

#### **4.16.2 MATERIAL REQUIREMENTS**

Room Markers: Black acrylic letters, 38 mm (1-1/2") high on white acrylic background, 63 mm (2-1/2") high, with clear acrylic cover. Lengths shall be as required by the full notation therein.

#### **4.16.3 EXECUTION**

##### **4.16.3.1 WORKMANSHIP**

Workmanship shall be executed in high quality comparable with artworks.

##### **4.16.3.2 MOUNTING**

For all mounted assemblies, appropriate mounting hardware and connectors which are concealed shall be sufficiently used.

Assemblies shall be mounted plumb, straight, level, and at prescribed heights.

##### **4.16.3.3 INSTALLATION**

Installation shall be done in a secure and permanent manner at prescribed heights and/or layout. The backwall shall not be mutilated. After the dowels are positioned, fill with expanding grout, or other approved fillers, and retouch, flashed to the backwall surface.

#### **4.16.4 MEASUREMENT AND PAYMENT**

Signages will not be measured and paid separately, as it is deemed included under pay-item on Doors where the signages shall be installed. Signages will be measured and paid by the number of quantities required  
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which shall include tools, labor, equipment, materials and all incidental to complete the works.

### **4.17 FACILITIES AND DEVICE FOR DISABLED PERSONS**

#### **4.17.1 GENERAL**

##### **4.17.1.1 SCOPE OF WORK**

The work shall consists of furnishing materials, tools, labor and incidentals necessary for the construction/installation of facilities and device for disabled persons as shown on the Drawings and in accordance with the Implementing Rules and Regulations of Batas Pambansa Bilang 344 and this Specification.

#### **4.17.2 MATERIAL REQUIREMENTS**

##### **4.17.2.1 GRAPHIC SIGNS**

Graphic signs like the International Symbol of Access shall be fabricated from plastic materials, white color with either dark blue background. Letters and symbols shall be laminated and raised from the background.

##### **4.17.2.2 HANDRAILS**

Handrail for ramp shall be fabricated from galvanized iron pipe schedule 40, with a diameter of 38mm. It shall be provided with a small hole as of a Braille system.

##### **4.17.2.3 GRABRAIL**

Grabrail shall be manufactured from gauge 18 tubular stainless steel 25mm  $\varnothing$  and provided with safety grip finish.

##### **4.17.2.4 CONCRETE MATERIALS FOR RAMPS**

1. Portland cement shall conform with the requirement of Section 3.2, "Concrete Works".
2. Aggregates shall conform with the requirements of Section 3.2, "Concrete Works".
3. Temperature bars shall have diameter of 10mm conforming with the

requirements of Section 3.2, "Concrete Works".

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#### 4.17.3 **EXECUTION**

##### 4.17.3.1 GRAPHIC SIGNS

1. Directional and information signs, indicating the location of the ramp for physically handicapped persons, shall be installed/placed at the front of the main entrance of the Terminal Building. The signed board shall be 300mm x 300mm mounted on a 50mm Ø, schedule 40, signpost and the text and arrow shall be in accordance with the International Symbol of Access "B".

2. Signs shall be placed at the entrance and exits of the ramps and toilets, installed at conspicuous locations. The signboards shall be 150mm x 150mm and the text shall be in accordance with the International Symbol of Access "A".

##### 4.17.3.2 RAMP

The ramp shall be constructed as shown on the Drawings and with a nonskid surface.

##### 4.17.3.3 GRABRAILS

Lavatories, urinals and water closets of the Terminal Building where indicated on the Drawings shall be provide with grabrails. The position and distance from the floor shall be as shown on the Drawings.

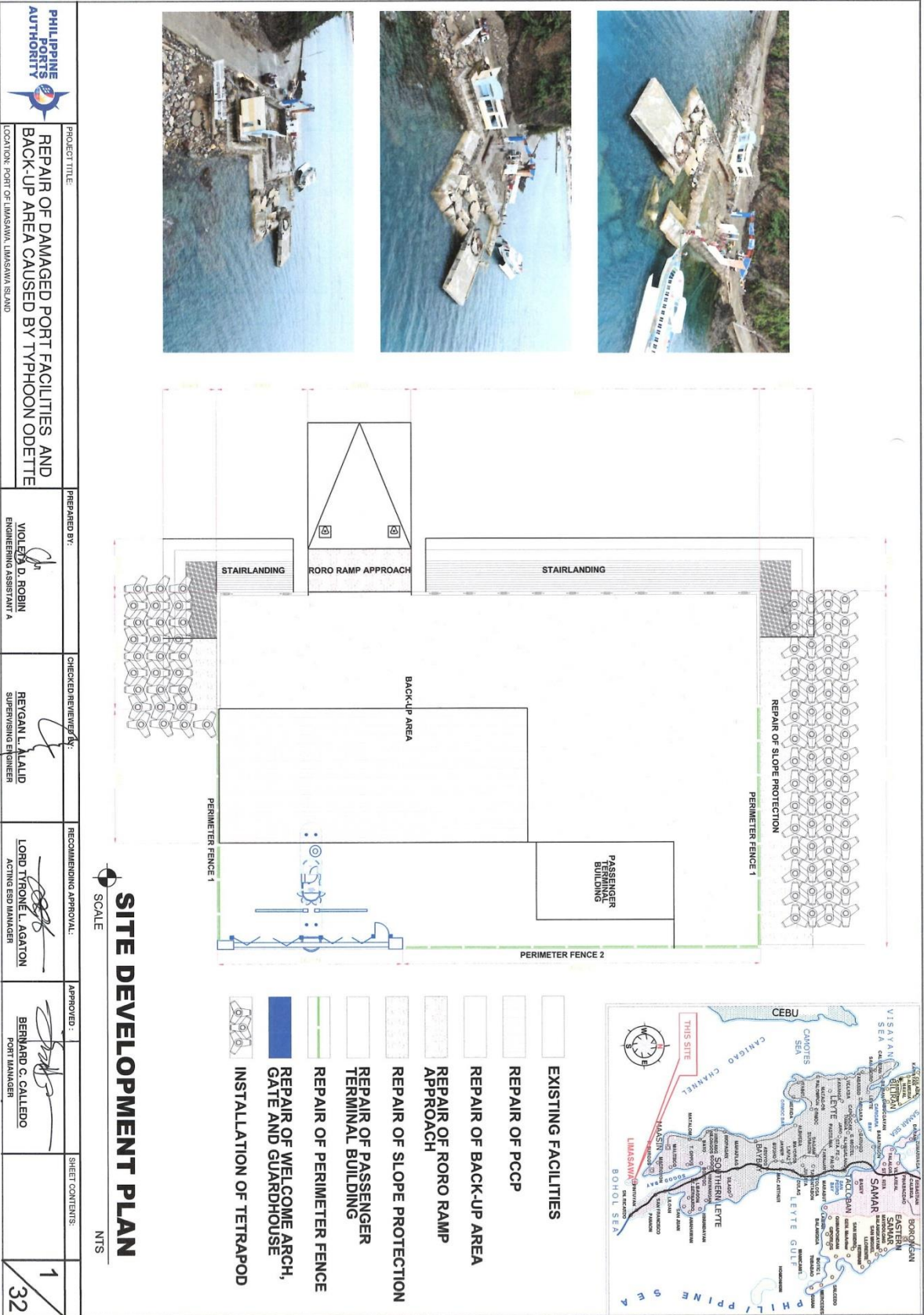
##### 4.17.4 **MEASUREMENT AND PAYMENT**

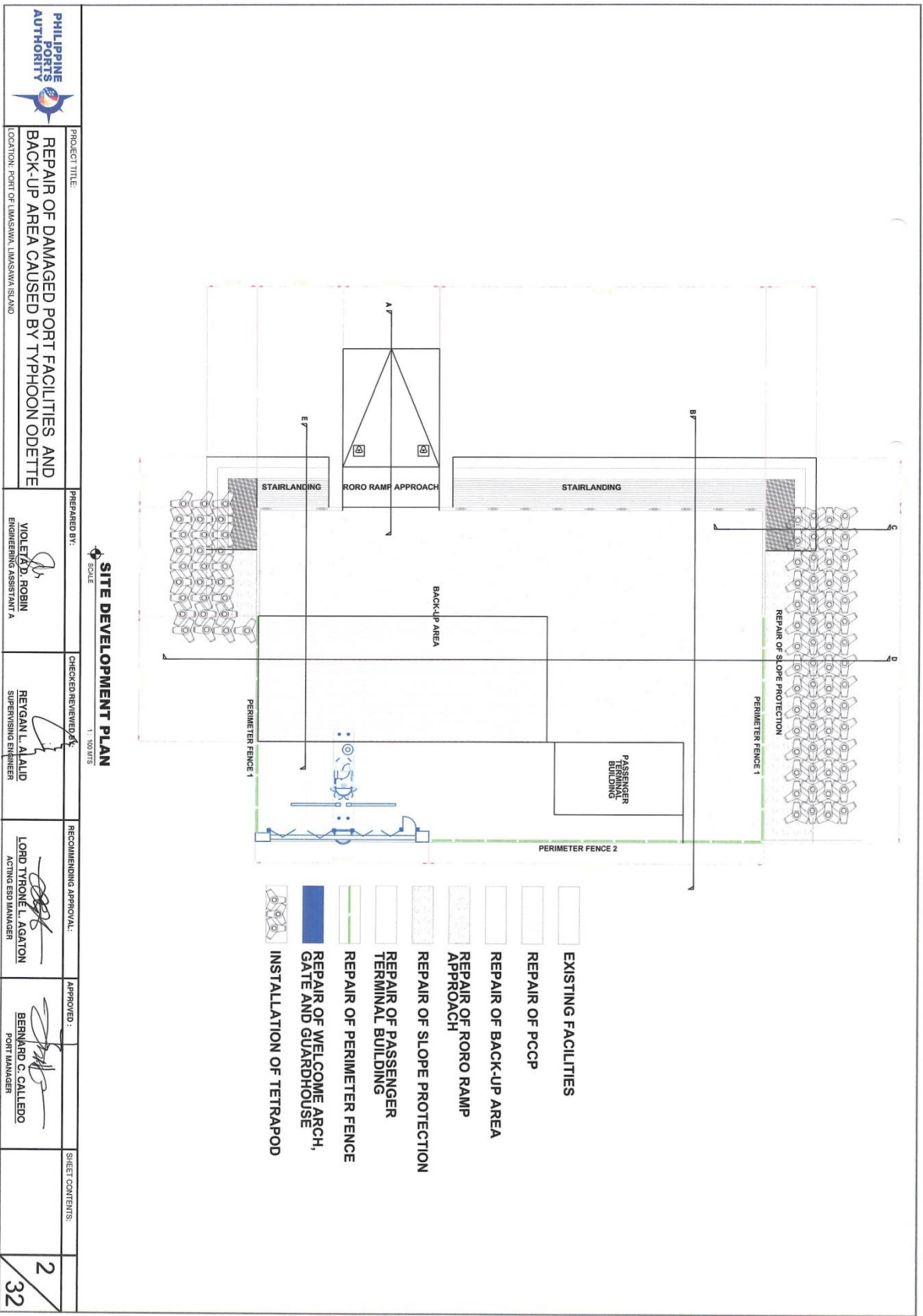
Graphic signs, and grabrails to be paid for shall be measured by the piece installed, completed as shown on the Drawings and accepted and certified for payment by the Engineer.

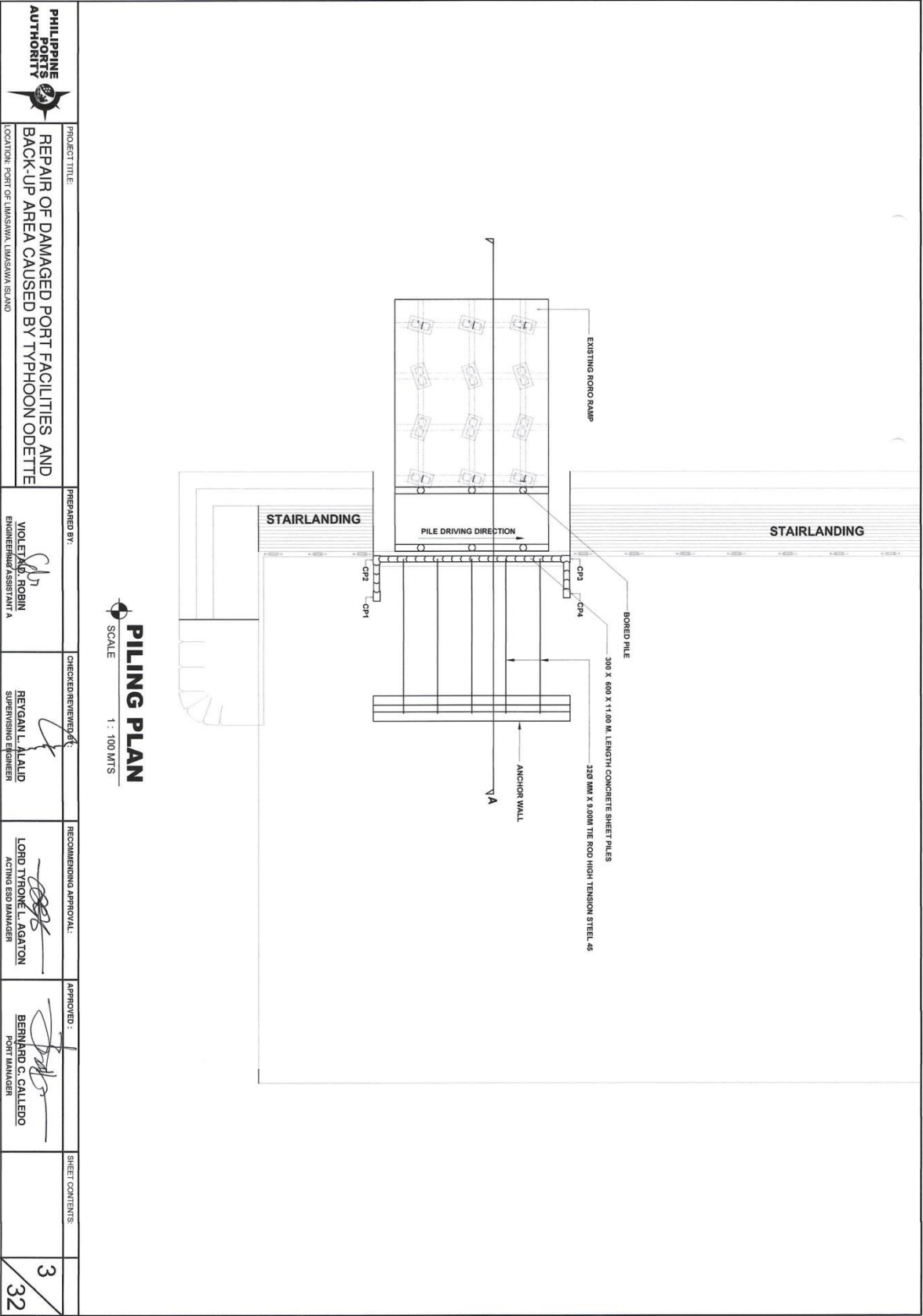
Handrails to be paid shall be measured by the linear meter of piece installed, completed as shown on the Drawings and accepted and certified for payment by the Engineer.

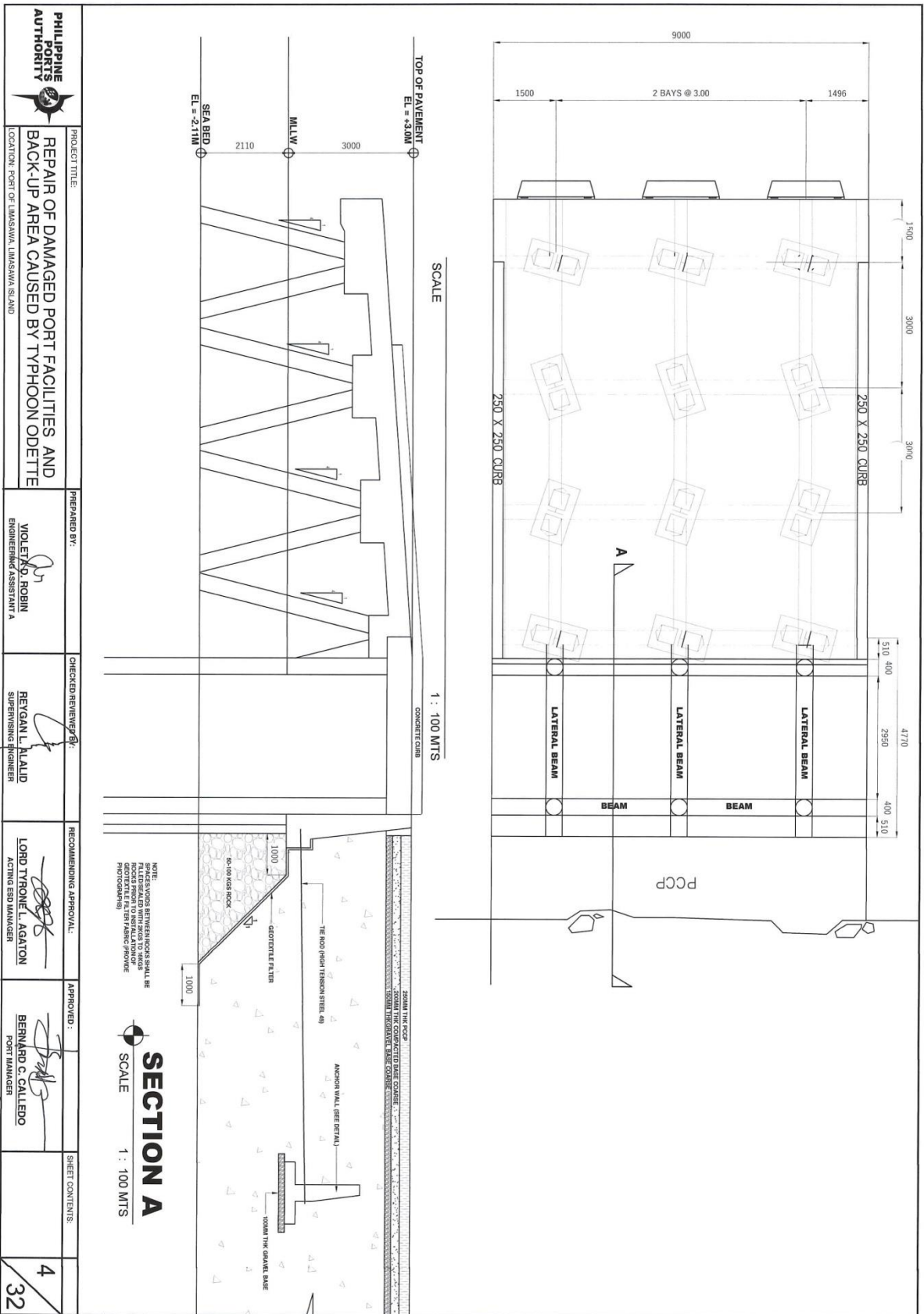
## ***Section VII. Drawings***

*[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]*

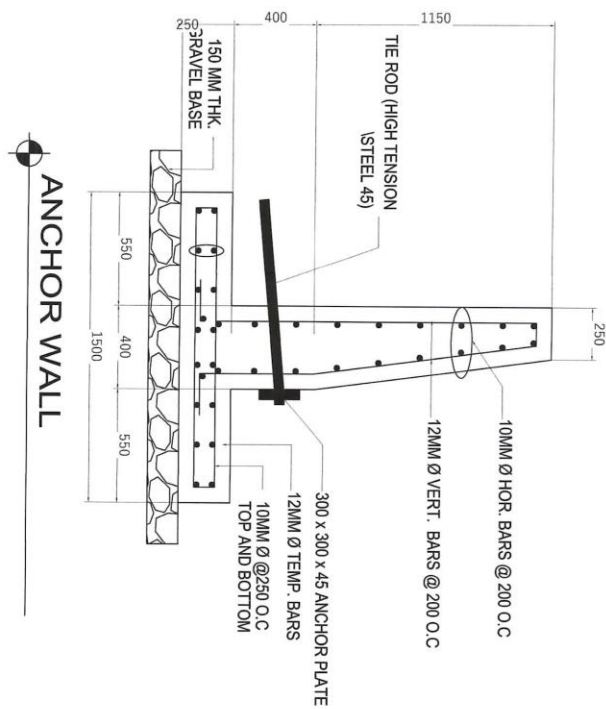
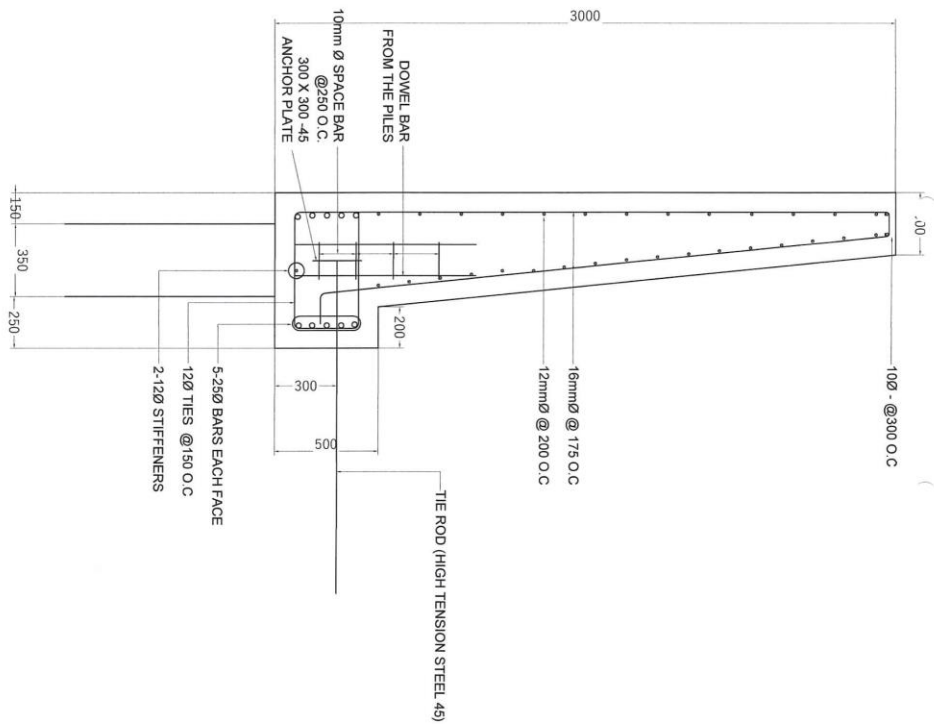




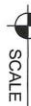








# RETAINING WALL



SCALE

1 : 10 MTS

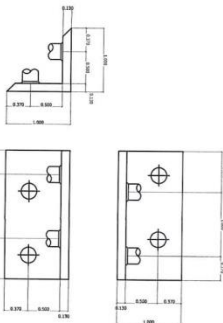
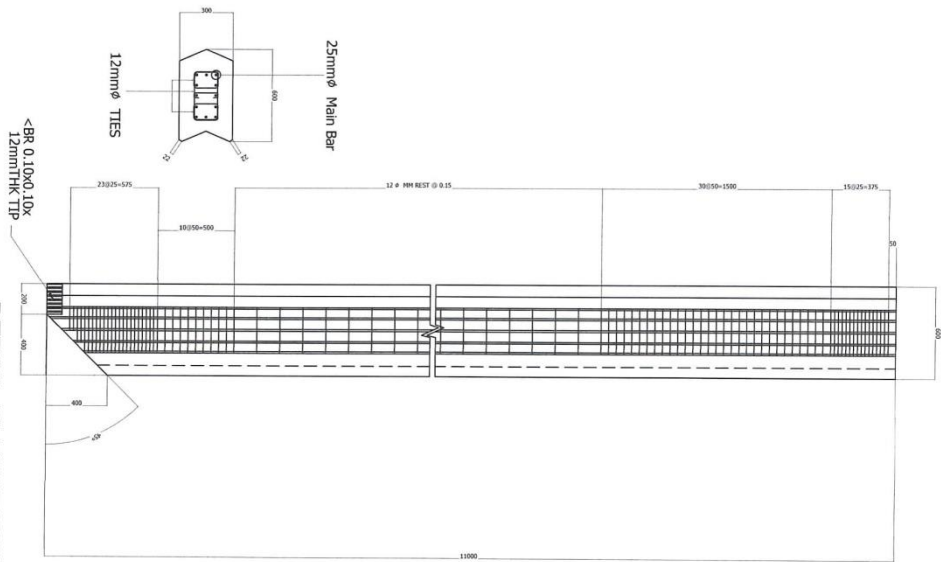
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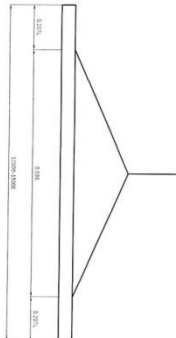
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	<b>REPAIR OF DAMAGED PORT FACILITIES AND BACK-UP AREA CAUSED BY TYPHOON ODETTE</b> LOCATION: PORT OF LIMASAWA, LIMASAWA ISLAND		<b>VIOLATO ROBIN</b> ENGINEERING ASSISTANT I	<b>REYGAN L. ALAUD</b> SUPERVISING ENGINEER	<b>LORD TAYLOR L. AGATON</b> ACTING ESD MANAGER	<b>BERNARD C. CALLEDO</b> PORT MANAGER	6 / 32

# DETAIL ELEVATION OF CONCRETE SHEET PILE

NTS



100x100x13x200mm STEEL ANGLE FOR PILE TIP

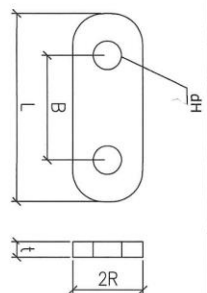


SUGGESTED LIFTING POINTS OF PILE

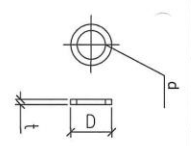
## NOTES ON CONCRETE SHEET PILE

- ALL DIMENSIONS ARE IN METERS UNLESS SPECIFIED.
- CONCRETE TO BE USED ON CONCRETE SHEET PILES SHALL BE 41.3MPa (6000PSI).
- REINFORCEMENT SHALL BE AS FOLLOWS:
  - MAIN REINFORCEMENT: 25mm (1") STRAND (HR)
  - TIES: 12mm (1/2") WIRE (60,000 PSI)
- PROVIDE 1000 mm EXTRA LENGTH FROM THE BUTT JOINT TO BE CAST MONOLITHIC WITH THE REMAINING WALL.
- COVER FOR REINFORCEMENT SHALL BE AS INDICATED ON THE PILE.
- SPACING OF HOOPS/TIES ARE TO BE TAKEN ON CENTERS OF BARS.





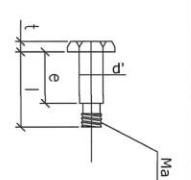
PLATE



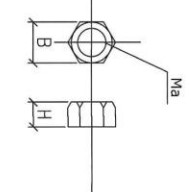
WASHER



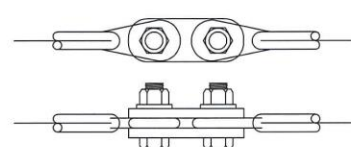
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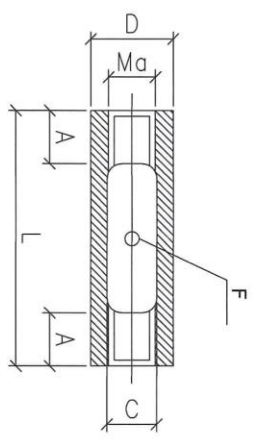
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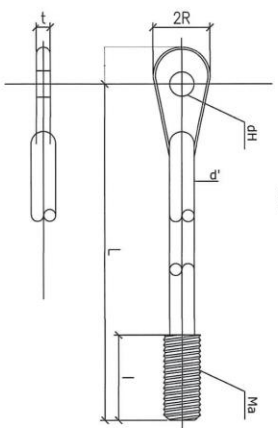
DETAIL OF RING JOINT



DETAIL OF TIE ROD PROPER



DETAIL OF TURNBUCKLE



DETAIL OF TIE ROD PROPER

GENERAL NOTES FOR TIE ROD (HIGH TENSION STEEL 45)






MATERIALS AND WEIGHT

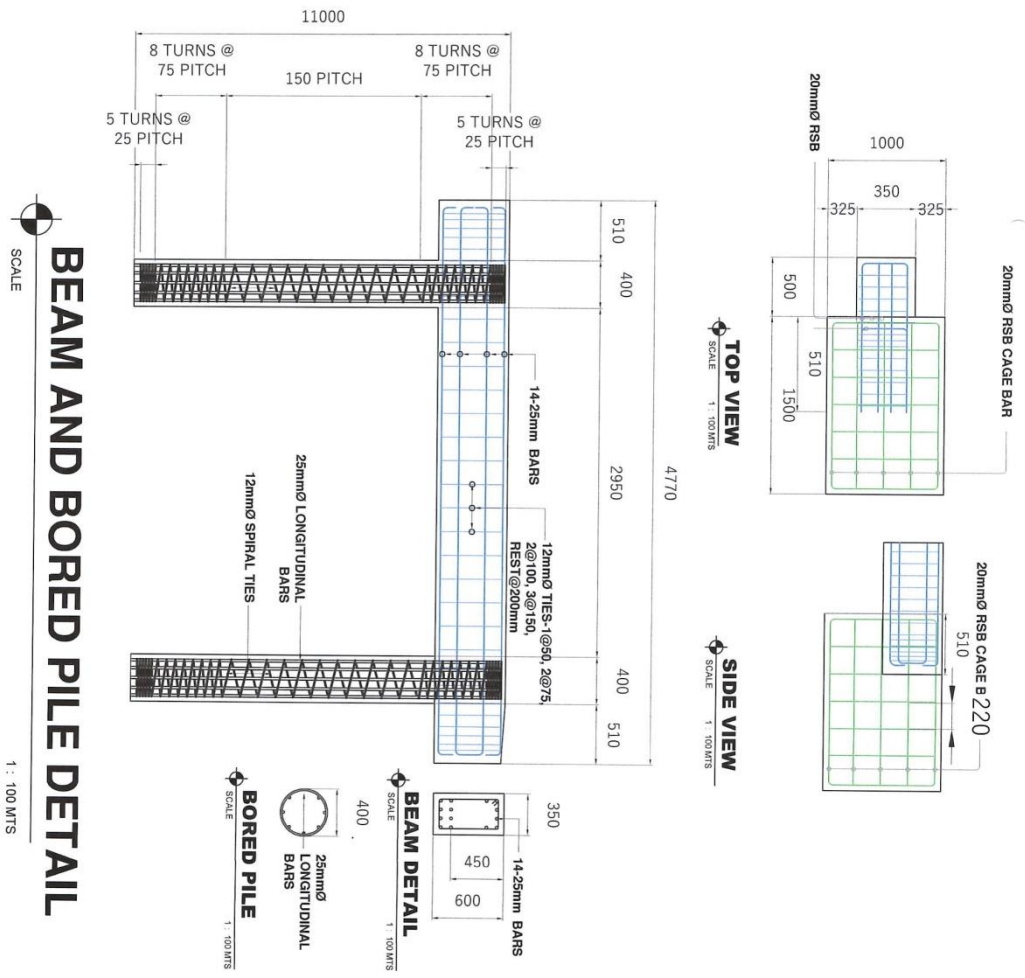
CLASSIFICATION	TURNBUCKLE										NUT		NUT		WASHER		RING JOINT		PIN		PLATE		TIE ROD PROPER																	
	D (mm)	L (mm)	F (mm)	M <sub>B</sub> (mm)	A (mm)	C (mm)	WEIGHT (kg)	ADJUSTABLE LENGTH (mm)	M <sub>B</sub> (mm)	H (mm)	B (mm)	WEIGHT (kg)	M <sub>B</sub> (mm)	H (mm)	B (mm)	WEIGHT (kg)	D (mm)	d (mm)	t (mm)	WEIGHT (kg)	d (mm)	i (mm)	e (mm)	M <sub>B</sub> (mm)	B (mm)	L (mm)	d <sub>H</sub> (mm)	WEIGHT (kg)	d <sub>90°</sub> (mm)	2R (mm)	B (mm)	H (mm)	t (mm)	A (mm)						
SIGN																																								
320	70	330	20	39	60	42	6.5	120	39	39	60	0.63	30	24	46	0.22	56	33	4.5	0.057	32	101	65	30	46	15	0.79	84	19	150	254	34	2.7	32	39 x 4	150	84	34	23	52
500	110	400	25	60	80	64	20.2	160	60	60	90	2.11	48	38	75	0.99	92	52	8	0.284	50	140	104	48	75	20	2.7	127	25	200	354	52	8.4	50	84 x 5	240	127	52	34	77
600	120	430	30	72	90	76	23.6	160	72	72	105	3.32	60	48	90	1.71	105	62	9	0.398	60	176	109	60	90	20	4.8	152	28	230	410	62	13.2	60	72 x 6	240	152	62	40	91

DETAIL OF TIE ROD

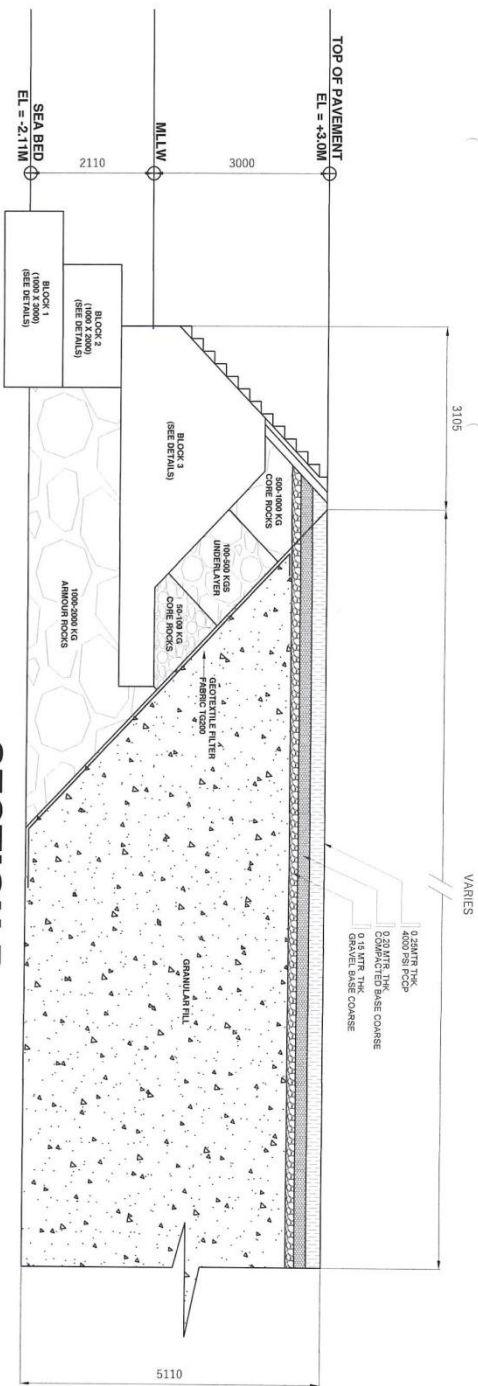
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	<b>REPAIR OF DAMAGED PORT FACILITIES AND BACK-UP AREA CAUSED BY TYPHOON ODETTE</b> LOCATION: PORT OF LIMASAWA, LIMASAWA ISLAND	<b>VIOLETA B. ROBIN</b> ENGINEERING ASSISTANT A	<b>REYGAN L. ALALD</b> SUPERVISING ENGINEER	<b>LORD TYRONNE L. AGATON</b> ACTING ESD MANAGER	<b>BERNARD C. CALLEDO</b> PORT MANAGER	



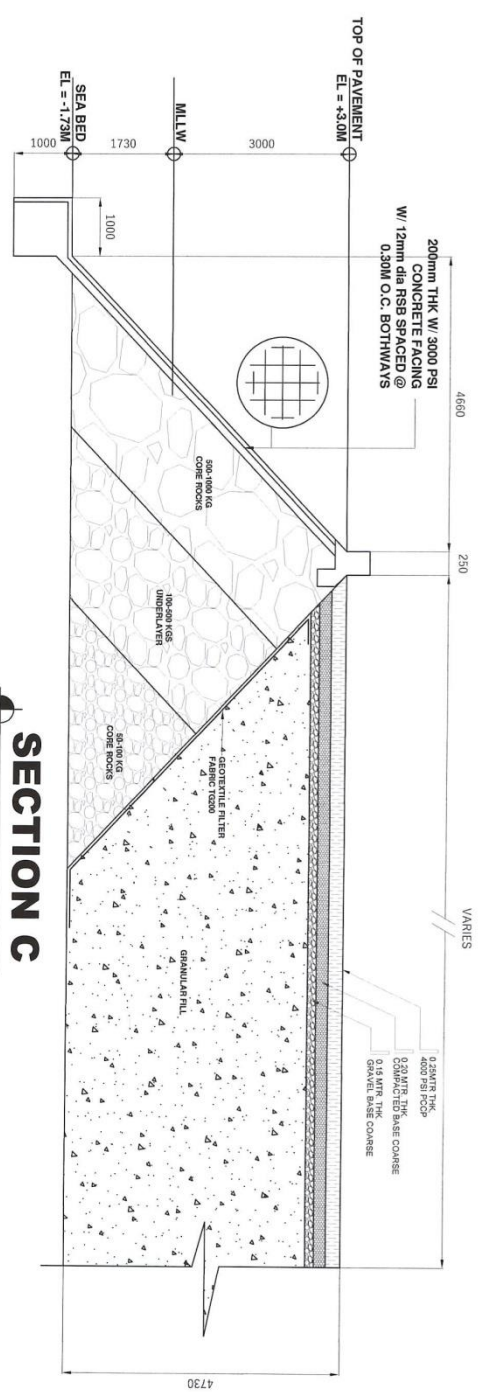
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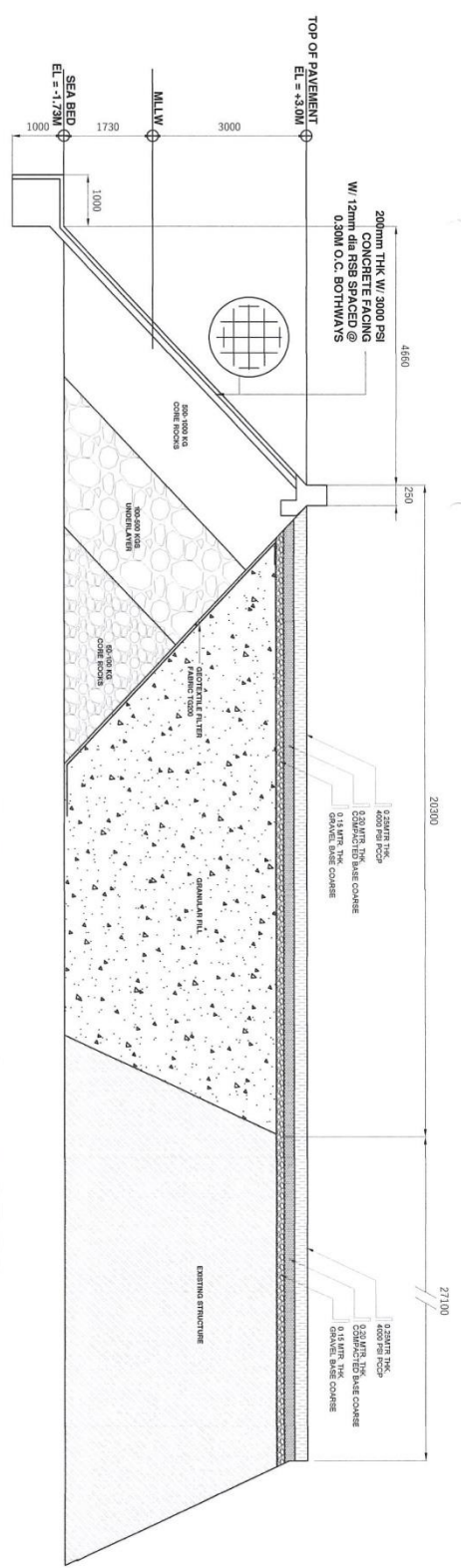


**SECTION B**  
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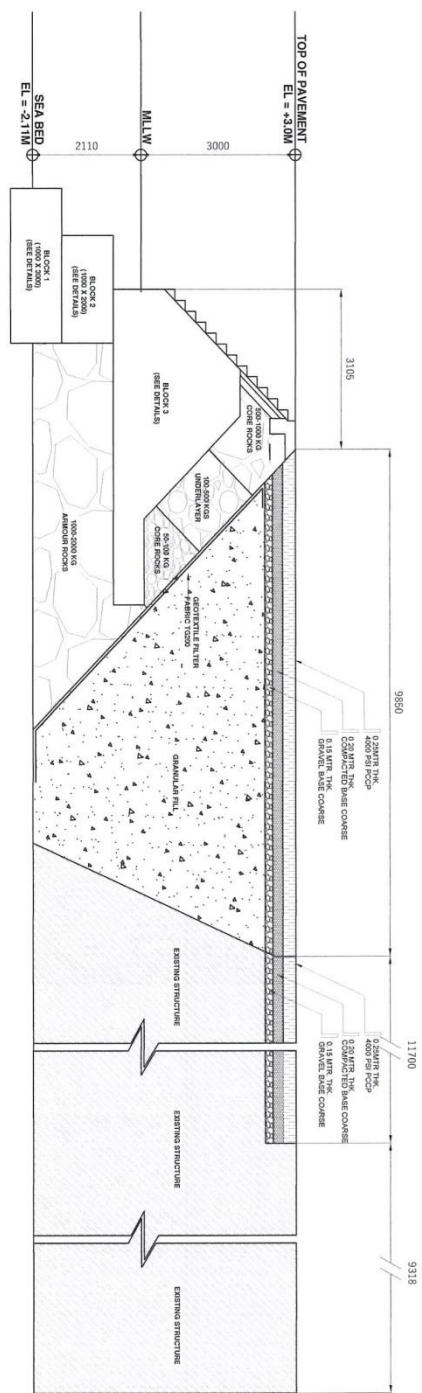


**SECTION C**

<b>PHILIPPINE PORTS AUTHORITY</b>	<b>PROJECT TITLE:</b> REPAIR OF DAMAGED PORT FACILITIES AND BACK-UP AREA CAUSED BY TYPHOON ODETTE	<b>PREPARED BY:</b> VIOLETA D. ROBIN ENGINEERING ASSISTANT A	<b>CHECKED/REVIEWED BY:</b> REYCALL ALAID SUPERVISING ENGINEER	<b>RECOMMENDING APPROVAL:</b> LORD TITRON L. AGATON ACTING ESD MANAGER	<b>APPROVED:</b> BERNARD C. CALLEDO PORT MANAGER	<b>SHEET CONTENTS:</b> 11 / 32
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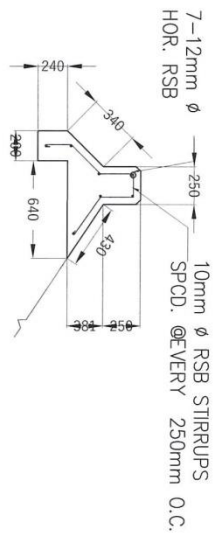
**SECTION D AT BACK-UP AREA**  
SCALE 1 : 100 MTS



**SECTION E AT BACK-UP AREA**  
SCALE 1 : 100 MTS

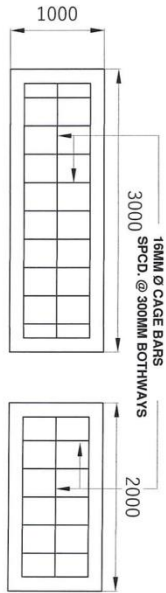
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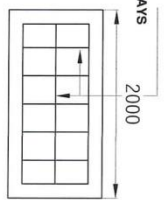
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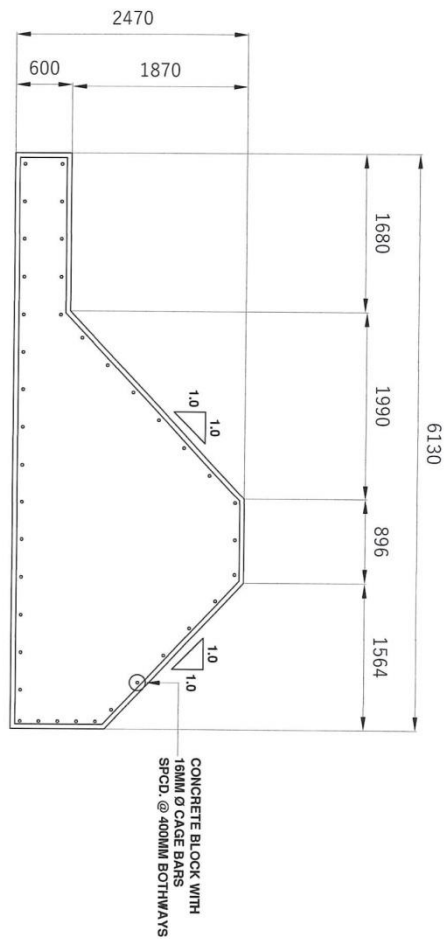
### BLOCK 1

SCALE 1 : 100 MTS



### BLOCK 2

SCALE 1 : 100 MTS



### BLOCK 3

SCALE 1 : 100 MTS

<b>PHILIPPINE PORTS AUTHORITY</b>	<b>PROJECT TITLE:</b> REPAIR OF DAMAGED PORT FACILITIES AND BACK-UP AREA CAUSED BY TYPHOON ODETTE	<b>PREPARED BY:</b> VIOLETA B. ROBIN ENGINEERING ASSISTANT A	<b>CHECKED/REVIEWED BY:</b> BENJAMIN L. ALAID SUPERVISING ENGINEER	<b>RECOMMENDING APPROVAL:</b> LORD TYRONE C. AGARTON ACTING ESD MANAGER	<b>APPROVED:</b> BERNARD C. CALLEDO PORT MANAGER	<b>SHEET CONTENTS:</b> 13 / 32
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