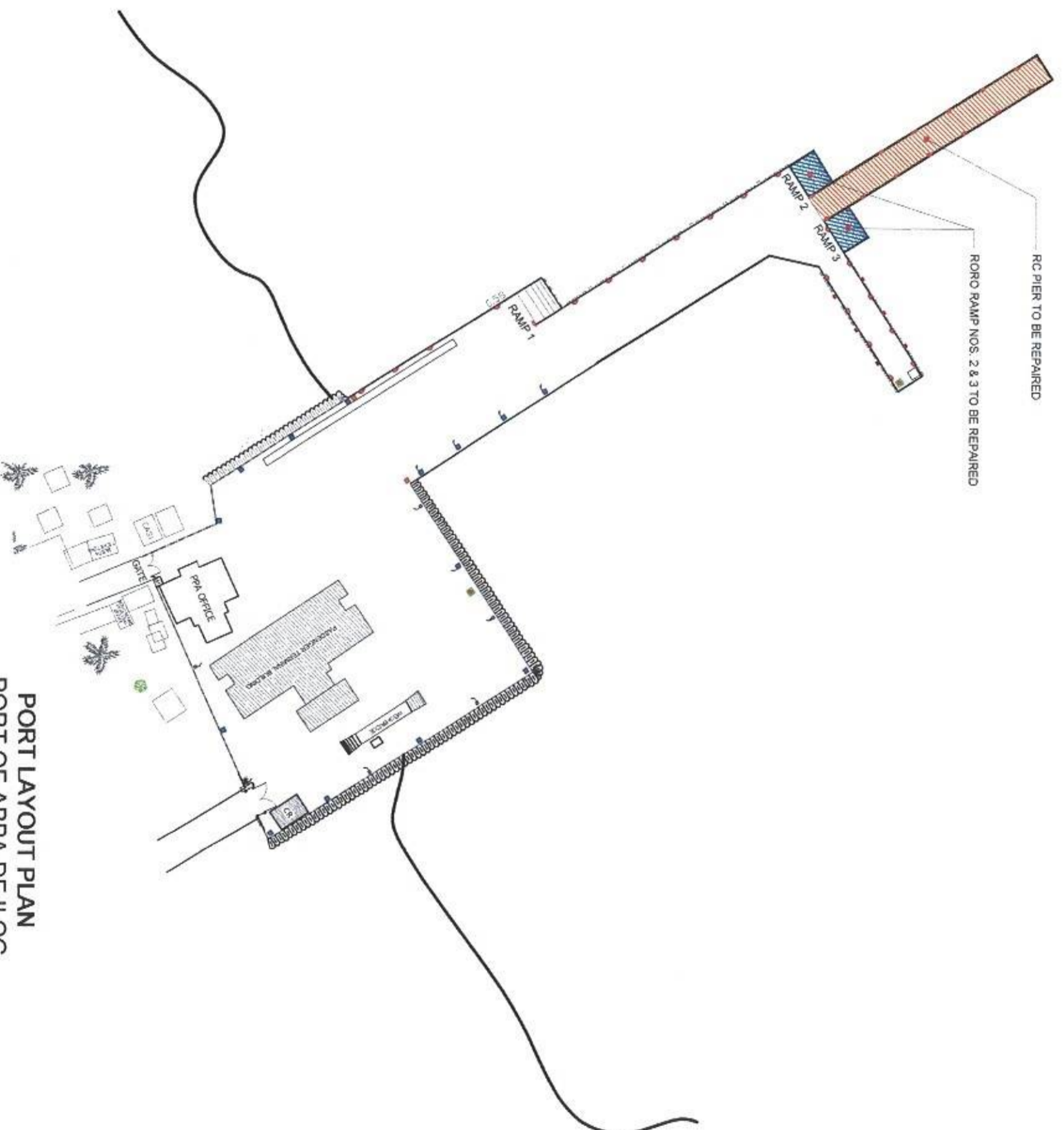


PHILIPPINE
PORTS
AUTHORITY



PMO- MINDORO

REPAIR OF RC PIER
AND RORO RAMP NOS. 2 & 3
PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO



PORT LAYOUT PLAN
PORT OF ABRA DE ILOG

OCCIDENTAL MINDORO



SCALE

1:1500 M.

PROJECT TITLE:

REPAIR OF RC PIER AND RORO RAMP NOS. 2 & 3
PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO

PREPARED BY:

FERNANDO J. GALVEZO
Engineering Assistant A

SUBMITTED BY:

EMERSON D. QUIAMBAO
Assistant Port Engineer

CHECKED / REVIEWED BY:

RONALD O. MATIBAG
Acting Principal Engineer A

RECOMMENDING APPROVAL:

MARGARITO P. DIMALLIG
Acting Division Manager A, ESD

APPROVED:

LEO A. ROMERO
Acting Port Manager A

SHEET CONTENTS:

AS SHOWN

SCALE:

AS SHOWN

SHEET NO.

1 of 9

DATE:

22 JAN 2021





ALL DIMENSIONS WERE MILLIMETER AND ELEVATIONS WERE IN METER BASED FROM M.L.L.W. ELEVATION 0.000 UNLESS OTHERWISE SPECIFIED. ALL NEEDED DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES IN THE FIELD WERE VERIFIED. THE MAXIMUM SIZE OF COARSE AGGREGATES WERE NOT LARGER THAN ONE FIFTH OF THE NARROWEST DIMENSION OF THE BEAMS, NOR ONE THIRD OF THE DEPTH OF SLABS, NOR THREE QUARTERS OF THE MINIMUM CLEAR DISTANCE BETWEEN REINFORCING BARS. CONCRETE COVER WAS PROVIDED AS FOLLOWS :

FOR SLABS, BEAMS AND GIRDERS 100mm ON TOP AND 75mm ON UNDERSIDE MEASURED FROM THE OUTER SURFACE OF THE CONCRETE TO THE NEAREST SURFACE OF THE STEEL, THE EDGES OF BEAMS, PILE CAPS, CURTAIN WALLS, R.C. CURS AND ALL OTHERS PARTS OF THE SUPERSTRUCTURE WERE CHARACTERED BY AT LEAST 25mm.

SPLICERS FOR MAIN BARS AT CRITICAL SECTION THAT FOUND NECESSARY WERE PROVIDED A MINIMUM LAP OF 40 X BAR DIAMETER. ALL STEEL REINFORCEMENT WERE DEFORMED BARS AND SHALL CONFORM TO ASTM AS FOLLOWS

16MM2 AND ABOVE—ASTM 305, MIN. YIELD STRENGTH OF 414 MPa (GRADE 60)
12MM2 AND SMALLER—ASTM A615-72a, MIN. YIELD STRENGTH OF 275MPa
(GRADE40)


STAPLE BARS WERE JOINED TOGETHER BY FILED ELECTRIC WELD IN WHICH CASE THE LAP WERE AT LEAST 35mm. WELDING WERE CONTINUOUS THROUGHOUT THE LENGTH OF LAP.

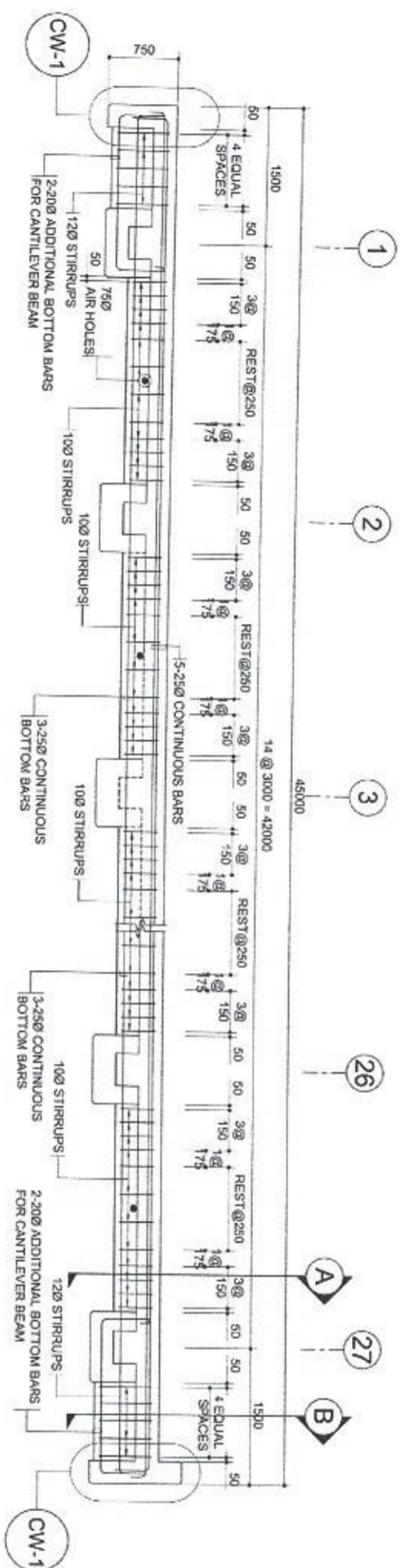
ALL INTERSECTION (REINFORCING BARS) WERE ELECTRICALLY SPOT WELDED IN LIEU OF TYING THEM WITH G.I. WIRES. WELDING ELECTRODES WERE SHIELDED ARC TYPE HEAVILY COATED WITH CLASSIFICATION NO. E6010 OR 6011 OF THE AMERICAN WELDING SOCIETY AND WERE SUITABLE FOR THE POSITIONS AND OTHER CONDITIONS OF INTENDED USE. DIMENSIONS OF STEEL REINFORCEMENT WERE TAKEN ON CENTER OF BARS. BAR DETAILS WERE NOT TO SCALE.

HOOKS WERE PROVIDED AT OUTER ENDS OF TOP BARS ALONG EXTERIOR BAYS. HOOKS OF BARS HAD A MINIMUM DIAMETER OF 4 TIMES THE DIAMETER ON SIDES OF BARS. DRAIN AND AIR HOLES WERE PROVIDED AS INDICATED IN THE PLAN.

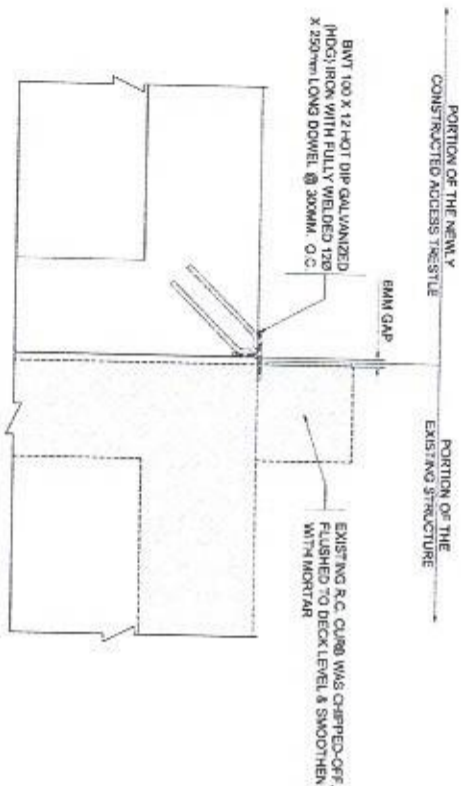
CONCRETE STRENGTH (f_c) USED WAS 24.1 MPa (3,500 psi) UNLESS OTHERWISE SPECIFIED.

ROCKS USED HAD A MINIMUM SPECIFIC GRAVITY OF 2.65, ANGULAR IN SHAPE, HARD, DURABLE, NOT EASILY DISINTEGRATE UNDER LONG EXPOSURE TO SEA WATER AND FREE FROM THE ACTION OF AIR, SEAWATER OR IN HANDLING AND PLACING. REFERRED TO TECHNICAL SPECIFICATIONS OF BID DOCUMENTS FOR MORE DETAILS/SPECIFICATIONS.

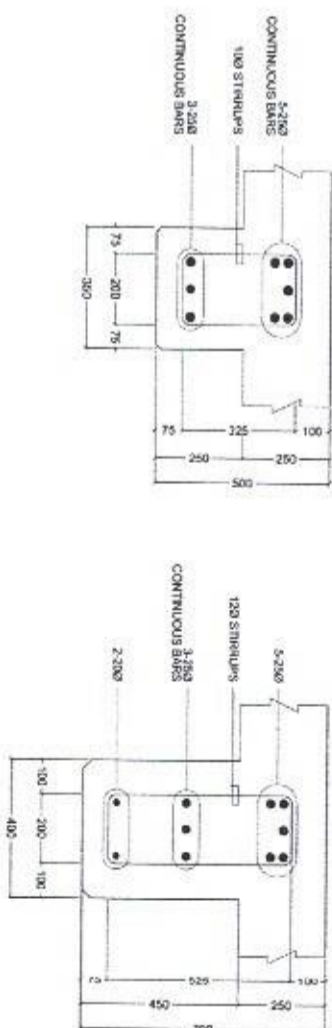
		PROJECT TITLE: REPAIR OF RC PIER AND RORO RAMP Nos. 2 & 3 PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO		SHEET CONTENTS:		SCALE: AS SHOWN	
PREPARED BY: FERNANDO J. GALVEZO Engineering Assistant A		SUBMITTED BY: EMERSON D. QUIAMBAO Assistant Port Engineer		CHECKED / REVIEWED BY: RONALD O. MATIBAG Acting Principal Engineer A		RECOMMENDING APPROVAL: MARGARITO P. DIMAILIG Acting Division Manager A, ESD	
APPROVED: LEO A. ROMERO Acting Port Manager A		AS SHOWN		SHEET NO. 2 of 9		DATE: 22 JAN 2021	



TYPICAL LONGITUDINAL SECTION @ R.C. PIER
SCALE 1 : 40



DETAIL OF CONSTRUCTION JOINT
SCALE 1 : 10



SECTION A
DETAIL OF BEAMS
SCALE 1:10

SECTION B



PROJECT TITLE:

REPAIR OF RC PIER AND RORO RAMP Nos. 2 & 3
PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO

PREPARED BY:

FERNANDO J. GALVEZO
Engineering Assistant A

SUBMITTED BY:

EMERSON D. QUIAMBAO
Assistant Port Engineer

CHECKED / REVIEWED BY:

RONALD O. MATIBAG
Acting Principal Engineer A

RECOMMENDING APPROVAL:

MARGARITO P. DIMALIG
Acting Division Manager A, ESD

APPROVED:

LEO A. ROMERO
Acting Port Manager A

SHEET CONTENTS:

AS SHOWN

SCALE:

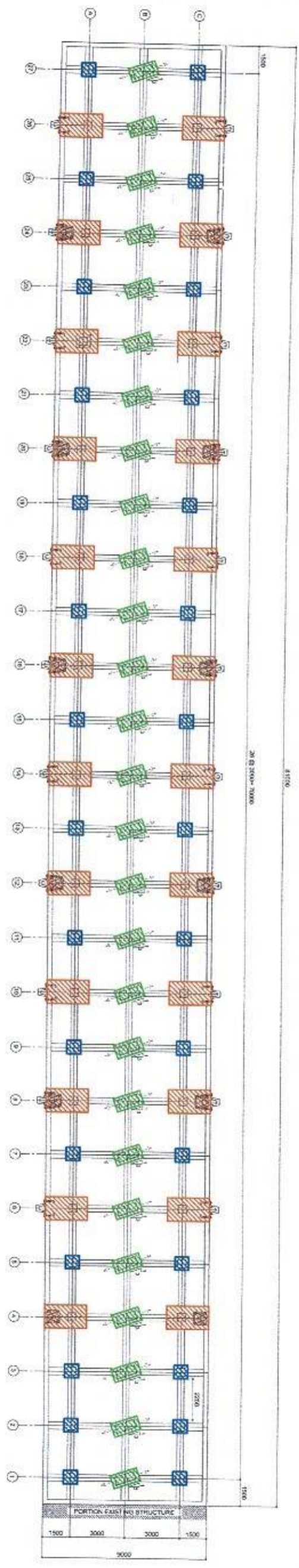
AS SHOWN

SHEET NO.

4 of 9




DATE:


22 JAN 2021

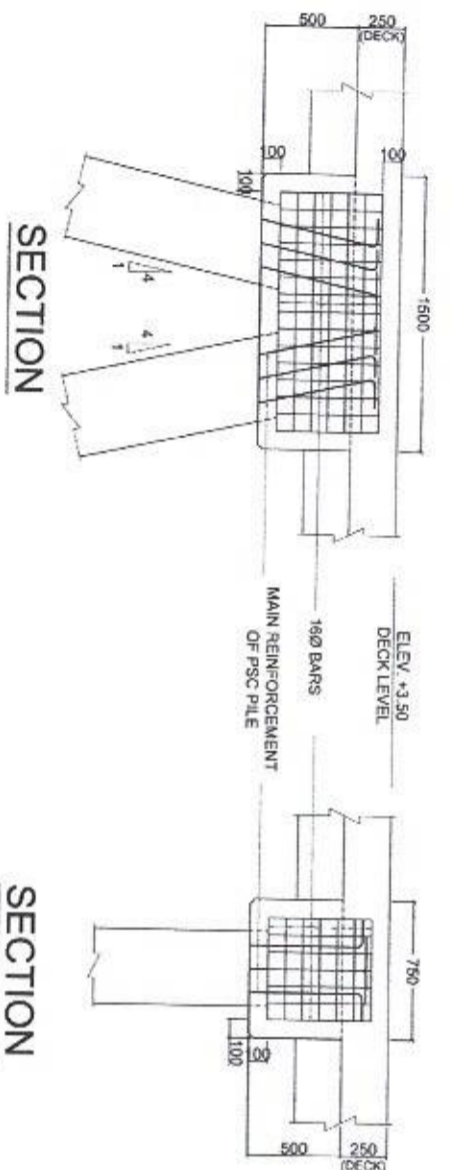
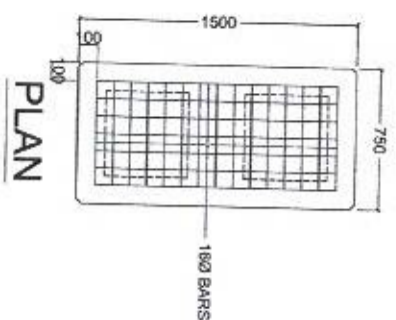


PLAN OF RC PIER SHOWING LOCATION OF PILE CAP & FENDER BLOCK

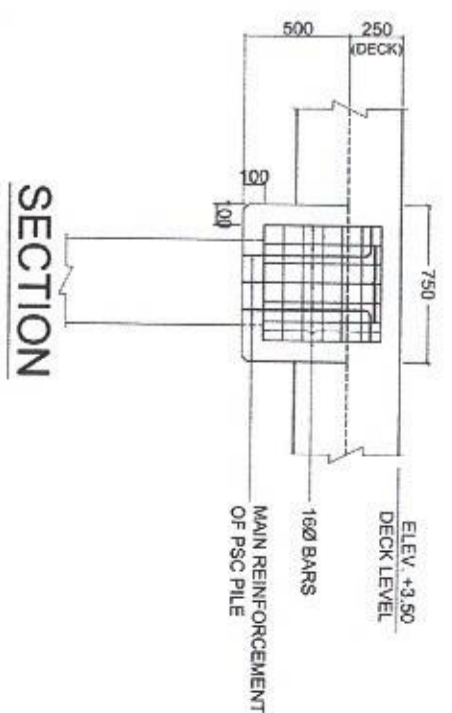
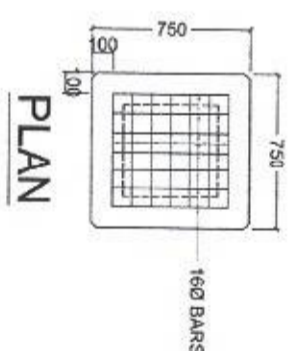
LEGEND:

-  PILE CAP-A
-  PILE CAP-B
-  PILE CAP-C / FENDER & MOORING BLOCK

 <p>PHILIPPINE PORTS AUTHORITY PMO-MINDORO</p>	PROJECT TITLE: REPAIR OF RC PIER AND RORO RAMP Nos. 2 & 3 PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO		SHEET CONTENTS: AS SHOWN		SCALE: AS SHOWN	
	PREPARED BY: FERNANDO J. GALVEZO Engineering Assistant A	SUBMITTED BY: EMERSON D. QUIAMBAO Assistant Port Engineer	CHECKED / REVIEWED BY: RONALD O. MATIBAG Acting Principal Engineer A	RECOMMENDING APPROVAL: MARGARITO P. DIMAILIG Acting Division Manager A, ESD	APPROVED: LEO A. ROMERO Acting Port Manager A	DATE: 22 JAN 2021



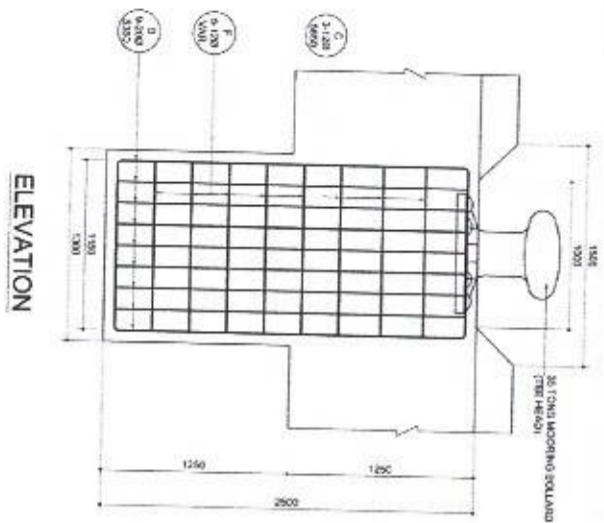
SECTION



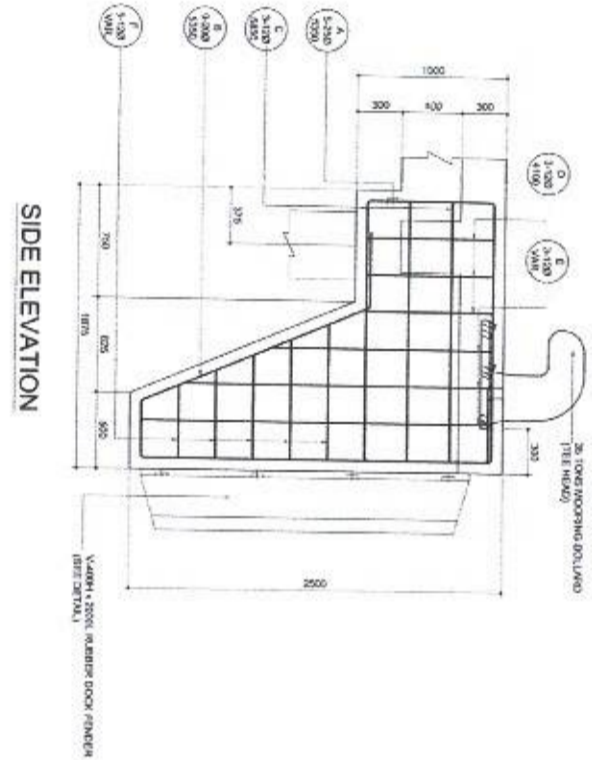
SECTION

DETAIL OF PILE CAP - A FOR COUPLE BATTER PILES

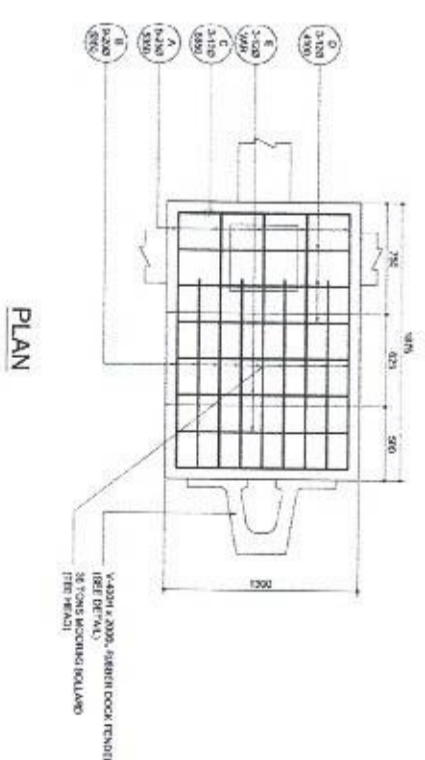
DETAIL OF PILE CAP - B FOR VERTICAL PILES



ELEVATION




SIDE ELEVATION

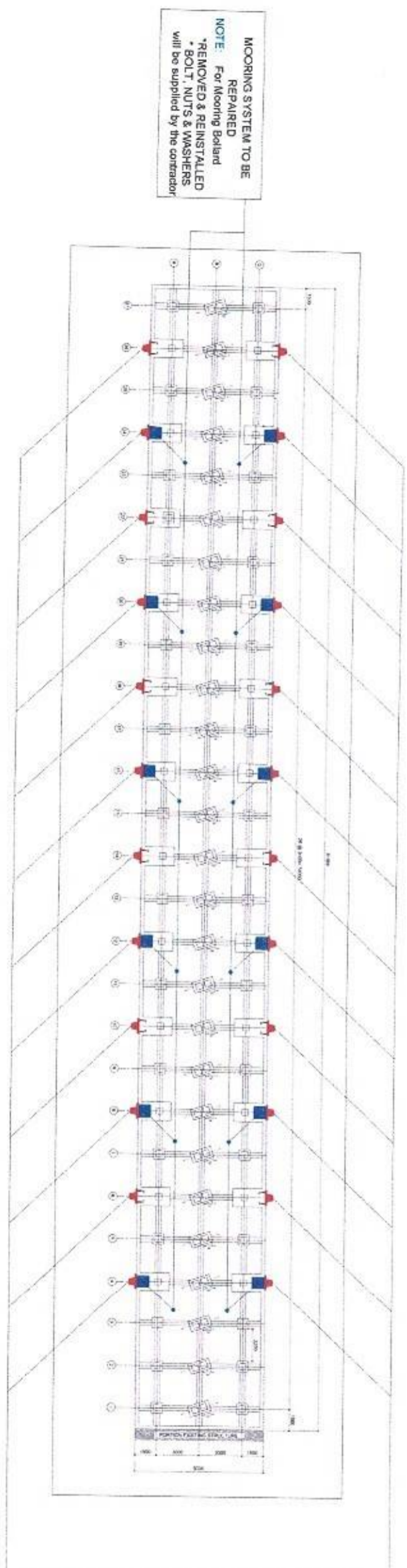


PLAN

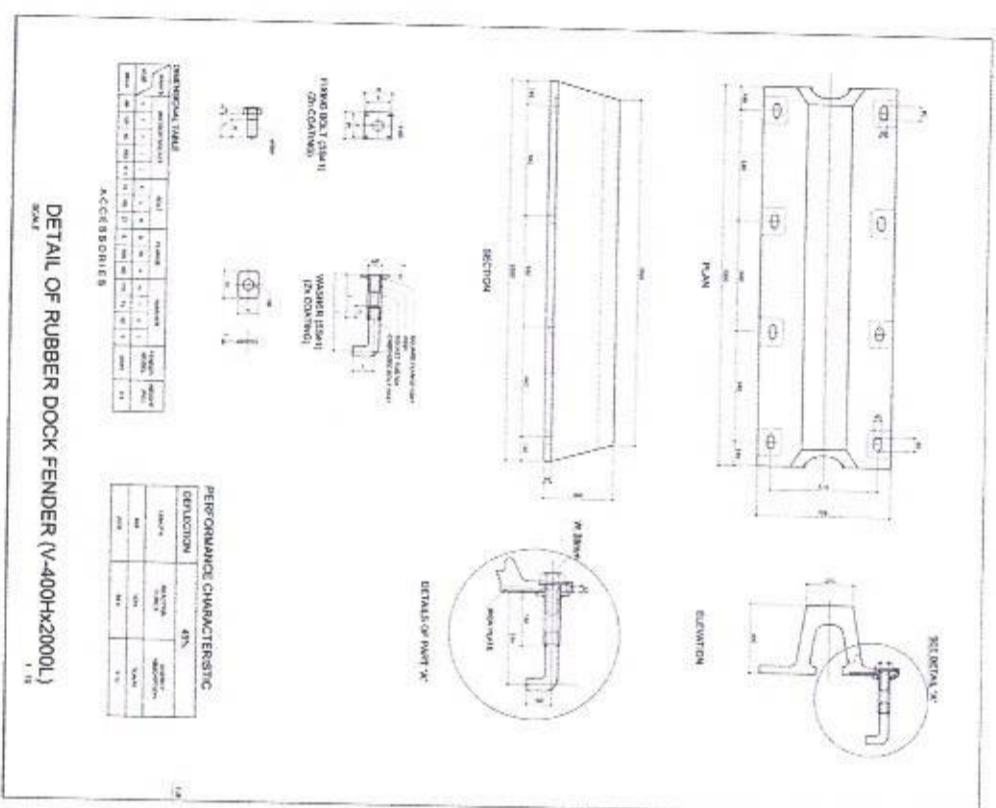
TYPICAL DETAIL OF PILE CAP-C / FENDER & MOORING BLOCK

		PROJECT TITLE: REPAIR OF RC PIER AND RORO RAMP Nos.2 & 3 PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO		SHEET CONTENTS: AS SHOWN	
PREPARED BY: FERNANDO J. GALVEZO Engineering Assistant A		SUBMITTED BY: EMERSON D. QUIAMBAO Assistant Port Engineer		SCALE: AS SHOWN	
CHECKED / REVIEWED BY: RONALD O. MATIBAG Acting Principal Engineer A		RECOMMENDING APPROVAL: MARGARITO P. DIMALLIG Acting Division Manager A, ESD		SHEET NO. 6 of 9	
DATE: 22 JAN 2021		APPROVED: LEO A. ROMERO Acting Port Manager A			

FENDERING SYSTEM TO BE REPAIRED
SEE DETAIL



PLAN OF RC PIER SHOWING LOCATION OF FENDERING AND MOORING SYSTEM TO BE REPAIRED



PROJECT TITLE:

REPAIR OF RC PIER AND RORO RAMP Nos. 2 & 3
PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO

PREPARED BY:

FERNANDO J. GALVEZO
Engineering Assistant A

SUBMITTED BY:

EMERSON D. QUIAMBAO
Assistant Port Engineer

CHECKED / REVIEWED BY:

RONALD O. MATIBAG
Acting Principal Engineer A

RECOMMENDING APPROVAL:

MARGARITO P. DIMAILIG
Acting Division Manager A, ESD

APPROVED:

LEO A. ROMERO
Acting Port Manager A

SHEET CONTENTS:

AS SHOWN

SCALE:

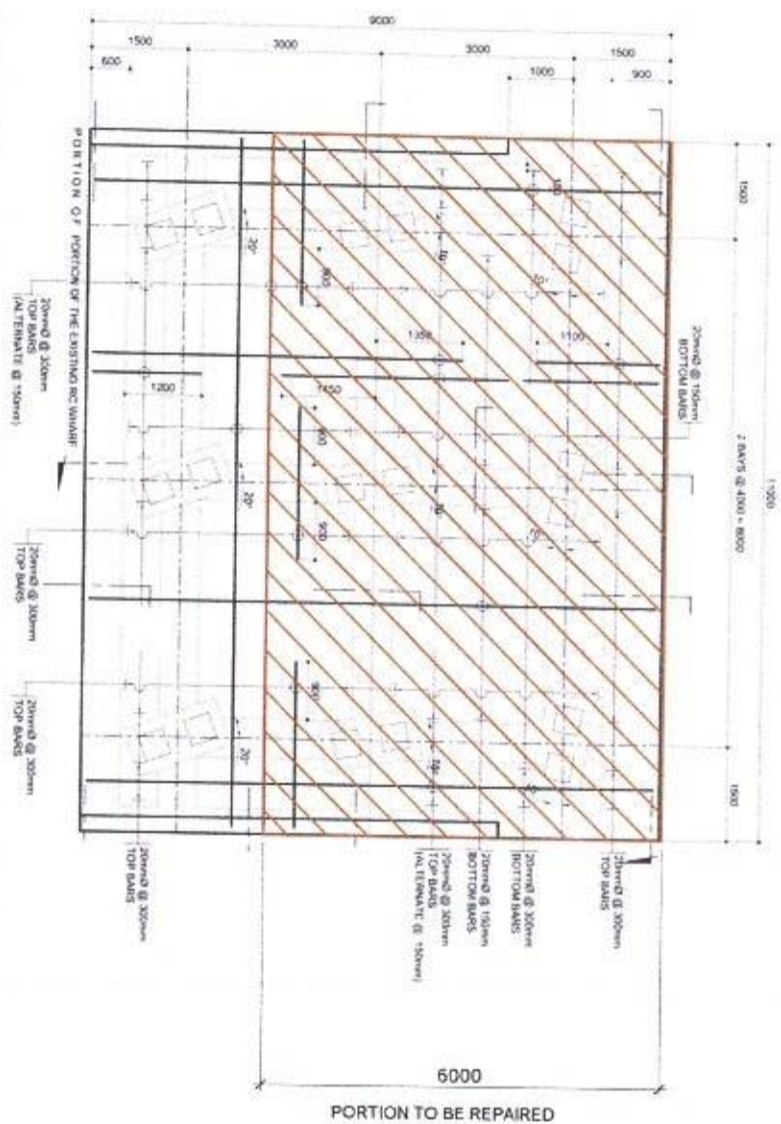
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SHEET NO.

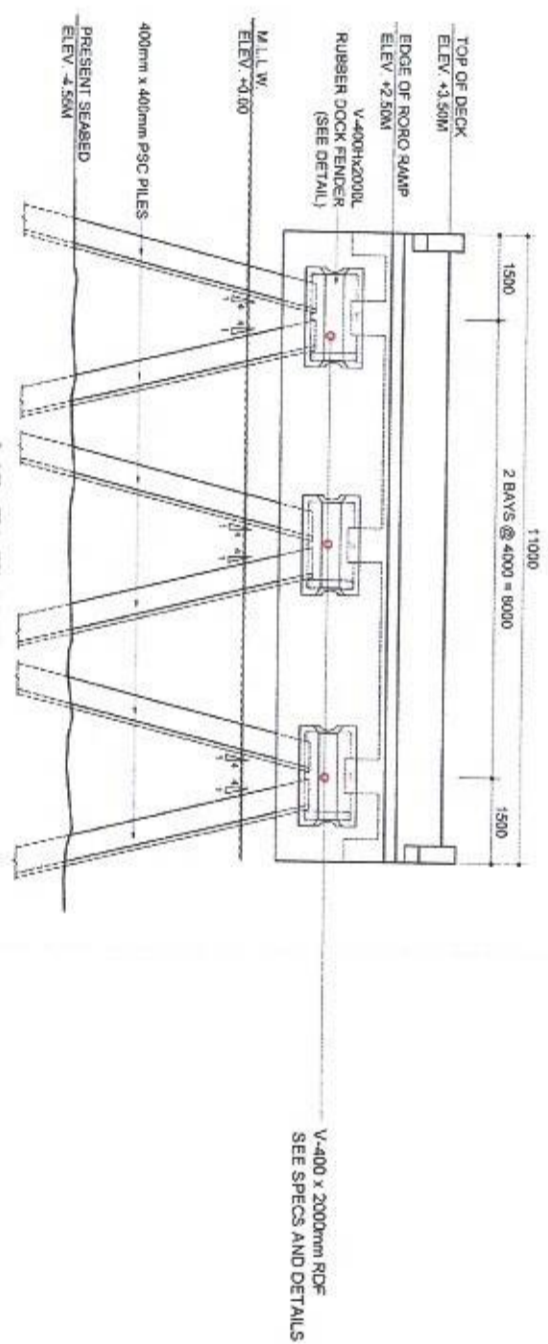
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DATE:

22 JAN 2021



PLAN OF RORO RAMP TO BE REPAIRED



ELEVATION

PROJECT TITLE: REPAIR OF RC PIER AND RORO RAMP Nos.2 & 3
PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO

PREPARED BY:

FERNANDO J. GALVEZO
Engineering Assistant A

SUBMITTED BY:

EMERSON D. QUIAMBAO
Assistant Port Engineer

CHECKED / REVIEWED BY:

RONALD O. MATIBAG
Acting Principal Engineer A

RECOMMENDING APPROVAL:

MARGARITO P. DIMALLIG
Acting Division Manager A, ESD

APPROVED:

LEO A. ROMERO
Acting Port Manager A

SHEET CONTENTS:

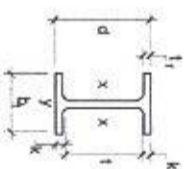
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SCALE:

AS SHOWN
SHEET NO.
8 of 9

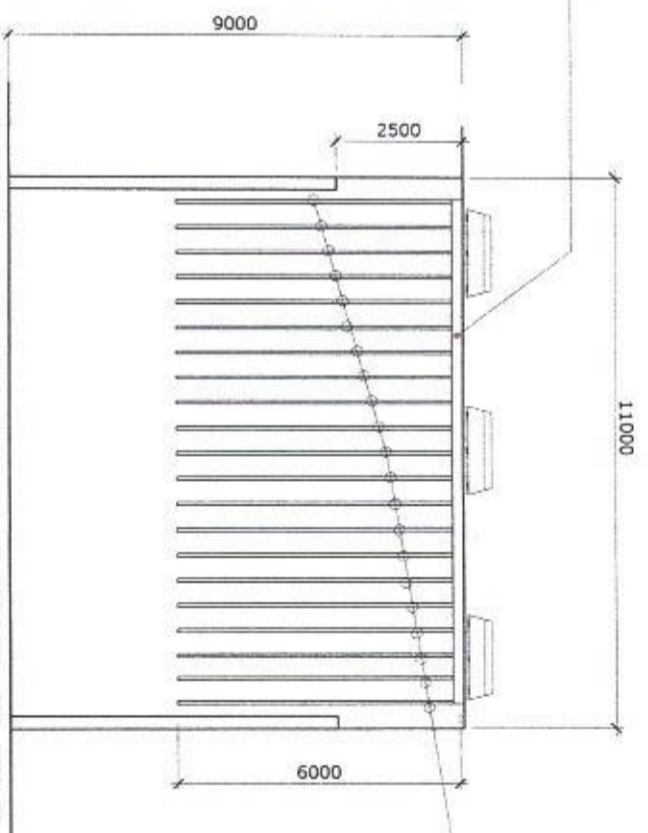


DATE:
22 JAN 2021



DESIGNATION	DEPTH	WEB	FLANGE	DISTANCE
nominal depth (mm)	d (mm)	Thickness t _w (mm)	Width b (mm)	t _f (mm)
nominal weight (kg/m)				k (mm)
W150 x 37.1	162	8.1	154	11.6
				21

RAMP PROTECTION



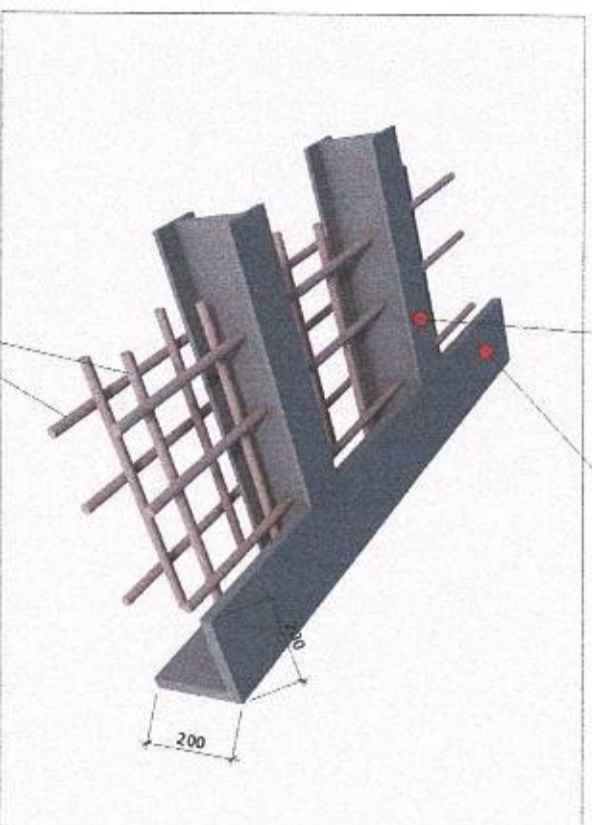
PLAN OF RORO RAMP PROTECTION

SCALE

1 : 150 M

RAMP REBARS

CORNER RAMP PROTECTION
25mm thk. STEEL PLATE
fully weld on steel ramp protection



PROJECT TITLE:

REPAIR OF RC PIER AND RORO RAMP Nos.2 & 3
PORT OF ABRA DE ILOG, OCCIDENTAL MINDORO

PREPARED BY:

FERNANDO J. GALVEZO
Engineering Assistant A

SUBMITTED BY:

EMERSON D. QUIAMBAO
Assistant Port Engineer

CHECKED / REVIEWED BY:

RONALD O. MATIBAG
Acting Principal Engineer A

RECOMMENDING APPROVAL:

MARGARITO P. DIMALIG
Acting Division Manager A, ESD

APPROVED:

LEO A. ROMERO
Acting Port Manager A

SHEET CONTENTS:

AS SHOWN

SCALE:
AS SHOWN

SHEET NO.
9 of 9

DATE:
22 JAN 2021

