



SMALL CRAFT HARBOURS

RUSHBROOK HARBOUR ANCHOR INSTALL

DRAWING LIST					
DRAWING NO.	DRAWING TITLE	REVISION			
		A	B	C	D
RB-BW-000	DRAWING LIST				
RB-BW-001	GENERAL ARRANGEMENT				
RB-BW-002	MOORING ANCHOR LAYOUT				
RB-BW-003	BRIDGE LINES				
RB-BW-004	FLOAT B SECTION				
RB-BW-005	FLOAT C SECTION				
RB-BW-006	FLOAT D SECTION				
RB-BW-007	FLOAT E SECTION				
RB-BW-008	FLOAT F SECTION				
RB-BW-009	FLOAT G SECTION				
RB-BW-010	FLOAT H SECTION				
RB-BW-011	EXISTING MOORING SYSTEM				
RB-BW-012	ALL SECTIONS				
RB-BW-013	10 T ANCHOR				
RB-BW-014	5 T ANCHOR				
RB-BW-015	WOOD BILLET				
RB-BW-016	FLOAT CROSS SECTION				
RB-BW-017	KELLET				

Revision/Revision	Description/Description	Date/Date

**Fisheries & Oceans Canada
Small Craft Harbours Branch
Pacific Division**

200 - 401 Burrard Street
Vancouver, Canada, V6C 3S4

**RUSHBROOK HARBOUR
ANCHOR INSTALLATION**

Approved by/Approve par
A.C.

Designed by/Concept par
S.L.

Drawn by/Dessine par
S.L.

PWGSC Project Manager/Administrateur de Projets TPSGC

PWGSC, Architectural and Engineering Resources Manager/
Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client

DRAWING LIST

Project No./No. du projet RB-BW	Sheet/Fauille 000 OF	Revision no./ La Révision no.
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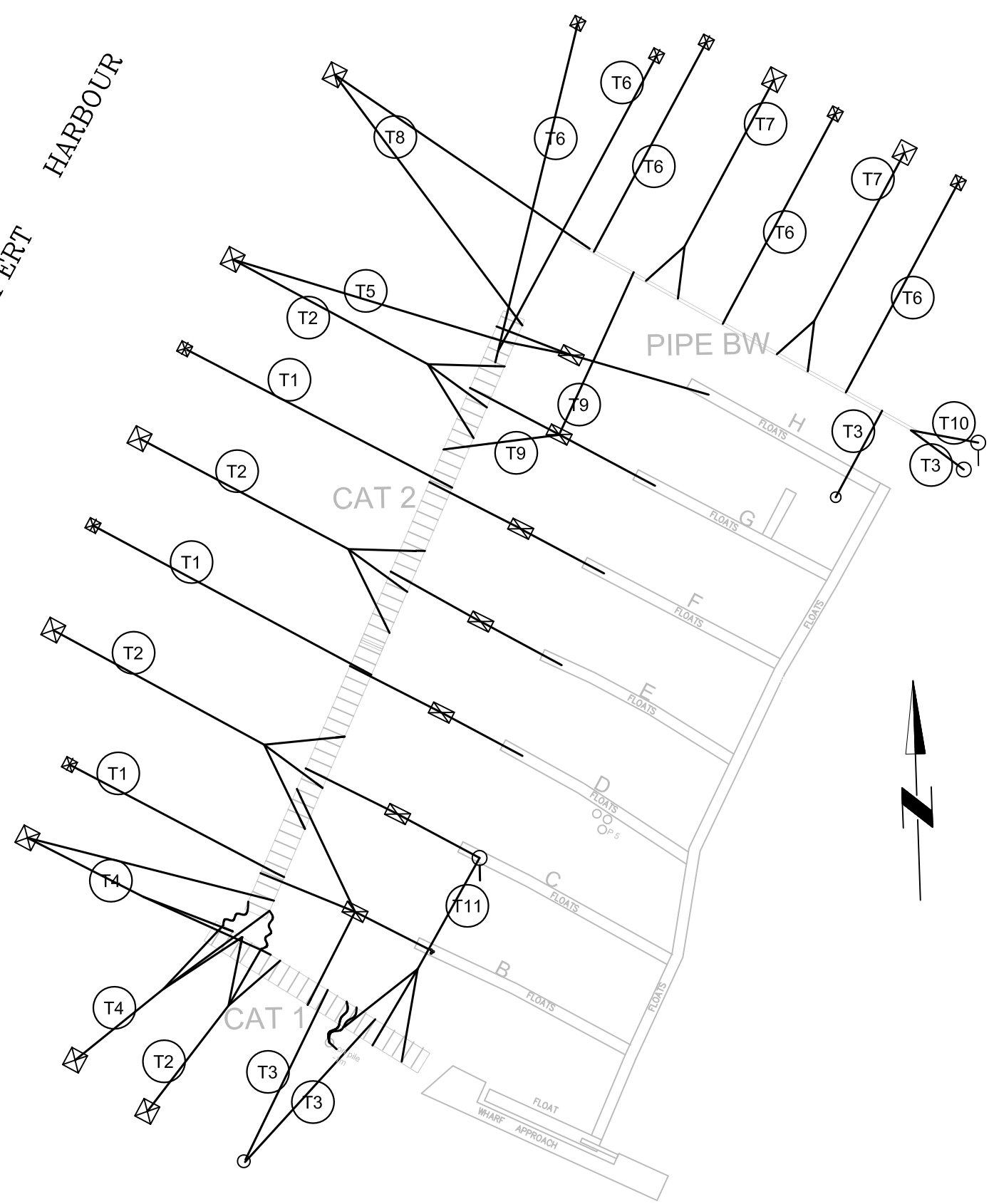


Not Shown: Recovery Lines ,Bridge Lines Bridge ,1/2 Lock Block

DRAWING NOTES:

- Mooring system plan lengths and shall not be used for construction. Mooring line lengths and positioning to be provided by the Engineer or prior to construction.
- Bridge Lines (Kellet diagonal to Float) not shown
- Lines near other lines must be installed in the order specified by the Engineer on site. The direct lines from the kellet to the float are tightened after bridge lines are installed and tensioned.
- 5 and 10 T Anchors require approx. 5m of chain to pass through the anchor hole and wrap around the block. See dwg 12 for details on 10T anchor. 5 T anchors to be the same concept (steel same dia but shorter lengths to suit and outside dimensions of 4ftx4ftx4ft).
- Mooring lines attached to the breakwater or floats require 2m excess chain from tensioning adjustment.

PRINCE RUPERT HARBOUR



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**Fisheries & Oceans Canada
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 Pacific Division**
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 Vancouver, Canada, V6C 3S4

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Drawing title/Titre du dessin
GENERAL ARRANGEMENT

Project No./No. du projet RB-BW	Sheet/Fauille 001 OF	Revision no./La Révision no.
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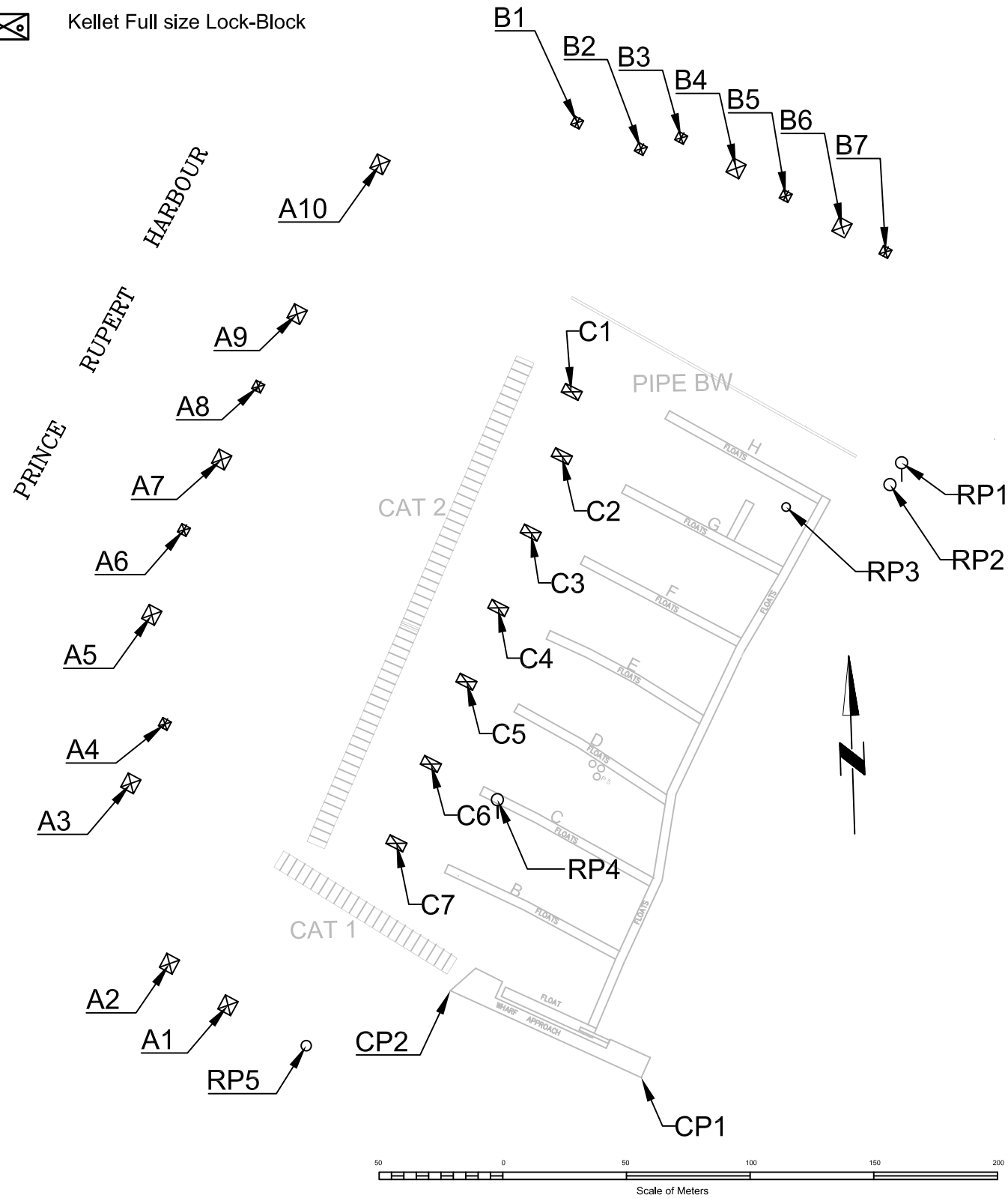


LEGEND

- Existing Rock Pin
- New 2" dia Rock Pin
- ⊗ 10T Anchors
- ⊗ 5T Anchors
- ⊗ Kellet Full size Lock-Block

NOTE: ANCHORS TO BE PLACED WITHIN +/- 5.0M OF SPECIFIED LOCATIONS. ANCHORS FOUND TO BE OUT OF POSITION ARE TO BE REPOSITIONED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

NOTE: ANCHORS SHALL NOT BE DROPPED.



CONTROL POINTS - UTM				
POINT #	NORTHING	EASTING	ELEV.	RAW DESCRIPTION
CP1	6020335	415075	9	
CP2	6020373	414999	9	

ANCHOR LOCATION - UTM				
POINT #	NORTHING	EASTING	APPROX. DEPTH	RAW DESCRIPTION
A1	6020370	414909	6	10 T
A2	6020388	414886	16	10 T
A3	6020461	414873	46	10 T
A4	6020485	414888	50	5 T
A5	6020529	414884	65	10 T
A6	6020563	414898	77	5 T
A7	6020591	414914	82	10 T
A8	6020620	414930	84	5 T
A9	6020649	414947	81	10 T
A10	6020708	414982	83	10 T
B1	6020722	415063	81	5 T
B2	6020711	415088	80	5 T
B3	6020715	415104	78	5 T
B4	6020701	415126	76	10 T
B5	6020690	415146	74	5 T
B6	6020676	415168	71	10 T
B7	6020666	415185	70	5 T
C1	6020613	415057	74	KELLET
C2	6020588	415052	64	KELLET
C3	6020557	415038	53	KELLET
C4	6020527	415024	47	KELLET
C5	6020498	415010	49	KELLET
C6	6020465	414995	38	KELLET
C7	6020433	414980	25	KELLET

ROCK PIN LOCATION - UTM				
POINT #	NORTHING	EASTING	APPROX. DEPTH	RAW DESCRIPTION
RP1	6020580	415189	14	NEW
RP2	6020572	415184	4	EXISTING
RP3	6020564	415142	27	EXISTING
RP4	6020450	415020	4	NEW
RP5	6020353	414941	1	EXISTING

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MOORING ANCHOR LAYOUT

Project No./No. du projet Sheet/Fauille Revision no./
La Révision no.

RB-BW 002
OF

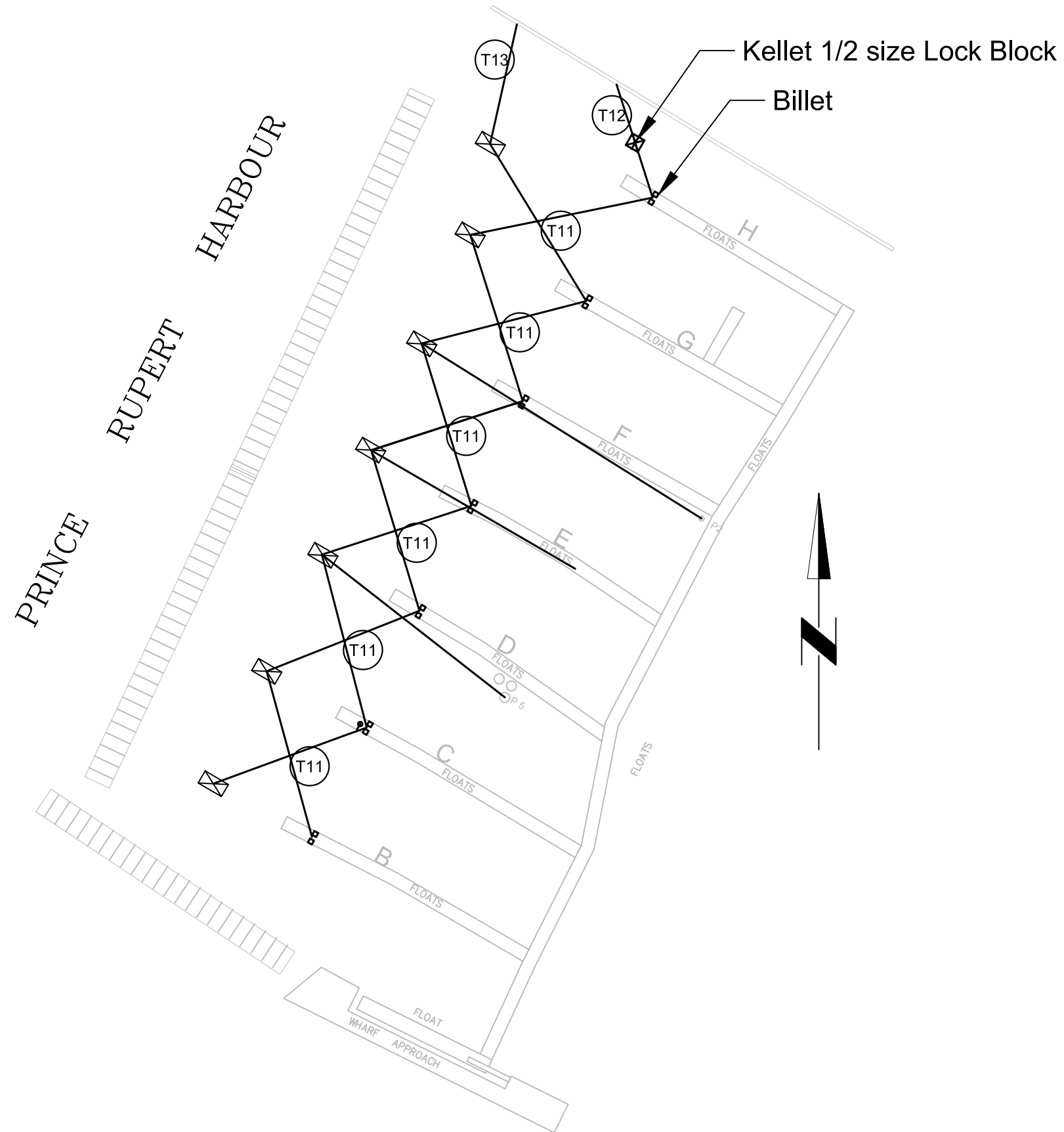


LEGEND

-  Kellet Full size Lock-Block
-  Kellet 1/2 size Lock-Block
-  Billet

DRAWING NOTES:

- Mooring system plan lengths shall not be used for construction. Mooring line lengths and positioning to be provided by the Engineer or prior to construction.
- Main Mooring Lines not shown
- 5 and 10 T Anchors require approx. 5m of chain to pass through the anchor hole and wrap around the block.
- Mooring lines attached to the breakwater and floats require 2m excess chain or rope for tensioning adjustment.



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Drawing title/Titre du dessin
BRIDGE LINES

Project No./No. du projet RB-BW	Sheet/Fauille 003 OF	Revision no./La Révision no.
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DRAWING NOTES:

- Connect lines that are heading to sea at the breakwater with 5 m of 32mm chain and shackles
- 38 mm Shackles required at lock blocks and anchors
- 32 mm chain is looped through both holes in lock block and brought together with one 38mm shackle

T1 Breakwater Side

Tensioning Chain 32 mm

Recovery Line 22 mm Rope

Mainline 32 mm Rope

5 T Anchor

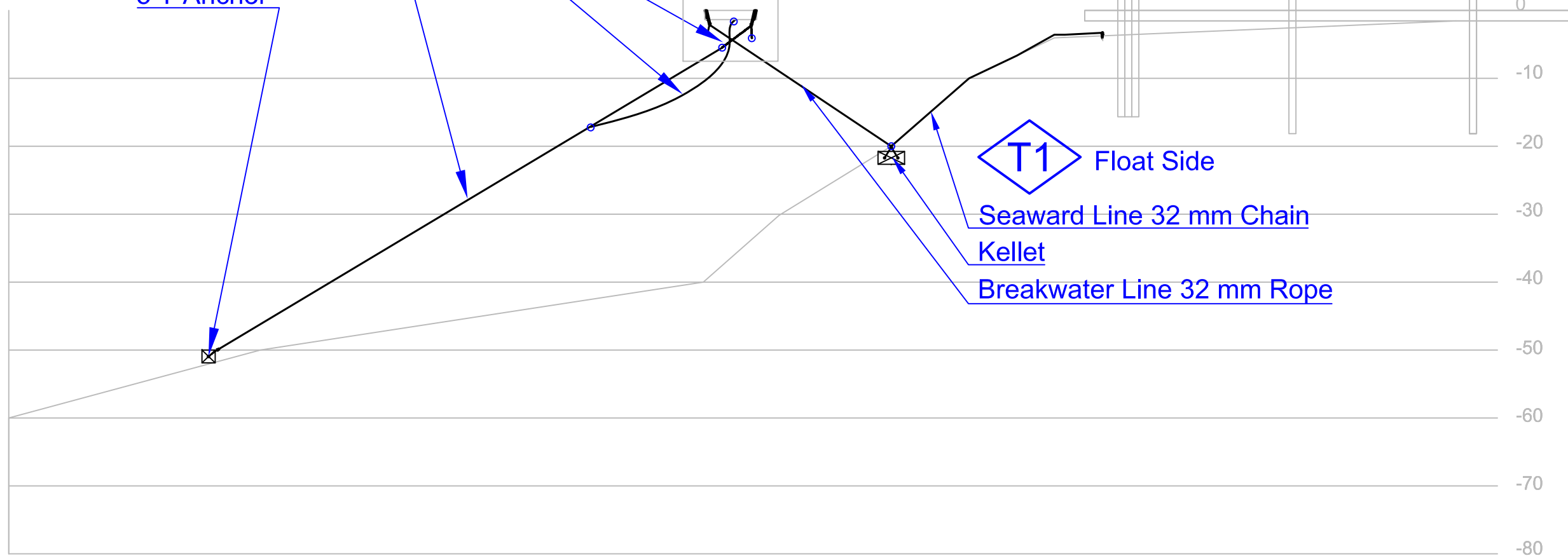
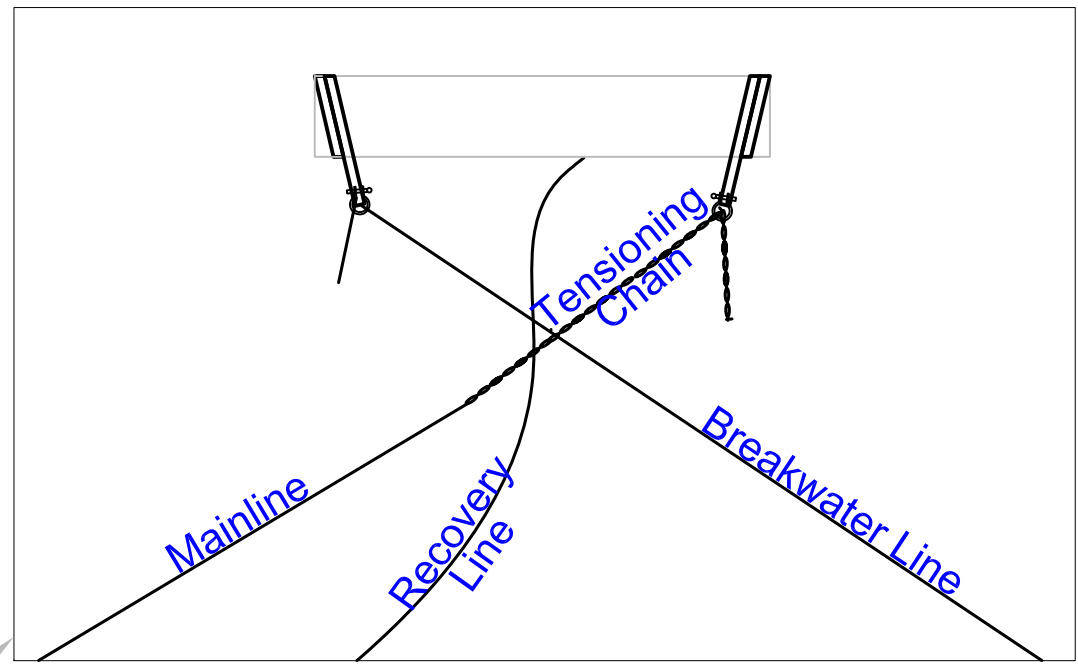
Section
Float B

T1 Float Side

Seaward Line 32 mm Chain

Kellet

Breakwater Line 32 mm Rope



TYPE T1

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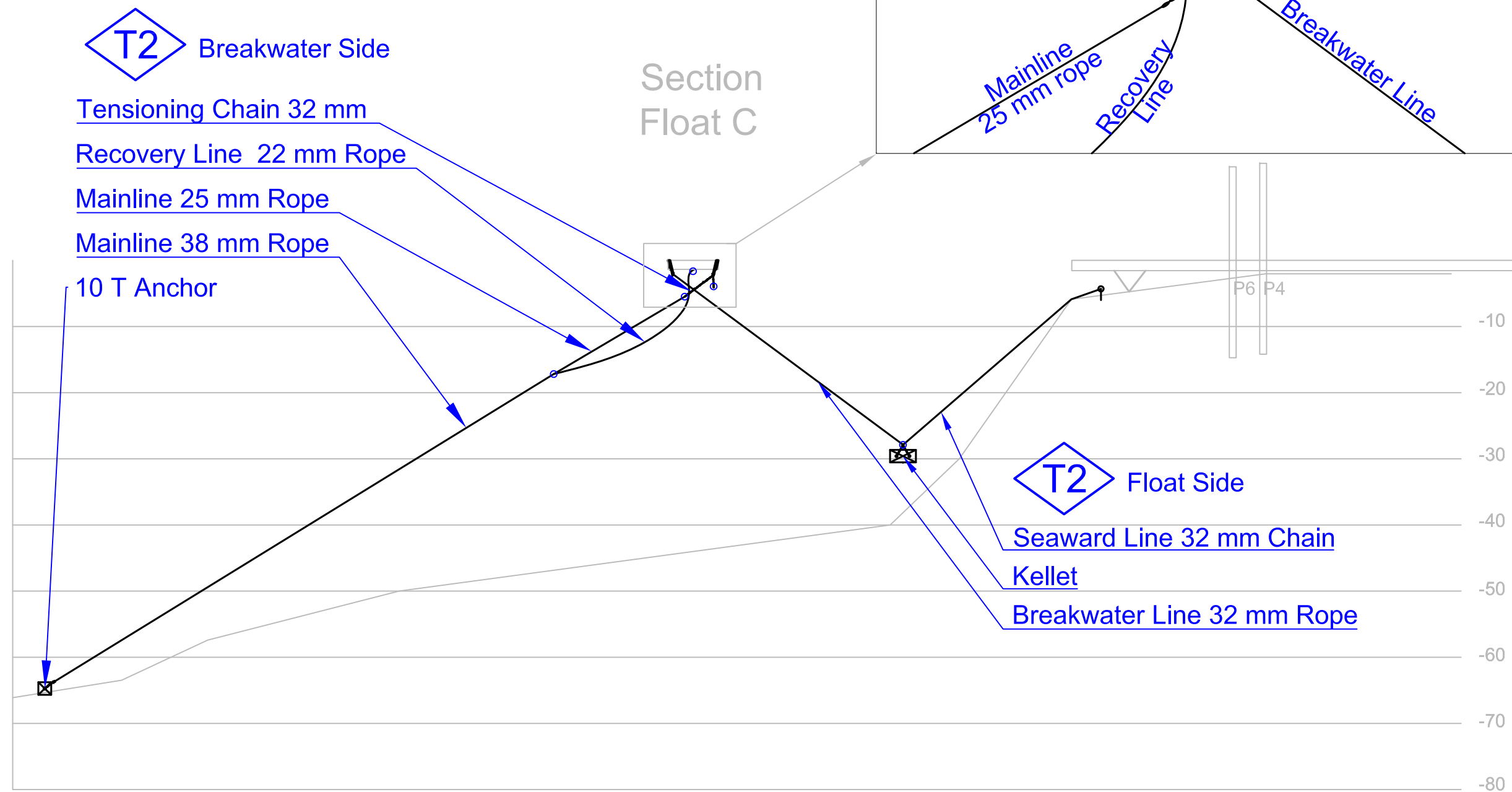
Drawing title/Titre du dessin
FLOAT B

Project No./No. du projet RB-BW	Sheet/Fauille 004 OF	Revision no./La Révision no.
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DRAWING NOTES:

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- 38 mm Shackles required at lock blocks and anchors
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TYPE T2

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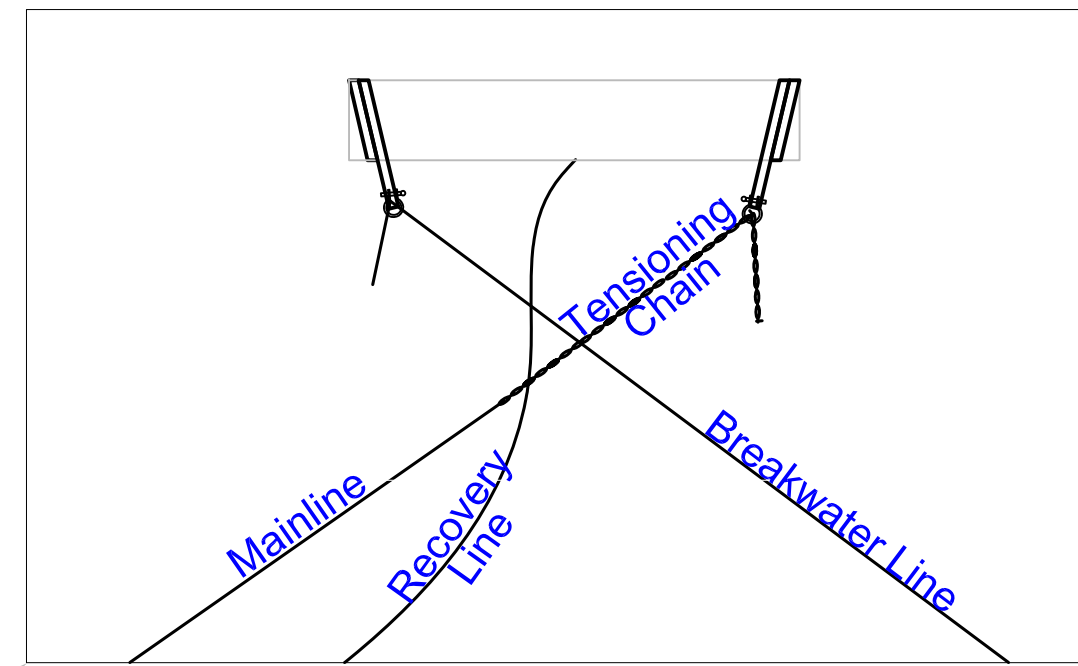
Drawing title/Titre du dessin
FLOAT C

Project No./No. du projet RB-BW	Sheet/Fauille 005 OF 005	Revision no./ La Révision no.
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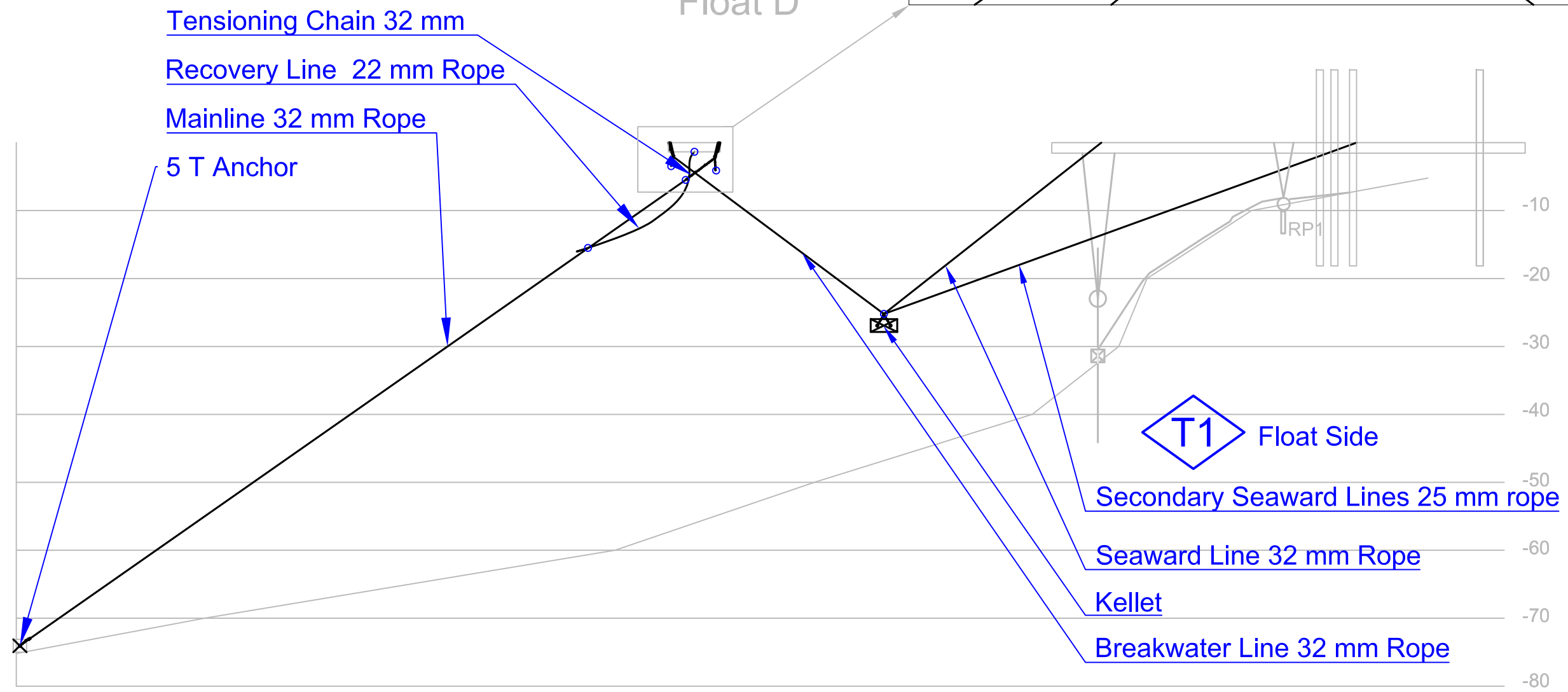
DRAWING NOTES:

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T1 Breakwater Side

Section Float D



TYPE T1

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RUSHBOOKE HARBOUR
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Drawing title/Titre du dessin

FLOAT D

Project No./No. du projet RB-BW	Sheet/Fauille 006 OF 005	Revision no./La Révision no.
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DRAWING NOTES:

- Connect lines that are heading to sea at the breakwater with 5 m of 32mm chain and shackles
- 38 mm Shackles required at lock blocks and anchors
- 32 mm chain is looped through both holes in lock block and brought together with one 38mm shackle

T2 Breakwater Side

Tensioning Chain 32 mm

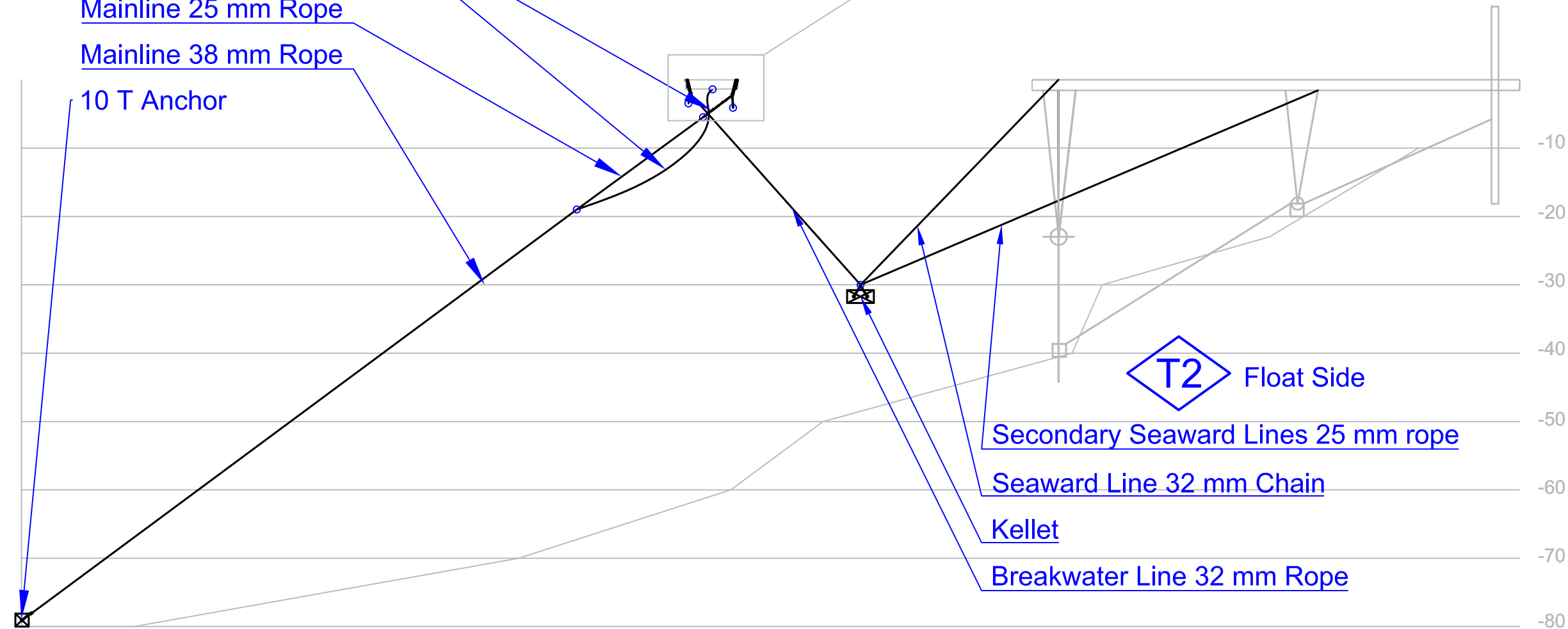
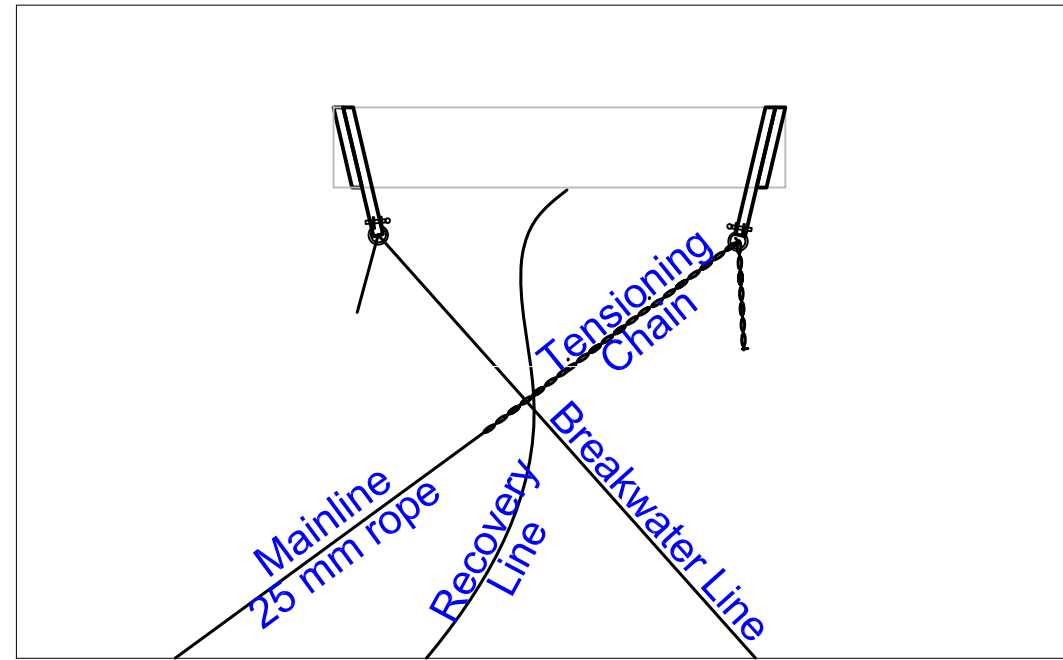
Recovery Line 22 mm Rope

Mainline 25 mm Rope

Mainline 38 mm Rope

10 T Anchor

Section
Float E



T2 Float Side

Secondary Seaward Lines 25 mm rope

Seaward Line 32 mm Chain

Kellet

Breakwater Line 32 mm Rope

TYPE T2

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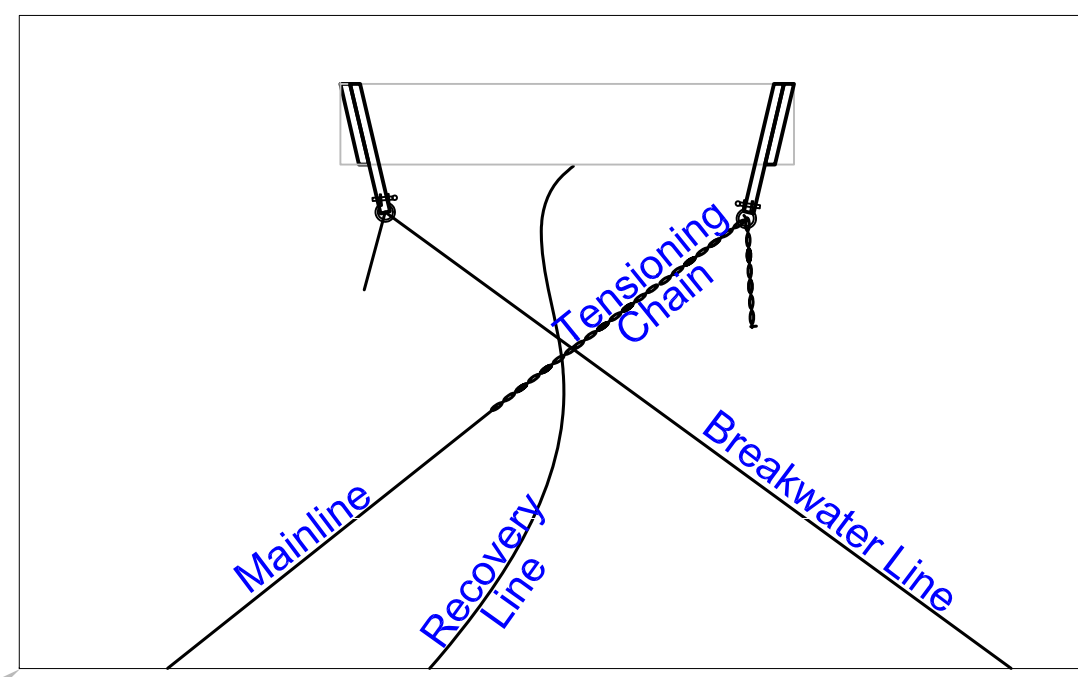
Drawing title/Titre du dessin
FLOAT E

Project No./No. du projet RB-BW	Sheet/Fauille 007 OF 005	Revision no./ La Révision no.
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DRAWING NOTES:

- Connect lines that are heading to sea at the breakwater with 5 m of 32mm chain and shackles
- 38 mm Shackles required at lock blocks and anchors
- 32 mm chain is looped through both holes in lock block and brought together with one 38mm shackle

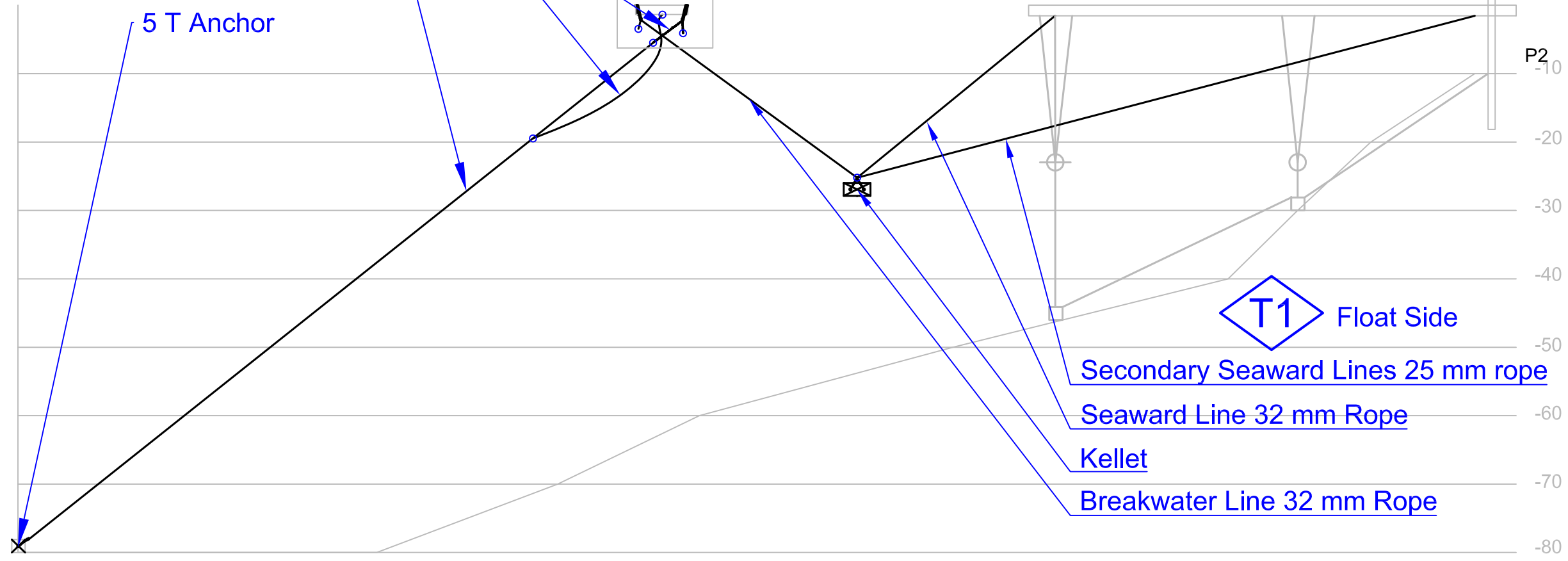


T1 Breakwater Side

- Tensioning Chain 32 mm
- Recovery Line 22 mm Rope
- Mainline 32 mm Rope

Section Float F

5 T Anchor



T1 Float Side

- Secondary Seaward Lines 25 mm rope
- Seaward Line 32 mm Rope
- Kellet
- Breakwater Line 32 mm Rope

TYPE T1

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 Vancouver, Canada, V6C 3S4

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RUSHBOOKE HARBOUR
ANCHOR INSTALLATION

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FLOAT F

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- Connect lines that are heading to sea at the breakwater with 5 m of 32mm chain and shackles
- 38 mm Shackles required at lock blocks and anchors
- 32 mm chain is looped through both holes in lock block and brought together with one 38mm shackle

T2 Breakwater Side

Tensioning Chain 32 mm

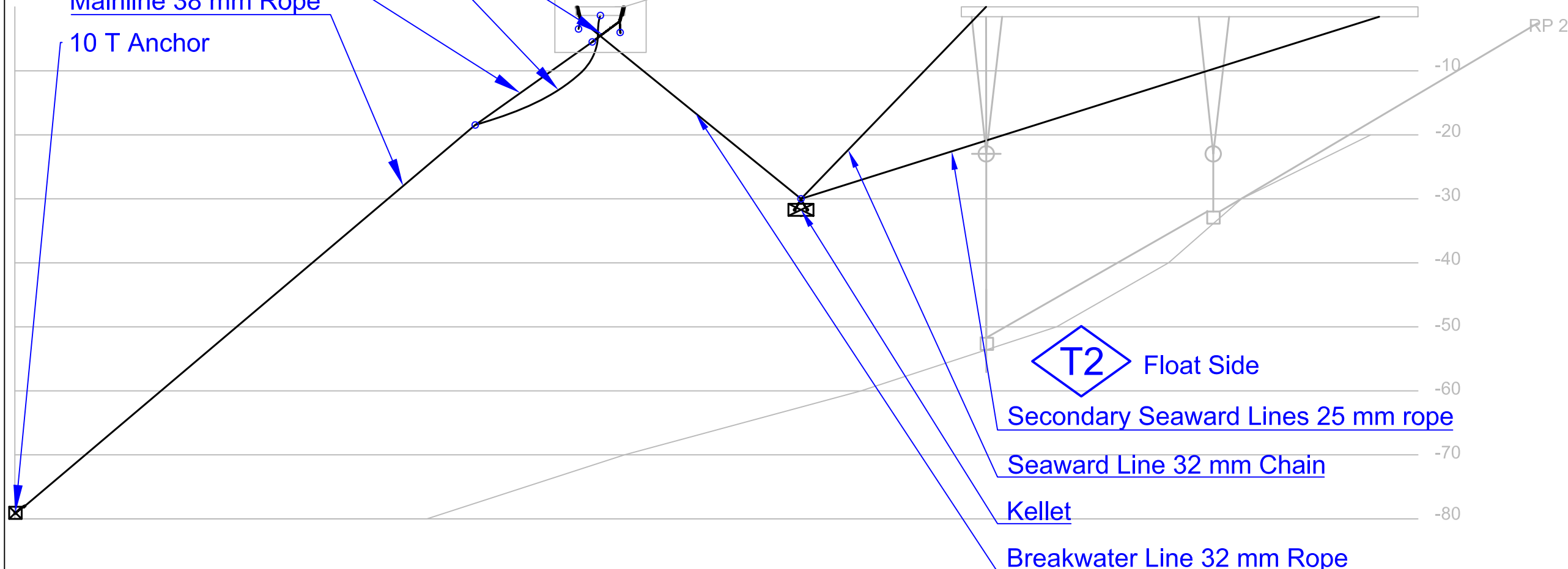
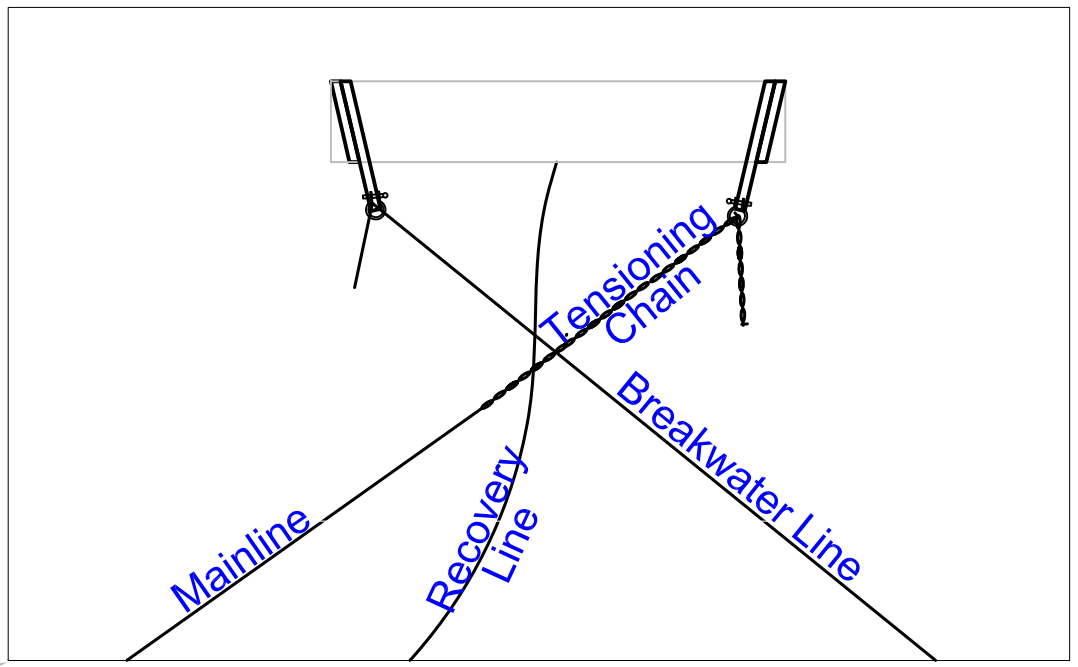
Recovery Line 22 mm Rope

Mainline 25 mm Rope

Mainline 38 mm Rope

10 T Anchor

Section
Float G



TYPE T2

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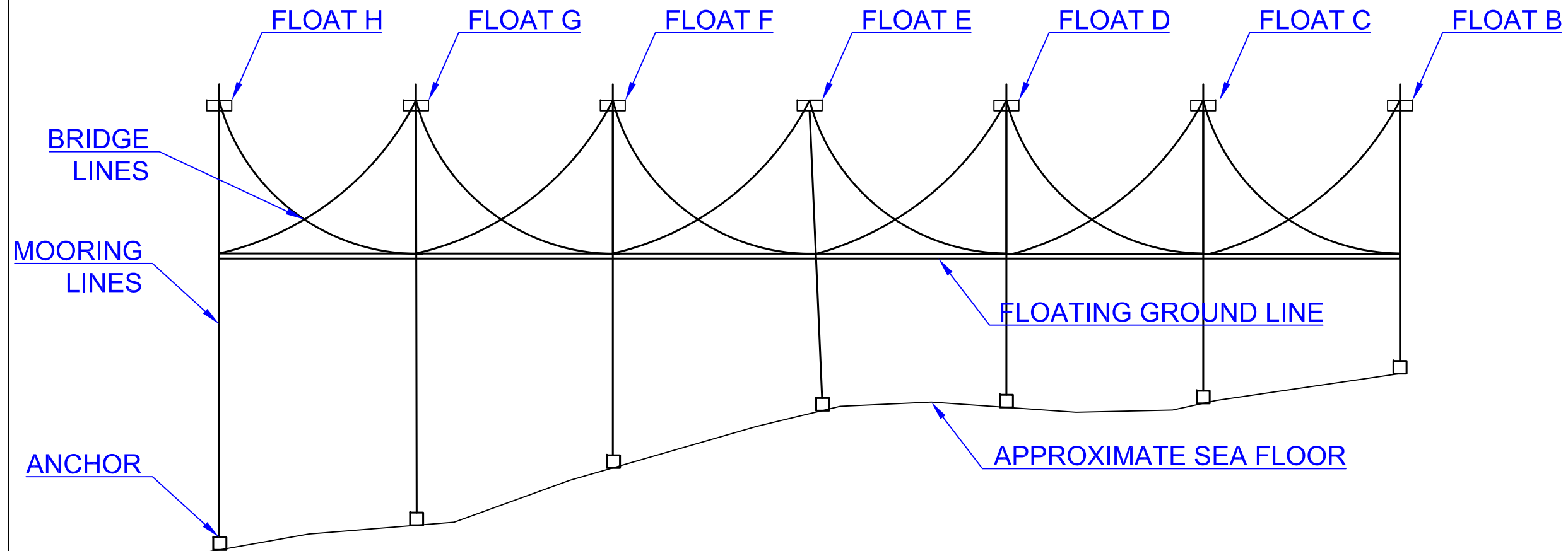
Client/client

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FLOAT G

Project No./No. du projet RB-BW	Sheet/Fauille 009 OF 005	Revision no./La Révision no.
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EXISTING MOORING SYSTEM TYPICAL DETAIL



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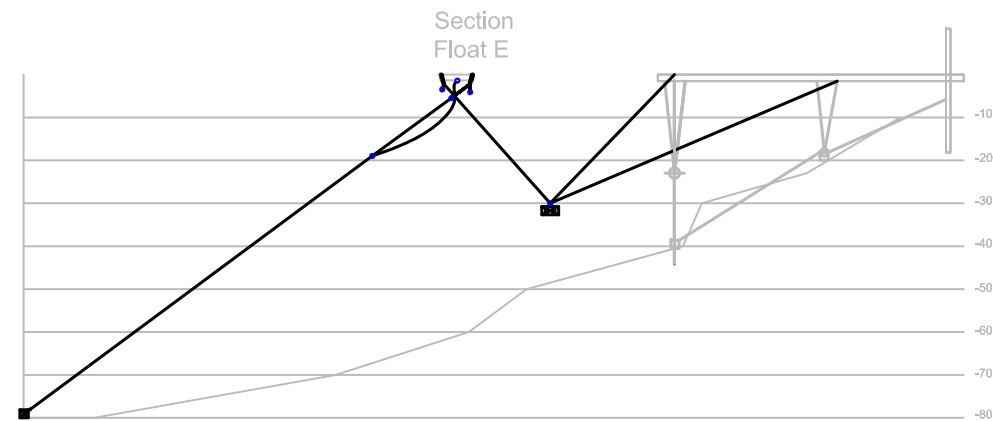
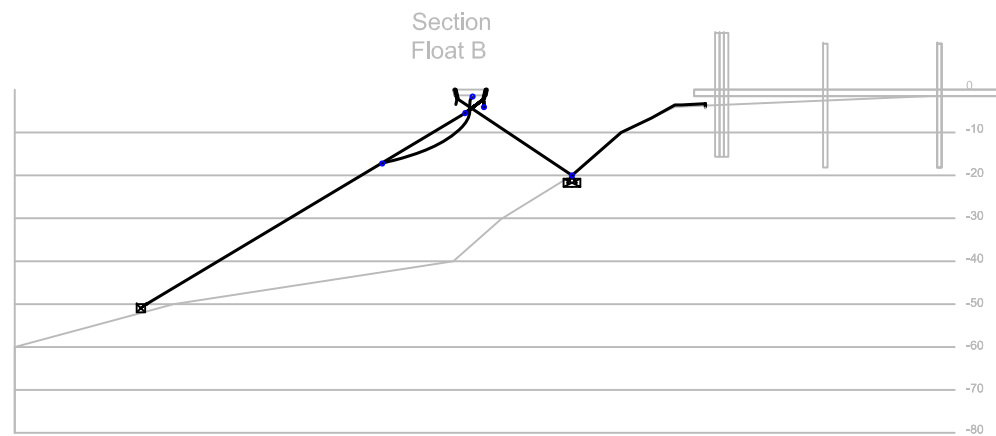
PWGSC, Architectural and Engineering Resources Manager/
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**EXISTING MOORING SYSTEM
 TYPICAL DETAIL**

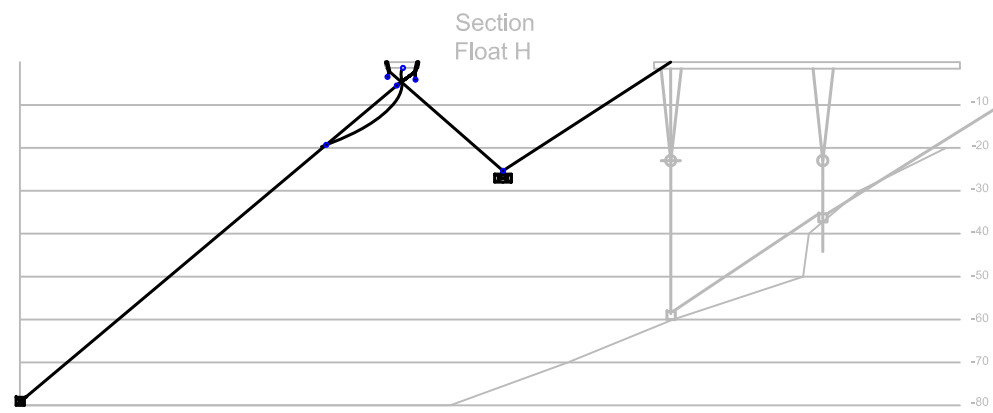
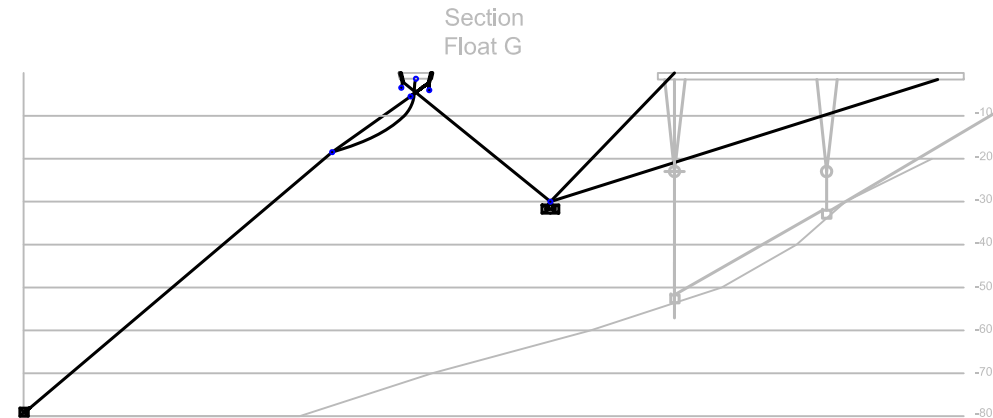
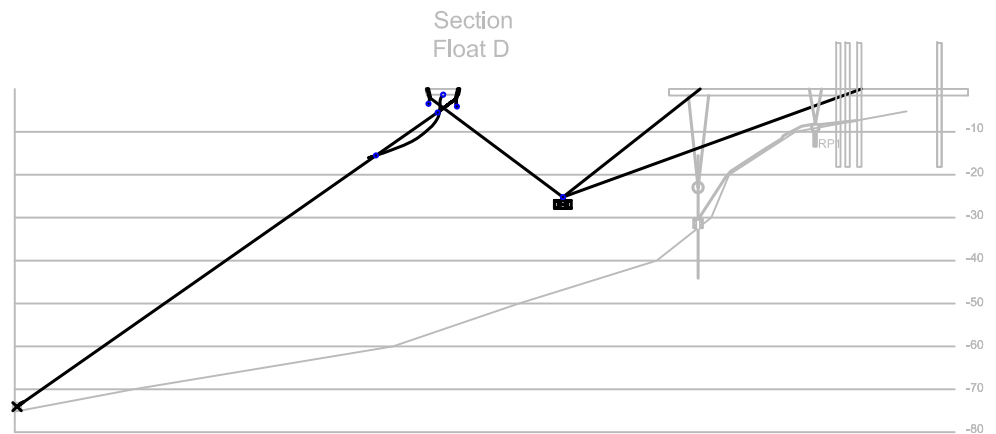
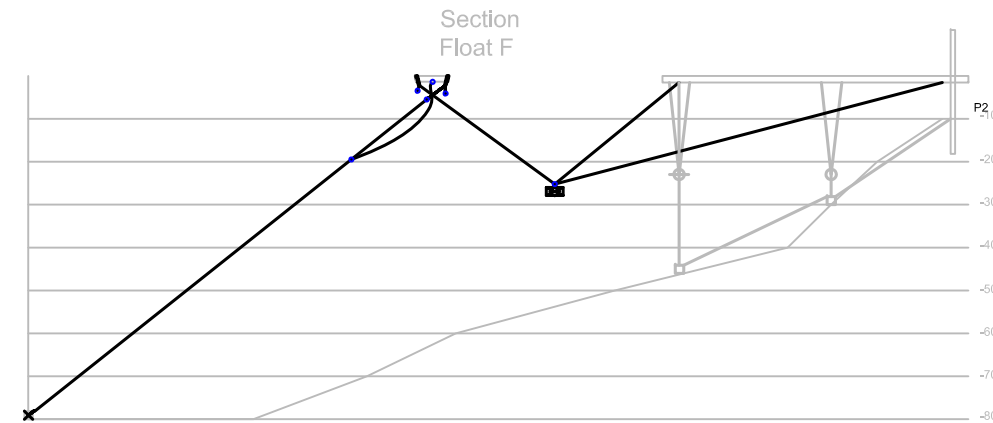
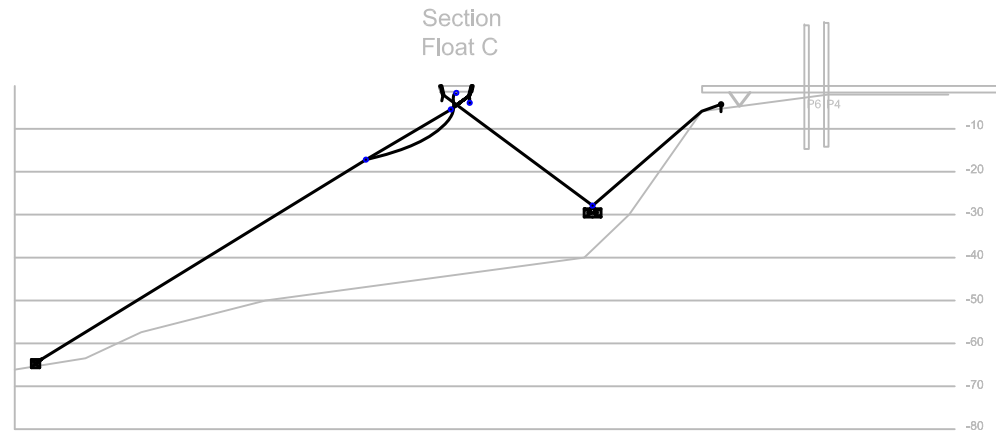
Project No./No. du projet RB-BW	Sheet/Fauille 011 OF 005	Revision no./ La Révision no.
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DRAWING NOTES:

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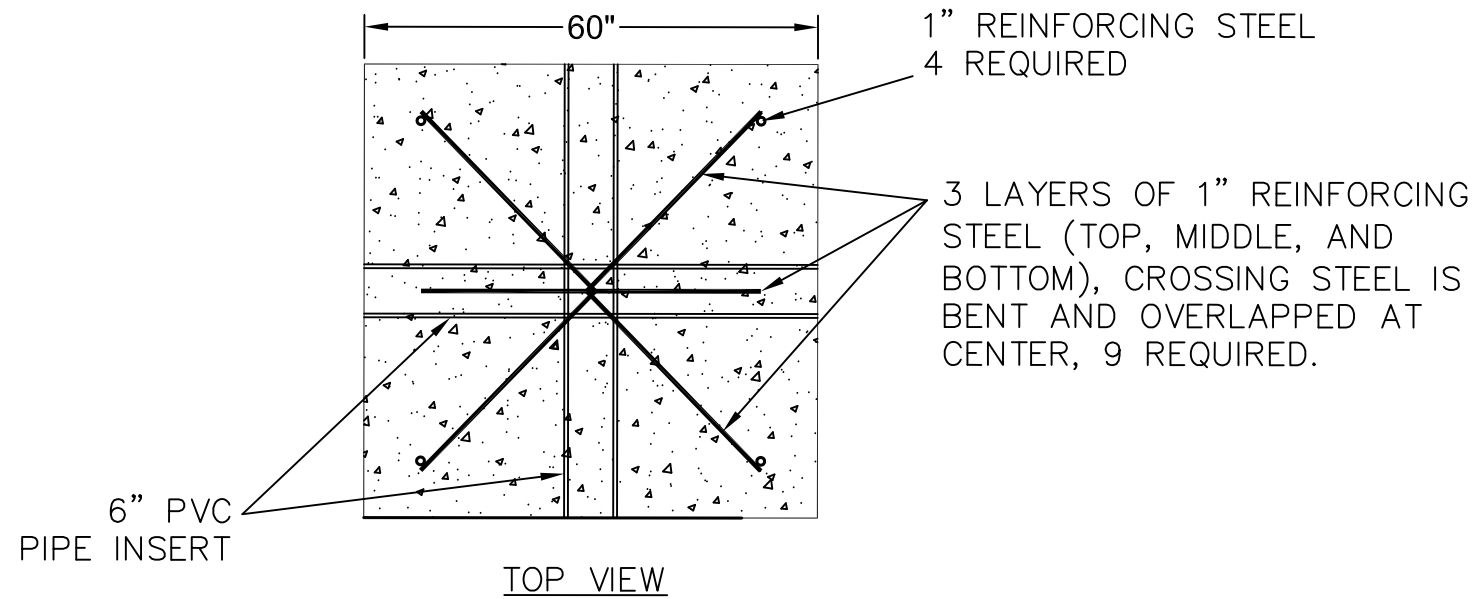
PWGSC, Architectural and Engineering Resources Manager/Ressources Architectural et de Directeur d'ingénierie, TPSGC

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Drawing title/Titre du dessin
ALL SECTIONS

Project No./No. du projet RB-BW	Sheet/Fauille 012 OF 005	Revision no./La Révision no.
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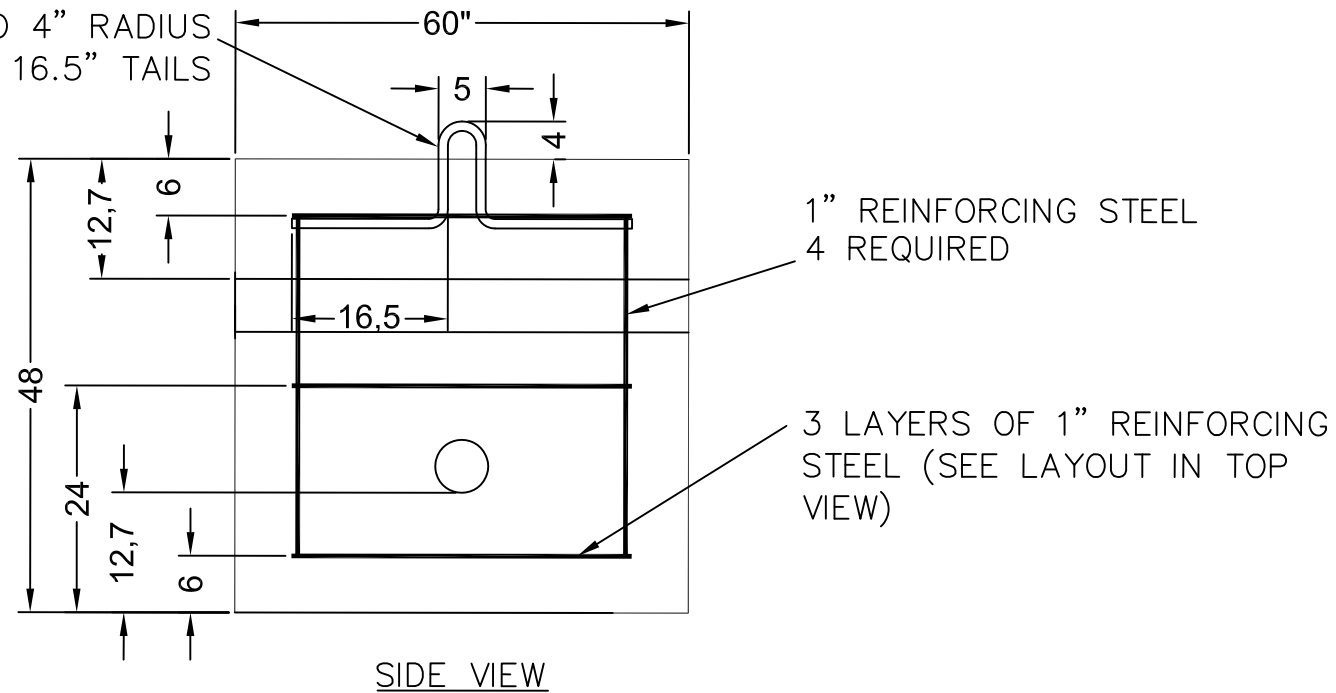




NOTES:

1. ALL CONCRETE, FORMWORK AND REINFORCEMENT TO CONFORM TO MOST RECENT CSA/ASTM STANDARD.
2. ALL REINFORCEMENT AND PVC SHALL HAVE MINIMUM 6" CONCRETE CLEAR COVER.
3. STANDARD CONCRETE MIX DESIGN, 30 MPA MINIMUM.
4. THE ESTIMATED GROSS WEIGHT OF THE BLOCK IS 19,000LBS.

1" DIA. STEEL BAR LIFTING LOOP BENT TO 4" RADIUS C/W 16.5" TAILS



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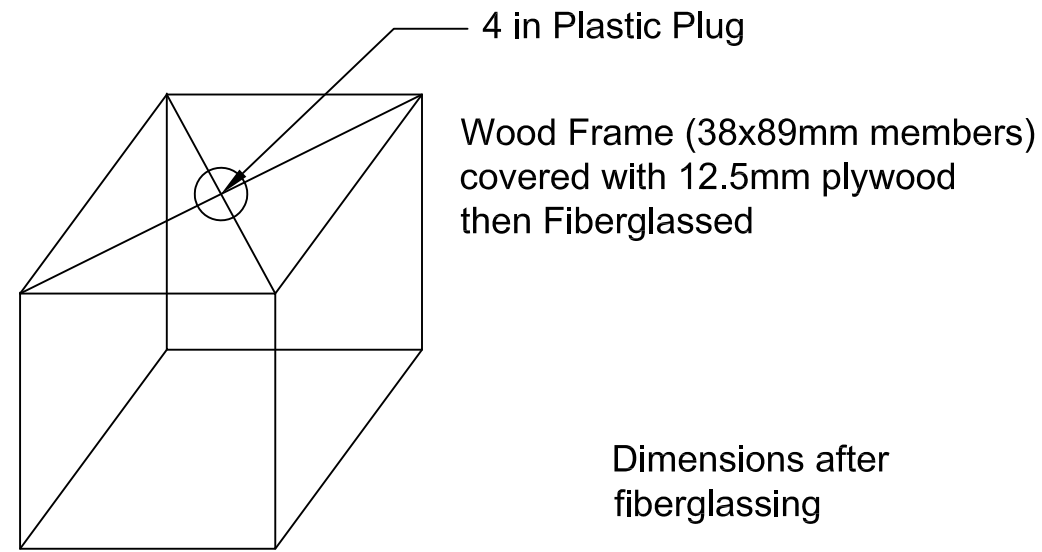
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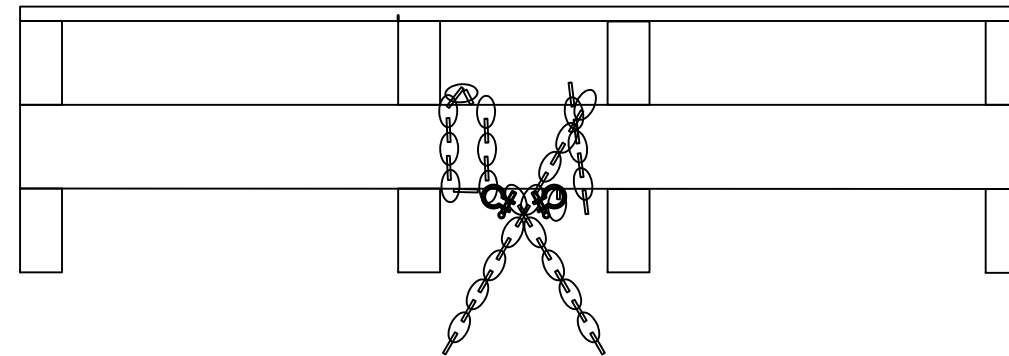
Drawing title/Titre du dessin
5 T ANCHOR

Project No./No. du projet	Sheet/Fauille	Revision no./La Révision no.
RB-BW	014 OF 013	

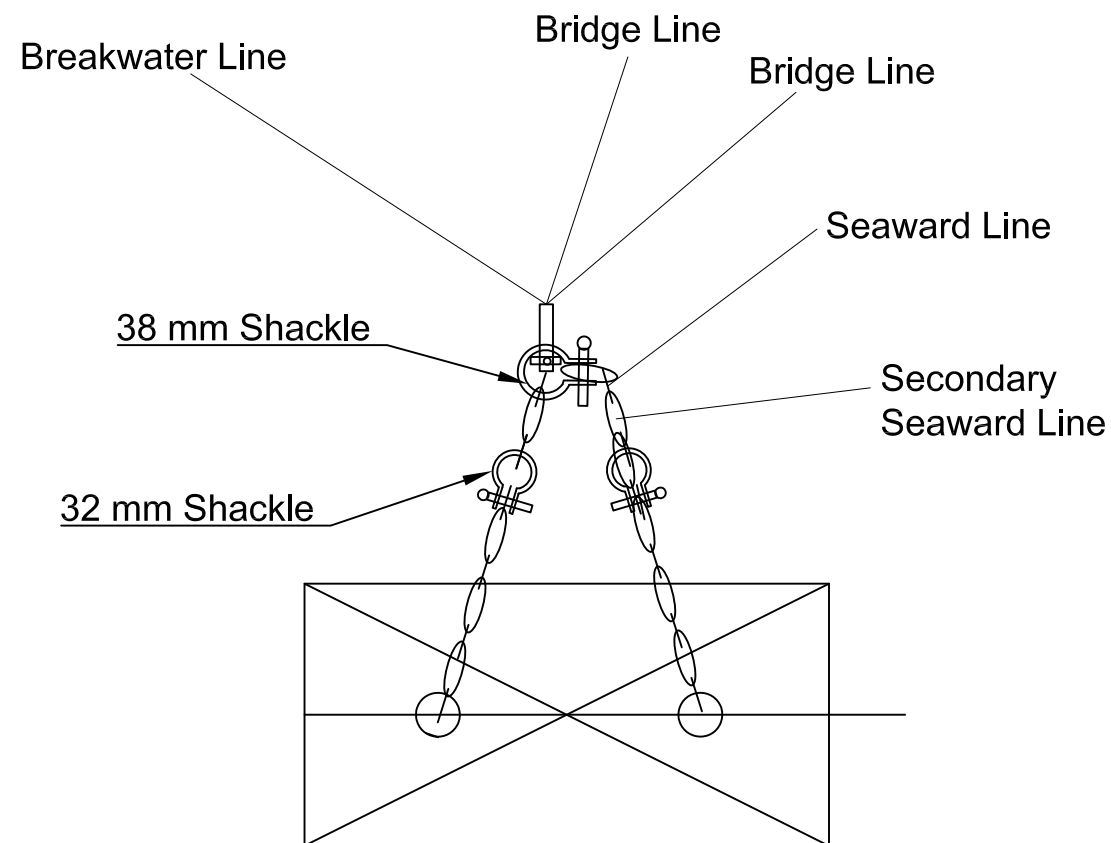




"DPW" Style Wood Billet
1169mm x 1169 x 610mm



Bridge Tension Chains
Section Float C (TYP)



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Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client

Drawing title/Titre du dessin
DETAILS

Project No./No. du projet RB-BW	Sheet/Fauille 015 OF 013	Revision no./ La Révision no.
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