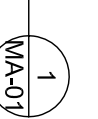
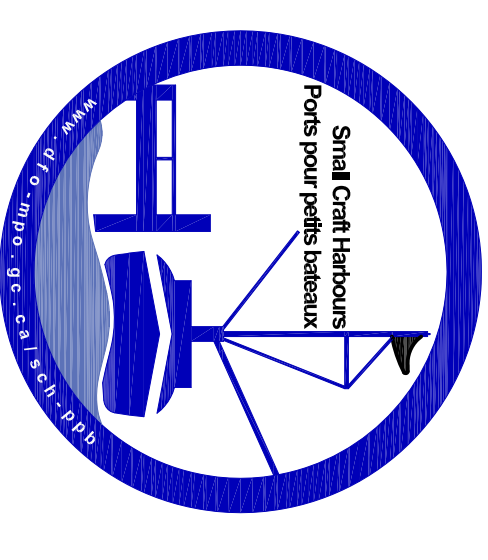


EXISTING MAMAINSE HARBOUR SITE PLAN
SCALE: 1:250



SMALL CRAFT HARBOURS
CENTRAL AND ARCTIC REGION



NOTES:

1. TOPO SURVEY WAS TAKEN ON JULY 05 2016
2. CHART DATUM FOR LAKE SUPERIOR IS 183.2m ABOVE SEA LEVEL.
3. WATER LEVEL AT THE TIME OF SURVEY WAS 0.32 ABOVE CHART DATUM
4. ALL DIMENSIONS IN METERS UNLESS OTHERWISE NOTED.

BENCHMARK INFO

GEODETIC SURVEY CANADA
FOUNDATION OF CONCRETE
FOUNDATION OF MPP05
BM No. OHS 1982 - 9516
HORIZONTAL DATUM: UTM NAD83 ZONE 16 NORTH
N 5211603.831
E 668347.417
ELEVATION: 184.606m I.G.L.D. 1985
(+1.406 ABOVE I.G.L.D.)

LEGEND

- PROJECT BASELINE
- - - FEDERAL PROPERTY LIMITS
- EXISTING SITE BENCHMARK
- ⊕ EXISTING LIGHT STANDARD

REVISIONS:

NO.	ISSUED FOR TENDER	DATE
1	ISSUED FOR TENDER	2016-09-16
0	ISSUED FOR REVIEW	2016-04-13
SCALE:	1:250	CLASS:

PROJECT:

MAMAINSE HARBOUR
IMPROVEMENTS

DESCRIPTION:

EXISTING SITE PLAN

DRAWN:

M.J.C

APPROVED:

M.M.

DATE:

JULY 2016

DATE:

SEPT. 2016

LOCATION:

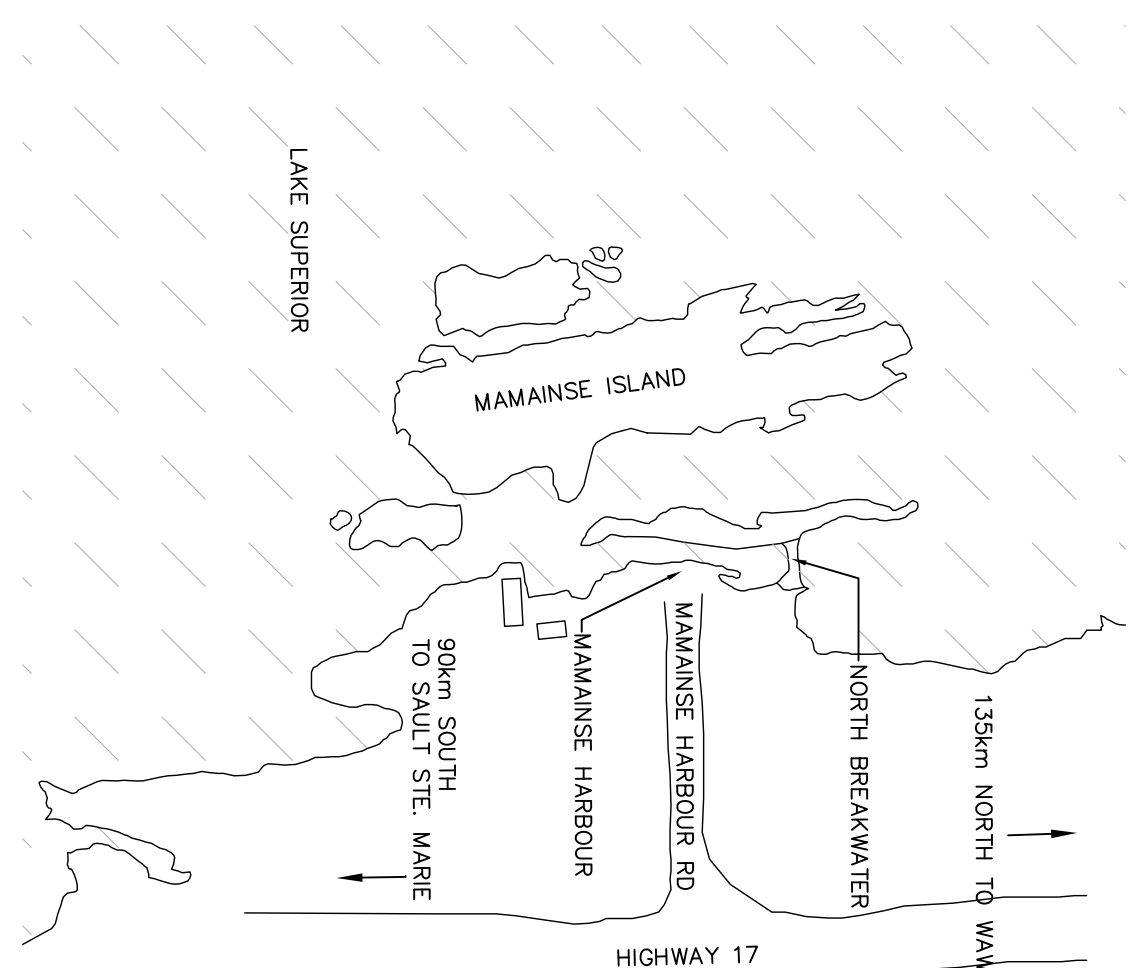
MAMAINSE HARBOUR
ONTARIO

DRAWING NO.:

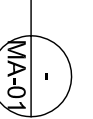
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LOCATOR CODE:

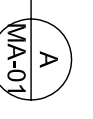
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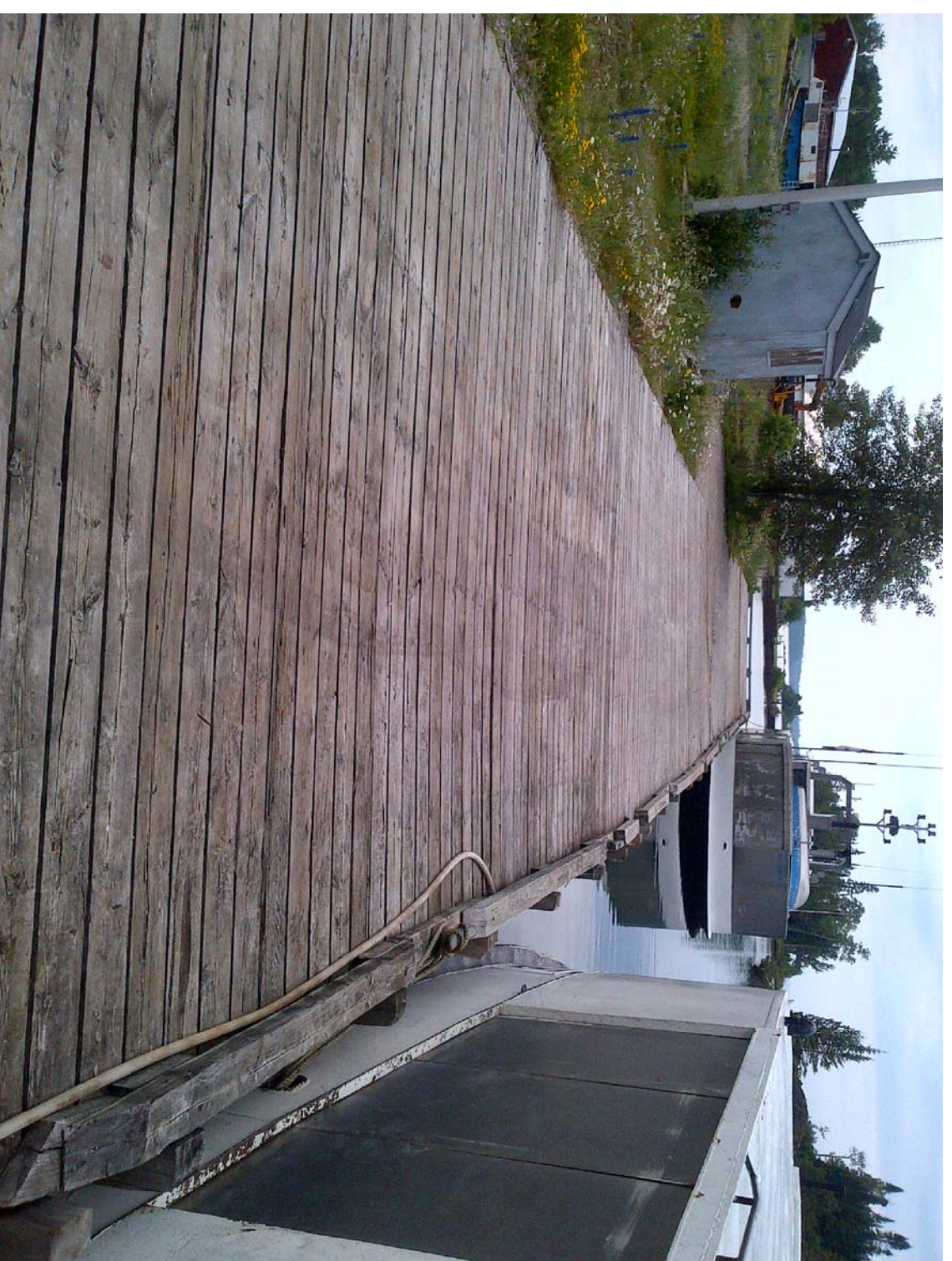
KEY PLAN
SCALE: NTS



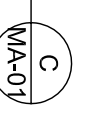
WHARF LOOKING SOUTH WEST
SCALE: NTS



WHARF LOOKING NORTH
SCALE: NTS



WHARF LOOKING SOUTH
SCALE: NTS



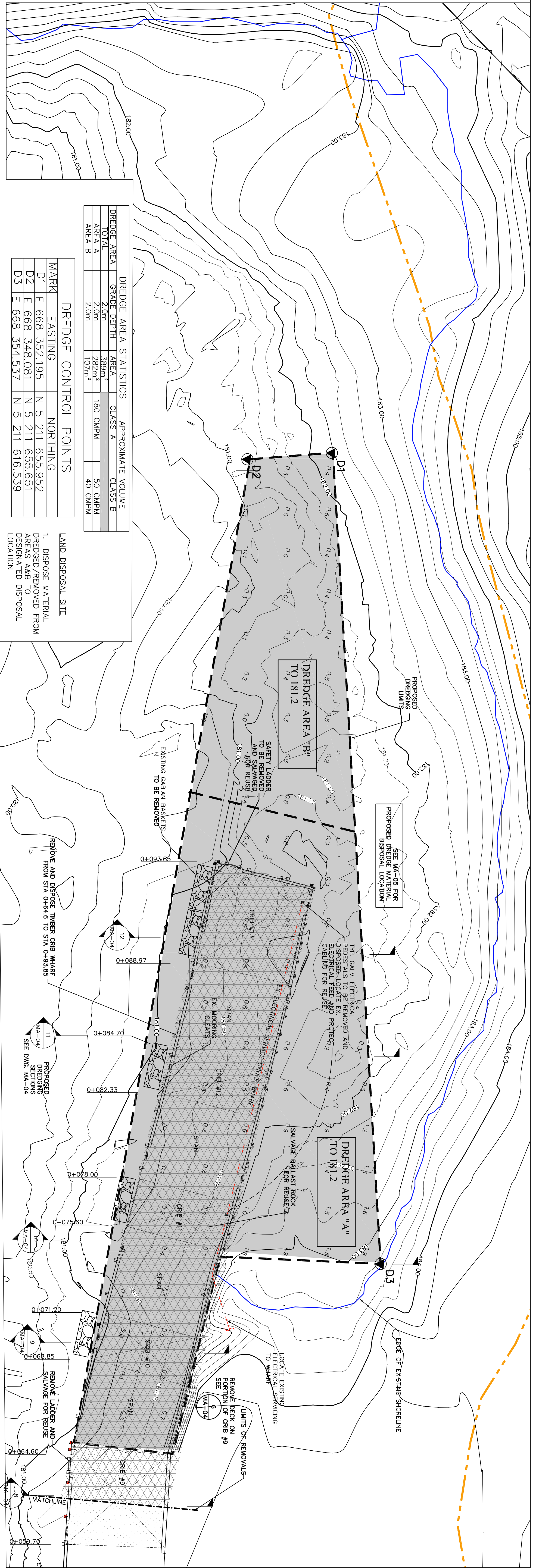


SMALL CRAFT HARBOURS
 CENTRAL AND ARCTIC REGION

NOTES:
 1. TOPO SURVEY WAS TAKEN ON JULY 05 2016
 2. CHART DATUM FOR LAKE SUPERIOR IS 183.2m ABOVE SEA LEVEL.
 3. WATER LEVEL AT THE TIME OF SURVEY WAS 0.32 ABOVE CHART DATUM
 4. ALL DIMENSIONS IN METERS UNLESS OTHERWISE NOTED.

LEGEND

	D1 DREDGE CONTROL POINT
	-189.5 EXISTING GROUND CONTOUR
	0+0 PROJECT BASELINE
	92.30 FEDERAL PROPERTY LIMITS
	EXISTING SITE BENCHMARK
	EXISTING 140mm x 140mm x 1.52m LG VERTICAL TIMBER FENDER
	EXISTING 1.52m x 140mm x 140mm VERTICAL TIMBER FENDER TO BE REMOVED
	EXISTING SAFETY LADDERS
	EXISTING MOORING CLEAT
	HORIZ. FENDER REPLACEMENT
	PROPOSED DREDGING LIMITS
	APPROXIMATE DREDGE DEPTH AT SPOT ELEVATION
	DEMOLITION LIMITS



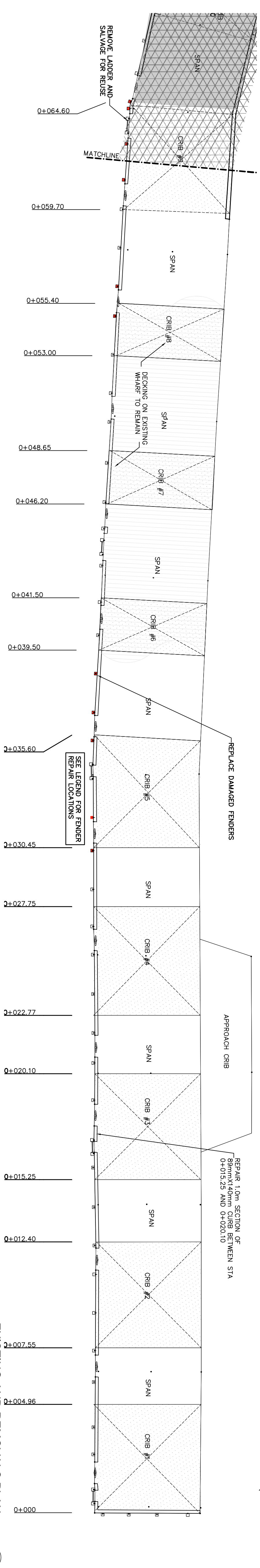
DREDGE AREA STATISTICS APPROXIMATE VOLUME

DREDGE AREA	GRADE	DEPTH	AREA	CLASS	VOLUME
AREA A	2.0m	289m ²	180 CUMPM	CLASS B	50 CUMPM
AREA B	2.0m	107m ²	107 CUMPM	CLASS B	40 CUMPM

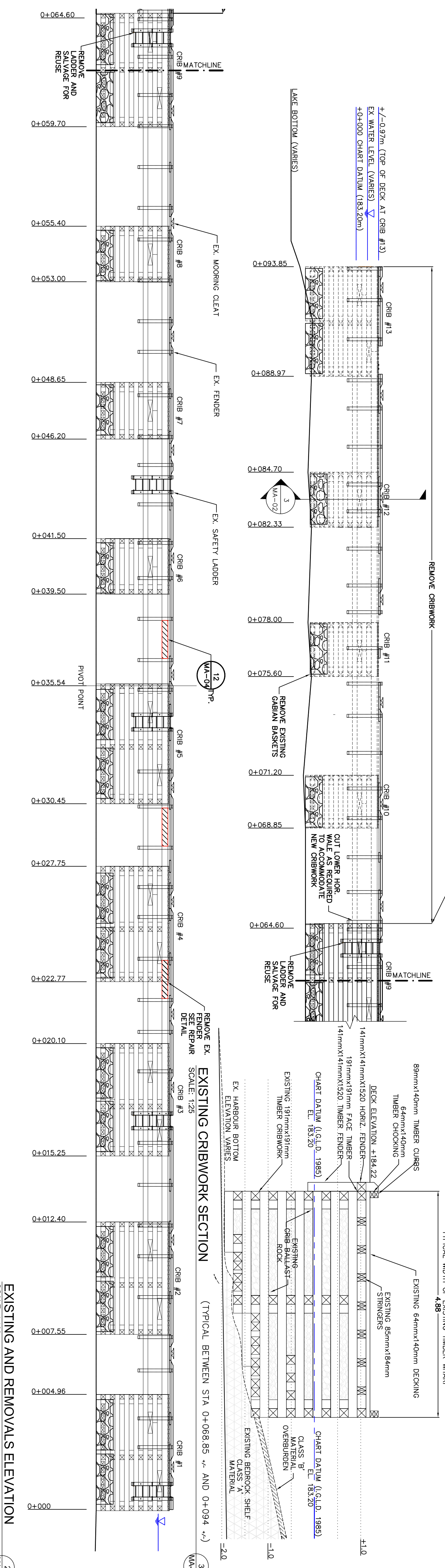
DREDGE CONTROL POINTS

MARK	EXISTING	NORTHING
D1	E 668 352.195	N 5 211 655.952
D2	E 668 348.081	N 5 211 655.651
D3	E 668 354.537	N 5 211 616.539

LAND DISPOSAL SITE
 1. DISPOSE MATERIAL DREDGED/REMOVED FROM AREAS TAB TO DESIGNATED DISPOSAL LOCATION



EXISTING AND REMOVALS PLAN
 SCALE: 1:100



EXISTING AND REMOVALS ELEVATION
 SCALE: 1:100

REVISIONS:	1 ISSUED FOR TENDER	2016-09-16
	0 ISSUED FOR REVIEW	2016-04-13
SCALE:	1:100	
PROJECT:	MAMAINSE HARBOUR IMPROVEMENTS	
DESCRIPTION:	EXISTING CONDITION AND REMOVALS PLAN	
DRAWN:	M.J.C.	APPROVED: M.M.
DATE:	JULY 2016	DATE: SEPT. 2016
LOCATION:	MAMAINSE HARBOUR ONTARIO	
DRAWING NO.:	MA-02	LOCATOR CODE: 4697

SMALL CRAFT HARBOURS
 CENTRAL AND ARCTIC REGION



NOTES:

1. TOPO SURVEY WAS TAKEN ON JULY 05 2016
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LEGEND

- PROJECT BASELINE
- FEDERAL PROPERTY LIMITS
- EXISTING GROUND ELEVATION
- 92.30 EXISTING SITE BENCHMARK
- EXISTING 1.52m x 140x140mm VERTICAL TIMBER FENDER
- ⊕ NEW VERTICAL FENDER
- ⊖ NEW LADDERS
- NEW 140x140mm 244LG FENDER
- NEW 203x203mm 244LG FENDER
- ⊗ LOCATION OF NEW PIPE BOLLARDS
- ⊗ LOCATION OF NEW OVERHEAD LIGHT
- ⊗ LOCATION OF NEW ELECTRICAL PEDESTALS

REVISIONS:

1	ISSUED FOR TENDER	2016-09-16
0	ISSUED FOR REVIEW	2016-04-13

SCALE: 1:100 CLASS:

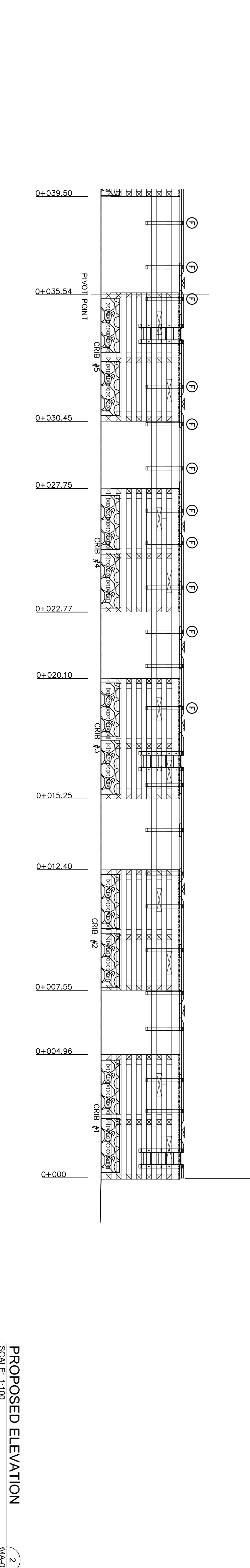
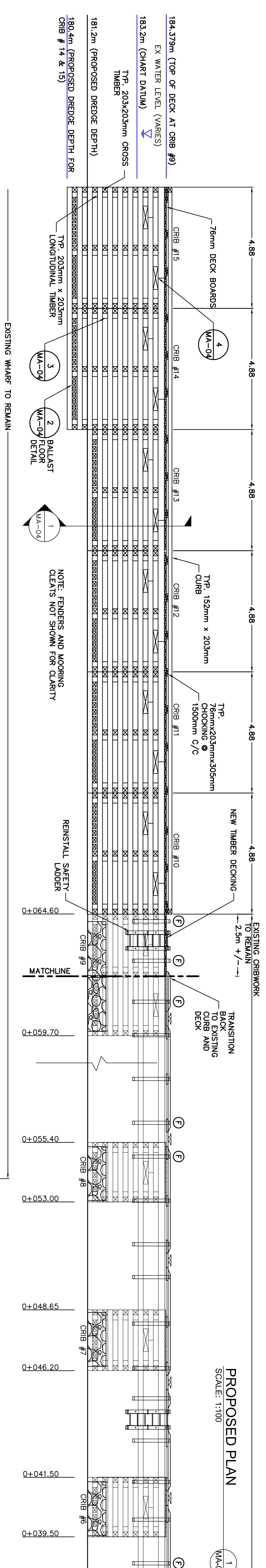
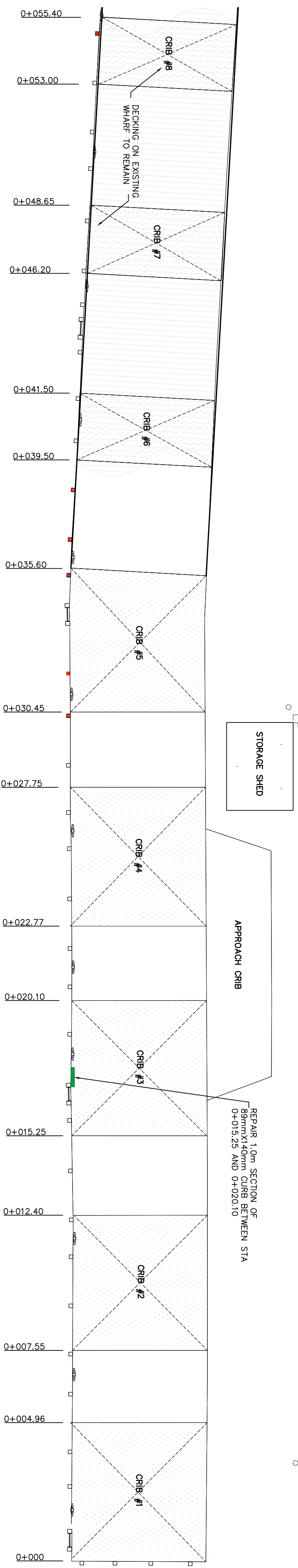
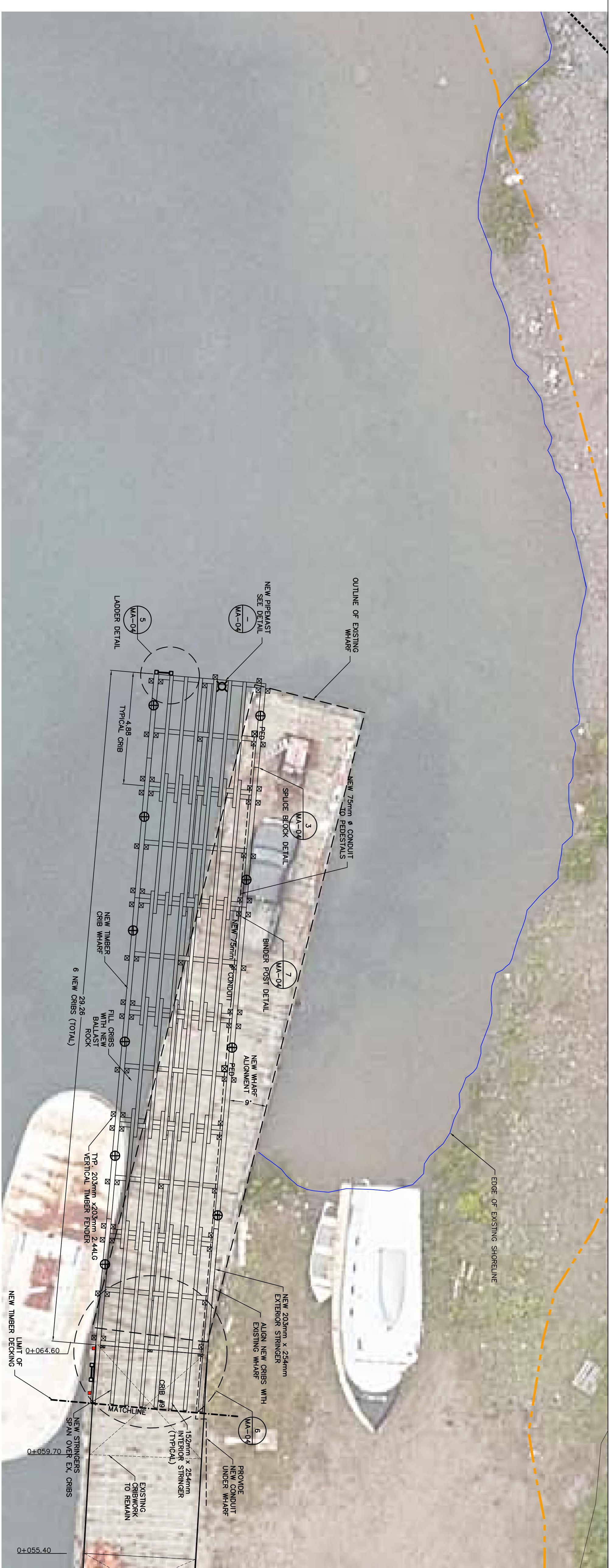
PROJECT: MAMAINSE HARBOUR IMPROVEMENTS

DESCRIPTION: NEW TIMBER WHARF PLAN AND ELEVATION

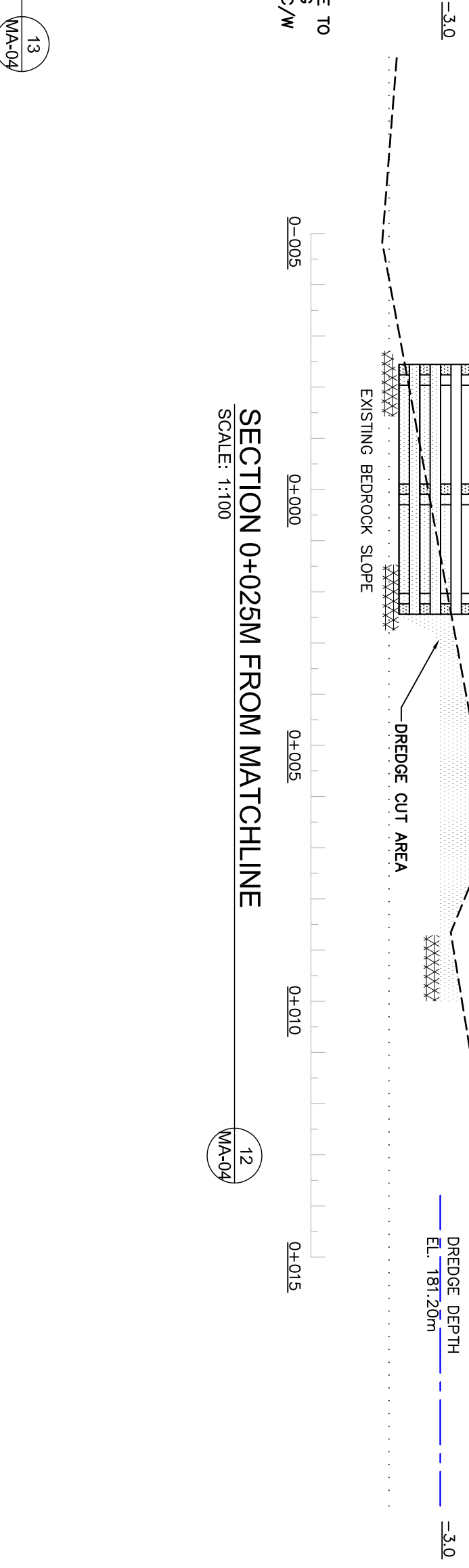
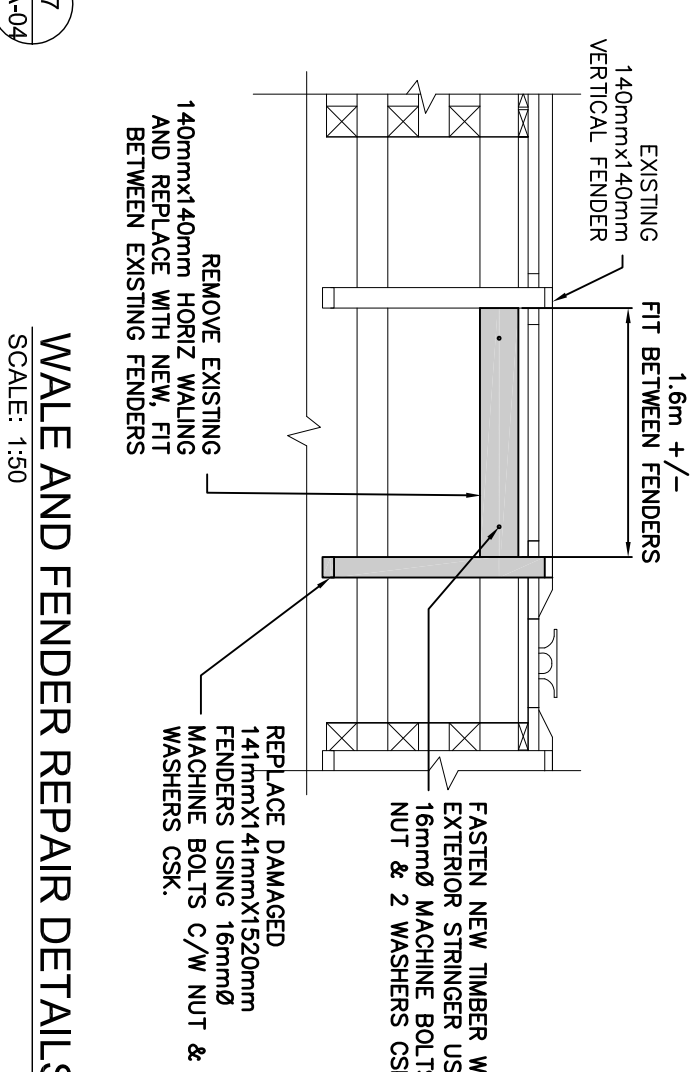
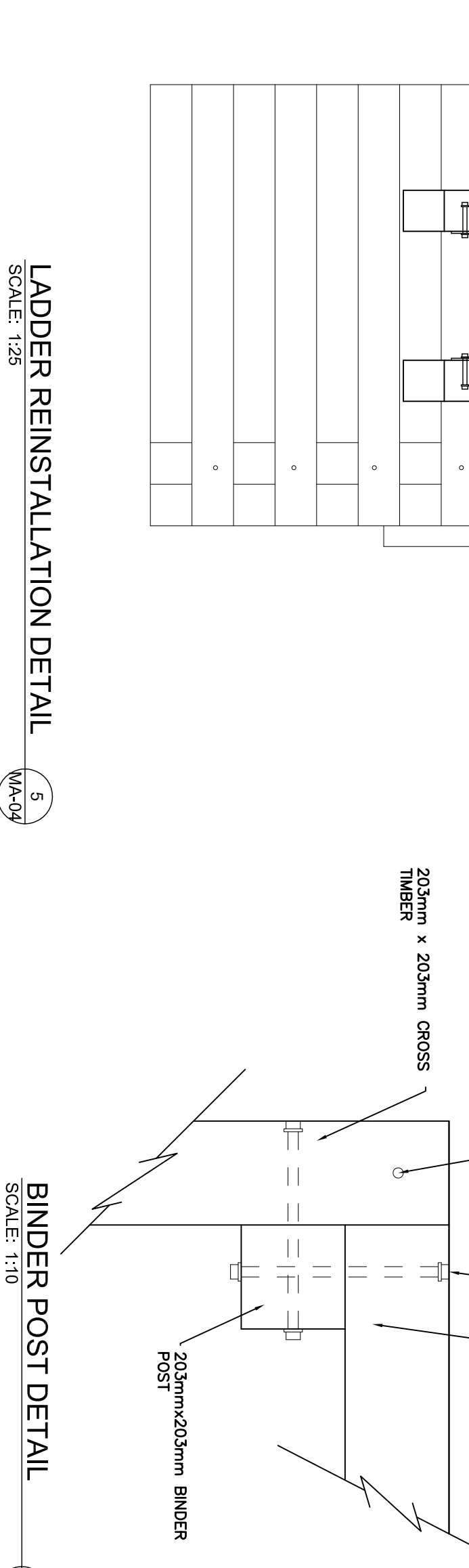
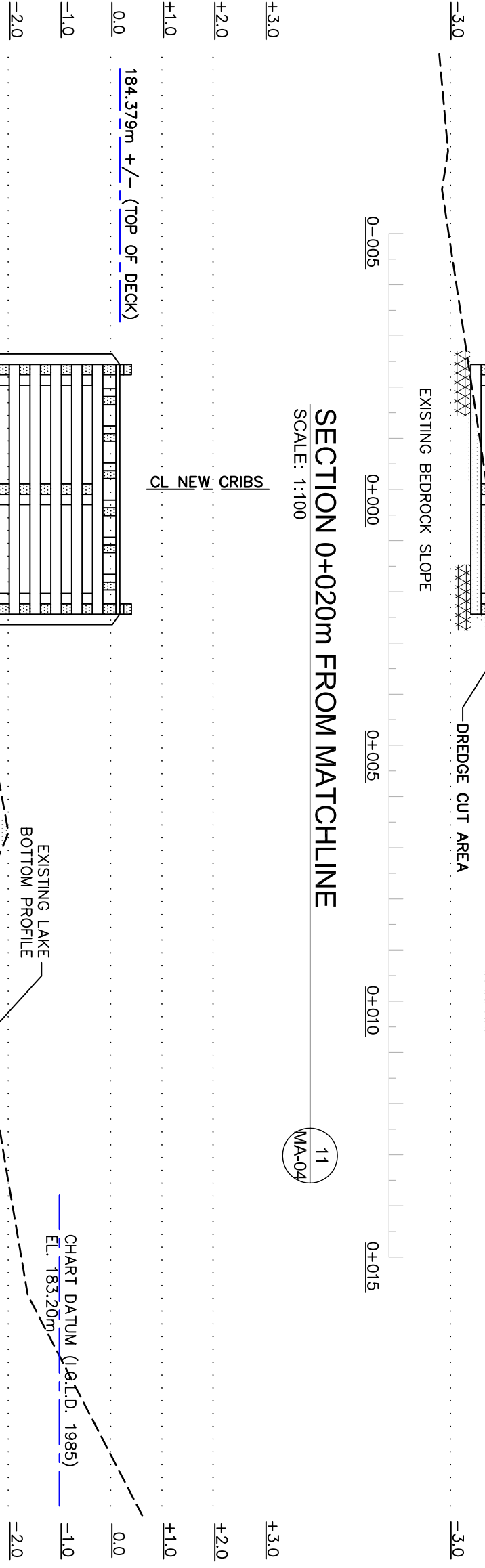
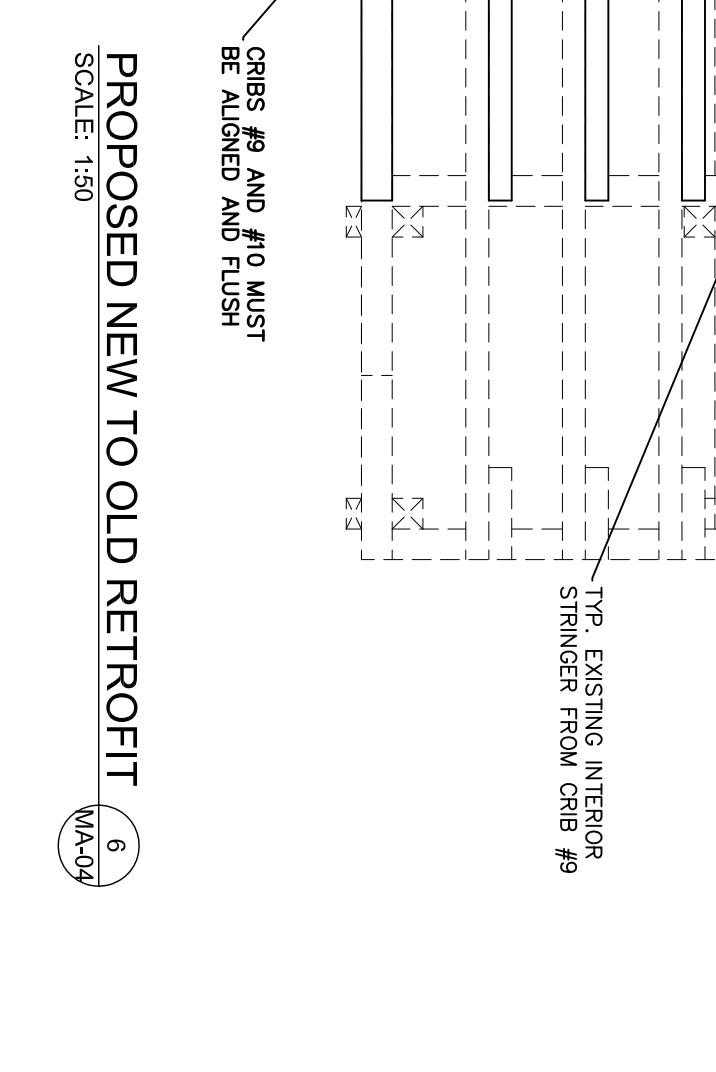
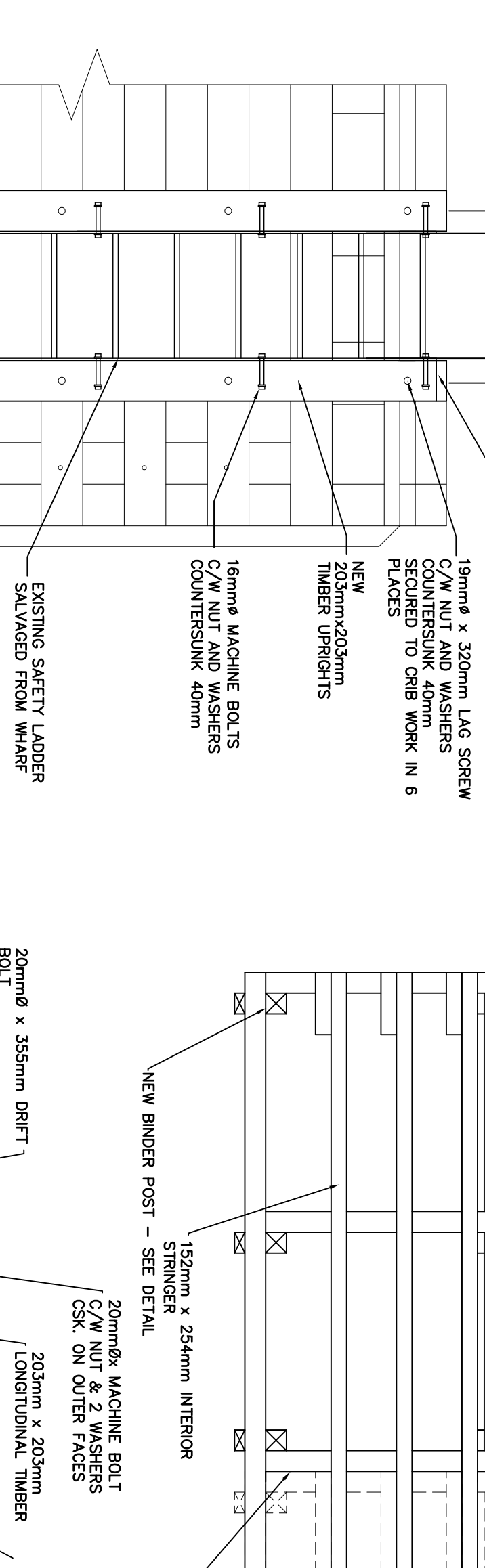
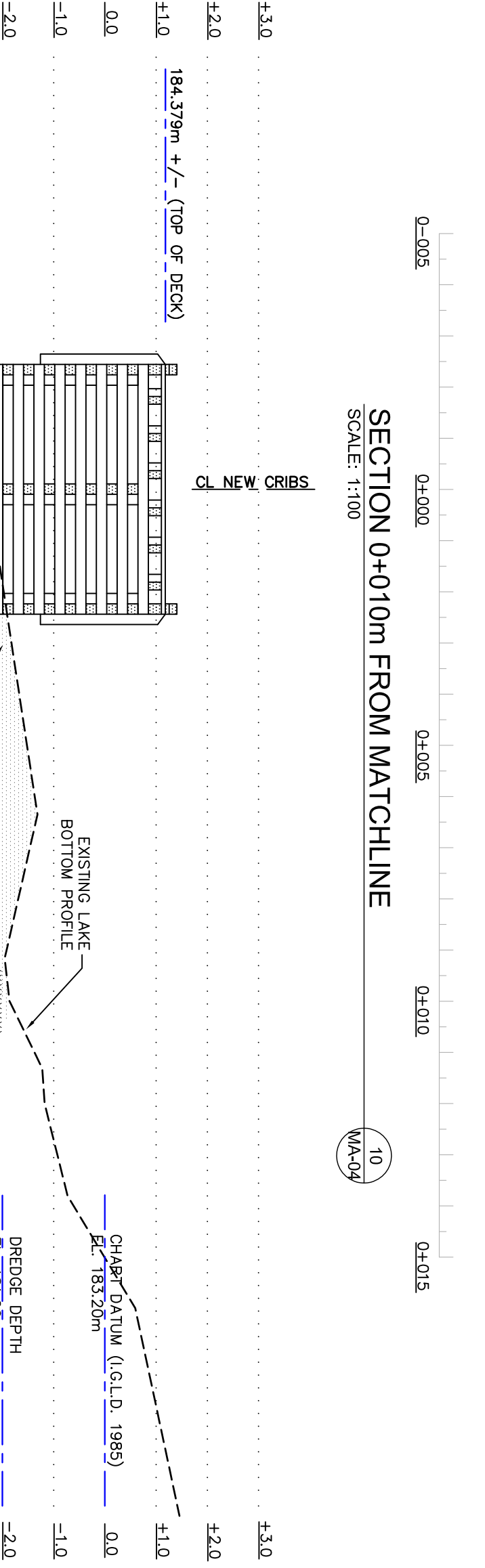
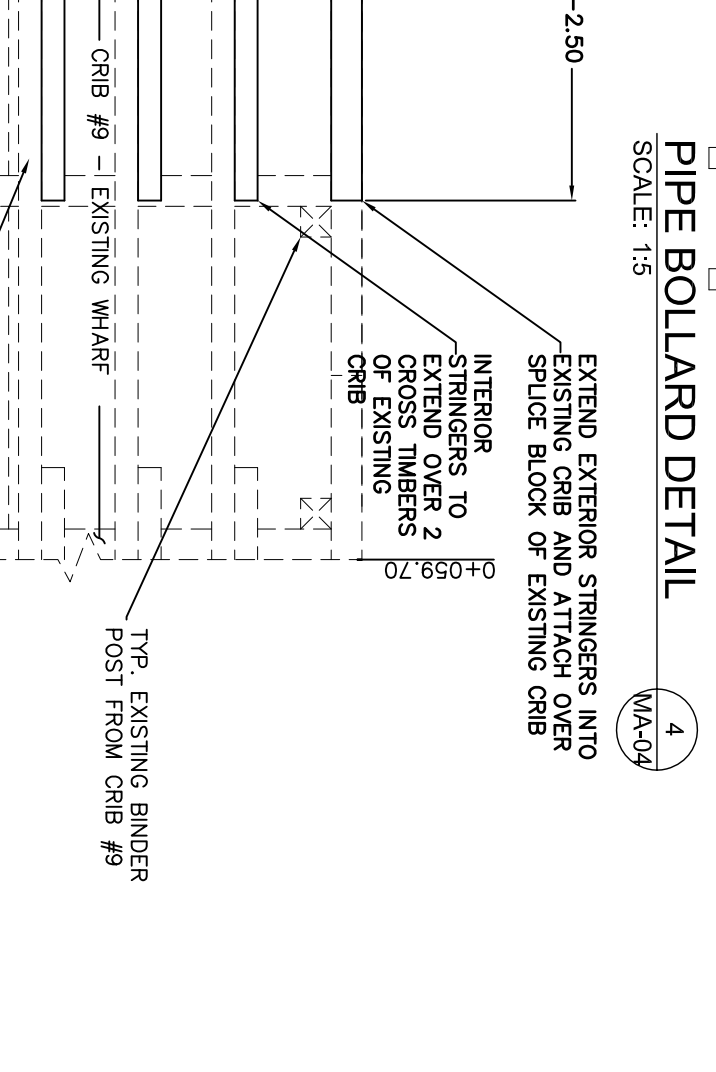
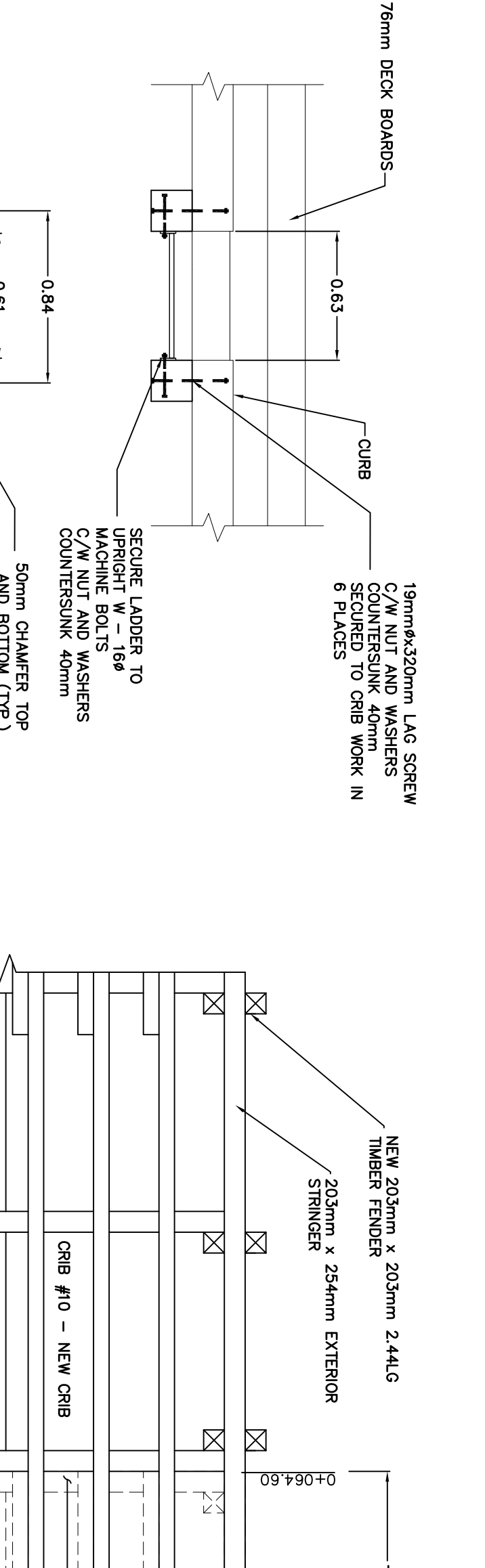
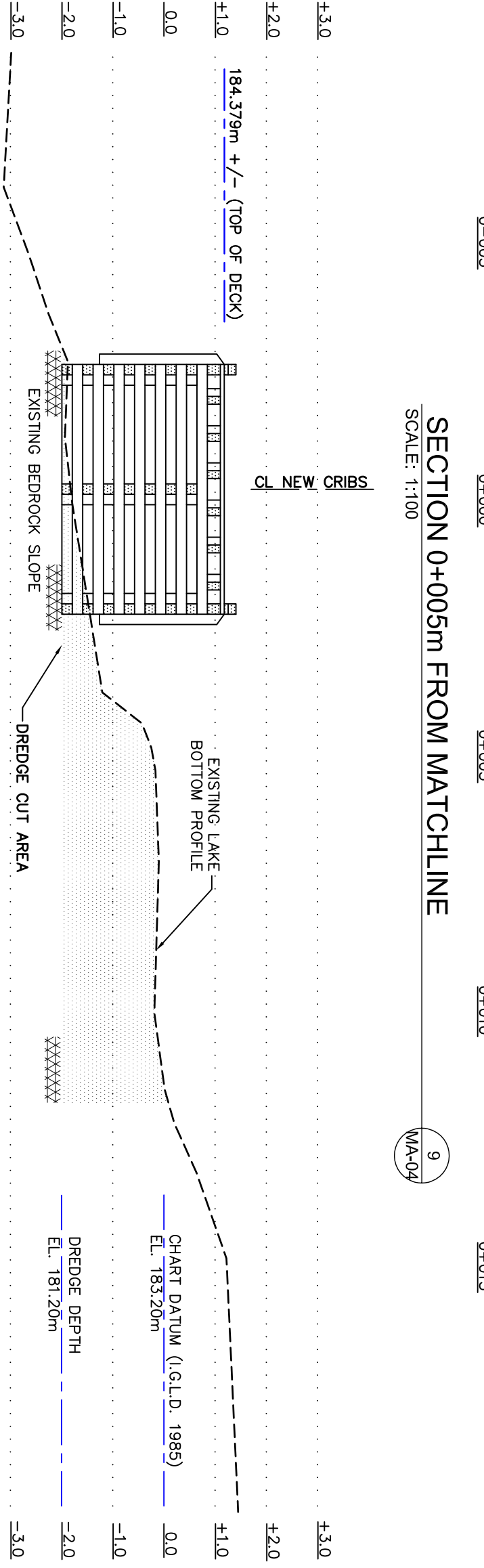
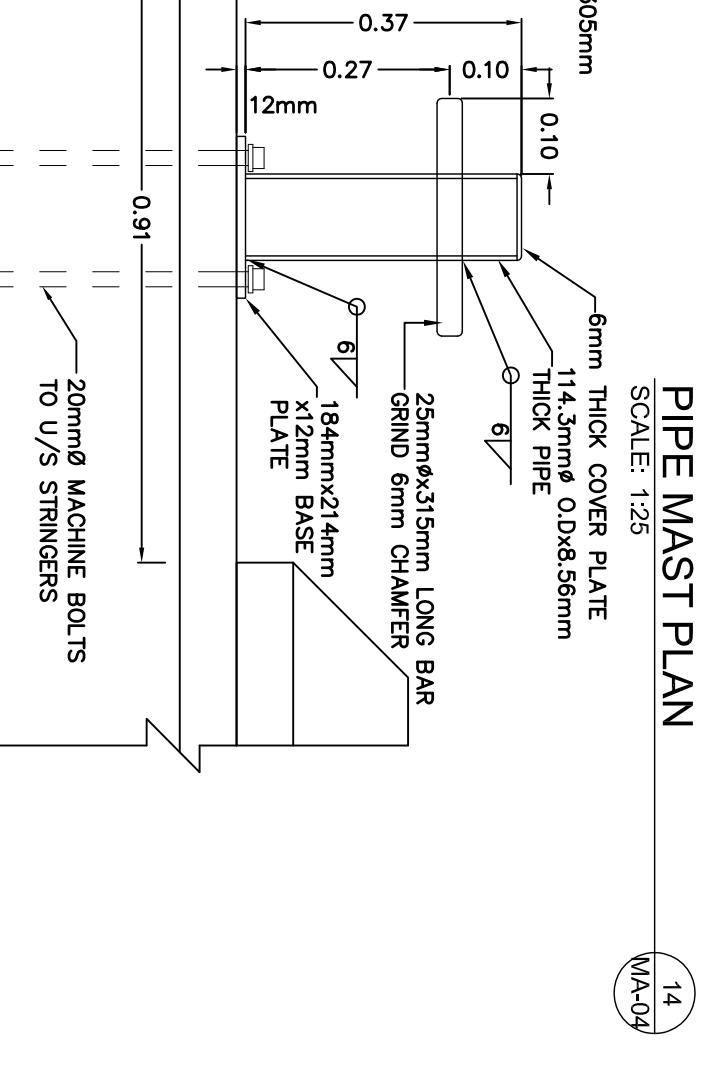
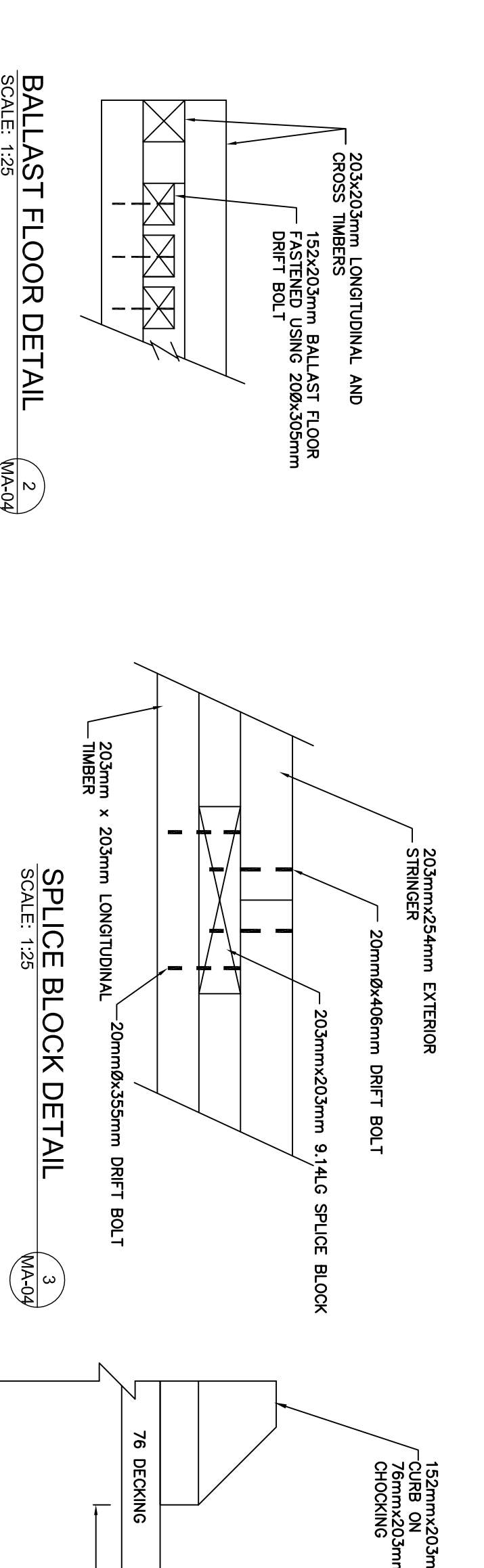
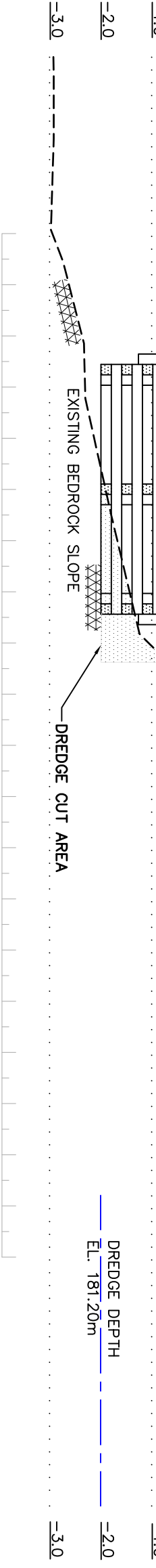
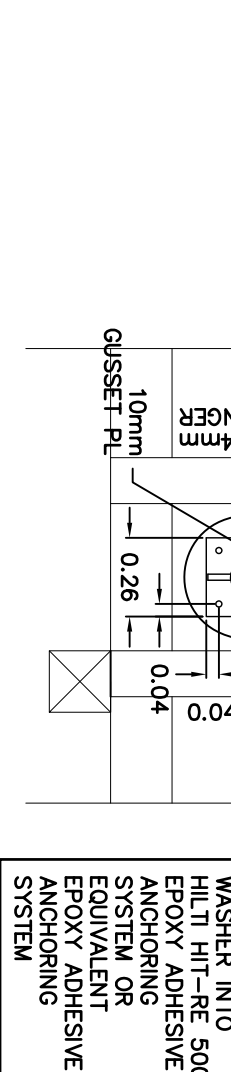
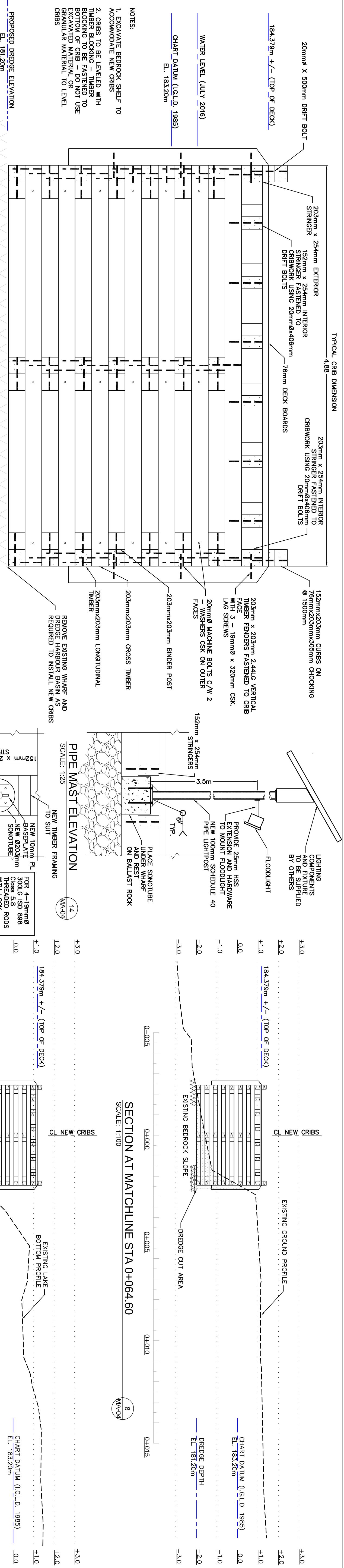
DRAWN: M.J.C	APPROVED: M.M.
DATE: JULY 2016	DATE: SEPT. 2016

LOCATION: MAMAINSE HARBOUR ONTARIO

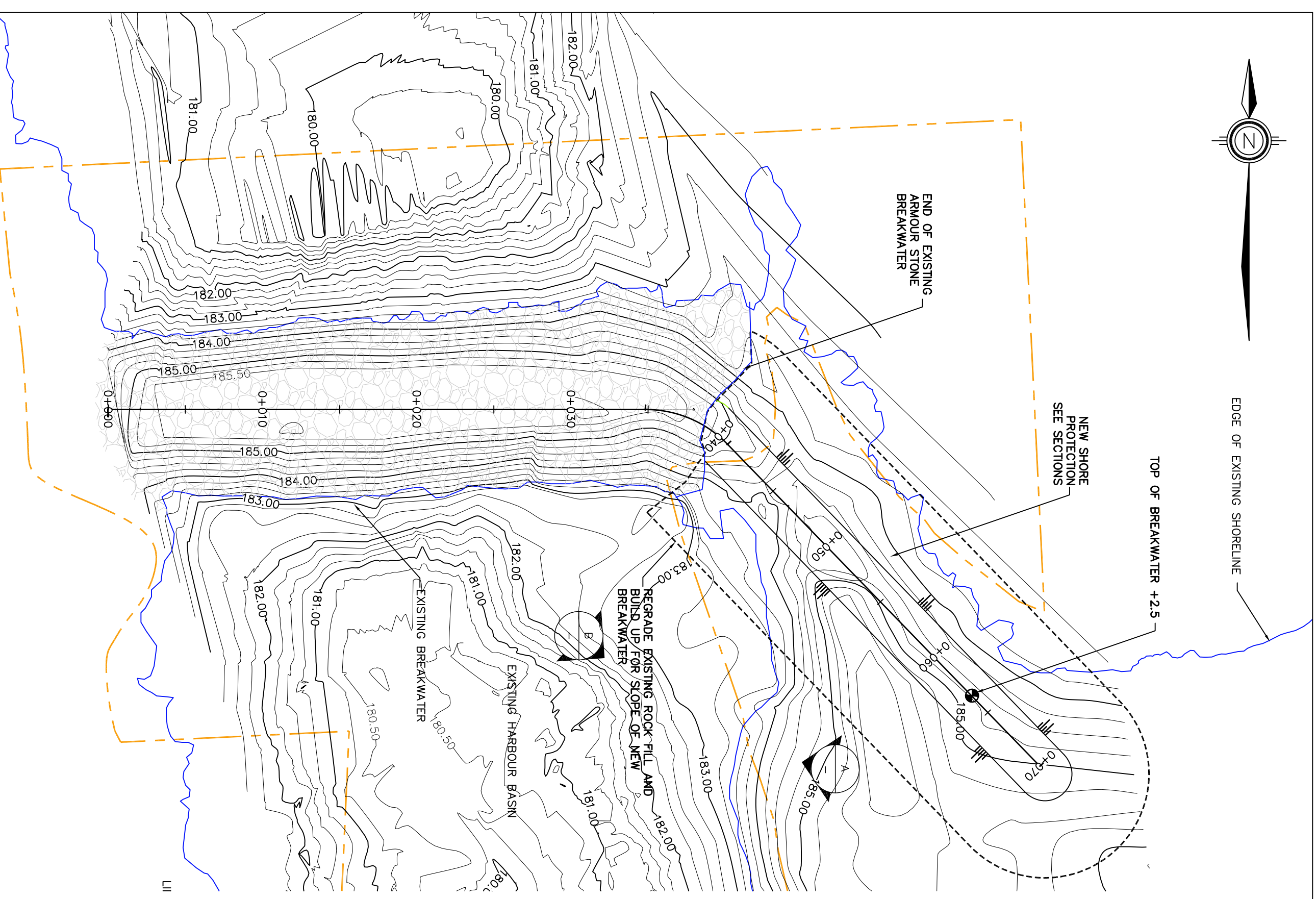
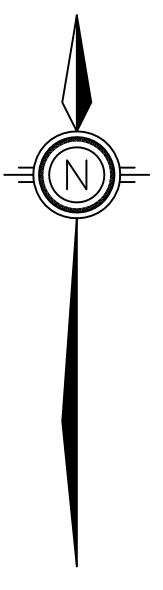
DRAWING NO.: MA-03	LOCATOR CODE: 4697
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NOTES:
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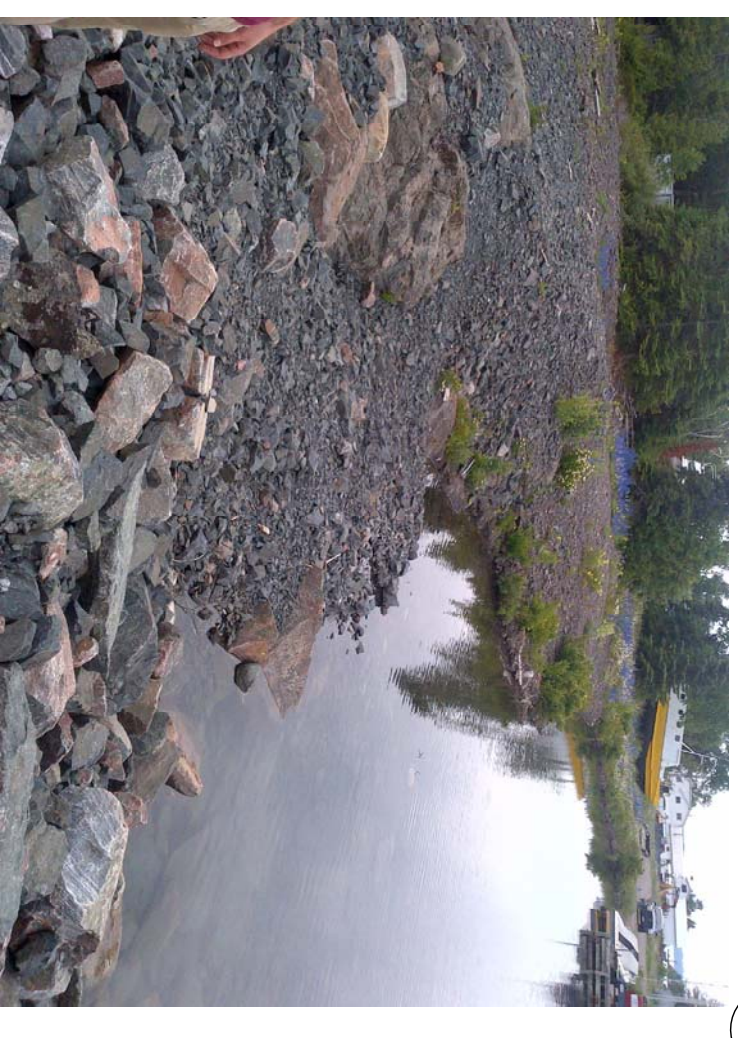
PROJECT:		MAMAINSE HARBOUR IMPROVEMENTS	
DRAWN:		M.J.C	
DATE:		JULY 2016	
LOCATION:		MAMAINSE HARBOUR ONTARIO	
DRAWING NO.:		MA-04	
LOCATOR CODE:		4697	
APPROVED:		M.M.	
DATE:		SEPT. 2016	
DESCRIPTION:		NEW SECTIONS AND DETAILS	
SCALE:		VARIES	
CLASS:		O	
ISSUED FOR REVIEW:		2016-04-13	
REVISIONS:		1 ISSUED FOR TENDER 2016-09-16	



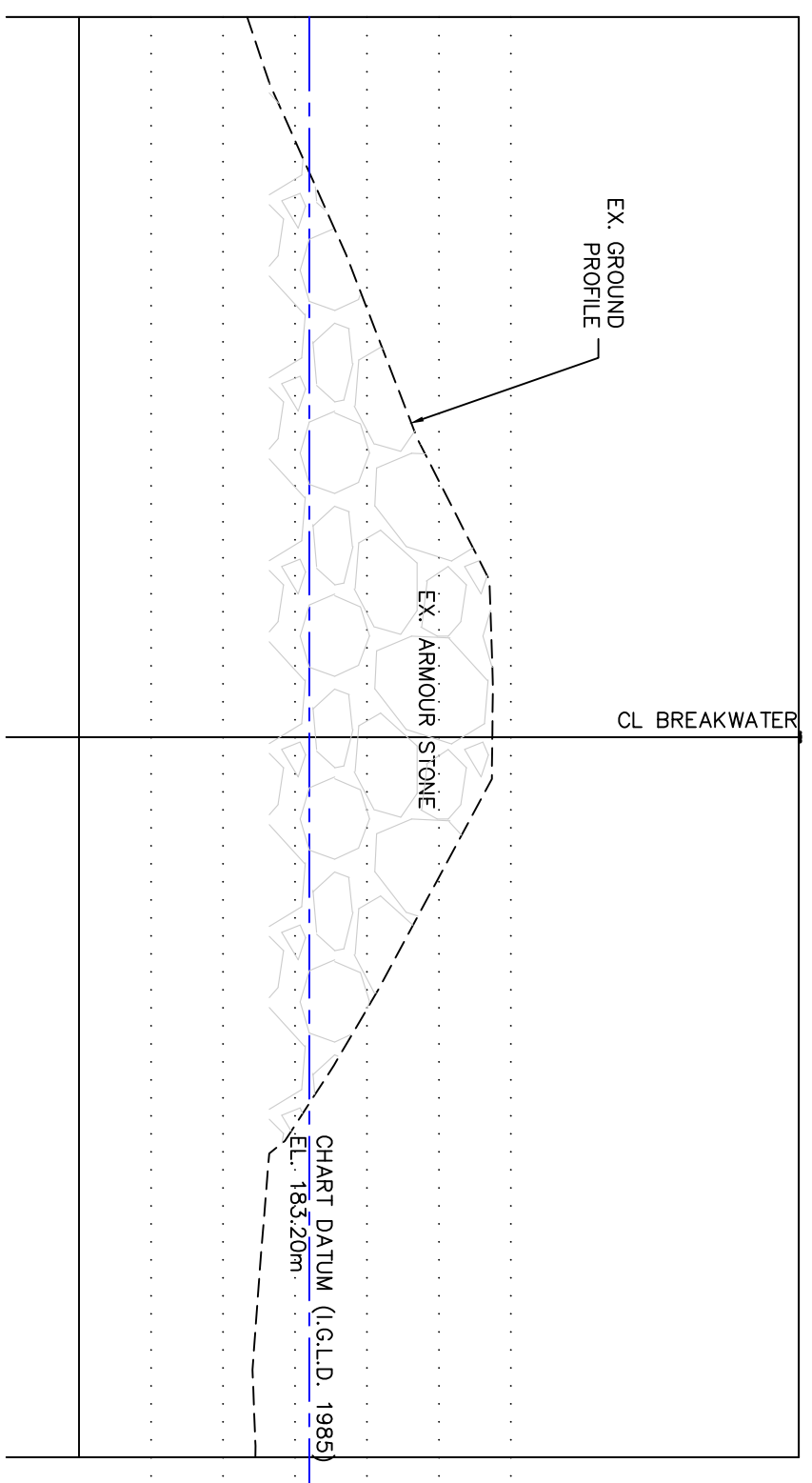
MAMAINSE BREAKWATER REPAIR PLAN
SCALE: 1:250



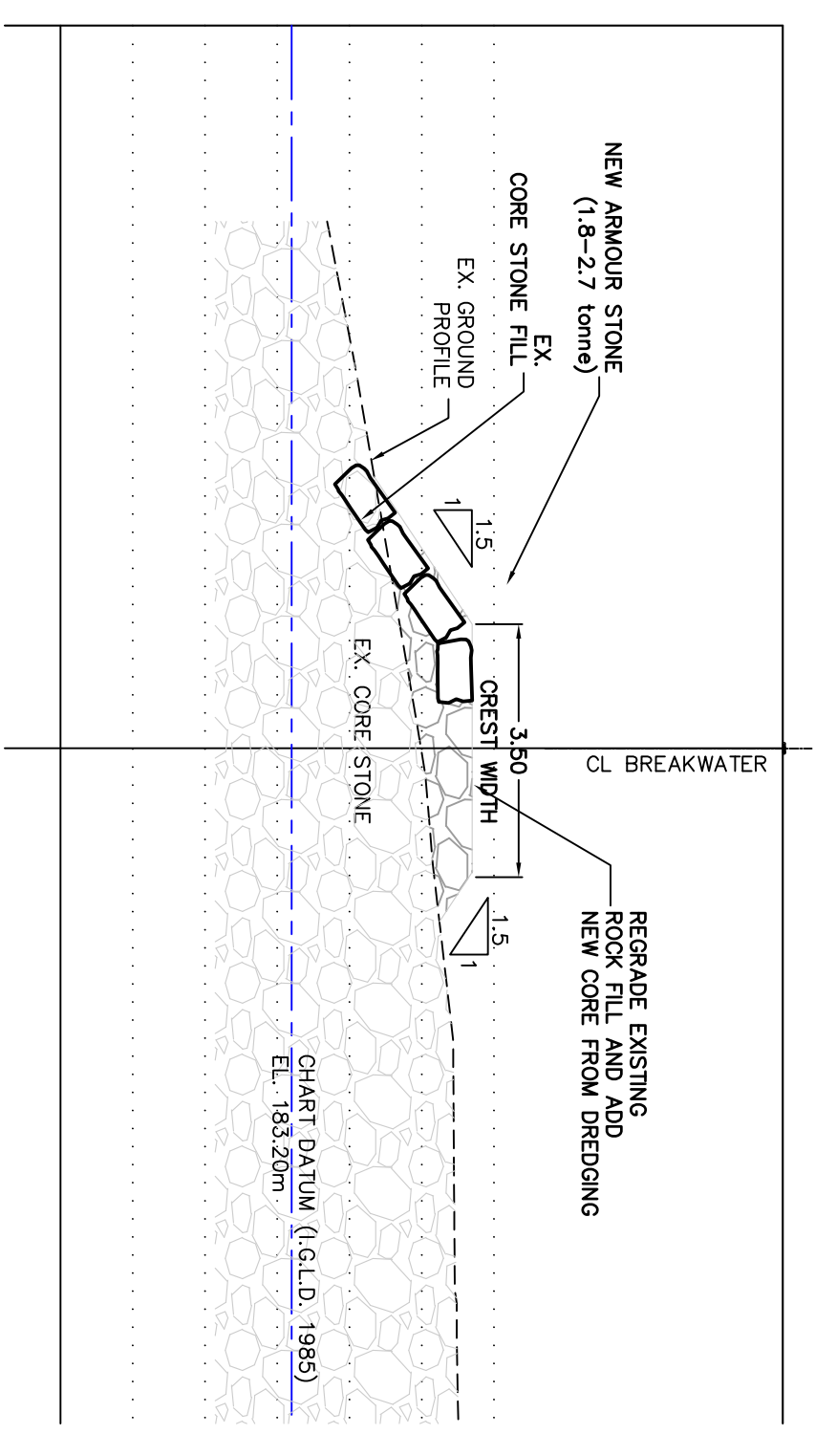
EXISTING BREAKWATER LOOKING WEST
SCALE: NTS



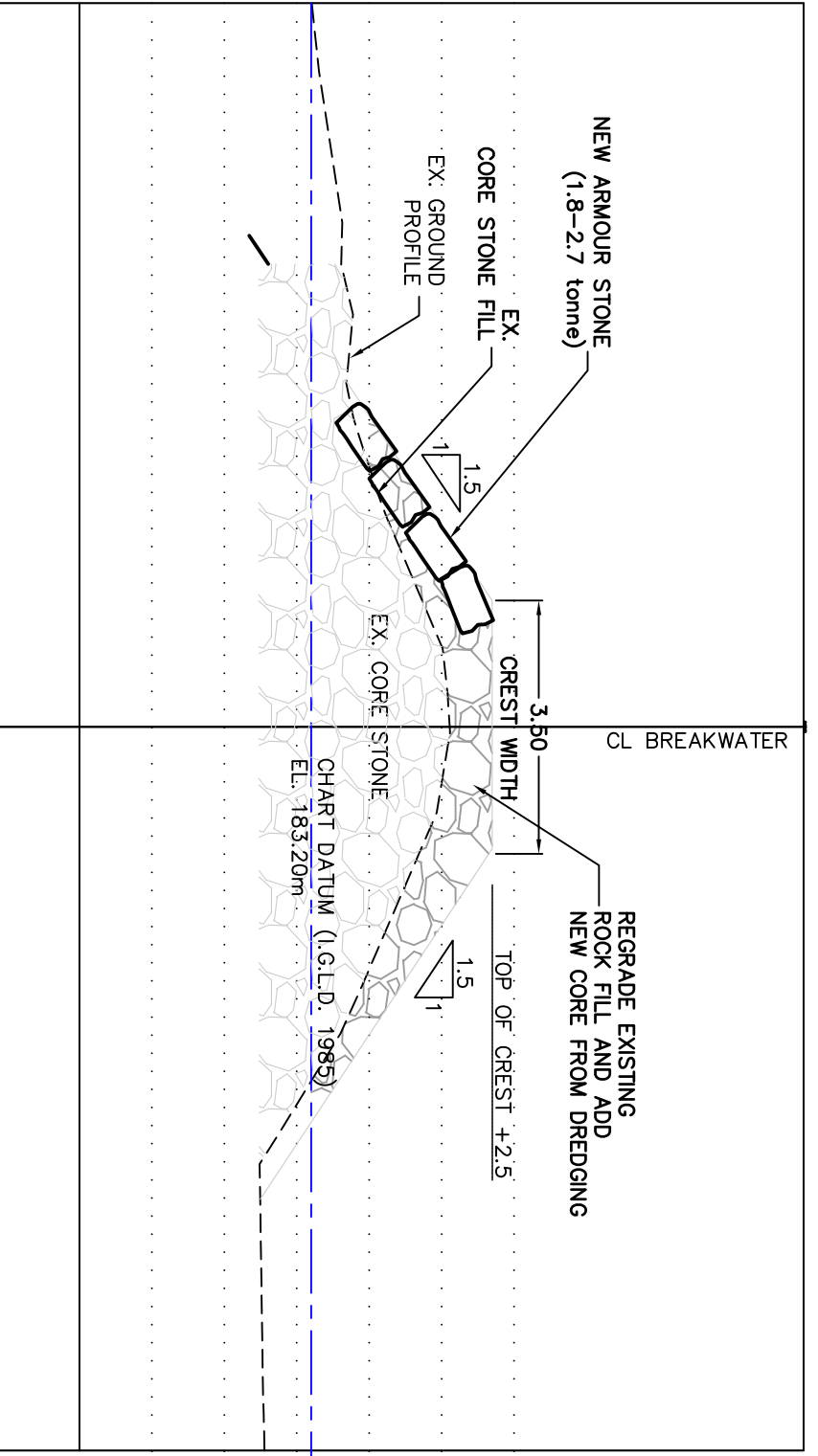
EXISTING SHORELINE LOOKING SOUTH
SCALE: NTS



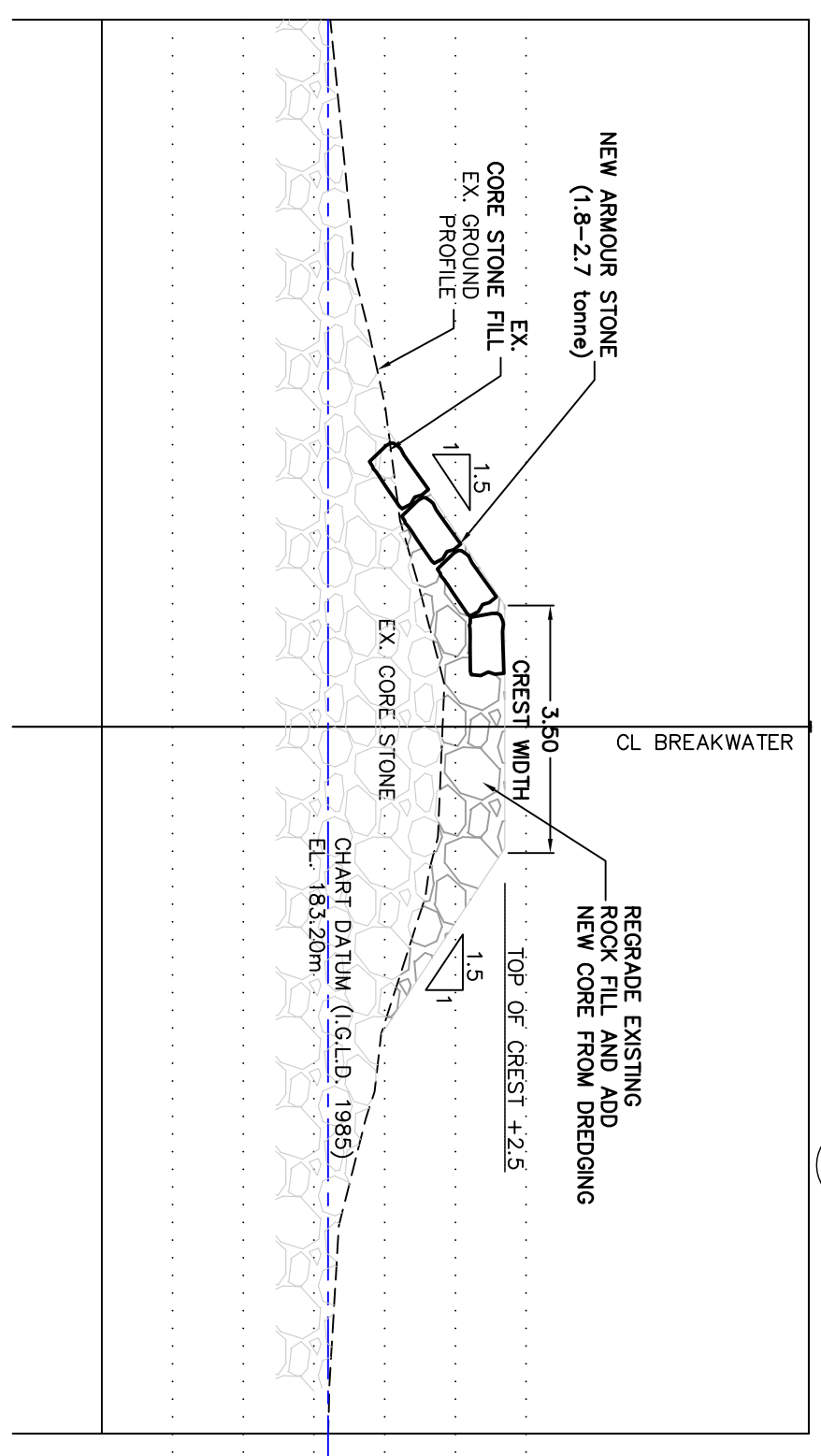
EXISTING BREAKWATER SECTION @ STA 0+030
SCALE: 1:100



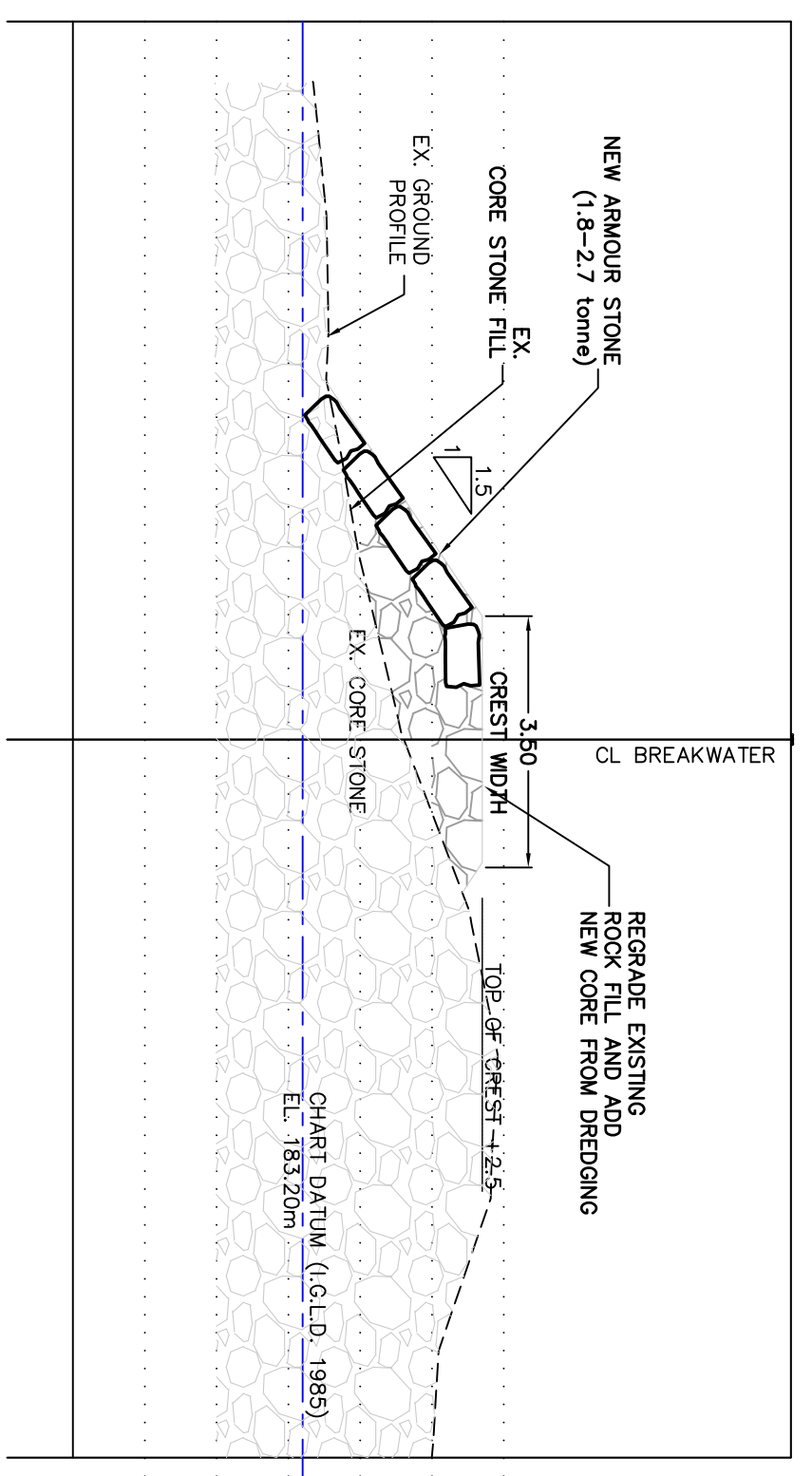
NEW BREAKWATER SECTION @ STA 0+070
SCALE: 1:100



NEW BREAKWATER SECTION @ STA 0+040
SCALE: 1:100



NEW BREAKWATER SECTION @ STA 0+050
SCALE: 1:100



NEW BREAKWATER SECTION @ STA 0+060
SCALE: 1:100



- NOTES:
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BENCHMARK INFO

GEODETIC SURVEY CANADA
BRONZE TABLET SET IN CONCRETE
FOUNDATION OF LAMPPOST
BM No. CHS 1982 - 8516
ELEVATION: 184.606m I.G.L.D. 1985
(+1.406 ABOVE I.G.L.D.)

LEGEND

- PROJECT BASELINE
- - - FEDERAL PROPERTY LIMITS
- 92.30 EXISTING GROUND ELEVATION
- EXISTING SITE BENCHMARK
- ⊕ EXISTING LIGHT STANDARD

REVISIONS:

1	ISSUED FOR TENDER	2016-09-16
0	ISSUED FOR REVIEW	2016-04-13

PROJECT:

MAMAINSE HARBOUR
IMPROVEMENTS

DESCRIPTION:

BREAKWATER
IMPROVEMENTS

DRAWN:

M.J.C

APPROVED:

M.M.

DATE:

JULY 2016

DATE:

SEPT. 2016

LOCATION:

MAMAINSE HARBOUR
ONTARIO

DRAWING NO.:

MA-05

LOCATOR CODE:

4697