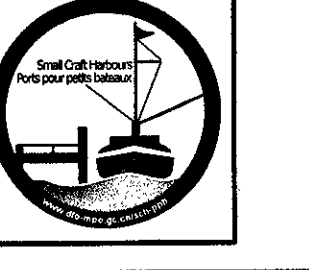


SMALL CRAFT HARBOURS



NOTES:
 1. ALL ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
 2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
 This Permit Allows
 APN ENGINEERING INC.
 To practice Professional Engineering in Newfoundland and Labrador.
 Permit No. as issued by APEGNL F2292, which is valid for the year 2015.

NEIL C. BUNT
 REGISTRAR
 6/3/15
 DATE

B	ISSUED FOR TENDER	06/3/15
A	ISSUED FOR REVIEW	05/21/15
revisions		date
project		project

WHARF EXTENSION
 BRANCH, NL

EXISTING SITE AND
 DEMOLITION PLAN

designed N.H. conccu
 date JUNE 3, 2015
 drawn P.H. desine
 date JUNE 3, 2015
 approved approve
 Tender Paul Bunt Submission
 DFO Project Manager

721395
 C1

SURVEY NOTES

SURVEY PARTY CHIEF RICHARD HEALEY
 SURVEY VESSEL ALUMINUM BOAT
 SURVEY DATE(S) MARCH 10, 2014 & MARCH 20, 2014
 SOUNDER TYPE: SINGLE TRANSDUCER
 SOUNDER SETTING MIN/INST VEL. OF SOUND 1520 m/s
 DEPTH GATE USED N/A FREQ. OF TRANS. 210 KHZ
 POSITIONING SYSTEM USED ON THE FLY DGPS
 LAND SURVEY POSITION BY ON THE FLY DGPS
 DATA TAPE/DISC(S) USED
 CAD DRAWING FILE(S):

OFFICE PROCESSOR EDDIE BEARNS
 DATE OF PROCESSING MARCH 2014

MODE OF PLOTTING LEAST OF MINIMUM DEPTHS
 MATRIX CELL WIDTH X LENGTH
 REDUCTION OF MATRIX CELLS

CONTROL POINTS:

PL. NAME	EASTING	NORTHING	CD ELEV	DESCRIPTION
619058	274441.744	5196413.496		PROVINCIAL BRASS PLAQUE SET IN ROCK
619059	276598.859	5196315.896		PROVINCIAL BRASS PLAQUE SET IN ROCK
PWC 1-02	275128.773	5196251.702	+3.59 m	BOLT SET IN CONCRETE DECK
PWC 17-96	275166.596	5196224.023	+3.44 m	NAIL RAMSET IN CONC. DECK
PWC 18-96	275109.236	5196232.776	+2.84 m	NAIL IN PAVEMENT
BM 2-87	275113.368	5196210.268	+3.24 m	S.E. CORNER OF THE MEMORIAL MONUMENT
PWC 1-10	275129.852	5196316.167	+3.635 m	X-CUT IN BOLT IN CONCRETE BLOCK
PWC 9801	275157.335	5196171.517	+3.454 m	NAIL IN WOODEN DECK
PWC 9803	275196.832	5196418.769	+5.89 m	F.I.P. IN THE CENTER OF BRIDGE

ALL SOUNDINGS & ELEVATIONS IN METRES.

ALL SOUNDINGS & ELEVATIONS REFERRED TO BM 2-87 ELEV. +3.24 m (LOCATED AT THE SE CORNER OF CONCRETE BLOCK OF WAR MEMORIAL) & WAS ESTABLISHED BY WATER LEVEL TRANSFER CHS BM 3-1964 ELEV. +5.58 m (WHICH IS NOW DESTROYED) LOCATED AT ST. BRIDES, NFLD. ON JULY 5-9, 1987 BY PWC SURVEY CREW.

SOUNDINGS TAKEN USING NAVISOUND 210 ECHO SOUNDER AND POSITIONED BY TRIMBLE R7 DIFFERENTIAL GPS POSITIONING SYSTEM ON MARCH 10 & 20, 2014 BY PWCSS SURVEY CREW.

COORDINATES FOR HORIZONTAL CONTROL ARE GIVEN ON THE U.T.M. MAPPING PLANE, ZONE 22, USING THE NORTH AMERICAN DATUM OF 1983 (NAD83).

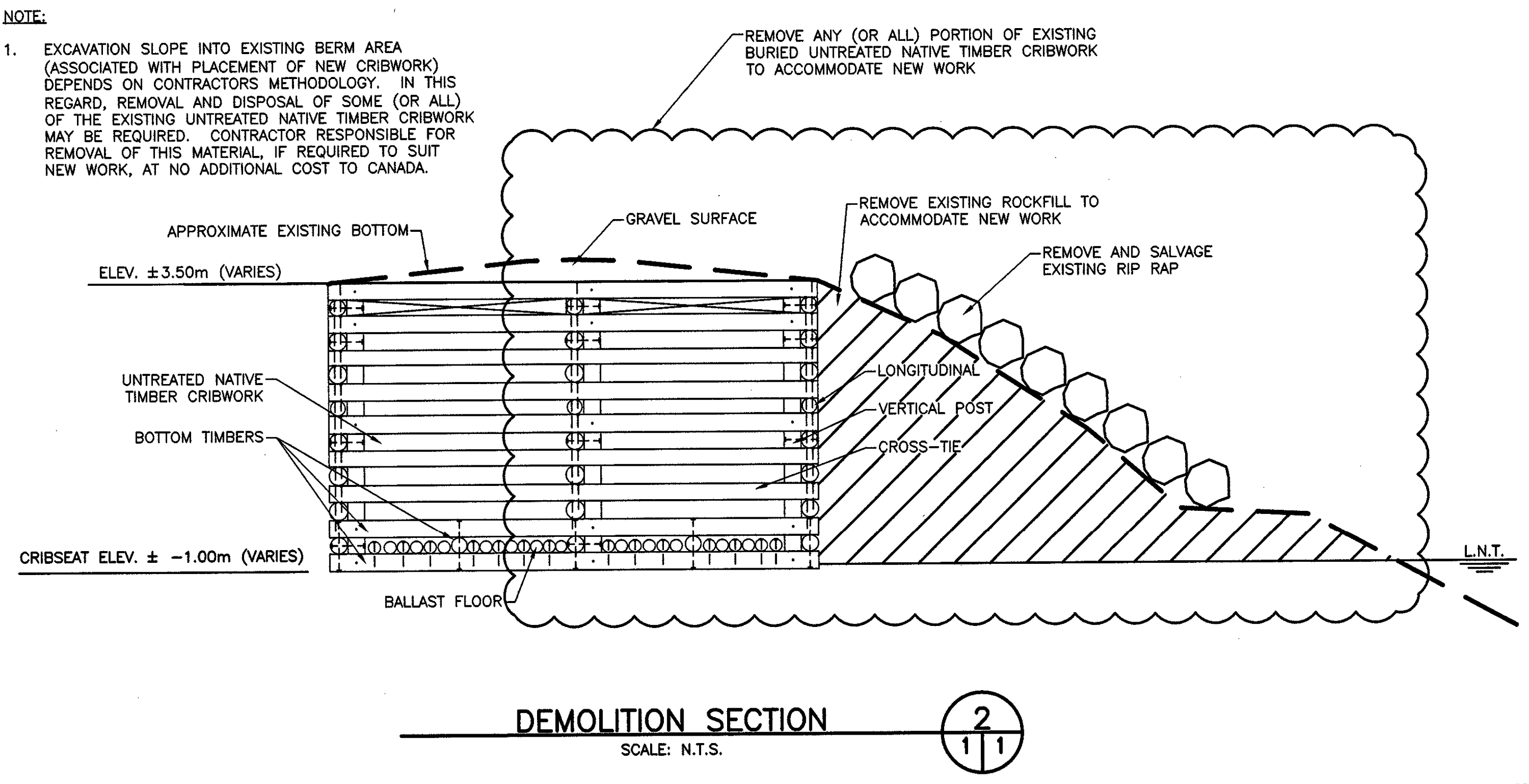
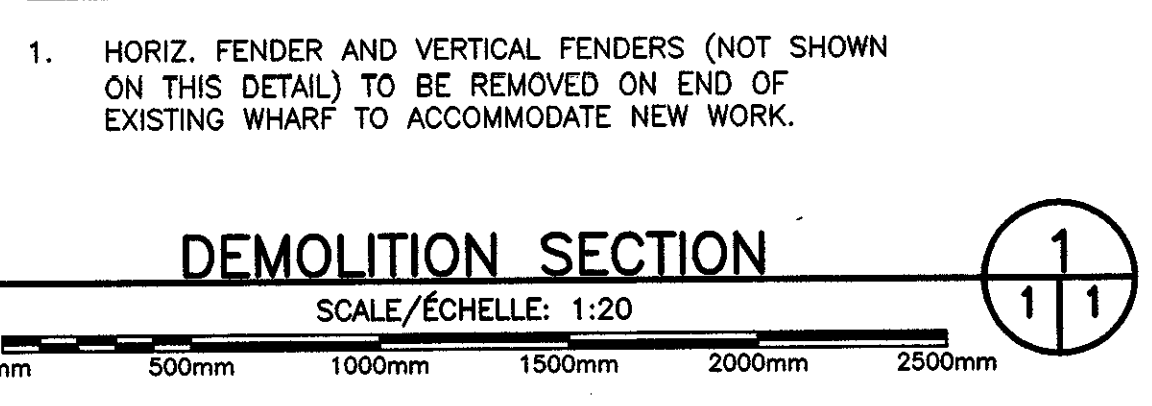
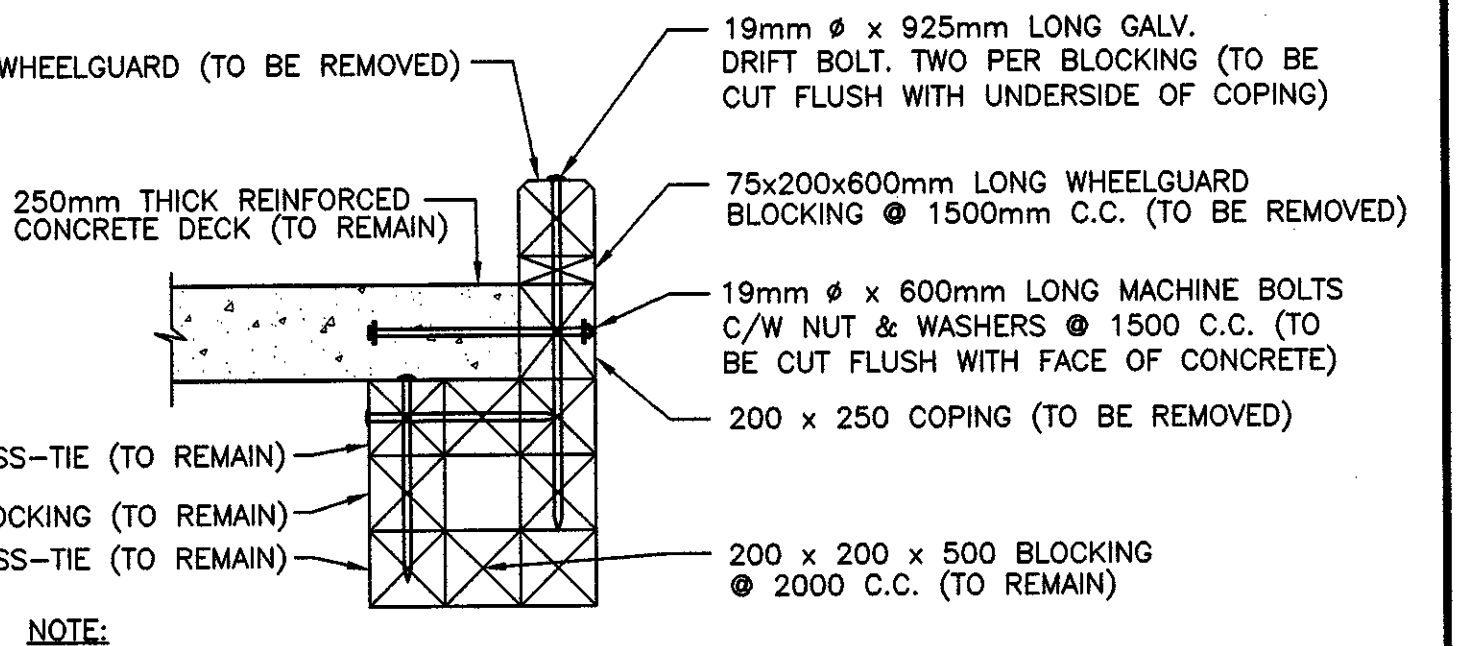
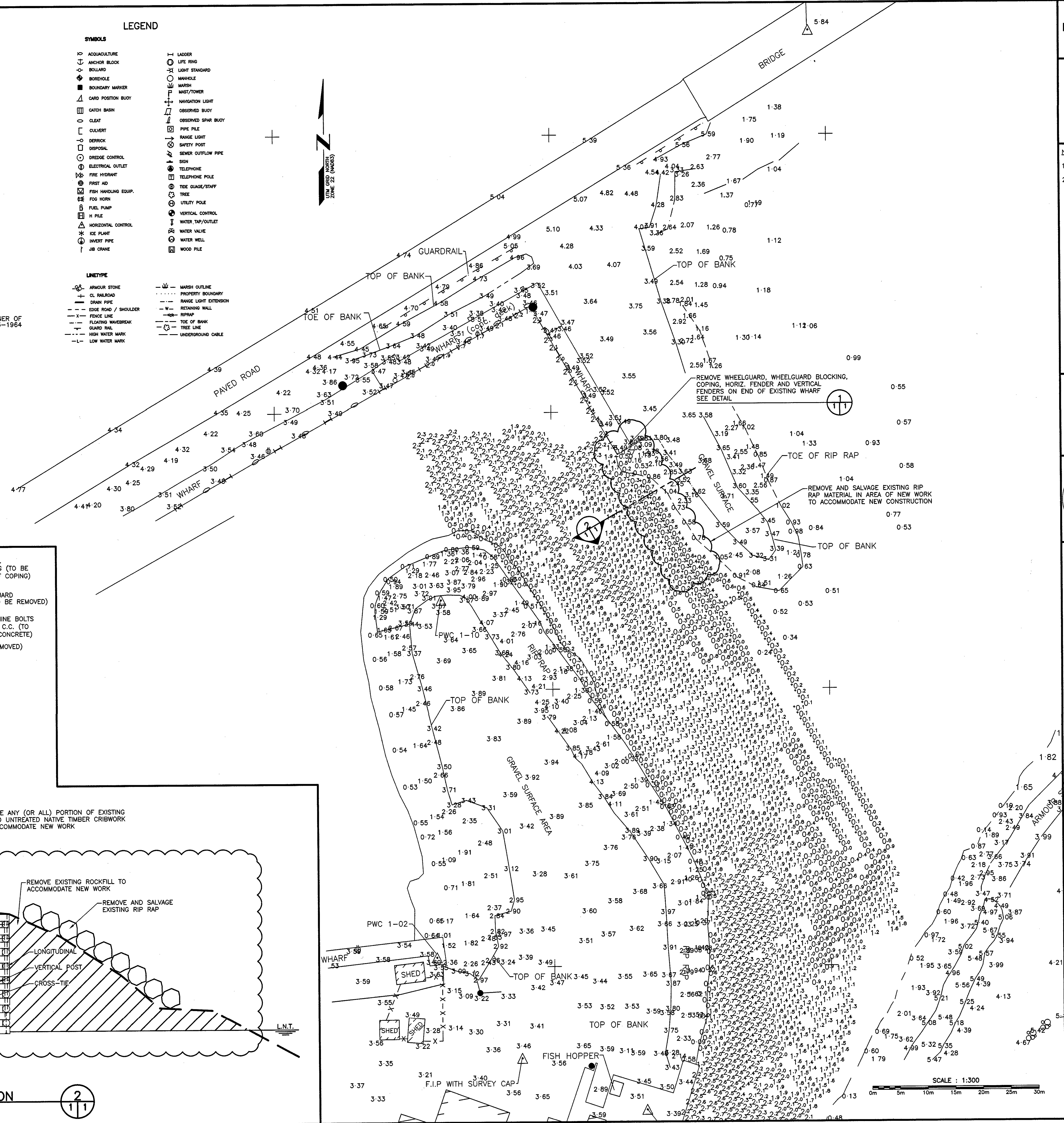
BAR CHECK AT 1.0 m INTERVALS DOWN TO A DEPTH OF -4.0 m.

SPEED OF SOUND WAS OBTAINED USING A DIGIBAR-PRO VELOCIMETER. SOUNDINGS WERE REDUCED USING HYPACK MAX VER. 4.3.

ALL FIELD NOTES ARE IN BRANCH BOOK #108 'B' & 'C'.

LEGEND

- SYMBOLS
- ANCHORAGE
 - ANCHOR BLOCK
 - BOLLARD
 - BORNE/PILE
 - BOUNDARY MARKER
 - CARD POSITION BUOY
 - CATCH BASIN
 - CLEAT
 - CULVERT
 - DERISK
 - DISPOSAL
 - DREDGE CONTROL
 - ELECTRICAL OUTLET
 - FIRE HYDRANT
 - FIRST AID
 - FISH HANDLING EQUIP.
 - FOG HORN
 - FUEL PUMP
 - H PILE
 - HORIZONTAL CONTROL
 - ICE PLANT
 - INVERT PIPE
 - JIB CRANE
 - LADDER
 - LIFE RING
 - LIGHT STANDARD
 - MANHOLE
 - MARSH
 - MAST/TOWER
 - NAVIGATION LIGHT
 - OBSERVED BUOY
 - OBSERVED SPUR BUOY
 - PIPE PILE
 - RANGE LIGHT
 - SAFETY POST
 - SEWER OUTFLOW PIPE
 - SIGN
 - TELEPHONE
 - TELEPHONE POLE
 - TIDE GAUGE/STAFF
 - TRUCK
 - UTILITY POLE
 - VERTICAL CONTROL
 - WATER TRIP/OUTLET
 - WATER VALVE
 - WATER WELL
 - WOOD PILE
- LINETYPE
- ARMOUR STONE
 - CL. RAILROAD
 - DRAIN PIPE
 - EDGE ROAD / SHOULDER
 - FENCE LINE
 - FLOATING WAVEBREAK
 - GUARD RAIL
 - HIGH WATER MARK
 - LOW WATER MARK
 - MARSH OUTLINE
 - PROPERTY BOUNDARY
 - RANGE LIGHT EXTENSION
 - RETAINING WALL
 - RIPRAP
 - TOE OF BANK
 - TOE OF BANK (COLL.)
 - TRAIL LINE
 - UNDERGROUND CABLE



SURVEY NOTES

SURVEY PARTY CHIEF RICHARD HEALEY
 SURVEY VESSEL ALUMINUM BOAT
 SURVEY DATE(S) MARCH 10, 2014 & MARCH 20, 2014
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 SOUNDER SETTING MIN/INST VEL. OF SOUND 1520 m/s
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 POSITIONING SYSTEM USED ON THE FLY DGPS
 LAND SURVEY POSITION BY ON THE FLY DGPS
 DATA TAPE/DISC(S) USED
 CAD DRAWING FILE(S)
 TIDAL REDUCTION SCHEME

OFFICE PROCESSOR EDDIE BEARNS
 DATE OF PROCESSING MARCH 2014

MODE OF PLOTTING LEAST OF MINIMUM DEPTHS
 MATRIX CELL WIDTH X LENGTH
 REDUCTION OF MATRIX CELLS

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COORDINATES FOR HORIZONTAL CONTROL ARE GIVEN ON THE U.T.M. MAPPING PLANE, ZONE 22, USING THE NORTH AMERICAN DATUM OF 1983 (NAD83).

BAR CHECK AT 1.0 m INTERVALS DOWN TO A DEPTH OF -4.0 m.

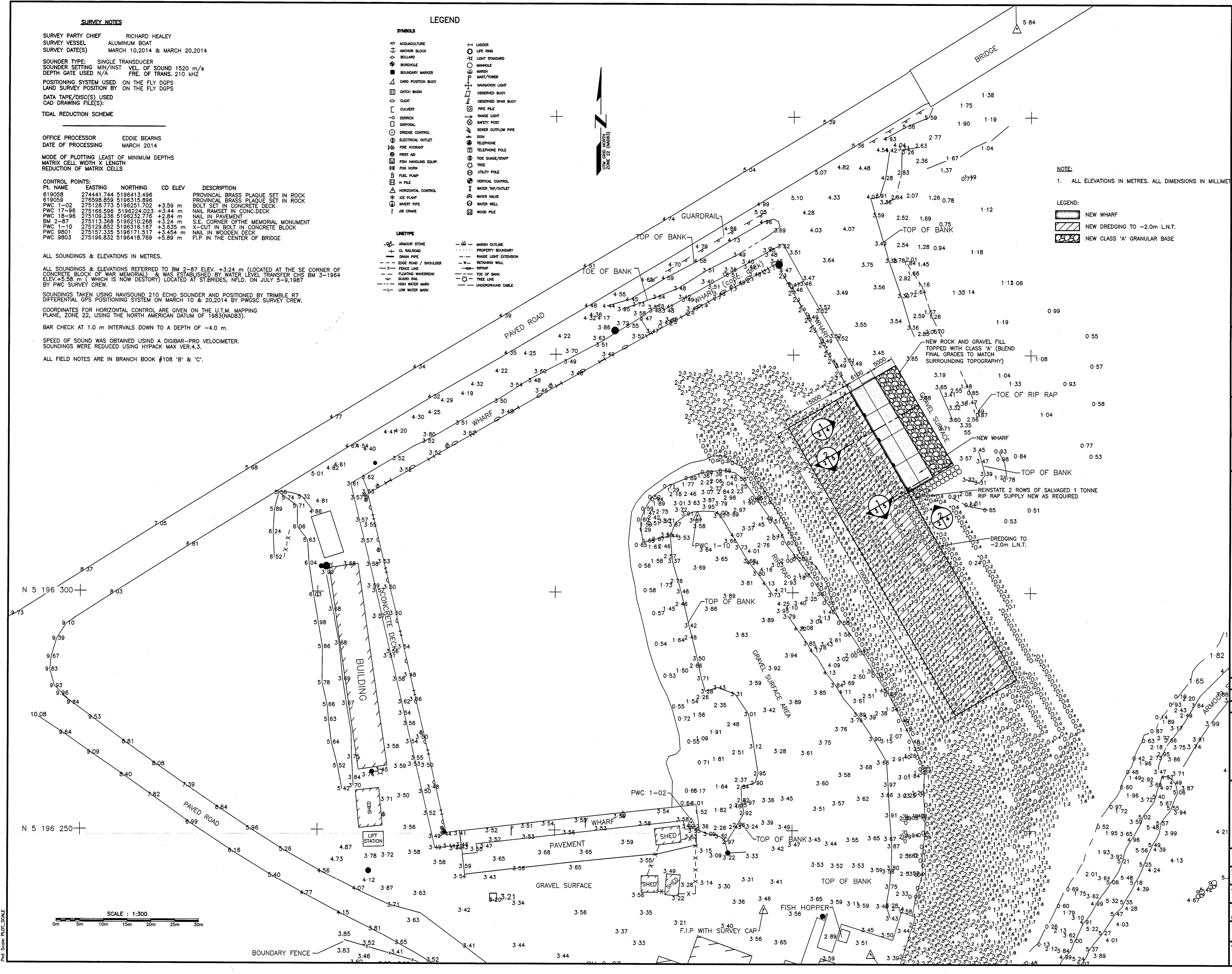
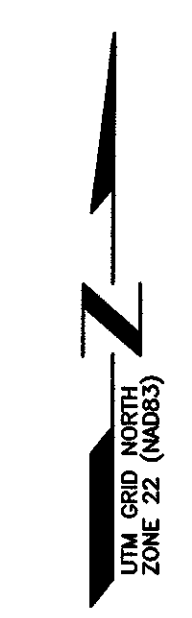
SPEED OF SOUND WAS OBTAINED USING A DIGIBAR-PRO VELOCIMETER. SOUNDINGS WERE REDUCED USING HYPACK MAX VER. 4.3.

ALL FIELD NOTES ARE IN BRANCH BOOK #108 'B' & 'C'.

LEGEND

- | | |
|----------------------|--------------------|
| SYMBOLS | SYMBOLS |
| ANCHOR BLOCK | LADDER |
| BELLBOAT | LIFE RING |
| BOREHOLE | LIGHT STANDARD |
| BOUNDARY MARKER | MARSH |
| CARD POSITION BUOY | MAST/TOWER |
| CATCH BASIN | NAVIGATION LIGHT |
| CULVERT | OBSERVED BUOY |
| DEBRICK | OBSERVED SPAR BUOY |
| DISPOSAL | PIPE PILE |
| DREDGE CONTROL | RANGE LIGHT |
| ELECTRICAL OUTLET | SAFETY POST |
| FIRE HYDRANT | SEWER OUTFLOW PIPE |
| FIRST AID | SIGN |
| FISH HANDLING EQUIP. | TELEPHONE |
| FOOD HORN | TELEPHONE POLE |
| FUEL PUMP | TIDE GAUGE/STAFF |
| H FILE | TREE |
| HORIZONTAL CONTROL | UTILITY POLE |
| ICE PLANT | VERTICAL CONTROL |
| INVERT PIPE | WATER TAP/OUTLET |
| JIB CRANE | WATER VALVE |
| | WATER WELL |
| | WOOD PILE |

- | | |
|----------------------|-----------------------|
| LINE TYPE | SYMBOLS |
| ARMOUR STONE | MARSH OUTLINE |
| CL RAILROAD | PROPERTY BOUNDARY |
| DRAIN PIPE | RANGE LIGHT EXTENSION |
| EDGE ROAD / SHOULDER | RETAINING WALL |
| FENCE LINE | RIPRAP |
| FLOATING WAVEBREAK | TOE OF BANK |
| GUARD RAIL | TREE LINE |
| HIGH WATER MARK | UNDERGROUND CABLE |
| LOW WATER MARK | |



NOTE:
 1. ALL ELEVATIONS IN METRES. ALL DIMENSIONS IN MILLIMETRES.
 2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

LEGEND:
 NEW WHARF
 NEW DREDGING TO -2.0m L.N.T.
 NEW CLASS 'A' GRANULAR BASE

Fisheries and Oceans Canada / Pêches et Océans Canada

SMALL CRAFT HARBOURS

NOTES:
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PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
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 APN ENGINEERING INC.
 To practice Professional Engineering in Newfoundland and Labrador. Permit No. as issued by APENL E0282, which is valid for the year 2015.

NEIL C. HUNT
 REGISTRAR
 8/8/15
 DATE

B	ISSUED FOR TENDER	06/3/15
A	ISSUED FOR REVIEW	05/21/15
revisions		date
project		project

**WHARF EXTENSION
 BRANCH, NL**

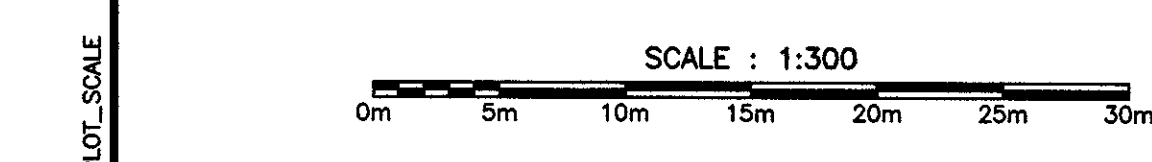
NEW SITE PLAN

designed N.H. concu
 date JUNE 3, 2015
 drawn P.H. desine
 date JUNE 3, 2015
 approved approve
 approved approve
 approved approve

Tender
 DFO Project Manager
 Submission

721395

drawing no. no. du dessin
C2



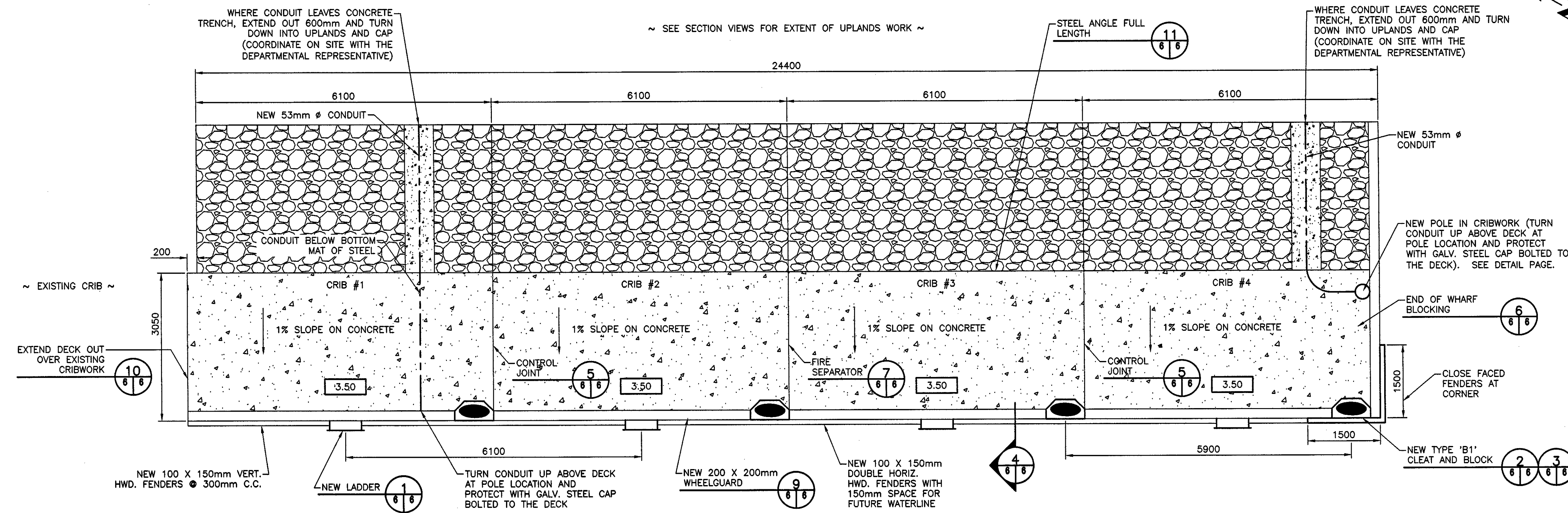
SMALL CRAFT HARBOURS



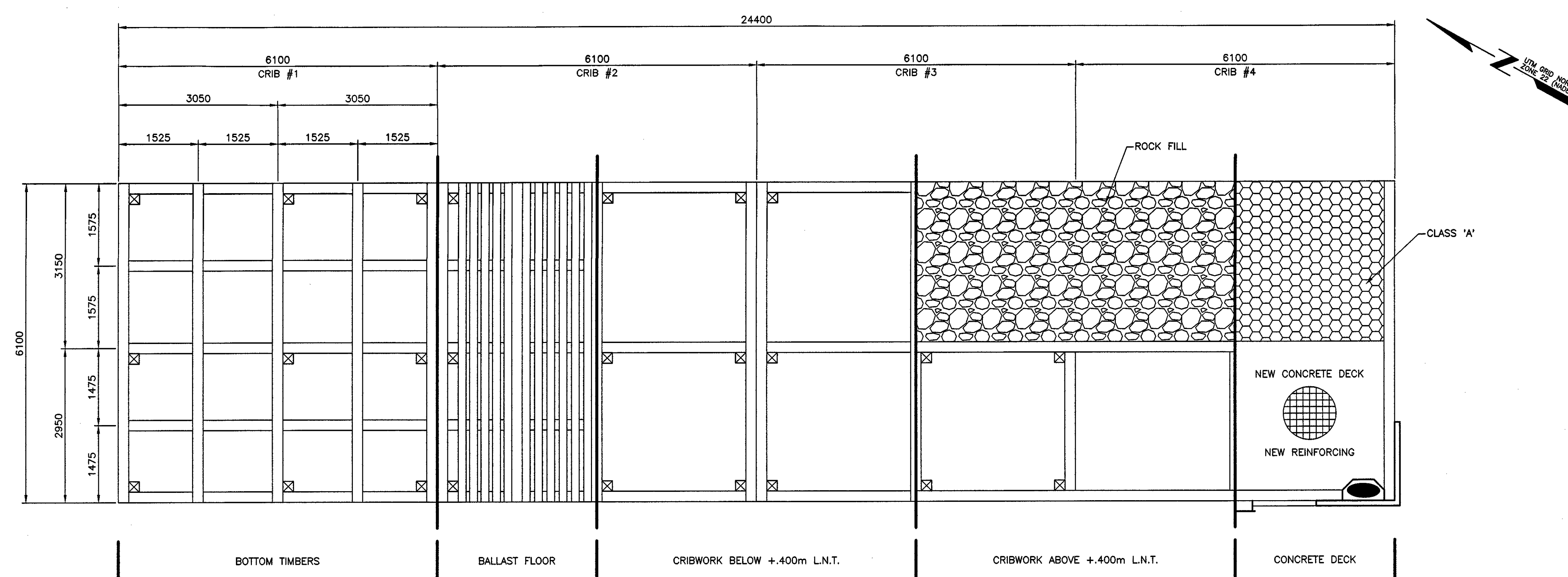
NOTES:
 1. ALL ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
 2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

NOTES:
 1. END BAYS OF CRIBS #1 AND #4 ARE FULL HEIGHT. ALL OTHER CRIBS ARE STEPPED CRIBS (REFERENCE SECTION VIEWS). CONCRETE TRENCH FOR CONDUIT WILL NOT BE MEASURED FOR PAYMENT AND IS TO BE INCLUDED IN THE LUMP SUM ARRANGEMENT. FOR TRENCH DETAIL, SEE DETAIL PAGE.
 2. CONCRETE TRENCH FOR CONDUIT WILL NOT BE MEASURED FOR PAYMENT AND IS TO BE INCLUDED IN THE LUMP SUM ARRANGEMENT. FOR TRENCH DETAIL, SEE DETAIL PAGE.

LEGEND:
 NEW LADDER
 NEW TYPE 'B1' CLEAT AND BLOCK
 3.50 NEW GRADE

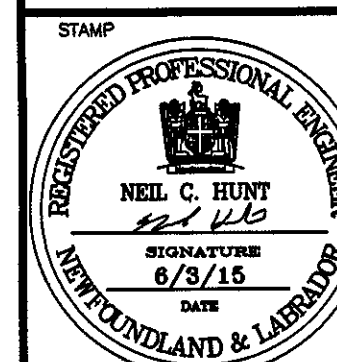


NEW WHARF LAYOUT
 SCALE/ÉCHELLE: 1:50



NEW WHARF LAYOUT
 SCALE/ÉCHELLE: 1:50

PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
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 APN ENGINEERING INC.
 To practice Professional Engineering in Newfoundland and Labrador. Permit No. as issued by APEGNL 10282, which is valid for the year 2015.



B	ISSUED FOR TENDER	06/3/15
A	ISSUED FOR REVIEW	05/21/15
revisions	date	
project	project	

WHARF EXTENSION
 BRANCH, NL

NEW WHARF LAYOUT

designed N.H. concu
 date JUNE 3, 2015
 drawn P.H. dessine
 date JUNE 3, 2015
 approved approve

Tender *D. Curran* Submission
 DFO Project Manager

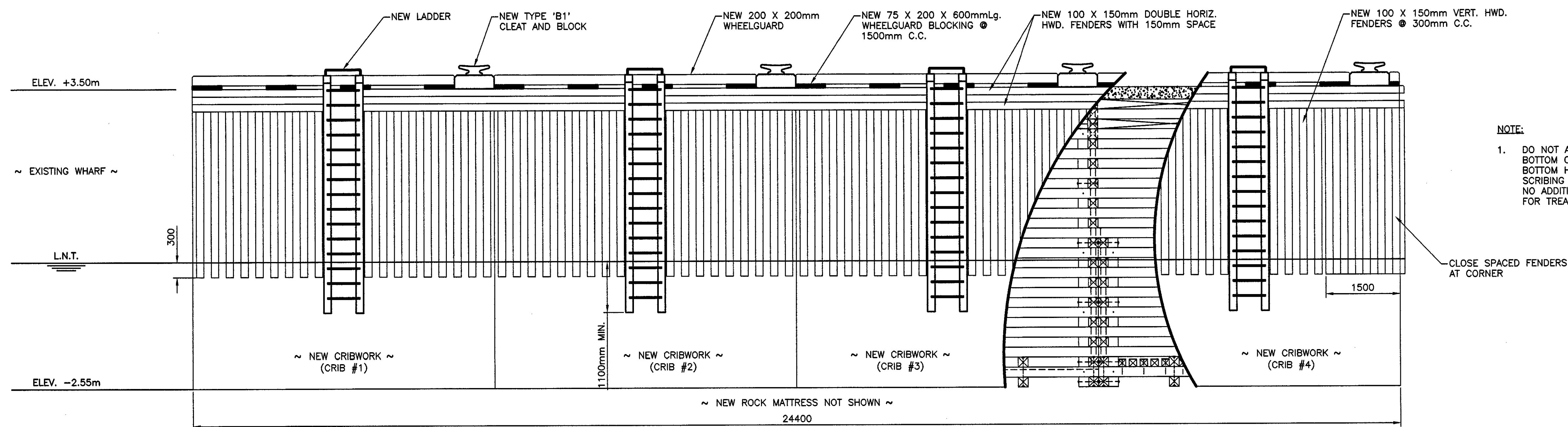
721395

drawing no. C3 no. du dessin

SMALL CRAFT HARBOURS



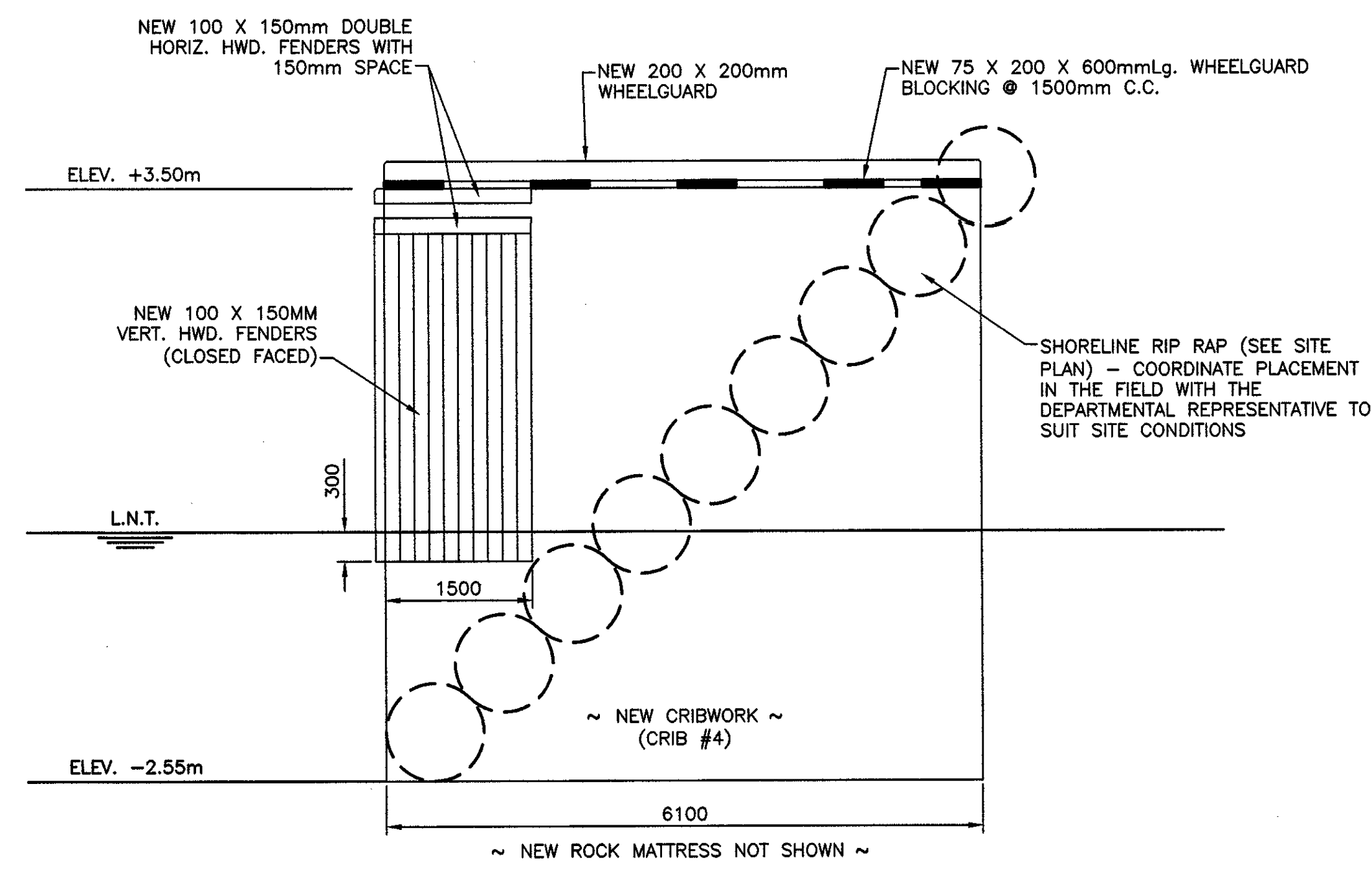
- NOTES:
1. ALL ELEVATIONS ARE IN METRES UNLESS OTHERWISE NOTED.
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NOTE:
1. DO NOT ARBITRARILY CONSTRUCT FLAT BOTTOM CRIBS ON SHORE UNTIL HARD BOTTOM HAS BEEN CONFIRMED. IF SCRIBING IS REQUIRED, THERE WILL BE NO ADDITIONAL COSTS TO THE UNIT PRICE FOR TREATED TIMBER CRIBWORK.



NOTE:
1. CLEAT NOT SHOWN IN THIS ELEVATION.



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PERMIT HOLDER
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in Newfoundland and Labrador.
Permit No. as issued by APENL 70292.
which is valid for the year 2015.

REGISTERED PROFESSIONAL ENGINEER
NEIL C. BUNT
SIGNATURE
6/3/15
NEWFOUNDLAND & LABRADOR

B	ISSUED FOR TENDER	06/3/15
A	ISSUED FOR REVIEW	05/21/15
revisions		date
project		project

WHARF EXTENSION
BRANCH, NL

NEW ELEVATIONS

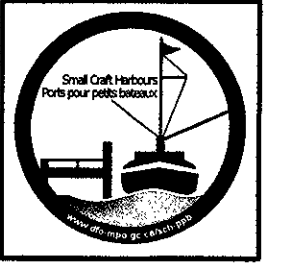
designed N.H.	conclu
date JUNE 3, 2015	
drawn P.H.	dessine
date JUNE 3, 2015	
approved	approve

Tender *Paul Curran* Submission
DFO Project Manager

721395

drawing no. C4 no. du dessin

SMALL CRAFT HARBOURS



- NOTES:
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PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
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 APN ENGINEERING INC.
 To practice Professional Engineering
 in Newfoundland and Labrador.
 Permit No. as issued by APENGL F0282
 which is valid for the year 2015.

STAMP
 PROFESSIONAL ENGINEER
 NEIL C. HUNT
 REGISTRATION NO. 673/15
 DATE 6/3/15
 NEWFOUNDLAND & LABRADOR

B	ISSUED FOR TENDER	06/3/15
A	ISSUED FOR REVIEW	05/21/15
revisions		date
project		project

WHARF EXTENSION
 BRANCH, NL

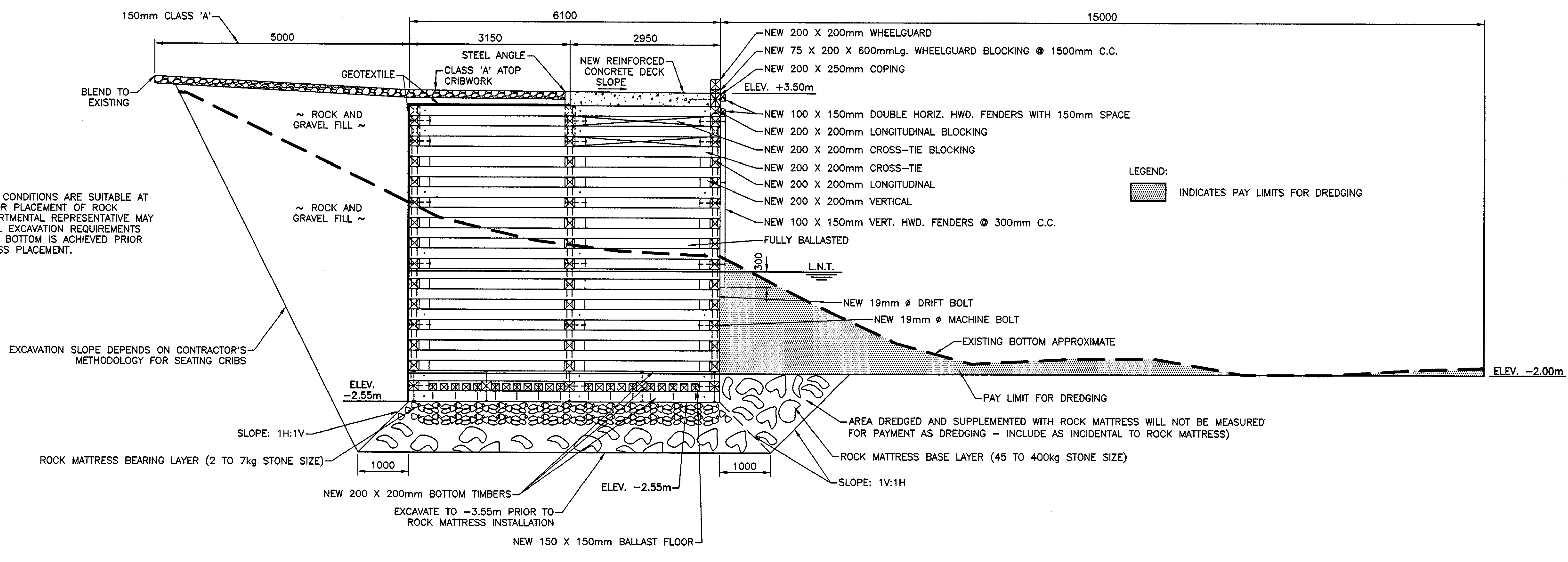
drawing design

NEW SECTIONS

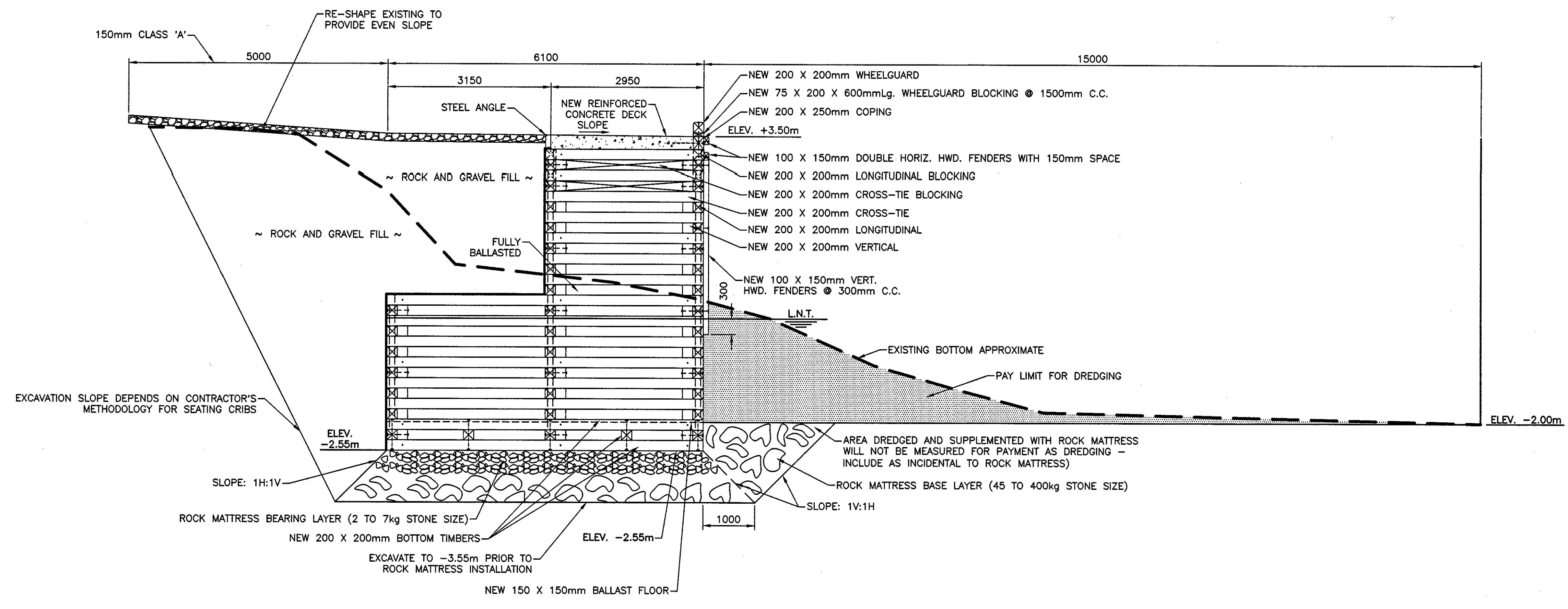
designed N.H.	concu
date JUNE 3, 2015	
drawn P.H.	desain
date JUNE 3, 2015	
approved	approve

Tender Paul Rynn
 DFO Project Manager
 Submission

721395
 drawing no. no. du dessin
 C5



SECTION 1
 SCALE/ÉCHELLE: 1:50

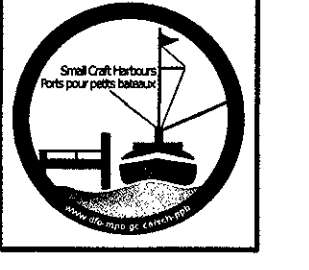


SECTION 2
 SCALE/ÉCHELLE: 1:50

NOTE:
 1. CONFIRM BOTTOM CONDITIONS ARE SUITABLE AT -3.55m L.N.T. FOR PLACEMENT OF ROCK MATTRESS. DEPARTMENTAL REPRESENTATIVE MAY DIRECT ADDITIONAL EXCAVATION REQUIREMENTS TO ENSURE HARD BOTTOM IS ACHIEVED PRIOR TO ROCK MATTRESS PLACEMENT.

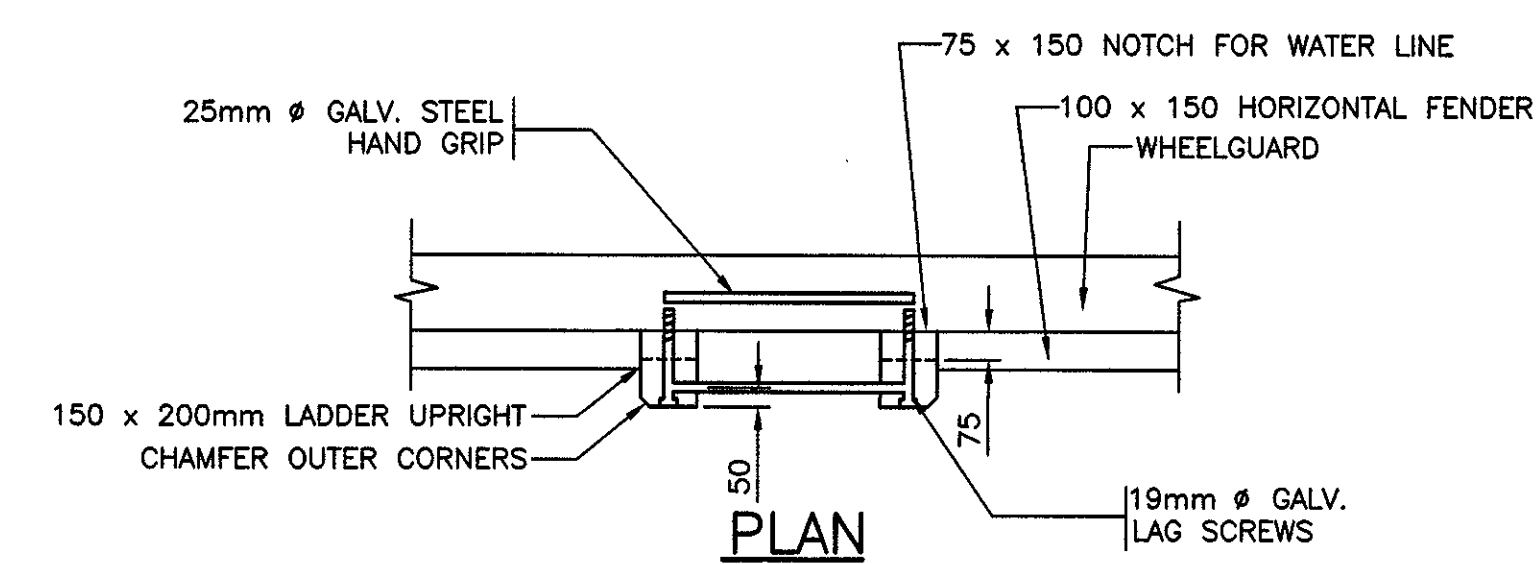
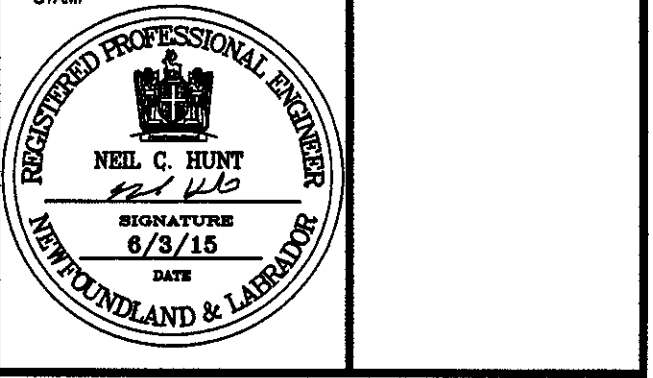
EXCAVATION SLOPE DEPENDS ON CONTRACTOR'S METHODOLOGY FOR SEATING CRIBS

SMALL CRAFT HARBOURS

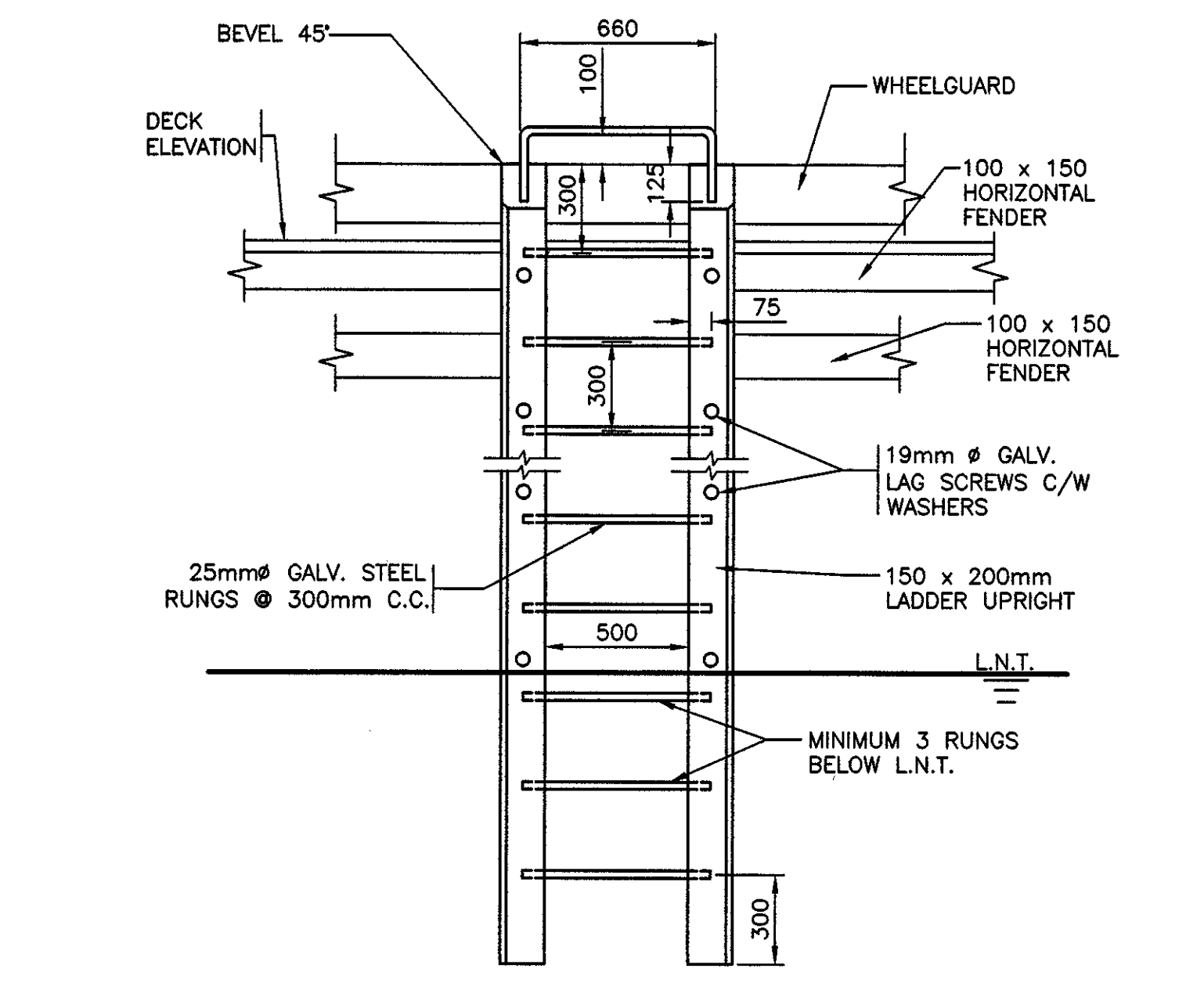


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PROVINCE OF NEWFOUNDLAND
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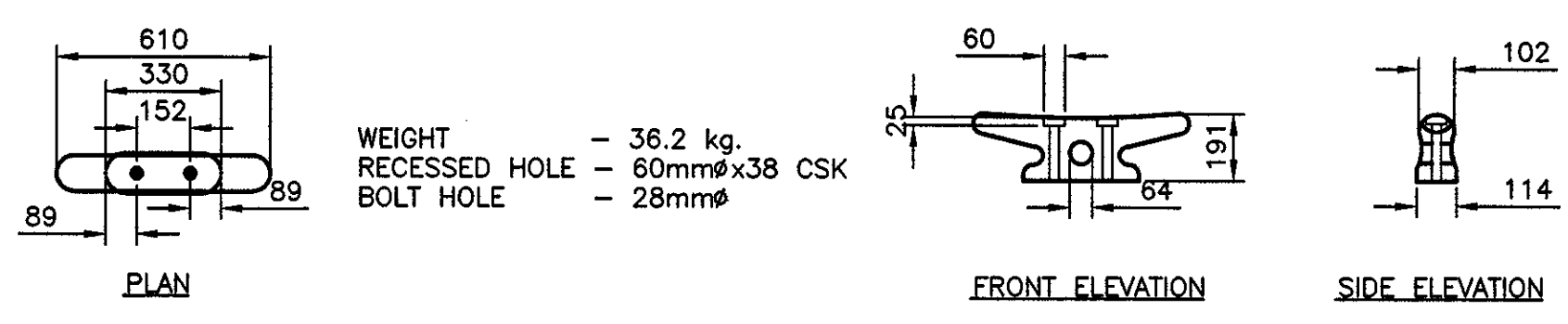
PLAN



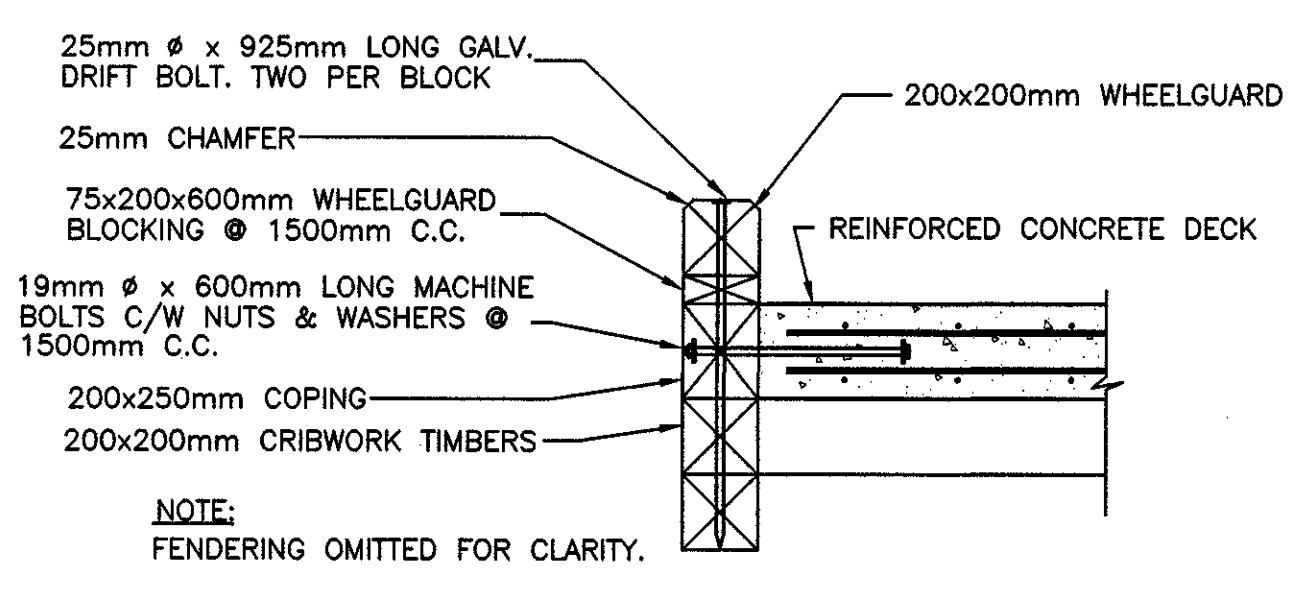
ELEVATION



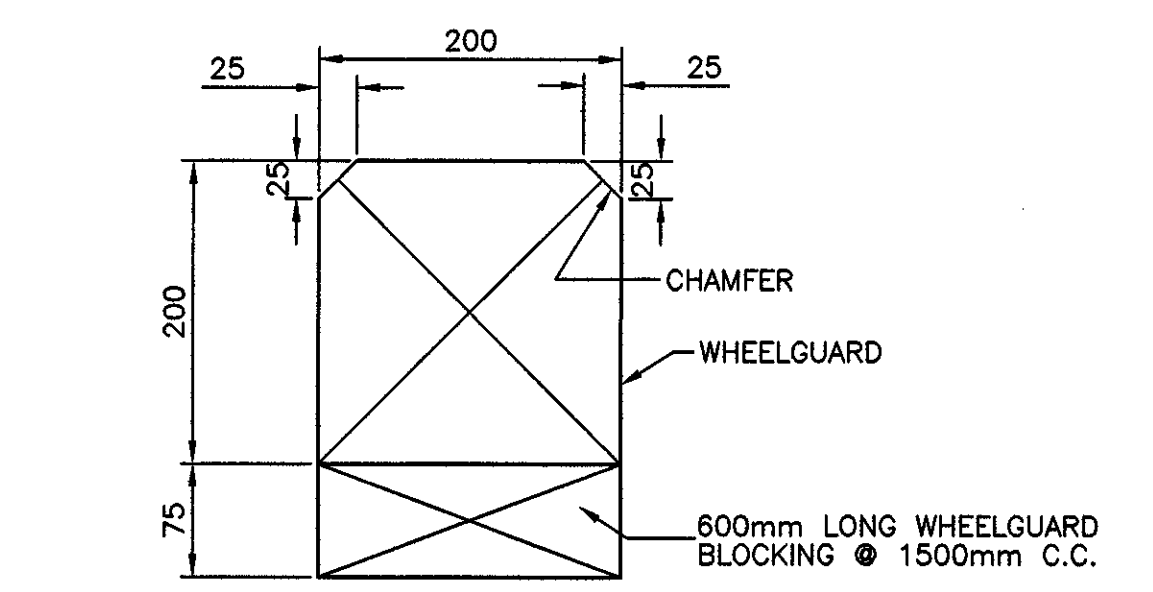
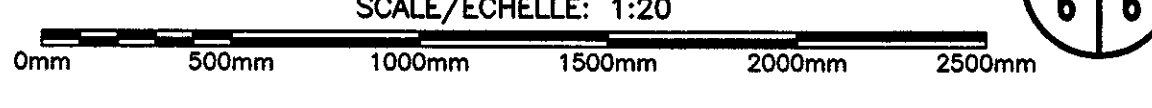
LADDER DETAIL



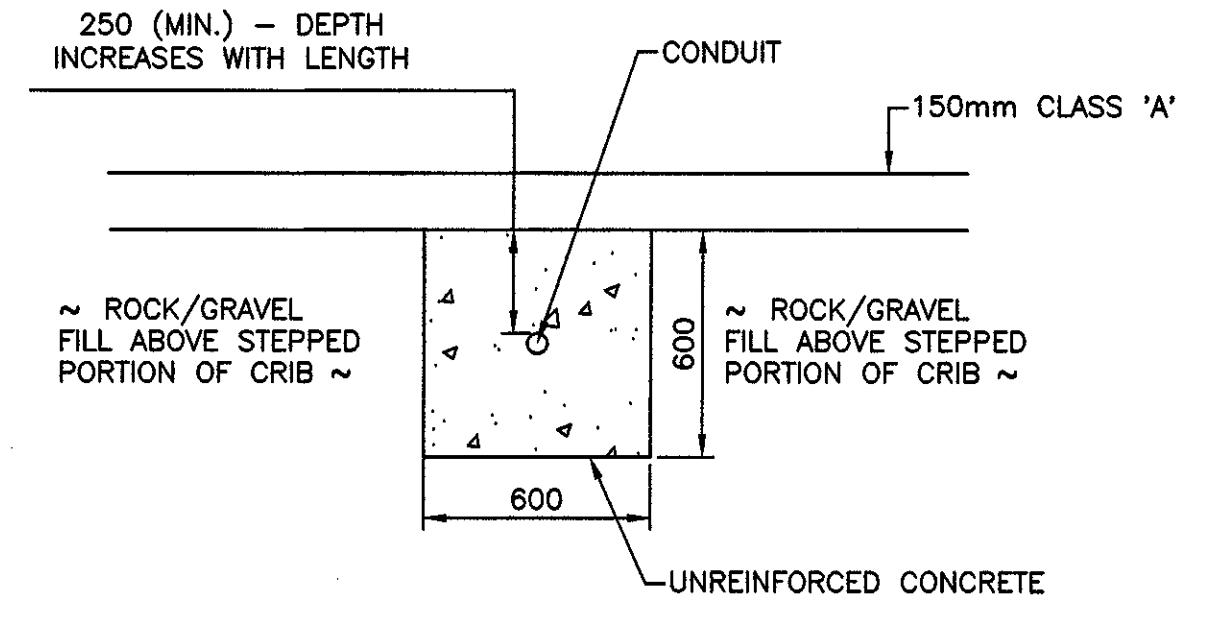
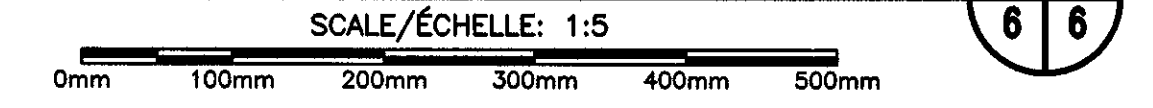
WEIGHT - 36.2 kg.
 RECESSED HOLE - 60mm x 38 CSK
 BOLT HOLE - 28mm



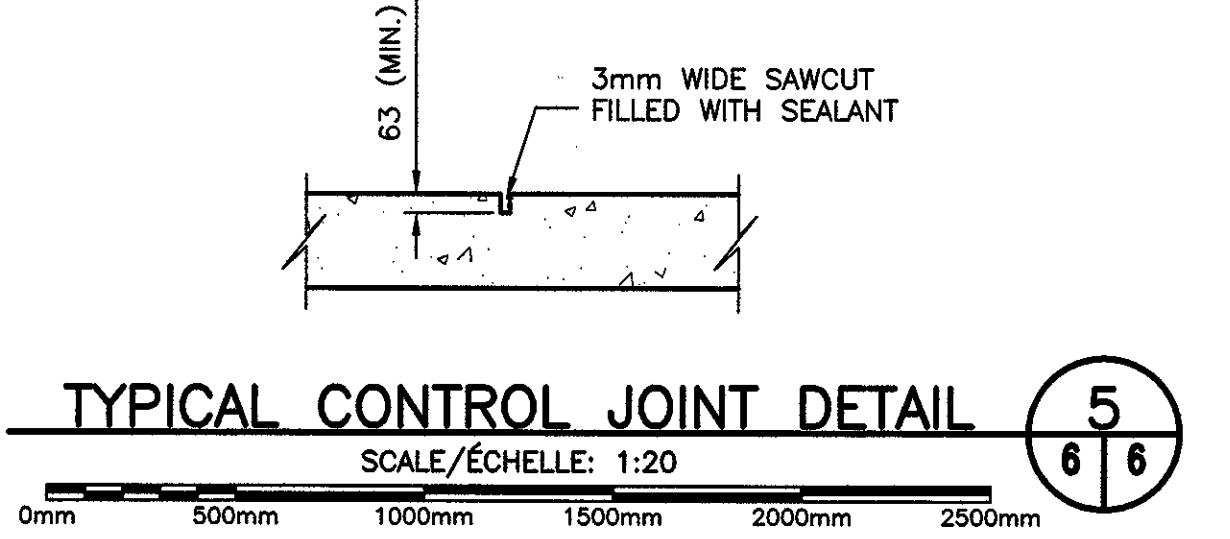
WHEELGUARD AND COPING DETAIL



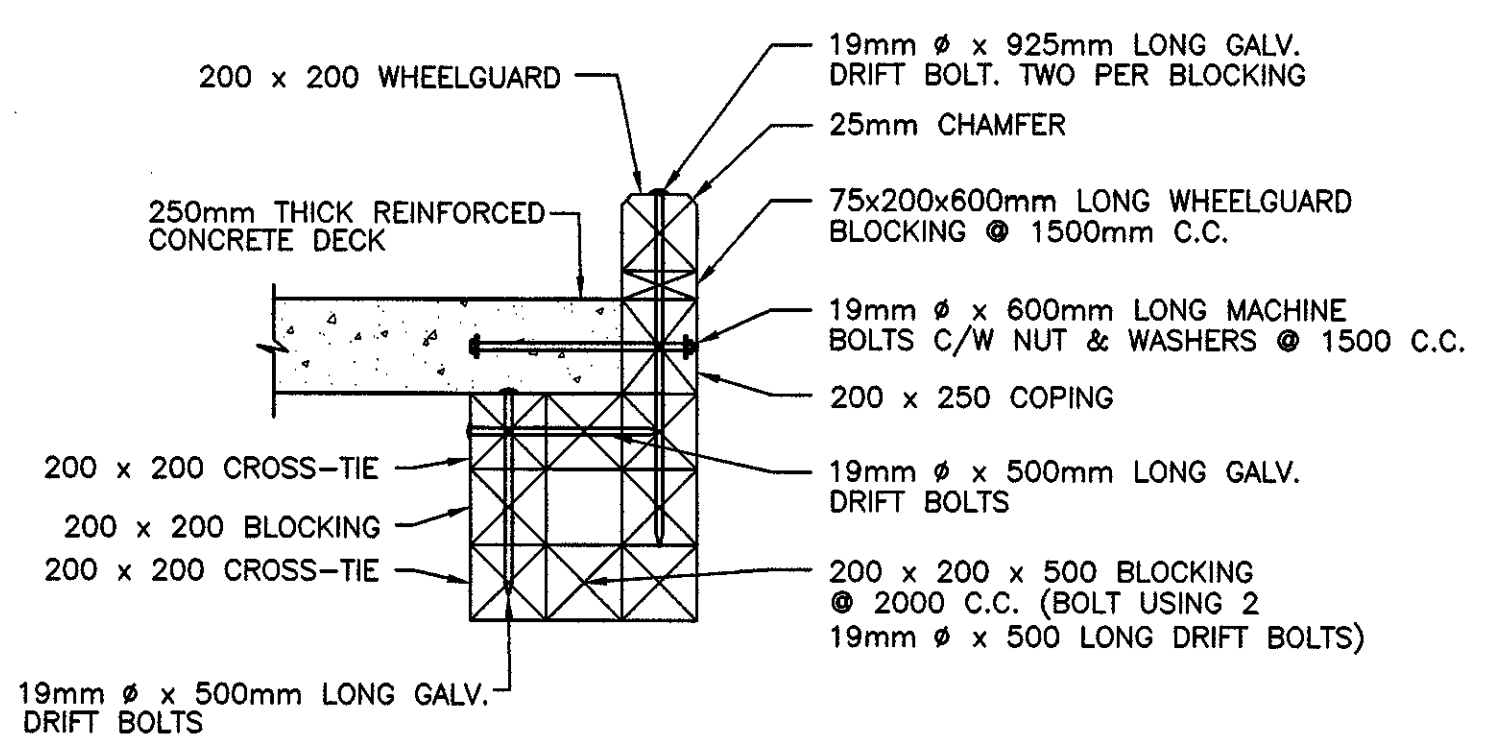
WHEELGUARD SECTION



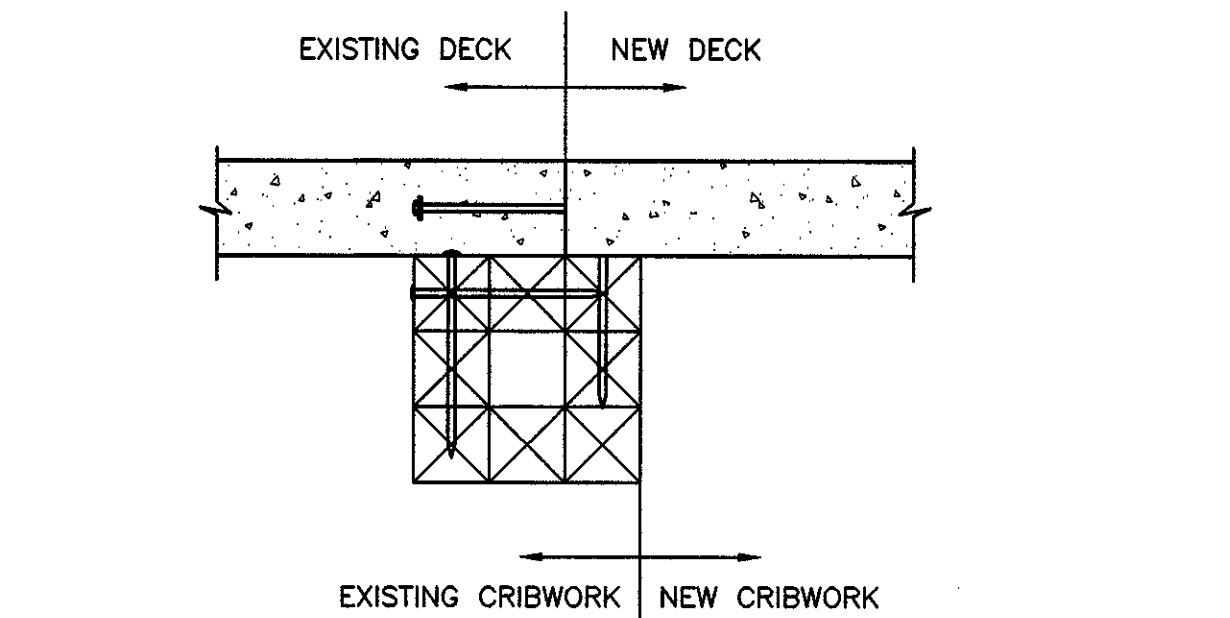
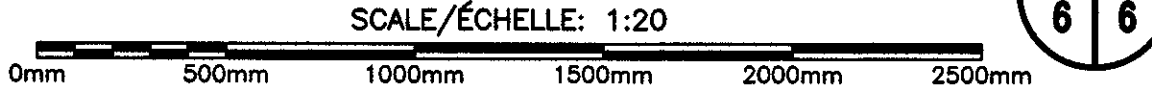
TRENCH FOR CONDUIT ABOVE STEPPED PORTION OF CRIBWORK



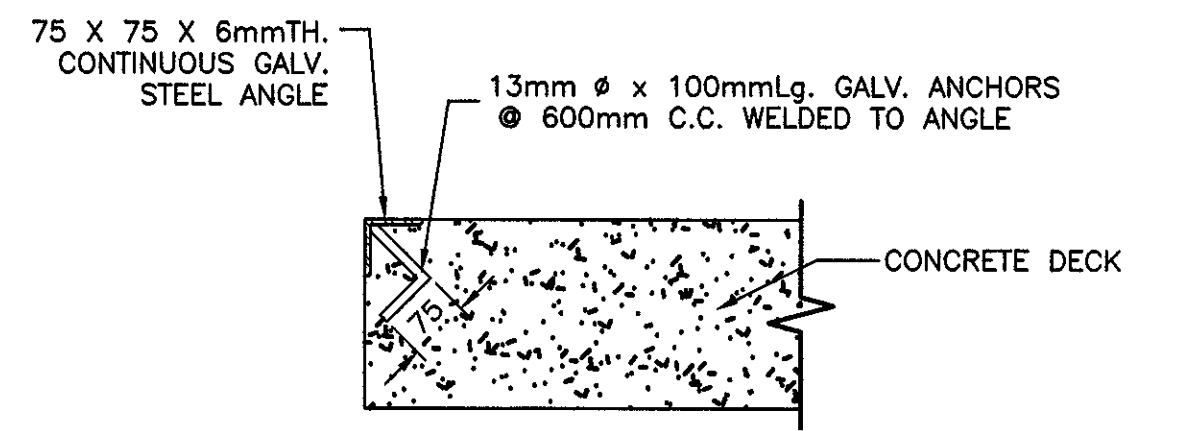
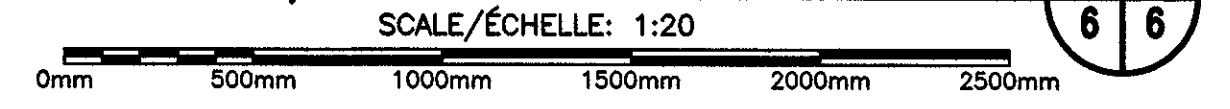
TYPICAL CONTROL JOINT DETAIL



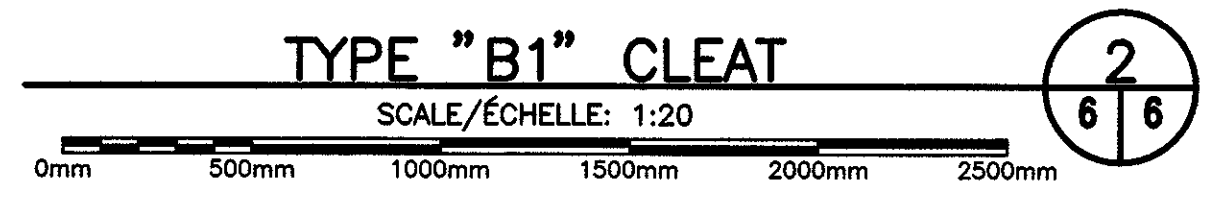
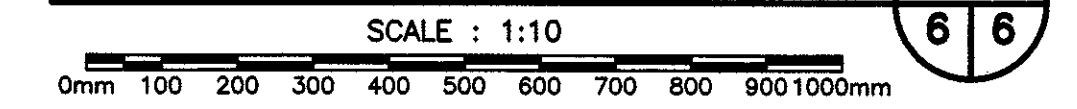
END OF WHARF BLOCKING DETAIL



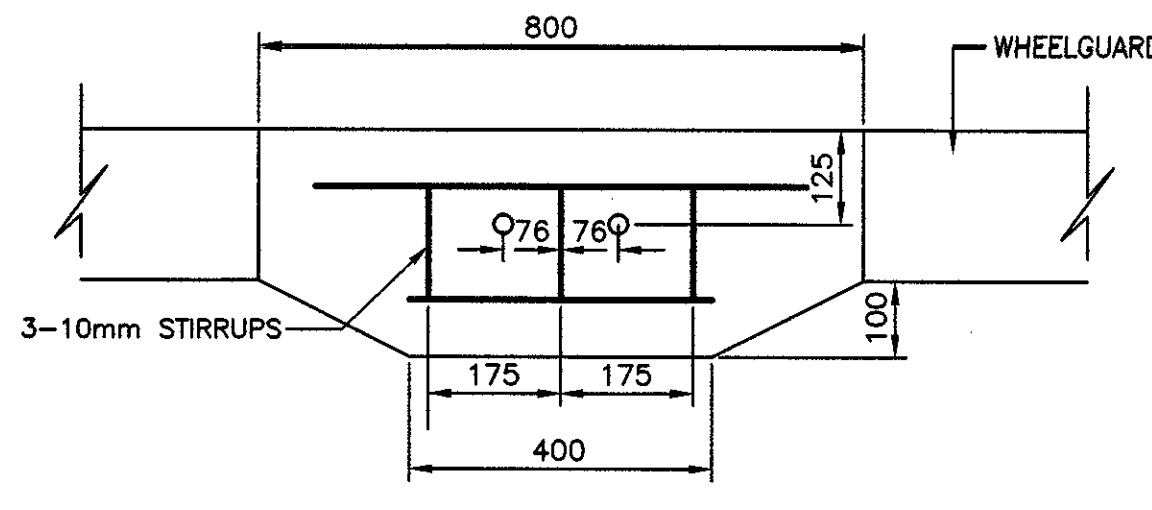
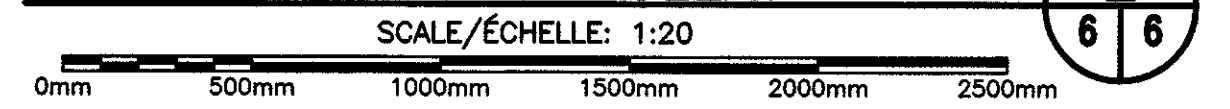
NEW/EXISTING INTERFACE



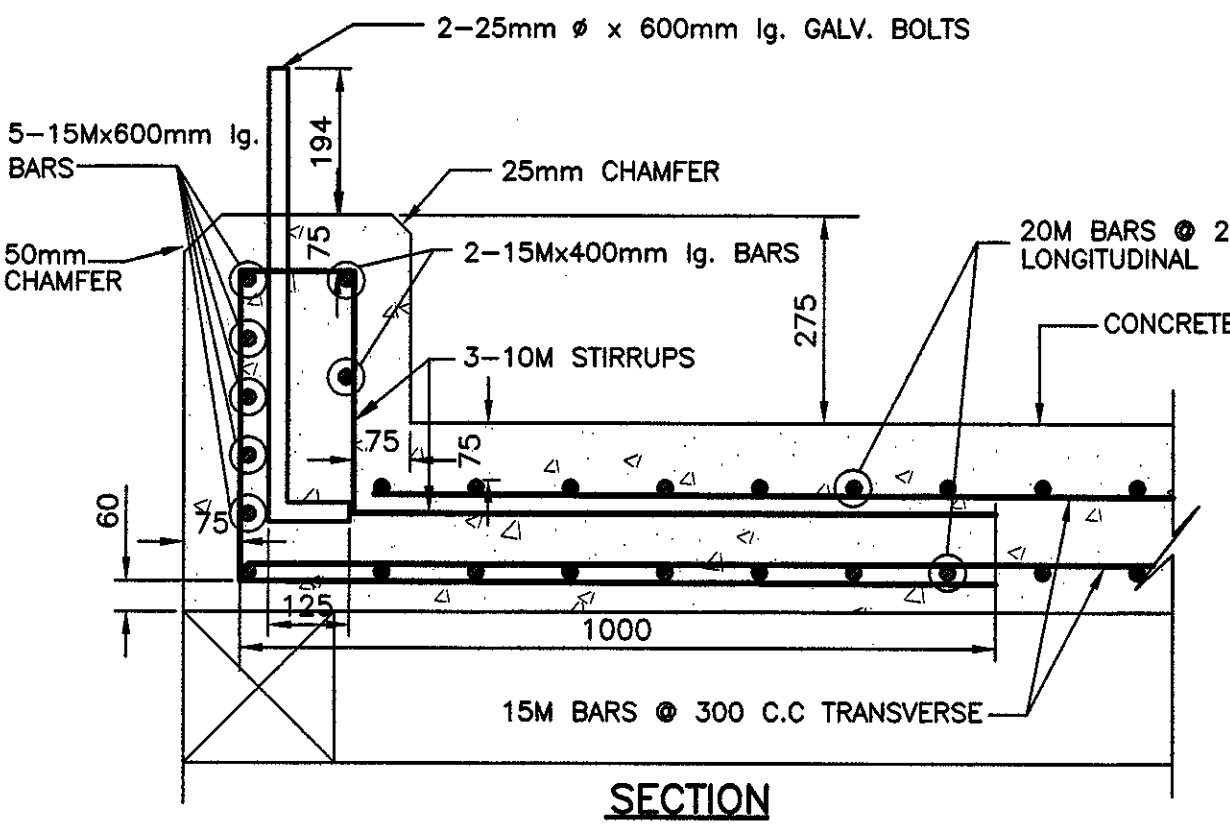
STEEL ANGLE DETAIL



TYPE "B1" CLEAT

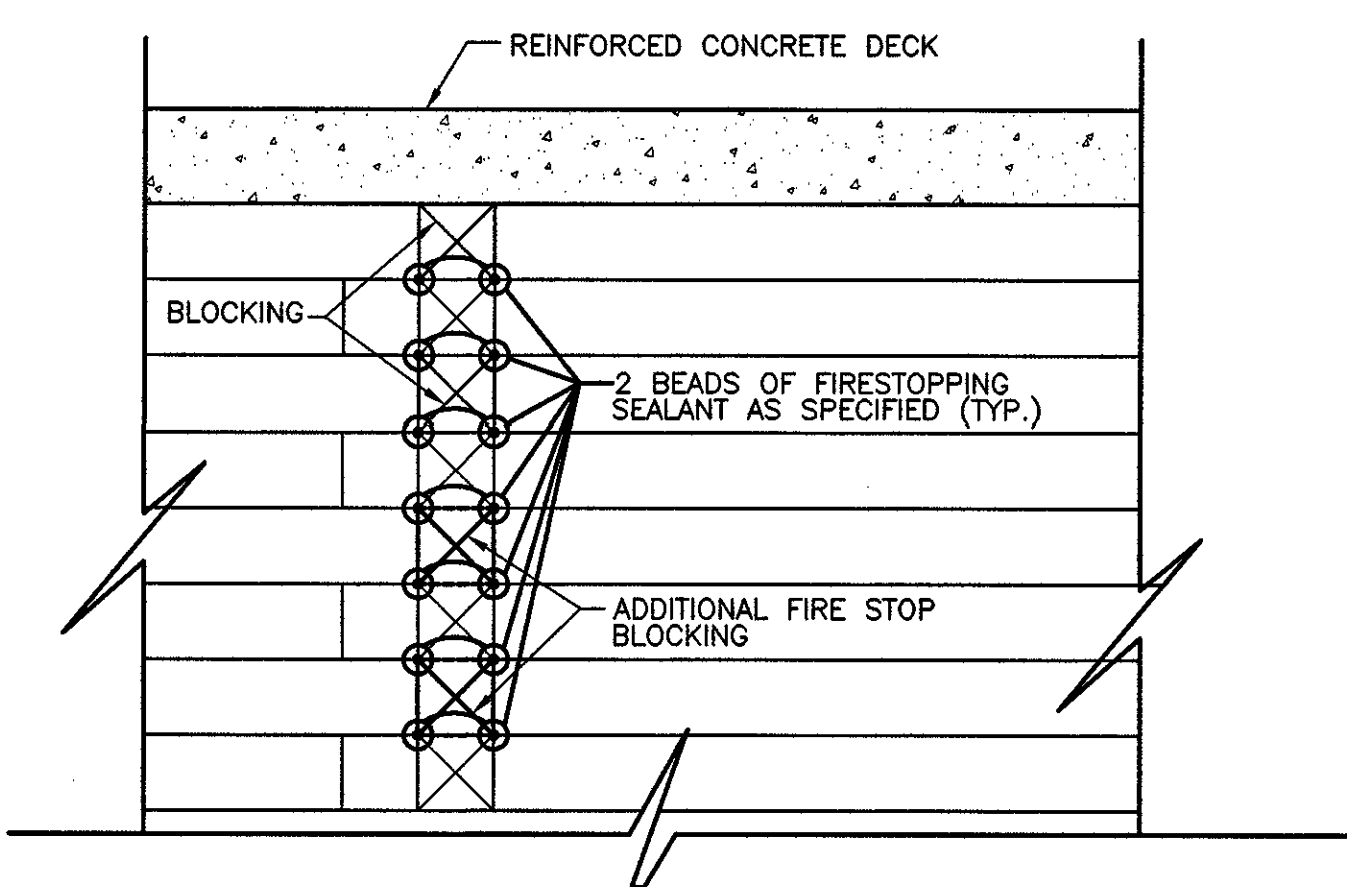
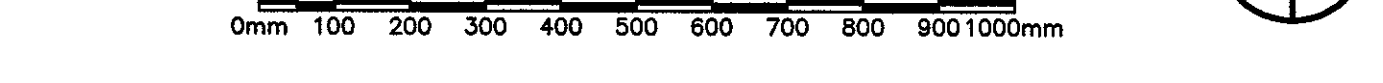


PLAN

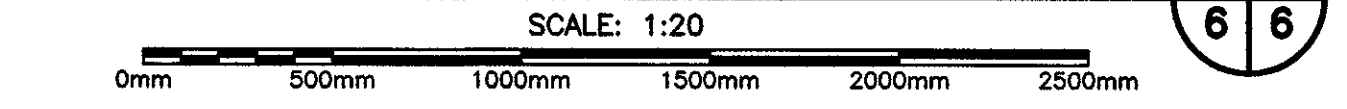


SECTION

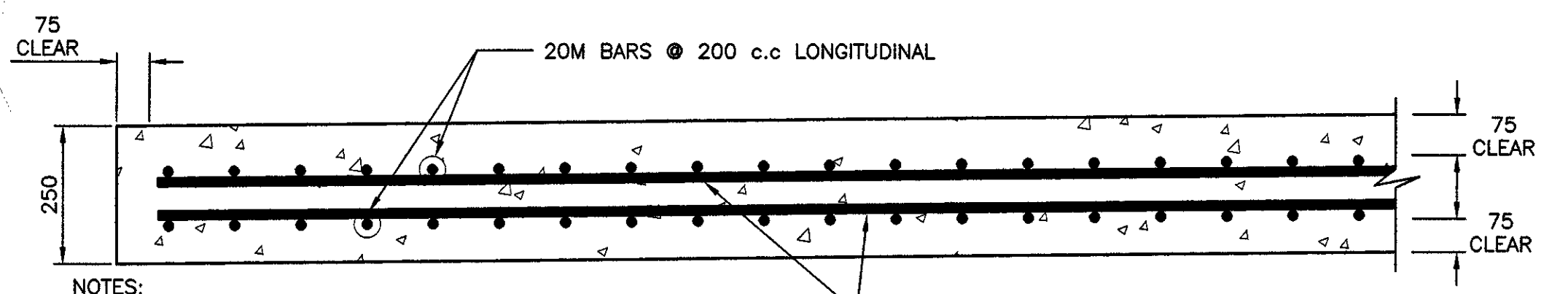
TYPE "B1" CLEAT BLOCK IN CRIBWORK



FIRE SEPARATOR



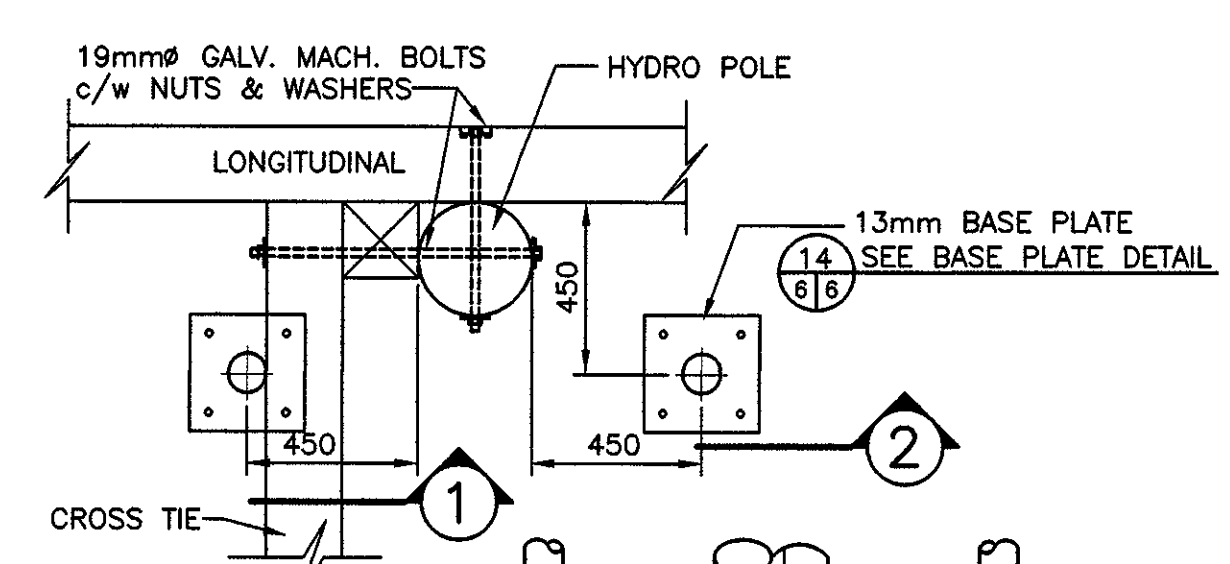
NOTE:
 1. 2 BEADS OF SILICONE FIRESTOPPING SEALANT ARE TO BE PLACED BETWEEN EACH TIMBER JOINT FOR THE FULL WIDTH & HEIGHT OF THE FIRE SEPARATOR AS SPECIFIED. SEALANT TO BE SUITED FOR USE ON WOOD IN A WET ENVIRONMENT WITH 4 HOUR FIRE RATING.



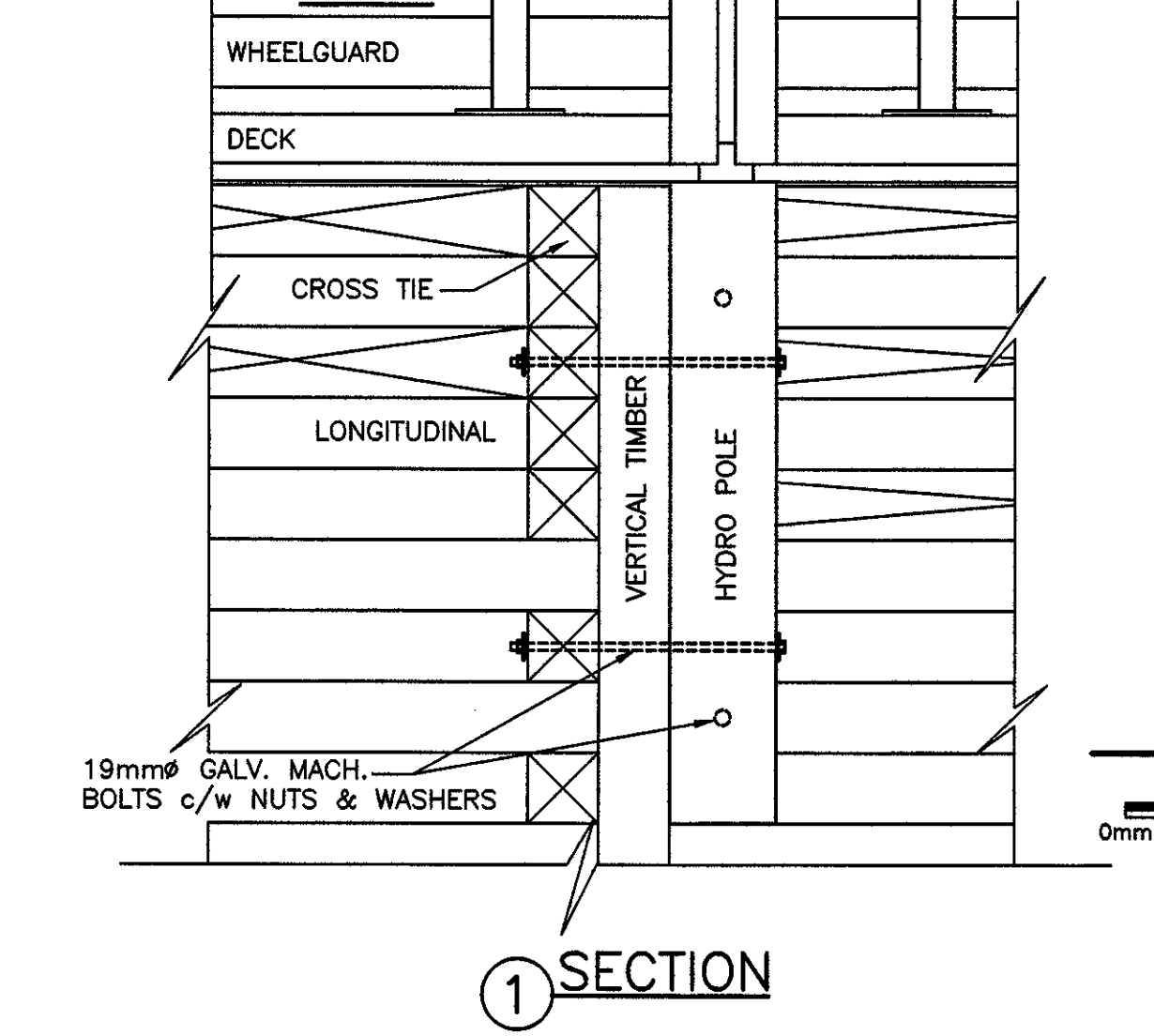
REINFORCED CONCRETE DECK



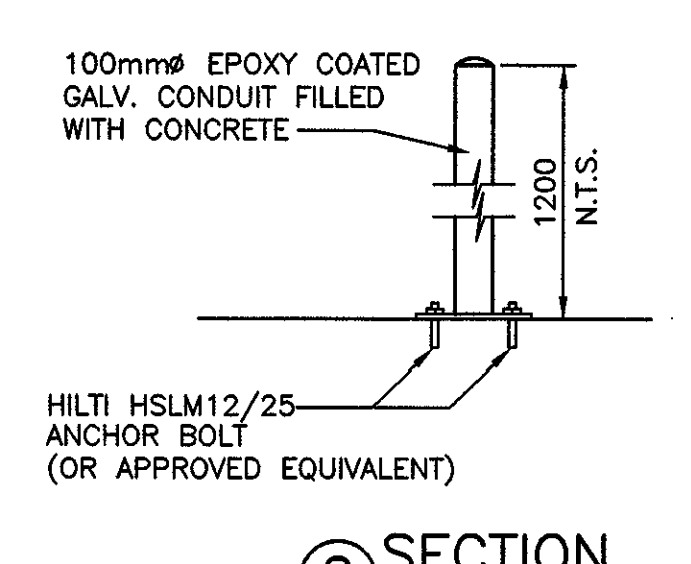
NOTES:
 1. ALL LONGITUDINAL STEEL PERPENDICULAR TO CROSS-TIES AND PLACED ON TOP OF UPPER MAT AND BOTTOM LAYER OF LOWER MAT.
 2. CONDUIT TO BE PLACED BELOW BOTTOM MAT OF REINFORCEMENT.



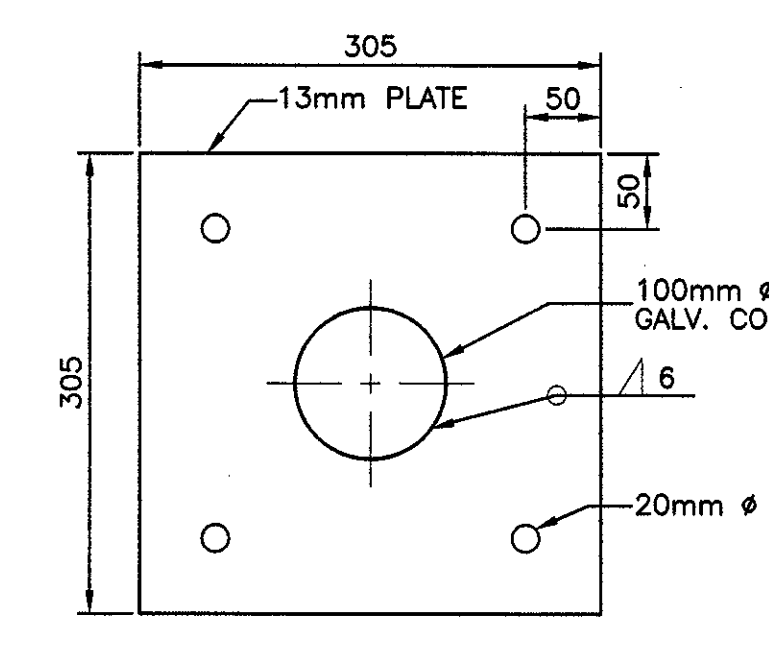
PLAN



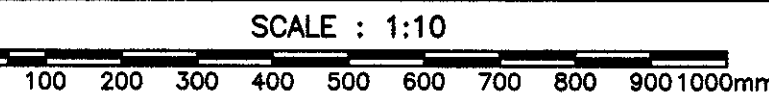
SECTION 1



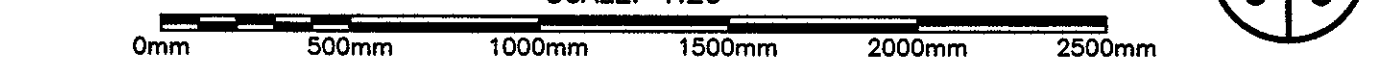
SECTION 2



BASE PLATE DETAIL



HYDRO POLE IN CRIBWORK



Plot Scale: PLOT_SCALE

B	ISSUED FOR TENDER	06/3/15
A	ISSUED FOR REVIEW	05/21/15
revisions	date	
project	project	

WHARF EXTENSION
 BRANCH, NL

drawing design

NEW DETAILS

designed N.H. consu
 date JUNE 3, 2015
 drawn P.H. desine
 date JUNE 3, 2015
 approved approve

Tender Paul Curran Soumission
 DFO Project Manager

721395

drawing no. no. du dessin
 C6