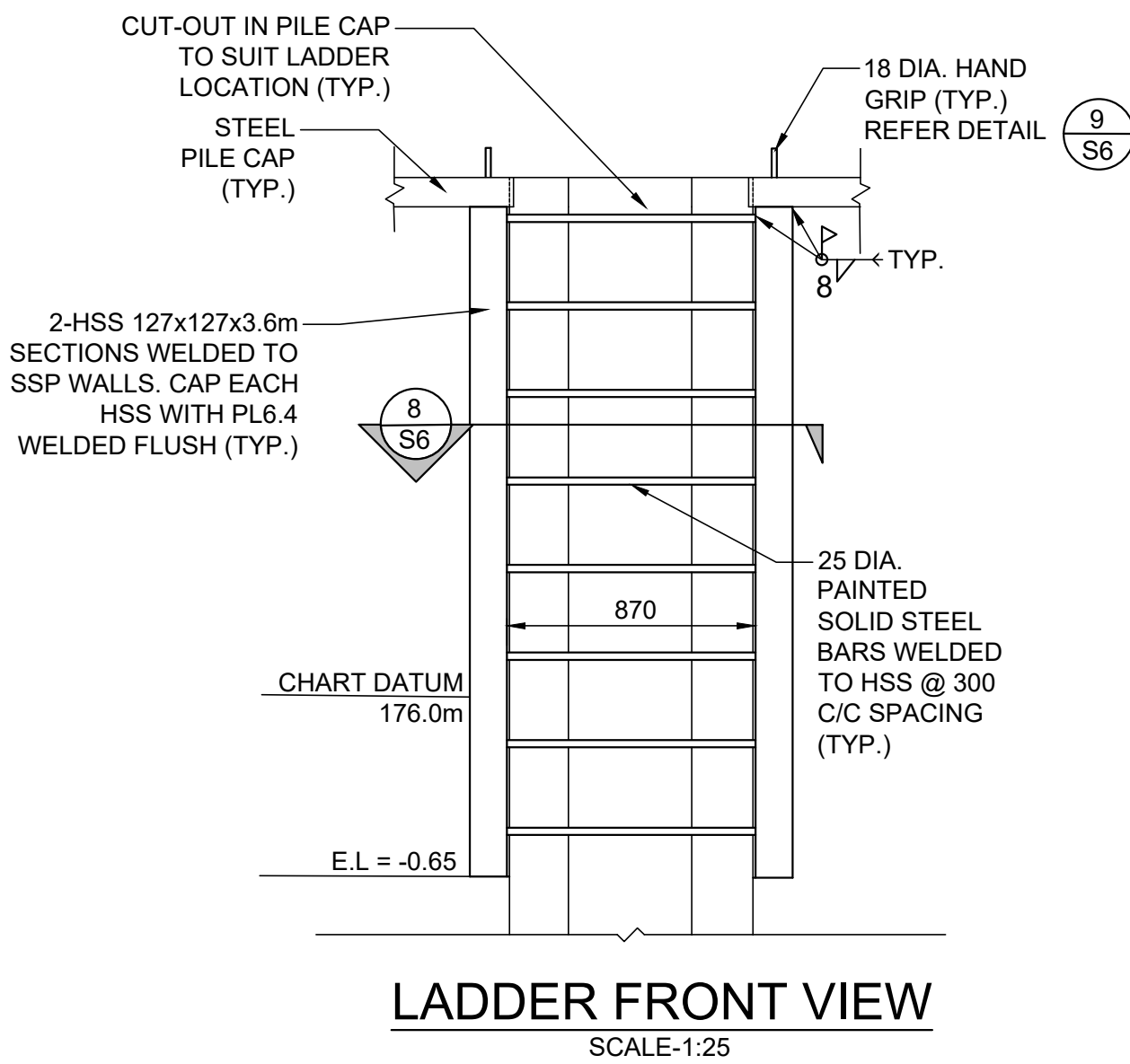
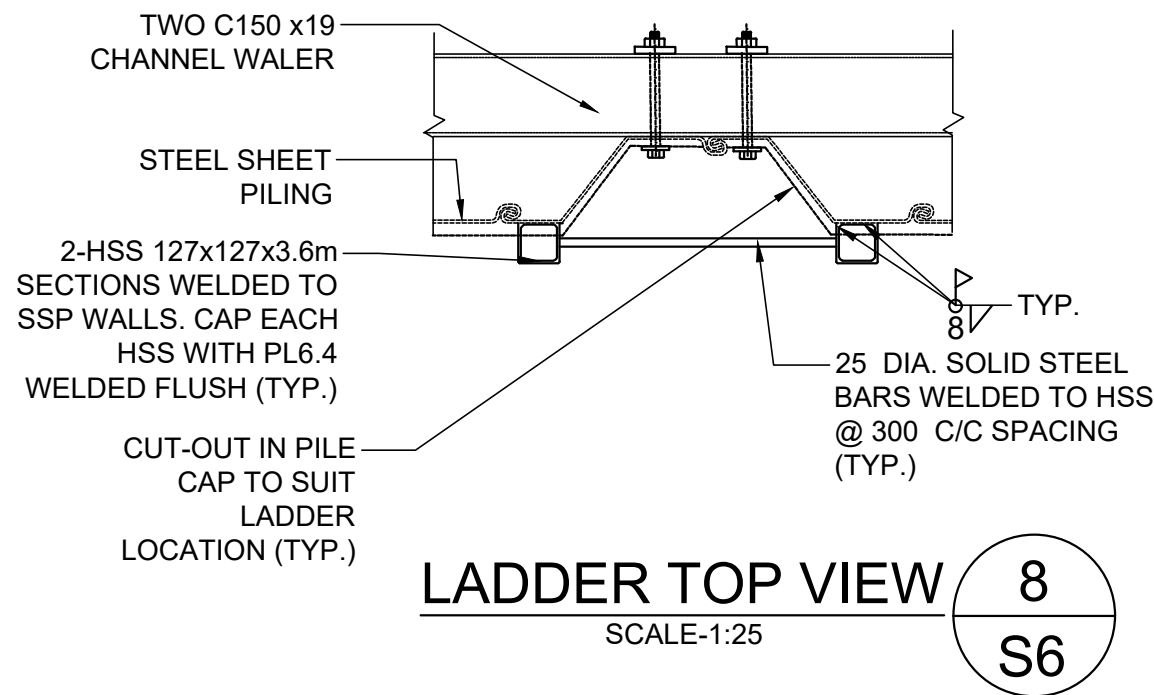
PROJECT:
BIG BAY WHARF #404 REHABILITATION

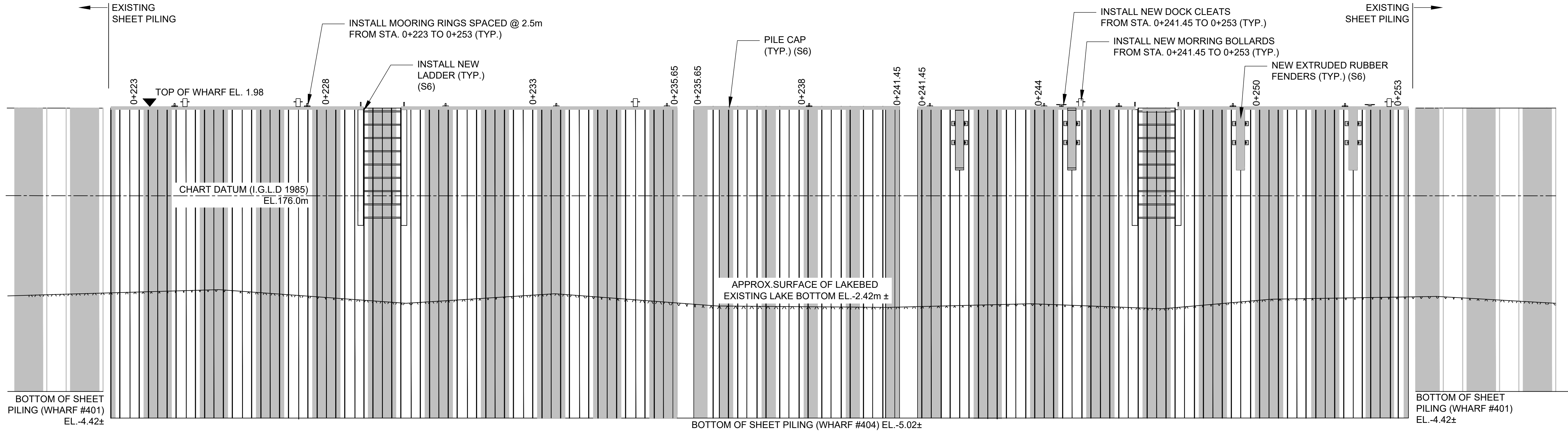
DESCRIPTION:
LADDER, FENDERS AND WALER CONNECTION DETAILS

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BIG BAY HARBOUR ONTARIO

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ELEVATION VIEW (WHARF #404)
SCALE - 1:100



GOVERNMENT
OF CANADA



GOUVERNEMENT
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FISHERIES
AND OCEANS

PÊCHES
ET Océans

SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



Small Craft Harbours
Ports pour petits bateaux
www.dfo-mpo.gc.ca/sch-pps

NOTES

1. ELEVATIONS ARE IN METERS RELATIVE TO CHART DATUM. DIMENSIONS ARE IN MILLIMETERS U.O.N.



PLANMAC
ENGINEERING INC.

REVISIONS:

DATE:

1

ISSUED FOR TENDER

2018-12-14

SCALE:

CLASS:

AS NOTED

PROJECT:

BIG BAY WHARF #404
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DESCRIPTION:

ELEVATIONS

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P.F.

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DATE:

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LOCATION:

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