



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE IX
ZAMBOANGA CITY 2ND DISTRICT ENGINEERING OFFICE
MCLL HIGH WAY, DIVISORIA, ZAMBOANGA CITY

C.Y. 2025 PROJECT

DETAILED ENGINEERING DESIGN PLAN FOR
REPAIR/MAINTENANCE OF TAMION RIVER DIKE 1
BRGY. VITALI, ZAMBOANGA CITY

TAMION, BRGY. VITALI, ZAMBOANGA CITY

STA.0+000 TO STA.0+030 (LEFT SIDE)

30.00 LM

SUBMITTED:


ABRAHAM M. AQUINO
CHIEF MAINTENANCE SECTION

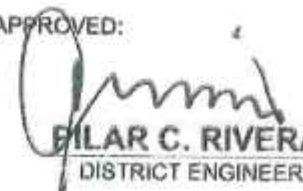
DATE

RECOMMENDED:


ROBERTO DONDI E. STA. ELENA
ASSISTANT DISTRICT ENGINEER

DATE

APPROVED:


PILAR C. RIVERA
DISTRICT ENGINEER

DATE



C.Y. 2025 PROJECT

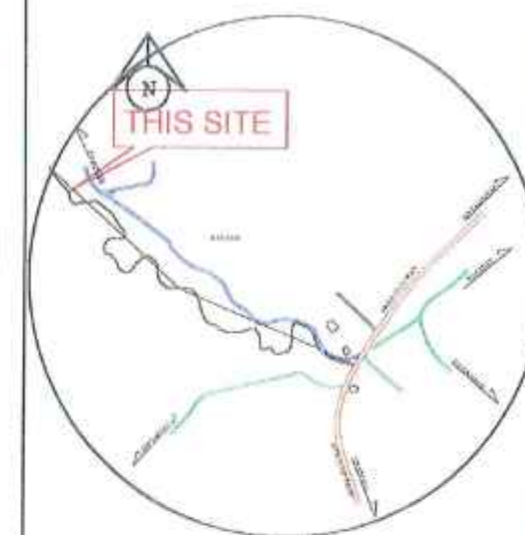
DETAILED ENGINEERING DESIGN PLAN FOR
REPAIR/MAINTENANCE OF TAMION RIVER DIKE 1
BRGY. VITALI, ZAMBOANGA CITY

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SHORING DETAIL AND PLAN
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- (9) - BUNKHOUSE
- (10) - SAMPLE OF DPWH STANDARD
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- (11) - TYPICAL FRONT AND FRAME
ELEVATION OF STANDARD DPWH
BILLBOARD



INDEX MAP



VICINITY MAP



FACING DOWN STREAM
LEFT SIDE

BEG. OF PROJECT ----- STA 0 + 000
END OF PROJECT ----- STA 0 + 030
LENGTH = 30.00 L.M.

TOTAL LENGTH ----- 30.00 L.M.

LOCATION PLAN
SCALE: NTS

LEGEND:

PROPOSED RIPRAP & GROUTED RIPRAP



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE IX
ZAMBOANGA CITY 2ND DISTRICT
ENGINEERING OFFICE
MCCL HIGHWAY, DIVISORA, ZAMBOANGA CITY

PROJECT NAME AND LOCATION:
C.Y. 2025 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
REPAIR/MAINTENANCE OF TAMION RIVER DIKE 1, BRGY. VITALI,
ZAMBOANGA CITY

SHEET CONTENTS:
LOCATION PLAN
INDEX MAP
VICINITY MAP

DRAFTED:
MICHAEL M. ISHACIO
ENGINEER'S ASSISTANT
DATE: 5/24/25
PROPOSED BY:
BABY JANE TOBIL
ENGINEER

REVIEWED AS TO DESIGNED CONCEPT:
RIZELLE P. ARANETA
ENGINEER II
DATE: 5/29/25

SUBMITTED:
ABRAHAM M. AQUINO
CHIEF MAINTENANCE SECTION
DATE: 5/29/25

RECOMMENDED:
ROBERTO B. BAYONA
DATE: 5/29/25

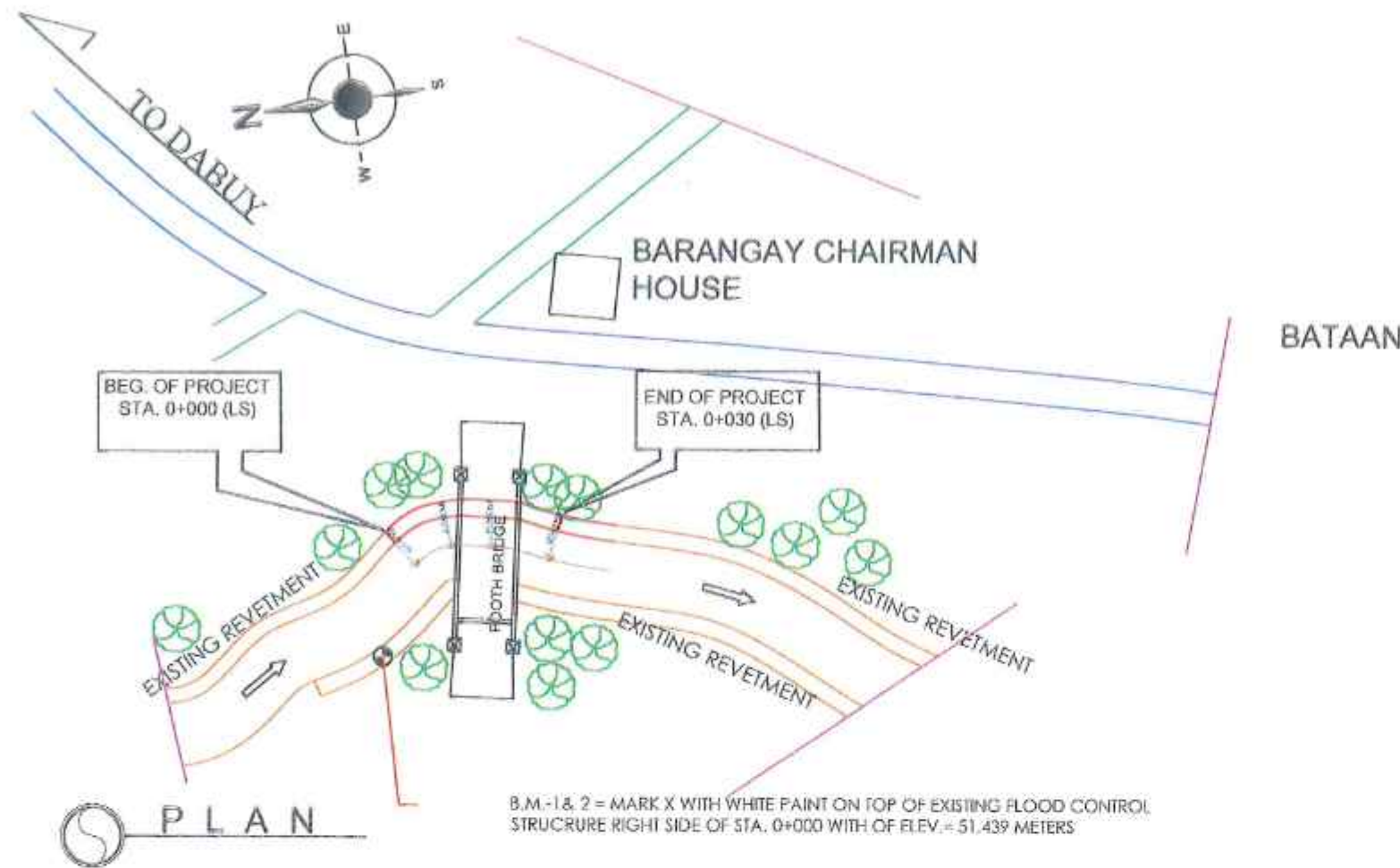
APPROVED:
PILAR C. RIVERA
DISTRICT ENGINEER
DATE: 5/29/25

SET NO. SHEET NO.
02 02
11 11

GENERAL NOTES FOR FLOOD CONTROL

1. Alignments and grades are subject to adjustment to suit actual field conditions.
2. Distances and elevations are in meters unless otherwise indicated .
3. Grade shown are top of finished Structures
4. All work shall comply with the Standard Specifications for Highways and Bridges, Revised 2013
5. All structures or encumbrance of any character upon or within the limits of Project site affected by works shall be removed by the contractor and placed carefully on the abutting property or otherwise disposed of as indicate in the plans, materials so removed, including any existing drain or culvert pipes which the engineer may order salvaged shall be carefully removed and shall remain the property of the government.
6. The necessary drawings contained are the DPWH Standard Drawings for Roads and Bridges shall be utilized for the project unless otherwise a more detailed drawing is specified and/or provided and approved.
7. Design was based on survey data submitted by the Survey Team, Maintenance Section, Zamboanga City 2nd District Engineering Office, DPWH.
8. Bunkhouse shall be located on government owned / donated lot
9. Date Surveyed : APRIL 15,2025

	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE IX ZAMBOANGA CITY 2ND DISTRICT ENGINEERING OFFICE MCLL HIGHWAY, DIVISORIA, ZAMBOANGA CITY	PROJECT NAME AND LOCATION: CV 3025 PROJECT DETAILED ENGINEERING DESIGN PLAN FOR REPAIR/MAINTENANCE OF TAMBON RIVER DIKE 1, BRGY. VITALI, ZAMBOANGA CITY	SHEET CONTENTS: GENERAL NOTES	DRAFTED: <i>[Signature]</i> 5/24/25 MICHAEL M. IGNACIO ENGINEERING ASSISTANT PREPARED: <i>[Signature]</i> 5/24/25 BABY JANE TUSIL ENGINEER II	REVIEWED AS TO DESIGNED CONCEPT: <i>[Signature]</i> RUTH ELLEN MARANETA ENGINEER II DATE: 5/24/25	SUBMITTED: <i>[Signature]</i> ABRAMAM M. AQUINO CHIEF MAINTENANCE SECTION DATE: 5/24/25	RECOMMENDED: <i>[Signature]</i> ROBERTO DONDE E. STA. ELENA ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: <i>[Signature]</i> PILAR C. RIVERA DISTRICT ENGINEER DATE:	SET NO. 03 1	SHEET NO. 03 11



LEGEND:

- PROPOSED RIPRAP & GROUTED RIPRAP

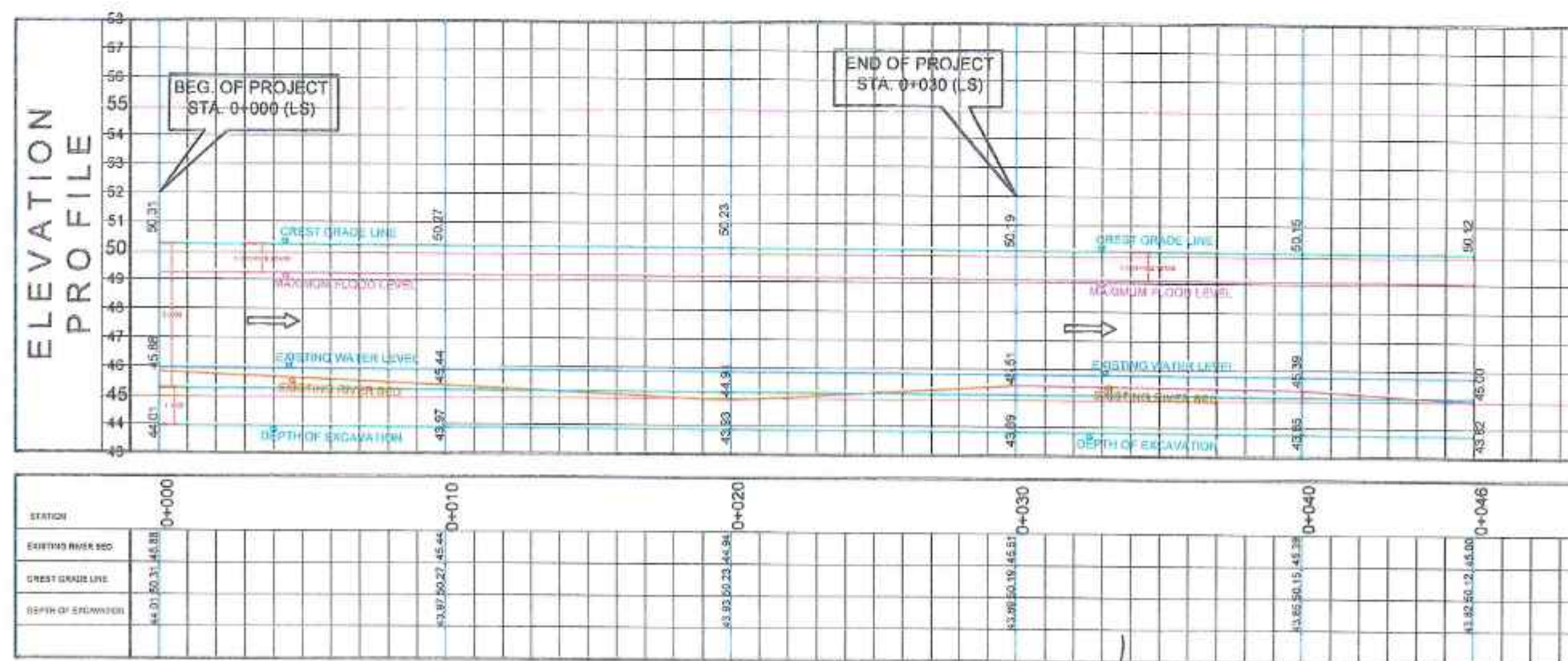
- BENCH MARK

- WATER FLOW

B.M.-1 & 2 = MARK X WITH WHITE PAINT ON TOP OF EXISTING FLOOD CONTROL STRUCTURE RIGHT SIDE OF STA. 0+000 WITH OF ELEV. = 51.439 METERS

FLOOD CONTROL STRUCTURE
LEFT SIDE

BEG. OF PROJECT ----- STA 0 + 000
END OF PROJECT ----- STA 0 + 030.00
LENGTH = 30.00 L.M.



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE IX
ZAMBOANGA CITY 2ND DISTRICT
ENGINEERING OFFICE
HILL HIGHWAY, DAVOSIDA, ZAMBOANGA CITY

PROJECT NAME AND LOCATION:
C.V. 2015 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
REPAIR/MAINTENANCE OF TAMBON RIVER DIKE 1, BRGY. WITAU,
ZAMBOANGA CITY

SHEET CONTENTS:
PROFILE PLAN
PLAN
LEGEND

DRAFTED:
MICHAEL M. IGNACIO
ENGINEER
PROPOSED:
BABY JANE TUBIL
ENGINEER
DATE: 5/24/25

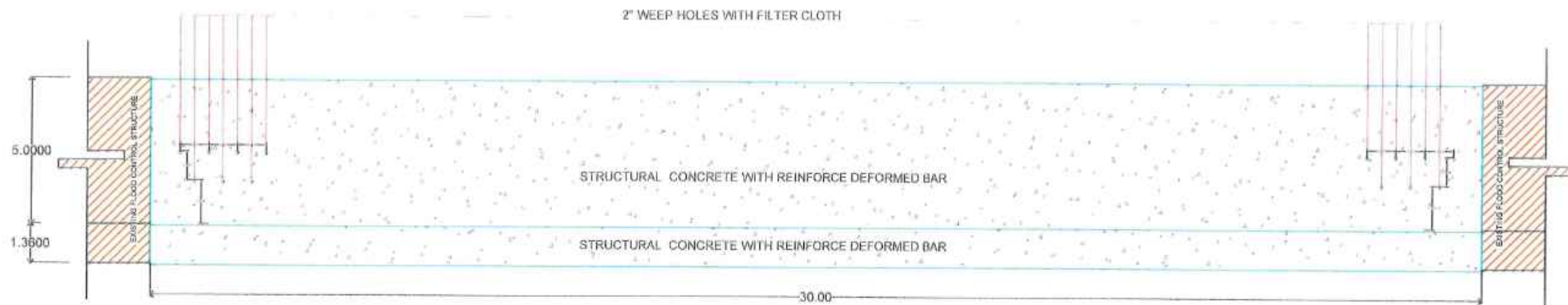
REVIEWED AS TO DESIGN CONCEPT:
RITZELLE P. ARAMITA
ENGINEER II
DATE: 5/24/25

SUBMITTED:
ABRAHAM M. AQUINO
CHIEF MAINTENANCE SECTION
DATE: 5/24/25

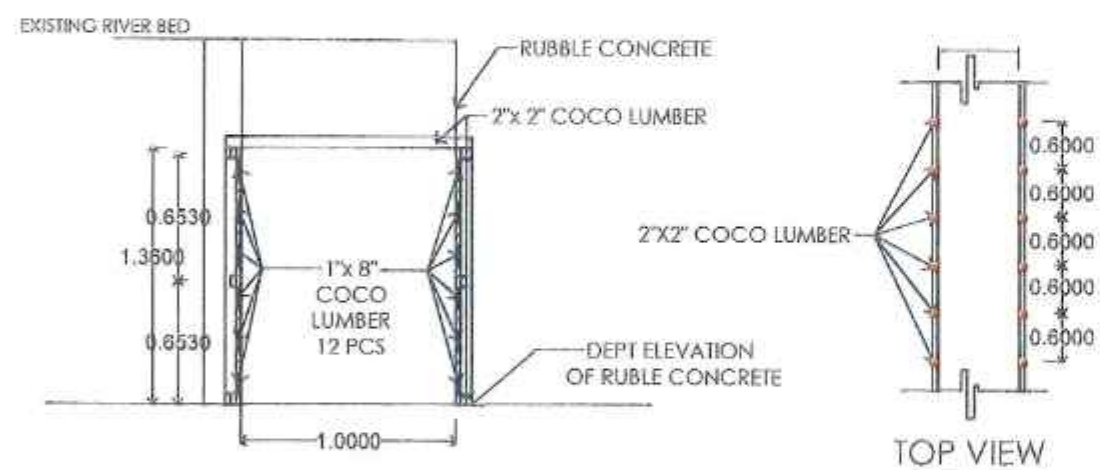
RECOMMENDED:
ROBERTO DANILO L. ELEZA
ASSISTANT DISTRICT ENGINEER
DATE: 5/24/25

APPROVED:
PILAR C. RIVERA
DISTRICT ENGINEER
DATE: 5/24/25

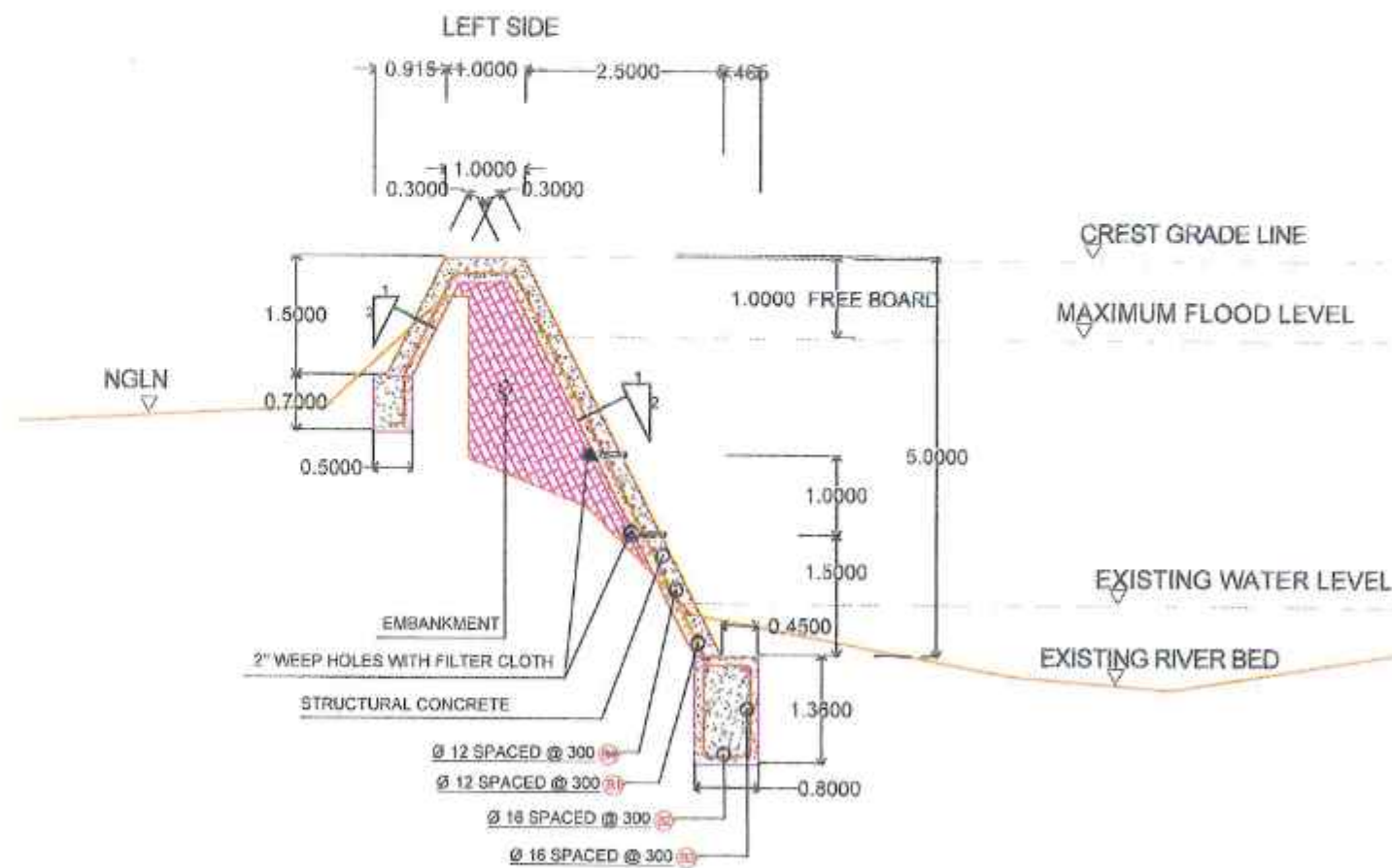
SET NO. 04
SHEET NO. 11



TYPICAL ELEVATION PLAN
SCALE: 1:50



SHORING PLAN AND DETAILS
SCALE: 1:100 mls.



TYPICAL CROSS SECTION PALN
SCALE: 1:50



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE IX
ZAMBOANGA CITY 2ND DISTRICT
ENGINEERING OFFICE
HOLL HIGHWAY, DIVISORA, ZAMBOANGA CITY

PROJECT NAME AND LOCATION:
CY 2025 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
REPAIR/MAINTENANCE OF TANKIANG RIVER DISTRICT 1, 1022V, VITALI,
ZAMBOANGA CITY

SHEET CONTENTS:
ELEVATION PLAN
SHORING DETAIL PLAN
TYPICAL CROSS SECTION

DRAFTED: *[Signature]*
MICHAEL M. IGNACIO
ENGINEER
PREPARED: *[Signature]*
BARRY JANE TURRI
ENGINEER

REVIEWED AND DESIGNED CONCEPT: *[Signature]*
RIZELLE P. ARANETA
ENGINEER
DATE: 5/24/25

SUBMITTED: *[Signature]*
ABRAHAM M. AQUINO
CHIEF MAINTENANCE SECTION
DATE: 5/24/25

RECORDED: *[Signature]*
ROBERTO LANDIT, STA. ELENA
ASSISTANT DISTRICT ENGINEER
DATE: 5/24/25

APPROVED: *[Signature]*
PILAR C. RIVERA
DISTRICT ENGINEER
DATE: 5/24/25

SET NO.	SHEET NO.
05	05
11	11

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	ORIGINAL		REMARKS
		QTY.	UNIT	
A.1.1 (3)	Construction of Field Office for the Engineer	1.00	L.S.	INCLUDES STANDARD BUNKHOUSE TYPE 1
A.1.1 (11)	Provision of Furniture's/Fixtures, Equipment & Appliances for the Field Office for the Engineer	1.00	L.S.	
B.4 (1)	Construction Survey & Staking	1.00	L.S.	
B.5	Project Billboard/Sign Board	2.00	each	SIZE 8'X8' - 1PC 2PCS
B.7 (1)	Occupational Safety & Health Program	2.00	mo.	
B.9	Mobilization & Demobilization	1.00	L.S.	PER D.O. 725 2015
101 (1)	Removal of Structures and Obstruction (Existing Revetment)	1.00	L.S.	
103 (1)a	Structure Excavation, Common Soil	168.6600	cu.m.	
104 (1)a	Embankment (from Borrow)	17.8920	cu.m.	COMPACTED VOLUME
404 (1) a1	Reinforce Steel Bar, Grade 40	2755.5440	Kg.	
405(1)a1	Structural Concrete	112.8570	cu.m.	

BAR SCHEDULE FOR FLOOD CONTROL STRUCTURE

BAR-1		BAR-2		BAR-3																		
STRUCTURE	QTY (meter)	BARS	BAR SIZE	DIMENSION											SPACING (meter)	NO. OF PCS.	LENGTH PER BAR	TOTAL LENGTH	UNIT WEIGHT	TOTAL WEIGHT	CONCRETE VOLUME	
				a	b	c	d	e	f	g	h	i	j	k								
FLOOD CONTROL STRUCTURE	30	1	12mm	0.2	1.28	5.36	0.71	1.04	0.64	0.22					0.3	100	9.850	985	0.888	874.68	112.8570	
		2	16mm	1.1	0.54	1.1	0.54								0.3	100	3.28	328	1.577	517.256		
		3	12mm	STRAIGHT BAR											AS-SHOWN	192	6	1152	0.888	1022.976		
		4	16mm	STRAIGHT BAR											AS-SHOWN	36	6	216	1.577	340.632		
																	SUB. TOTAL		2,755.5440			

COMPUTATION OF QUANTITIES

ITEM 103(1)a - Structure Excavation, Common Soil

Start: STA. 0 + 000.00 to STA. 0 + 030.00
Length - 30.00 L.m.
Volume = 168.66 cu.m.

ITEM 104(1)a - Embankment (from Borrow)

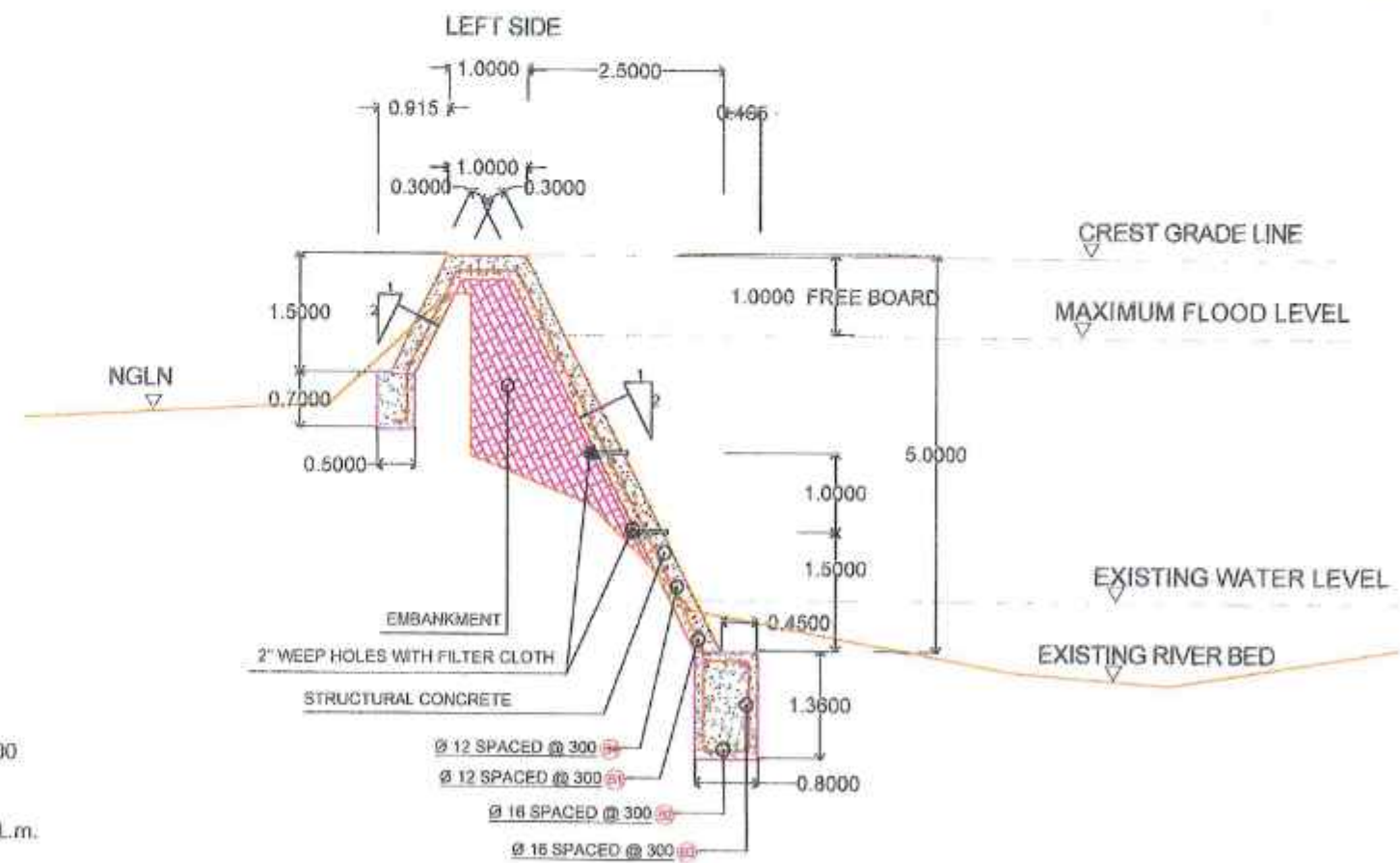
Start: STA. 0 + 000 to STA. 0 + 030.00
Length - 30.00 L.m.
Volume = 17.8920 cu.m.

ITEM 404(1)a - Reinforcing Steel Grade 40

Start: STA. 0 + 000 to STA. 0 + 030.00
Length - 30.00 L.m.
Kilogram - 2,755.5440 kg.
Kilogram = 2,755.544 Kg.

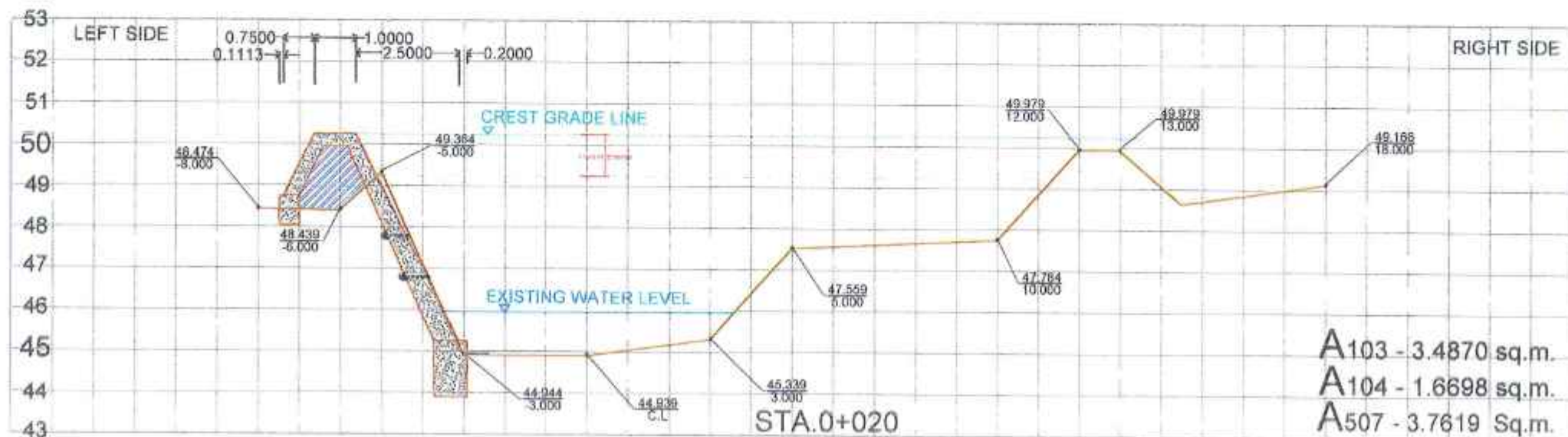
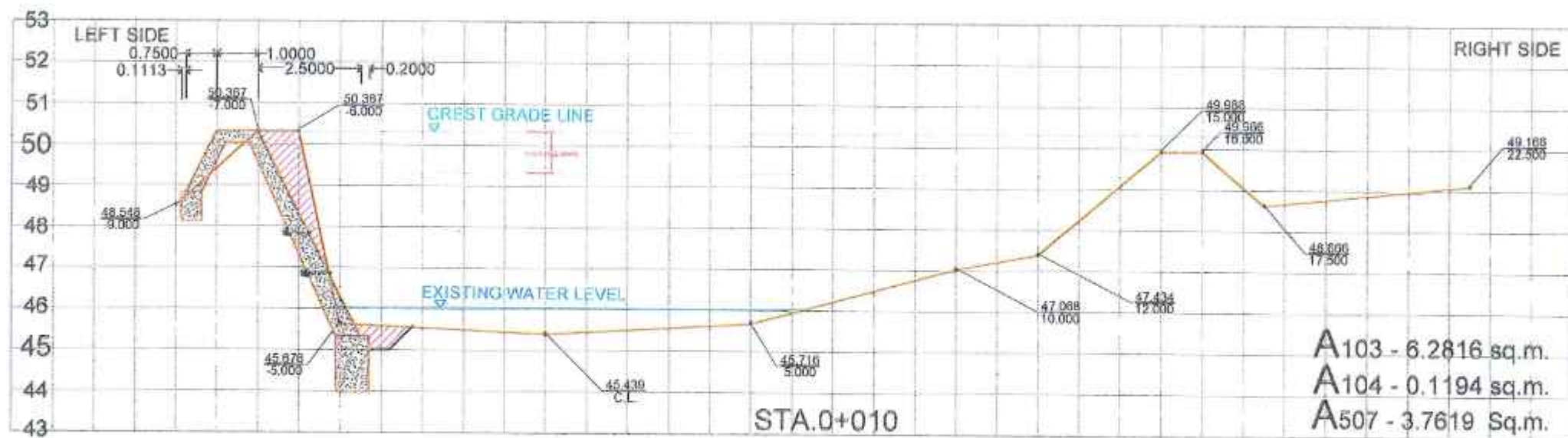
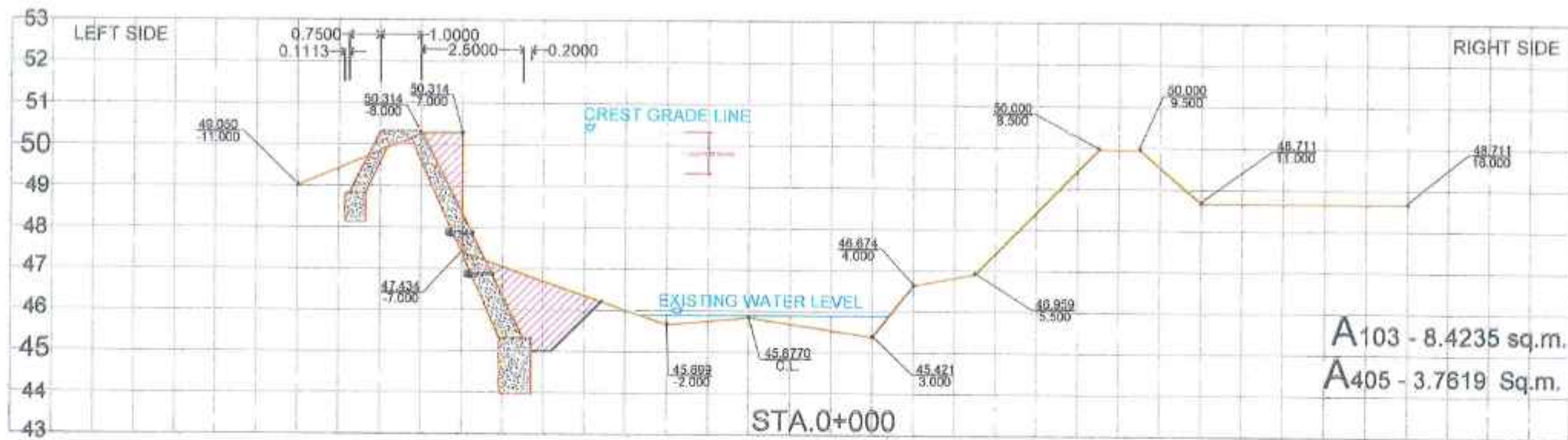
ITEM 405(1)a1 - Structural Concrete

Start: STA. 0 + 231.00 to STA. 0 + 261.00
Length - 30.00 L.m.
Area - 3.7619 Sq.m.
Volume = 3.7619 sq.m. X 30.00 L.m.
= 112.857 cu.m.
say VOLUME = 112.86 cu.m.



TYPICAL CROSS SECTION PALN
SCALE 1:50

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE IX ZAMBOANGA CITY 2ND DISTRICT ENGINEERING OFFICE HOLLAND HIGHWAY, DABAWA, ZAMBOANGA CITY	PROJECT NAME AND LOCATION C.V. 3075 PROJECT DETAILED ENGINEERING DESIGN PLAN FOR REPAIR/MAINTENANCE OF TANTON RIVER GUIC 1, UNKY, VITAM, ZAMBOANGA CITY	SHEET CONTENTS: TYPICAL CROSS SECTION COMPUTATION OF QUANTITIES SUMMARY OF QUANTITIES SCHEDULE OF BARS	DRAFTED:  MICHAEL M. IGNACIO ENGINEER 2ND AC PREPARED:  BABY JANE TUBIL ENGINEER	REVIEWED AND DESIGNED CONCEPT:  RHIZELLE P. ARANETA ENGINEER II DATE: 5/24/25	SUBMITTED:  ABRAHAM M. AQUINO CHIEF MAINTENANCE SECTION DATE: 5/24/25	RECOMMENDED:  RODOLFO B. BANAAG ASSISTANT DISTRICT ENGINEER DATE: 5/24/25	APPROVED:  PILAR C. RIVERA DISTRICT ENGINEER DATE: 5/24/25	SHEET NO. 06 11
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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE IX
ZAMBOANGA CITY 2ND DISTRICT
ENGINEERING OFFICE
MCL HIGHWAY, DIVISORA, ZAMBOANGA CITY

PROJECT NAME AND LOCATION:
C.Y. 2025 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
REPAIR/MAINTENANCE OF TANSON RIVER GIVE 1, BRGY. VITAU,
ZAMBOANGA CITY

SHEET CONTENTS:
TYPICAL CROSS SECTION

DRAFTED: *[Signature]*
MICHAEL M. IGNACIO
ENGINEERING AIDE
PREPARED: *[Signature]* 5/24/25
BARRY JANE TUBIL
ENGINEER

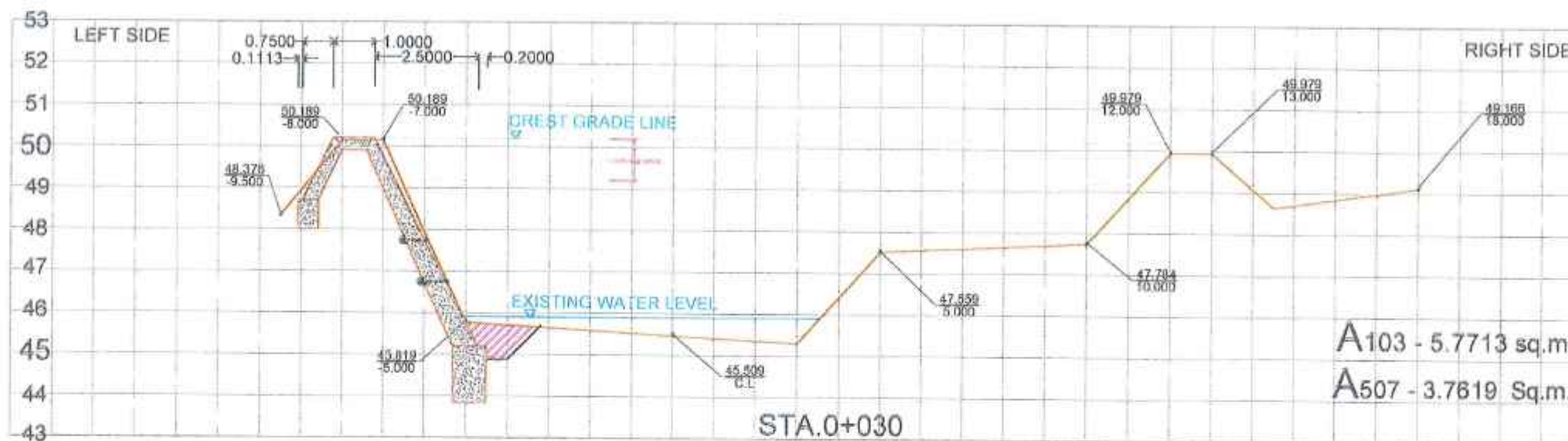
REVIEWED AND DESIGNED CONCEPT: *[Signature]*
RUIZELLE P. ARANETA
ENGINEER II
DATE: 5/24/25

SUBMITTED: *[Signature]*
ABRAHAM M. AQUINO
CHIEF MAINTENANCE SECTION
DATE: 5/24/25

RECOMMENDED: *[Signature]*
ROBERTO VONCEE DIA, RLEHA
ASSISTANT DISTRICT ENGINEER
DATE: 5/24/25

APPROVED: *[Signature]*
PILAR C. RIVERA
DISTRICT ENGINEER
DATE: 5/24/25

SHEET NO.	SHEET NO.
07 11	07 11



STATION LOCATION LEFT SIDE	NET LENGTH	ITEM 103 - Excavation Common Soil		ITEM 104(1)a - EMBANKMENT (FROM BORROW)		ITEM 405(1)a1 - STRUCTURAL CONCRETE		REMARK
		Area (sq.m.)	Vol. (cu.m.)	Area (sq.m.)	Vol. (cu.m.)	Area (sq.m.)	Vol. (cu.m.)	
STA. 0 + 0 to STA. 0 + 10	10.0	$[(8.4235 + 6.2816) / 2.0] \times 10.0$	73.526	$[(0.0000 + 0.1194) / 2.0] \times 10.0$	0.597	$[(3.7619 + 3.7619) / 2.0] \times 10.0$	37.619	
STA. 0 + 10 to STA. 0 + 20	10.0	$[(6.2816 + 3.4870) / 2.0] \times 10.0$	48.843	$[(0.1194 + 1.6698) / 2.0] \times 10.0$	8.946	$[(3.7619 + 3.7619) / 2.0] \times 10.0$	37.619	
STA. 0 + 20 to STA. 0 + 30	10.0	$[(3.4870 + 5.7713) / 2.0] \times 10.0$	46.292	$[(1.6698 + 0.0000) / 2.0] \times 10.0$	8.349	$[(3.7619 + 3.7619) / 2.0] \times 10.0$	37.619	
TOTAL	30.0000		168.6600		17.8920		112.8570	



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE IX
ZAMBOANGA CITY 2ND DISTRICT
ENGINEERING OFFICE
MCLL HIGHWAY, DAVAO, ZAMBOANGA CITY

PROJECT NAME AND LOCATION:
C.V. 2023 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
REPAIR/MAINTENANCE OF TAMBON RIVER DECK 1, BRIDGE, VITALA,
ZAMBOANGA CITY

SHEET CONTENTS:
TYPICAL CROSS SECTION
COMPUTATION OF QUANTITIES

DRAFTED: *[Signature]* 05/24/25
MICHAEL M. IGNACIO
ENGINEERING AID
PREPARED: *[Signature]* 5/24/25
BABY JANE TIBIL
ENGINEER II

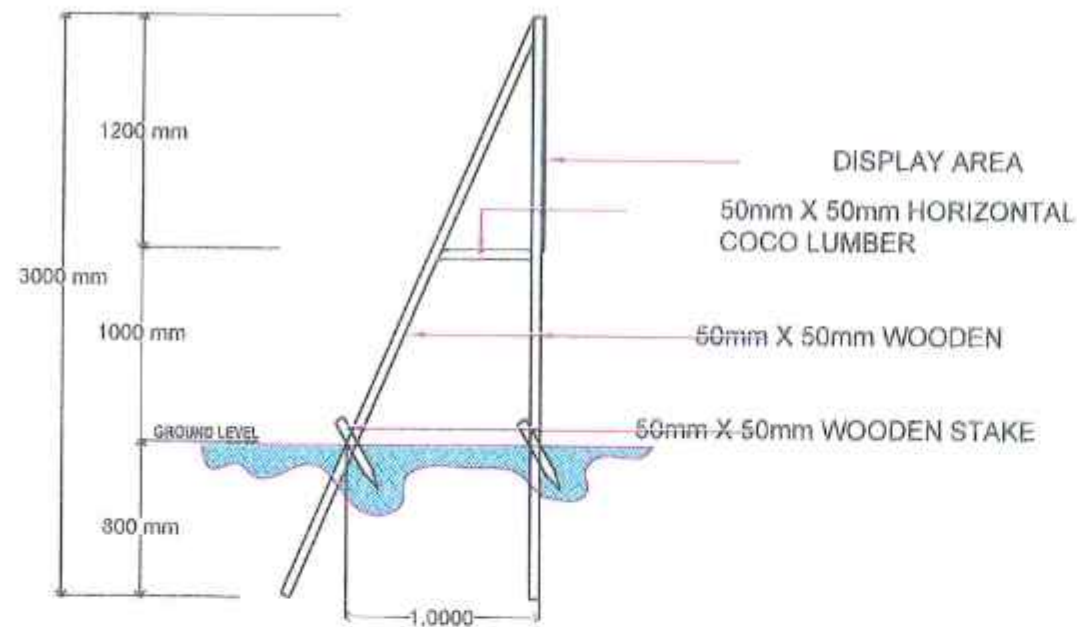
REVIEWED AS TO DESIGNED CONCEPT: *[Signature]*
RHIZA DELA LARANTA
ENGINEER II
DATE: 5/24/25

SUBMITTED: *[Signature]*
ABRAHAM M. AQUINO
CHIEF MAINTENANCE SECTION
DATE: 5/24/25

RECOMMENDED: *[Signature]*
ROBERTO AQUINO - STA. ELENA
ASSISTANT DISTRICT ENGINEER
DATE: 5/24/25

APPROVED: *[Signature]*
PILAR C. RIVERA
DISTRICT ENGINEER
DATE: 5/24/25

SHEET NO. 08
11



TYPICAL FRAME ELEVATION




THIS IS WHERE YOUR TAXES GO

NAME OF PROJECT:

LOCATION:

NAME OF CONTRACTOR:

DATE STARTED:

CONTRACT COMPLETION DATE:

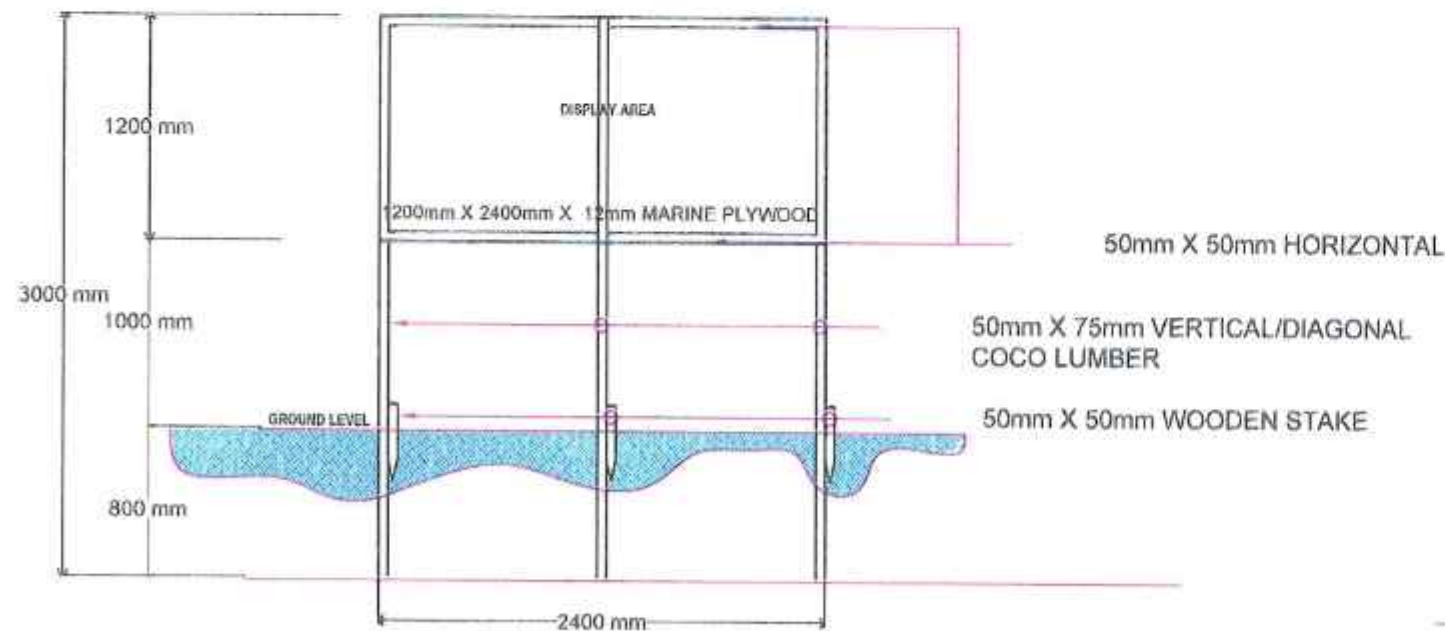
CONTRACT COST:

IMPLEMENTING OFFICE:

SOURCE OF FUND:

Department of Public Works and Highways
Fax: 09515547084 or call (02) 145-52 for any concern on this project
www.dpwh.gov.ph

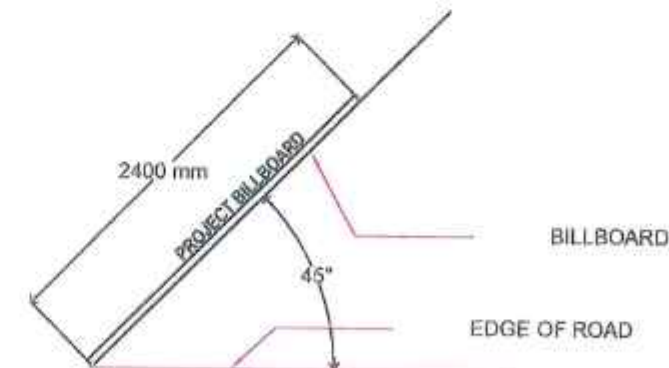
DPWH STANDARD PROJECT BILLBOARD



FRONT ELEVATION

GENERAL NOTES:

1. FRONT STYLE SHALL BE ARIAL, WHILE THE DIMENSION AND LETTER SIZES AS INDICATED ON THE DESIGN LAYOUT SHALL BE ON WHITE BACKGROUND.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.



ROAD TRAFFIC DIRECTION

ORIENTATION

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE IX ZAMBOANGA CITY 2ND DISTRICT ENGINEERING OFFICE M.C.L. HIGHWAY, DOROCRA, ZAMBOANGA CITY	PROJECT NAME AND LOCATION: C.V. 5525 PROJECT OCTAILED ENGINEERING DESIGN PLAN FOR REPAIR/MAINTENANCE OF TAMOR RIVER DIVE 1, BAY, VITAL, ZAMBOANGA CITY	SHEET CONTENTS: SAMPLE OF PROJECT BILLBOARD AND DETAILS	DRAFTED: <i>[Signature]</i> 4/24/25 MICHAEL M. KINACIO ENGINEERING ASSISTANT PREPARED: <i>[Signature]</i> 5/24/25 BABY DANE TUBIL ENGINEER	REVIEWED AS TO DESIGNED CONCEPT <i>[Signature]</i> RHIZELLE V. ARANETA ENGINEER DATE: 5/24/25	SUBMITTED: <i>[Signature]</i> ABRAHAM M. AQUINO CHIEF MAINTENANCE SECTION DATE: 5/24/25	RECOMMENDED: <i>[Signature]</i> ROBERTO BONDY E. STA. ELENA ASSISTANT DISTRICT ENGINEER DATE: 5/24/25	APPROVED: <i>[Signature]</i> ALAN C. RIVERA DISTRICT ENGINEER DATE: 5/24/25	REV. NO. SHEET NO. 11 11 11 11
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