

Navigation Protection Program (NPP)
344 Edmonton Street
Winnipeg MB R3C 0P6

Your file:
Our file: 2021-603773
Registry Number: 4427

December 23, 2021

Department of Fisheries and Oceans Canada
Small Craft Harbours Branch
501 University Crescent
Winnipeg, MB R3T 2N6

Attention: Eleanor McEwan

RE: Approval under the *Canadian Navigable Waters Act (CNWA)*, for the construction of the following work(s) below located in Patricia Bay, at approximately 70°28'04.3"N, 68°35'49.6"W, in Clyde River, in the Territory of Nunavut.

Approved work(s):

- Harbour
- Breakwater
- Wharf
- Slipway
- Boat basin
- Dredging
- Dock
- Mooring system

Please find enclosed an approval for the above-noted work issued by the Minister of Transport under subsection 7(6) of the CNWA. This approval replaces any previous approvals that have been issued in relation to this work (if any) and will be the sole approval for this work until such time as a new approval is issued for any future changes.

In order to issue this approval, the Minister has considered each of the factors listed in subsection 7(7) of the Act, additional information provided by you (if applicable) and any adverse effects that the decision to approve the work may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the *Constitution Act, 1982*.

Please note that the CNWA, amongst other obligations, requires the owner to immediately notify the Minister if the work causes or is likely to cause serious and imminent danger to navigation, to take reasonable measures to mitigate potential dangers and to remedy any adverse effects that result from that danger to navigation.

This approval relates only to the interference of your work with navigation under the CNWA and does not grant any rights related to the ownership of the bed of the navigable water.

Please note that it is the owner's responsibility to comply with any other applicable laws and regulations.

Please contact our office in Prairie and Northern for any questions, by phone at 1-844-425-7787 or by e-mail at NPPPNR-PPNRPN@tc.gc.ca.

Respectfully,



Racquel Creces
NPP Officer
Programs Group
Transport Canada
Prairie and Northern Region

Attachment(s): Approval Package

cc: Loretta Hardwick, CBCL
Canadian Hydrographic Services

Navigation Protection Program (NPP)
344 Edmonton Street
Winnipeg MB R3C 0P6

Your file:
Our file: 2021-603773
Registry number: 4427

APPROVAL

OWNER: Department of Fisheries and Oceans Canada
Small Craft Harbours Branch
501 University Crescent
Winnipeg, MB R3T 2N6

SITE LOCATION: Located in Patricia Bay, at approximately 70°28'04.3"N,
68°35'49.6"W, in Clyde River, in the Territory of Nunavut.

WORK(S):

- Harbour
- Breakwater
- Wharf
- Dredging
- Dock
- Mooring system

As per the application (detailed above) to the Minister of Transport, submitted pursuant to the *Canadian Navigable Waters Act*, for an approval of the work per the attached plan(s): Clyde River Harbour Location Map, Harbour Layout, M01, M05, M06, M07, M08, M09, M10, M11, M12, M13, M16, M17, M18, M20, M21, M22, Pages 10 and 11 of "Clyde River NWP Partial Review" and/or described in the attached document(s), the Minister hereby approves the work pursuant to subsection 7(6) for the construction, of the above mentioned work, in accordance with the following terms and conditions:

1. Signs stating "Construction Ahead":
 - must be legible from a minimum distance of 100 metres,
 - must be marked with retro-reflective material,
 - must be visible from all points of marine approach,
 - must display black lettering on a yellow or orange background; and,
 - must be visible from all points of marine approach.
2. Cautionary buoy(s) (yellow) must be:
 - marked with retro-reflective material,
 - must be placed at each end of the work; and,
 - must be placed at the end of the work(s) that is farthest from the nearest bank or shore.
3. Any portion of the work that is partially constructed shall be marked with cautionary buoy(s) and shall be maintained through all tidal ranges.
4. The perimeter of the work shall be marked with cautionary buoys spaced at 10 metre distances during open water conditions.
5. Safe navigational access shall be provided for all users to the shoreline and shelter area during construction.
6. All dredged material must be deposited above the high-water mark or in accordance with the Environment and Climate Change Canada's Disposal at Sea permit.
7. Navigation aids and markings must be maintained in accordance with pages 10 and 11 of the attached documents titled "Clyde River NWP Partial Review".



8. Navigation light on the southwest breakwater shall, as depicted on page 10 of "Clyde River NWP Partial Review" document must:
 - be green in colour,
 - have a 4 second flash with a nominal range of 7 nautical miles,
 - have a 360-degree arc of visibility,
 - have a focal height of 3m above HHWL,
 - have a 1.08m port hand day beacon facing seaward; and,
 - be functional at all times.
9. Navigation light on the northeast breakwater shall, as depicted on page 11 of "Clyde River NWP Partial Review" document must:
 - be red in colour,
 - have a 4 second flash with a nominal range of 4 nautical miles,
 - have a 360-degree arc of visibility,
 - have a focal height of 4m above HHWL; and,
 - be functional at all times.
10. As built drawings shall be submitted to Fisheries and Oceans Canada- Canadian Hydrographic Service within 1 year of completion of the project.
11. Any proposed changes shall be reviewed and accepted by the Navigation Protection Program prior to implementation of the same.

SIGNED ON December 23, 2021 at the NPP regional office of Prairie and Northern

Racquel Creces
NPP Officer
Programs Group
Transport Canada
Prairie and Northern Region
For the Minister of Transport



Transport Canada / Transports Canada

Reviewed / Examiné

Date : December 23, 2021

By/par : *Racquel Creces*
RACQUEL CRECES
Navigation Protection Program /
Programme de Protection de la Navigation

CLYDE RIVER



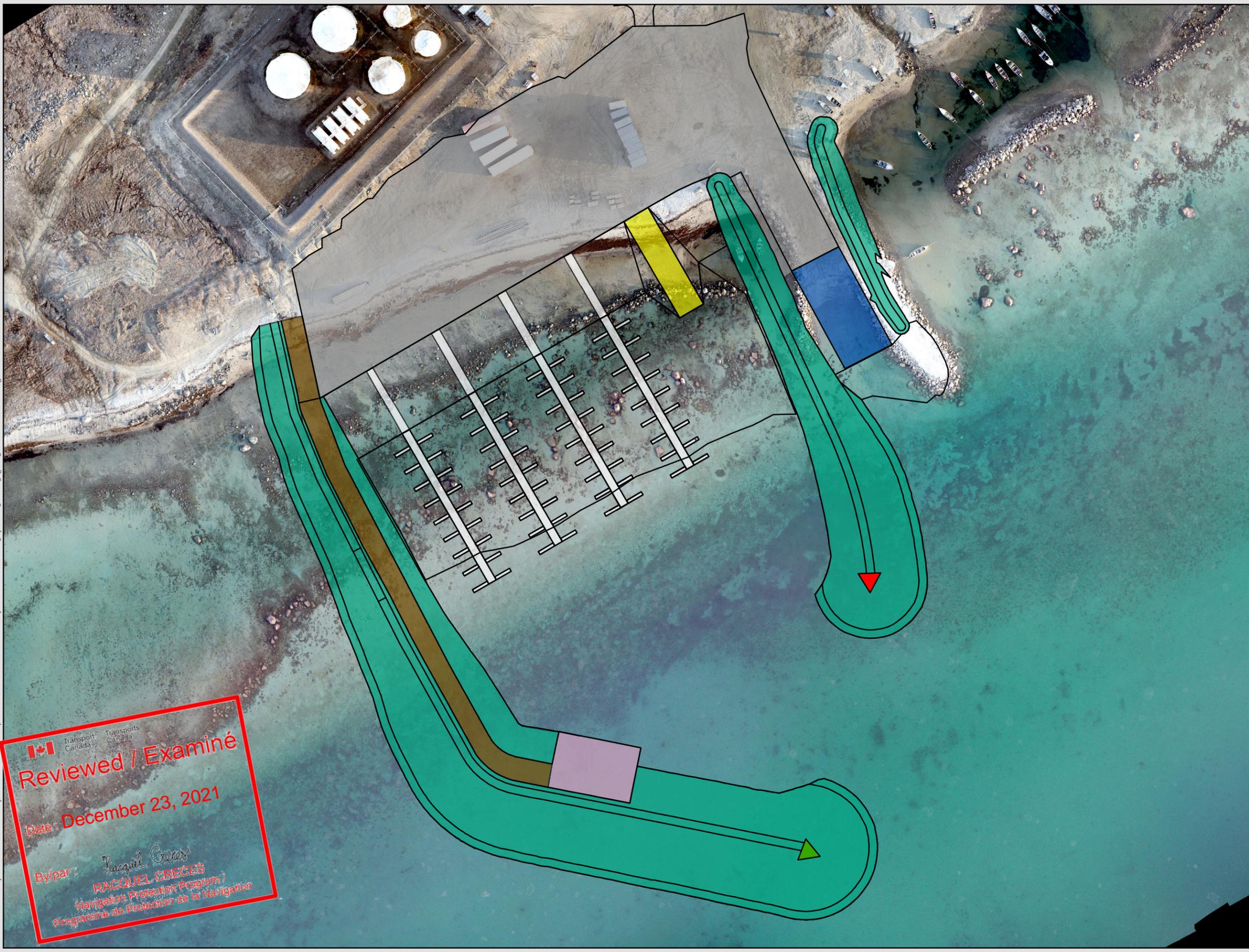
River Harbour Development 20 CAD\08 GIS\MXD\NIRB PROJECT PROPOSAL\200235_ClydeRiver_NIRBPP_Figure1.mxd - n11 - 22/Jul/2021

BAFFIN ISLAND

ARCTIC OCEAN

B

Document Path: K:\Projects\200235\00 PWGSC Clyde River Harbour Development\20 CAD\08 GIS\MXD\NIRB PROJECT PROPOSAL\200235_ClydeRiver_NIRBPP_Figure4_1.mxd - 5/24/2021



- LEGEND**
- Project Layout**
-  Access Road
 -  Breakwater
 -  Community Boat Launch
 -  Fixed Wharf
 -  Floating Docks
 -  Sea Lift
 -  Service Area

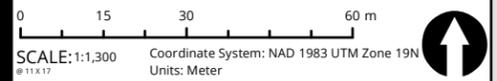


CLYDE RIVER HARBOUR
DEVELOPMENT PROJECT PROPOSAL

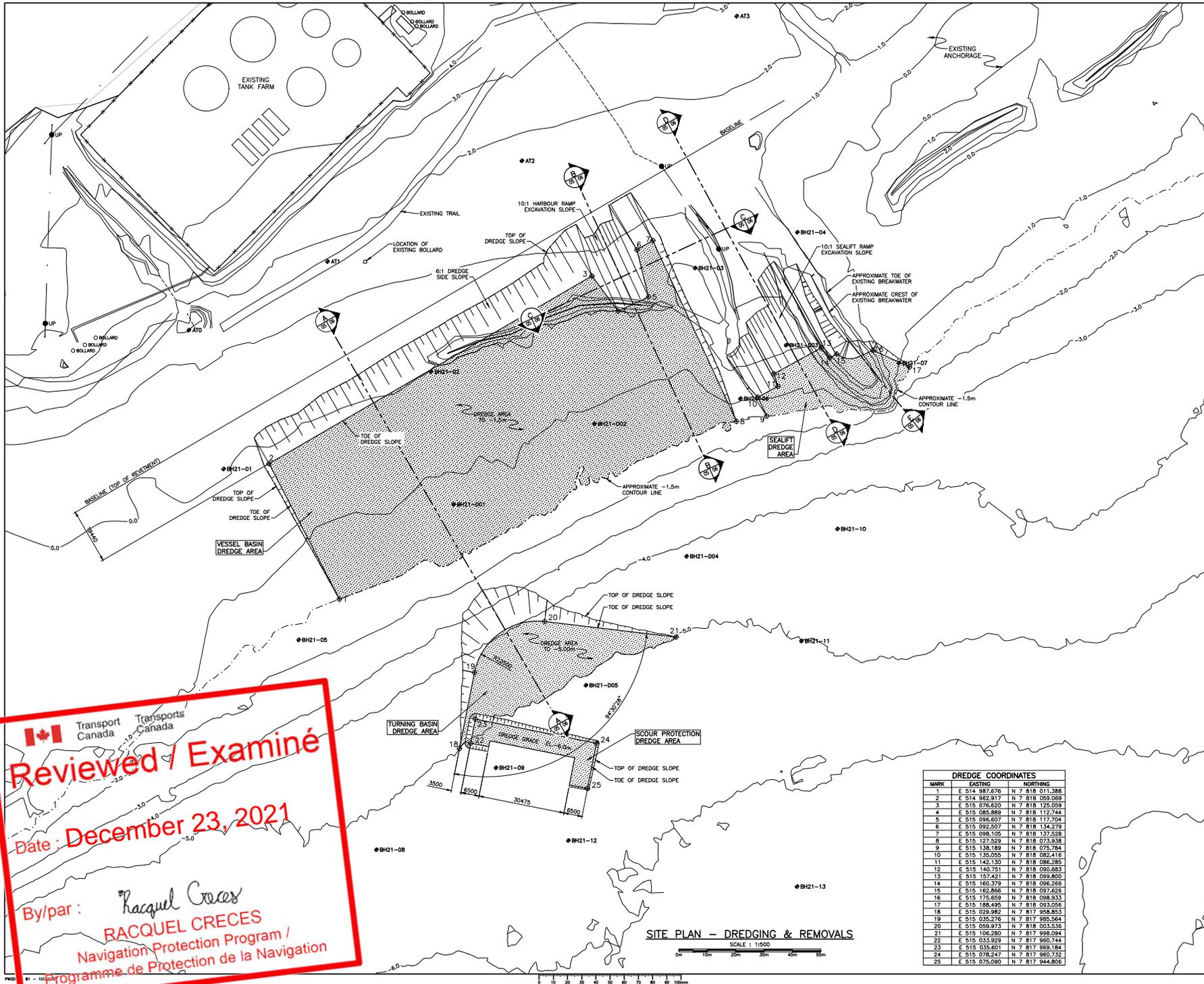
**Small Craft
Harbour Location**

DATE: 2021-08-13	PROJ N°: 200235	FIGURE: 4.1
DRAWN BY: SF	CHECKED BY: AC	APPROVED: LH

NOTES:



 **Reviewed / Examiné**
Date: December 23, 2021
By/par: *Racquel Creges*
RACQUEL CREGES
Navigation Protection Program /
Programme de Protection de la Navigation





Reviewed / Examiné

 Date : December 23, 2021

By/par : *Racquel Creces*

RACQUEL CRECES

 Navigation Protection Program /

 Programme de Protection de la Navigation

MARK	EASTING	NORTHING
1	E 514 987.676	N 7 818 011.388
2	E 514 982.817	N 7 818 050.069
3	E 515 076.620	N 7 818 125.059
4	E 515 085.889	N 7 818 112.744
5	E 515 096.607	N 7 818 117.704
6	E 515 092.507	N 7 818 134.279
7	E 515 098.105	N 7 818 137.528
8	E 515 127.259	N 7 818 073.938
9	E 515 138.189	N 7 818 075.784
10	E 515 135.055	N 7 818 082.415
11	E 515 142.130	N 7 818 086.283
12	E 515 140.751	N 7 818 080.683
13	E 515 157.421	N 7 818 099.800
14	E 515 160.379	N 7 818 095.265
15	E 515 162.866	N 7 818 097.626
16	E 515 175.859	N 7 818 098.333
17	E 515 168.495	N 7 818 093.056
18	E 515 029.982	N 7 817 958.823
19	E 515 035.276	N 7 817 985.264
20	E 515 039.973	N 7 818 003.536
21	E 515 106.280	N 7 817 998.094
22	E 515 033.359	N 7 817 960.744
23	E 515 033.601	N 7 817 960.184
24	E 515 078.247	N 7 817 960.732
25	E 515 075.090	N 7 817 944.806

SITE PLAN - DREDGING & REMOVALS
 SCALE : 1:1500
 0m 10m 20m 30m 40m 50m



 REAL PROPERTY SERVICES
 Western Region
 SERVICES IMMOBILIERS
 Région de l'Ouest

PRELIMINARY
 NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
 ONTARIO AND PRAIRIE REGION



 Small Craft Harbours
 (Petit Port de Quai)



Revision	Description	Date
A	ISSUED FOR 60% REVIEW	2021

Client: _____

**SMALL CRAFT HARBOURS
 ONTARIO
 AND PRAIRIE REGION**

Project: _____

**CLYDE RIVER, NU
 HARBOUR CONSTRUCTION**

Designed by: _____ Comp: par _____
 Drawn by: SGRACE Drawn: par _____
 Approved by: _____ Approved: par _____
 PEGC Project Manager: _____ Administrateur de Projets PEGC
 Drawing title: _____ Titre du dessin: _____

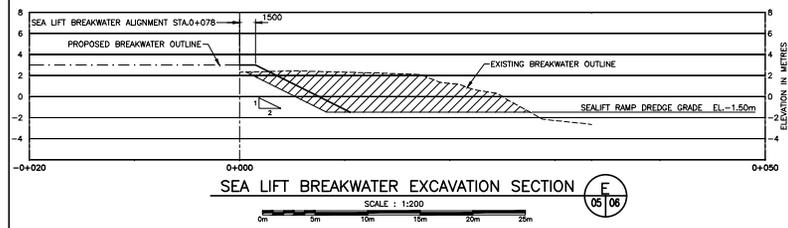
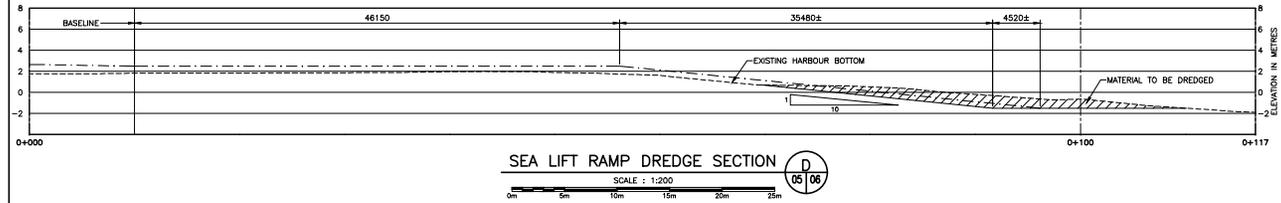
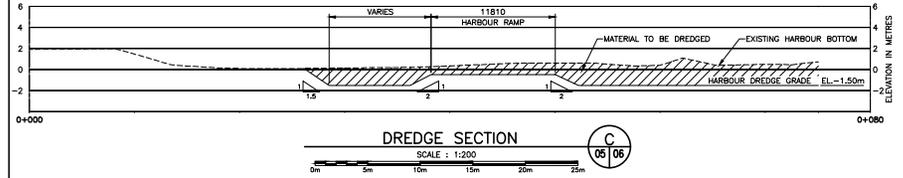
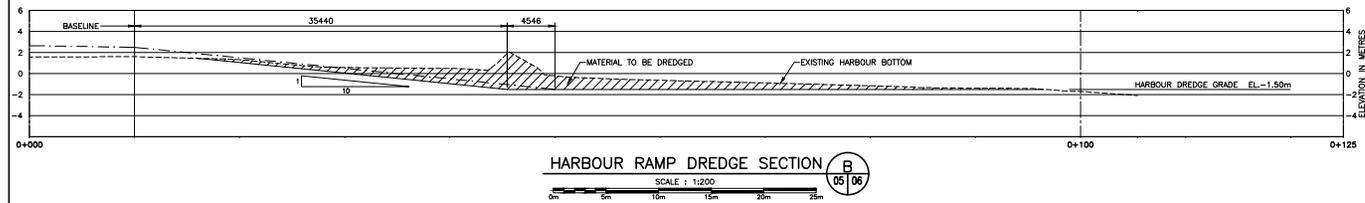
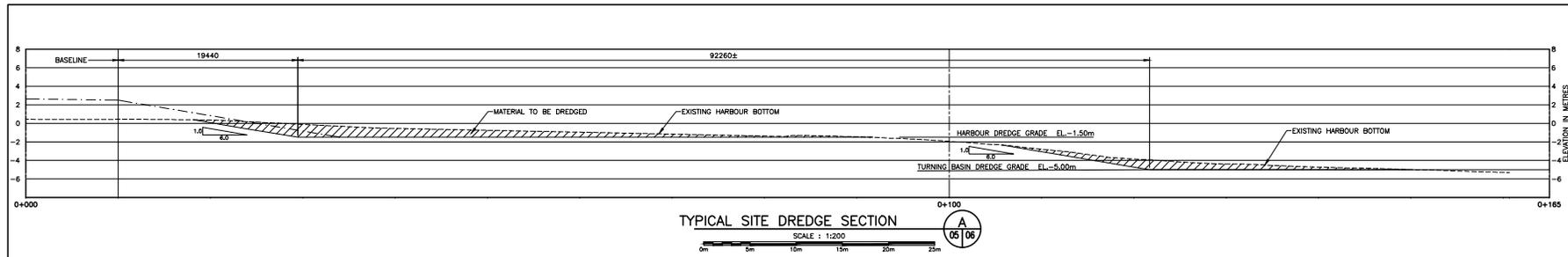
EXISTING CONDITIONS,
 REMOVALS AND
 DREDGE PLAN

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.111193.001	M05 OF XX	0

A900

PRELIMINARY
 NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
 ONTARIO AND PRAIRIE REGION



Transport Canada / Transports Canada
Reviewed / Examiné
 Date: December 23, 2021
 By/par: *Racquel Creces*
RACQUEL CRECES
 Navigation Protection Program /
 Programme de Protection de la Navigation

A	ISSUED FOR A&E REVIEW	2021
Revision	Description	Date
Client	Description	Client
SMALL CRAFT HARBOURS ONTARIO AND PRAIRIE REGION		
Project	Project	
CLYDE RIVER, NU HARBOUR CONSTRUCTION		
Designed by	Conçu par	
Drawn by	Dessiné par	
Approved by	Approuvé par	
PWSC Project Manager	Administrateur de Projets PWSC	
Drawing Title	Titre du dessin	
DREDGE SECTIONS		
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.111193.001	M06 OF XX	0

PRELIMINARY
 NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
 ONTARIO AND PRAIRIE REGION



Revision	Issue/Date	Date
A	ISSUED FOR REVIEW	2021
Client	Client/Client	Client

SMALL CRAFT HARBOURS
 ONTARIO
 AND PRAIRIE REGION

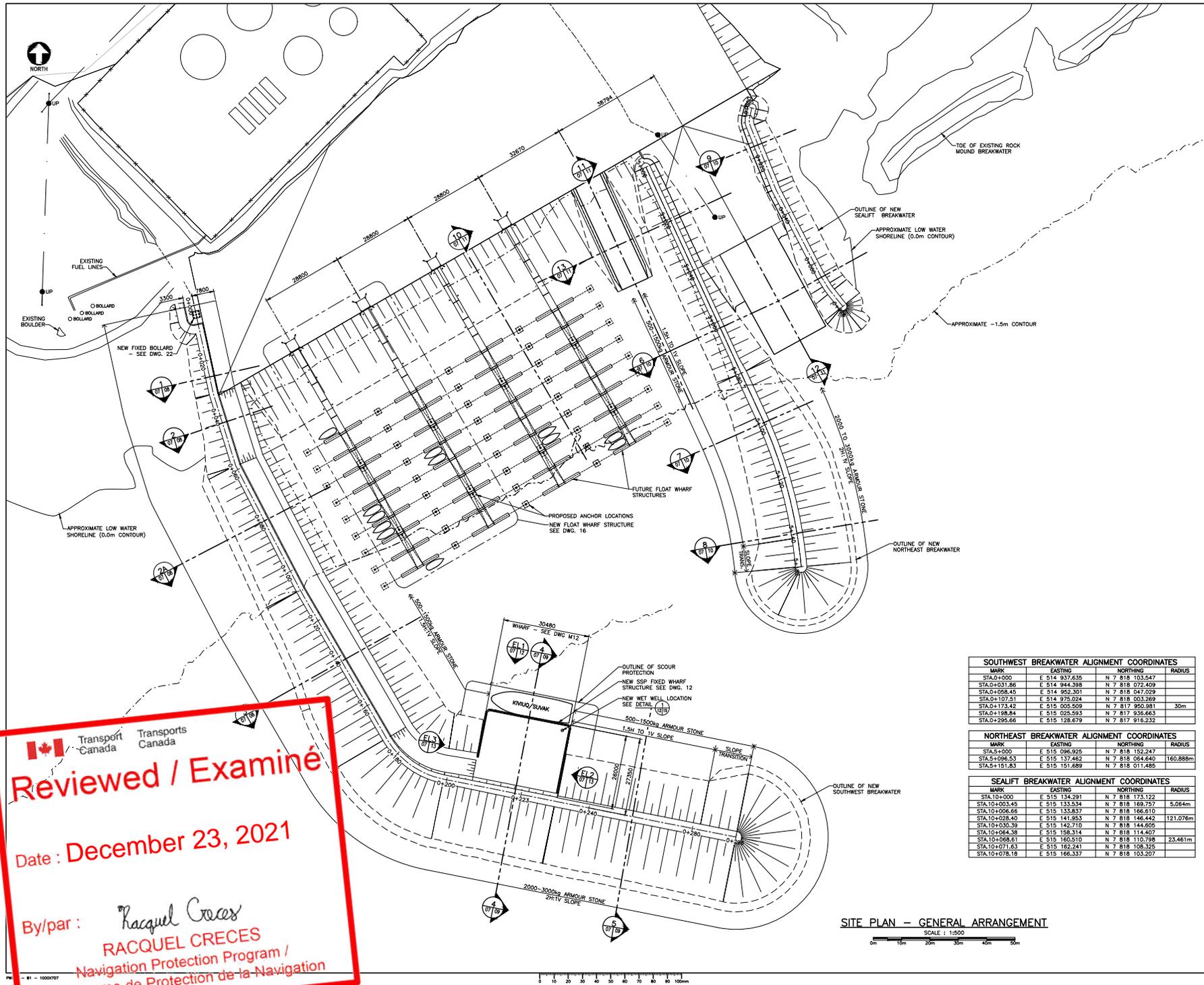
Project

CLYDE RIVER, NU
HARBOUR CONSTRUCTION

Designed by	Conçu par
Drawn by	Dessiné par
Approved by	Approuvé par
Project Manager	Administrateur de Projets
Drawing title	Titre du dessin

HARBOUR GENERAL
ARRANGEMENT PLAN

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.111193.001	M07 OF XX	0



SOUTHWEST BREAKWATER ALIGNMENT COORDINATES

MARK	EASTING	NORTHING	RADIUS
STA.0+000	E 514 937.635	N 7 818 103.547	
STA.0+031.86	E 514 944.398	N 7 818 072.409	
STA.0+058.45	E 514 952.301	N 7 818 047.029	
STA.0+107.51	E 514 975.024	N 7 818 003.269	
STA.0+173.42	E 515 005.509	N 7 817 950.981	30m
STA.0+198.84	E 515 025.593	N 7 817 936.463	
STA.0+295.66	E 515 128.679	N 7 817 916.232	

NORTHEAST BREAKWATER ALIGNMENT COORDINATES

MARK	EASTING	NORTHING	RADIUS
STA.5+000	E 515 096.925	N 7 818 152.247	
STA.5+096.53	E 515 137.462	N 7 818 064.640	160.888m
STA.5+151.83	E 515 151.689	N 7 818 011.485	

SEALIFT BREAKWATER ALIGNMENT COORDINATES

MARK	EASTING	NORTHING	RADIUS
STA.10+000	E 515 134.291	N 7 818 173.122	
STA.10+003.45	E 515 133.534	N 7 818 169.757	5.064m
STA.10+006.66	E 515 133.837	N 7 818 166.610	
STA.10+028.40	E 515 141.953	N 7 818 146.442	121.076m
STA.10+030.39	E 515 142.710	N 7 818 144.605	
STA.10+064.38	E 515 158.314	N 7 818 114.407	
STA.10+068.61	E 515 160.510	N 7 818 110.788	23.461m
STA.10+071.63	E 515 162.241	N 7 818 108.325	
STA.10+078.18	E 515 166.337	N 7 818 103.207	

SITE PLAN - GENERAL ARRANGEMENT

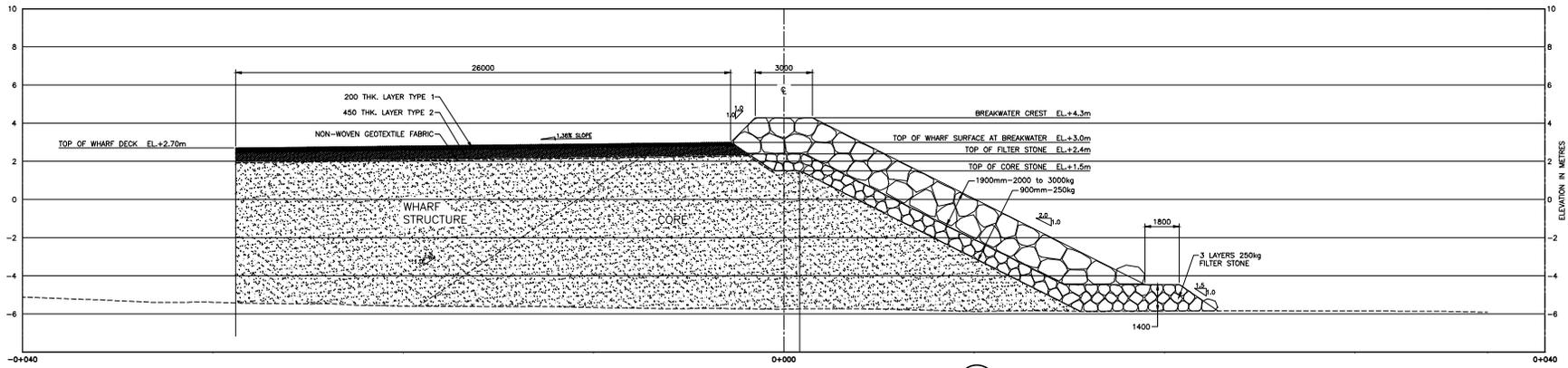
SCALE : 1:500
 0m 10m 20m 30m 40m 50m

Reviewed / Examiné
 Date : December 23, 2021
 By/par : *Racquel Creces*
RACQUEL CRECES
 Navigation Protection Program /
 Programme de Protection de la Navigation

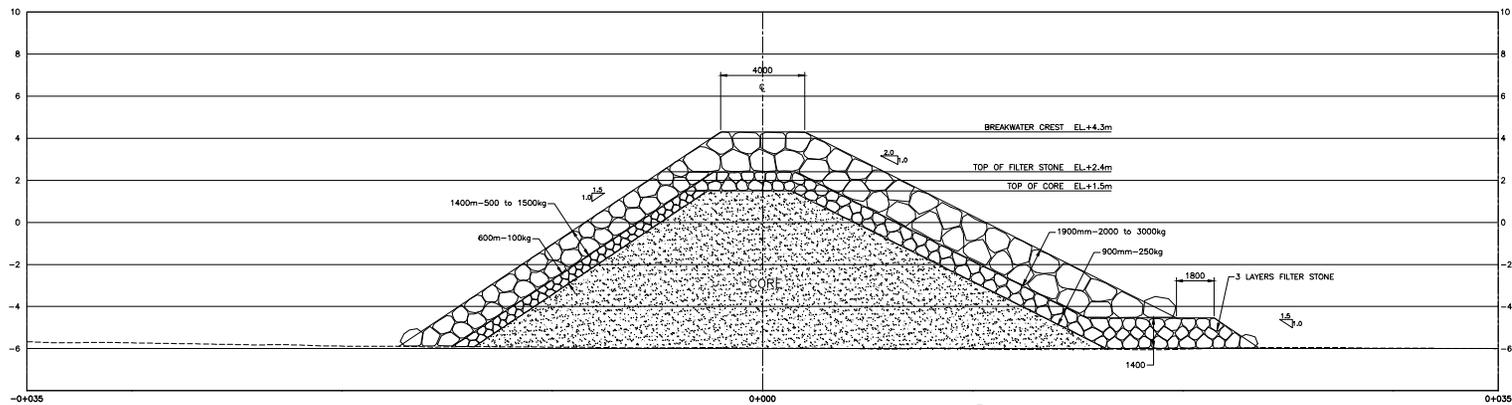


PRELIMINARY
NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION



SOUTHWEST BREAKWATER AND WHARF
STATION 0+204 TO 0+234 (BASED ON SECTION 0+220) 4/07/08



SOUTHWEST BREAKWATER
STATION 0+234 TO 0+299 (BASED ON SECTION 0+262) 5/07/08



Reviewed / Examiné

Date : December 23, 2021

By/par : *Racquel Creces*
RACQUEL CRECES
Navigation Protection Program /
Programme de Protection de la Navigation

Revision	Description	Date
A	ISSUED FOR A&E REVIEW	28/11

SMALL CRAFT HARBOURS
ONTARIO
AND PRAIRIE REGION

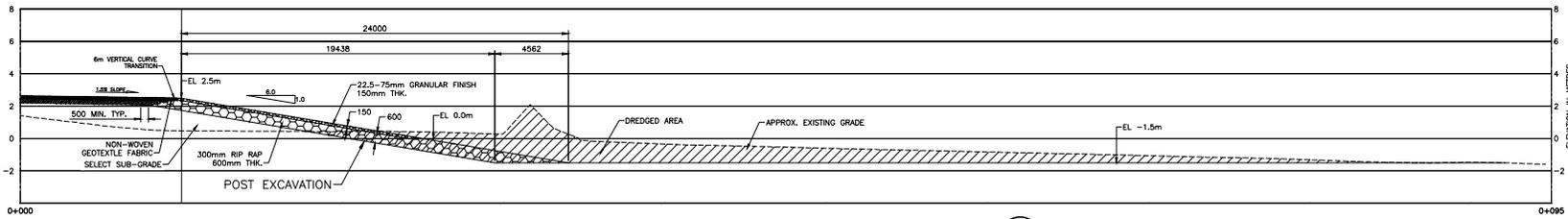
CLYDE RIVER, NU
HARBOUR CONSTRUCTION

Designed by	Conçu par
Drawn by S.GRACE	Dessiné par
Approved by	Approuvé par
PMSC Project Manager	Administrateur de Projets PMSC
Drawing title	Titre du dessin

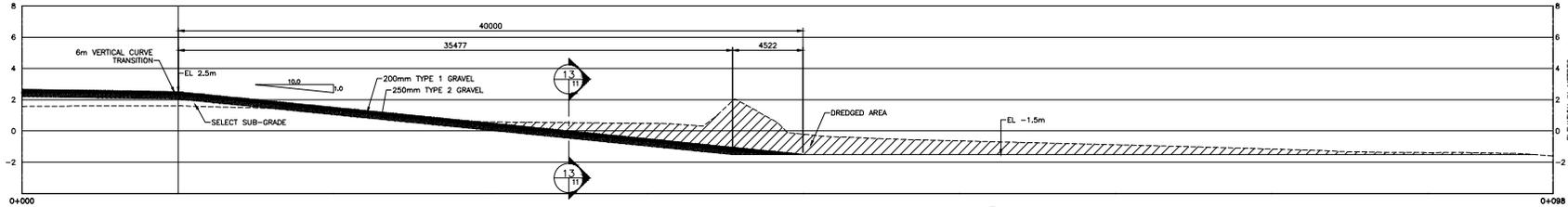
SOUTHWEST
BREAKWATER SECTIONS
SHEET 2 OF 2

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.111193.001	M09 OF XX	0

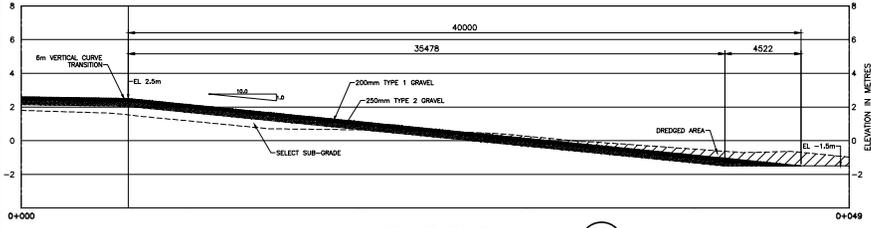




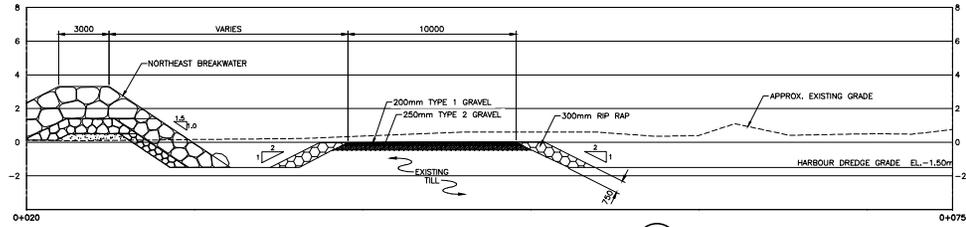
REVETMENT
SCALE : 1:125
10
07 | 11



HARBOUR RAMP
SCALE : 1:125
11
07 | 11



SEALIFT RAMP
SCALE : 1:125
12
07 | 11



HARBOUR RAMP CROSS SECTION
SCALE : 1:125
13
07 | 11


 Transport Canada / Transports Canada
Reviewed / Examiné
 Date : December 23, 2021
 By/par : *Racquel Creces*
 RACQUEL CRECES
 Navigation Protection Program /
 Programme de Protection de la Navigation

PRELIMINARY
NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION



Revision	Description	Date
A	ISSUED FOR A&E REVIEW	2021
Client		

SMALL CRAFT HARBOURS
ONTARIO
AND PRAIRIE REGION

CLYDE RIVER, NU
HARBOUR CONSTRUCTION

Designed by	Conçu par
Drawn by	Dessiné par
Approved by	Approuvé par
PM/SC Project Manager	Administrateur de Projets /PMSC
Drawing title	Titre du dessin

BOAT RAMP AND SEA LIFT
RAMP SECTIONS

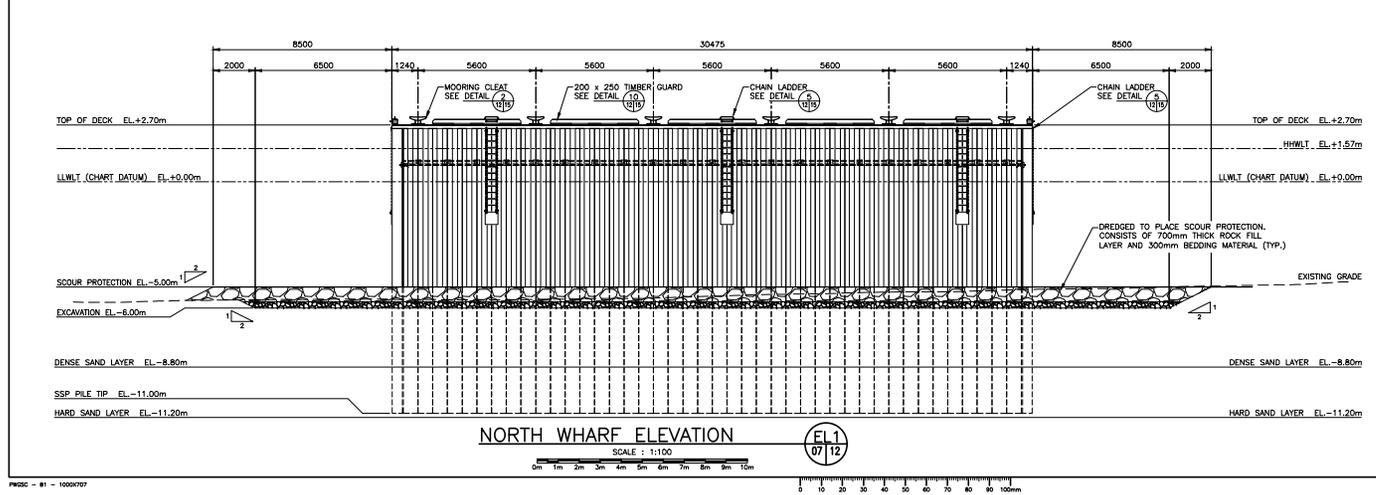
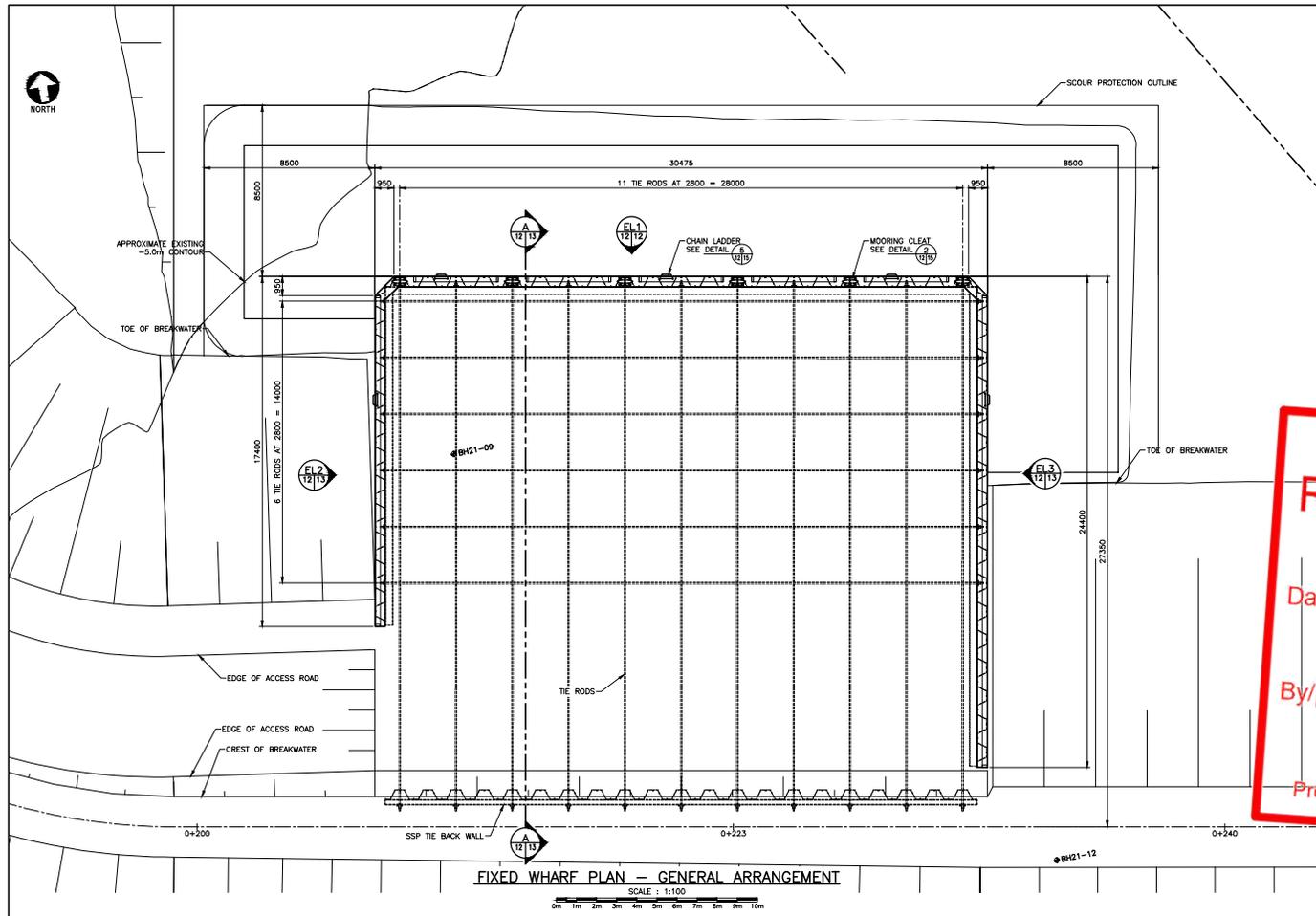
Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.111193.001	M11 OF XX	0

PRELIMINARY
NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION



Reviewed / Examiné
Date : December 23, 2021
By/par : *Racquel Creces*
RACQUEL CRECES
Navigation Protection Program /
Programme de Protection de la Navigation



SMALL CRAFT HARBOURS
ONTARIO
AND PRAIRIE REGION

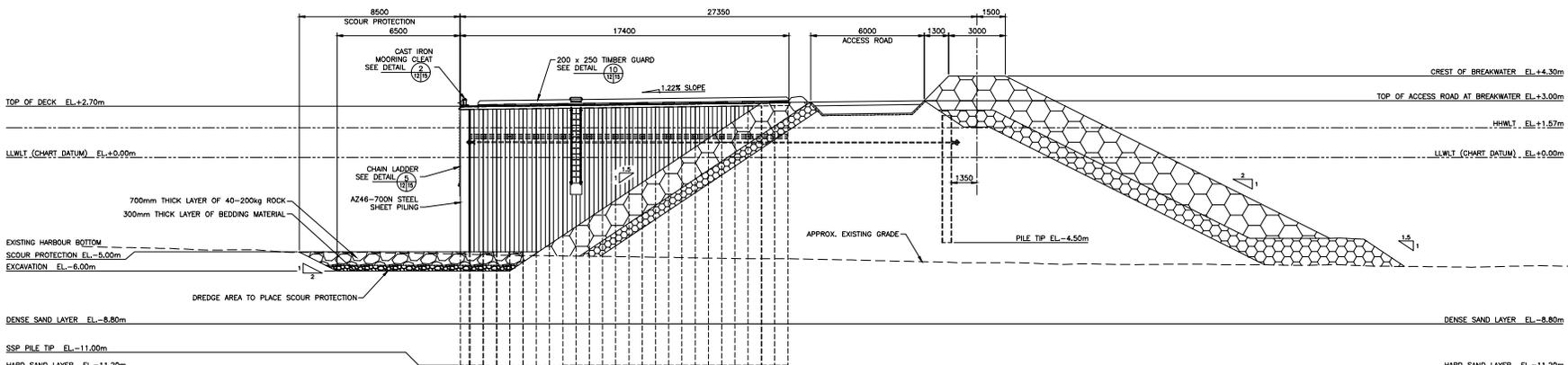
CLYDE RIVER, NU
HARBOUR CONSTRUCTION

FIXED WHARF
GENERAL ARRANGEMENT PLAN
AND ELEVATION

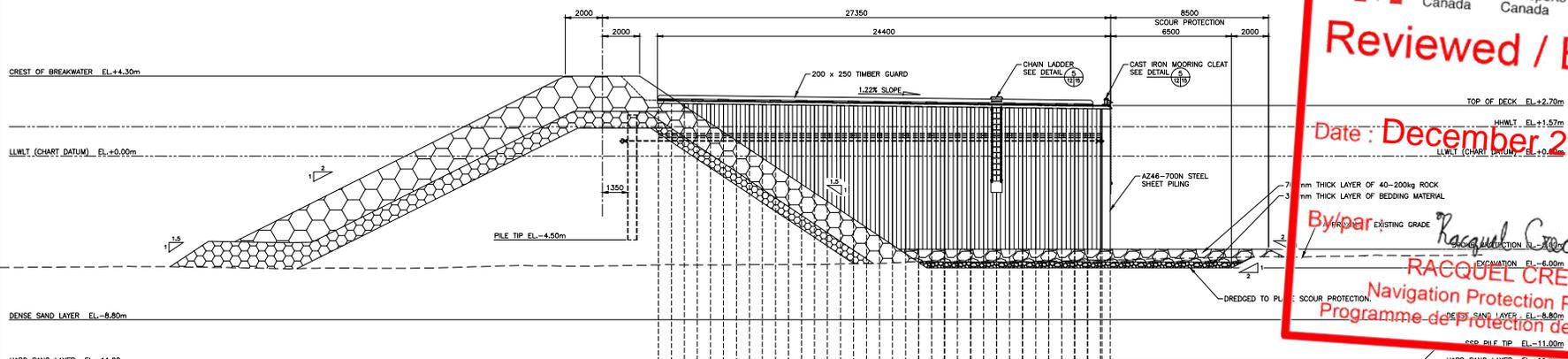
Project no./No. du projet	Drawing no./No. de dessin	Revision no.
R.111193.001	M12 OF XX	0

PRELIMINARY
 NOT FOR CONSTRUCTION

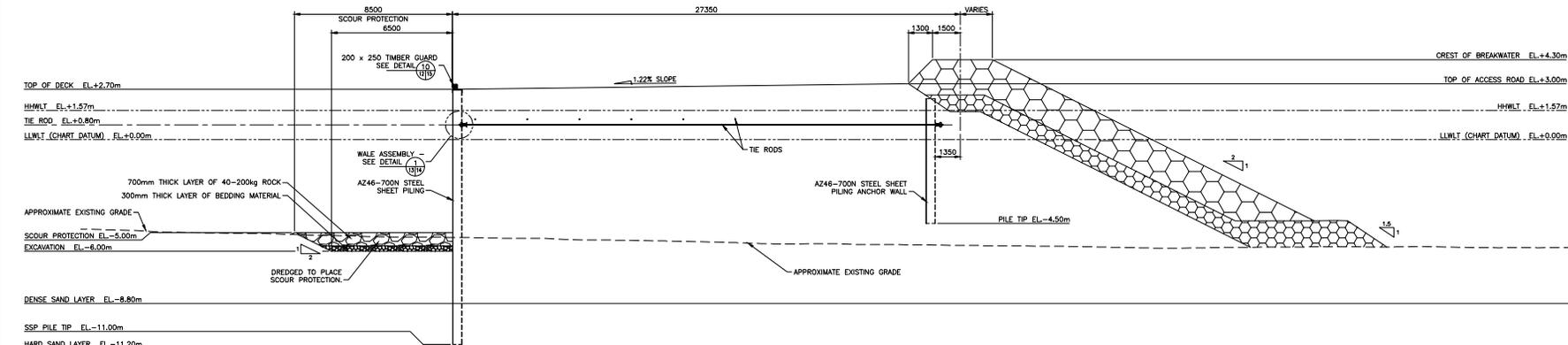
SMALL CRAFT HARBOURS
 ONTARIO AND PRAIRIE REGION



WEST WHARF ELEVATION (EL 2)
 SCALE: 1:100



EAST WHARF ELEVATION (EL 3)
 SCALE: 1:100



TYPICAL WHARF SECTION (A)
 SCALE: 1:100

Reviewed / Examiné
 Date: December 23, 2021
 By: par *Racquel Creces*
RACQUEL CRECES
 Navigation Protection Program /
 Programme de Protection de la Navigation

Revision	Description	Date

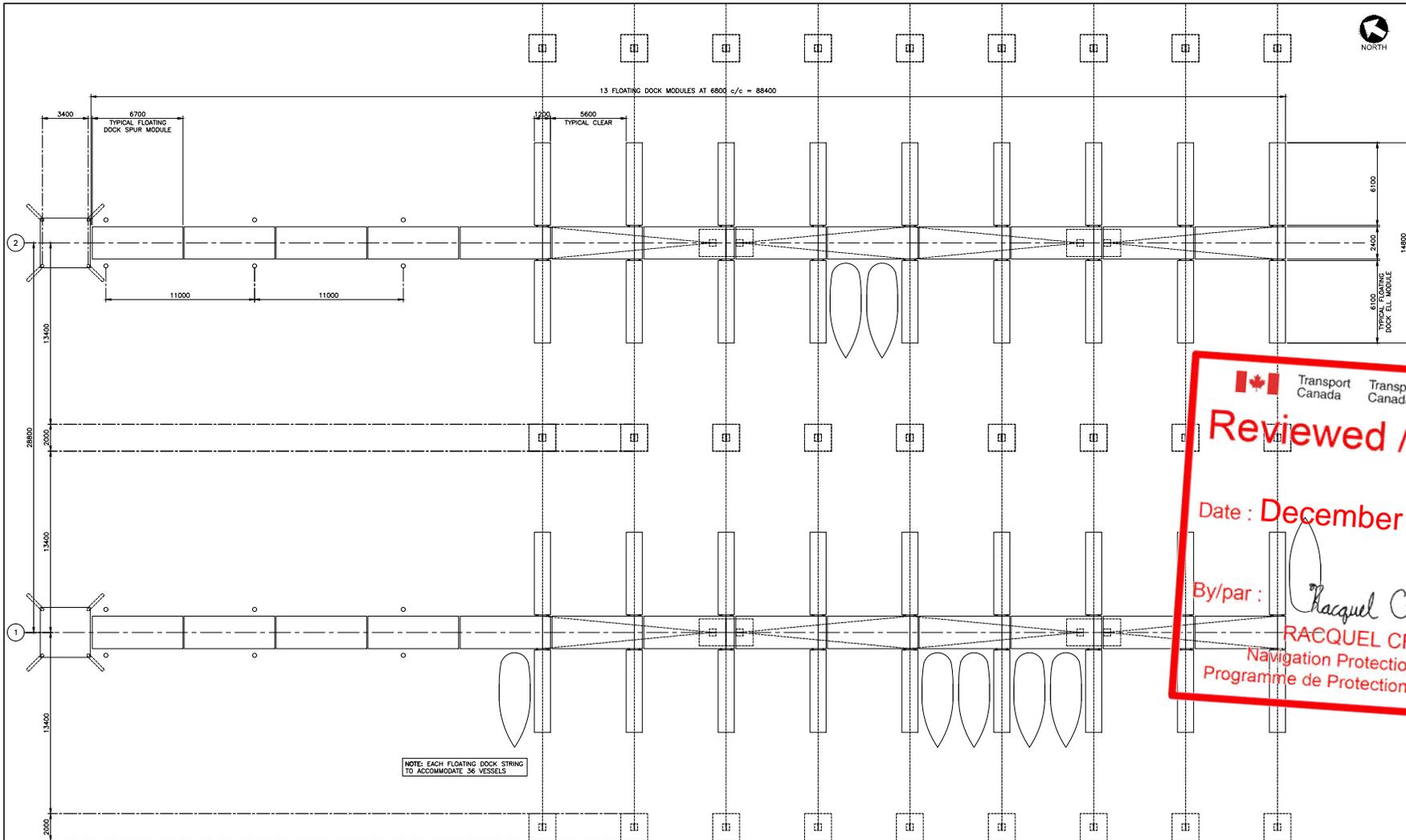
Client: **SMALL CRAFT HARBOURS ONTARIO AND PRAIRIE REGION**

Project: **CLYDE RIVER, NU HARBOUR CONSTRUCTION**

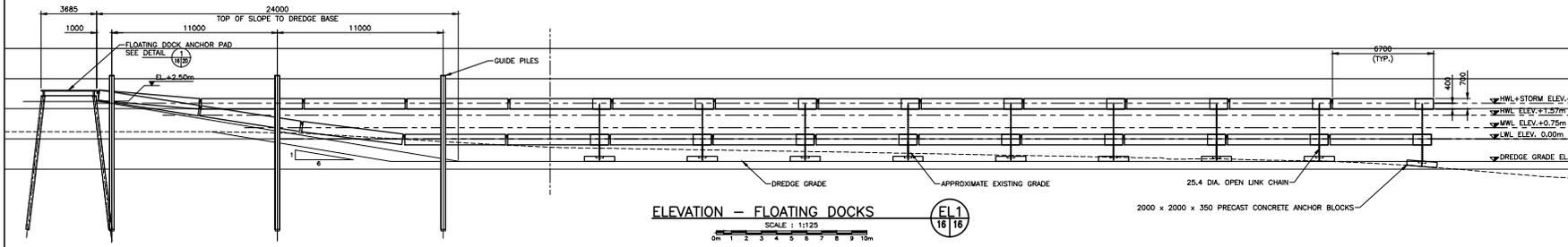
Designed by: Congru par
 Drawn by: SGRACE Dessiné par
 Approved by: Approuvé par
 PISC Project Manager: Administrateur de Projets PISC
 Drawing title: Titre du dessin

FIXED WHARF ELEVATIONS AND SECTIONS

Project no./No. du projet	Drawing no./No. de dessin	Revision no.
R.111193.001	M13 OF XX	0



FLOATING DOCK ARRANGEMENT
SCALE: 1:125



ELEVATION - FLOATING DOCKS
SCALE: 1:125



PRELIMINARY
NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION



Transport Canada / Transports Canada
Reviewed / Examiné
Date: December 23, 2021
By/par: *Racquel Creces*
RACQUEL CRECES
Navigation Protection Program /
Programme de Protection de la Navigation

Revision	Issue/Date	Description
A	ISSUED FOR A&E REVIEW	2021

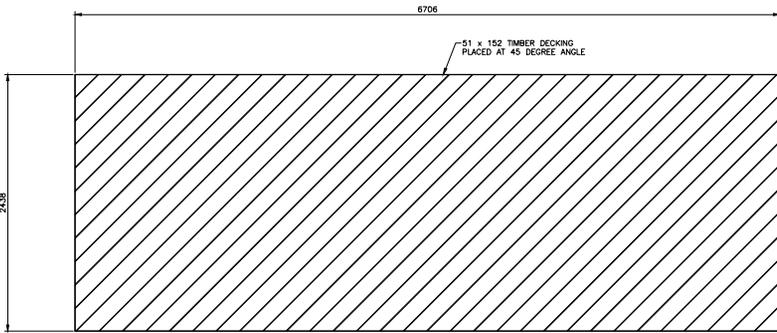
SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION

CLYDE RIVER, NU
HARBOUR CONSTRUCTION

Designed by	Drawn by	Checked by
S. GRACE	S. GRACE	
Approved by	Approved by	
PPSC Project Manager	Administrateur de Projets PPSC	

FLOAT WHARF
GENERAL ARRANGEMENT PLAN
AND ELEVATION

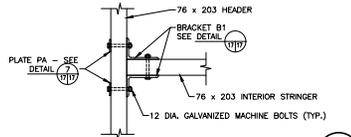
Project no./No. du projet	Drawing no./No. de dessin	Revision no.
R.111193.001	M16 OF XX	0



PRINCIPAL FLOAT WHARF OVERVIEW PLAN

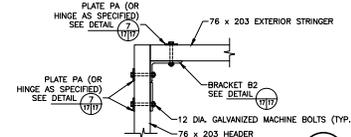
SCALE: 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm



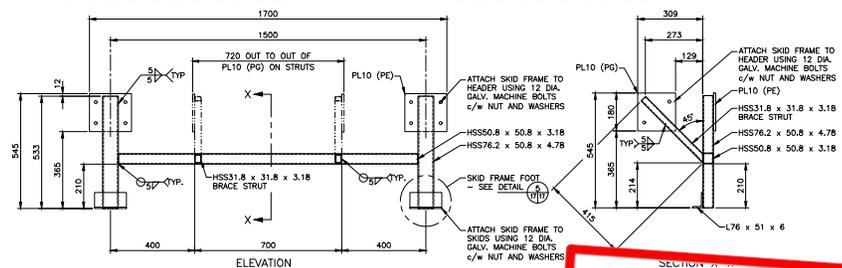
STRINGER CONNECTION DETAIL 1

SCALE: 1:10



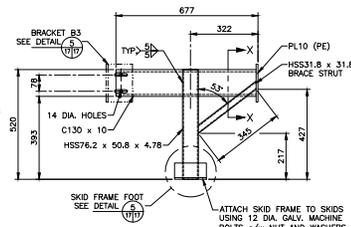
STRINGER CONNECTION DETAIL 2

SCALE: 1:10



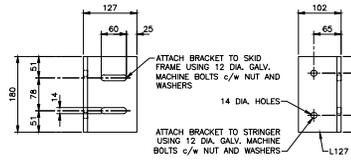
MAIN SKID FRAME DETAIL

SCALE: 1:10



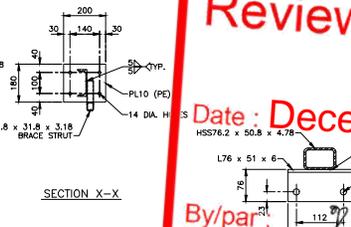
INTERMEDIATE SKID FRAME DETAIL

SCALE: 1:10



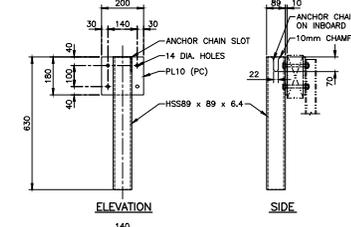
BRACKET B3 DETAIL

SCALE: 1:5



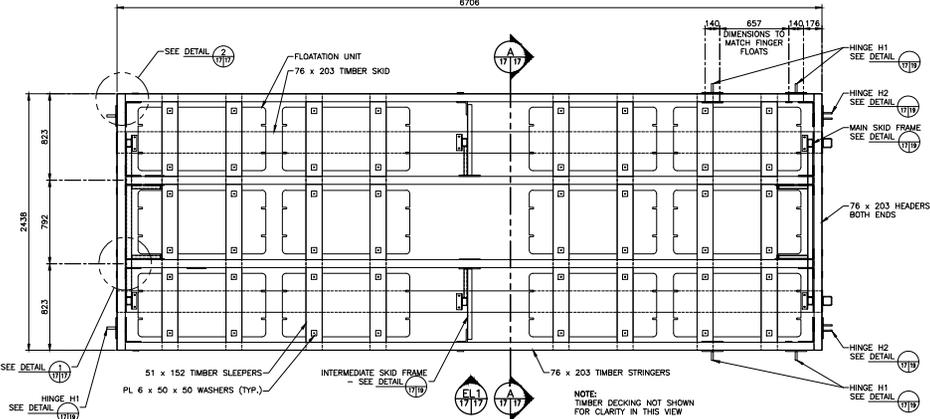
TYPICAL PLATE DETAILS

SCALE: 1:5



ANCHOR CHAIN GUIDE SLEEVE DETAIL

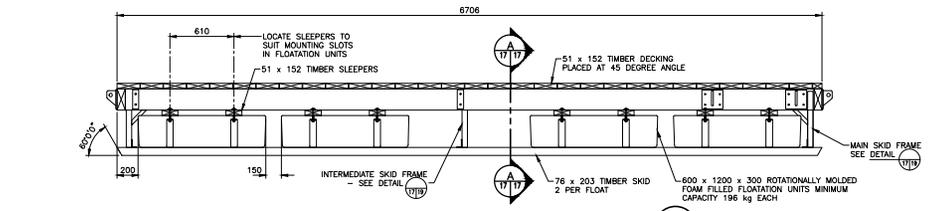
SCALE: 1:10



PRINCIPAL FLOAT WHARF MODULE PLAN

SCALE: 1:20

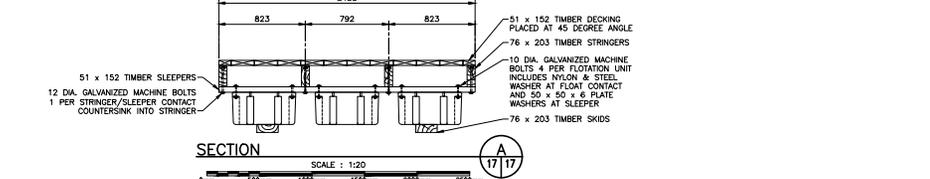
0mm 500mm 1000mm 1500mm 2000mm 2500mm



PRINCIPAL FLOAT WHARF MODULE ELEVATION

SCALE: 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm



SECTION A-A

SCALE: 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm



Reviewed / Examiné
 Date: December 23, 2021
 By/par: *Macquie Greves*
 SKID FRAME FOR BACQUE VERECES
 Navigation Protection Program /
 Programme de Protection de la Navigation

PRELIMINARY
NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION



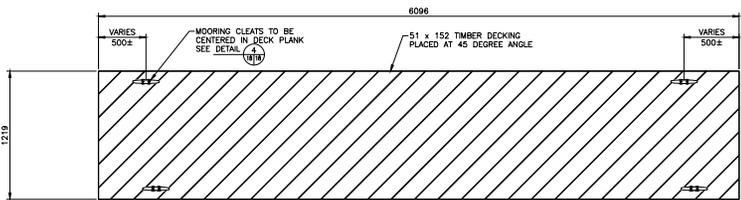
ISSUED FOR REVIEW
 Description: Date
 Client: Date
 SMALL CRAFT HARBOURS
 ONTARIO
 AND PRAIRIE REGION

Clyde River, NU
 Harbour Construction

Designed by: Congru par
 Drawn by: SGRACE Dessiné par
 Approved by: Approuvé par
 PWSGC Project Manager: Administrateur de Projets PWSGC
 Drawing title: Titre du dessin

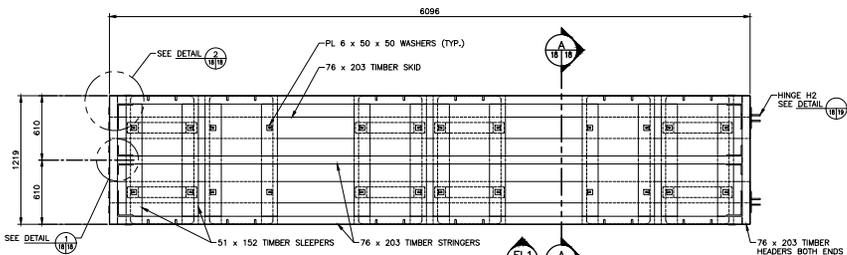
PRINCIPAL FLOAT WHARF
 PLAN, SECTIONS AND
 DETAILS

Project no./No. du projet: R.111193.001
 Drawing no./No. du dessin: M17
 Revision no.: 0
 OF XX



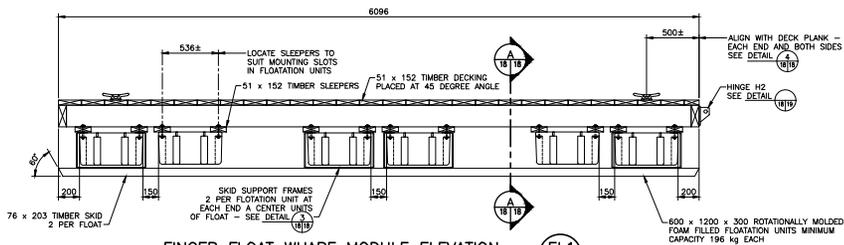
FINGER FLOAT WHARF MODULE PLAN

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



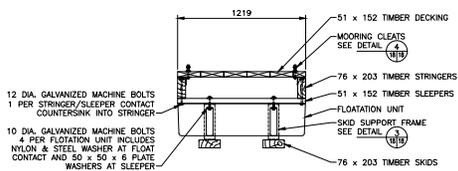
FINGER FLOAT WHARF MODULE PLAN

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



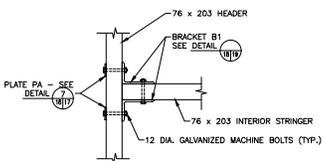
FINGER FLOAT WHARF MODULE ELEVATION

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



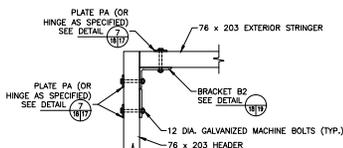
SECTION

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



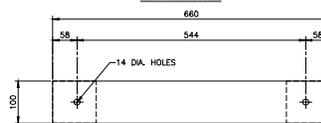
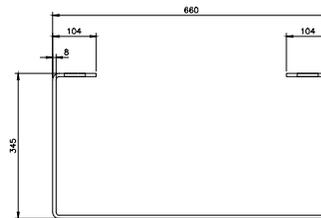
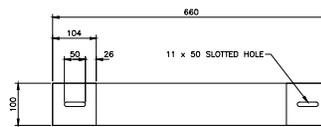
STRINGER CONNECTION DETAIL

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



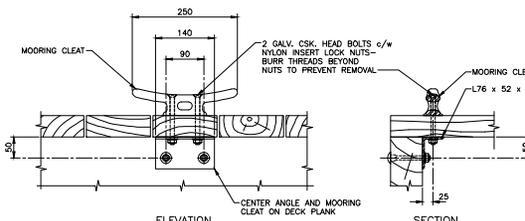
STRINGER CONNECTION DETAIL

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



SKID SUPPORT FRAME DETAIL

SCALE : 1:5
0mm 100mm 200mm 300mm 400mm 500mm



MOORING CLEAT DETAIL

SCALE : 1:5
0mm 100mm 200mm 300mm 400mm 500mm

Transport Canada / Transports Canada

Reviewed / Examiné

Date : December 23, 2021

By/par : *Racquel Creces*
RACQUEL CRECES
Navigation Protection Program /
Programme de Protection de la Navigation

PRELIMINARY
NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION



Revision	Description	Date
A	ISSUED FOR 642 REVIEW	2021

SMALL CRAFT HARBOURS
ONTARIO
AND PRAIRIE REGION

CLYDE RIVER, NU
HARBOUR CONSTRUCTION

Designed by: Congru par

Drawn by: SGRACE Dessiné par

Approved by: Approuvé par

PMSC Project Manager: Administrateur de Projets PMSC

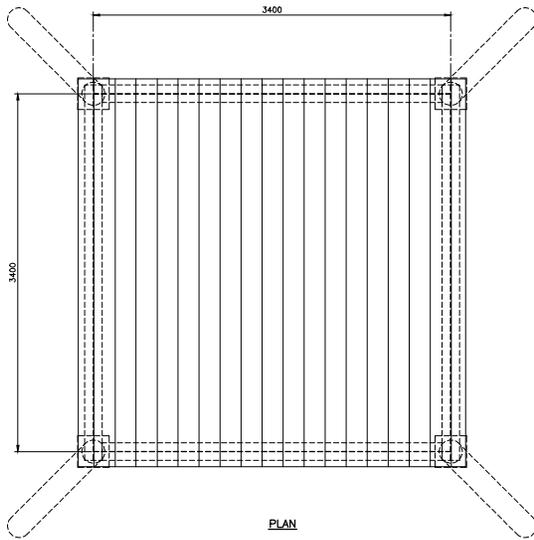
Drawing title: Titre du dessin

FINGER FLOAT WHARF
PLAN, SECTIONS AND
DETAILS

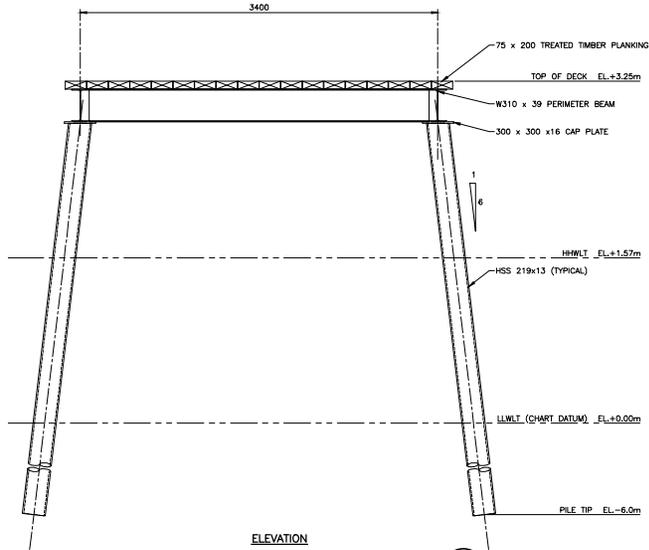
Project no./No. du projet: R.111193.001

Drawing no./No. du dessin: M18

Revision no.: 0



PLAN



ELEVATION
 FLOATING DOCK ANCHOR PAD DETAIL
 SCALE: 1:20
 0mm 500mm 1000mm 1500mm 2000mm 2500mm

1
16 | 20


 Transport Canada / Transports Canada
Reviewed / Examiné
 Date : December 23, 2021
 By/par : *Racquel Creces*
RACQUEL CRECES
 Navigation Protection Program /
 Programme de Protection de la Navigation

PRELIMINARY
NOT FOR CONSTRUCTION

SMALL CRAFT HARBOURS
ONTARIO AND PRAIRIE REGION



Revision	Description	Date
A	ISSUED FOR 60% REVIEW	2021

SMALL CRAFT HARBOURS
ONTARIO
AND PRAIRIE REGION

Project
CLYDE RIVER, NU
HARBOUR CONSTRUCTION

Designed by	Conçu par
Drawn by S.GRACE	Dessiné par
Approved by	Approuvé par
PMSC Project Manager	Administrateur de Projets TPSC
Drawing title	Titre du dessin

FLOAT WHARF ANCHOR
PAD PLAN, SECTION AND
DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.111193.001	M20 OF XX	0



Southwest Breakwater (port hand side of harbour entrance):

Perception = Danger + Safety

Where Danger = 30m (0.016nm)

Safety = 1nm

$P=0.016 + 1$

$P=1.016\text{nm}$ (1nm)

A 7nm nominal range port hand light (Fl4s) has been recommended (270cd). In 2.2 nm design visibility with some residential background lighting, a luminous range of 1.8nm will be attained. In good visibility this light will be seen at the entrance of Patricia Bay. A 1 mile port hand daybeacon will enhance the visibility of the aid during daylight hours. In order to obtain a sufficient sized lantern, considerable background lighting has been used.

Recommendation:

Establish a green port hand light, on the end of the southwest breakwater, Fl4s (Fl1sEc3s), 270 cd, NR 7nm, LR 1.8nm using some background lighting, 10 degree vertical divergence operating at night only. A minimum sized pole of 3m (10ft) with a 1.08m port hand daybeacon facing to sea. Suggested Aid ID, Kanngiqtuqaapik Breakwater Light LL#2630.

Northeast Breakwater (starboard hand side of harbour entrance):

Perception = Danger + Safety

Where Danger = 30m (0.016nm)

Safety = 1nm

$P=0.016 + 1$

$P=1.016\text{nm}$ (1nm)

With a larger lantern on the port hand side of the entrance to the port, the starboard hand light can be reduced in intensity. A 4nm nominal range starboard hand light (Fl4s) has been recommended (36cd). In 2.2 nm design visibility with some background lighting, a luminous range of 1.1nm will be attained. In order to obtain a sufficient sized lantern, considerable background lighting has been used.

Recommendation:

Establish a red starboard hand light, on the end of the northeast breakwater, Fl4s (Fl1sEc3s), 36 cd, NR 4nm, LR 1.1nm using some background lighting, 10 degree vertical divergence operating at night only. A minimum sized pole of 4m (13ft) with 3 horizontal bands of retroreflective tape. Suggested Aid ID, Kanngiqtugaapik Breakwater Light LL#2631.

RECOMMENDATIONS

Options/Recommendations



1. Establish port hand light on southwest breakwater.
2. Establish starboard hand light on northeast breakwater.

