

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

C.Y. 2025 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
**CONVERGENCE AND SPECIAL SUPPORT PROGRAM,
BASIC INFRASTRUCTURE PROGRAM (BIP), PUBLIC WATER SUPPLY SYSTEM,
CONSTRUCTION OF WATER SYSTEM,
BOBOY ELEMENTARY SCHOOL, SAN LUIS, BATANGAS**

SAN LUIS, BATANGAS

LATITUDE:13.811439
LONGITUDE:120.94146

SUBMITTED:

GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

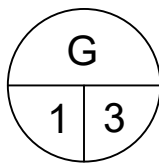
RECOMMENDED:

ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

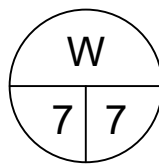
APPROVED:

SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

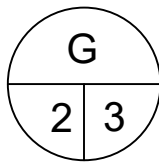
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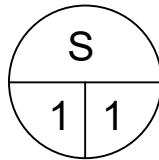
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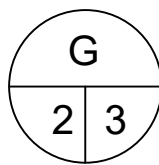
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RIGHT SIDE ELEVATION
REAR ELEVATION
LEFT SIDE ELEVATION
POWER HOUSE LIGHTING LAYOUT
SINGLE LINE DIAGRAM



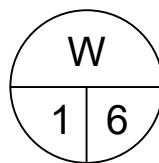
SUMMARY OF QUANTITIES



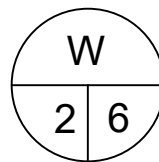
STONE MASONRY DETAILS



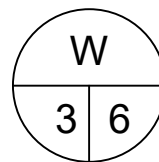
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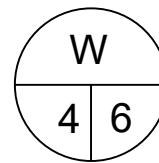
CIVIL & STRUCTURAL NOTES
MECHANICAL NOTES
ELECTRICAL NOTES
AQUIFER/PUMP WELL NOTES



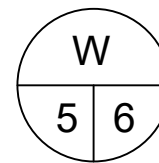
SUBMERSIBLE PUMP DETAILS



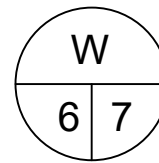
WATER TANK ELEVATION
PLAN
TOP PLAN
RAILING DETAIL
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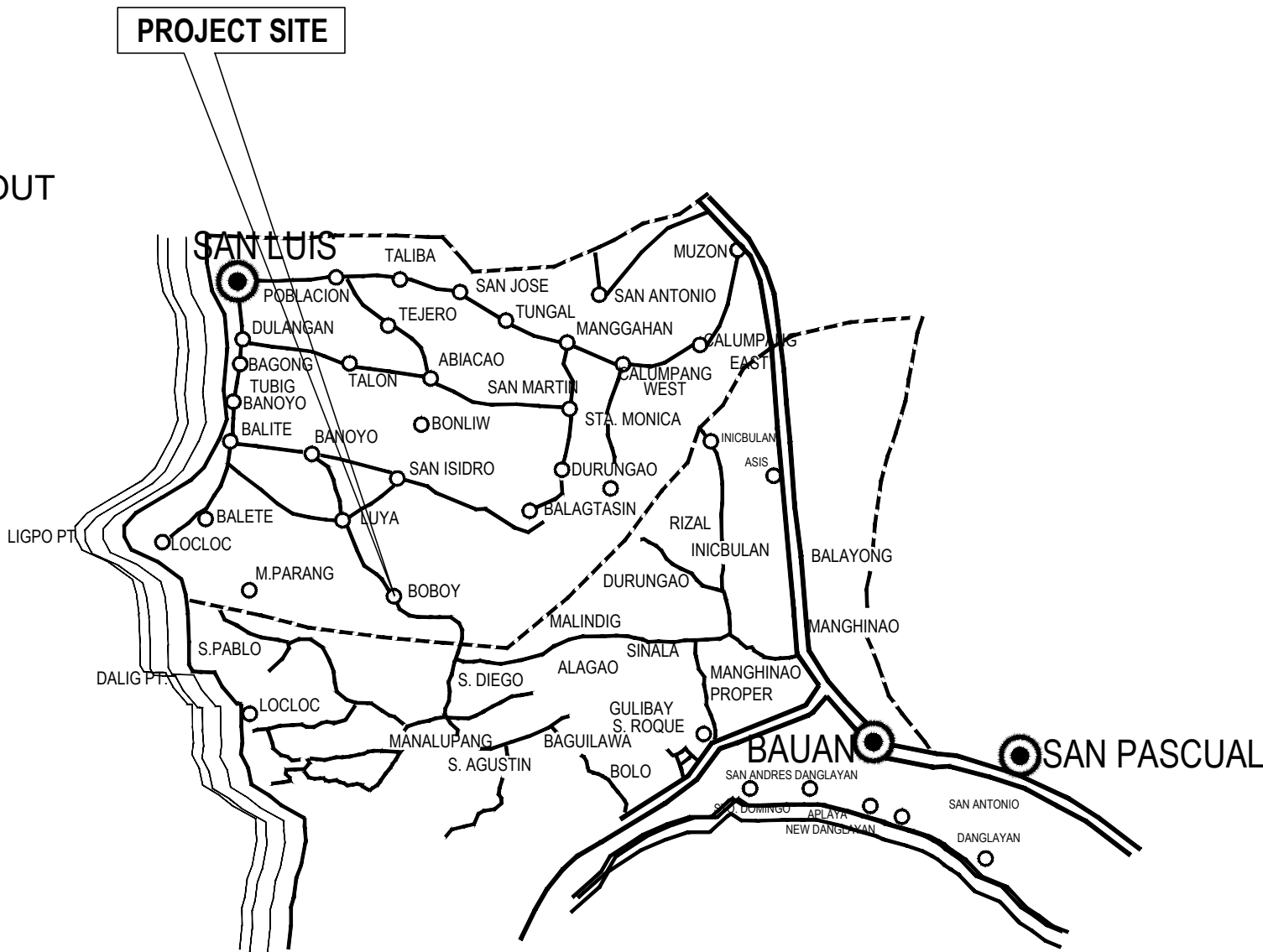
MANHOLE DETAIL
SAFETY CAGE DETAIL
INLET PIPE CLAMP DETAIL
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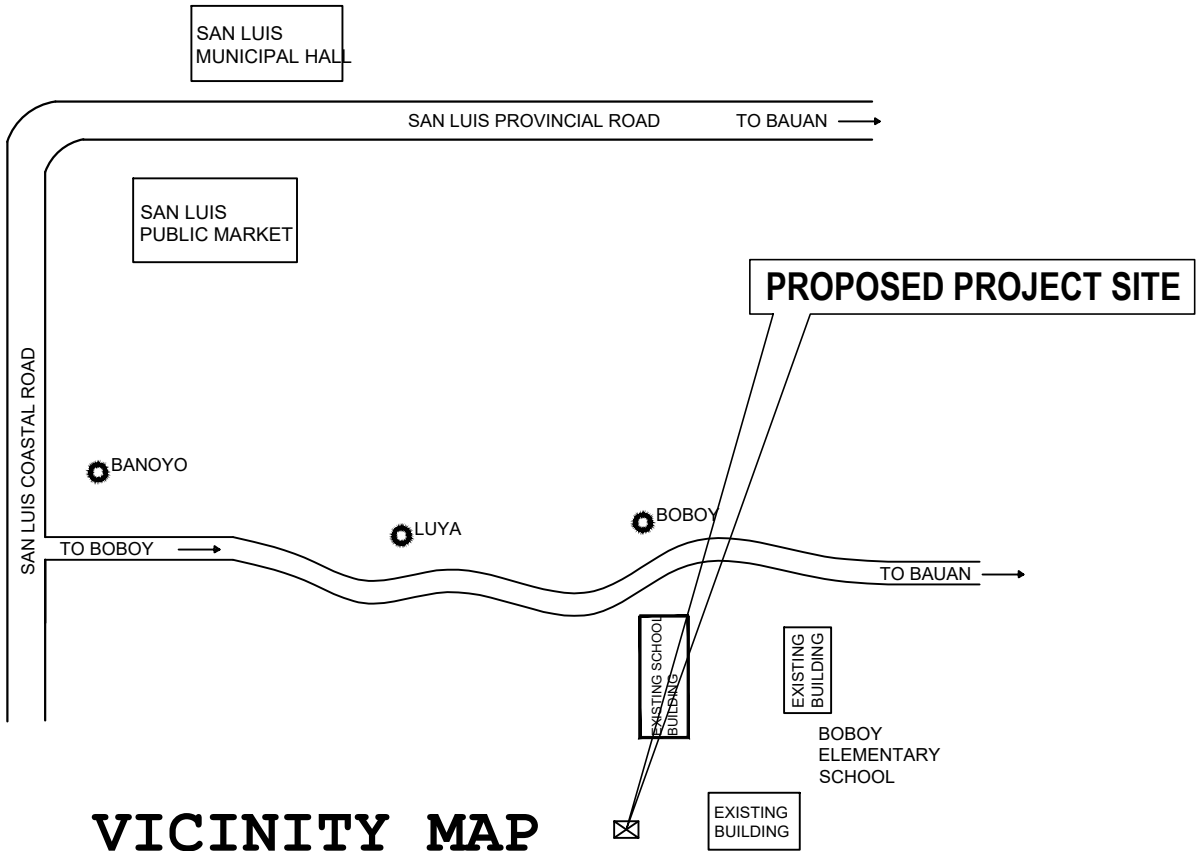
FOUNDATION PLAN
HORIZONTAL BRACING DETAIL
INLET, OUTLET AND DRAIN PIPE DETAIL



FLOOR PLAN
FOUNDATION PLAN
ROOF FRAMING PLAN
FOOTING-COLUMN DETAIL
BEAM DETAIL



LOCATION MAP



VICINITY MAP



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CONVERGENCE AND SPECIAL SUPPORT PROGRAM, BASIC
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SYSTEM, CONSTRUCTION OF WATER SYSTEM, BOBOY
ELEMENTARY SCHOOL, SAN LUIS, BATANGAS
SAN LUIS, BATANGAS

SHEET CONTENT:
INDEX OF DRAWINGS
GENERAL NOTES
LOCATION MAP

DRAFTED:
PAUL BRIAN C. HORNILLA
ENGINEER II
PREPARED:
CHRISTIAN S. BAGSIT
ENGINEER II

REVIEWED:
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

SUBMITTED:
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

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DATE:

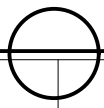
APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO.
G
1 3

SHEET NO.
2
12

ITEM NO.	DESCRIPTION	QTY	UNIT	REMARKS
PART A	FACILITIES FOR THE ENGINEER			
A.1.1 (8)	Provision of Field Office for the Engineer (Rental Basis)	7.50	Month	
A.1.4 (1)	Provision of Progress Photographs	7.50	Month	
PART B	OTHER GENERAL REQUIREMENTS			
B.3 (1)	Permits and Clearances	1.00	Lump Sum	
B.5 (1)	Project Billboard / Signboard	1.00	Each	" 1 Each" Corresponds to a Set of 1 DPWH & 1 COA Billboard
B.7 (1)	Occupational Safety and Health	1.00	Lump Sum	
B.9 (1)	Mobilization/Demobilization	1.00	Lump Sum	
PART C	EARTHWORKS			
800 (2)	Clearing and Grubbing	1.00	Lump Sum	
801 (1)	Removal of Structures and Obstruction	1.00	Lump Sum	
803 (1) a	Structure Excavation, Common Soil	158.62	cu.m.	
804 (1) a	Embankment from Roadway/Structure Excavation, Common Soil	54.96	cu.m.	
804 (7)	Gravel Fill	3.54	cu.m.	
PART D	REINFORCED CONCRETE			
900 (1) i	Structural Concrete, Class A, 28 days	29.70	cu.m.	
902 (1) a1	Reinforcing Steel (Deformed), Grade 40	3,656.63	kgs	
903 (2)	Formworks and Falseworks	100.10	sq.m.	
PART E	FINISHINGS AND OTHER CIVIL WORKS			
1001 (9)	Storm Drainage and Downspout	1.00	Lump Sum	
1003 (1) a1	Ceiling, 4.5 mm, Metal Frame, Fiber Cement Board	36.96	sq.m.	
1009 (1) a	Jalousie Windows, Glass	5.76	sq.m.	
1010 (2) a	Doors, Flush	1.68	sq.m.	
1013 (2) b	Fabricated Metal Roofing Accessory, Gauge 26 (0.551mm), Flashing	18.40	l.m.	
1013 (2) c	Fabricated Metal Roofing Accessory, Gauge 24 (0.701mm), Gutters	6.80	l.m.	
1014 (1) b2	Pre-painted Metal Sheets, above 0.427 mm, Rib Type, Long Span	39.44	sq.m.	
1027 (1)	Cement Plaster Finish	119.76	sq.m.	
1032 (1) a	Painting Works, Masonry/Concrete	119.76	sq.m.	
1032 (1) c	Painting Works, Steel	196.02	sq.m.	
1046 (2) a2	CHB Non-Load Bearing (including Reinforcing Steel), 150 mm	59.88	sq.m.	
1047 (4) b	Metal Structure Accessories, Turnbuckle	24.00	Each	
1047 (5) a	Metal Structure Accessories, Bolts and Rods	121.15	kgs.	
1047 (5) c	Metal Structure Accessories, Cross Bracing	369.89	kgs.	
1047 (5) d	Metal Structure Accessories, Steel Plates	1,278.61	kgs.	
1047 (7)	Structural Steel	1.00	Lump Sum	
1047 (8) b	Structural Steel, Purlins	351.46	kgs.	
PART F	ELECTRICAL			
1100 (10)	Conduits, Boxes & Fittings (Conduit Works/Conduit Rough-in)	1.00	Lump Sum	
1101 (33)	Wires and Wiring Devices	1.00	Lump Sum	
1102 (1)	Panelboard with Main & Branch Breakers	1.00	Lump Sum	
1102 (11)	Pole Mounted Power Transformer (OISC) with Complete Accessories, Single or Three Phase, Pole Type or Platform	1.00	Lump Sum	
1102 (16) a1	Generator, single or three phase, Stand-by	1.00	Lump Sum	
1103 (1)	Lighting Fixtures	1.00	Lump Sum	
PART G	MECHANICAL			
1201 (1)	Water Pumping System	1.00	Lump Sum	
PART L-B	BANK AND SLOPE PROTECTION WORKS			
1711 (1)	Stone Masonry	142.43	cu.m.	

SUMMARY OF QUANTITIES



GENERAL NOTES :

I. GENERAL

- 1. THESE NOTES SHALL APPLY UNLESS SPECIFICALLY OTHERWISE INDICATED IN THE PLANS. IN CASE OF CONFLICT BETWEEN PLANS AND SPECIFICATION, SPECIFICATION SHALL GOVERN.
- 2. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED IN THE PLANS.
- 3. ALL DIMENSIONS AND ELEVATION SHOWN IN THE PLANS SHALL BE VERIFIED BEFORE COMMENCEMENT OF THE WORKS.
- 4. ALL DIMENSIONS, ELEVATIONS AND LOCATION OF OPENING RELATED TO THE EQUIPMENT ARE TENTATIVE AND SUBJECT TO CHANGE AFTER THE EQUIPMENT DIMENSIONS HAVE BEEN ESTABLISHED.

II. DESIGN CRITERIA AND SPECIFICATIONS

- 1. DPWH DESIGN GUIDELINES, CRITERIA, AND STANDARDS (DGCS) - VOLUME 3 2015 EDITION
- 2. DPWH STANDARD SPECIFICATIONS FOR HIGHWAYS, BRIDGES, AND AIRPORTS - VOLUME II, LATEST EDITION
- 3. DPWH STANDARD SPECIFICATIONS FOR PUBLIC WORKS STRUCTURES (BUILDINGS, PORTS AND HARBORS, FLOOD CONTROL AND DRAINAGE STRUCTURES AND WATER SUPPLY SYSTEMS) - VOLUME III, 2019 EDITION
- 4. RURAL WATER SUPPLY VOLUME I DESIGN MANUAL.
- 5. PHILIPPINE SOCIETY OF MECHANICAL ENGINEERING CODE.
- 6. PHILIPPINE ELECTRICAL CODE.
- 7. NATIONAL STRUCTURAL CODE OF THE PHILIPPINES, VOLUME I (BUILDING, TOWERS AND OTHER VERTICAL STRUCTURES) 7TH EDITION 2015, (NSCP).

III. CIVIL AND STRUCTURAL DESIGN

- 1. REINFORCED CONCRETE

SCHEDULE OF STRUCTURAL CONCRETE

LOCATION	STRUCTURAL ELEMENTS	28-DAY COMPRESSIVE STRENGTH	DENSITY	MAX SLUMP
FOUNDATION	FOOTINGS, WALL FOOTINGS	3000 PSI= 21 MPa	24 KPa	4”(100mm)
GROUND TO ROOF	SLAB, BEAMS COLUMNS, RAMPS R.C. WALLS RETAINING WALLS	3000 PSI= 21 MPa	24 KPa	4”(100mm)
	SLAB ON GRADE	3000 PSI= 21 MPa	24 KPa	4”(100mm)

- 1.1. LOCATION OF ALL CONSTRUCTION OR COLD JOINTS MUST BE APPROVED BY THE ENGINEER.
- 1.2. REINFORCING BARS, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE SECURED IN PLACE BEFORE POURING CONCRETE, BAR PLACEMENT AND SUPPORTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDED ACI PRACTICE.

- 2. REINFORCING STEEL

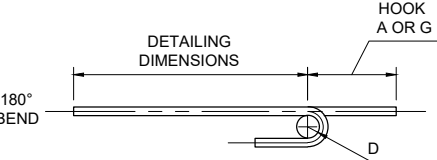
SCHEDULE OF REINFORCING BARS

DIAMETER OF BARS	GRADE (fy)	ASTM
ø12 AND SMALLER	GRADE 40 (40,000psi)	A615/A615M (DEFORMED)
ø16 AND LARGER	GRADE 40 (40,000psi)	A615/A615M (DEFORMED)

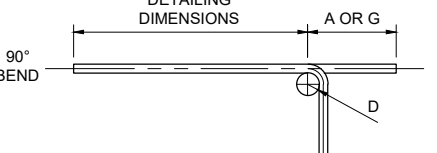
MINIMUM REINFORCING LAP SPLICE AND BEND

BAR SIZE	LAP (cm)	BEND Ø (mm)	A OR G 180° 90°	
D10	30	57	13	13
D12	45	76	15	18
D16	53	95	18	23
D20	61	114	20	25
D25	76	152	25	36
D28	91	229	31	41
D32	99	260	33	46
D36	114	285	36	51

180° BEND



90° BEND



- 3. STRUCTURAL STEEL

- 3.1. ALL STRUCTURAL MILL SECTIONS AND BUILT UP PLATE SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC'S LATEST SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- 3.2. DESIGN LOADS SHALL MEET THE REQUIRED STRUCTURAL DESIGN CRITERIA.
- 3.3. STEEL PLATES, SHAPES, BARS AND METAL FABRICATION: ASTM A-36.
- 3.4. STRUCTURAL BOLTS AND NUTS: ASTM A-325, GALVANIZED. 7/8Ø AND BELOW.

IV. MECHANICAL NOTES

- 1. ALL MECHANICAL WORKS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE PHILIPPINE MECHANICAL ENGINEERING CODE.
- 2. THE TOTAL SCOPE OF WORKS SHALL INCLUDE ALL WORKS DESCRIBED IN PLANS AND LISTED IN TECHNICAL SPECIFICATIONS FOR MECHANICAL WORKS.
- 3. THE WORK SHALL BE EXECUTED IN CLOSE COORDINATION WITH OTHER TRADES.
- 4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, TECHNICAL DATA / SPECIFICATION (BROCHURES/CATALOGUE) SUBJECT FOR FURTHER TECHNICAL EVALUATION OF THE CONCERNED AUTHORITY PRIOR TO PROCUREMENT / INSTALLATION OF THE EQUIPMENT / UNIT.
- 5. PROVIDE SEISMIC RESTRAINTS FOR ALL RIGIDLY & RESILIENTLY SUPPORTED EQUIPMENT FOR APPLICABLE CODE & AS SPECIFIED DESIGN & PROVIDE RESTRAINTS FOR PUMPS, FANS, TANKS, ALL PIPING WORKS, GENERATORS ENGINE EXHAUST PIPES, ETC. RESTRAINTS SHALL BE DESIGNED TO PREVENT PERMANENT DISPLACEMENT IN ANY DIRECTION CAUSE BY LATERAL MOTION.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND COMMISSIONING OF ALL EQUIPMENT INSTALLED.
- 7. PROVIDE PIPE SLEEVES FOR ALL PIPING PASSING THROUGH BUILDING STRUCTURES.
- 8. PROVIDE GUIDES, HANGER AND SUPPLEMENTAL SUPPORT STEEL FOR ALL PIPING.
- 9. ALL STEEL PIPE SUPPORTS SHALL BE PHOSPHATED PRIOR TO APPLICATION OF TWO COATS OF RED LEAD AND A COAT OF ENAMEL PAINT FOR FINISHING.
- 10. THE QUANTITY OF EACH EQUIPMENT INDICATED IN THE SCHEDULE IS FOR GUIDANCE ONLY. FOR QUANTITY TAKE OFF COUNT THE NUMBER OF UNITS IN THE PLANS.
- 11. ALL MECHANICAL WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY REGISTERED MECHANICAL ENGINEER.

V. ELECTRICAL NOTES

- 1. ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE AND IN STRICT COMPLIANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC) EXISTING APPLICABLE LAWS, ORDINANCES, REQUIREMENTS, RULES AND REGULATIONS OF THE LOCAL GOVERNMENT AND LOCAL POWER COMPANY.
- 2. WHEREVER REQUIRED AND NECESSARY, JUNCTION BOXES OR PULL BOXES SHALL BE INSTALLED AT INCONSPICUOUS LOCATIONS ALTHOUGH SUCH BOXES ARE NOT SHOWN ON THE PLANS NOR MENTIONED IN THE SPECIFICATIONS.
- 3. ALL NON-CURRENT CARRYING METAL PARTS/ ENCLOSURES OF ELECTRICAL EQUIPMENT AND OVERCURRENT PROTECTIVE DEVICES SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH ARTICLE 2.50 OF THE PHILIPPINE ELECTRICAL CODE PART 1, 2000 EDITION
- 4. THE ELECTRICAL SYSTEM SHALL HAVE A GROUND RESISTANCE NOT EXCEEDING 5 OHMS.
- 5. STANDARD TYPE OF ACCESSORIES, SPLICING DEVICES, TERMINATIONS AND OTHER APPURTENANCES FOR THE ENTIRE ELECTRICAL INSTALLATION SHALL BE USED.
- 6. ALL MATERIALS TO BE USED AND INSTALLED SHALL BE BRAND NEW AND OF THE APPROVED TYPE FOR THE LOCATION AND PURPOSE.
- 7. SOLAR CONTRACTOR SHALL PROVIDE FINAL QUANTITY AND RATING OF SOLAR PANEL (PHOTOVOLTAIC PANEL), SOLAR CHARGE CONTROLLERS, BATTERIES, AND INVERTERS BASED ON ACTUAL ROOF AND SITE ORIENTATION AND SPACES
- 8. SOLAR CONTRACTOR SHALL PROVIDE FINAL DRAWINGS, SHOP SPECIFICATIONS AND OTHER RELATED DOCUMENTS FOR SOLAR POWER SYSTEM
- 9. DESIGN OF DISTRIBUTION SYSTEM IS NOT INCLUDED IN THIS STANDARD PLAN AS IT VARIES DEPENDING ON THE SITE LOCATION.
- 10. ALL ELECTRICAL WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER.

VI. AQUIFER / PUMP WELL

- 1. WELL DRILLING WILL COMMENCE UPON SECURING OF DRILLING PERMIT FROM THE NWRB AND MUST BE CONTRACTED TO AN EXPERIENCED AND COMPETENT WELL DRILLING COMPANY DULY ACCREDITED BY THE NWRB.
- 2. THE CONDUCT OF GEO-RESISTIVITY TEST SHALL BE PERFORMED IN THE TARGET AREA TO IDENTIFY THE LOCATION AND DEPTH OF AQUIFER OF THE PROPOSED WELL SITE.
- 3. THE DESIGNER SHALL CONDUCT A PUMPING ("SAFE YIELD") TEST AT LEAST EQUAL TO THE SYSTEM PEAK DEMAND AND OPERATE IT FOR 24-48 HOURS.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WELL HEAD PROTECTION TO PROVIDE SEAL FROM LEAKAGE AND RUNOFF ENTERING THE WELL HEAD.

VII.TRANSMISSION AND DISTRIBUTION SYSTEMS

- 1. TRANSMISSION AND DISTRIBUTION SYSTEMS VARY IN SIZE AND COMPLEXITY BUT ALL HAVE THE SAME BASIC PURPOSE TO DELIVER WATER, HENCE, SOURCE TO HOUSEHOLD DISTRIBUTION SHALL BE UNDERTAKEN BY THE IMPLEMENTING OFFICE.
- 2. METHODS OF WATER TRANSMISSION AND DISTRIBUTION SHALL BE BASED ON THE GUIDELINES PROVIDED IN RURAL WATER SUPPLY, VOLUME I (DESIGN MANUAL).

VIII. ABBREVIATIONS

BOTT.	BOTTOM BARS
C	COLUMN
C.H.B.	CONCRETE HOLLOW BLOCK
CONC.	CONCRETE
cm	CENTIMETER
DWG	DRAWING
D	DOOR
DS	DOWNSPOUT
EA	EACH
E.F	EACH FACE
E.W	EACH WAY
EL, ELEV	ELEVATION
FLR	FLOOR
F.T.G.	FOOTING TIE BEAM
G.I.	GALVANIZED IRON
GRD, GRND	GROUND
HOR.	HORIZONTAL
L	LENGTH
m	METER
mm	MILLIMETER
ND	NOMINAL DIAMETER
N	NORTH
NGL	NATURAL GRADE LEVEL
N.T.S.	NOT TO SCALE
PV	PHOTOVOLTAIC
R.C.	REINFORCED CONCRETE
STD	STANDARD
STL	STEEL
t, THK	THICKNESS
TDH	TOTAL DYNAMIC HEAD
TYP	TYPICAL
T.B.	TOP BAR
VERT	VERTICAL
W/	WITH
W/O	WITHOUT
W.P	WATER PROOFING



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PAUL BRIAN C. HORNILLA
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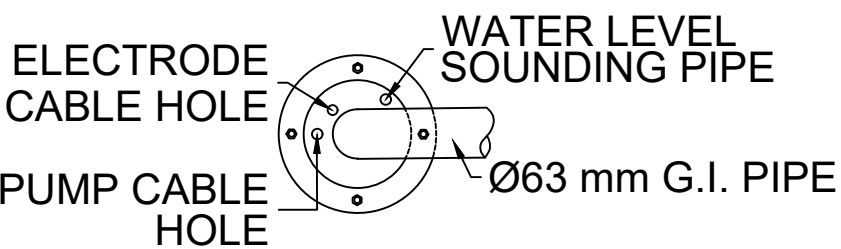
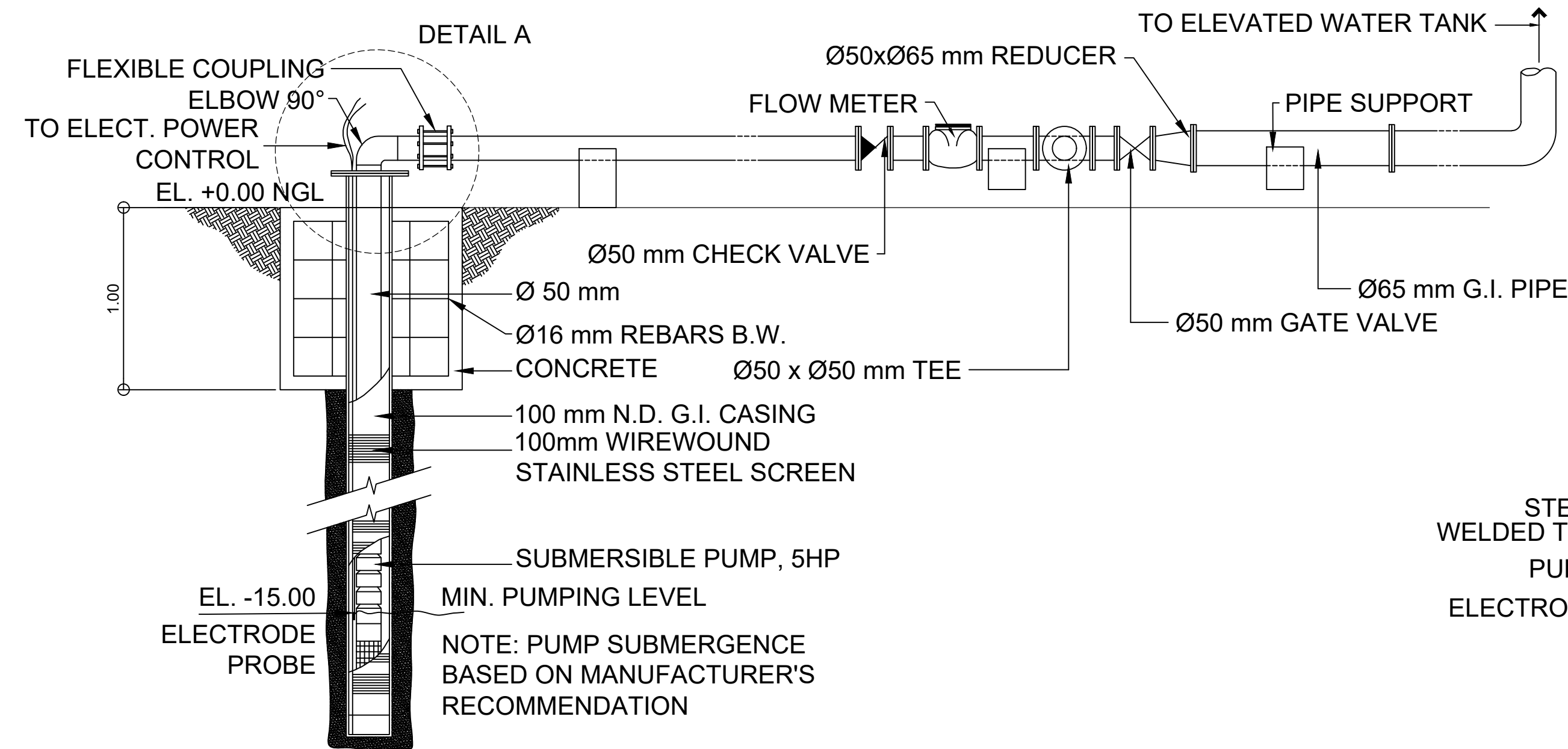
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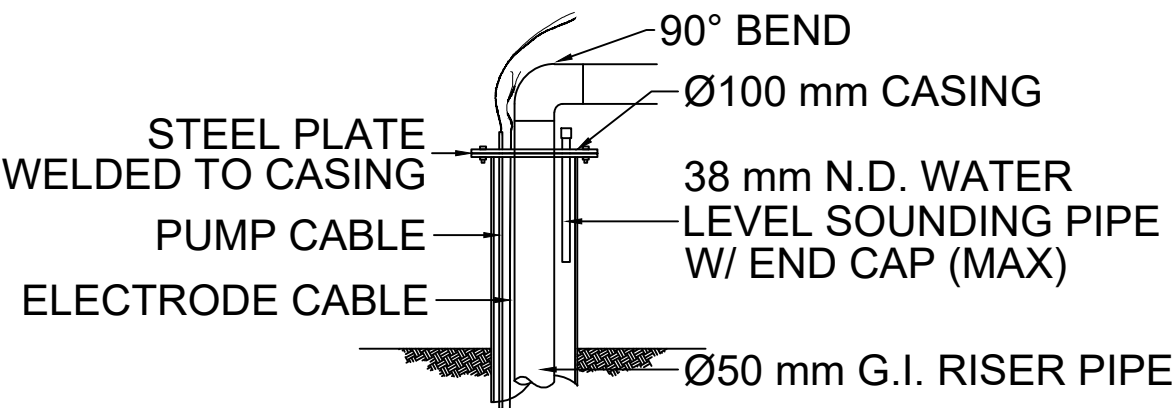
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SCHEDULE OF EQUIPMENT

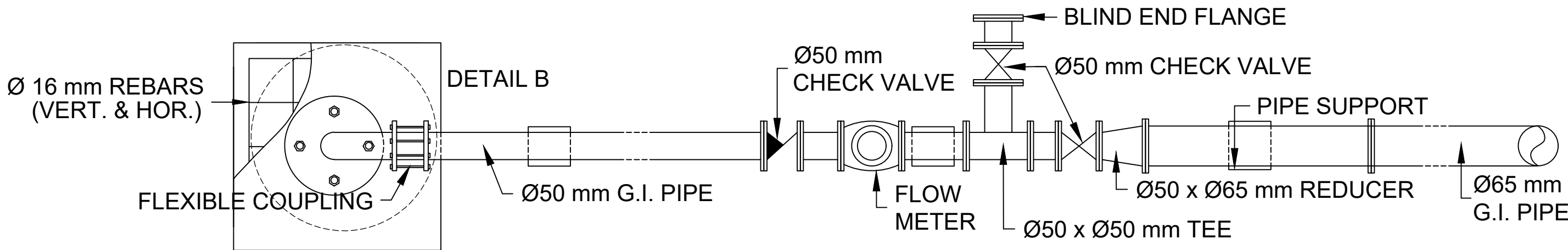
DESIGNATION	Q T Y	CAPACITY (gpm)	TYPE	TDH (m)	SPEED (rpm)	MOTOR RATING			
						POWER (HP)	VOLTS	PHASE	PHASE
PUMP	1	80	SUBMERSIBLE	51	3450	5	230	SINGLE	60



DETAIL B



DETAIL A



SUBMERSIBLE PUMP PLAN

SCALE: 1:25M



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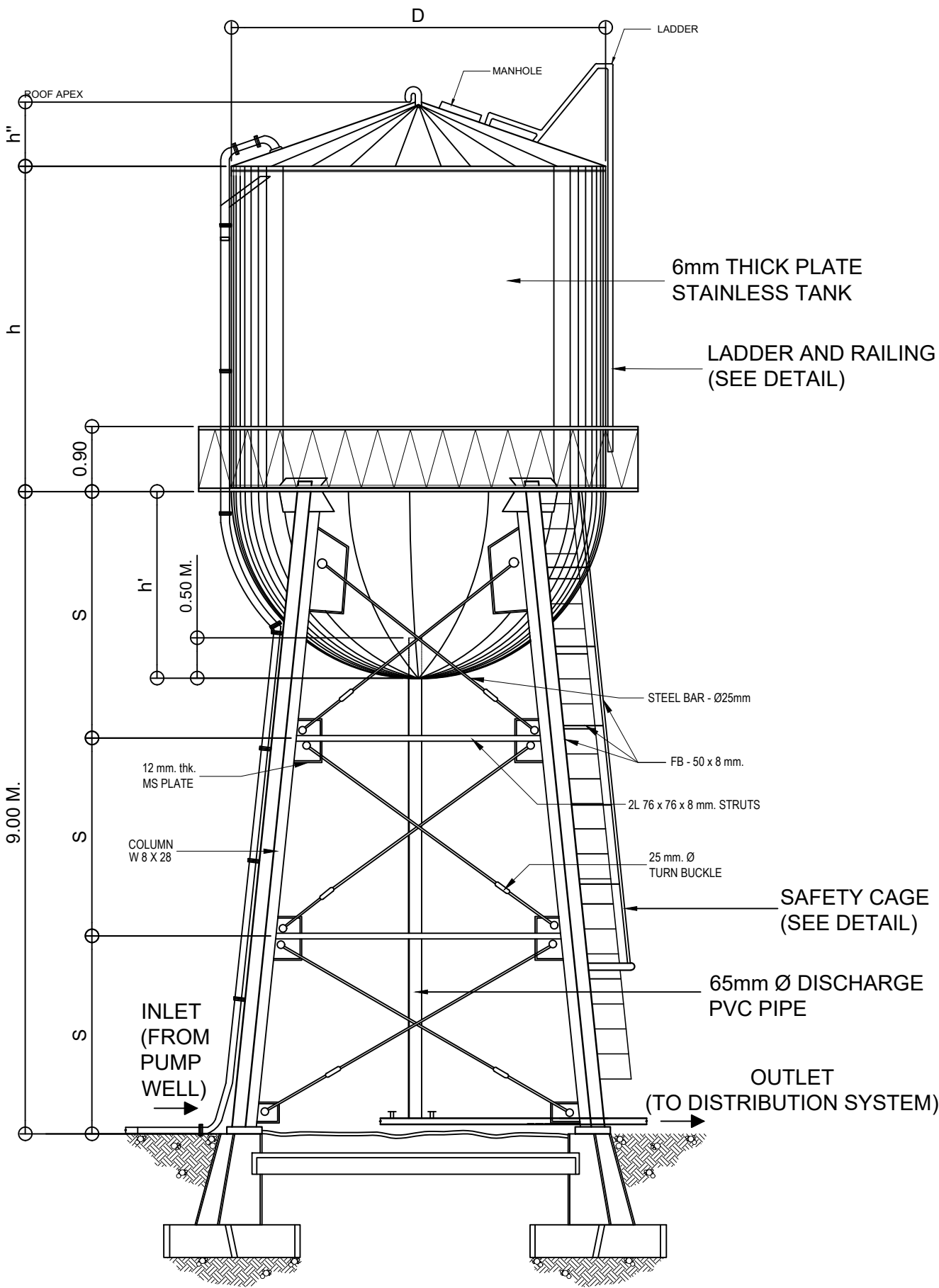
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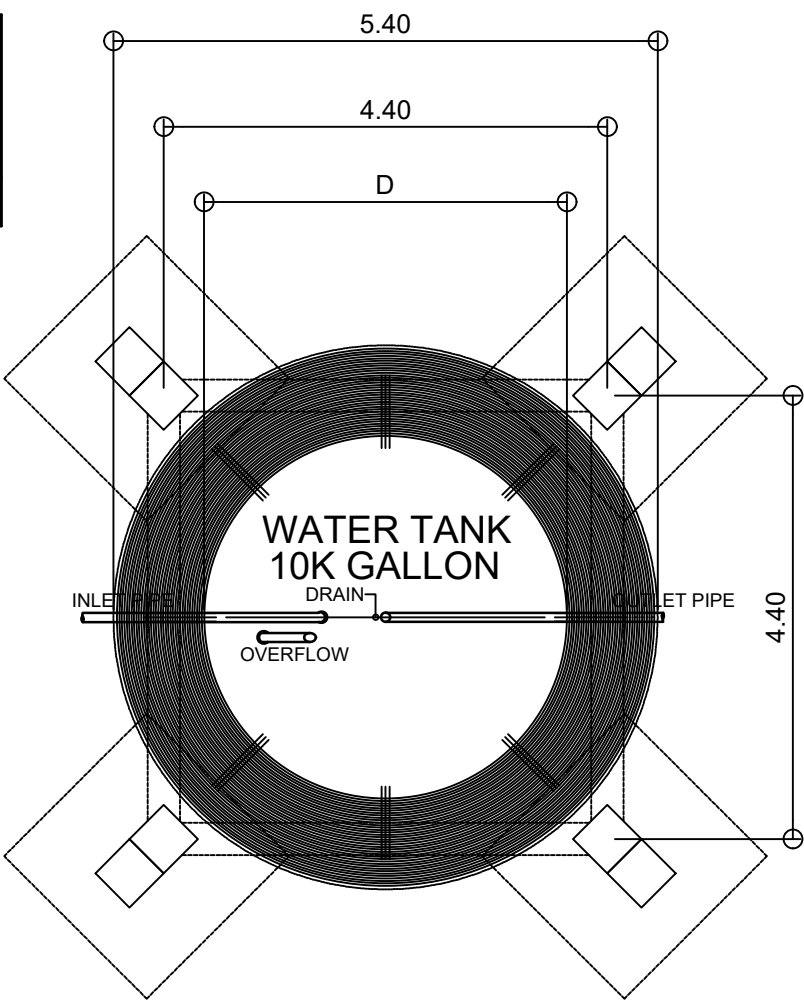
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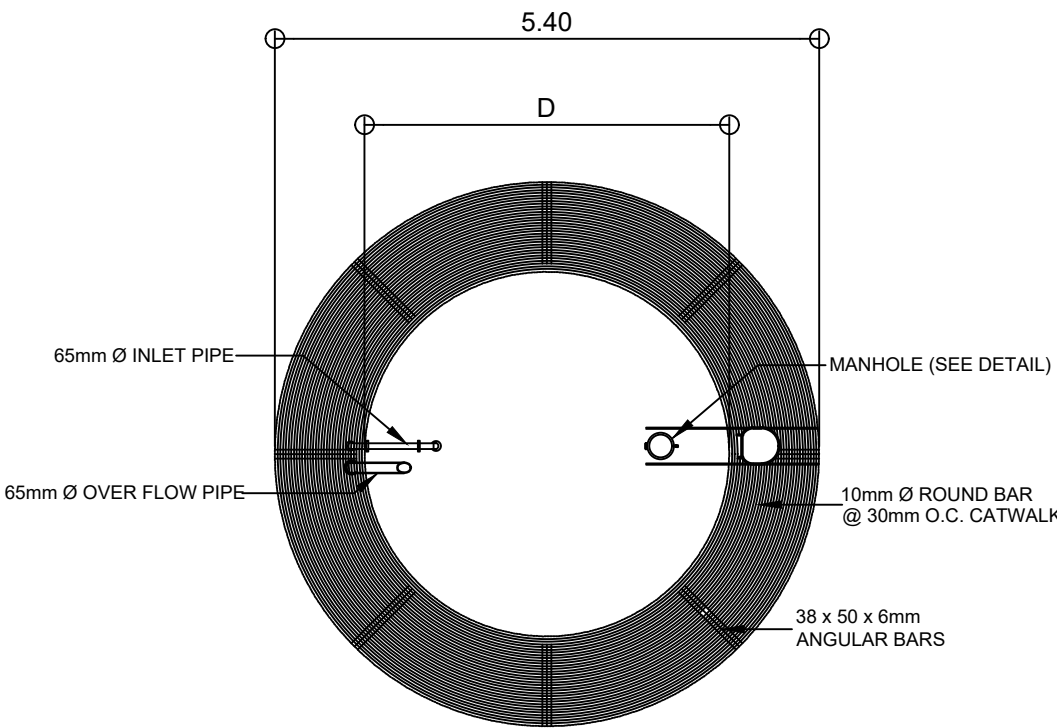
									H = 6.00 M		H = 8.10 M		H = 9.00 M		H = 10.80 M	
CAPACITY		D	h	h'	h''	COLUMN 2L STRUTS RODS			S = 3		S = 2.70		S = 3		S = 2.70	
LITERS	GALLONS	M	M	M	M	AST M 36	MM	MM	A	B	A	B	A	B	A	B
37,800	10,000	3.60	2.45	1.80	0.60	W 6 x 20	76x76x6	25	6.60	4.70	6.60	4.70	6.60	4.70	5.64	4.70



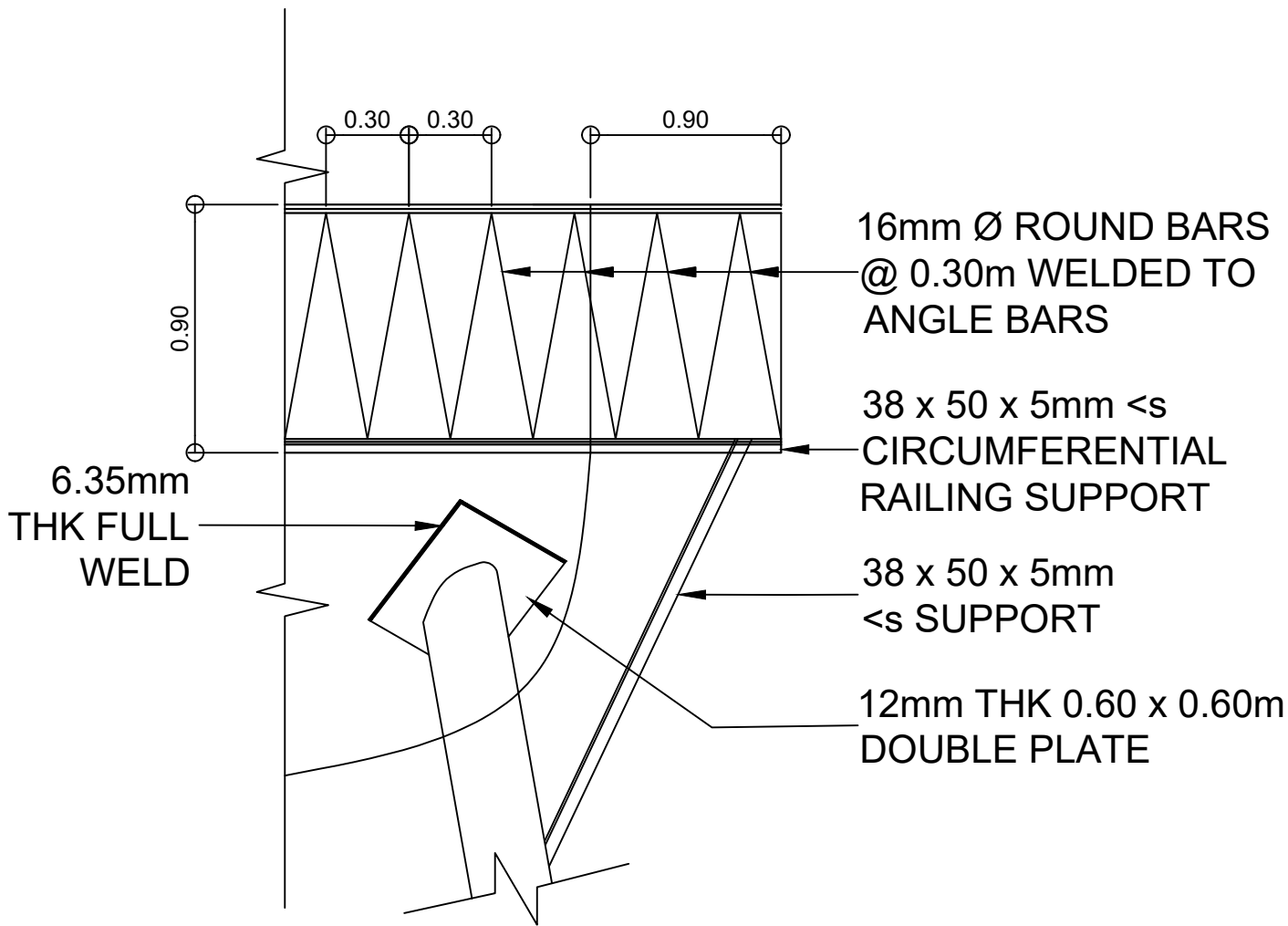
WATER TANK ELEVATION
SCALE: N.T.S.



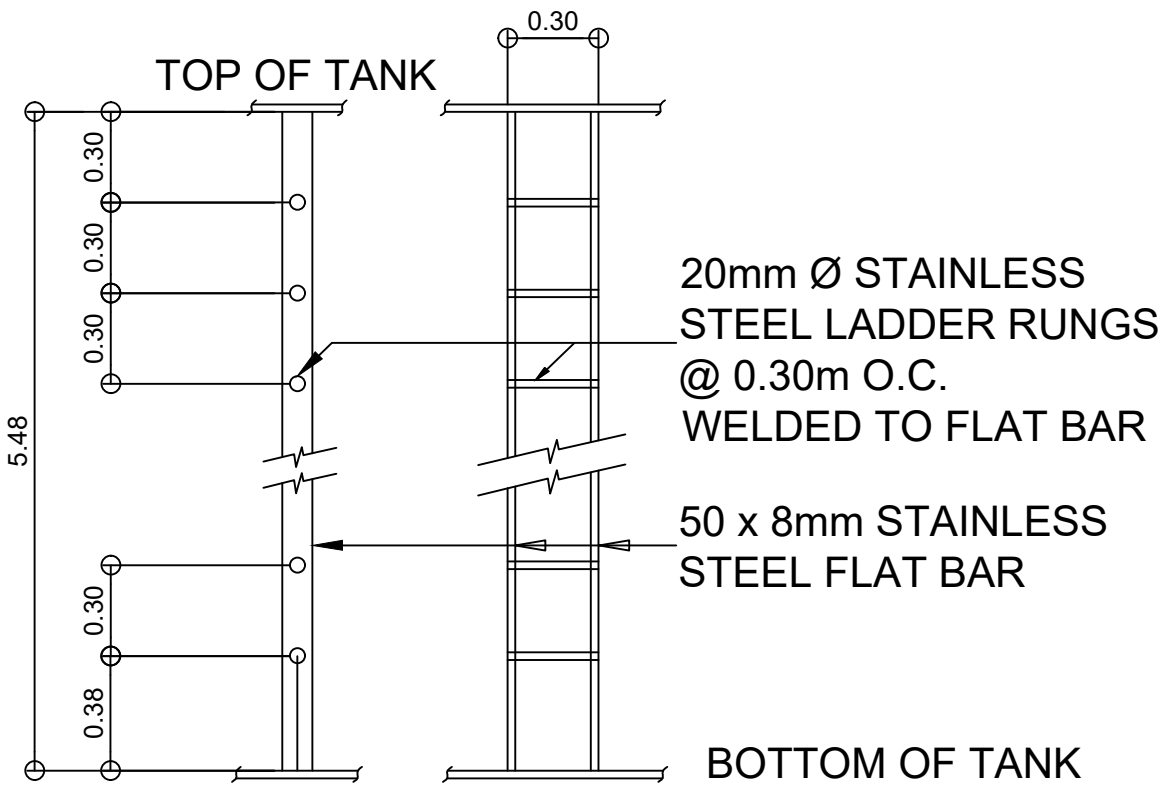
PLAN
SCALE: 1:75M



TOP PLAN
SCALE: 1:75M



RAILING DETAIL
SCALE: 1:25M



LADDER DETAIL
SCALE: 1:25M



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
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KUMINTANG ILAYA, BATANGAS CITY

PROJECT NAME AND LOCATION:
CONVERGENCE AND SPECIAL SUPPORT PROGRAM, BASIC
INFRASTRUCTURE PROGRAM (BIP), PUBLIC WATER SUPPLY
SYSTEM, CONSTRUCTION OF WATER SYSTEM, BOBOY
ELEMENTARY SCHOOL, SAN LUIS, BATANGAS
SAN LUIS, BATANGAS

SHEET CONTENT:
WATER TANK ELEVATION
PLAN
TOP PLAN
RAILING DETAIL
LADDER DETAIL

DRAFTED:
PAUL BRIAN C. HORNILLA
ENGINEER II
PREPARED:
CHRISTIAN S. BAGSIT
ENGINEER II

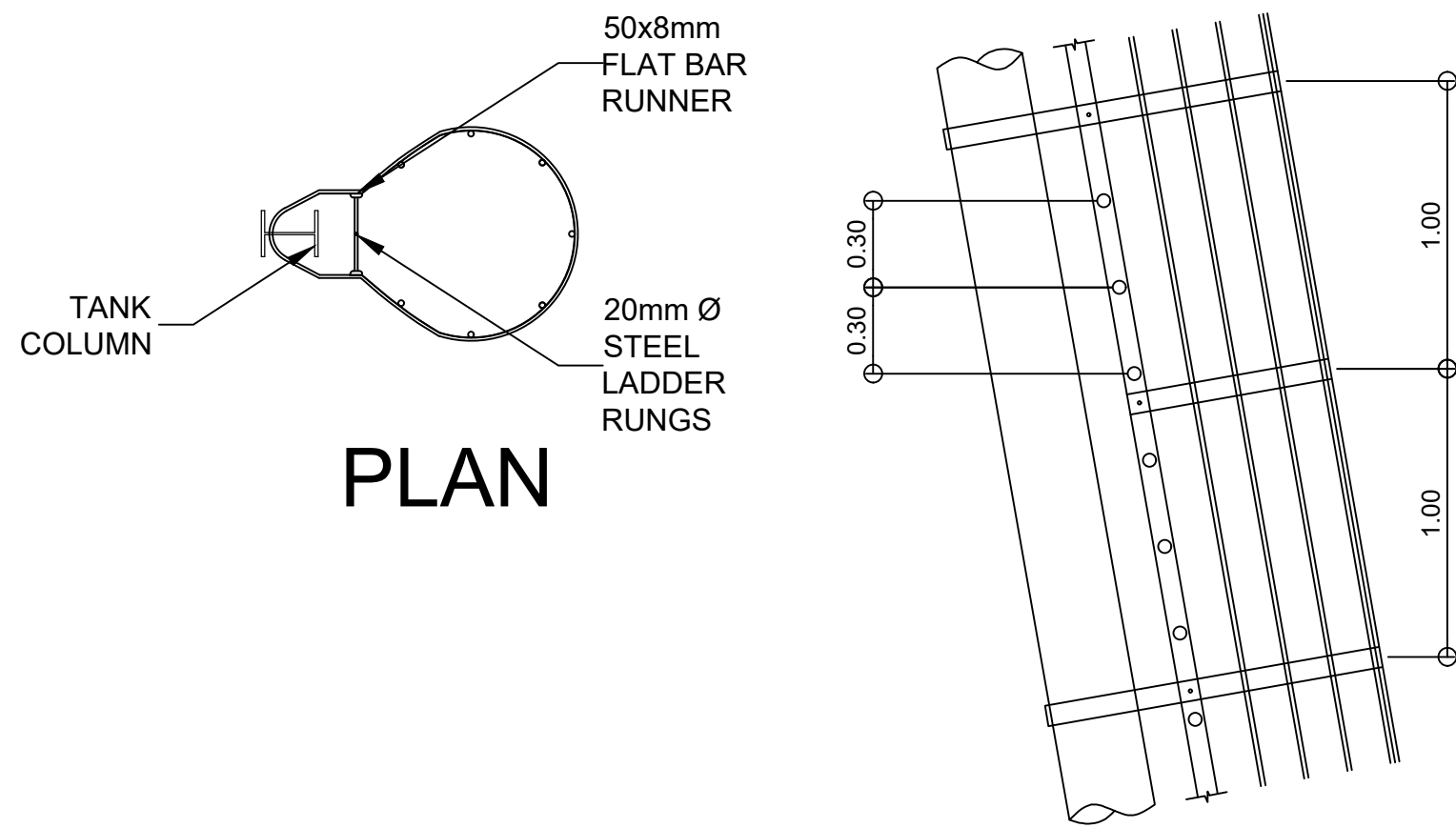
REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

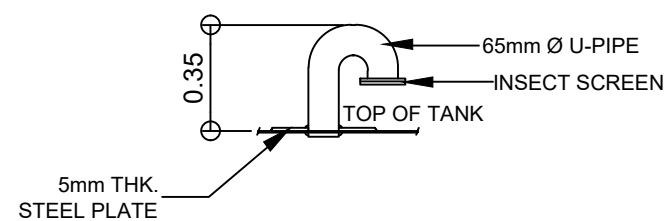
RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

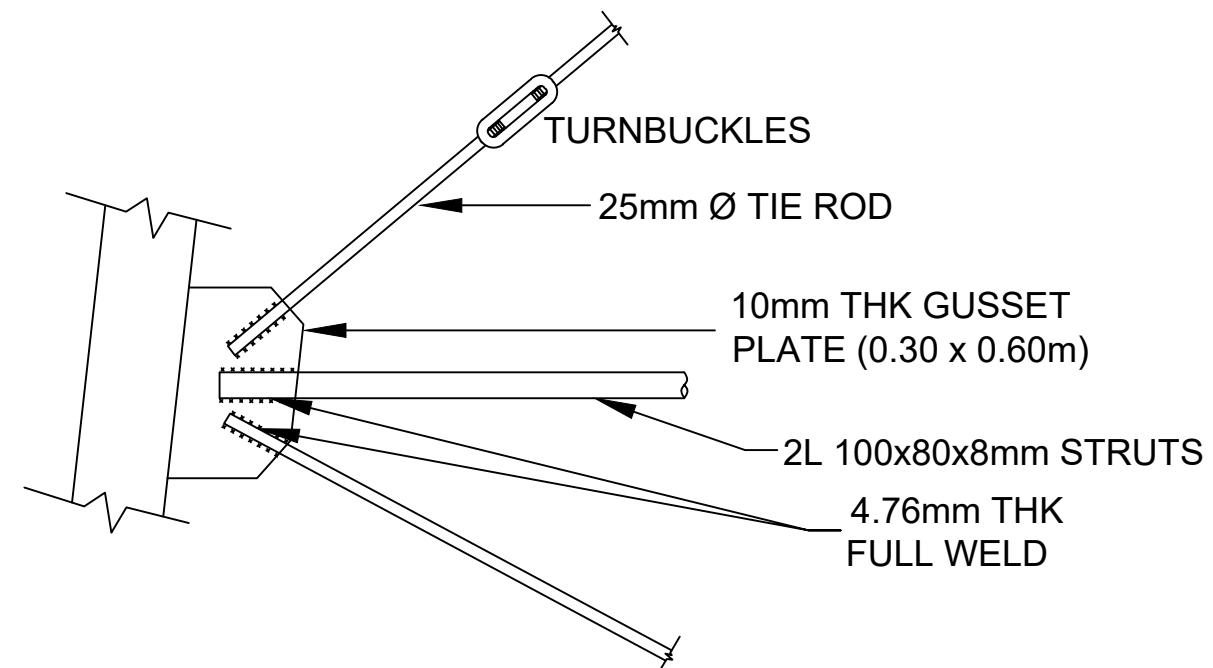
SET NO. SHEET NO.
W 7
3 7 12



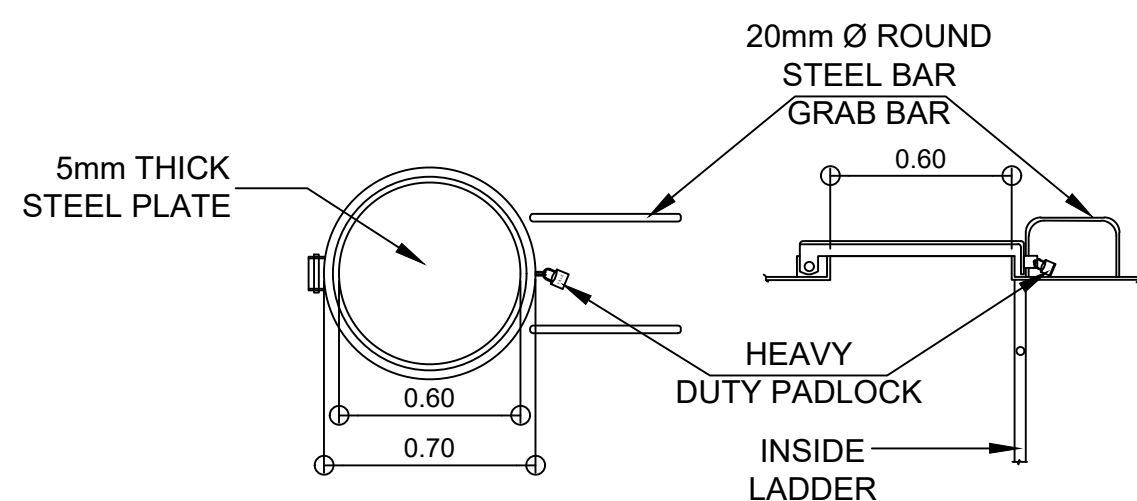
PLAN



AIR VENT DETAIL

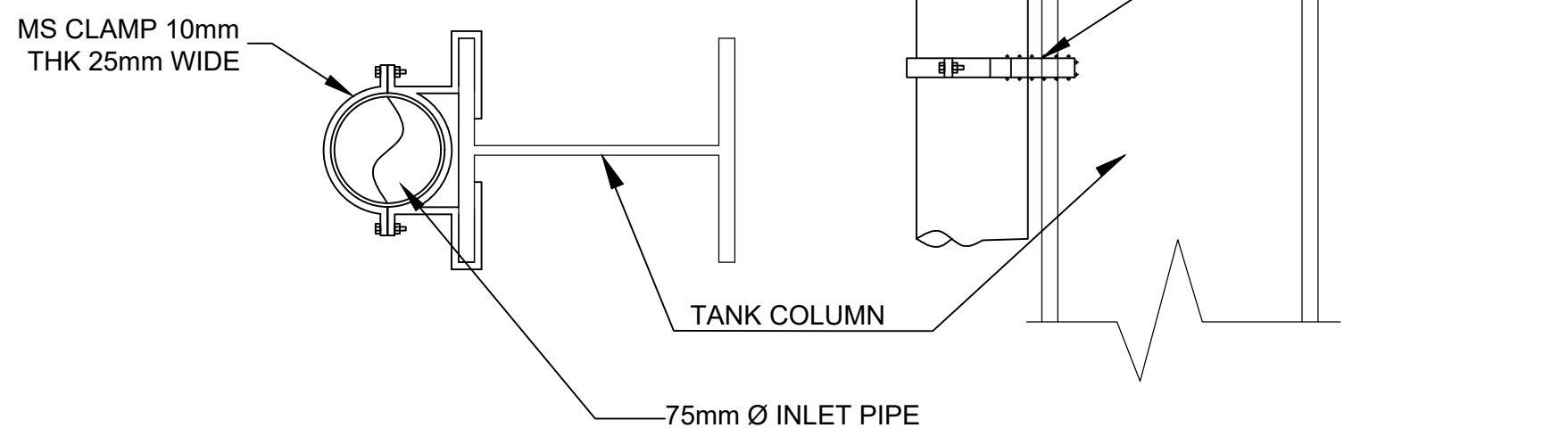


BRACING DETAIL



PLAN

SECTION



PLAN

SECTION



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ELEMENTARY SCHOOL, SAN LUIS, BATANGAS
SAN LUIS, BATANGAS

SHEET CONTENT:
MANHOLE DETAIL
SAFETY CAGE DETAIL
INLET PIPE CLAMP DETAIL
AIR VENT DETAIL
BRACING DETAIL

DRAFTED:
PAUL BRIAN C. HORNILLA
ENGINEER II
PREPARED:
CHRISTIAN S. BAGSIT
ENGINEER II

REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

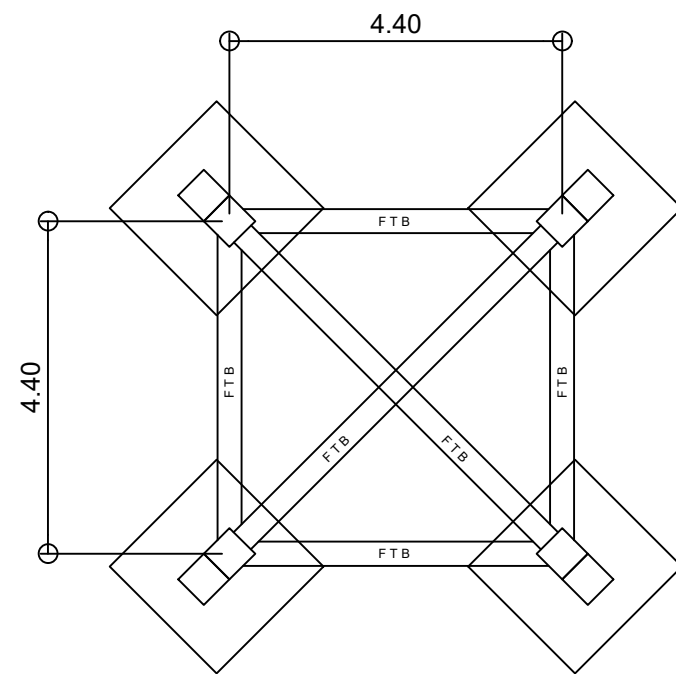
SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

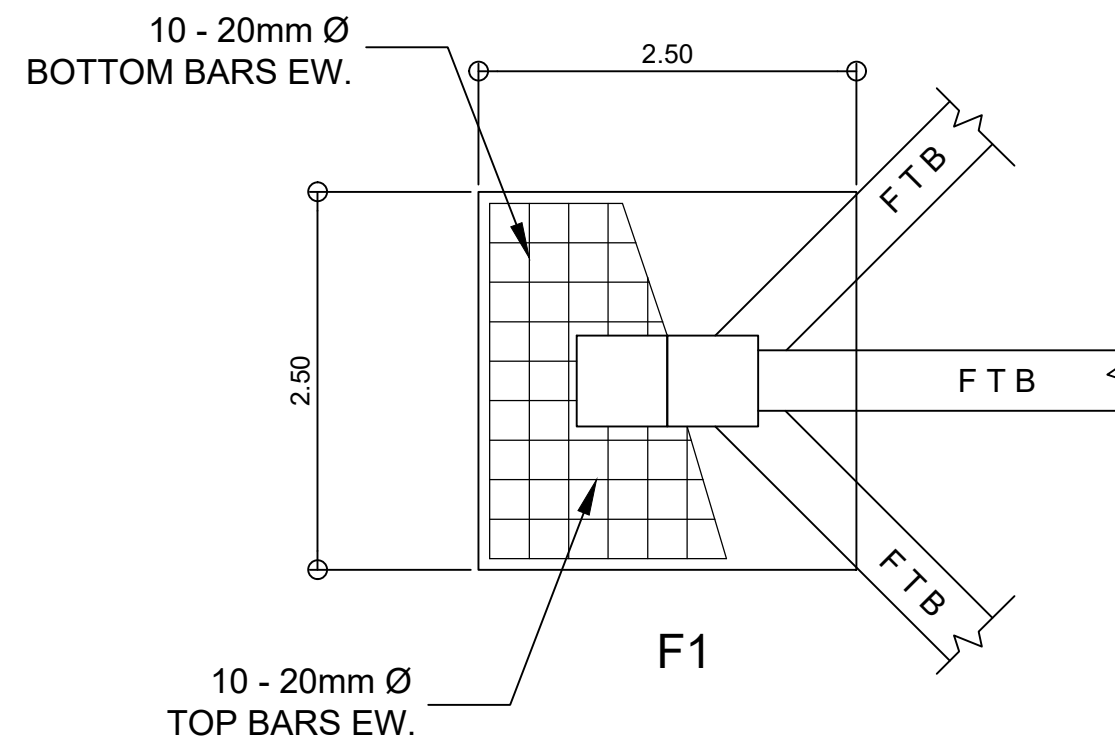
SET NO.
W
4 7

SHEET NO.
8
12



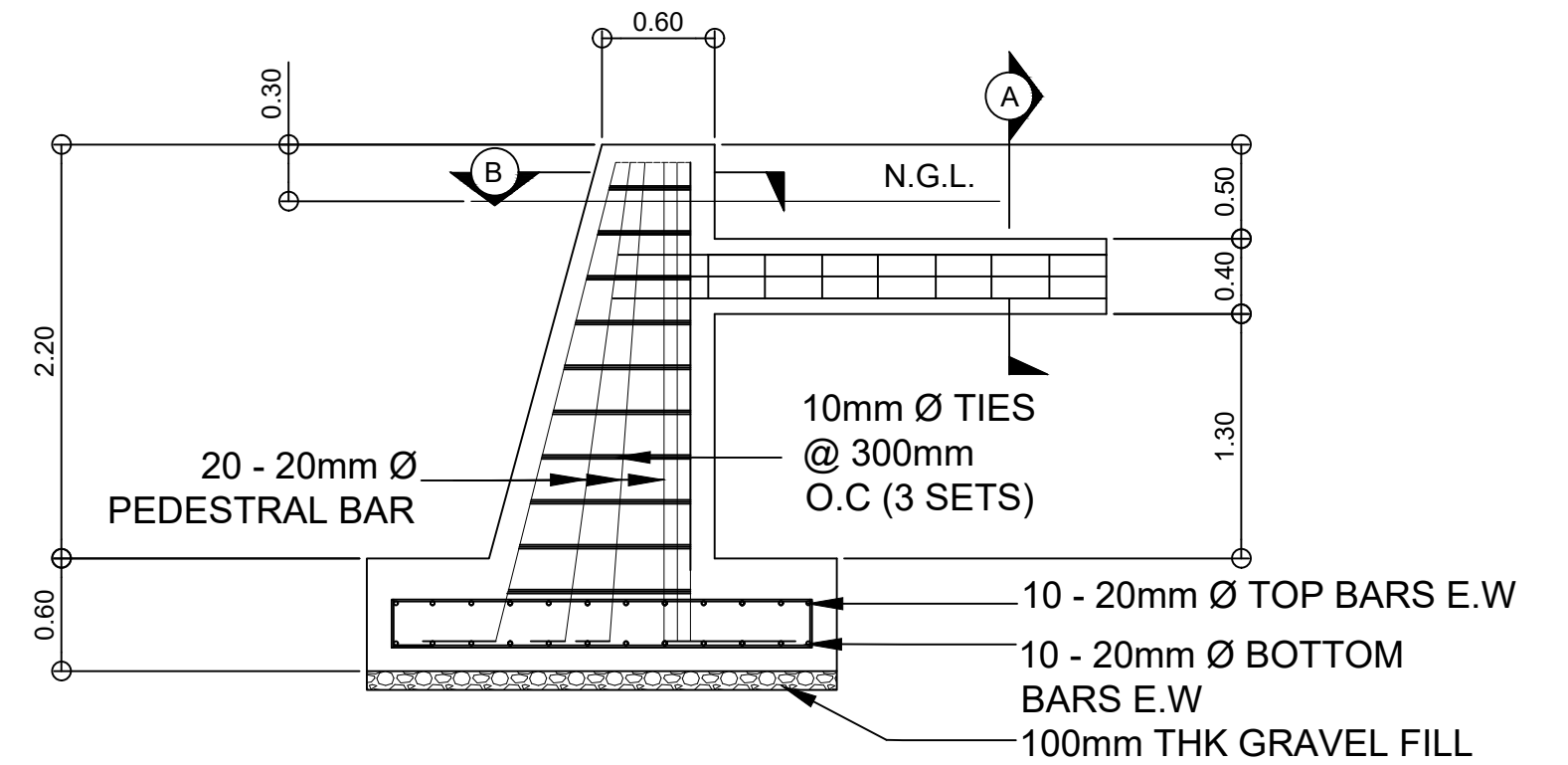
FOUNDATION PLAN

SCALE: 1:100M



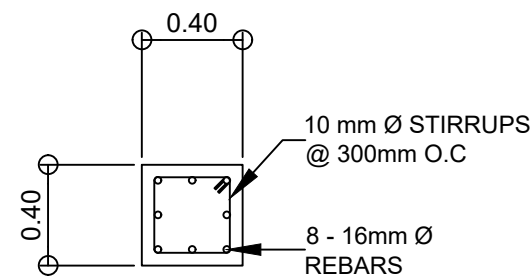
FOOTING DETAIL

SCALE: 1:50M



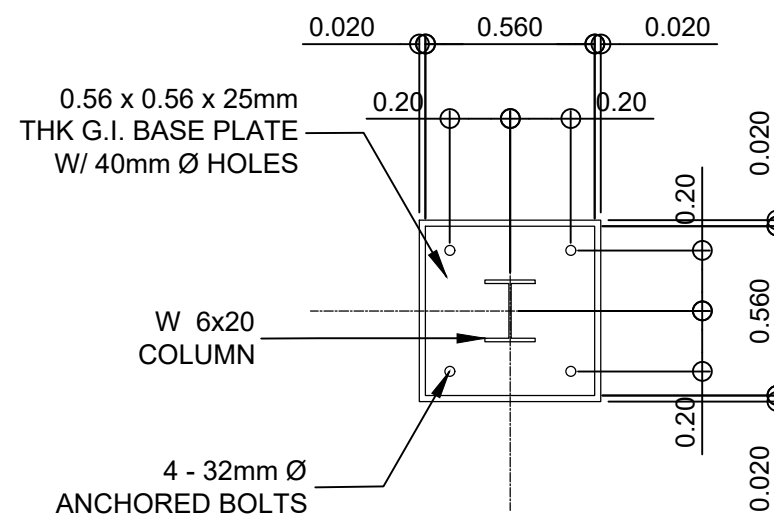
PEDESTAL DETAIL

SCALE: 1:40M



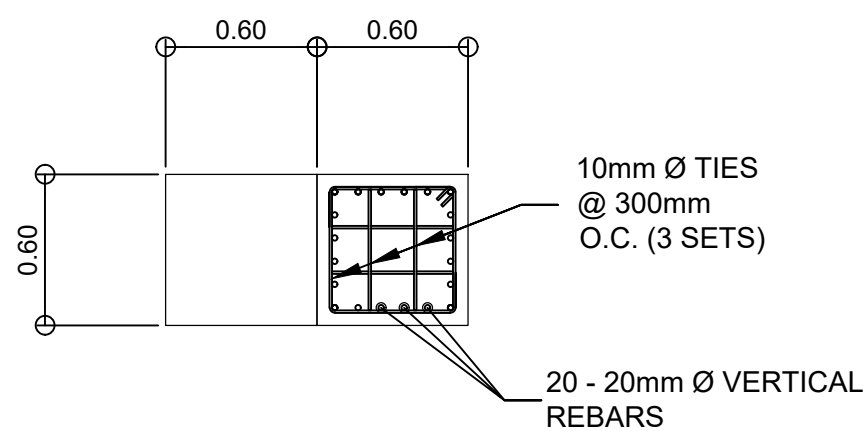
SECTION A

SCALE: 1:30M



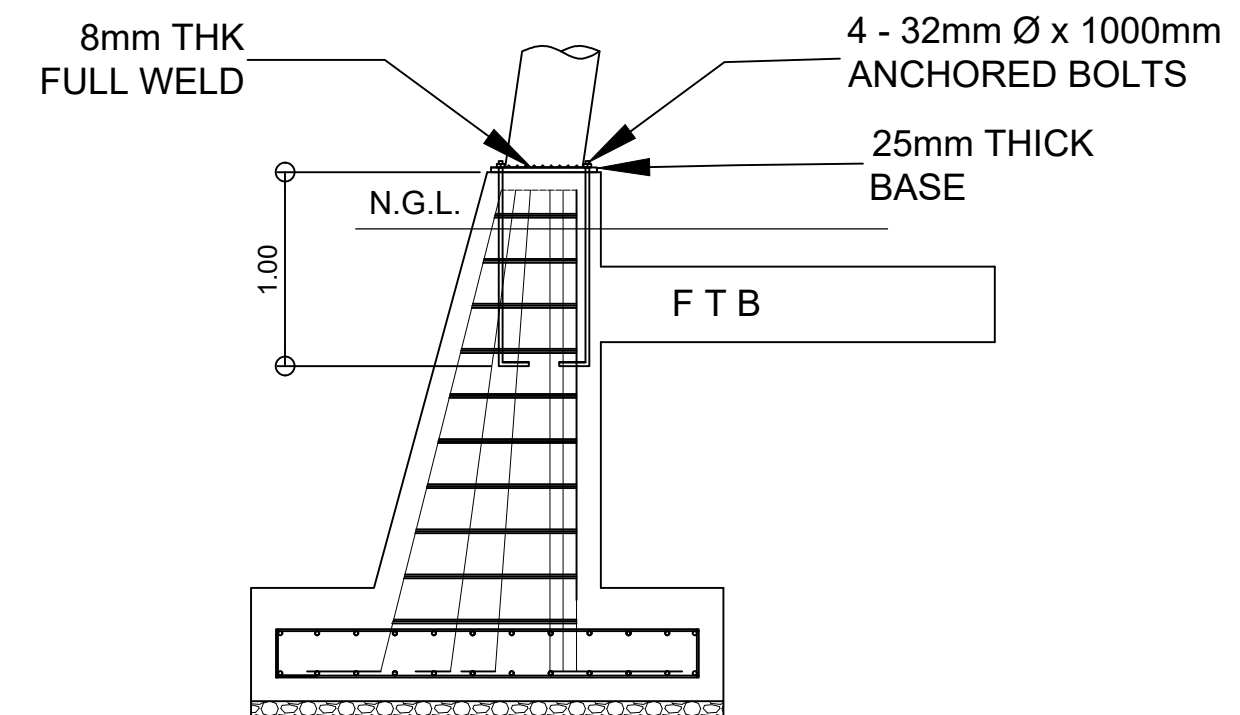
PEDESTAL PLAN

SCALE: 1:25M



SECTION B

SCALE: 1:30M



ANCHOR BOLT DETAIL

SCALE: 1:40M



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SYSTEM, CONSTRUCTION OF WATER SYSTEM, BOBOY
ELEMENTARY SCHOOL, SAN LUIS, BATANGAS
SAN LUIS, BATANGAS

SHEET CONTENT:
FOUNDATION PLAN
HORIZONTAL BRACING DETAIL
INLET, OUTLET AND DRAIN PIPE
DETAIL

DRAFTED:
PAUL BRIAN C. HORNILLA
ENGINEER II
PREPARED:
CHRISTIAN S. BAGSIT
ENGINEER II

REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

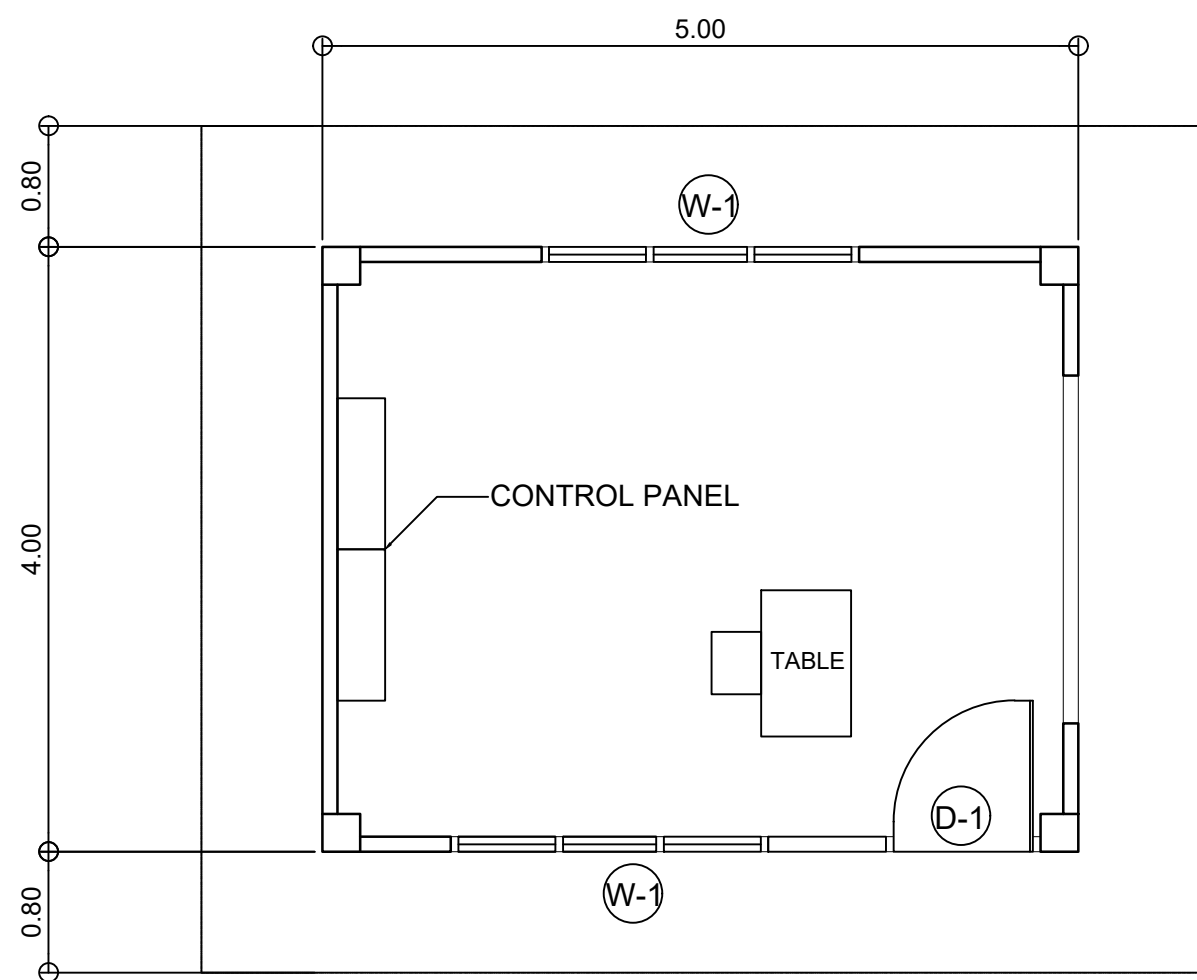
APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO.

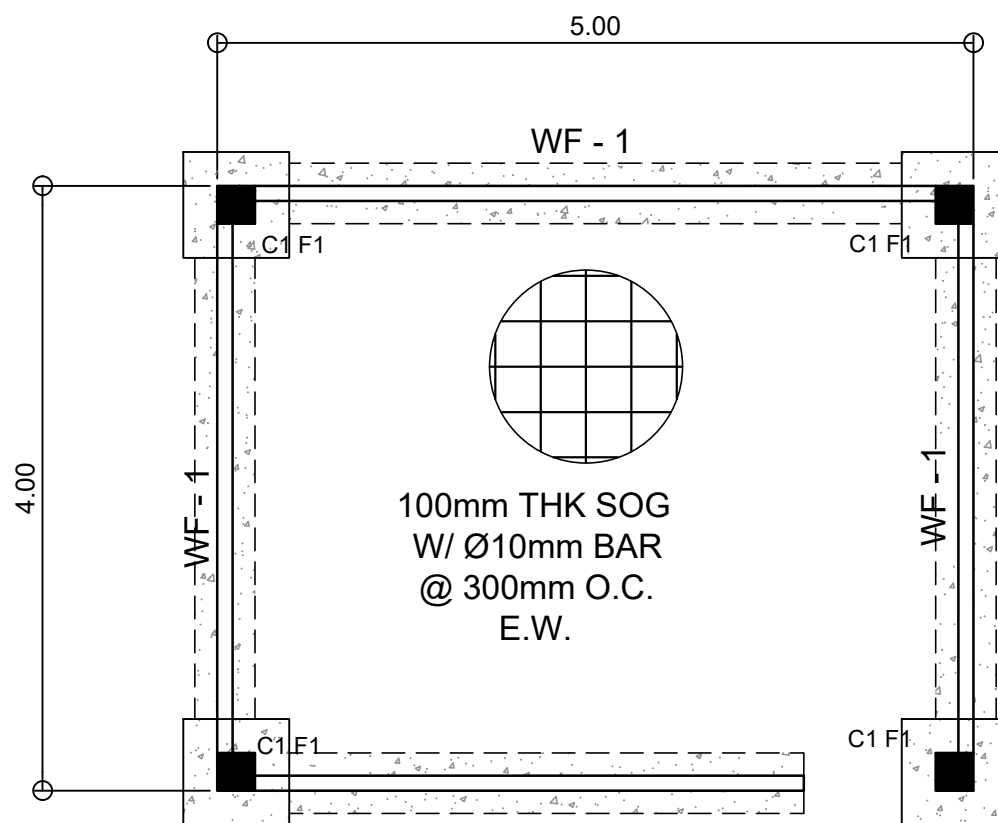
W
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SHEET NO.

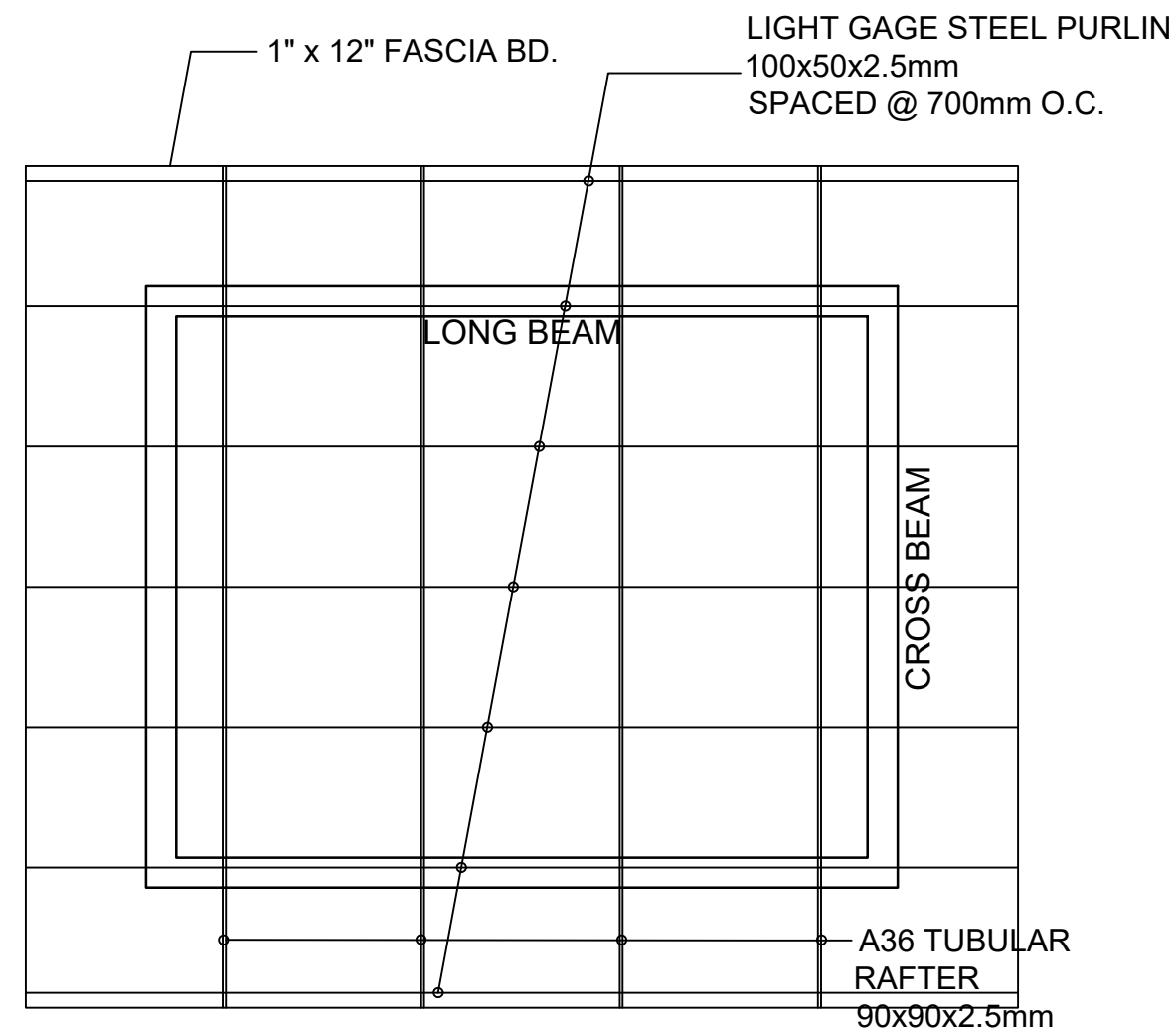
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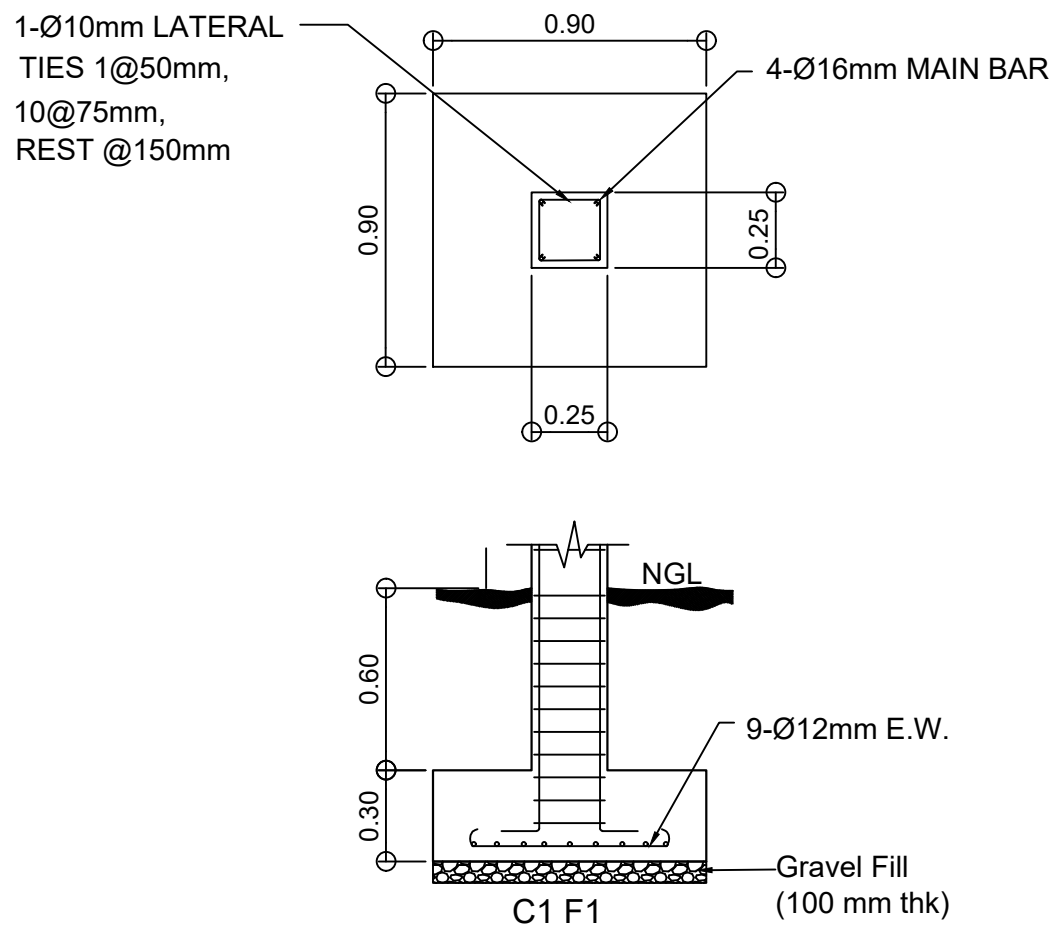
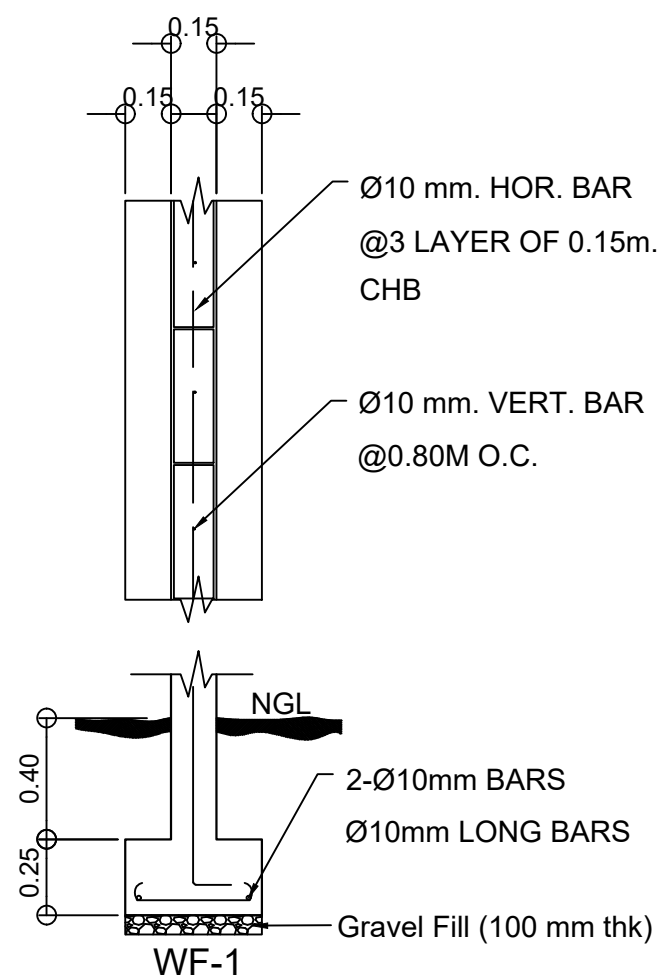
FLOOR PLAN
SCALE: 1:50M



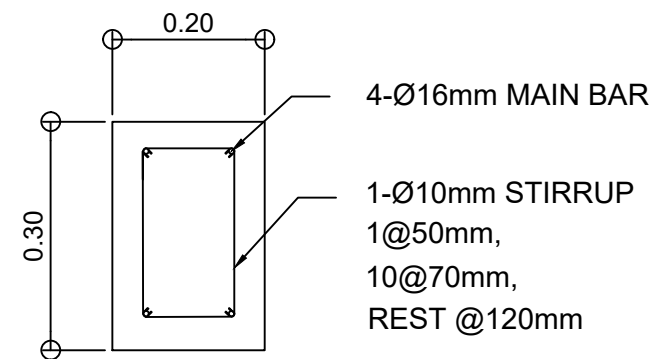
FOUNDATION PLAN
SCALE: 1:50M



ROOF FRAMING PLAN
SCALE: 1:50M



FOOTING - COLUMN DETAIL
SCALE: 1:25M



BEAM DETAIL
SCALE: 1:10M



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SAN LUIS, BATANGAS

SHEET CONTENT:
FLOOR PLAN
FOUNDATION PLAN
ROOF FRAMING PLAN
FOOTING-COLUMN DETAIL
BEAM DETAIL

DRAFTED:
PAUL BRIAN C. HORNILLA
ENGINEER II
PREPARED:
CHRISTIAN S. BAGSIT
ENGINEER II

REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

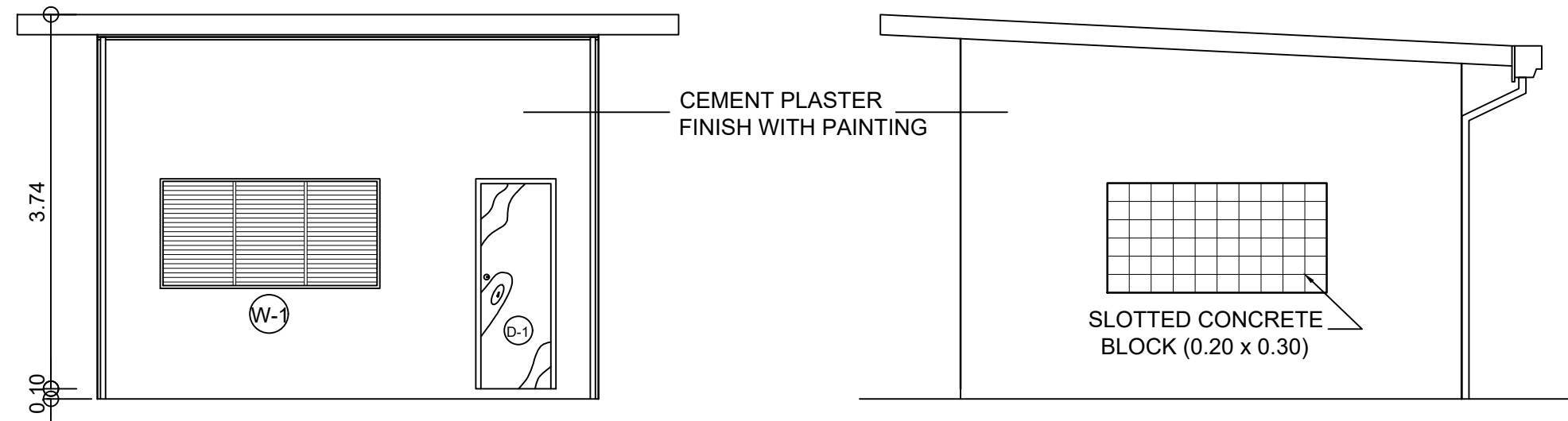
APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO.

W
6 7

SHEET NO.

10
12

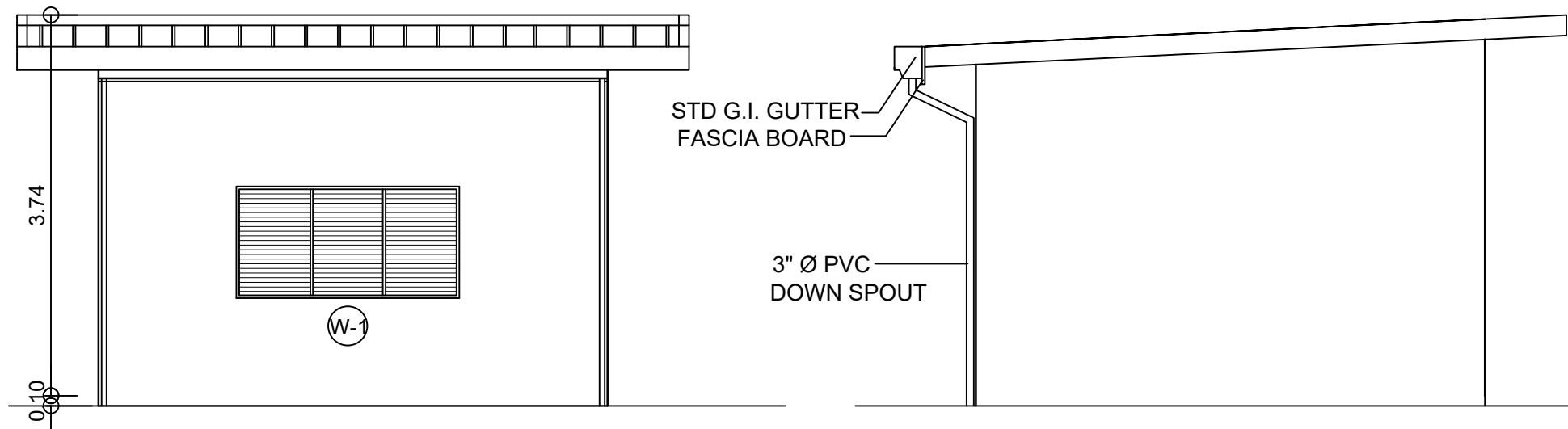


FRONT ELEVATION

SCALE: 1:60M

RIGHT SIDE ELEVATION

SCALE: 1:60M

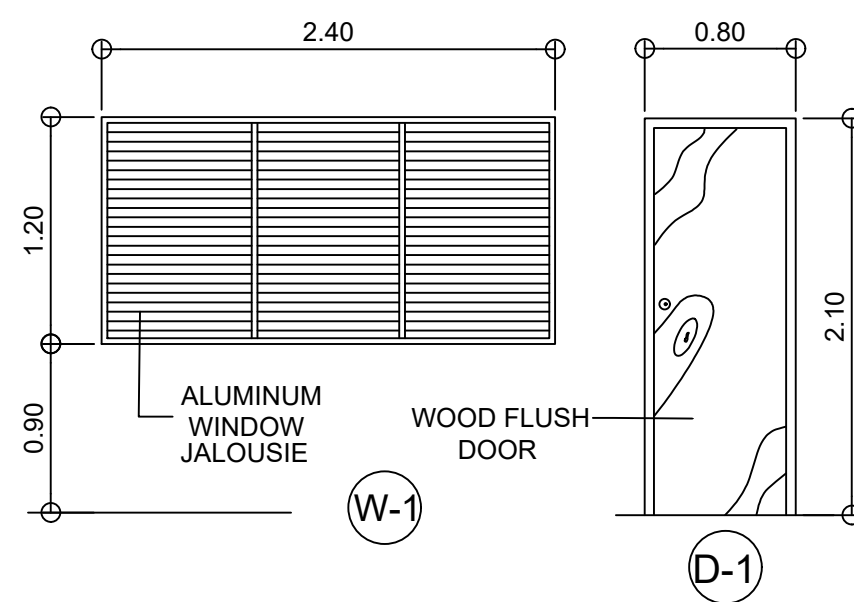


REAR ELEVATION

SCALE: 1:60M

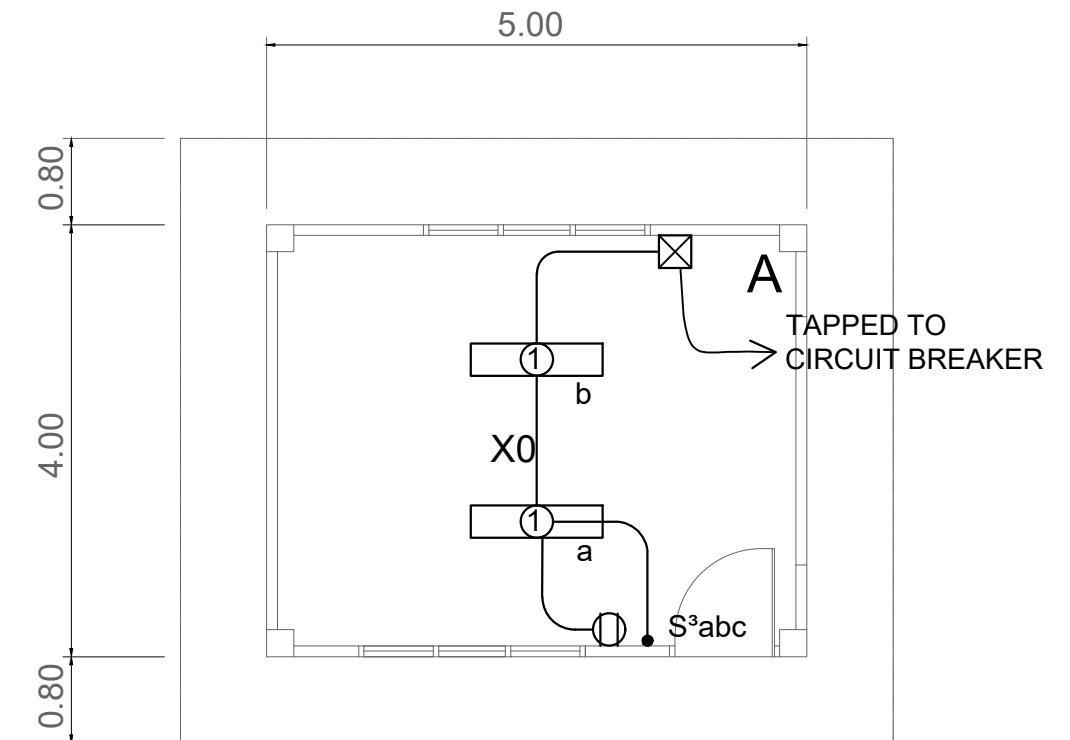
LEFT SIDE ELEVATION

SCALE: 1:60M



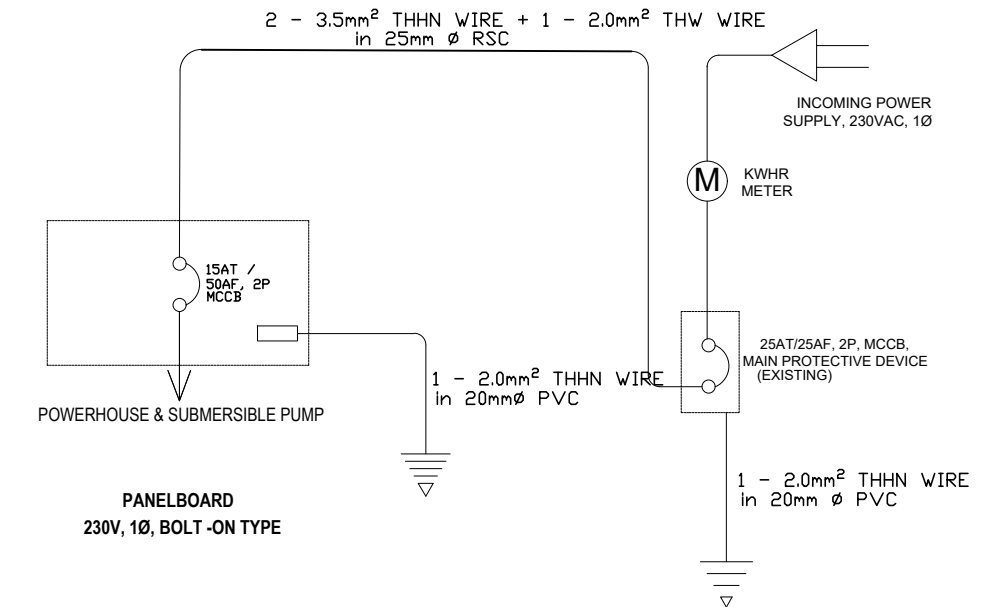
DOORS & WINDOWS SCHEDULE

SCALE: 1:40M



POWER HOUSE LIGHTING LAYOUT

SCALE: 1:70M



SINGLE LINE DIAGRAM

SCALE: NTS



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ELEMENTARY SCHOOL, SAN LUIS, BATANGAS
SAN LUIS, BATANGAS

SHEET CONTENT:
FRONT ELEVATION
RIGHT SIDE ELEVATION
REAR ELEVATION
LEFT SIDE ELEVATION
POWER HOUSE LIGHTING LAYOUT
SINGLE LINE DIAGRAM

DRAFTED:
PAUL BRIAN C. HORNILLA
ENGINEER II
PREPARED:
CHRISTIAN S. BAGSIT
ENGINEER II

REVIEWED:
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

SUBMITTED:
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO.

W
7 7

SHEET NO.

11
12

Schedule of Stone Masonry	
Length (m)	Height (m)
20.00	4.50

