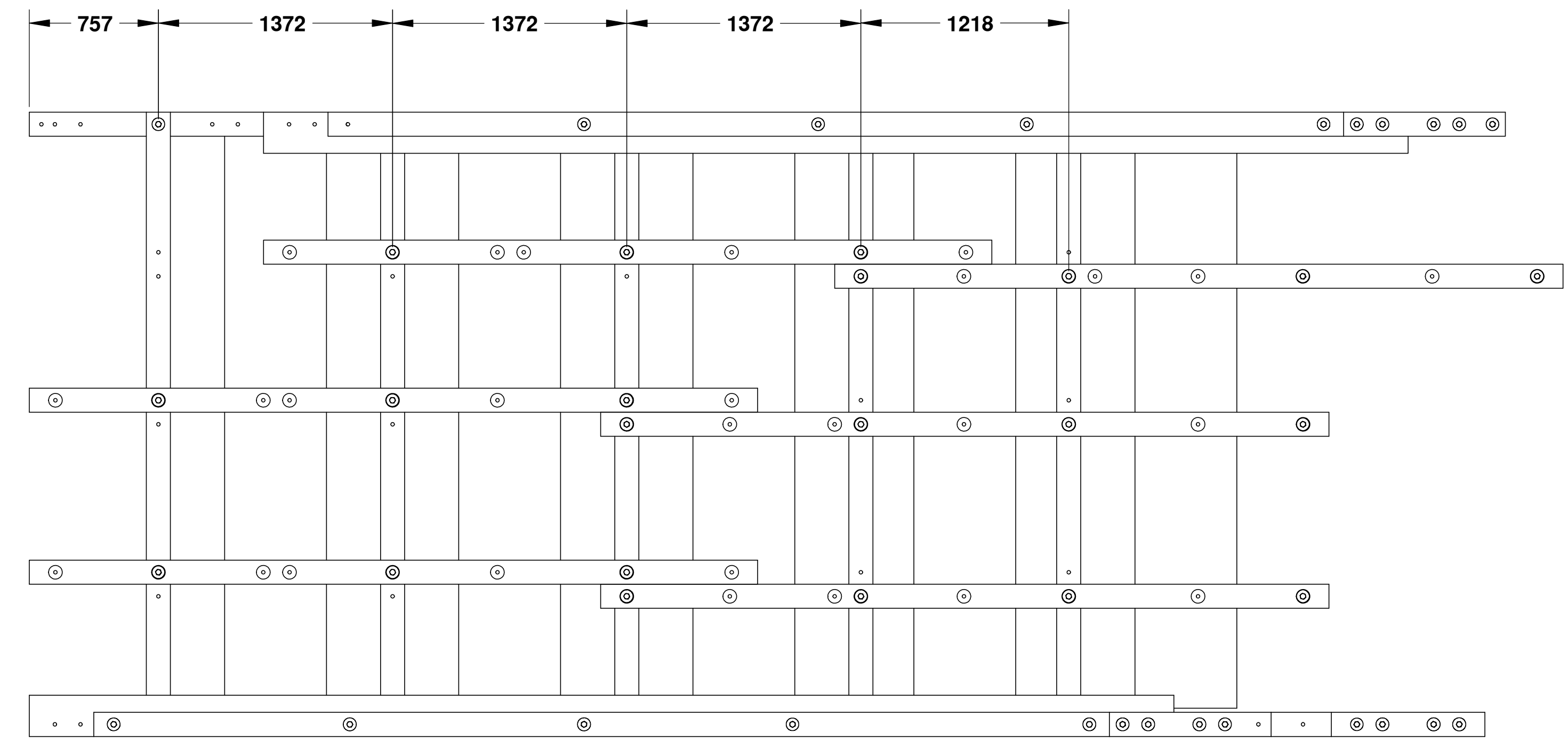


FRONT

**STANDARD 3.657M WIDE FLOAT MODULE - 2005 REVISION**  
WITH 141x141 CROSSTIE, 141x141 RISERS



FRONT

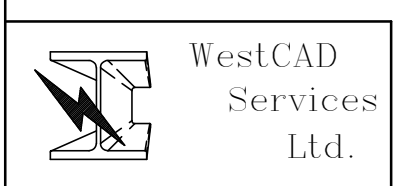
**PLAN VIEW**  
SCALE: 1 - 25

**TIMBER REQUIRED**

ITEM NO.	QTY.	TIMBER MEMBER	DESCRIPTION	MATERIAL
1	5	CROSS TIES	(6x6) 141 x 141 x 3658 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
2	2	FLANGE	(6x8) 141 x 191 x 6706 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
3	2	STRINGER	(6x10) 141 x 241 x 6706 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
4	6	JOISTS	(6x6) 141 x 141 x 4267 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
5	6	RISER	(6x6) 141 x 141 x 305 LG	ACZA
6	2	LOWER STRINGER SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
7	2	LOWER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
8	2	UPPER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
13	2	UPPER STRINGER SPLICE	(6x6) 141 x 141 x 1140 LG	ACZA
14	2	RAIL	(4x6) 89 x 141 x 5950 LG	ACZA
17	5	FOAM BUOYANCY BILLET	610 X 597 x 3352 LG	
18	28	DECK PLANKS	(12x2) 305 x 38 x 3352 LG	ACZA

**HARDWARE REQUIRED**

ITEM NO.	QTY.	HARDWARE
9	21	HEX BOLT 19 x 300mm
10	114	WASHERS
11	57	HEX NUT 19mm DIA
12	10	HEX BOLT 19 x 406mm
15	16	HEX BOLT 19 x 660mm
16	10	HEX BOLT 19 x 508mm
19	264	GALVANIZED SPIRAL NAILS - 100mm LG



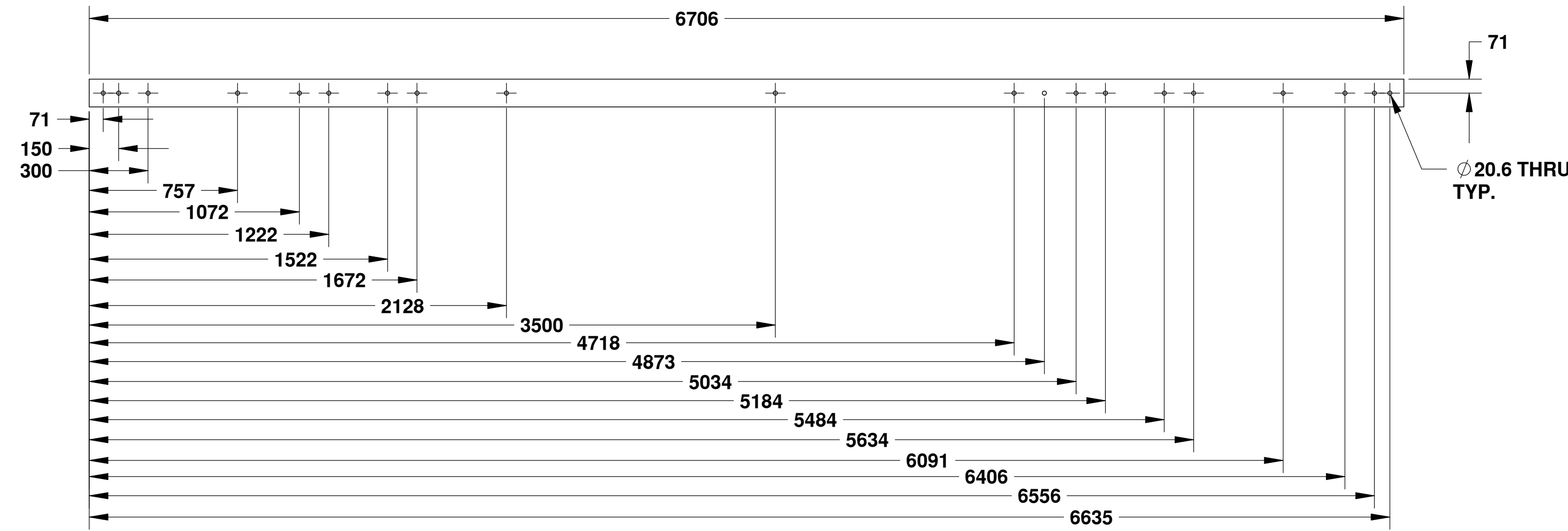
PROPRIETARY AND CONFIDENTIAL  
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DATE 12/04	NAME BB
CHECKED	DATE	NAME
ENG APPR.		
MFG APPR.		
G.A.		
COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER:		
MATERIAL		
NEXT ASSEMBLY USED ON		
APPLICATION		DO NOT SCALE DRAWING

Fisheries & Oceans / Pêches et Océans  
Small Craft Harbours Branch

TITLE: '2005 REVISION' 3.657m WIDE STANDARD FLOAT MODULE ASSEMBLY  
DWG. NO. FM12-ST-000  
SCALE: 1:20 | WEIGHT: | SHEET 1 OF 1

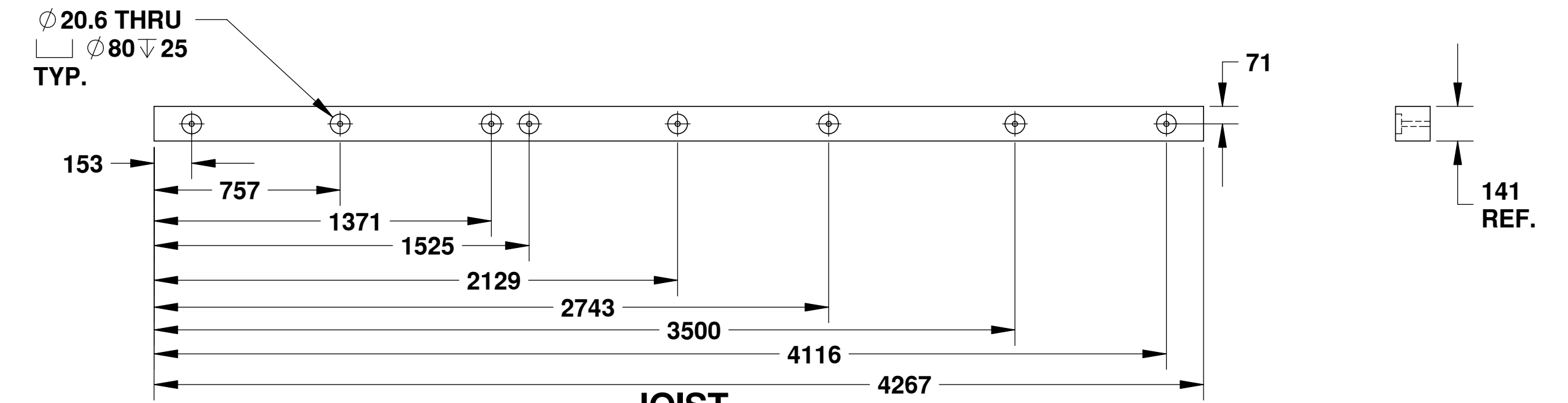
FRONT



**FLANGE**

141 x 191 (6x8)  
SCALE: 1-20  
(2 REQUIRED)

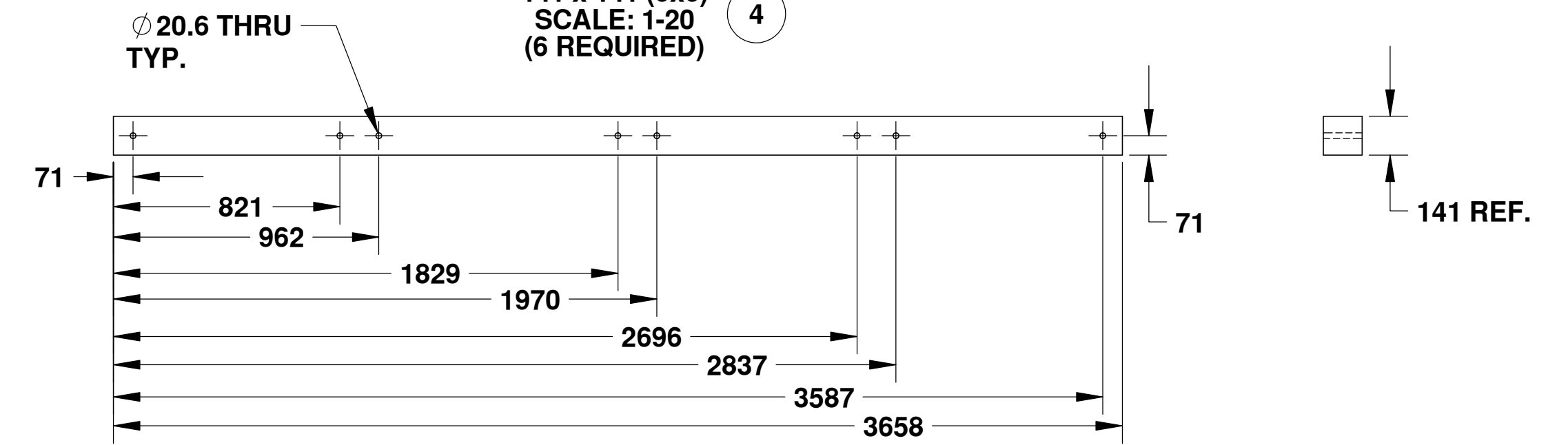
2



**JOIST**

141 x 141 (6x6)  
SCALE: 1-20  
(6 REQUIRED)

4

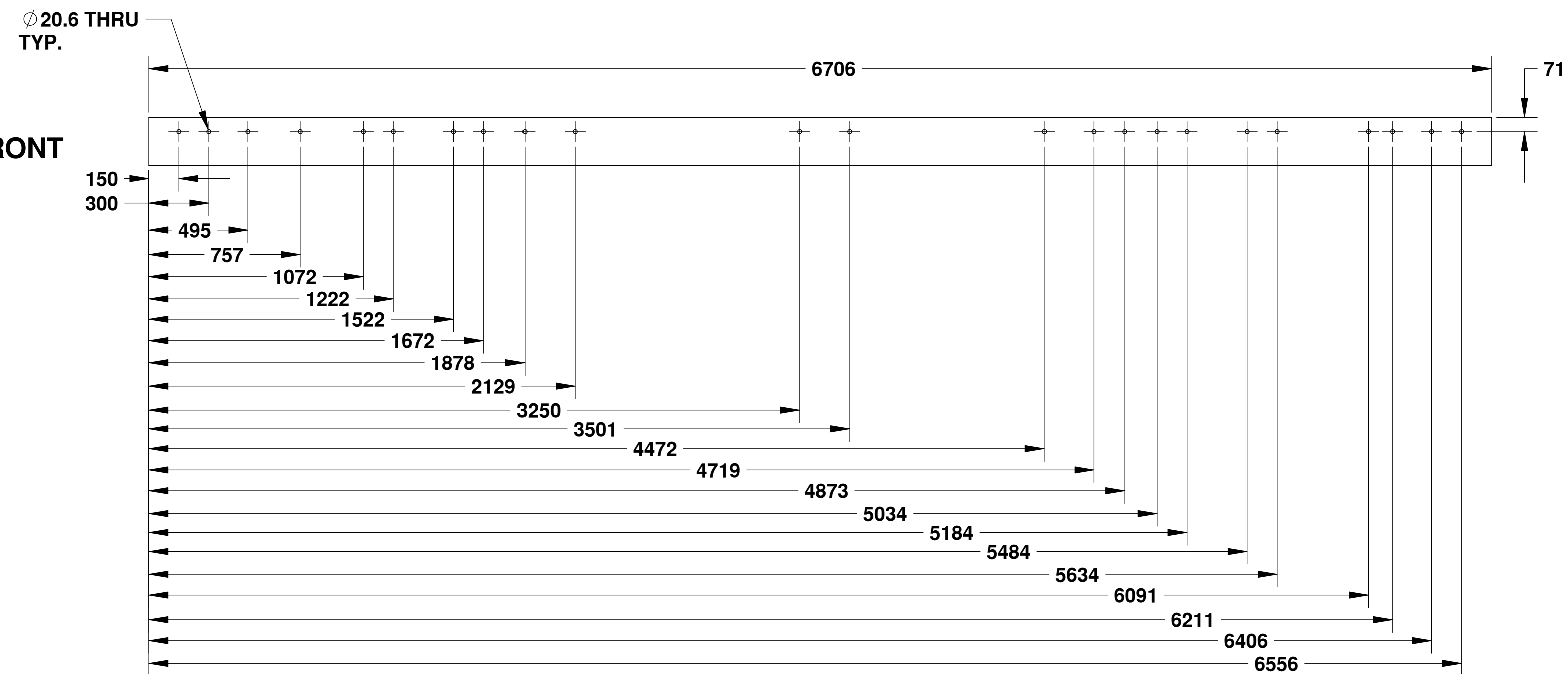


**CROSSTIE**

141 x 141 (6x6)  
SCALE: 1-20  
(5 REQUIRED)

1

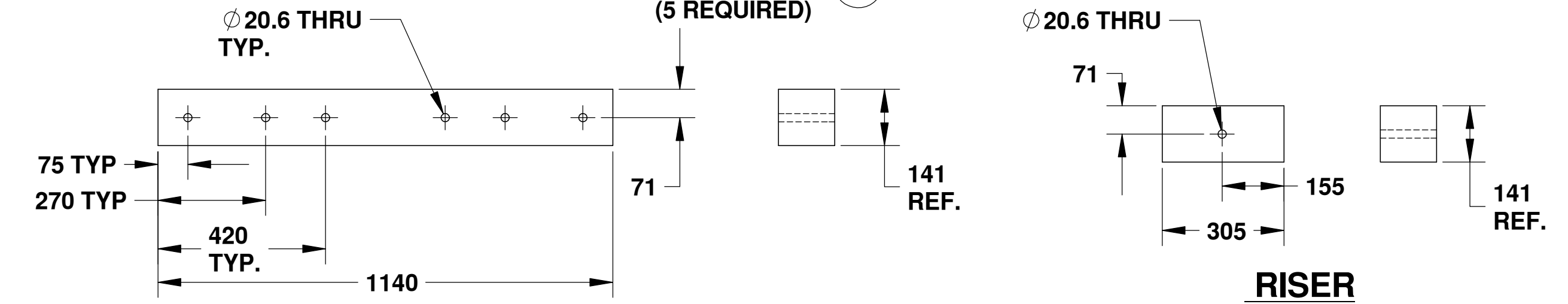
FRONT



**STRINGER**

141 x 241 (6x10)  
SCALE: 1-20  
(2 REQUIRED)

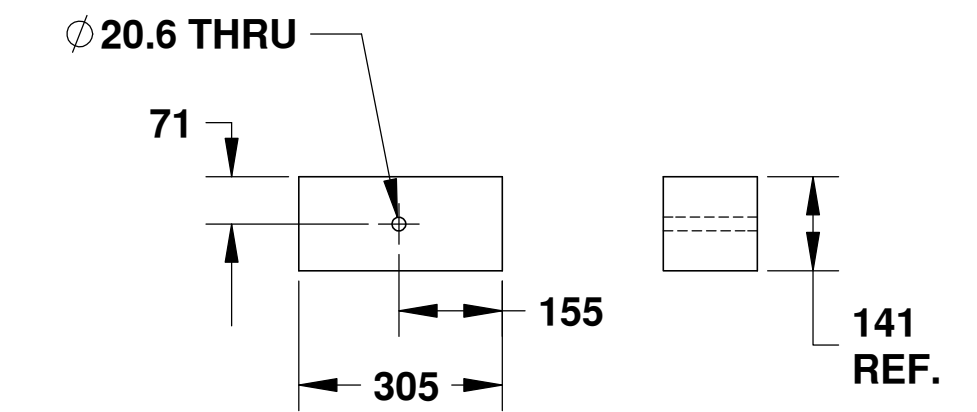
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**UPPER STRINGER SPLICE**

141 x 141 (6x6)  
SCALE: 1-20  
(2 REQUIRED)

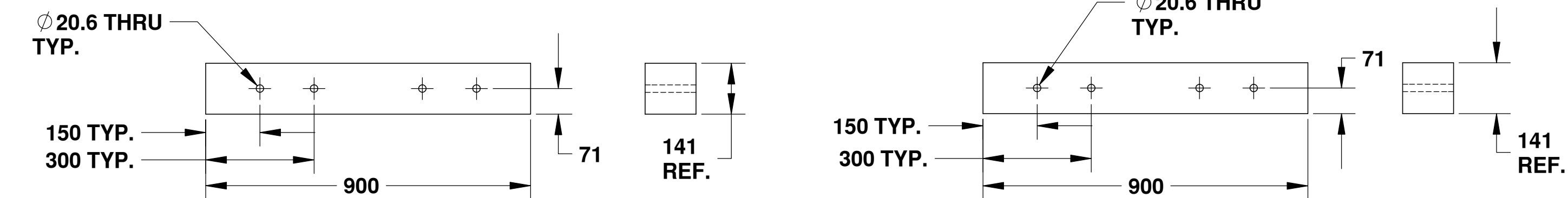
13



**RISER**

141 x 141 (6x6)  
SCALE: 1-20  
(6 REQUIRED)

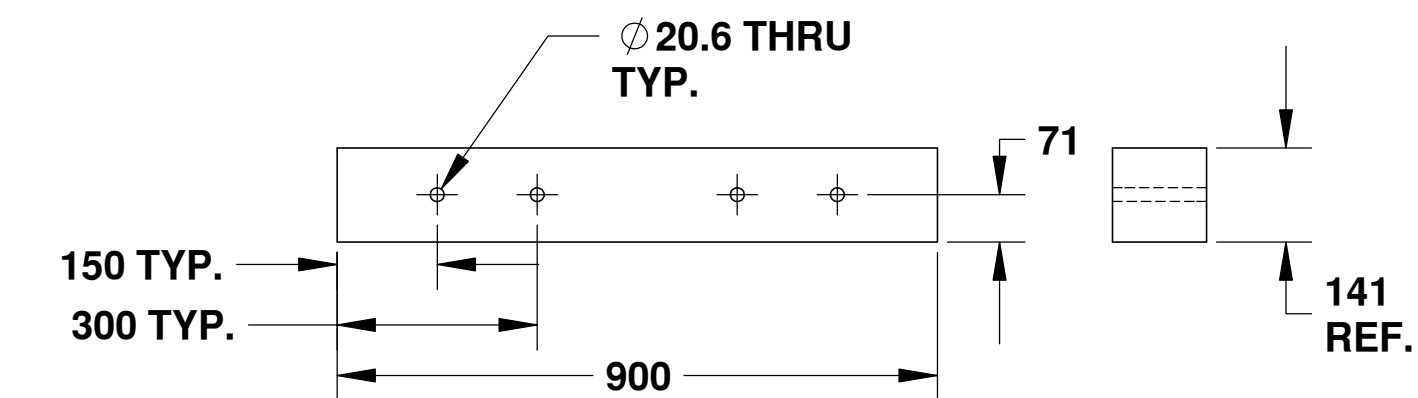
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**UPPER FLANGE SPLICE**

141 x 141 (6x6)  
SCALE: 1-20  
(2 REQUIRED)

8

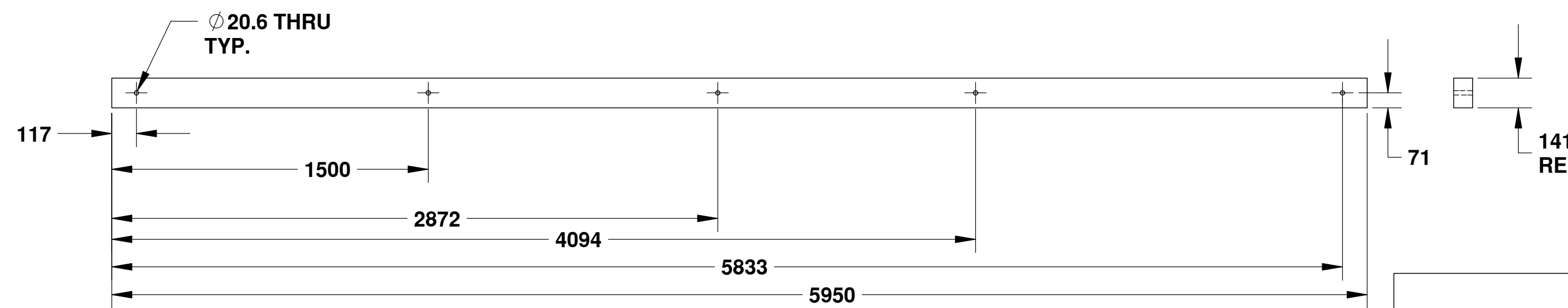


**LOWER STRINGER SPLICE**

141 x 141 (6x6)  
SCALE: 1-20  
(2 REQUIRED)

6

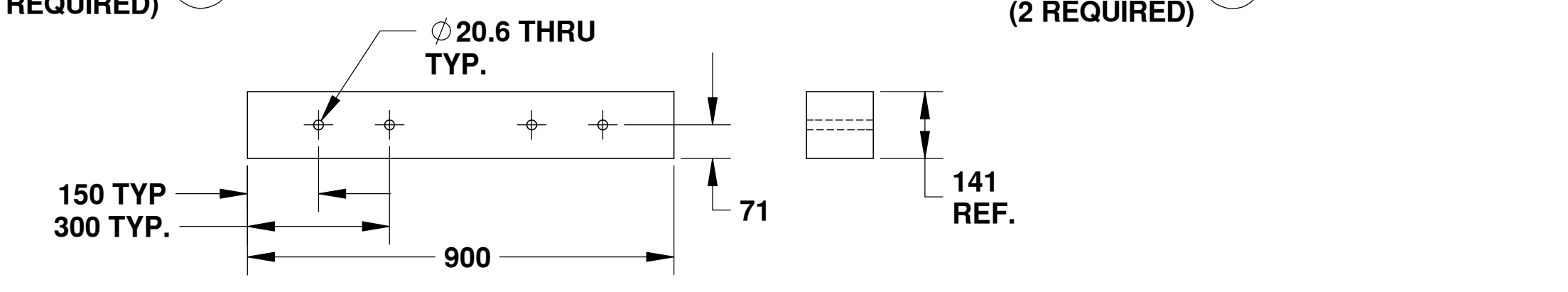
FRONT



**STANDARD RAIL**

89 x 141 (4x6)  
SCALE: 1-20  
(2 REQUIRED)

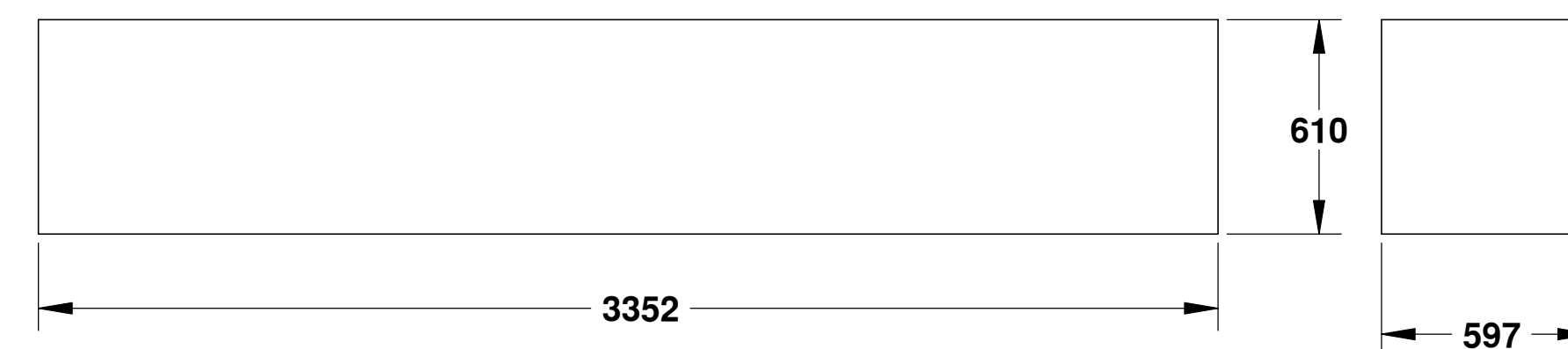
14



**LOWER FLANGE SPLICE**

141 x 141 (6x6)  
SCALE: 1-20  
(2 REQUIRED)

7



**FOAM BUOYANCY BILLET**

SCALE: 1-20  
(5 REQUIRED)

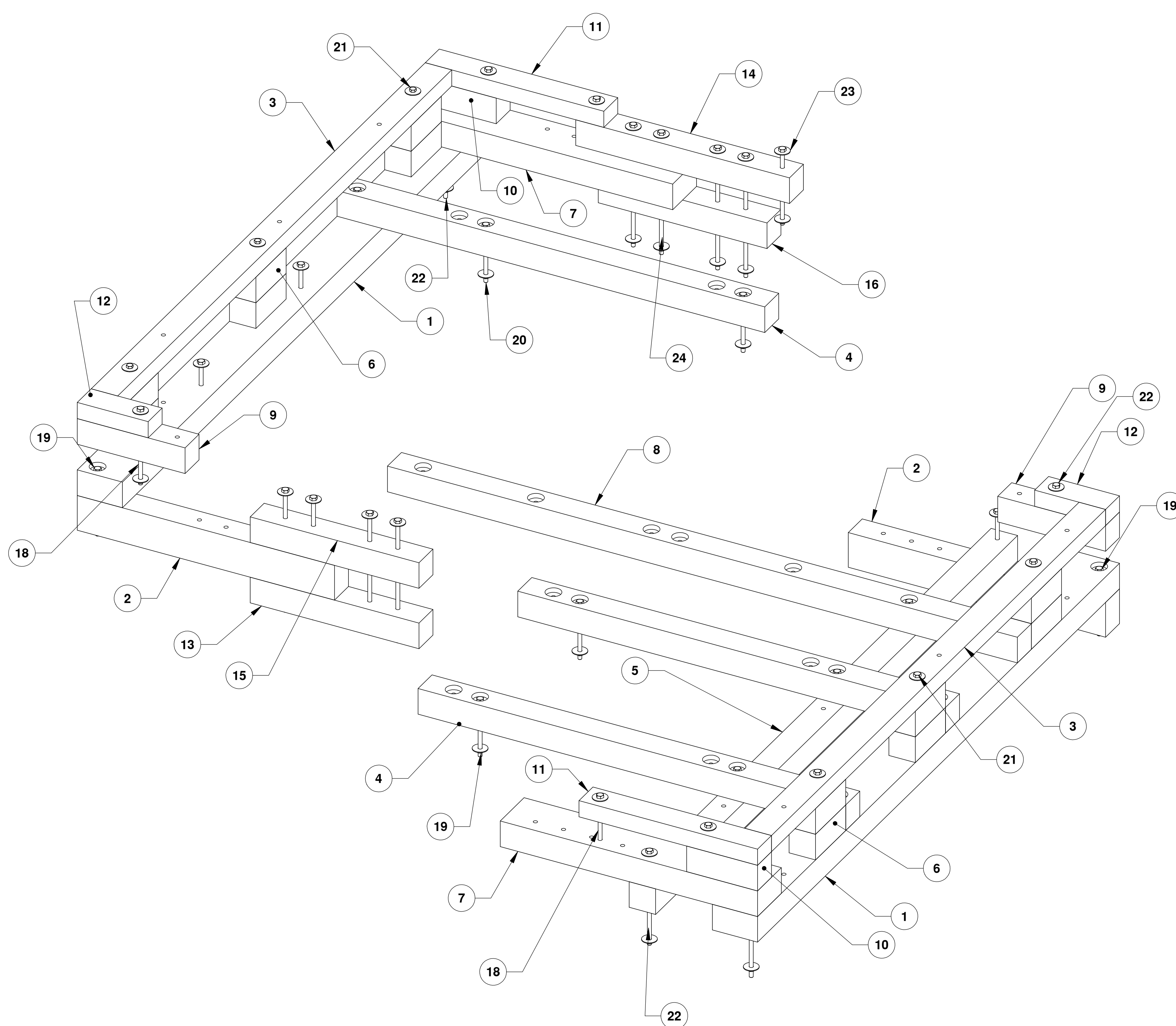
17

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UNLESS OTHERWISE SPECIFIED:		DATE	NAME
DIMENSIONS ARE IN INCHES		03/05	BB
TOLERANCES:			
FRACTIONAL ±			
ANGULAR: MACH ±			
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
NEXT ASST		USED ON	FINISH
APPLICATION			DO NOT SCALE DRAWING

Fisheries & Oceans / Pêches et Océans  
Small Craft Harbours Branch

TITLE: '2005 REVISION' 3.657m WIDE STANDARD FLOAT MODULE		
SIZE	DWG. NO.	REV
D	FM12-ST-001	F
SCALE: 1:20	WEIGHT:	SHEET 1 OF 1



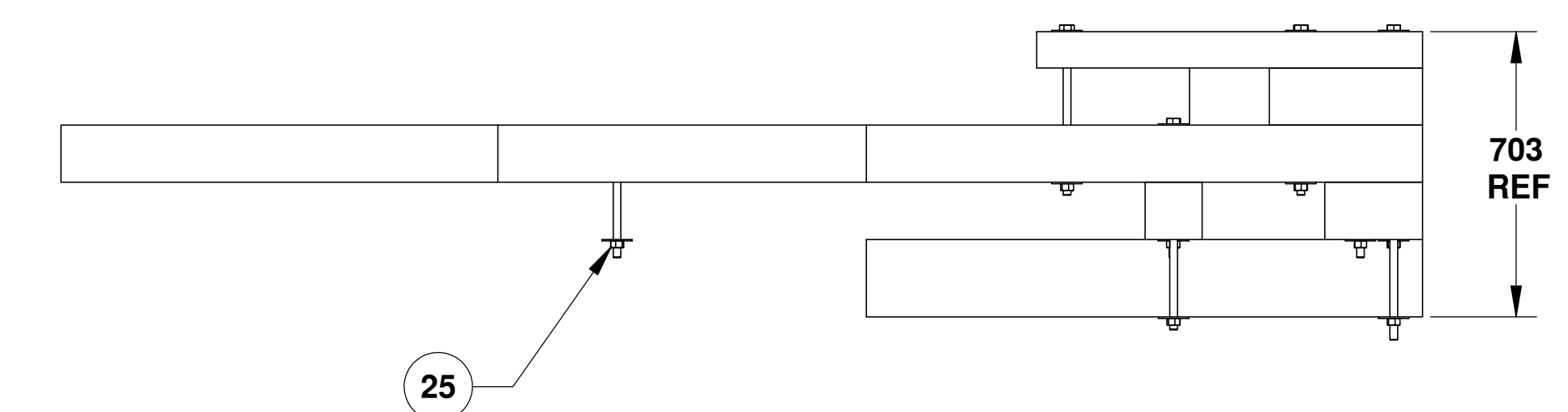
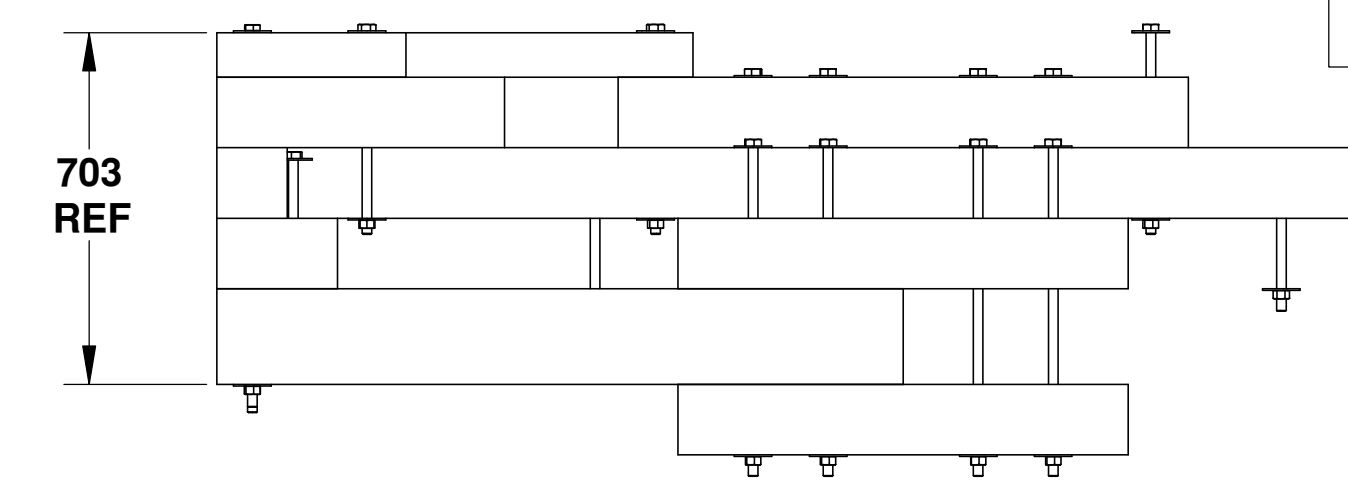
**3.65m WIDE FLOAT END MODULES**

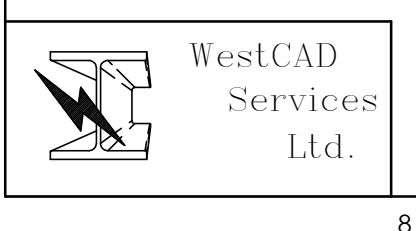
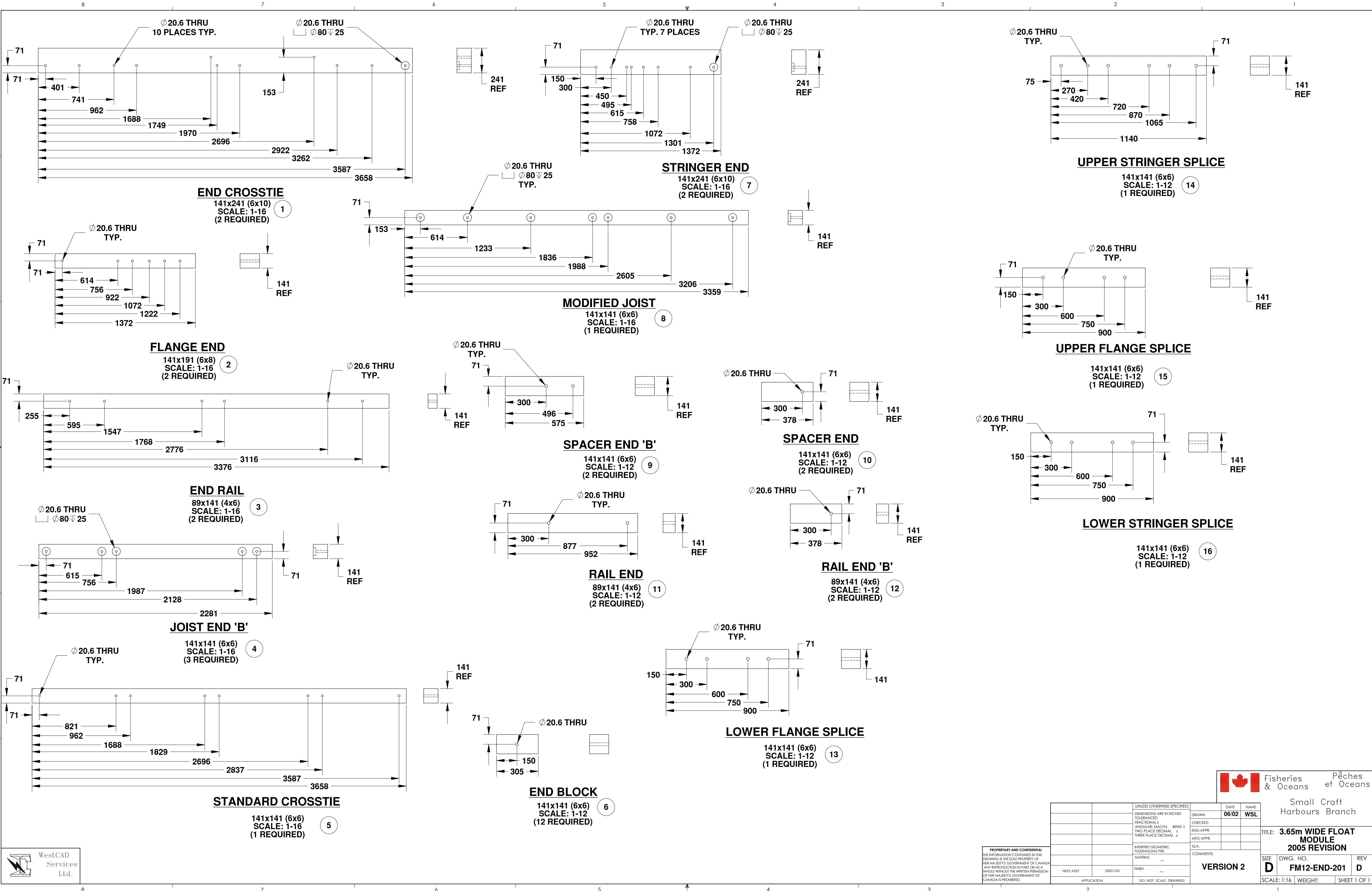
**TIMBER MEMBER REQUIREMENTS**

ITEM NO.	QTY.	TIMBER MEMBER	DESCRIPTION	MATERIAL
1	2	END CROSSTIE	(6x10) 141 x 241 x 3658 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
2	2	FLANGE END	(6x8) 141 x 191 x 1372 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
3	2	END RAIL	(4x6) 89 x 141 x 3376 LG.	ACZA
4	3	JOIST END 'B'	(6x6) 141 x 141 x 2281 LG	14 LB. CREOSOTE TREATMENT #1 BTR FIR
5	1	STANDARD CROSSTIE	(6x6) 141 x 141 x 3658 LG	14 LB. CREOSOTE TREATMENT #1 BTR FIR
6	12	END BLOCK	(6x6) 141 x 141 x 305 LG.	ACZA
7	2	STRINGER END	(6x10) 141 X 241 x 1372 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
8	1	MODIFIED JOIST	(6x6) 141 x 141 x 3359 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
9	2	SPACER END 'B'	(6x6) 141 x 141 x 575 LG.	ACZA
10	2	SPACER END	(6x6) 141 x 141 x 378 LG.	ACZA
11	2	RAIL END	(4x6) 89 x 141 x 952 LG.	ACZA
12	2	RAIL END 'B'	(4x6) 89 x 141 x 378 LG.	ACZA
13	1	LOWER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
14	1	UPPER STRINGER SPLICE	(6x6) 141 x 141 x 1140 LG.	ACZA
15	1	UPPER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
16	1	LOWER STRINGER SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR

**HARDWARE REQUIREMENTS**

ITEM NO.	QTY.	DESCRIPTION
18	7	HEX BOLT 19 x 406mm
19	2	HEX BOLT 19 x 356mm
20	13	HEX BOLT 19 x 300mm
21	6	HEX BOLT 19 x 557mm
22	4	HEX BOLT 19 x 508mm
23	80	WASHER 19mm DIA.
24	8	HEX BOLT 19 x 660mm
25	40	HEX NUT 19mm DIA.



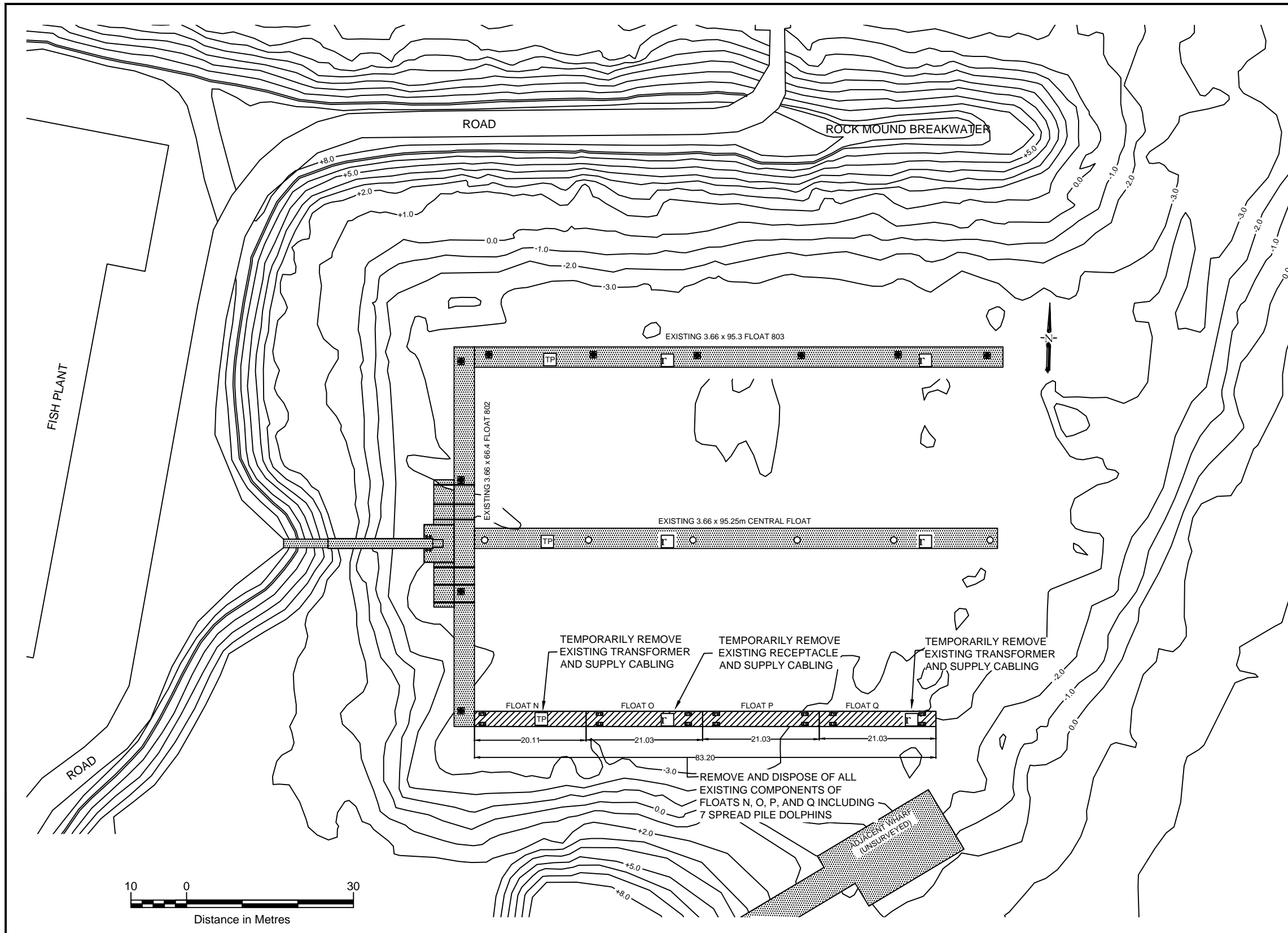


Small Craft Harbours Branch

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UNLESS OTHERWISE SPECIFIED:		DATE	NAME
DIMENSIONS ARE IN INCHES		06/02	WSL
TOLERANCES:			
FRACTIONAL ±			
ANGULAR: MACH ±			
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
NEXT ASSEMBLY		USED ON	FINISH
APPLICATION			DO NOT SCALE DRAWING

VERSION 2		TITLE: 3.65m WIDE FLOAT MODULE 2005 REVISION
SIZE	DWG. NO.	REV
D	FM12-END-201	D
SCALE: 1:16	WEIGHT:	SHEET 1 OF 1



**LOCATION NOTES**

PORT SIMPSON (LAX KW'ALAAMS) SMALL CRAFT HARBOUR FACILITY LOCATED IN THE TOWN OF PORT SIMPSON, ON THE NORTHERN COAST OF THE TSIMPSEAN PENINSULA 32KM NORTH OF PRINCE RUPERT.

**LEGEND**

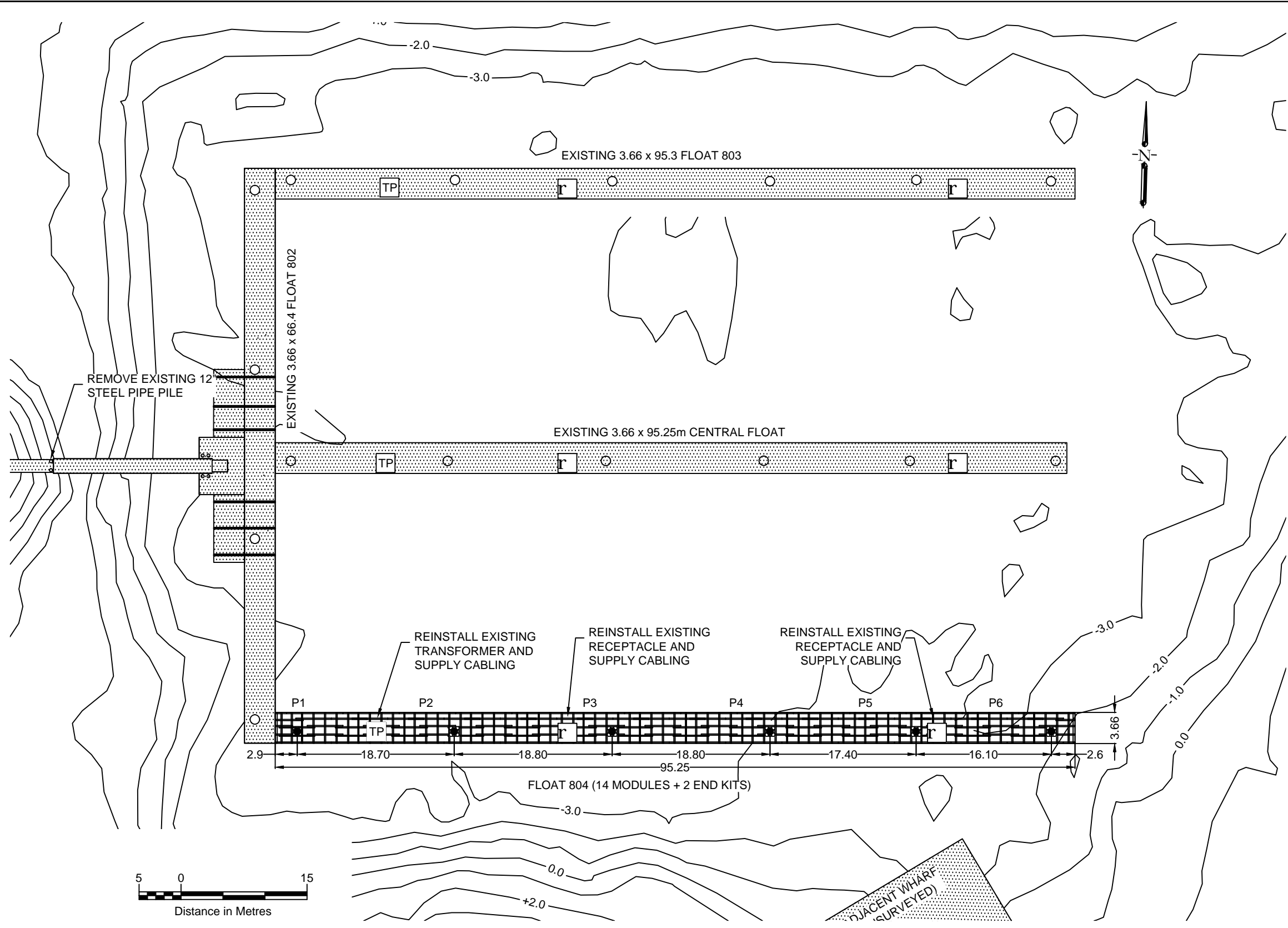
- EXISTING STRUCTURES
- FLOATS TO BE REMOVED
- EXISTING STEEL PIPE PILE
- ELECTRICAL TRANSFORMER CABINET
- ELECTRICAL RECEPTACLE CABINET
- MINOR CONTOUR (1.0m)
- MAJOR CONTOUR (5.0m)
- LOW WATER LINE (LWL)
- HIGH WATER LINE (HWL)

**GENERAL NOTES**

1. NOT AN AS-BUILT DRAWING.
2. CONTRACTOR TO CONFIRM SITE CONDITIONS AND DIMENSIONS.
3. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
4. EXISTING STRUCTURES TRACED FROM AERIAL PHOTO AND TRANSFER PLANS.
5. BATHYMETRY REFERENCED FROM HISTORICAL HYDROGRAPHIC SURVEY (2002).

**FOR TENDER**

		<p>Fisheries and Oceans / Pêches et Océans</p> <p>Small Craft Harbours Branch</p>	Checked by AC Drawn by DB Date 04-JAN-16 Scale 1:750 Inspectors N/A Paper 11 x 17	PROJECT EXISTING FACILITIES AND DEMOLITION HARBOUR REVITALIZATION PORT SIMPSON SMALL CRAFT HARBOUR PORT SIMPSON, B.C.
Ref. No.	REFERENCE			DWG. No. 4209 -D- 10.5



**GENERAL NOTES**

1. NOT AN AS-BUILT DRAWING.
2. ALL DIMENSIONS ARE IN METRES.
3. EXISTING STRUCTURES TRACED FROM AERIAL PHOTO AND TRANSFER PLANS.
4. BATHYMETRY REFERENCED FROM HISTORICAL HYDROGRAPHIC SURVEY (2002).
5. FLOAT FLANGE, CROSSTIES AND JOISTS SHOWN FOR REFERENCE AS PER ASSEMBLY OF MODULES OF SCH 3.66m (12') WIDE LIGHT FLOAT '2005 REVISION G'.
6. LOCATIONS AND ELEVATIONS OF EXISTING STRUCTURES AS SHOWN ARE SUBJECT TO CONSTRUCTION VARIATIONS. ALL DIMENSIONS AND DETAILS ARE TO BE VERIFIED BY CONTRACTOR.
7. FENDER/MOORING WELL DETAILS NOT SHOWN.
8. FINAL PILE POSITIONS MAY VARY DEPENDING ON ACTUAL LOCATIONS OF CROSSTIES, JOISTS, OTHER FLOAT COMPONENTS AND DRIVING CONDITIONS.
9. DECKING AND OTHER FLOAT COMPONENTS NOT SHOWN FOR CLARITY.

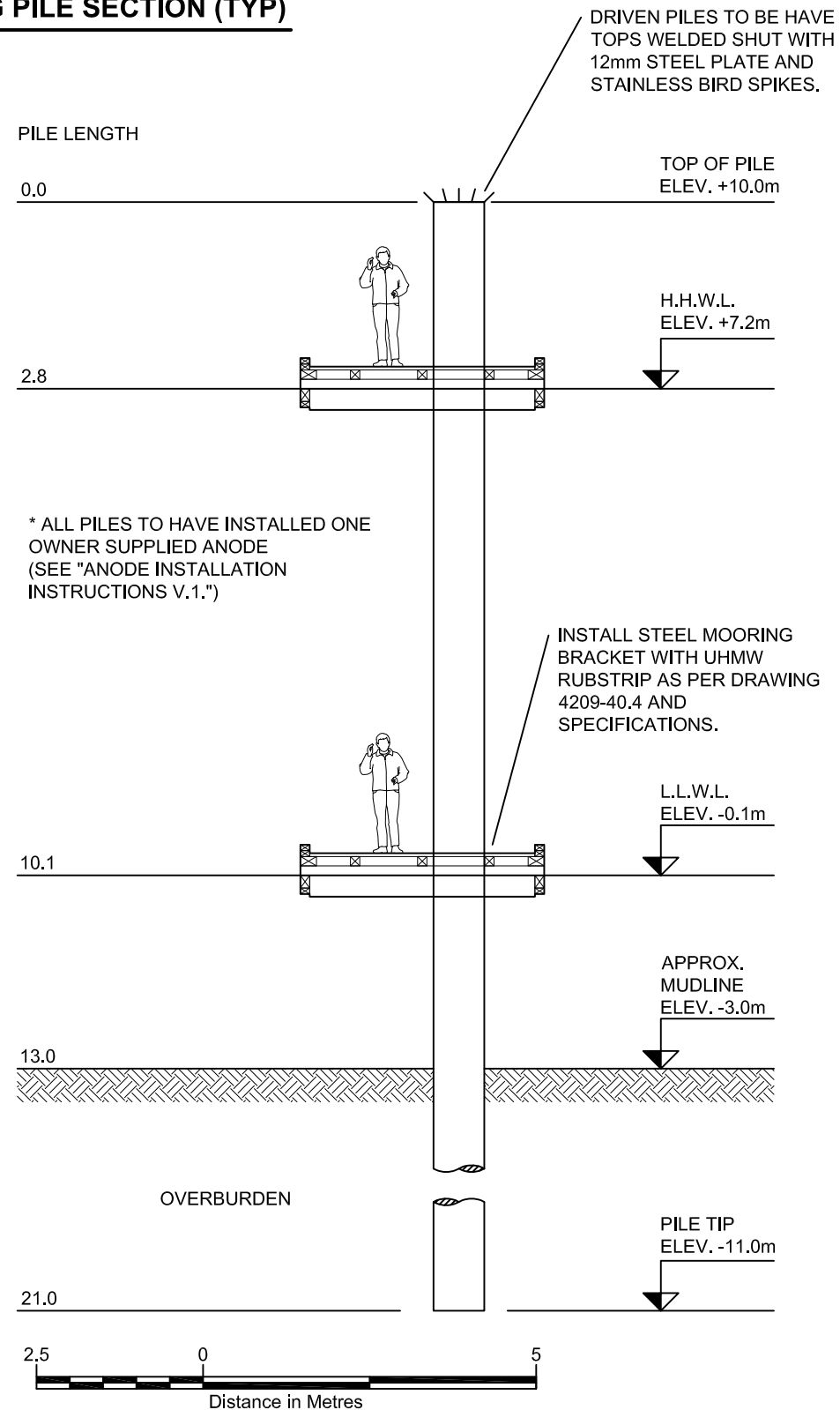
**LEGEND**

- EXISTING STRUCTURES
- MINOR CONTOUR (1.0m)
- MAJOR CONTOUR (5.0m)
- LOW WATER LINE (LWL)
- HIGH WATER LINE (HWL)
- EXISTING STEEL PIPE PILE
- P4 762mmØ x 15.9mm STEEL PIPE PILE
- ELECTRICAL TRANSFORMER CABINET
- ELECTRICAL RECEPTACLE CABINET

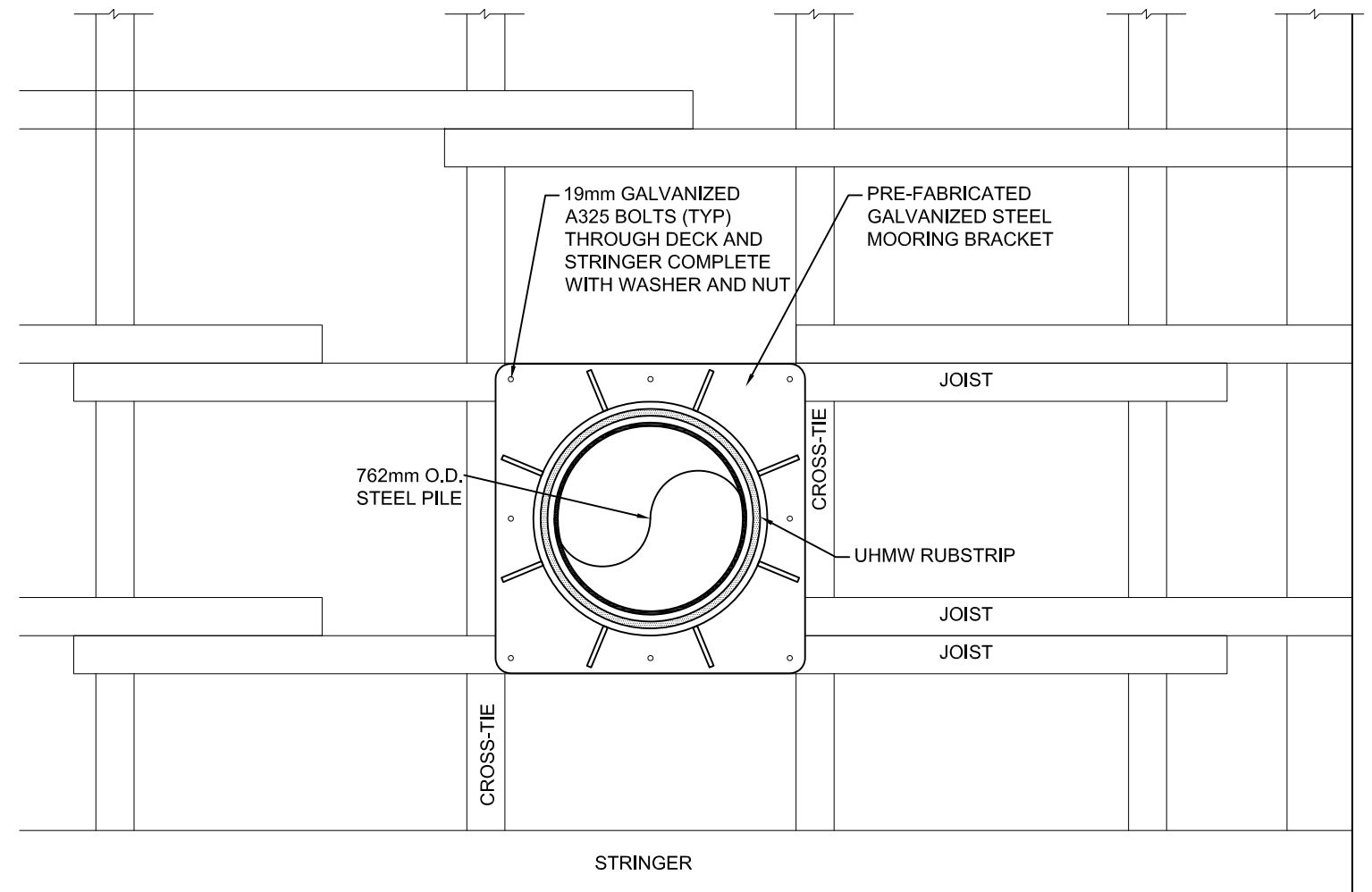
FOR TENDER

		<p>Fisheries and Oceans    Pêches et Océans</p> <p>Small Craft Harbours Branch</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Checked by</td><td>AC</td></tr> <tr><td>Drawn by</td><td>DB</td></tr> <tr><td>Date</td><td>04-JAN-16</td></tr> <tr><td>Scale</td><td>1:500</td></tr> <tr><td>Inspectors</td><td>N/A</td></tr> <tr><td>Paper</td><td>11 x 17</td></tr> </table>	Checked by	AC	Drawn by	DB	Date	04-JAN-16	Scale	1:500	Inspectors	N/A	Paper	11 x 17	<p>PROJECT</p> <p>FLOAT AND PILE PLAN HARBOUR REVITALIZATION PORT SIMPSON SMALL CRAFT HARBOUR PORT SIMPSON, B.C.</p>
Checked by	AC															
Drawn by	DB															
Date	04-JAN-16															
Scale	1:500															
Inspectors	N/A															
Paper	11 x 17															
Ref. No.	REFERENCE			DWG. No.      4209 -D- 20.5												

### MOORING PILE SECTION (TYP)



### DETAIL MOORING WELL (TYP)



#### DRAWING NOTES

1. NOT AN AS-BUILT DRAWING.
2. ALL DIMENSIONS ARE IN METRES.
3. ELEVATIONS ARE IN METRES CHART DATUM.
4. FINAL PILE POSITIONS MAY VARY DEPENDING ON ACTUAL LOCATIONS OF CROSSTIES, JOISTS, OTHER FLOAT COMPONENTS AND DRIVING CONDITIONS.

**FOR TENDER**

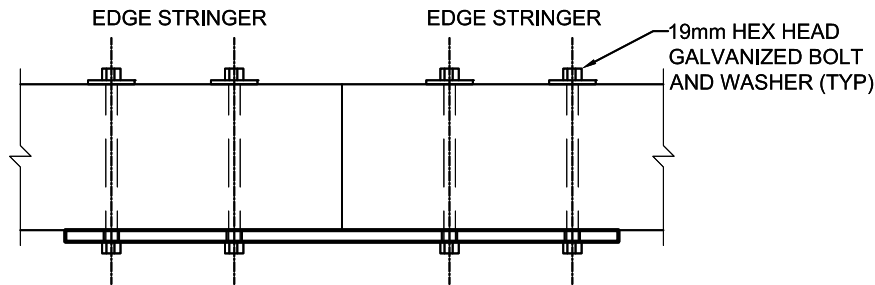
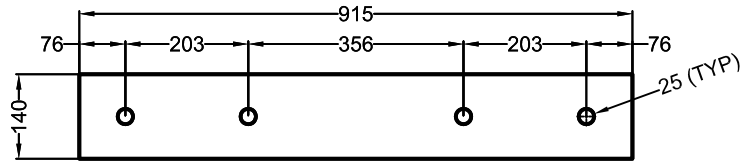
		 Fisheries and Oceans / Pêches et Océans	Checked by AC Drawn by DB Date 04-JAN-16 Scale 1:100 Inspectors N/A Paper 11 x 17	PROJECT SECTION AND DETAILS HARBOUR REVITALIZATION PORT SIMPSON SMALL CRAFT HARBOUR PORT SIMPSON, B.C. DWG. No. 4209 -D- 30.4
Ref. No.	REFERENCE			



Fisheries and Oceans / Pêches et Océans

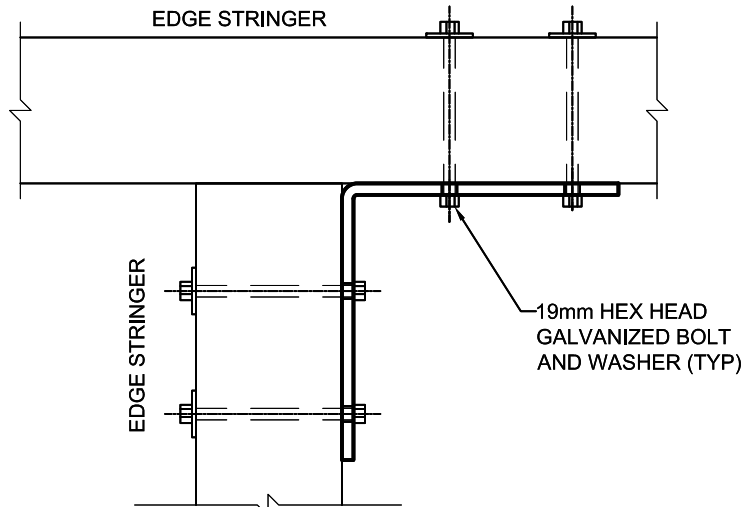
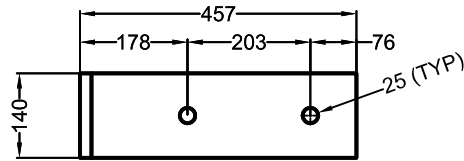
Small Craft Harbours Branch

**FLOAT CONNECTOR: STRAIGHT**



**FLOAT CONNECTOR: ANGLED**

**MATERIAL: 19mm STEEL PLATE  
COATING: HOT DIPPED GALVANIZED**



**FOR TENDER**

		Checked by AC	PROJECT  FLOAT CONNECTION DETAILS (TYPICAL) 2.74m AND 3.66m WIDE TIMBER FLOATS SMALL CRAFT HARBOURS PACIFIC REGION
		Drawn by DB	
		Date 04-JAN-16	
		Scale AS SHOWN	
		Inspectors N/A	
Ref. No.	REFERENCE	Paper 8.5 x 11	

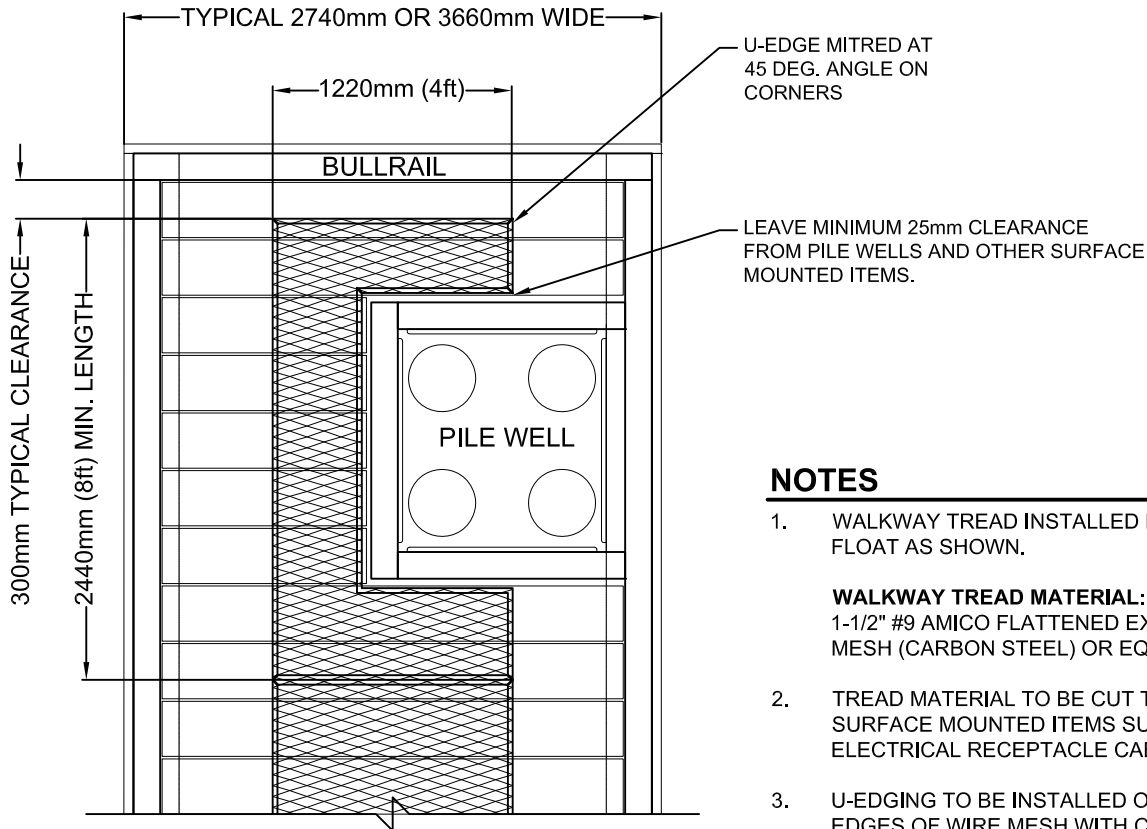




Fisheries and Oceans / Pêches et Océans

Small Craft Harbours Branch

**PLAN VIEW WALKWAY TREAD LAYOUT (TYPICAL)**

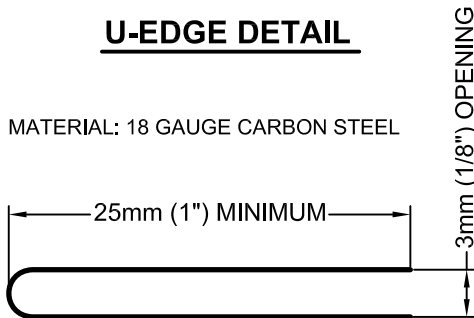


**NOTES**

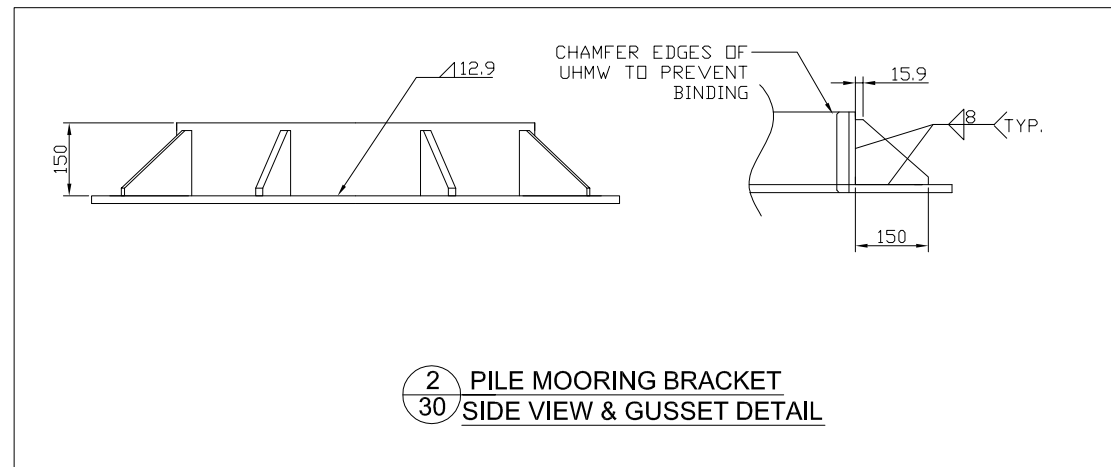
1. WALKWAY TREAD INSTALLED DOWN CENTRE OF FLOAT AS SHOWN.
2. TREAD MATERIAL TO BE CUT TO CONFORM TO SURFACE MOUNTED ITEMS SUCH AS PILE WELLS, ELECTRICAL RECEPTACLE CABINETS, ETC.
3. U-EDGING TO BE INSTALLED OVER ALL EXPOSED EDGES OF WIRE MESH WITH CORNERS MITRED AT 45 DEGREES.
4. U-EDGING TO BE PRE-DRILLED AND FASTENED WITH #14 STAINLESS PAN HEAD WOOD SCREWS, 38mm (1-1/2" LONG).
5. FASTENERS TO HAVE A MAXIMUM SPACING OF 500mm WITH TWO (2) CONNECTION POINTS AT EACH CORNER

**U-EDGE DETAIL**

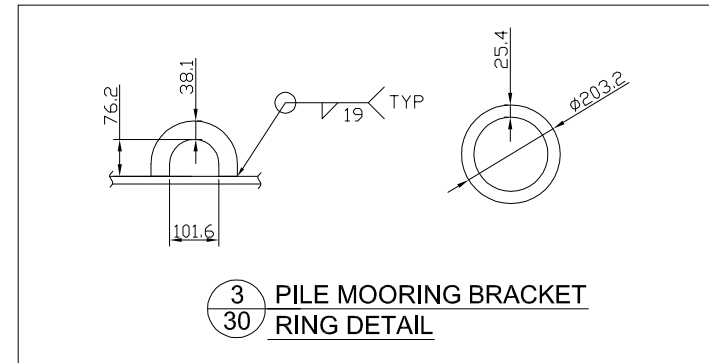
MATERIAL: 18 GAUGE CARBON STEEL



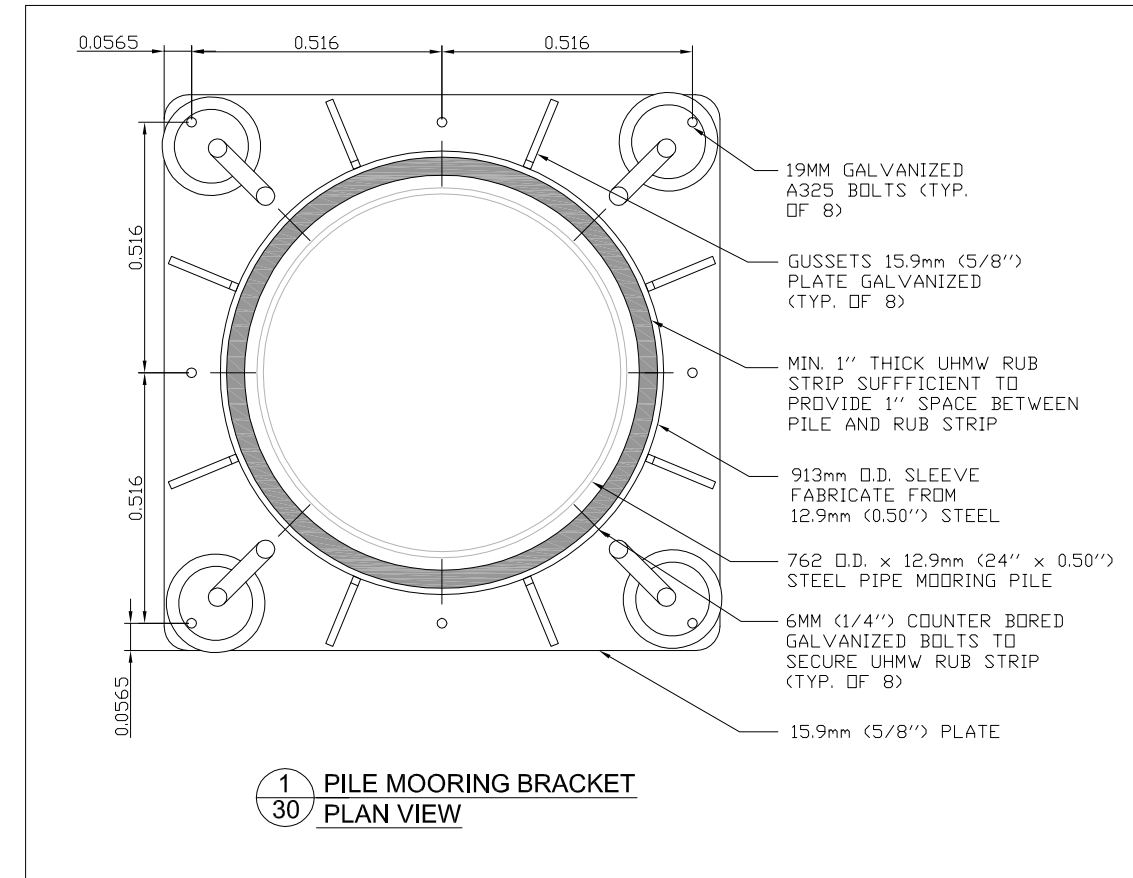
		Checked by AC	PROJECT  WALKWAY TREAD TYPICAL DETAIL 2.74m (9ft) AND 3.66m (12ft) WIDE TIMBER FLOATS SMALL CRAFT HARBOURS PACIFIC REGION, BRITISH COLUMBIA
		Drawn by DB	
		Date 04-JAN-16	
		Scale 1:40	
		Inspectors N/A	
Ref. No.	REFERENCE	Paper 8.5 x 11	DWG. No. 4900 -D- 01 .4



2 PILE MOORING BRACKET  
30 SIDE VIEW & GUSSET DETAIL



3 PILE MOORING BRACKET  
30 RING DETAIL



1 PILE MOORING BRACKET  
30 PLAN VIEW

**NOTES:**

- ASSEMBLY IS TO BE A36 STEEL GALVANIZED TO 2 OZ/FT<sup>2</sup> UNLESS OTHERWISE NOTED.
- 6"X1" RUB STRIPS TO BE HEAT MOLDED TO INSIDE OF PIPE AND ATTACHED WITH SCREWS THROUGH COUNTER SUNK  $\frac{3}{8}$ " HOLES
- $\emptyset$  8" WELDED RING MADE FROM  $\emptyset$ 1" STEEL ROD TO BE PLACED INSIDE MOORING HOOP.
- CHAMFER UHMW RUB STRIP AT TOP AND BOTTOM EDGES AT PILE-RUB STRIP INTERFACE.



FISHERIES AND OCEANS CANADA  
SMALL CRAFT HARBOURS BRANCH

PORT SIMPSON HARBOUR REPAIRS  
MOORING BRACKET DETAIL  
SCH. - LSFW RETENSIONING 2012-2013

SCALE  
NTS

DATE  
OCTOBER 18, 2012

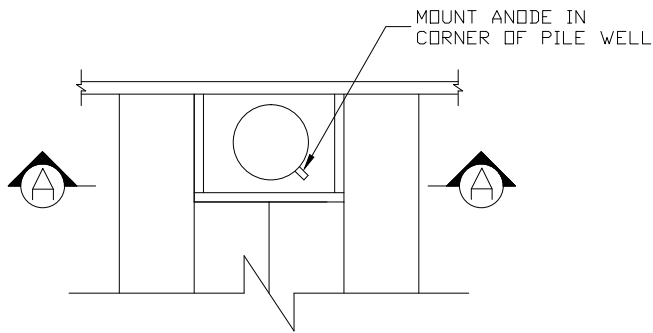
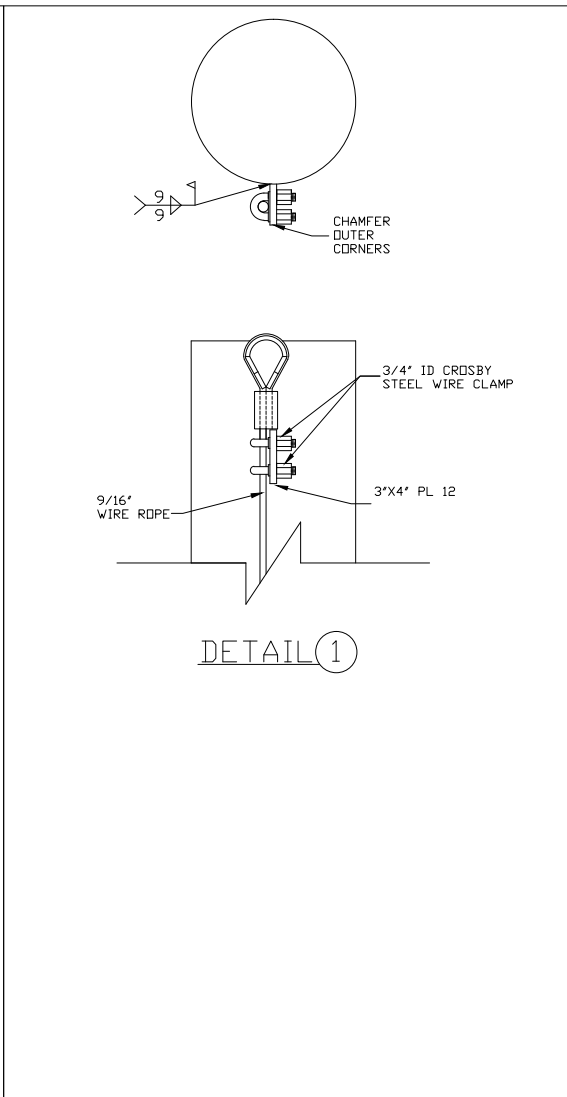
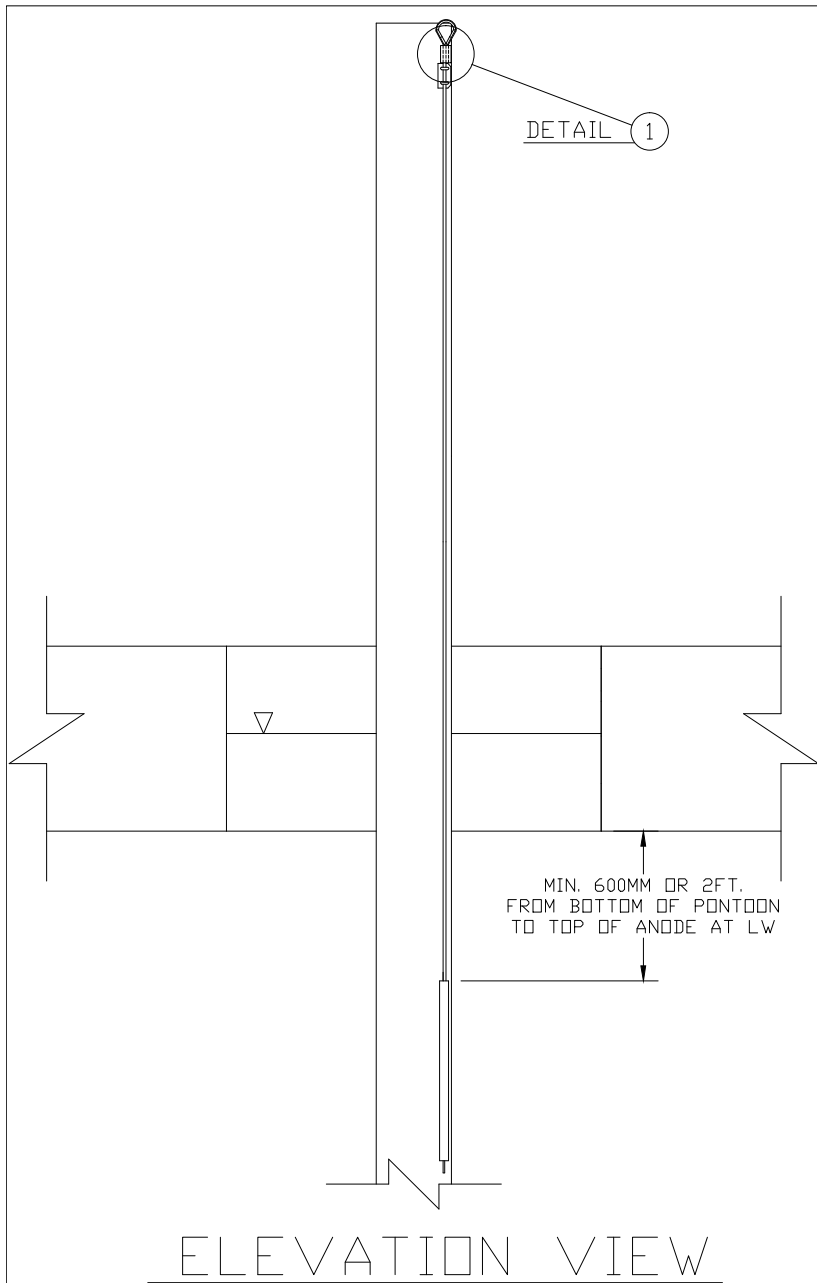
DRAWING NUMBER  
717891-30


REVISION 1

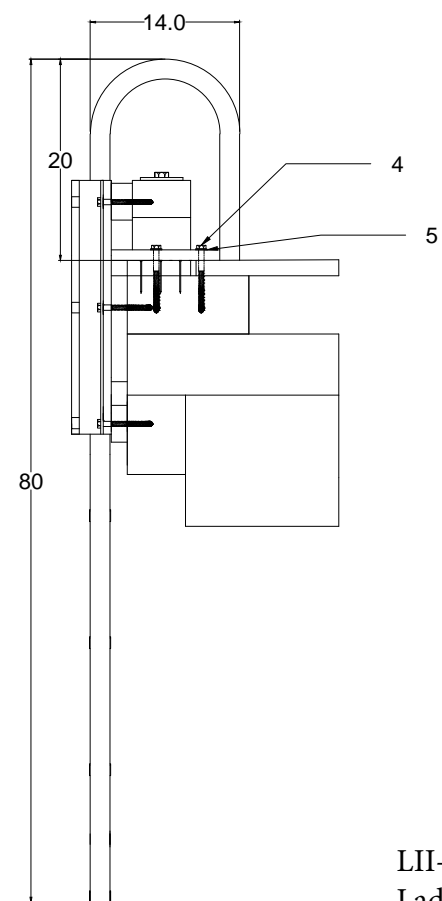
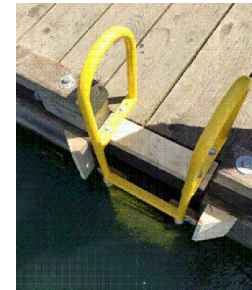
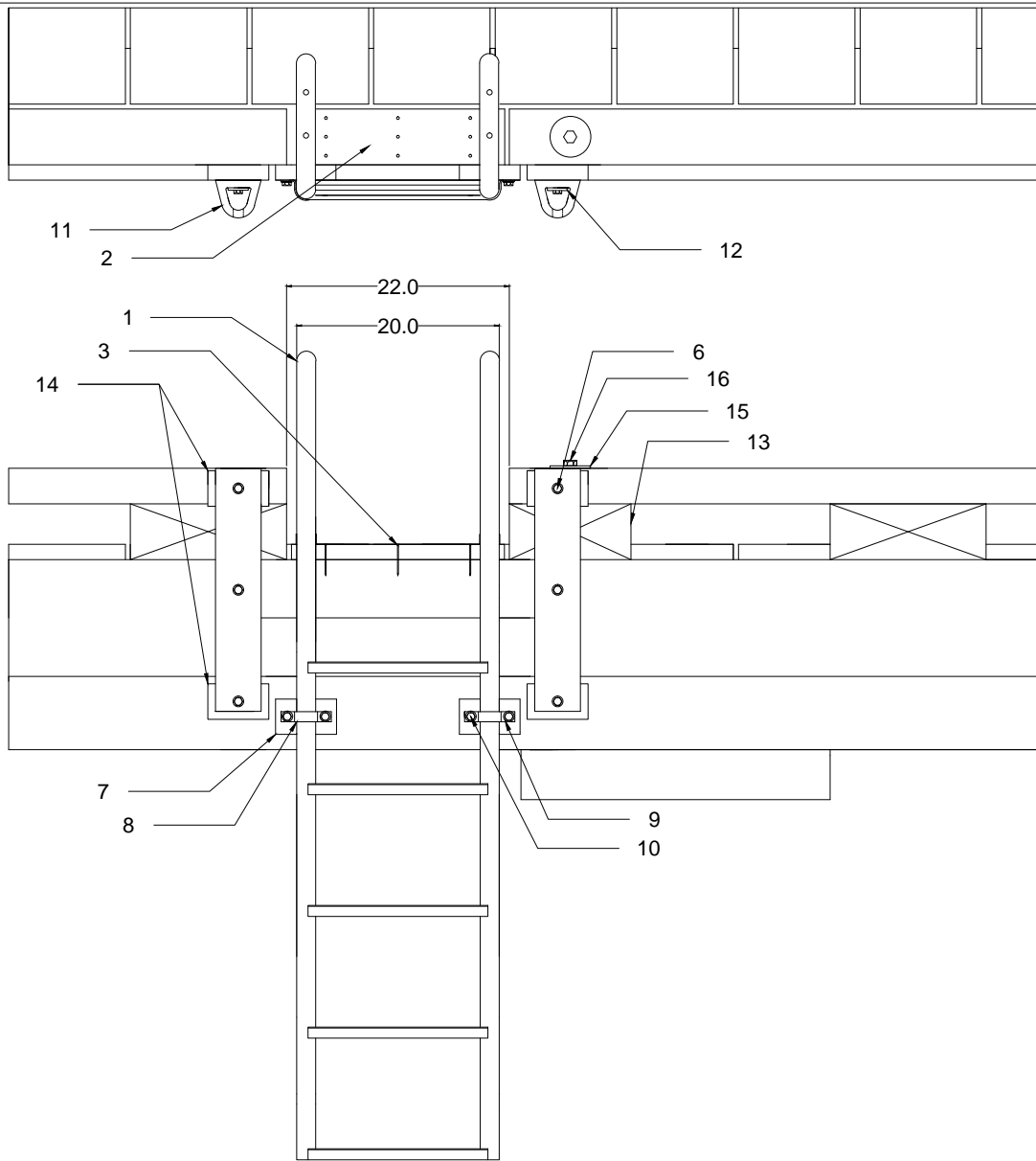
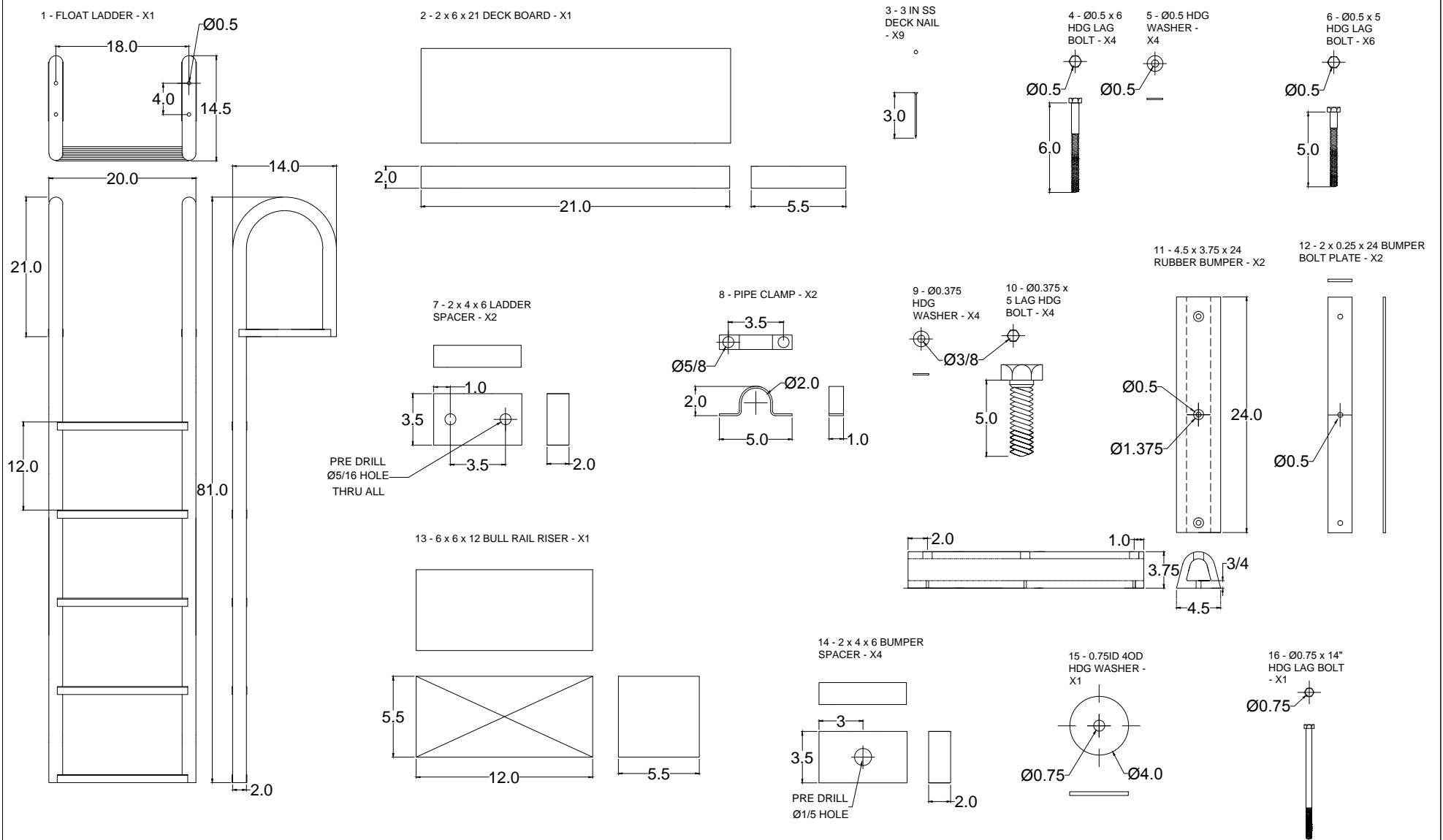
Ref. No.

REFERENCE

ISSUED FOR TENDER OCTOBER 23, 2012



 Fisheries and Oceans Pêches et Océans Small Craft Harbours Branch	Tel: (604) 666-2226 Fax: (604) 666-7056 MORGAN.MEENTS@DFO-MPO.GC.CA		
	Title: ANODE INSTALLATION INSTRUCTIONS		
	Scale: Not to Scale	Checked By:	Drawn By: MM
	Drawn: MAY 23, 2008	Drawing No.: AII-01	



## LII-01 Ladder Installation Instructions

DEPARTMENT OF FISHERIES AND OCEANS CANADA	LADDER INSTALLATION DRAWING	DRAWN BY TREVOR SLACK, REVISED BY TALITA GALVAO	PART NUMBER	PART NAME	QUANTITY	NOTES
	DRAWING 1 OF 2	PRINT ON ANSI B	7	2 x 4 x 6 LADDER SPACER	2	1) ALL EXPOSED WOOD MUST BE CAPPED OR FIELD TREATED
ALL DIMENSIONS IN INCHES	TOLERANCES ARE ± 1/16 IN	DRAWING NOT TO SCALE	8	PIPE CLAMP	2	
BILL OF MATERIALS						
PART NUMBER	PART NAME	QUANTITY				
1	LADDER	1	9	Ø0.375 HDG WASHER	4	2) LADDERS CANNOT HAVE A FLOAT PERIMETER DISTANCE SPACING GREATER THAN 60 METERS
2	2 x 6 x 21 DECK BOARD	1	10	Ø0.375 X 5 LAG HDG BOLT	4	
3	3 IN SS DECK NAILS	9	11	4.5 x 3.75 x 24 RUBBER BUMPER	2	3) DO NOT SECURE LADDER SPACERS TO FLANGE.
4	Ø0.5 x 6 HDG LAG BOLT	4	12	1.5 x 0.125 x 24 BUMPER BOLT PLATE	2	
5	Ø0.5 HDG WASHER	9	13	6 x 6 X 12 BULL RAIL RISER	1	4) PHOTO SHOWS INCORRECT BUMPERS.
6	Ø0.5 x 5 HDG LAG BOLT	6	14	2 x 4 x 6 BUMPER SPACER	4	
			15	0.75ID 40D HDG WASHER	1	5)
			16	Ø0.75 x 14 HDG LAG BOLT	1	PRINTED JANUARY 10, 2017 15:00

**FOR TENDER ONLY**

SITE KEY PLAN:



**DO NOT SCALE DRAWINGS**

Revision/Revision	Description/Description	Date/Date
5		
4	RE ISSUED FOR TENDER (REVISED SCOPE)	160819
3	ISSUED FOR TENDER (REVISED SCOPE)	160809
2	RE ISSUED FOR TENDER	160322
1	ISSUED FOR TENDER	160311
0	ISSUED FOR 50% REVIEW	160226

Client/client

**FISHERIES AND OCEANS  
SMALL CRAFT HARBOURS**  
  
401 BARRARD STREET, SUITE 200  
VANCOUVER, BC

Project title/Titre du projet  
**PORT SIMPSON HARBOUR  
ELECTRICAL SYSTEM  
UPGRADE**

Approved by/Approve par

Designed by/Concept par  
H.W.P./T.D.

Drawn by/Dessine par  
P.P.

PWGC Project Manager/Administrateur de Projets TPSGC  
D.B.

PWGC, Architectural and Engineering Resources Manager/  
Ressources Architectural et de Directeur d'Ingénierie, TPSGC

Client/client  
DFO - SCH

Drawing title/Titre du dessin

**SITE PLAN - EXISTING AND  
PROPOSED GENERAL  
ELECTRICAL LAYOUT**

Project No./No. du projet  
**151-00262-10**

Sheet/Feuille  
**E001**  
1 OF 3

Revision no./  
La Révision  
no.  
**4**

**GENERAL WORK:**

- NEW LABELS: MDP AND TRC AND RC TO BE PROVIDED ALL NEW LABELS WHICH ARE TO BE WHITE LETTERING AND BLACK BACKGROUND AND RIVITED TO METAL. ALL PANELS ALL ENCLOSURES, ALL RECEPTACLES, ALL BREAKERS TO BE PROVIDED NEW LAMICOIDES LABELS. EXISTING LABELS TO BE REMOVED AND REPLACED.
- RC AND TRC CABINET REPAIR: PROVIDE NEW WELDS FOR DOOR CHAINS. REPLACE ALL BURNT 30A RECEPTACLES IN EXISTING CABINETS - PROVIDE ALLOWANCE FOR TEN (10) 30A RECEPTACLES
- BIRDSPIKES: ADD BIRDSPIKES FOR ALL INSTALLED LIGHT FIXTURES.

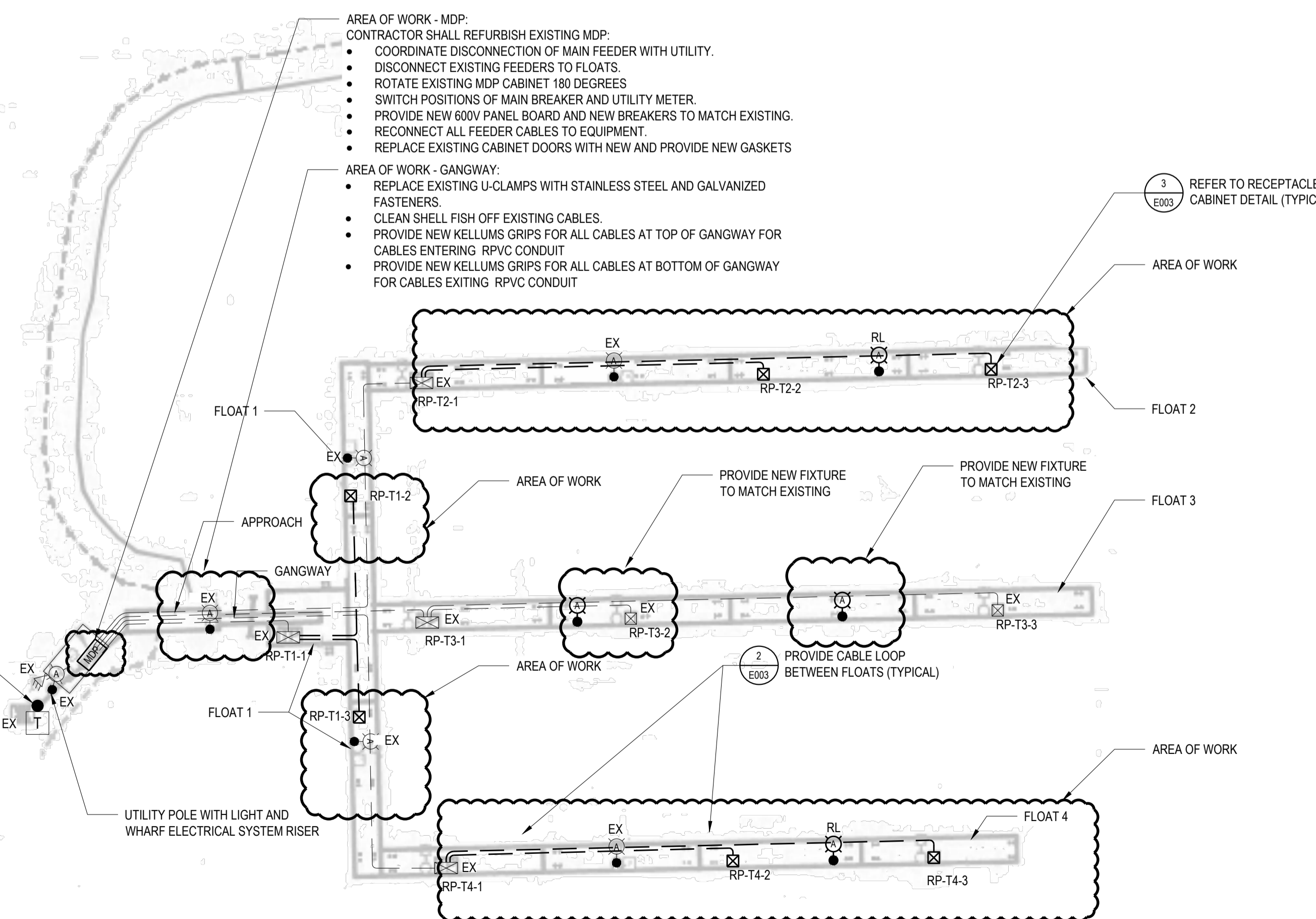
DRAWING LIST	
Drawing Number	Drawing Title
E001	SITE PLAN - EXISTING AND PROPOSED GENERAL ELECTRICAL LAYOUT
E002	SINGLE LINE DIAGRAM AND ELECTRICAL SCHEDULES
E003	ELECTRICAL DETAILS

ABBREVIATIONS	
AHJ	Authority Having Jurisdiction
XXF	CB Frame Rating (amps)
XXT	CB Trip Setting (amps)
BCH	B.C. Hydro
CB	Circuit Breaker or Breaker
CT	Current Transformer
CCT	Circuit
CEC	Canadian Electrical Code
DFO	Department of Fisheries & Oceans
MDP	Main Distribution Panel
NIC	Not In Contract
P	Pole
PH	Phase
RC	Receptacle Cabinet (c/w RCP & receptacle outlets)
RCP	RC Panel
SCH	Small Craft Harbour
SEE	Service Entrance Enclosure
TRC	Transformer Receptacle Cabinet (c/w TRCP, TRF and RCP)
TRF	Transformer
TRCP	TRC Panel
WP	Weatherproof Outlet
2P	Two pole CB (1 phase use)
3P	Three pole CB (3 phase use)
RL	Existing equipment in relocated position
ER	Existing equipment/conduit to be relocated
EX	Existing equipment/conduit to remain
RR	Existing equipment/conduit to be removed

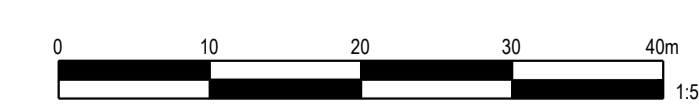
**ELECTRICAL SYMBOL  
SCHEDULE AND ANNOTATIONS**

	SURFACE CEILING MOUNTED LUMINAIRE
	WALL MOUNTED LUMINAIRE
	EXTERIOR LUMINAIRE WITH POLE ASSEMBLY
	POWER POLE
	OVERHEAD UTILITY SERVICE MAST
	JUNCTION BOX
	PULL BOX
	EQUIPMENT CONNECTION
	SPECIAL CONNECTION
	PANEL
	MAIN DISTRIBUTION PANEL
	RECEPTACLE CABINET No.1
	TRANSFORMER RECEPTACLE CABINET No.1
	TRANSFORMER
	DOWNHAUL GUY WITH ANCHOR AND GUARD
	LV CIRCUIT BREAKER
	DISCONNECT SWITCH
	UTILITY POWER METER
	CONNECTION POINT
	CABINET RECEPTACLES
	REFERENCE NOTE (1 DENOTES SEE NOTE 1)
	PANEL IDENTIFICATION TAG
	NEW EQUIPMENT
	EXISTING EQUIPMENT TO REMAIN
	EXISTING EQUIPMENT TO BE REMOVED

**1 EXISTING SITE PLAN: GENERAL ELECTRICAL LAYOUT**  
SCALE: 1:500

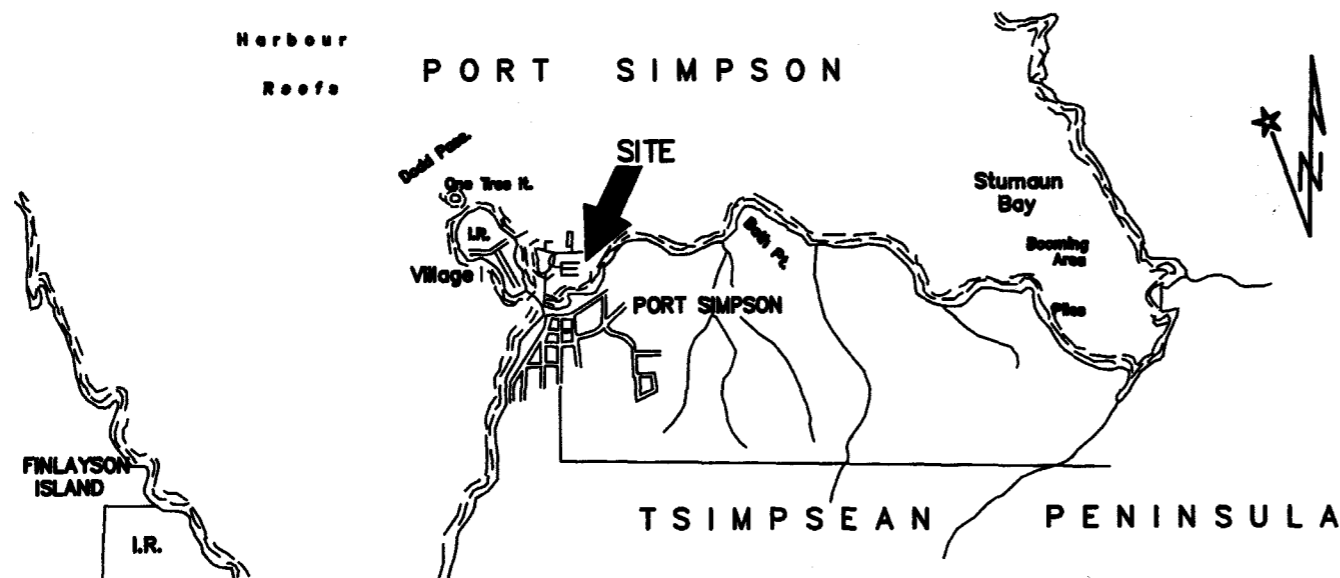


**2 PROPOSED NEW SITE PLAN: GENERAL ELECTRICAL LAYOUT**  
SCALE: 1:500



P:\Data August 18, 2016 2:27 PM  
 Project: 151-00262-10 PORT SIMPSON ELECTRICAL UPGRADE  
 Drawing: 151-00262-10-01 SITE PLAN - EXISTING AND PROPOSED GENERAL ELECTRICAL LAYOUT.DWG  
 File Name: Y:\PROJECTS\151-00262-10 PORT SIMPSON ELECTRICAL UPGRADE\151-00262-10-01 SITE PLAN - EXISTING AND PROPOSED GENERAL ELECTRICAL LAYOUT.DWG





LOCATION CHART

SCALE: 1:39917

**NOTES:**

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS.

**AUTHORITIES:**

1. LOCAL HARBOUR AUTHORITY.
2. DEPARTMENT OF FISHERIES AND OCEANS, SMALL CRAFT HARBOURS BRANCH.
3. LOCAL FIRE DEPARTMENT.

**DESIGN CRITERIA:**

1. NFPA 307, "STANDARD FOR THE CONSTRUCTION AND FIRE PROTECTION OF MARINE TERMINALS, PIERS, AND WHARVES."

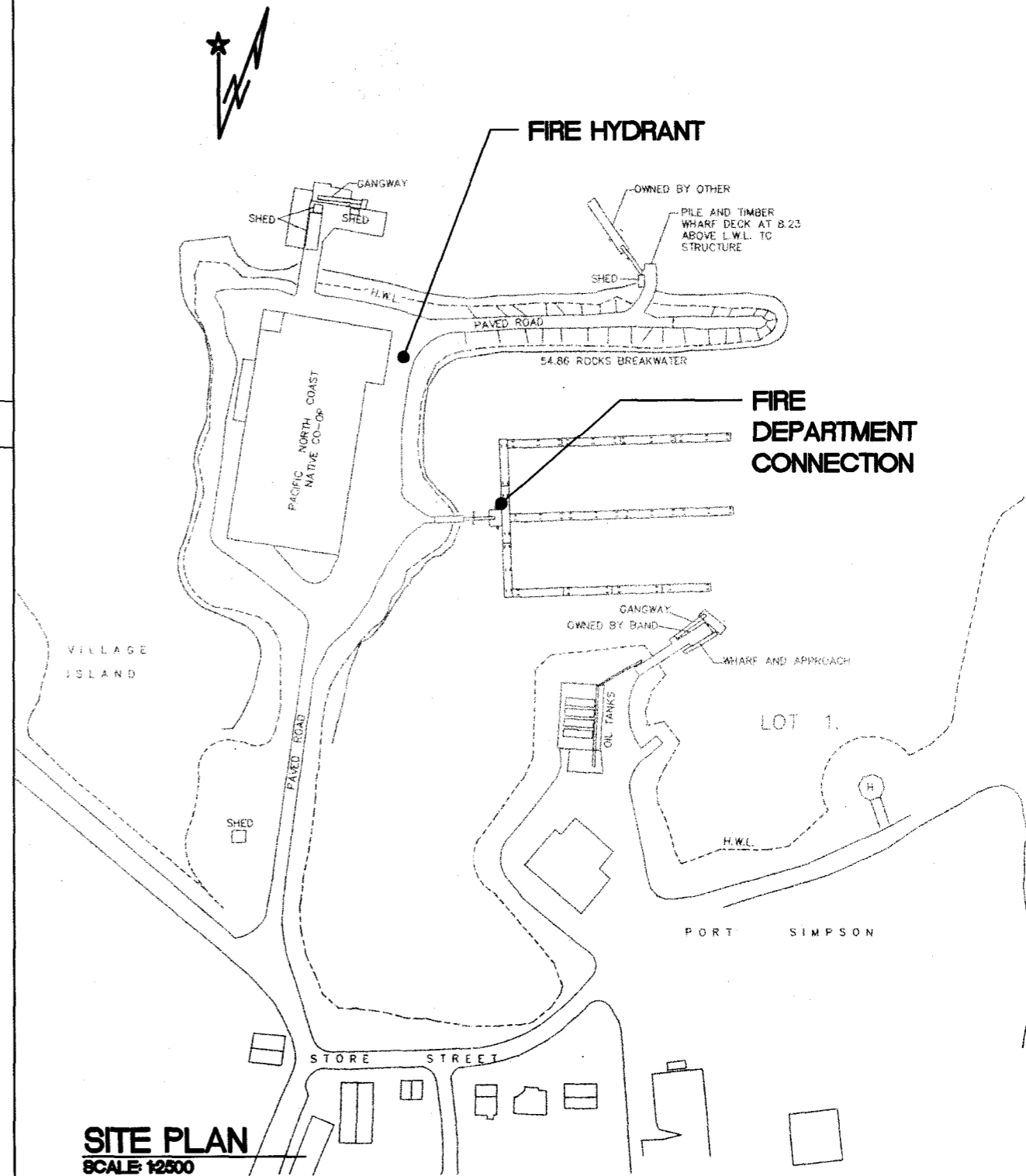
2. NFPA 303, "FIRE PROTECTION STANDARD FOR MARINAS AND BOATYARDS."

PRESSURE LOSSES FROM FLOAT FIRE DEPARTMENT CONNECTION TO FLOAT END HOSE VALVE:

100 USGPM	20 PSI
150 USGPM	45 PSI

**PROJECT SCOPE:**

1. INSTALLATION OF FIRE LINE ON FLOATS.



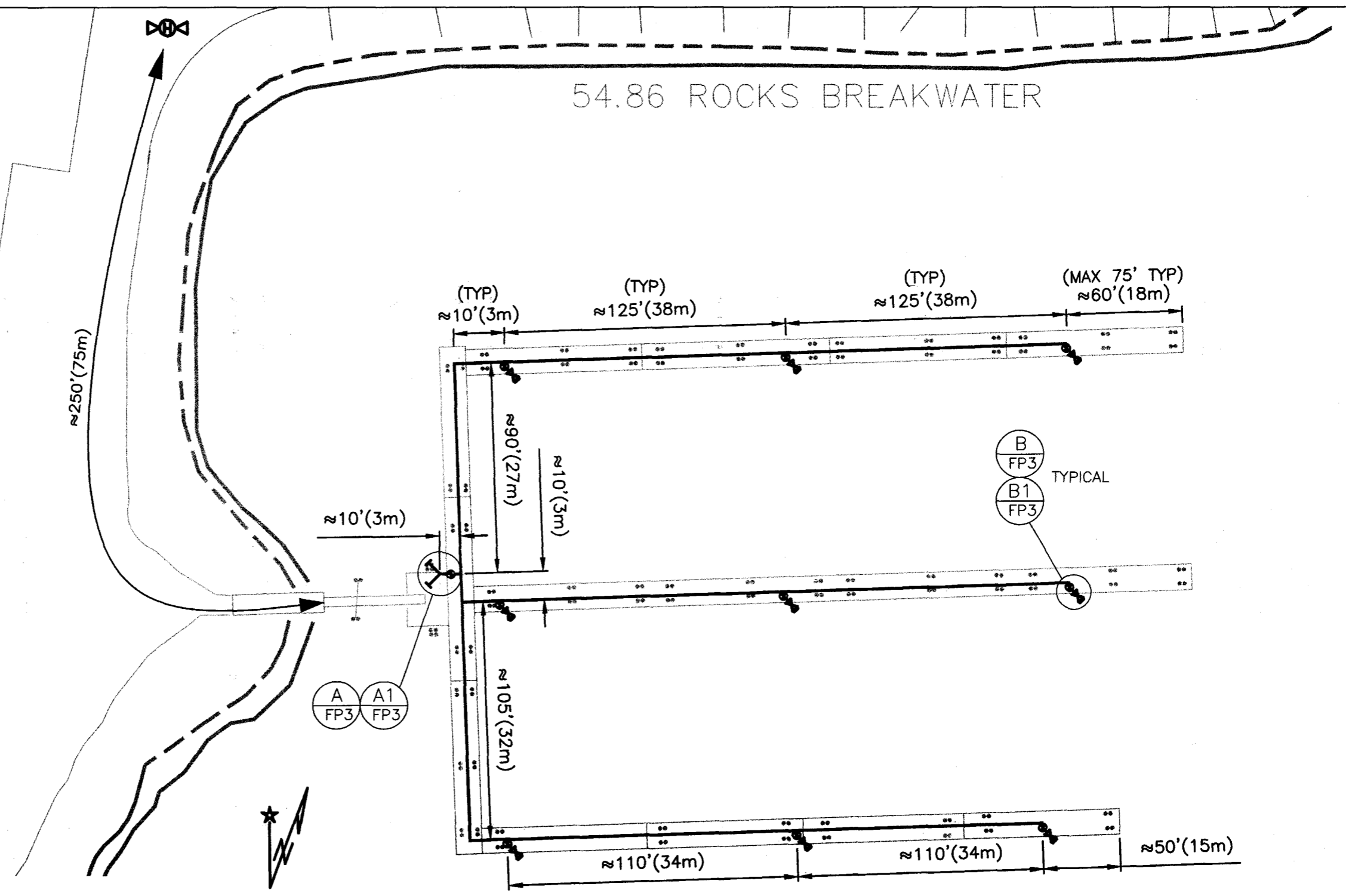
**SITE PLAN**  
SCALE: 1:2500



**GAGE-BABCOCK & ASSOCIATES LTD.**  
ENGINEERS CONSULTANTS FIRE PROTECTION SAFETY SECURITY  
228 - 1195 WEST BROADWAY VANCOUVER, BRITISH COLUMBIA CANADA V6H 3X5  
TEL (604) 732-3751 FAX (604) 732-1277 EMAIL: info@gbacan.com

PROJECT: PORT SIMPSON, SMALL CRAFT HARBOUR FLOATS	
TITLE: FIRE LINE	
SCALE: AS NOTED	FILE NO.: 142220-1
DRAWN BY: AKT	DATE PRINTED: FEB 25, 2015
CHECKED BY: GM	SHEET: FP 1 OF: 4 REVISION: -
REVIEWED BY: GM	REV. DATE: -

54.86 ROCKS BREAKWATER

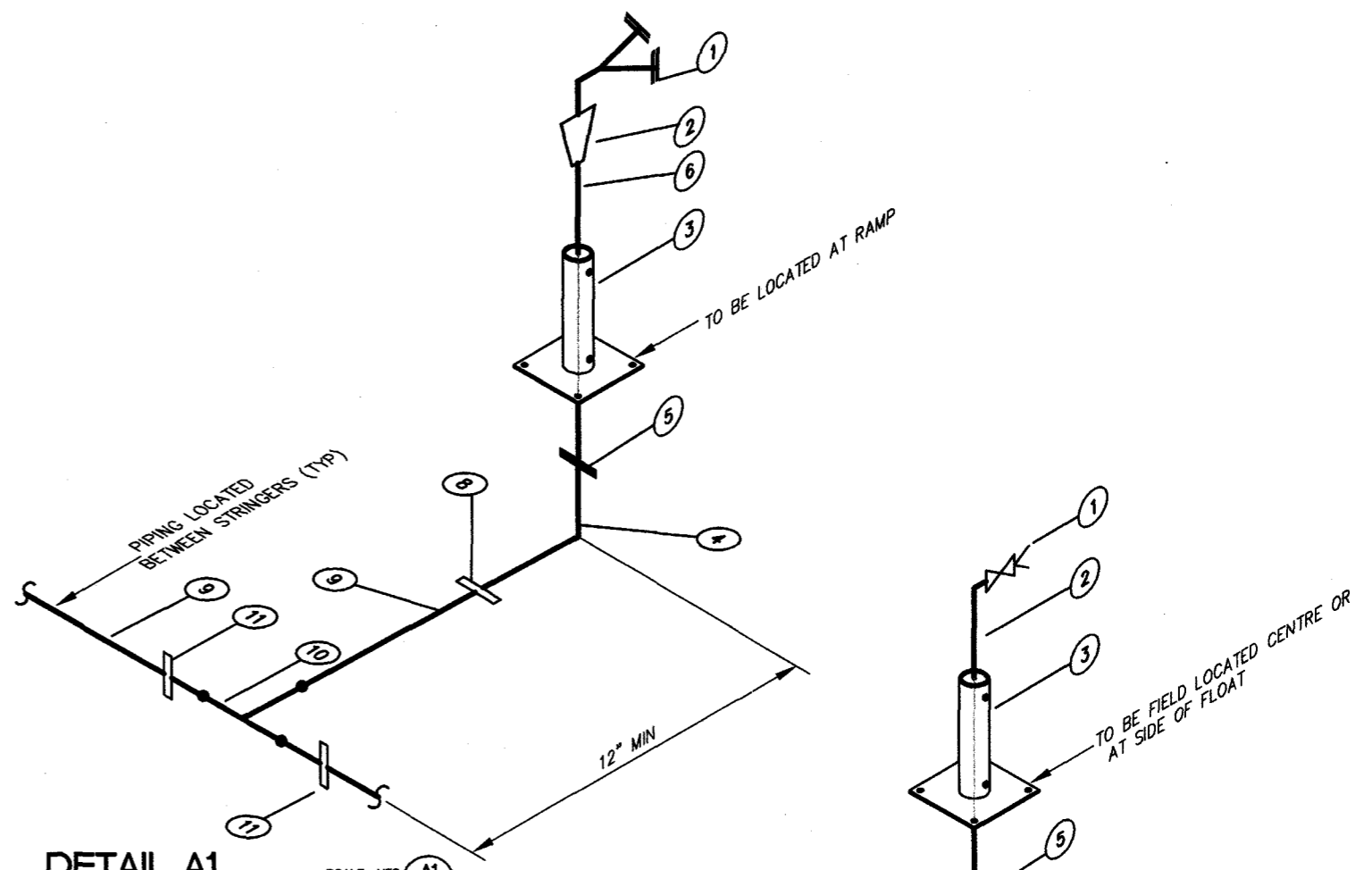
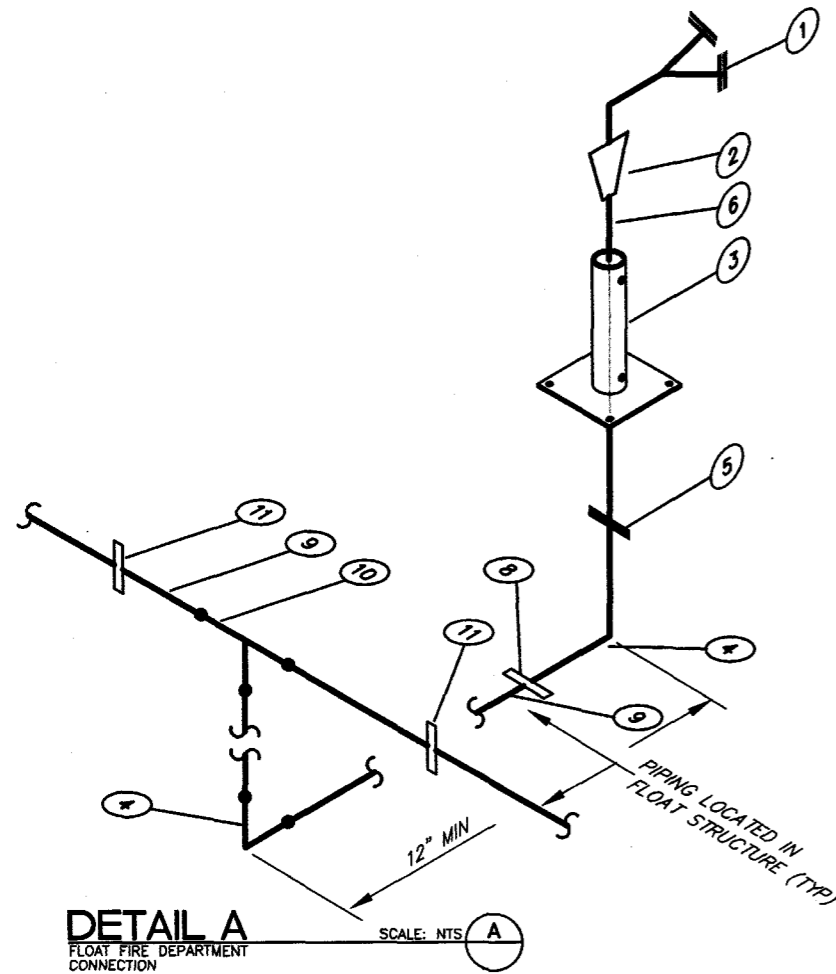


LEGEND	
SYMBOL	DESCRIPTION
	2½" HOSE VALVE C/W CAP
	4" X 2½" X 2½" FIRE DEPARTMENT CONNECTION C/W CAPS
	RISER
	PIPE HANGER
	4X SWAY BRACING
	2X SWAY BRACING
	FIRE LINE
	EXISTING FIRE HYDRANT

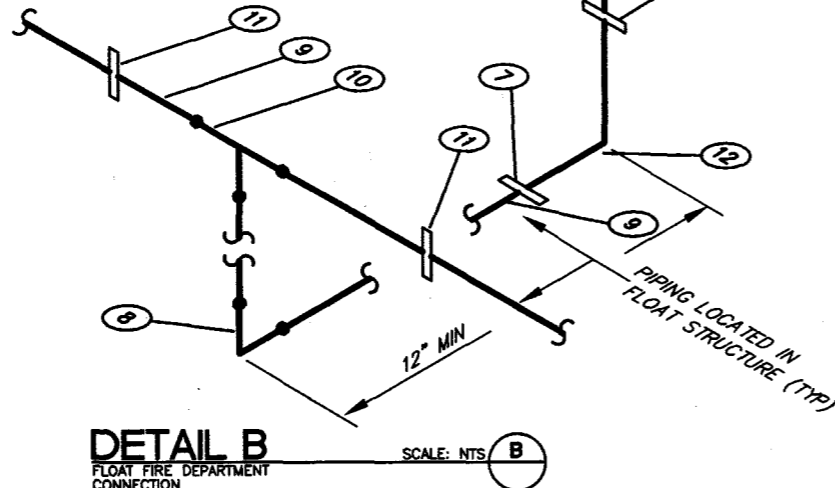
**FLOAT FIRE LINE**  
SCALE: 1/8"=1'-0"

<p><b>GAGE-BABCOCK &amp; ASSOCIATES LTD.</b> ENGINEERS CONSULTANTS FIRE PROTECTION SAFETY SECURITY 228 - 1195 WEST BROADWAY VANCOUVER, BRITISH COLUMBIA CANADA V6H 3X5 TEL (604) 732-3751 FAX (604) 732-1277 EMAIL: info@gbacan.com</p>	PROJECT: PORT SIMPSON, SMALL CRAFT HARBOUR FLOATS	
	TITLE: FIRE LINE	
	SCALE: AS NOTED	FILE NO.: 142220-1
	DRAWN BY: AKT	DATE PRINTED: FEB 25, 2015
	CHECKED BY: GM	SHEET: FP 2 OF: 4 REVISION: -
REVIEWED BY: GM	REV. DATE: -	

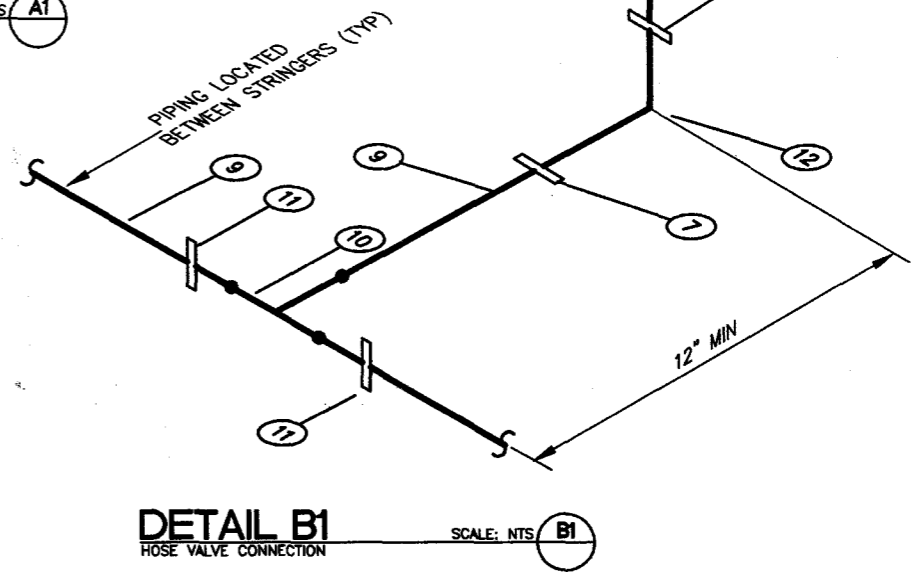





- LEGEND (DETAIL "A & A1")**
1. 4 x 2 1/2" x 2 1/2" FIRE DEPARTMENT CONNECTION C/W CAPS
  2. 4"x3" GALV. HEX BUSHING
  3. PIPE STAND c/w 3/8" x 12" x 12" GALVANIZED STEEL PLATE
  4. 3" SCLAIR ELBOW
  5. 3" GALV. GROOVED COUPLING
  6. 3" DIA. SCH. 40 GALV. PIPE
  7. 3" GALV. 90° GROOVED ELBOW
  8. 3" GALV. SCLAIR X GROOVED COUPLING
  9. 3" SCLAIR PIPE (D-9 TYP)
  10. 3" SCLAIR TEE
  11. 3" GALV. SCLAIR COUPLING  
FOR END PIECE USE 3" GALV. SCLAIR X GROOVED COUPLING C/W 3" GALV. GROOVED PLUG



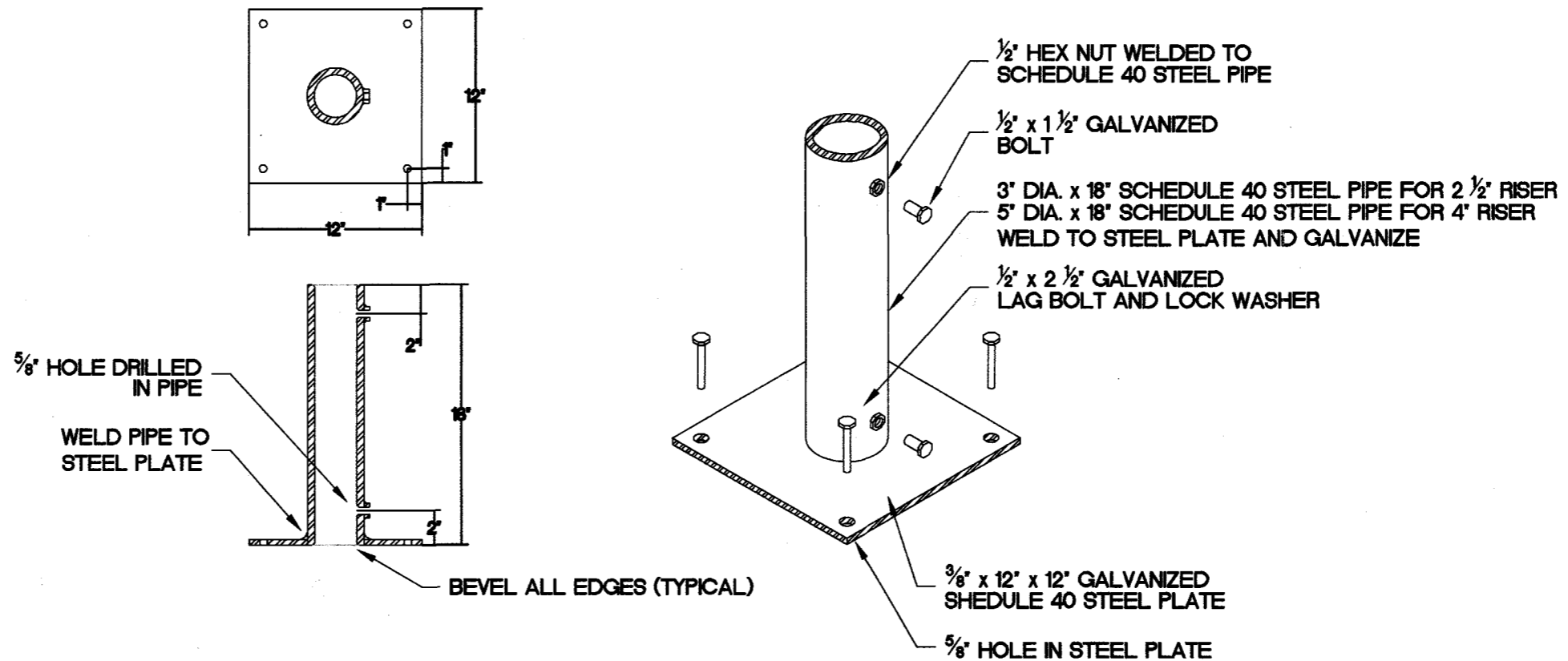
- LEGEND (DETAIL "B & B1")**
1. 2 1/2" HOSE VALVE C/W CAPS
  2. 2 1/2" DIA GALV. SCH40 PIPE (NPT X GROOVE)
  3. PIPE STAND c/w 3/8"x12"x12" GALVANIZED STEEL PLATE
  4. ---
  5. 3"x2 1/2" GALV. GROOVED COUPLING
  6. ---
  7. 3" GALV. SCLAIR X GROOVED COUPLING
  8. 3" SCLAIR ELBOW
  9. 3" SCLAIR PIPE (D-9 TYP)
  10. 3" SCLAIR TEE
  11. 3" GALV. SCLAIR COUPLING. FOR END PIECE USE 3" GALV. SCLAIR X GROOVED COUPLING c/w 3" GALV. GROOVED PLUG
  12. 3" GALV. GROOVED ELBOW





**GAGE-BABCOCK & ASSOCIATES LTD.**  
 ENGINEERS CONSULTANTS FIRE PROTECTION SAFETY SECURITY  
 228 - 1195 WEST BROADWAY VANCOUVER, BRITISH COLUMBIA CANADA V6H 3X5  
 TEL (604) 732-3751 FAX (604) 732-1277 EMAIL: info@gbacan.com

PROJECT: PORT SIMPSON, SMALL CRAFT HARBOUR FLOATS	
TITLE: FIRE LINE	
SCALE: AS NOTED	FILE NO.: 142220-1
DRAWN BY: AKT	DATE PRINTED: FEB 25, 2015
CHECKED BY: GM	SHEET: FP 3 OF: 4 REVISION: -
REVIEWED BY: GM	REV. DATE: -



**DETAIL C** SCALE: NTS  
 PIPE SUPPORT FOR 2 $\frac{1}{2}$ " HOSE VALVE &  
 4" x 2 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " FIRE DEPARTMENT CONNECTION



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 TEL (604) 732-3751 FAX (604) 732-1277 EMAIL: info@gbacan.com

PROJECT: PORT SIMPSON, SMALL CRAFT HARBOUR FLOATS	
TITLE: FIRE LINE	
SCALE: AS NOTED	FILE NO.: 142220-1
DRAWN BY: AKT	DATE PRINTED: FEB 25, 2015
CHECKED BY: GM	SHEET: FP 4 OF: 4 REVISION: -
REVIEWED BY: GM	REV. DATE: -

# **Appendix “A”**

# Contractor's Material and Test Certificate for Aboveground Piping

## PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME	DATE
---------------	------

PROPERTY ADDRESS

PLANS	ACCEPTED BY APPROVING AUTHORITIES (NAMES)		
	ADDRESS		
	INSTALLATION CONFORMS TO ACCEPTED PLANS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	EQUIPMENT USED IS APPROVED	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	IF NO, EXPLAIN DEVIATIONS		

INSTRUCTIONS	HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT? IF NO, EXPLAIN	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	HAVE COPIES OF THE FOLLOWING BEEN LEFT ON THE PREMISES?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	1. SYSTEM COMPONENTS INSTRUCTIONS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	2. CARE AND MAINTENANCE INSTRUCTIONS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
	3. NFPA 25	<input type="checkbox"/> YES	<input type="checkbox"/> NO

LOCATION OF SYSTEM: SUPPLIES BUILDINGS

SPRINKLERS	MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING

PIPE AND FITTINGS  
 Type of Pipe \_\_\_\_\_  
 Type of Fittings \_\_\_\_\_

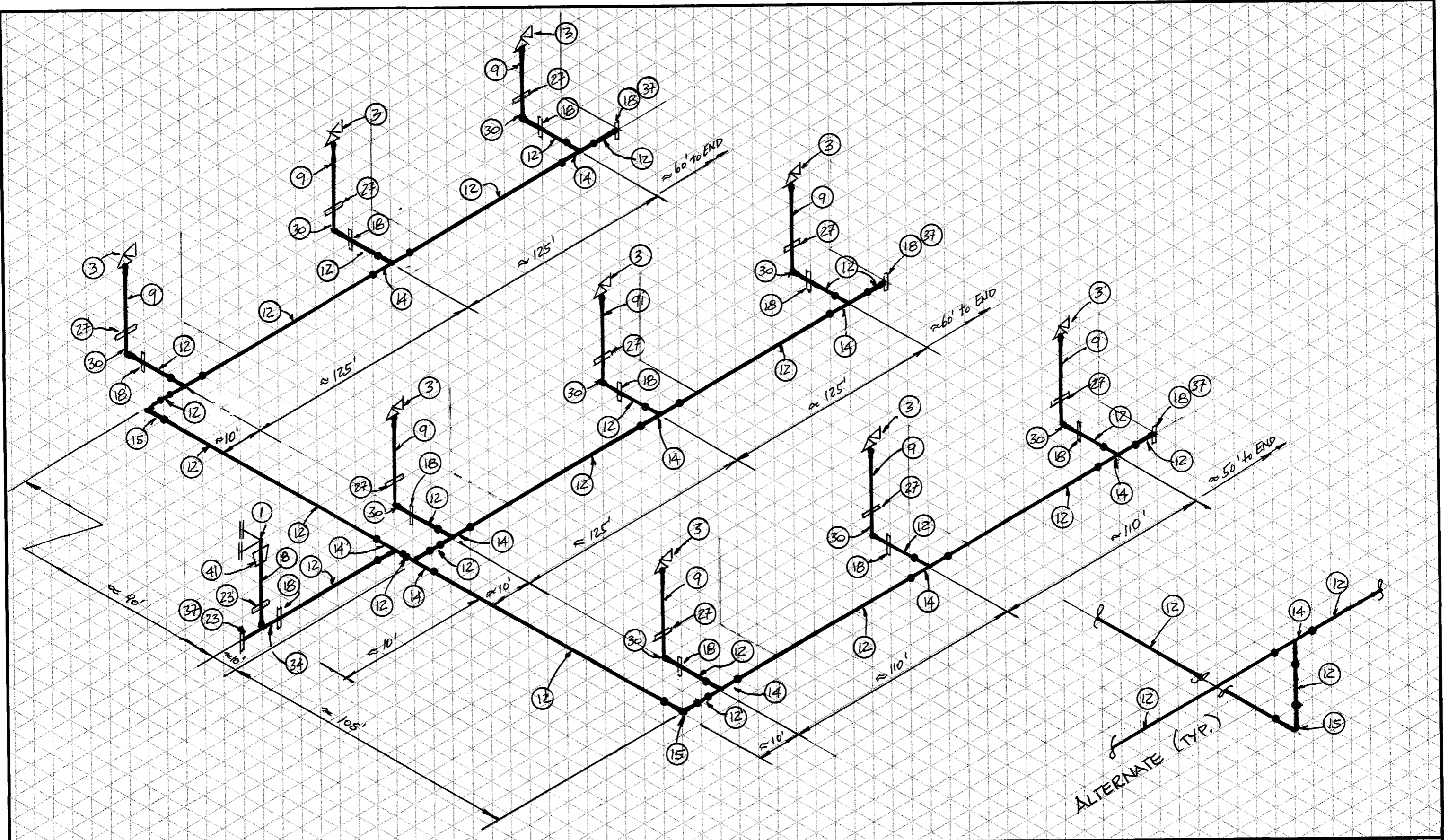
ALARM VALVE OR FLOW INDICATOR	ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST CONNECTION	
	TYPE	MAKE	MODEL	MIN	SEC

DRY PIPE OPERATING TEST	DRY VALVE				Q. O. D.				
	MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.			
	TIME TO TRIP THROUGH TEST CONNECTION <sup>1</sup>		WATER PRESSURE	AIR PRESSURE	TRIP POINT AIR PRESSURE	TIME WATER REACHED TEST OUTLET <sup>1</sup>		ALARM OPERATED PROPERLY	
	MIN	SEC	PSI	PSI	PSI	MIN	SEC	YES	NO
Without Q.O.D.									
With Q.O.D.									
IF NO, EXPLAIN									

DELUGE AND PREACTION VALVES	OPERATION <input type="checkbox"/> PNEUMATIC <input type="checkbox"/> ELECTRIC <input type="checkbox"/> HYDRAULIC							
	PIPING SUPERVISED <input type="checkbox"/> YES <input type="checkbox"/> NO				DETECTING MEDIA SUPERVISED <input type="checkbox"/> YES <input type="checkbox"/> NO			
	DOES VALVE OPERATE FROM THE MANUAL TRIP, REMOTE, OR BOTH CONTROL STATIONS <input type="checkbox"/> YES <input type="checkbox"/> NO							
	IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING <input type="checkbox"/> YES <input type="checkbox"/> NO						IF NO, EXPLAIN	
	MAKE	MODEL	DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM?		DOES EACH CIRCUIT OPERATE VALVE RELEASE?		MAXIMUM TIME TO OPERATE RELEASE	
		YES	NO	YES	NO	MIN	SEC	
PRESSURE REDUCING VALVE TEST	LOCATION & FLOOR	MAKE & MODEL	SETTING	STATIC PRESSURE		RESIDUAL PRESSURE (FLOWING)		FLOW RATE
				INLET (PSI)	OUTLET (PSI)	INLET (PSI)	OUTLET (PSI)	FLOW (GPM)
TEST DESCRIPTION	<p><b>HYDROSTATIC:</b> Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for 2 hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for 2 hours. Differential dry-pipe valve clappers shall be left open during the test to prevent damage. All aboveground piping leakage shall be stopped.</p> <p><b>PNEUMATIC:</b> Establish 40 psi (2.7 bars) air pressure and measure drop, which shall not exceed 1½ psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1½ psi (0.1 bars) in 24 hours.</p>							
TESTS	ALL PIPING HYDROSTATICALLY TESTED AT ____ PSI (____ BARS) FOR ____ HRS						IF NO, STATE REASON	
	DRY PIPING PNEUMATICALLY TESTED <input type="checkbox"/> YES <input type="checkbox"/> NO							
	EQUIPMENT OPERATES PROPERLY <input type="checkbox"/> YES <input type="checkbox"/> NO							
	DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT ADDITIVES AND CORROSIVE CHEMICALS, SODIUM SILICATE OR DERIVATIVES OF SODIUM SILICATE, BRINE, OR OTHER CORROSIVE CHEMICALS WERE NOT USED FOR TESTING SYSTEMS OR STOPPING LEAKS? <input type="checkbox"/> YES <input type="checkbox"/> NO							
	DRAIN TEST	READING OF GAUGE LOCATED NEAR WATER SUPPLY TEST CONNECTION: ____ PSI (____ BARS)				RESIDUAL PRESSURE WITH VALVE IN TEST CONNECTION OPEN WIDE: ____ PSI (____ BARS)		
BLANK TESTING GASKETS	NUMBER USED		LOCATIONS				NUMBER REMOVED	
	WELDED PIPING <input type="checkbox"/> YES <input type="checkbox"/> NO							
	IF YES...							
WELDING	DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3?						<input type="checkbox"/> YES <input type="checkbox"/> NO	
	DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3?						<input type="checkbox"/> YES <input type="checkbox"/> NO	
	DO YOU CERTIFY THAT WELDING WAS CARRIED OUT IN COMPLIANCE WITH A DOCUMENTED QUALITY CONTROL PROCEDURE TO ENSURE THAT ALL DISCS ARE RETRIEVED, THAT OPENINGS IN PIPING ARE SMOOTH, THAT SLAG AND OTHER WELDING RESIDUE ARE REMOVED, AND THAT THE INTERNAL DIAMETERS OF PIPING ARE NOT PENETRATED?						<input type="checkbox"/> YES <input type="checkbox"/> NO	
CUTOUTS (DISCS)	DO YOU CERTIFY THAT YOU HAVE A CONTROL FEATURE TO ENSURE THAT ALL CUTOUTS (DISCS) ARE RETRIEVED?						<input type="checkbox"/> YES <input type="checkbox"/> NO	

HYDRAULIC DATA NAMEPLATE	NAMEPLATE PROVIDED <input type="checkbox"/> YES <input type="checkbox"/> NO	IF NO, EXPLAIN	
REMARKS	DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN		
SIGNATURES	NAME OF SPRINKLER CONTRACTOR		
	TESTS WITNESSED BY		
	FOR PROPERTY OWNER (SIGNED)	TITLE	DATE
	FOR SPRINKLER CONTRACTOR (SIGNED)	TITLE	DATE
ADDITIONAL EXPLANATION AND NOTES			

# **Appendix “B”**



GAGE-BABCOCK & ASSOCIATES LTD.

228 - 1195 WEST BROADWAY  
 VANCOUVER, BRITISH COLUMBIA  
 CANADA V6H 3X5  
 TEL: (604) 732-3751  
 FAX: (604) 732-1277  
 EMAIL: info@gbacan.com

PROJECT: PORT SIMPSON SCH  
 AREA: FIRE LINE - FLOATS  
 DATE FEB 20/2015

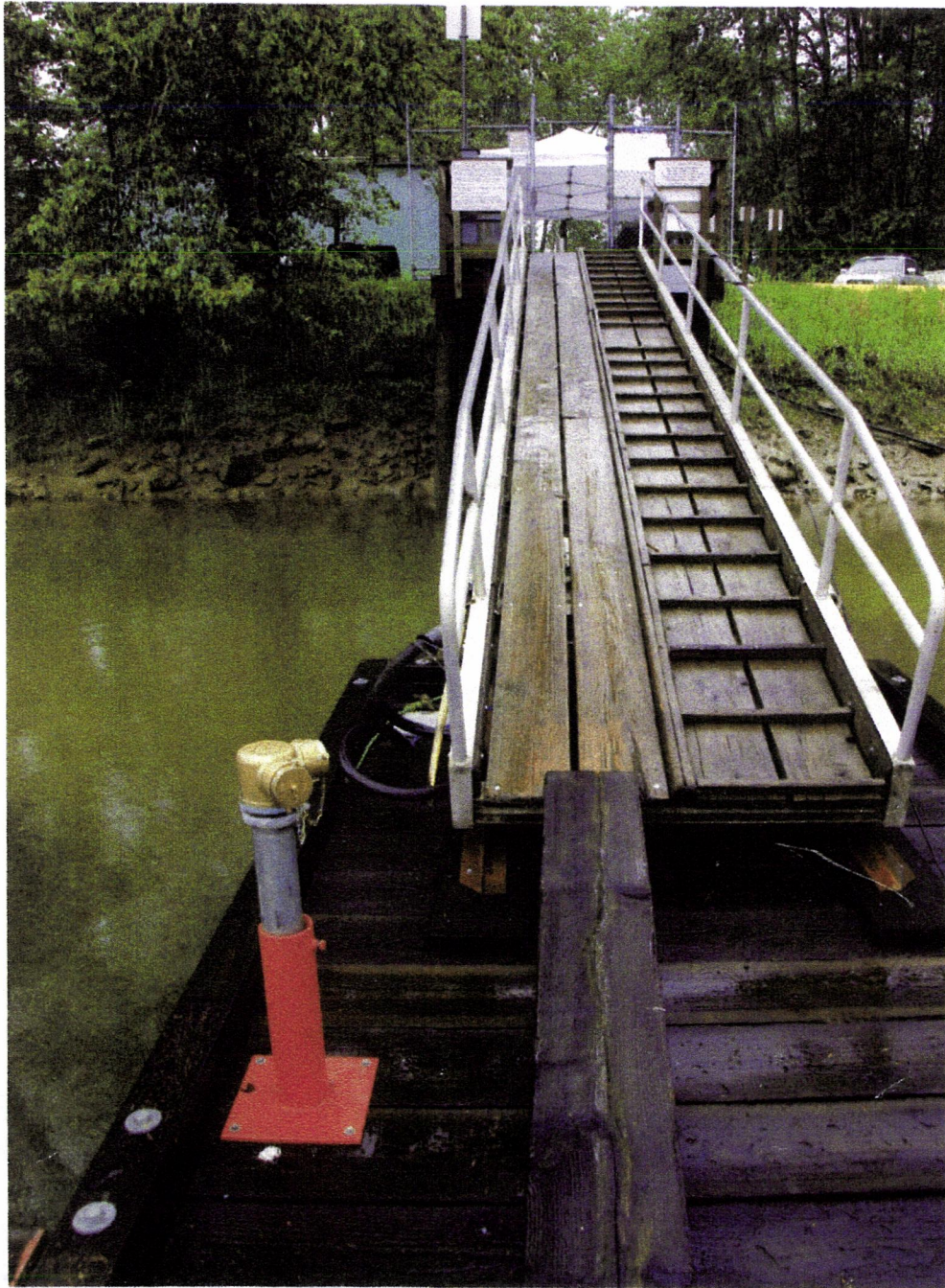
DRAWN: G.M.  
 REVIEWED: C.M.  
 APPROVED: G.M.



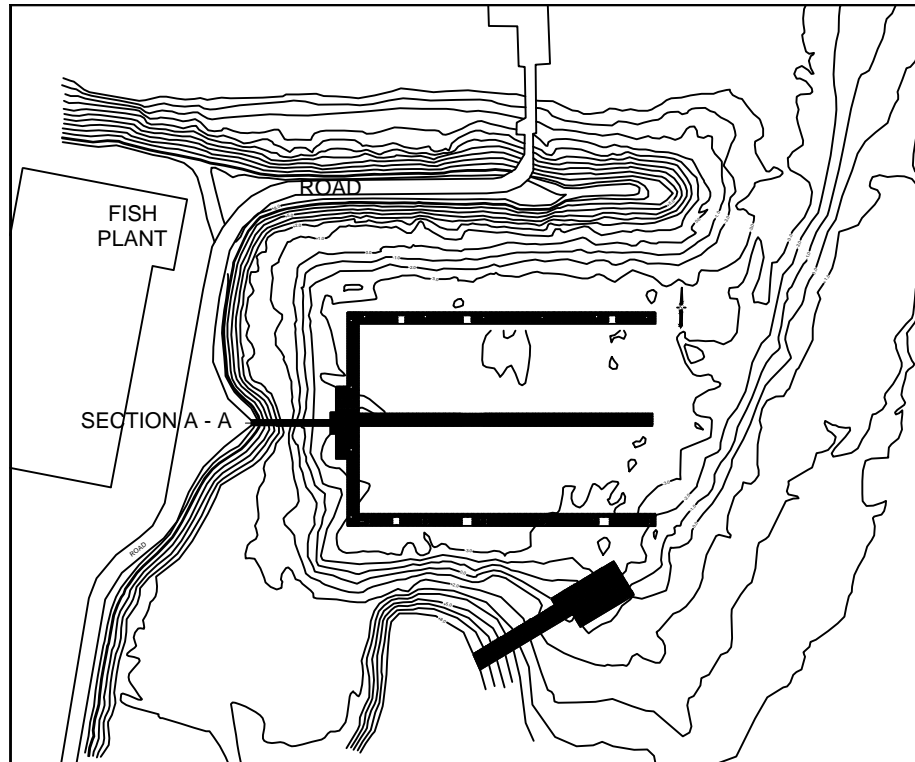
Item No.	Units	Description	Shipped	Back Ordered
1	1	4" x 2 1/2"x 2 1/2" Fire Dept Connection c/w Caps		
2	0	4" x 2 1/2"x 2 1/2"Hydrant c/w 2 - 2 1/2"Hose Valves c/w Caps		
3	10	2 1/2" Angle Hose Valve Fem NPT x male HT c/w & Caps		
4	6	1" Brass Ball Valve fem NPT		
5	0	3"Brass Ball Valve NPT		
6				
7	0 ft	4" galv. Sch 40 Pipe		
8	20 ft	3" galv. Sch 40 Pipe		
9	80 ft	2 1/2" galv Sch 40 Pipe		
10	20ft	1" Galv Sch 40 Pipe		
11	0	4" Sclair Pipe D-9		
12	1100ft	3"Sclair Pipe D - 9		
13	0	4"x 3"Sclair Reducer fuse conn.		
14	12	3"Sclair Tee fuse conn.		
15	13	3"Sclair Elbow 90 deg fuse conn.		
16	0	4"Sclair Elbow 90 deg fuse conn.		
17	16	3" Sclair Coupling, Victaulic Style # 995, galv.		
18	15	3" Sclair x groove Coupling Victaulic Style # 997, galv		
19	6	3"x 1" NPT galv Sclair Outlet Coupling		
20	0	4" Sclair Tee fuse conn		
21	0	4"Sclair Coupling, Victaulic Style # 995		

Item No.	Units	Description	Shipped	Back Ordered
22	0	4"galv grooved Coupling flexible		
23	3	3"galv grooved Coupling flexible		
24	0	2 ½" galv grooved Coupling flexible		
25				
26	0	4" x 2 1/2" galv grooved Reducing Coupling		
27	11	3" x 2 1/2" galv grooved Reducing Coupling		
28				
29	0	4"galv grooved Elbow 90deg		
30	11	3"galv grooved Elbow 90 deg		
31	0	2 ½" galv grooved Elbow 90 deg		
32				
33	0	4" galv grooved Tee		
34	1	3" galv grooved Tee		
35				
36	0	4" galv grooved Cap		
37	5	3" galv grooved Cap		
38	0	3"x 2 1/2"galv grooved Reducer		
39	0	3" x 1" galv grooved Outlet Coupling		
40	0	4" x 1"galv grooved Outlet Coupling		
41	1	4"NPT x 3"NPT galv Hex Bushing		
42				
43	0	3"Sclair Flange Stub End		
44				

45	120 ft	Galv Tolco Tolstrut #B12		
46	40	4" galv Tolco Tolstrut Pipe Clamp		
47	0	2 ½" galv Tolco Tolstrut Pipe Clamp		
48	40	4" galv 2 Hole Pipe Clamp		
49	0	2 ½" galv 2 Hole Pipe Clamp		
50	60 ft	3/8" galv Hanger Rod		
51	12	Galv Side Beam Bracket 3/8" rod		
52	12	4" galv HD Hanger Ring		
53				
54	60	3/8" x 6" galv Coach Screw		
55	10	3/8" galv Rod Coupling		
56	100	3/8" galv Hex Nut		
57	60	3/8" x 2 ½" galv Lag Bolt		
58	0	3/8" x 1 ½" galv. Hex Bolt		
59	0	1" galv straight Sway Brace Fitting		
60	20	4" galv standard Pipe Clamp		
61	0	2 ½" galv standard pipe Clamp		
62				
63	1	4" galv. Riser Support, see attached picture		
64	9	2 1/2"galv. Riser Support, see attached picture		
65	0	Cellar Nozzle Retainers		
66	0	Deck Hatches		
67	6	Drain & Control Valve Access Hatches		
68	bulk	Denso Tape		

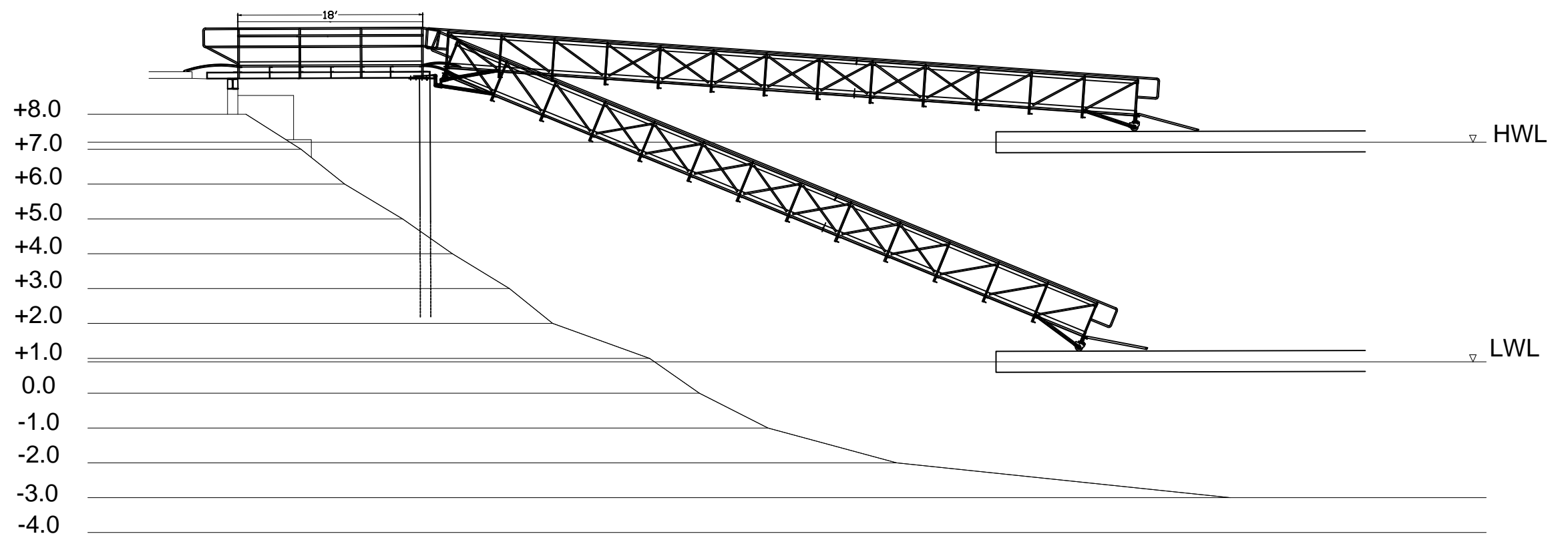


TYP. STANDPIPE SUPPORTS



**Notes:**

1. Not to scale.
2. Dimension in meters.
3. High water level = 7.2m
4. Low water level = -0.2m



SECTION A - A  
ELEVATION

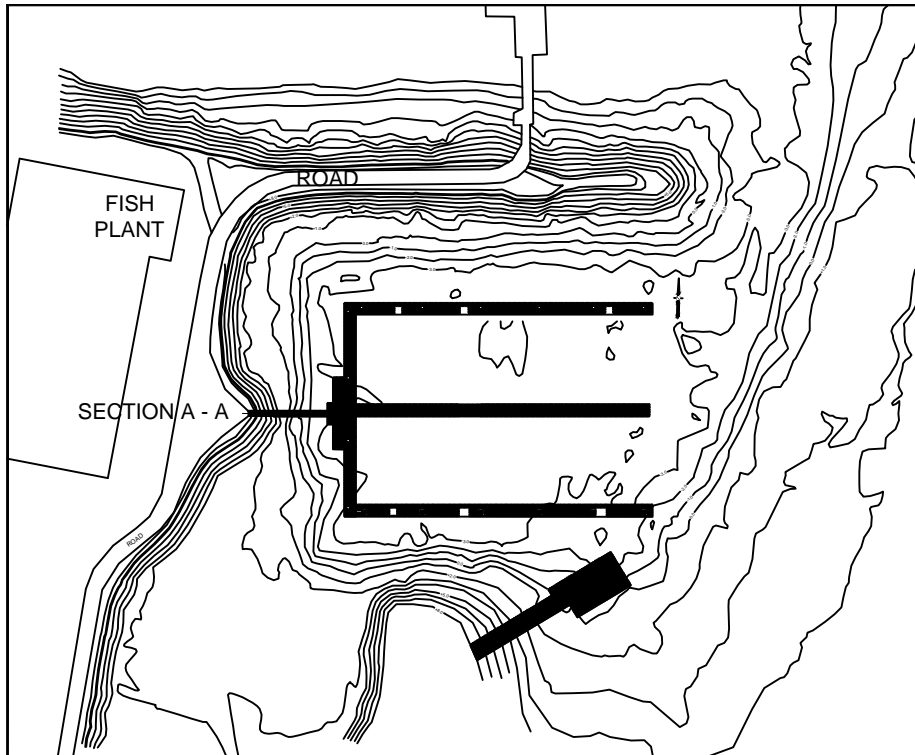
Ref. No.	REFERENCE



Fisheries and Oceans / Pêches et Océans  
Small Craft Harbours Branch

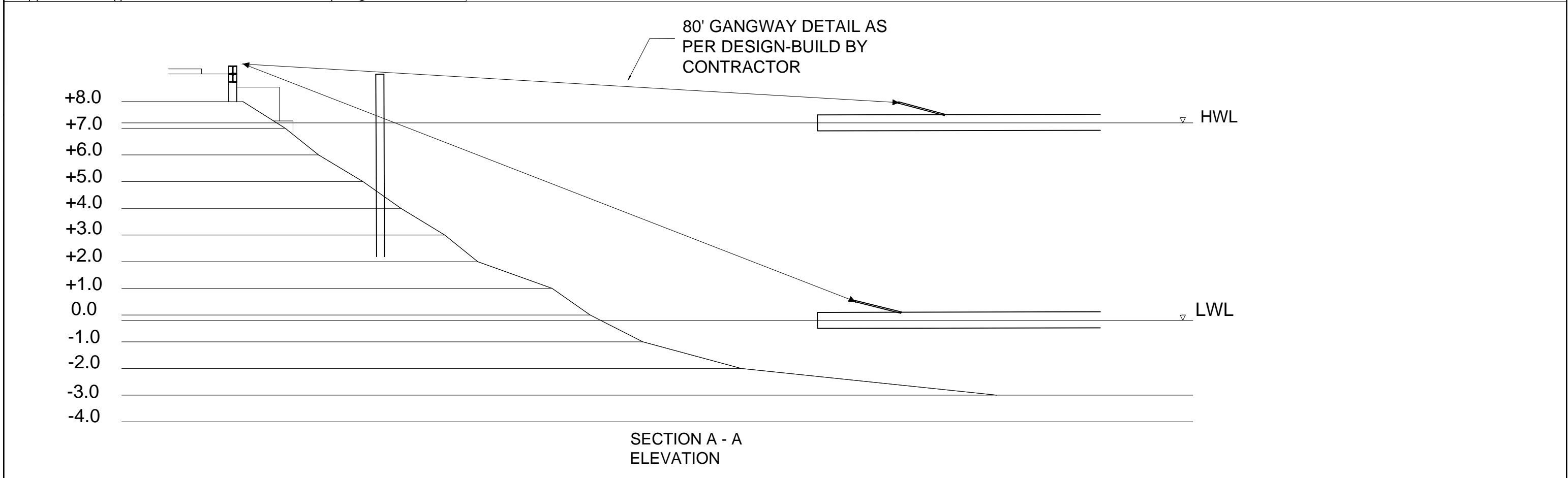
Checked by	AC
Drawn by	KG
Date	09-FEB-17
Scale	NTS
Inspectors	N/A
Paper	11 x 17

PROJECT	
GANGWAY EXISTING CONFIGURATION PORT SIMPSON SMALL CRAFT HARBOUR PORT SIMPSON, B.C.	
DWG. No.	PS -D- 1.1



1	Remove existing 65' ramp and ship to PE
2	Fabricate new 80' ramp and transitions
3	Remove two (2) existing 12" steel piles
4	Weld on new W12x12x79 beam
5	Install new 80' ramp and transitions

- Notes:
1. Not to scale.
  2. Dimension in meters.
  3. High water level = 7.2m
  4. Low water level = -0.2m



Ref. No.	REFERENCE		Checked by	AC	PROJECT
			Drawn by	KG	
			Date	09-FEB-17	
			Scale	NTS	
			Inspectors	N/A	
			Paper	11 x 17	
					DWG. No. PS -D- 2.0