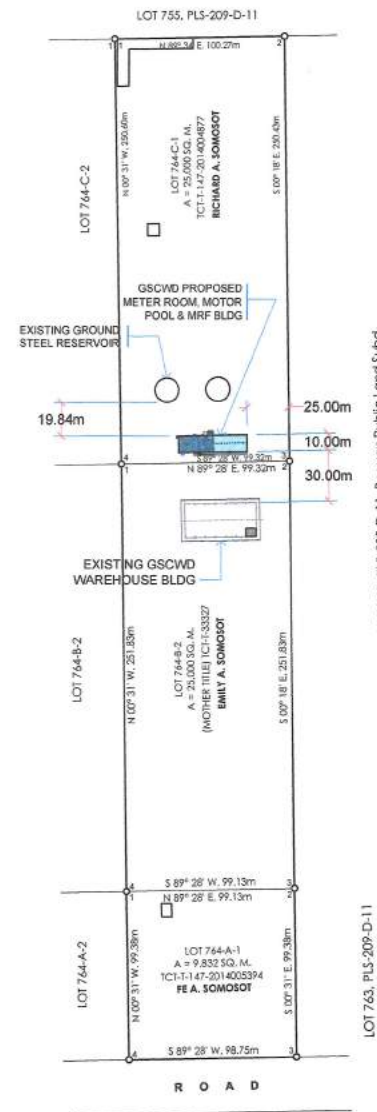


01 VICINITY MAP
SCALE : 1:40,000



LOT 763, PLS-209-D-11, Buayon Public Land Subd.

LOT 763, PLS-209-D-11

02 SITE DEVELOPMENT PLAN
SCALE : 1:3,000

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGA, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO. - (083) 552 - 3824

TITLE: **PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING**

CHECKED: *[Signature]*
MICHAEL O. GABALES, REE
OIC Department Manager- ICTD

[Signature]
JEREMIAS A. REYES JR, MPA
OIC Department Manager- GSPMMD

RECOMMENDING APPROVAL: *[Signature]*
FERDINAND S. FERRER, MPA
Assistant General Manager - Administration

APPROVED: *[Signature]*
ARN B. GELLANGARIN, PME
General Manager

SHEET CONTENTS: AS SHOWN
DRAWN BY: CJR, KLA
CHECKED BY: RRB
REV. NO. 1
DATE: 02 / 09 / 2022

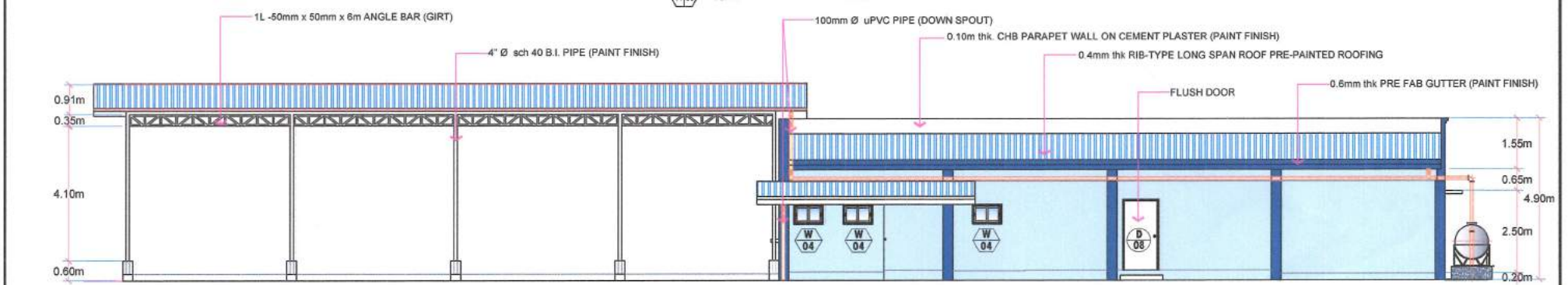
SHEET NO. **A-01**
1 32



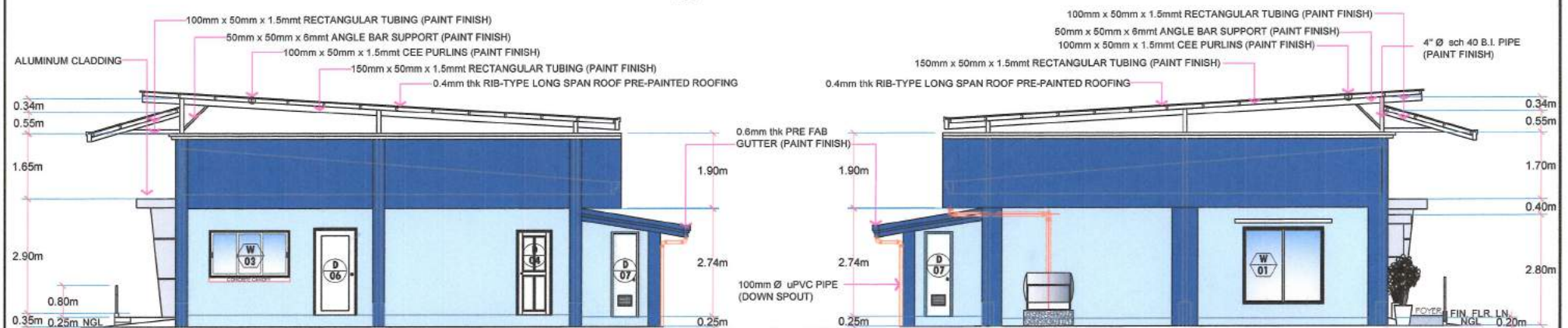
FLOOR PLAN DETAIL
SCALE : 1:120



FRONT ELEVATION
SCALE : 1:120








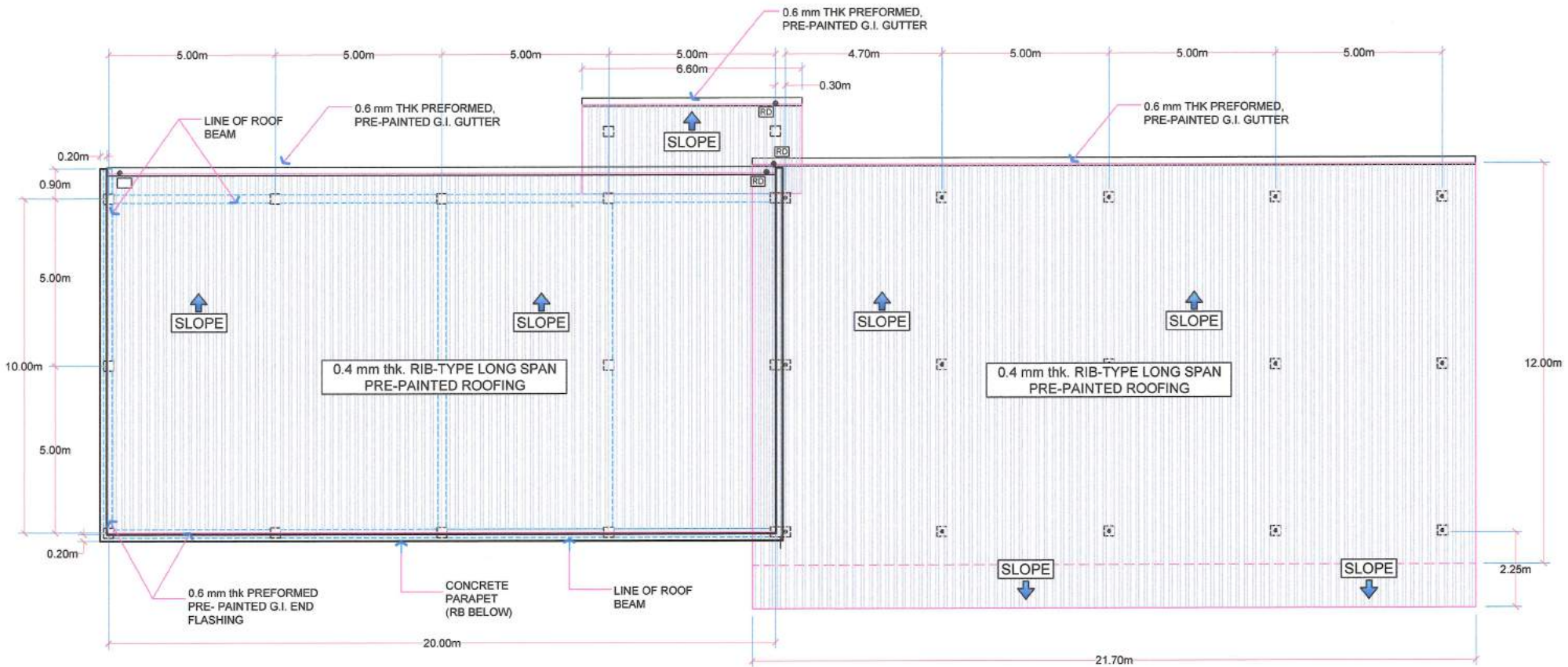
REAR ELEVATION
SCALE : 1:120



RIGHT SIDE ELEVATION
SCALE : 1:100

LEFT SIDE ELEVATION
SCALE : 1:100

 <p>GENERAL SANTOS CITY WATER DISTRICT E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY ENGINEERING & CONSTRUCTION DEPARTMENT PLANNING AND DESIGN DIVISION TEL. NO.: (083) 552 - 3824</p>	TITLE:	CHECKED & REVIEWED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.	
	PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	 MICHAEL C. REYES, REE <small>OIC Department Manager-ICTD</small>	 JEREMIAS A. REYES JR. MPA <small>OIC Department Manager- GSPMMD</small>	 FERDINAND S. FERRER, MPA <small>Assistant General Manager - Administration</small>	 ARN B. GELLANGARIN, PME <small>General Manager</small>	AS SHOWN	A-03
	<small>PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY</small>	<small>DRAWN BY: CJR, KLA</small>	<small>REV. NO. 1</small>	<small>CHECKED BY: RRB</small>	<small>DATE: 02 / 09 / 2022</small>	3	32

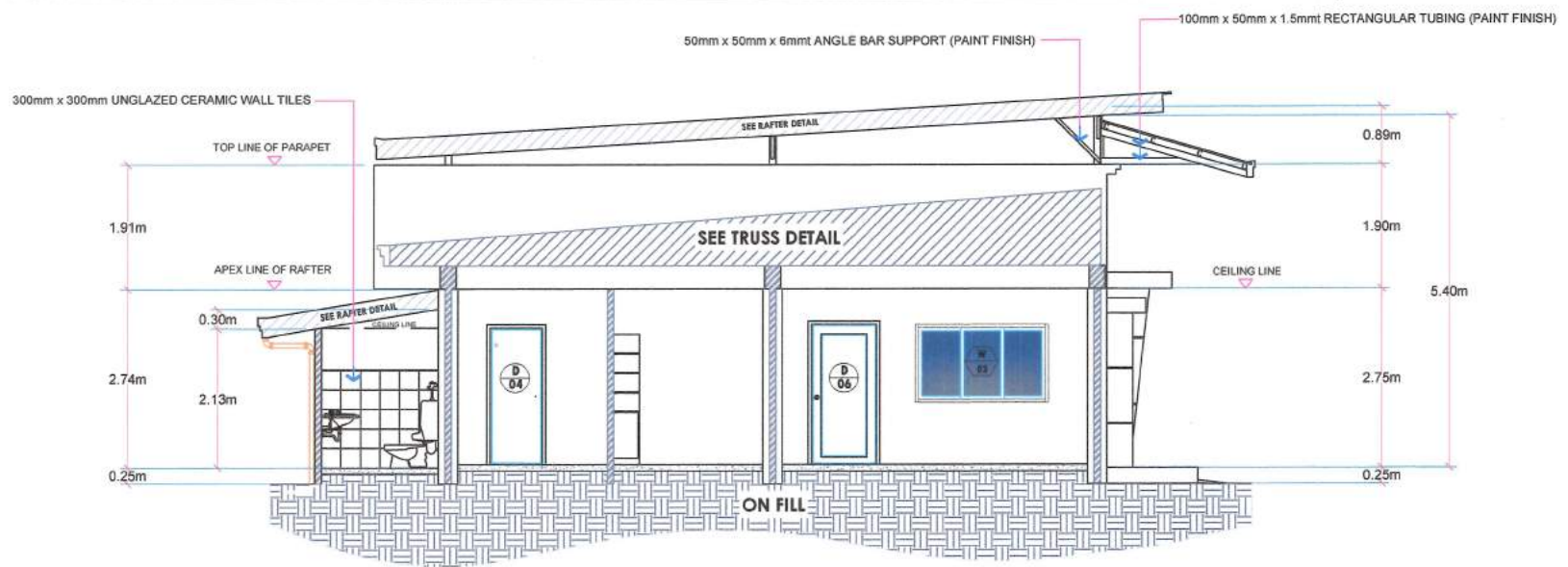


01
A/04 **ROOF PLAN**
SCALE : 1:120 METERS

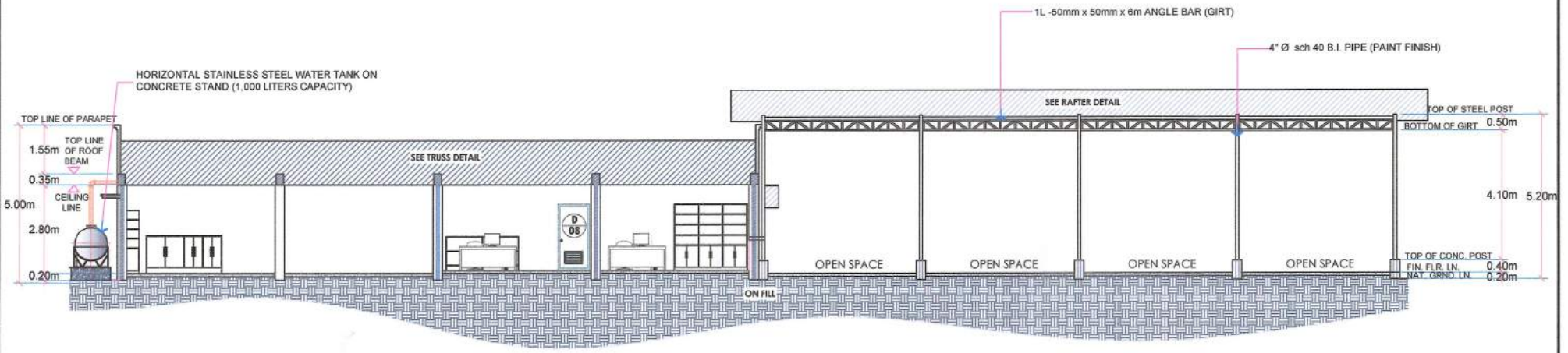


GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

TITLE:	CHECKED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.
PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	MICHAEL C. CABALES, REE	JEREMIAS A. REYES JR, MPA	FERDINAND S. FERRER, MPA	AS SHOWN	A-04
PUROK, UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY	OIC Department Manager-ICTD	OIC Department Manager-GSP/MWD	Assistant General Manager - Administration	DRAWN BY: CJR, KLA CHECKED BY: RRB	4 32
			ARNOLD GELLANGARIN, PME General Manager	REV. NO. 1 DATE: 02 / 04 / 2022	



01 CROSS SECTION
SCALE : 1:75



02 LONGITUDINAL SECTION
SCALE : 1:125

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGA, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

TITLE:
**PROPOSED CONSTRUCTION OF
METER ROOM AND MOTORPOOL
BUILDING**

CHECKED & REVIEWED:
Michael G. Osates, Ree
MICHAEL G. OSATES, REE
CIC Department Manager-ICTD

Jeremias A. Reyes Jr, MPA
JEREMIAS A. REYES JR, MPA
CIC Department Manager- GSPMMD

RECOMMENDING APPROVAL:
Ferdinand S. Ferrer, MPA
FERDINAND S. FERRER, MPA
Assistant General Manager - Administration

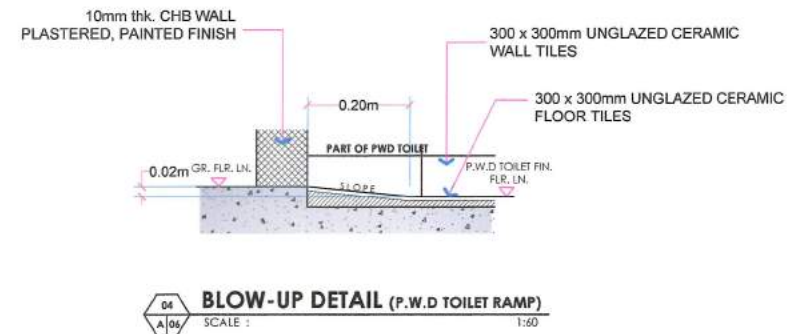
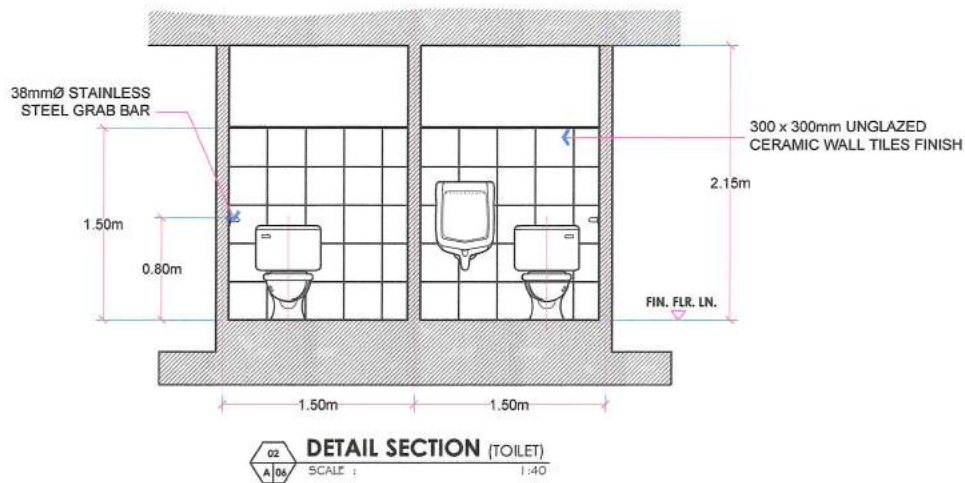
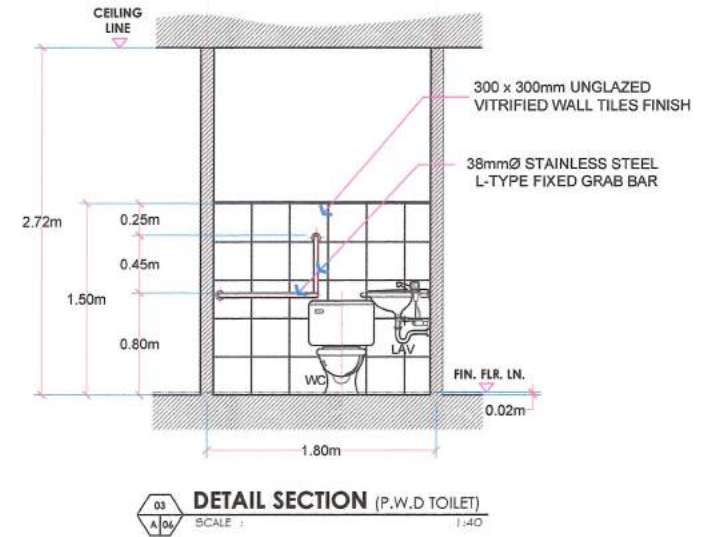
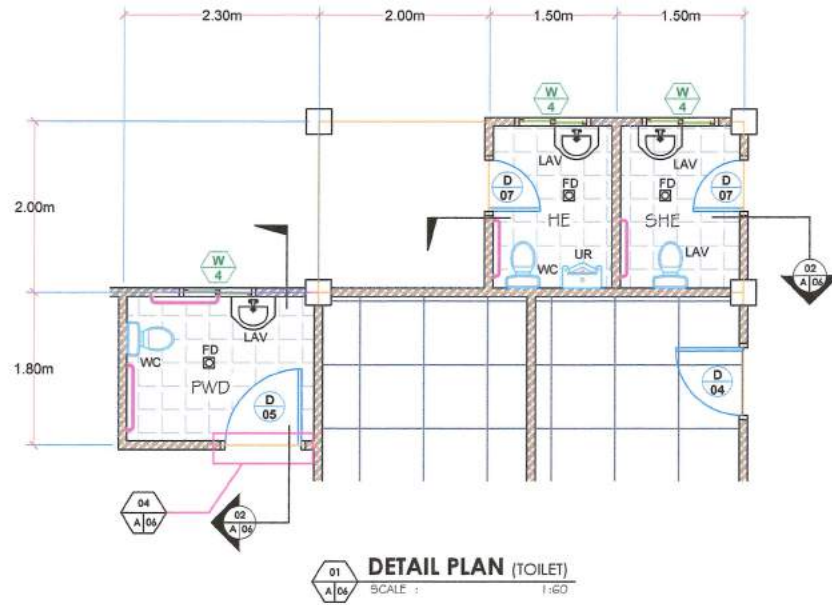
APPROVED:
Arn B. Gellangarin, PME
ARN B. GELLANGARIN, PME
General Manager

SHEET CONTENTS:
AS SHOWN

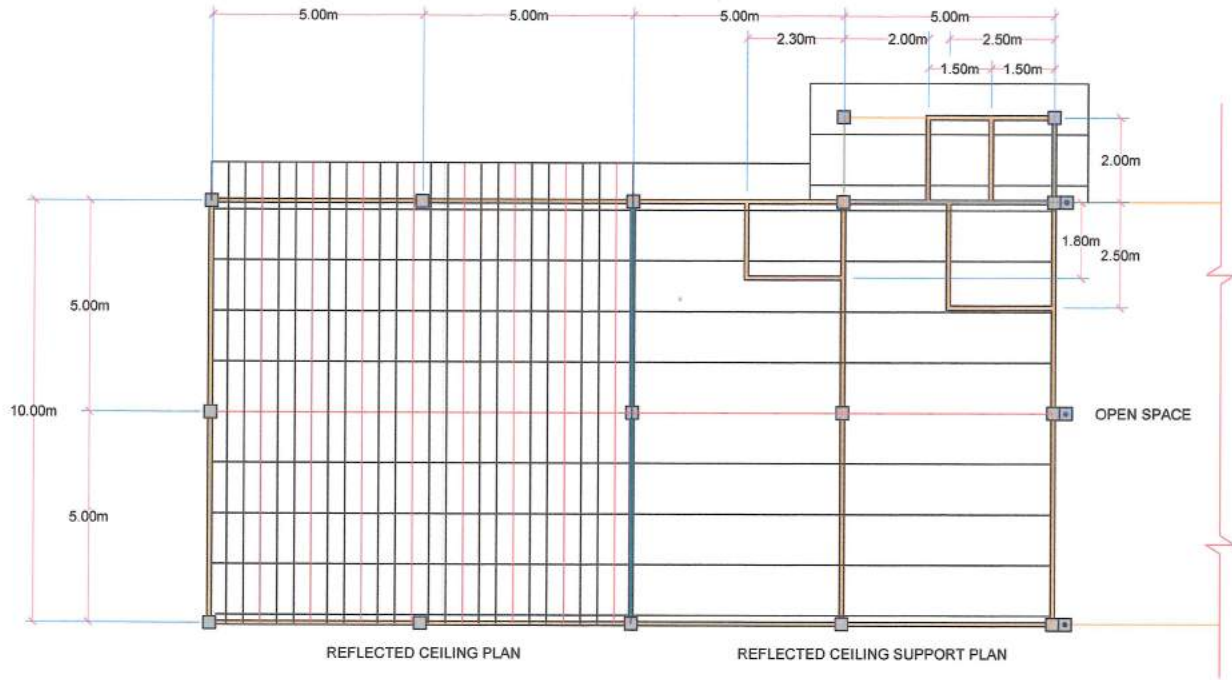
DRAWN BY: CJR, JLA
REV. NO. 1
CHECKED BY: RRB
DATE: 02 / 09 / 2022

SHEET NO.
A-05

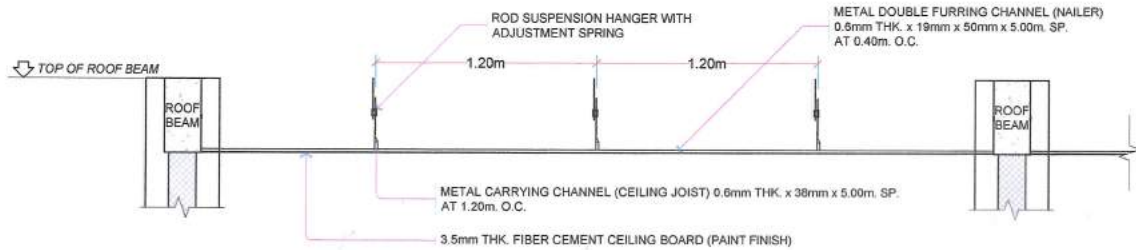
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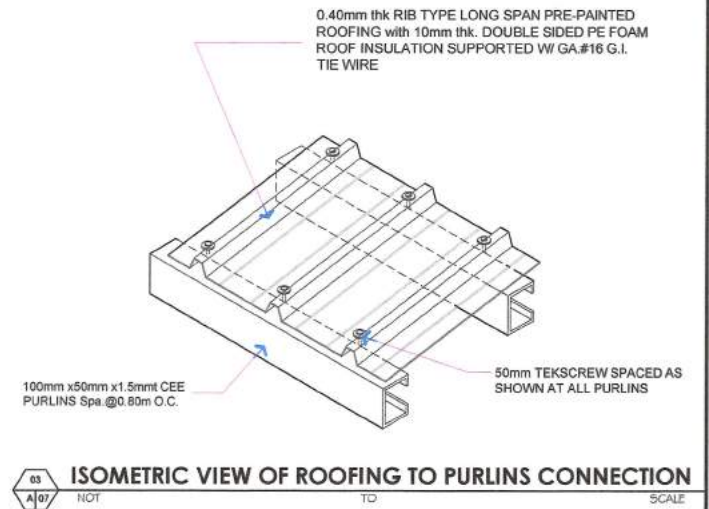
TITLE:	CHECKED & REVIEWED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.	
PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	MICHAEL G. GABALES, REE OIC Department Manager-ICTD	JEREMIAS A. REYES JR, MPA OIC Department Manager-GSPMMD	FERDINAND S. FERRER, MPA Assistant General Manager - Administration	ARN B. GELLANGARIN, PME General Manager	AS SHOWN	A-06
PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY				DRAWN BY: C.J.R. KLA CHECKED BY: RRB	REV. NO. 1 DATE: 02 / 09 / 2022	6 32



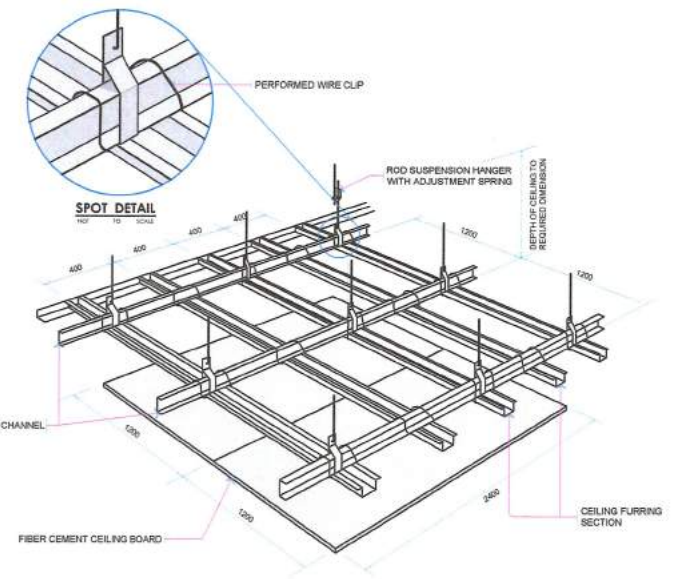
01 REFLECTED CEILING PLAN
SCALE: 1:120



02 SECTION DETAIL OF CEILING (TYPICAL)
SCALE: NOT TO SCALE

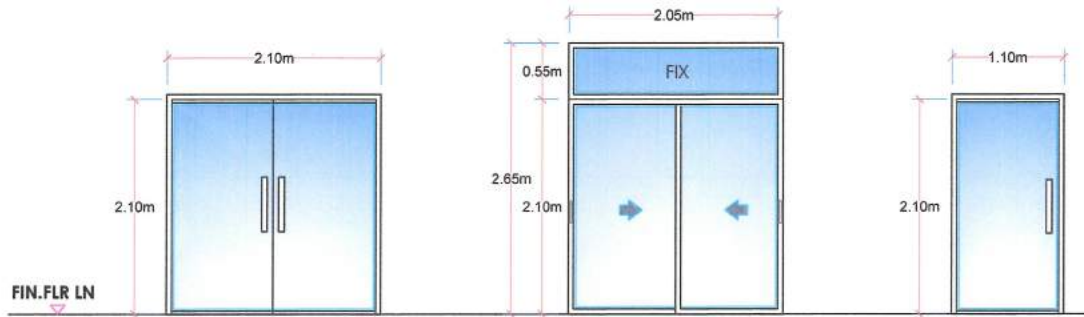


03 ISOMETRIC VIEW OF ROOFING TO PURLINS CONNECTION
SCALE: NOT TO SCALE

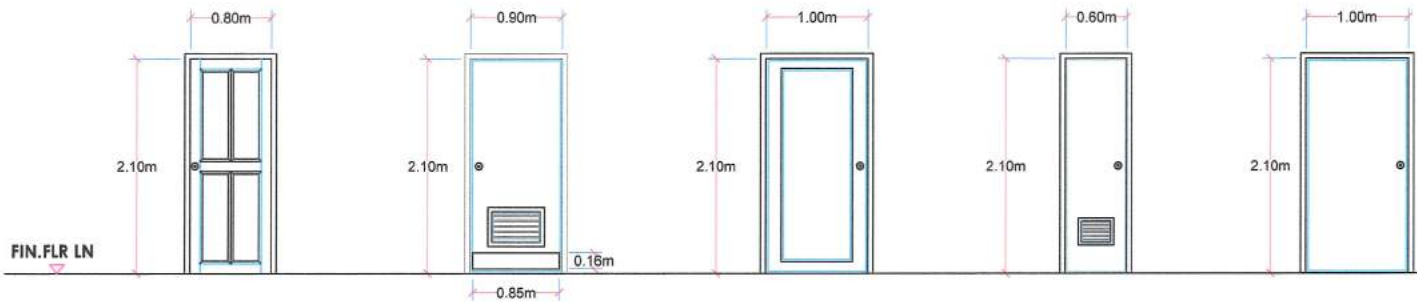


04 PERSPECTIVE CEILING
SCALE: NOT TO SCALE

TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED: MICHAEL O. GABAJES, REE ICD Department Manager - ICTD	RECOMMENDING APPROVAL: JEREMIAS A. REYES JR, MPA OIC Department Manager - GSP/MMD	APPROVED: FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: ARN-B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. A-07
DRAWN BY: C.J.R. ILA CHECKED BY: RRB DATE: 02 / 09 / 2022					REV. NO. 1	7 32



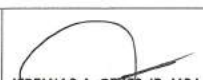




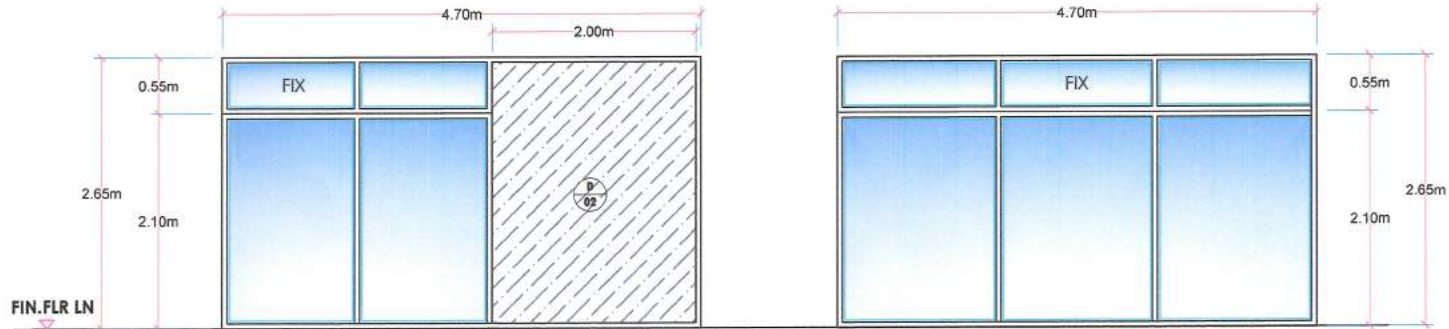
DESIGNATION	D 01	D 02	D 03
DESCRIPTION	DOUBLE SWING DOOR IN POWDER COATED FINISH ALUMINUM FRAMES WITH 8mm thk TINTED GLASS PANEL WITH COMPLETE ACCESSORIES	SLIDING DOOR IN POWDER COATED FINISH ALUMINUM FRAMES WITH 8mm thk GLASS PANEL WITH COMPLETE ACCESSORIES	SWING DOOR IN POWDER COATED FINISH ALUMINUM FRAMES WITH 8mm thk TINTED GLASS PANEL WITH COMPLETE ACCESSORIES
NO. OF SETS	ONE (1) SET	ONE (1) SET	TWO (2) SETS
LOCATION	METER ROOM WORKING AREA	METER ROOM WORKING AREA	FRONT ELEVATION



DESIGNATION	D 04	D 05	D 06	D 07	D 08
DESCRIPTION	PANEL DOOR TYPE IN 50 x 150 KD DOOR JAMB WITH COMPLETE ACCESSORIES	HOLLOW CORE FLUSH DOOR WITH 6mm thk. MARINE PLYBOARD FACINGS, WATERPROOFED & PAINTED FINISH ON 50 x 150mm WOOD DOOR JAMB (PAINTED). PROVIDE 6mm thk. x 160 x 850mm KICKED-OFF PLATE BELOW, BOTH SIDES	40mm thk HOLLOW CORE FLUSH DOOR TYPE IN 50 x 150 KD DOOR JAMB WITH 6mm thk MARINE PLYWOOD DOUBLE FACING PAINT FINISH WITH COMPLETE ACCESSORIES	PVC TOILET DOOR W/ LOUVER SET PLAIN AND COMPLETE ACCESSORIES	STEEL DOOR, FIRE EXIT DOOR FULL FLUSH COMPLETE ACCESSORIES
NO. OF SETS	ONE (1) SET	ONE (1) SET	ONE (1) SET	TWO (2) SETS	ONE (1) SET
LOCATION	TOOL ROOM	TOOL ROOM	MOTOR POOL OFFICE	TOILET	FIRE EXIT

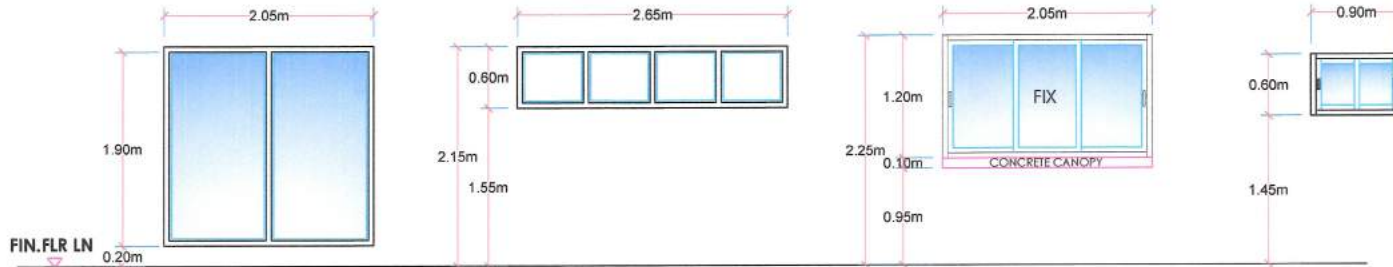
SCHEDULE OF DOORS
SCALE : 1:50

 GENERAL SANTOS CITY WATER DISTRICT E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY ENGINEERING & CONSTRUCTION DEPARTMENT PLANNING AND DESIGN DIVISION TEL. NO.: (083) 552 - 3824	TITLE:	CHECKED & REVIEWED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.	
	PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	 MICHAEL G. GABLES, REE OIC Department Manager-ICTD	 JEREMIAS A. REYES JR, MPA OIC Department Manager- GSPMMD	 FERDINAND S. FERRER, MPA Assistant General Manager - Administration	 ARN B. GELLANGARIN, PME General Manager	AS SHOWN	A-08
	PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY					DRAWN BY: CJR, KLA CHECKED BY: RRB REV. NO. 1 DATE: 02 / 09 / 2022	8 32



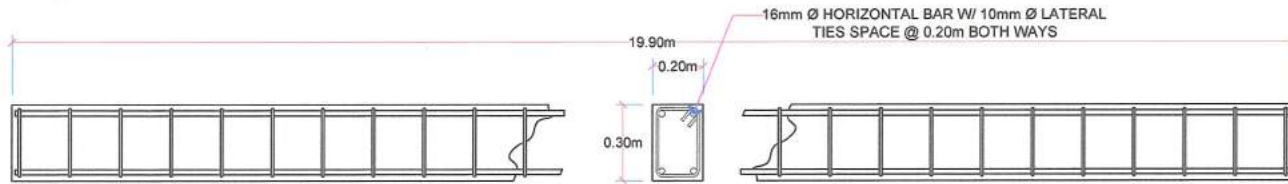
DESIGNATION	GP 01	GP 02
DESCRIPTION	GLASS PARTITION IN POWDER COATED FINISH ALUMINUM FRAMES WITH 8mm thk GLASS PANEL WITH COMPLETE ACCESSORIES	GLASS PARTITION IN POWDER COATED FINISH ALUMINUM FRAMES WITH 8mm thk GLASS PANEL WITH COMPLETE ACCESSORIES
NO. OF SETS	ONE (1) SET	ONE (1) SET
LOCATION	METER ROOM WORKING AREA	METER ROOM WORKING AREA

SCHEDULE OF PARTITIONS
SCALE: 1:50

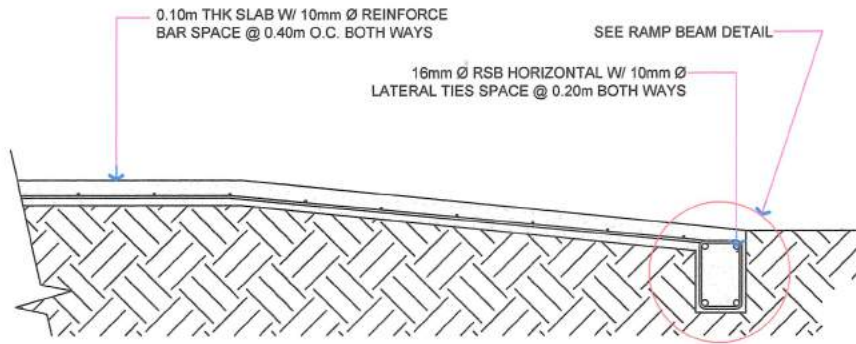


DESIGNATION	W 01	W 02	W 03	W 04
DESCRIPTION	FIXED WINDOW IN POWDER COATED FINISH ALUMINUM FRAMES WITH 6mm thk TINTED TEMPERED GLASS PANEL WITH COMPLETE ACCESSORIES	FIXED WINDOW IN POWDER COATED FINISH ALUMINUM FRAMES WITH 6mm thk TINTED TEMPERED GLASS PANEL WITH COMPLETE ACCESSORIES	SLIDING WINDOW IN POWDER COATED FINISH ALUMINUM FRAMES WITH 6mm thk TINTED GLASS PANEL WITH COMPLETE ACCESSORIES	SLIDING WINDOW IN POWDER COATED FINISH ALUMINUM FRAMES WITH 6mm thk TINTED GLASS PANEL WITH COMPLETE ACCESSORIES
NO. OF SETS	THREE (3) SETS	ONE (1) SET	ONE (1) SET	THREE (3) SETS
LOCATION	FRONT ELEVATION	METER ROOM WORKING AREA	MOTOR POOL OFFICE	TOILET

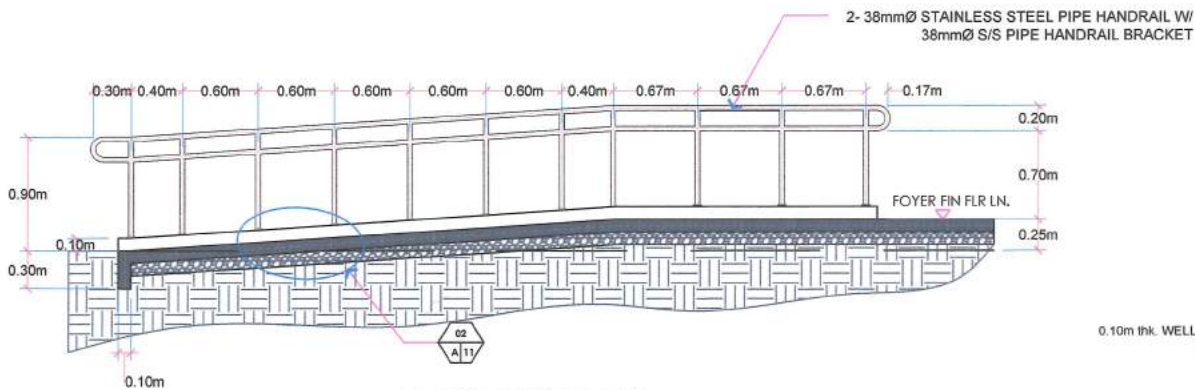
SCHEDULE OF WINDOWS
SCALE: 1:50



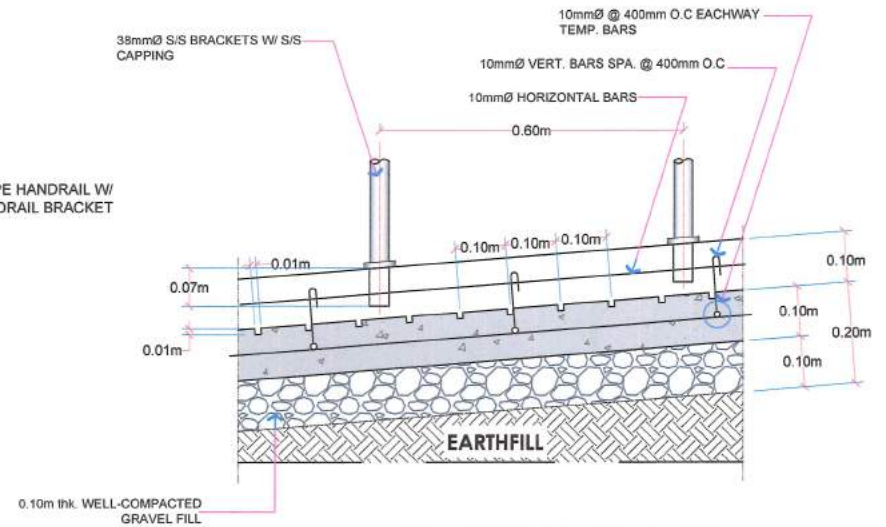
04 RAMP BEAM DETAIL
SCALE : 1:20



03 RAMP DETAIL- 1
SCALE : 1:20

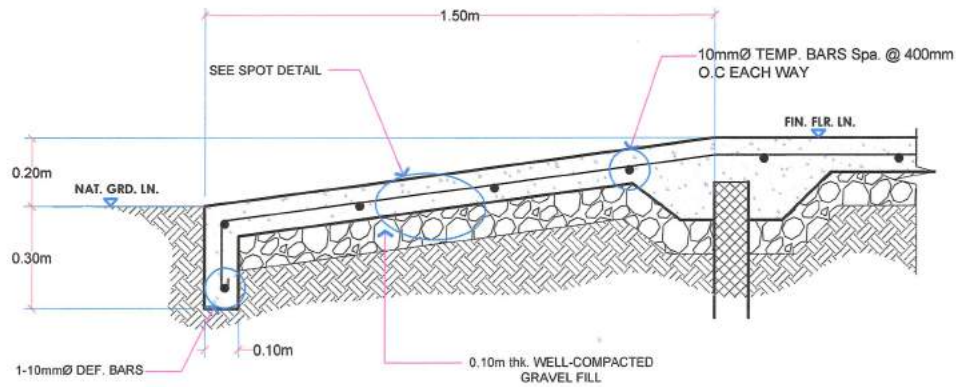


01 P.W.D RAMP DETAIL
SCALE : 1:40

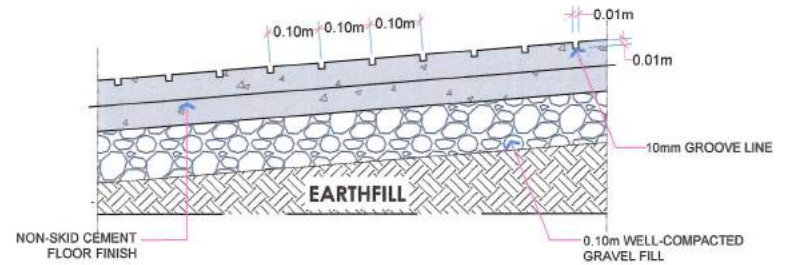


02 DETAIL SECTION (P.W.D. RAMP)
SCALE : 1:10

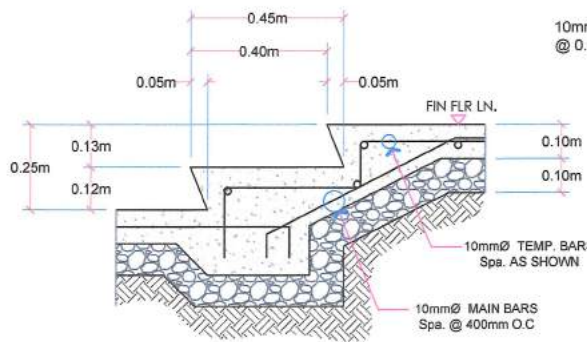
TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED: MICHAEL G. GABAYES, REE OIC Department Manager-ICID	RECOMMENDING APPROVAL: JEREMIAS A. REYES JR, MPA OIC Department Manager-GSPM&D	APPROVED: FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: ARM B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. A-11
PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY	DRAWN BY: CJR, KLA CHECKED BY: RRB	REV. NO. 1 DATE: 02 / 09 / 2022	11	32		



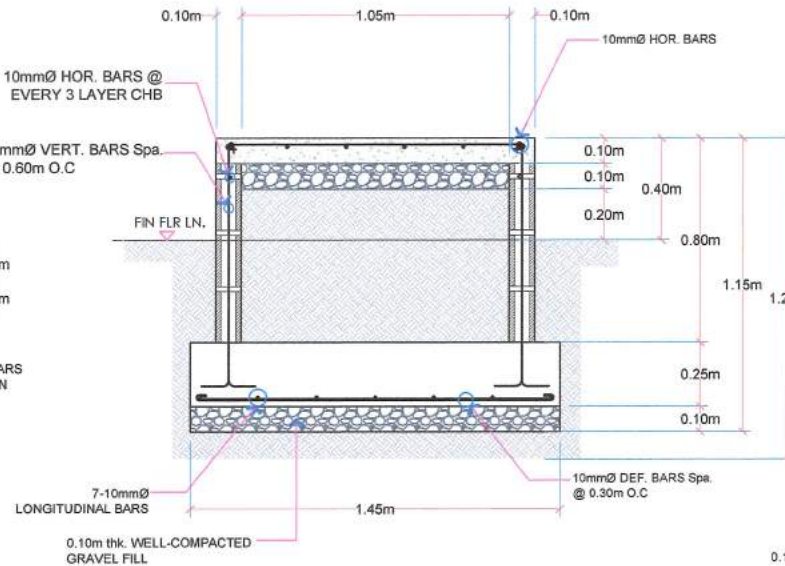
01 RAMP DETAIL - 2
SCALE : 1:15



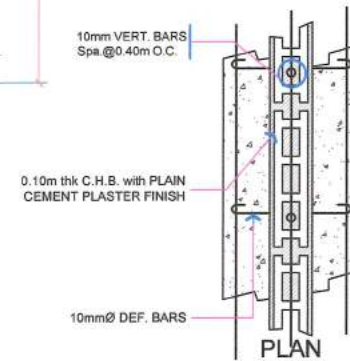
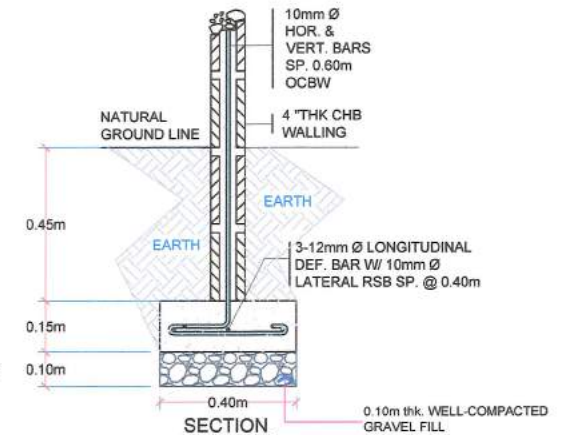
02 SPOT DETAIL
SCALE : 1:10



03 DETAIL OF R.C. STAIR
SCALE : 1:15

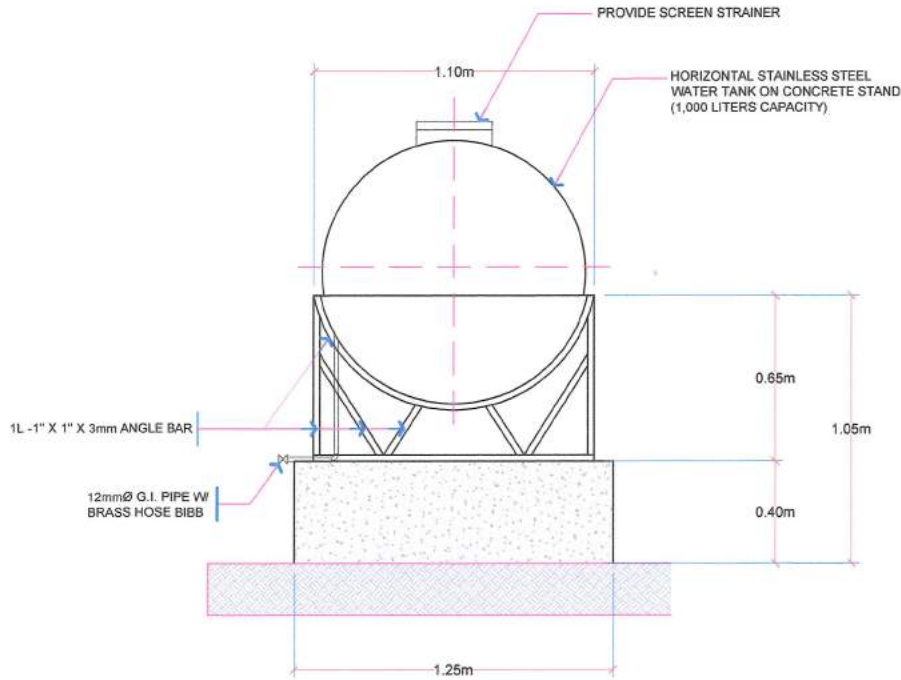


04 DETAIL OF WF-2
SCALE : 1:20

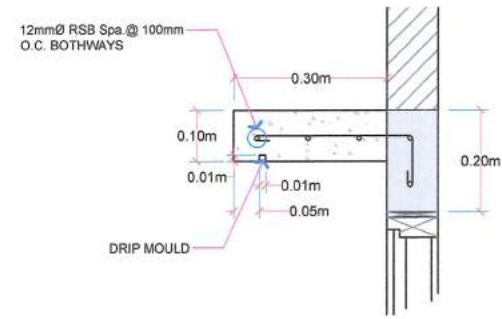


05 DETAIL OF WF-1
SCALE : 1:15

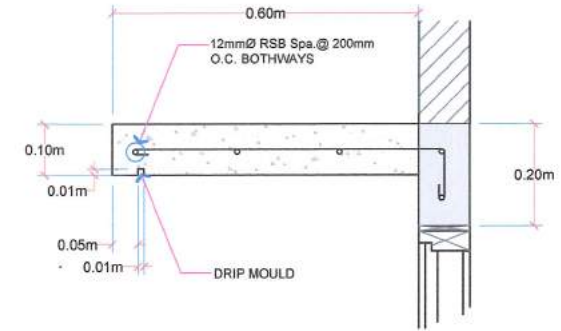
TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED: <i>MICHAEL G. GABALES, REE</i> MICHAEL G. GABALES, REE OIC Department Manager-ICID	RECOMMENDING APPROVAL: <i>SEREMIAS A. REYES JR, MPA</i> SEREMIAS A. REYES JR, MPA OIC Department Manager-GSPMMD	APPROVED: <i>FERDINAND S. FERRER, MPA</i> FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: <i>ARN B. GELLANGARIN, PME</i> ARN B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. A-12
PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY					DRAWN BY: CJR, KLA CHECKED BY: RRB	REV. NO. 1 DATE: 02 / 09 / 2022 12 32



02
A-13 **RAINWATER COLLECTION SYSTEM DETAIL**
SCALE : 1:20



DETAIL 1 (WINDOW-03)



DETAIL 2

01
A-13 **CONCRETE CANOPY DETAIL**
SCALE : 1:10



GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAD, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED: MICHAEL G. SABALES, REE OIC Department Manager-ICTD	RECOMMENDING APPROVAL: JEREMIAS A. REYES JR, MPA OIC Department Manager- GSPM/MD	APPROVED: FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: ARN-B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. A-13
PUROK UDAGRE, BRGY. CONEL GENERAL SANTOS CITY					DRAWN BY: CJR,KLA CHECKED BY: RRB REV. NO. 1 DATE: 02 / 09 / 2022	13 32

GENERAL CONSTRUCTION NOTES

GENERAL NOTES

- IN THE INTERPRETATION OF THE DRAWING, INDICATED DIMENSIONS SHALL GOVERN AND DISTANCES AND SIZES SHALL NOT BE ADJUSTED FOR CONSTRUCTION PURPOSES.
- IN REFERENCE TO OTHER DRAWINGS, SEE ARCHITECTURAL DRAWINGS FOR DEPRESSIONS IN FLOOR SLABS, OPENINGS IN THE WALLS AND SLABS, INTERIOR PARTITIONS, LOCATION OF DRAINS ETC.
- IN CASE OF DISCREPANCIES AS TO THE LAYOUT, DIMENSIONS, AND ELEVATIONS BETWEEN THE STRUCTURAL PLANS, AND ARCHITECTURAL DRAWINGS, THE CONTRACTOR SHALL NOTIFY BOTH THE STRUCTURAL ENGINEER AND THE ARCHITECT.
- ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE AC318-95 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ALL STRUCTURAL STEEL WORK ACCORDING WITH AISC SPECIFICATION (9th EDITION) IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENT.
- AS REFERS TO AMERICAN CONCRETE INSTITUTE, ACSI TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND ASTM TO AMERICAN SOCIETY FOR TESTING MATERIALS.
- CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
- SHOP DRAWINGS WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEELS, MISCELLANEOUS IRON, PRE-CAST CONCRETE, ETC. SHALL BE SUBMITTED FOR ENGINEERS APPROVAL BEFORE FABRICATION.
- CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS, SILLS, STOOLS, EQUIPMENTS AND MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS.
- ALL RESULTS OF MATERIAL TESTING FOR CONCRETE, REINFORCING BARS, & STRUCTURAL STEEL MUST BE NOTED & APPROVED BY THE STRUCTURAL DESIGNER.

NOTES ON CONCRETE MIXES & PLACING

- ALL CONCRETE SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT (28) DAYS W/ CORRESPONDING MAXIMUM SIZE AGGREGATE & SLUMPS AS FOLLOWS.
- | LOCATION | 28 DAYS STRENGTH | MAX. SIZE OF AGGREGATE | MAX. SLUMP |
|--|---------------------|------------------------|------------|
| ALL OTHERS, INCLUDING SUSPENDED SLABS, | 3000 PSI (20.68MPa) | 20mm | 100mm |
| COLUMNS | 3000 PSI (20.68MPa) | 20mm | 100mm |
| BEAMS, SLABS | 3000 PSI (20.68MPa) | 20mm | 100mm |
| SLAB ON FILL | 3000 PSI (20.68MPa) | 20mm | 100mm |

- MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS.
- | SLAB ON GRADE | COVER |
|---|-------|
| WALLS ABOVE GRADE | 40mm |
| BEAM STIRRUPS AND COLUMN TIES | 25mm |
| WHERE CONCRETE IS EXPOSED TO EARTH BUT POURED AGAINST FORMS | 40mm |
| WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH | 50mm |
| WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH | 75mm |
- CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION. RE-HAND LINO OR PLACING SHALL BE DONE PREFERABLY WITH BUCKETS, BUCKETS OR WHEELBARROWS, NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUCKETS, WHEELBARROWS OR BUCKETS IN WHICH CASE THEY SHALL NOT EXCEED SIX (6) METERS IN AGGREGATE LENGTH.
 - NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING BY THE DESIGNERS AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATIONS ARE EXTREMELY DIFFICULT TO ACCOMPLISH.
 - ALL ANCHOR BOLTS, DOWELS, AND OTHER INSERTS, SHALL BE PROPERLY POSITIONED & SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
 - ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.
 - STRIPPING OF FORMS AND SHORES:
- | FOUNDATION | 24 HRS. |
|---|---------|
| SUSPENDED SLAB EXCEPT WHEN ADDITIONAL LOADS ARE IMPOSED | 8 DAYS |
| WALLS | 21 DAYS |
| BEAMS | 14 DAYS |
| COLUMNS | 21 DAYS |
- THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF POURING AND THE LOCATION OF THE CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER AT LEAST (4) DAYS PRIOR TO THE POURING FOR APPROVAL.
 - THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE FORMS AND SHORINGS UNTIL THE CONCRETE MEMBERS HAVE ATTAINED THEIR WORKING CONDITION AND STRENGTH.

NOTES ON FOOTINGS

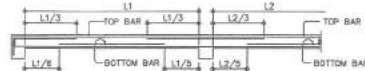
- FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF KPa (2,000 psi). CONTRACTOR SHALL REPORT TO THE ENGINEER, IN WRITING, THE ACTUAL SOIL CONDITIONS UNCOVERED AND CONFIRM ACTUAL BEARING CAPACITY OF SOIL BEFORE DEPOSITING CONCRETE.
- FOOTING SHALL REST AT LEAST 150mm BELOW NATURAL GRADE LINE UNLESS OTHERWISE INDICATED IN PLANS. NO FOOTING SHALL REST ON FILL.
- MINIMUM CONCRETE PROTECTION FOR REINFORCEMENTS SHALL BE 75mm CLEAR FOR CONCRETE DEPOSITED ON THE GROUND AND 50mm FOR CONCRETE DEPOSITED AGAINST A FORMWORK.

NOTES ON REINFORCEMENT

- UNLESS OTHERWISE NOTED IN PLANS, THE YIELD STRENGTH OF REINFORCING BARS SHALL BE:
 - A. FOOTINGS, FOOTING BEAMS AND GIRDERS $f_y = 275 \text{ MPa}$ (40,000 psi)
 - B. COLUMNS AND SHEAR WALLS $f_y = 275 \text{ MPa}$ (40,000 psi)
 - C. BEAMS AND GIRDER $f_y = 275 \text{ MPa}$ (40,000 psi)
 - D. NON-LOAD BEARING WALL PARTITIONS, BEDDED SLABS, FLOOR & ROOF SLABS, PARAPETS, CATCH BASIN, SIDE WALK. $f_y = 275 \text{ MPa}$ (33,000 psi)
- ALL REINFORCING BARS SIZE 10mm OR LARGER SHALL BE DEFORMED IN ACCORDANCE WITH ASTM A 706. BARS SMALLER THAN 10mm MAY BE PLAN.
- SPICES SHALL BE SECURELY WROD TOGETHER & SHALL LAP OR EXTEND IN ACCORDANCE W/ TABLE A' & TABLE B' TABLE OF LAP SPICE & ANCHORAGE LENGTH UNLESS OTHERWISE SHOWN ON DRAWINGS, SPICES SHALL BE STAGGERED WHENEVER POSSIBLE.

NOTES ON CONCRETE SLABS

- ALL SLAB REINFORCEMENTS SHALL BE 20mm CLEAR MINIMUM FROM BOTTOM AND FROM THE TOP OF SLAB.
- UNLESS OTHERWISE SHOWN, REINFORCEMENT IN CONTINUOUS ELEVATED SLAB SHALL BE CUT AS FOLLOWS.

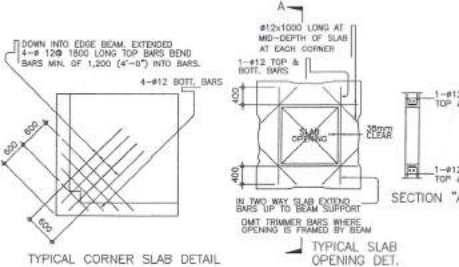


TYPICAL BAR BENDING AND CUTTING DETAILS FOR SLABS

- IF SLABS ARE REINFORCED BOTHWAYS, BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONG SPAN AT THE CENTER AND OVER THE LONG SPAN FOR REINFORCING BARS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN STRIPS SHALL NOT BE MORE THAN ONE AND A HALF (1 1/2) SLAB THICKNESS.
- TEMPERATURE BARS FOR SLAB SHALL BE GENERALLY PLACED NEAR THE FACE IN TENSION AND SHALL NOT BE LESS THAN 0.025x CROSS CROSS-SECTIONAL AREA (A_g) OF THE SLAB (SEE SCHEDULE BELOW).

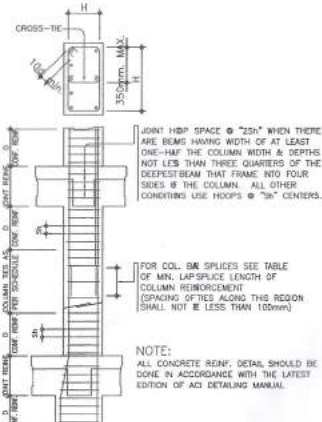
THICKNESS	MINIMUM TEMPERATURE BARS
100 mm	10 mm ϕ @ 250mm EACH WAY
125 mm	10 mm ϕ @ 250mm EACH WAY
150 mm	10 mm ϕ @ 180mm EACH WAY
175 mm	10 mm ϕ @ 150mm EACH WAY
200 mm	10 mm ϕ @ 140mm EACH WAY

- UNLESS OTHERWISE NOTED IN THE PLANS ALL BEDDED SLABS SHALL BE REINFORCED WITH 10mm ϕ AT 250mm O.C EACH WAY TO CENTER OF SLAB AND CONSTRUCTION JOINTS FOR SAME SHALL NOT BE LESS THAN 3.05 METER APART.
- PROVIDE EXTRA REINFORCEMENTS FOR CORNER SLAB (TWO ADJACENT DISCONTINUOUS EDGES) AS SHOWN BELOW.
- CONCRETE SLAB REINFORCEMENTS SHALL BE PROPERLY SUPPORTED WITH 10mm ϕ STEEL CHAIR OR APPROVED EQUIVALENT SPACED AT 1.0 METER ON CENTER BOTHWAYS.

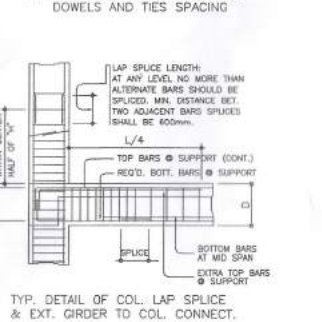


NOTES ON COLUMNS

- PROVIDE EXTRA SETS OF TIES AT 100mm O.C. FOR TIED COLUMN REINFORCEMENT ABOVE AND BELOW BEAM-COLUMN CONNECTIONS FOR A DISTANCE FROM FACE OF CONNECTION EQUAL TO THE GREATER OF THE OVERALL THICKNESS OF COLUMN, 1/6 THE CLEAR HEIGHT OF COLUMN OR 450mm.
- COLUMN TIES SHALL BE PROTECTED EVERYWHERE BY A COVERING OF CONCRETE CAST CONJUGALLY WITH THE CORE WITH THE MINIMUM THICKNESS OF 40mm AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE IN MILLIMETERS.
- WHERE COLUMNS CHANGE IN SIZE, VERTICAL REINFORCEMENTS SHALL BE OFFSET AT A SLOPE OF NOT MORE THAN 1 IN 6 AND EXTRA 10mm TIES AT 100mm SHALL BE PROVIDED THRU OUT THE OFFSET REGION.
- UNLESS OTHERWISE INDICATED IN THE PLANS, LAP SPICES FOR VERTICAL COLUMN REINFORCEMENT SHALL BE MADE WITHIN THE CENTER HALF OF COLUMN HEIGHT, AND THE SPICE LENGTH SHALL NOT BE LESS THAN 40 BAR DIAMETERS, WELDING OR APPROVED MECHANICAL DEVICES MAY BE USED PROVIDED THAT NOT MORE THAN ALTERNATE BARS ARE WELDED OR MECHANICALLY SPICED AT ANY LEVEL AND THE VERTICAL DISTANCES BETWEEN THESE WELDS OR SPICES OF ADJACENT BARS IS NOT LESS THAN 600mm.



TYPICAL COLUMN ELEV. SHOWING DOWELS AND TIES SPACING



NOTES ON BEAMS AND GIRDERS

- UNLESS OTHERWISE NOTED IN PLANS, CARRIER ALL BEAMS AND GIRDER AT LEAST 6mm ϕ FOR EVERY 4.0M OF SPAN, EXCEPT CANTILEVERS FOR WHICH THE CARRIER SHALL BE AS NOTED IN PLANS OR AS ORDERED BY THE ENGINEER BUT IN NO CASE LESS THAN 20mm FOR EVERY 3.0M OF FREE SPAN.
- TYPICAL BARS BENDING AND CUTTING DETAILS FOR BEAMS SHALL BE AS SHOWN IN FIG. B-1.

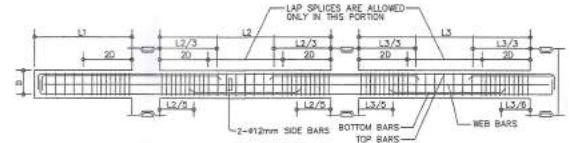


FIG. B-1

TABLE 'A' TENSION BARS EMBEDMENT LENGTHS AND LAPPED SPICES IN MILLIMETERS			
BAR SIZE (REINFORCING)	$f_y = 275 \text{ MPa} (40,000 \text{ psi})$	$f_y = 275 \text{ MPa} (40,000 \text{ psi})$	$f_y = 275 \text{ MPa} (40,000 \text{ psi})$
	EMBEDMENT LAPPED	EMBEDMENT LAPPED	EMBEDMENT LAPPED
10mm ϕ	300	300	300
12mm ϕ	300	300	300
16mm ϕ	300	400	400
20mm ϕ	400	550	550
25mm ϕ	500	650	650
30mm ϕ	600	750	750

TABLE 'B' COMPRESSION BARS EMBEDMENT LENGTHS AND LAPPED SPICES IN MILLIMETERS			
BAR SIZE (REINFORCING)	$f_y = 275 \text{ MPa} (40,000 \text{ psi})$	$f_y = 275 \text{ MPa} (40,000 \text{ psi})$	$f_y = 275 \text{ MPa} (40,000 \text{ psi})$
	EMBEDMENT LAPPED	EMBEDMENT LAPPED	EMBEDMENT LAPPED
10mm ϕ	225	300	300
12mm ϕ	275	300	300
16mm ϕ	350	400	400
20mm ϕ	450	500	500
25mm ϕ	550	625	625
30mm ϕ	625	750	750

NOTE: TOP FLANG BARS, MULTIPLY VALUE BY 2
NOTE: TOP FLANG BARS, MULTIPLY VALUE BY 2
VALUES GIVEN ABOVE CAN ALSO BE USED FOR COLUMNS

- IF THE BEAM REINFORCING BARS END IN A WALL THE CLEAR DISTANCE FROM THE BAR TO THE FARTHER FACE OF THE WALL NOT BE LESS THAN 25mm. EMBEDMENT LENGTH SHALL BE AS SHOWN IN A TABLE 'A' FOR TENSION BARS AND TABLE 'B' FOR COMPRESSION BARS UNLESS SPECIFIED IN PLAN. TOP BAR SHALL NOT BE SPICED WITHIN THE COLUMN OR WITHIN A DISTANCE TWICE THE MEMBER DEPTH FROM THE FACE OF THE COLUMN. AT LEAST TWO STIRRUPS SHALL BE PROVIDED AT ALL SPICES.
- IF THERE ARE TWO OR MORE LAYERS OF REINFORCING BARS, USE 25mm ϕ BAR SEPARATORS SPACED AT 1.0M ON CENTER. IN NO CASE SHALL THERE BE LESS THAN TWO (2) SEPARATORS BETWEEN TWO LAYERS OF BARS.
- MINIMUM CONCRETE PROTECTION FOR REINFORCING BARS OR STEEL SHAPEE SHALL BE AS SHOWN IN FIG. B-2 UNLESS SPECIFIED ELSEWHERE.

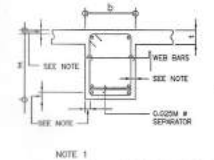


FIG. B-2

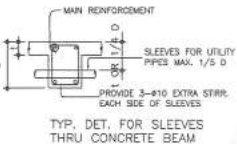


FIG. B-3

- WHEN A BEAM CROSSES A GIRDER, REST BEAM ON TOP OF GIRDER BARS. BEAM REINFORCING BAR SHALL BE SYMMETRICAL ABOUT CENTER LINE WHENEVER POSSIBLE.
- GENERALLY NO SPICES SHALL BE PERMITTED AT POINTS WHERE CRITICAL BENDING STRESSES OCCUR. SPICES WHERE SO PERMITTED SHALL BE INDICATED IN THE TABLE 'A' AND 'B'. WELDED SPICES SHALL DEVELOP IN TENSION AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR, NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION IS ALLOWED TO BE SPICED THEREIN.

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGA, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

TITLE:	CHECKED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.
PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	MICHAEL G. CABALES, REE D/C Department Manager-ICTD	JEREMIAS A. REYES JR, MPA D/C Department Manager- GSP/MD	FERDINAND S. FERKER, MPA Assistant General Manager- Administration	ARN B. GELLANGARIN, PME General Manager	AS SHOWN DRAWN BY: CJR, PIA CHECKED BY: RRB REV. NO. 1 DATE: 02 / 09 / 2022
PURK: UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY					14 32

GENERAL CONSTRUCTION NOTES

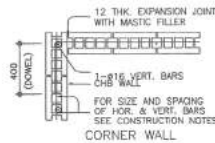
NOTES ON CONCRETE HOLLOW BLOCK WALLS

- UNLESS OTHERWISE SHOWN IN PLANS ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS SHALL BE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT.
- PROVIDE 150mm x 300mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 6mm TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCK TERMINATES AND AT EVERY 3.0M LENGTH OF CONCRETE HOLLOW BLOCK WALLS UNLESS NOTED IN STRUCTURAL PLANS.

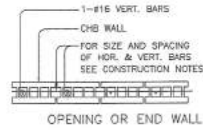
BLOCK THICKNESS	REINFORCEMENT		NOTES
	HORIZONTAL	VERTICAL	
75 mm	10mm @ 800mm O.C.	10mm @ 800mm O.C.	A. MINIMUM LAP AT SPICE = 0.23M B. PROVIDE RIGHT ANGLED REINFORCEMENT AT CORNERS 0.52M LONG C. WHERE CHB OR CER. BLK. WALL DOWELS JOIN COL. B.C. SEAMS AND WALL DOWELS WITH THE SAME SIZE AS VERT. OR HOR. REINFORCEMENTS SHALL BE PROVIDED
125 mm	10mm @ 800mm O.C.	10mm @ 800mm O.C.	
150 mm	10mm @ 800mm O.C.	10mm @ 800mm O.C.	
200 mm	12mm @ 800mm O.C.	12mm @ 800mm O.C.	

REINFORCING CONCRETE LINTEL BEAM IN CONCRETE BLOCK WALLS

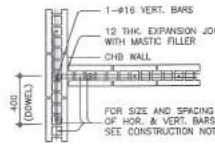
CLEAR SPAN LENGTH (L)	TOTAL MIN. LVL. LENGTH (L+1.42M)	MIN. DEPTH OF LINTEL (MM)	REINFORCEMENT		
			BOTTOM	TOP	STIRRUPS
1.20M	1.80M	140	1-#10	1-#10	#6mm @ 200mm
1.50M	1.95M	140	1-#10	1-#10	#6mm @ 200mm
1.80M	2.25M	200	1-#12	1-#10	#6mm @ 200mm
2.10M	2.50M	170	1-#12	1-#10	#6mm @ 200mm
2.40M	2.90M	250	1-#12	1-#10	#6mm @ 200mm
2.70M	3.10M	250	1-#12	1-#12	#10mm @ 200mm
3.00	3.40M	300	1-#16	1-#12	#10mm @ 200mm
3.30	3.70M	300	1-#16	1-#12	#10mm @ 200mm
3.60	4.00	300	1-#20	1-#12	#10mm @ 200mm



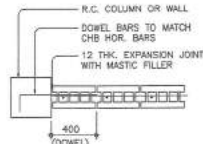
CORNER WALL



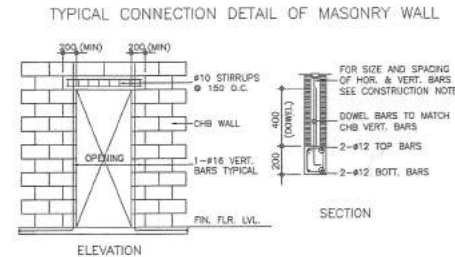
OPENING OR END WALL



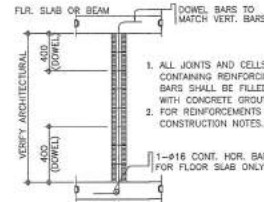
INTERSECTION WALL



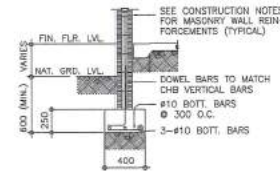
INTERSECTING R.C. COL. OR WALL



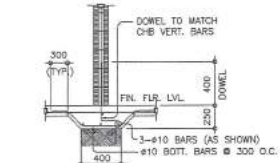
TYP. DET. OF LINTEL BEAM AT CHB WALL OPENING



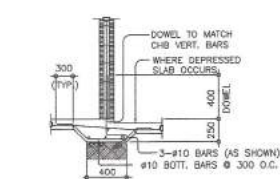
TYP. SECTION OF MASONRY PARTITION REINFORCEMENTS



TYPICAL CONNECTION DETAIL OF R.C. WALL AT CORNERS



TYPICAL CHB FOOTING DETAILS (WHERE APPLICABLE)



TYPICAL DETAIL FOR BEAM OR SLAB CHANGE SOFFIT

NOTES ON CONCRETE WALLS

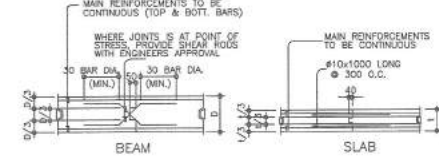
- ALL WALLS SHALL BE REINFORCED ACCORDING TO THE FOLLOWING SCHEDULE OF WALL REINFORCEMENT UNLESS OTHERWISE INDICATED IN THE PLANS.

WALL THICKNESS	REINFORCEMENT		REMARKS	VERTICAL SECTION
	HORIZONTAL	VERTICAL		
100mm	#10mm @ 250mm O.C.	#10mm @ 350mm O.C.	HORIZONTAL BARS AT CENTERS VERTICAL BARS STAGGERED OUT	
125mm	#10mm @ 200mm O.C.	#10mm @ 250mm O.C.		
150mm	#12mm @ 250mm O.C.	#12mm @ 300mm O.C.		

- REINFORCING BARS SHALL HAVE 25mm CLEAR CONCRETE COVER FROM FACE OF WALL EXCEPT FOR WALLS IN CONTACT WITH THE GROUND WHERE A MINIMUM OF 60mm SHALL BE PROVIDED, AND FOR EXPOSED FACES OF FORMED WALLS WHERE THE MINIMUM SHALL BE 30mm CLEAR.
- QUERY VERTICAL BARS AT LEAST 60mm ABOVE FLOOR LEVEL TO PROVIDE FOR SPLICES WHEN NECESSARY STOP AT 50mm BELOW TOP SLAB OR SOLID BAND WHERE THE WALL ENDS VERTICAL AND HORIZONTAL BARS SHALL BE SPLICED BY LAPPING A DISTANCE EQUAL TO 30 DIAMETERS AND WIRE SECURELY WITH 16 G.S. WIRE PROVIDED THAT SPLICES IN ADJACENT BARS ARE STAGGERED AT LEAST 1.50M O.C.
- UNLESS OTHERWISE NOTED IN THE PLANS, ALL OPENINGS IN WALLS 250mm OR THICKER SHALL BE REINFORCED AROUND WITH 2-20mm BARS FOR 225mm, 200mm, 175mm, 150mm, USE 2-16mm FOR 125mm AND 100mm WALLS, USE 2-12mm BARS. ALL WALLS SPACING SHALL HAVE VERTICAL REINFORCEMENT BENT TO A U-FORM LIKE STIRRUPS AND SPACED ACCORDING TO THE SCHEDULE UNLESS OTHERWISE NOTED (SEE FIG.1)

NOTES ON CONSTRUCTION JOINTS IN CONCRETE

- WHERE A CONSTRUCTION JOINT IS TO BE MADE, THE SURFACE OF CONCRETE SHALL BE CLEANED AND ALL LATENCY AND STANDING WATER REMOVED. SHEAR KEY SHALL BE PROVIDED AT THE JOINT.



TYPICAL SLAB & BEAM CONSTRUCTION JOINT DET.



TYP. EXTERIOR WINDOW & DOOR OPENING

NOTES ON WELDS

- USE E2008 ELECTRODES FOR ALL MEMBERS WELDED.
- WELDS SHALL DEVELOP THE FULL STRENGTH OF MEMBERS JOINED UNLESS OTHERWISE SHOWN OR DETAILED IN THE DRAWINGS.

NOTES ON STRUCTURAL STEEL

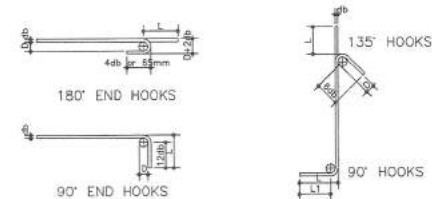
- STRUCTURAL STEEL TO BE USED FOR FABRICATION AND ERECTION OF THIS STRUCTURE SHALL COMPLY WITH ALL THE PERTINENT PROVISIONS OF AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING LATEST EDITION.
- ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A36 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
- ALL WELDED CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS CONNECTED.
- UNLESS OTHERWISE SPECIFIED ALL WELDING RODS SHALL CONFORM A55 E60 ELECTRODES.
- ALL BOLTS USED UNLESS OTHERWISE SPECIFIED SHALL BE ASTM A 307 BOLTS.
- ALL STEEL TRUSSES SHOULD BE RED OXIDE PRIME COATED AND WITH FINISH PAINT.

NOTES ON EMBEDDED PIPES

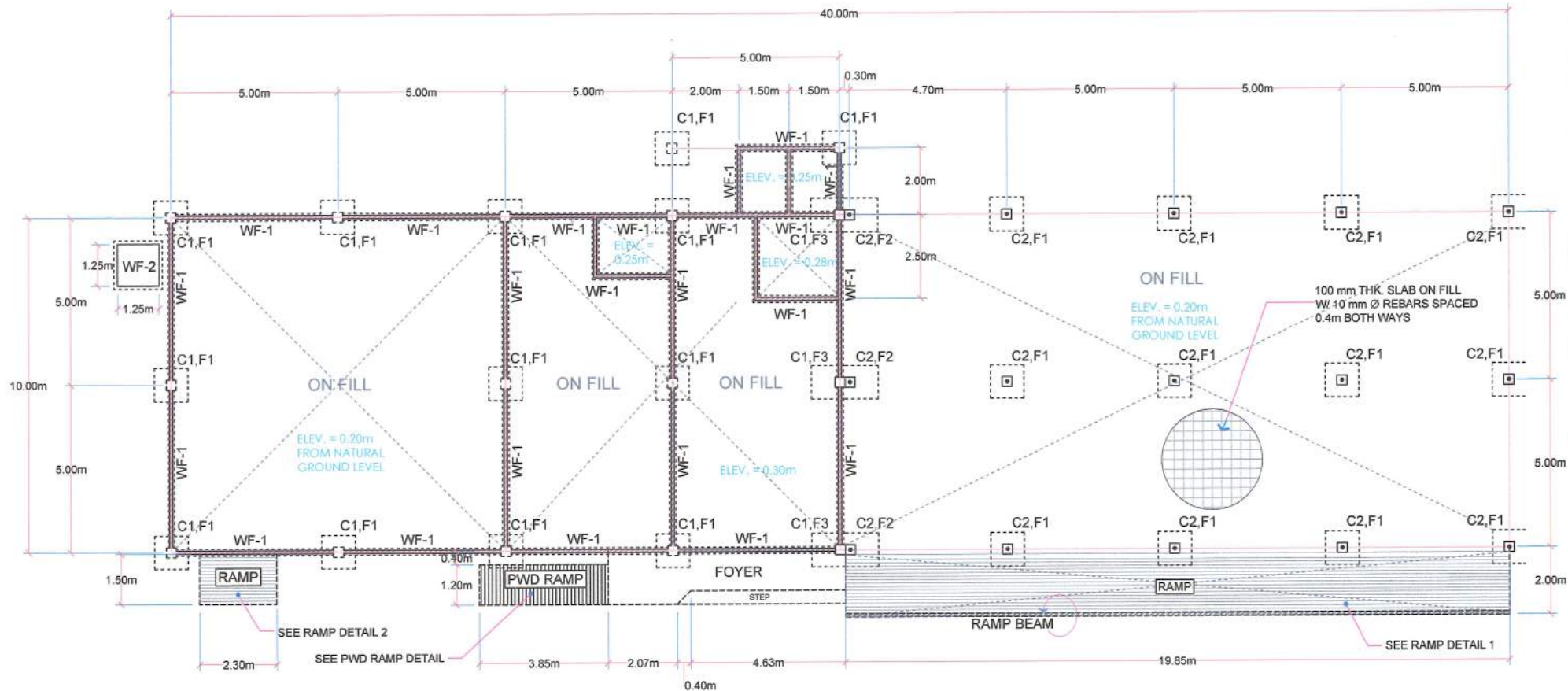
- ALL EMBEDDED PIPES FOR UTILITIES, ETC. THAT PASS THRU BEAMS SHALL NOT EXCEED 100mm IN DIAMETER OR 1/3 BEAM DEPTH WHICHEVER IS LESS, UNLESS OTHERWISE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
- NO PIPES SHALL BE ALLOWED TO PASS THRU BEAMS VERTICALLY.
- NO PIPES SHALL BE EMBEDDED IN COLUMNS.

NOTES OF STIRRUPS

- ALL REINFORCEMENT SHALL BE BENT COLD UNLESS OTHERWISE PERMITTED BY THE STRUCTURAL ENGINEER.
- REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FILLED BENT, EXCEPT AS SHOWN IN THE DESIGN DRAWINGS OR PERMITTED BY THE STRUCTURAL ENGINEER.
- TIES & CLOSE STIRRUPS MUST BE BENT AT 135°.

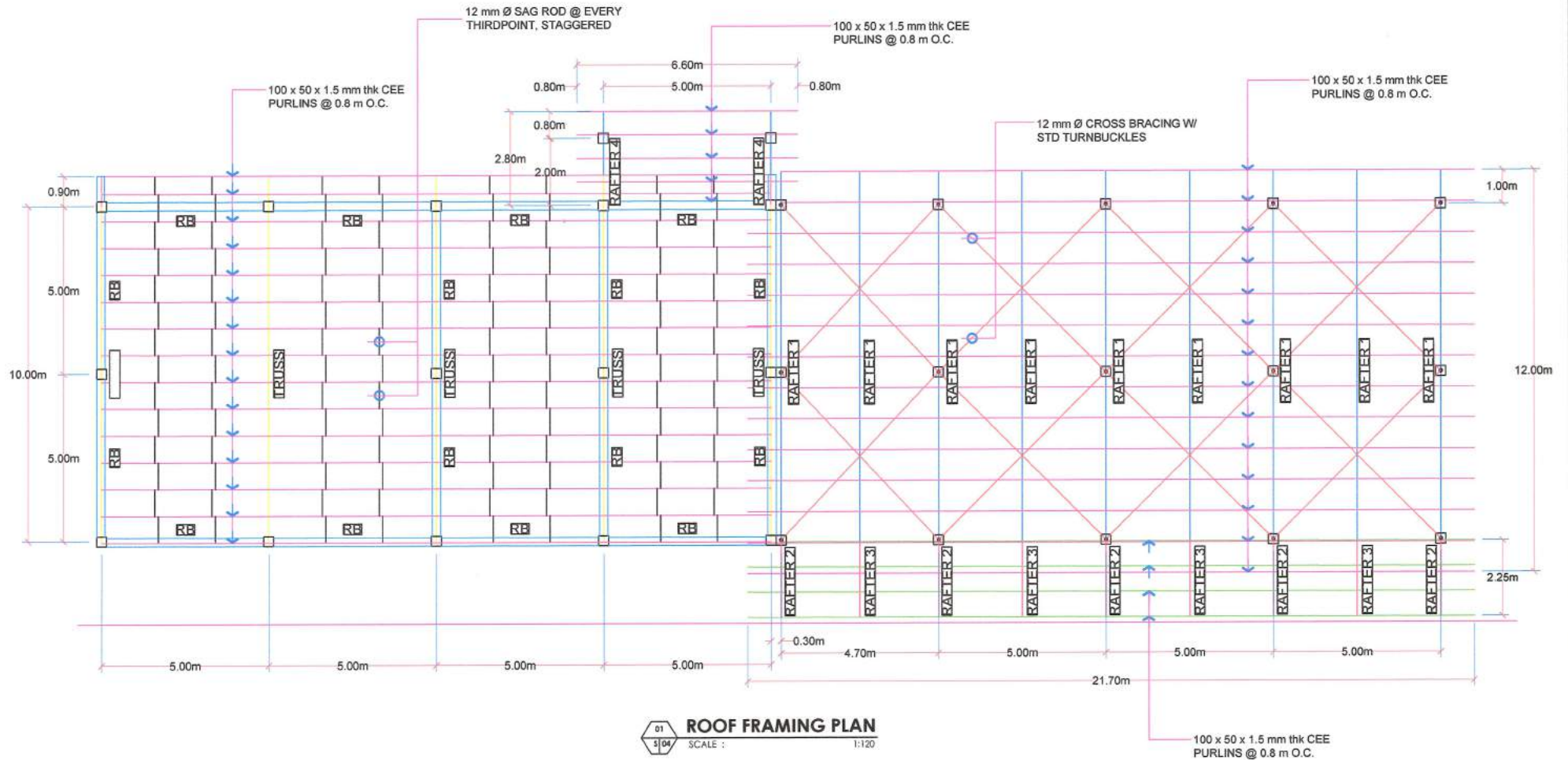


MAIN BAR END HOOKS (ALL GRADES)					STIRRUP AND TIE HOOKS (ALL GRADES)				
BAR SIZE (EFFECTIVE)	DIAMETER (mm)	180° HOOK	90° HOOK		BAR SIZE (EFFECTIVE)	DIAMETER (mm)	180° HOOK	90° HOOK	
		D+2db	L	L			D+2db	L	L
10mm #	60	75	125	150	10mm #	40	125	85	100
12mm #	75	100	150	200	12mm #	50	165	115	115
16mm #	95	125	175	250	16mm #	65	200	140	150
20mm #	115	150	200	300	20mm #	115	250	185	200
25mm #	150	200	250	450	25mm #	150	300	230	420
30mm #	240	300	350	550					
32mm #	300	350	450	600					



FOUNDATION PLAN
 SCALE : 1:120

TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED: <i>[Signature]</i> MICHAEL G. GABALES, REE OIC Department Manager-ICTD	RECOMMENDING APPROVAL: <i>[Signature]</i> JEREMIAS A. REYES JR, MPA OIC Department Manager- GSP/NWD	APPROVED: <i>[Signature]</i> FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: <i>[Signature]</i> ARNOLD GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. S-03
PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY	DRAWN BY: CJR,KJA	REV. NO. 1	CHECKED BY: RRB	DATE: 02 / 09 / 2022	16	32

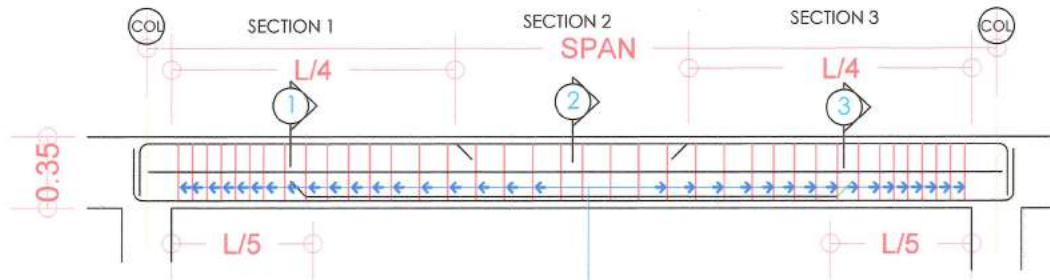


01
3/04 **ROOF FRAMING PLAN**
SCALE : 1:120



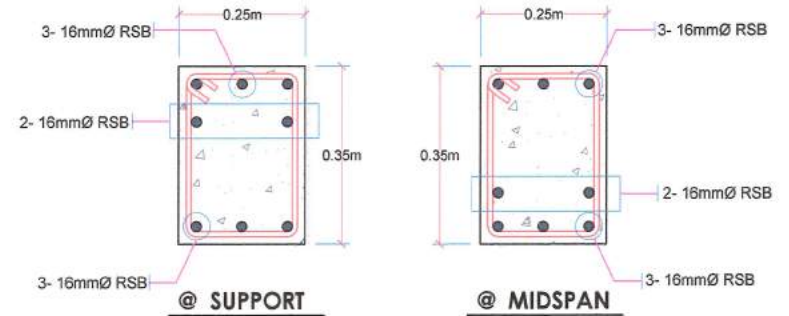
GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552-3824

TITLE:	CHECKED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.
PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	MICHAEL G. GABALES, REE CIC Department Manager- ICTD	JEREMIAS A. REYES JR, MPA CIC Department Manager- G3PMWD	FERNANDO S. FERRER, MPA Assistant General Manager - Administration	ARN B. GELLANGARIN, PME General Manager	AS SHOWN
PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY				DRAWN BY: C.R. KLA CHECKED BY: RRB	REV. NO. 1 DATE: 02/09/2022
					17 32

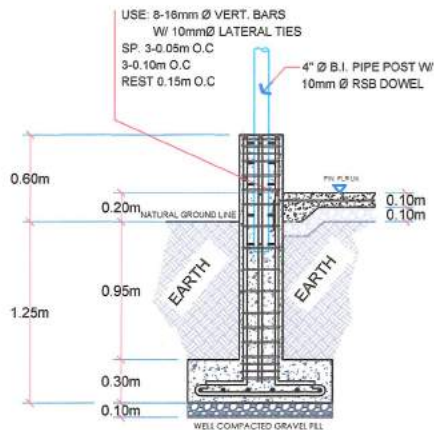


10mm Ø STIRRUPS, - 4 @ 0.05m, 4 @ 0.1m, 4 @ 0.15m, REST @ 0.20m O.C.

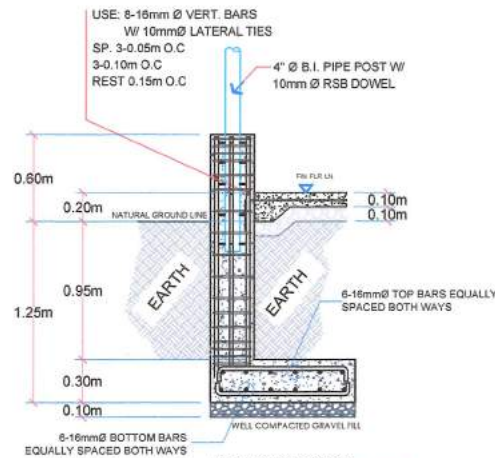
02 **TYP. R.C BEAM DETAIL**
SCALE: NOT TO SCALE



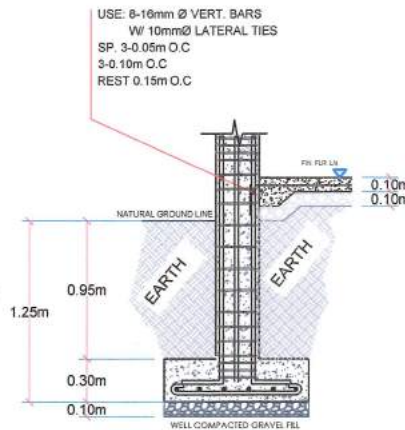
03 **ROOF BEAM SECTION**
SCALE: 1:10



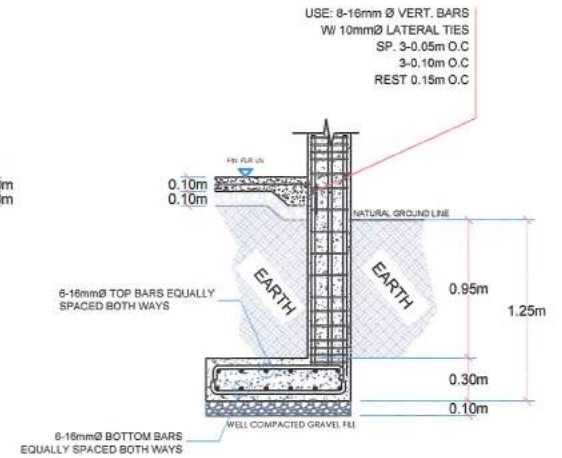
C2 , F1 DETAIL



C2 , F3 DETAIL



C1 , F1 DETAIL

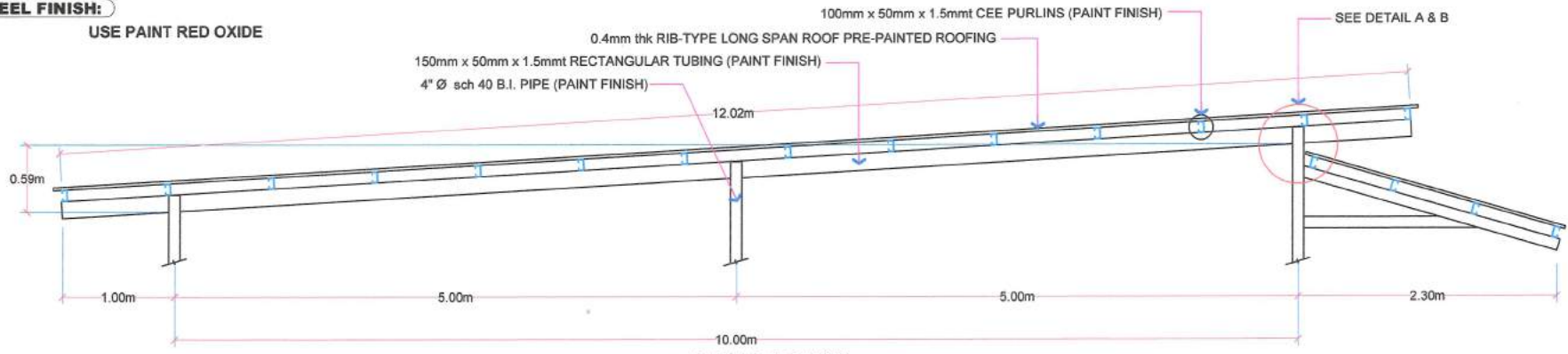


C1 , F2 DETAIL

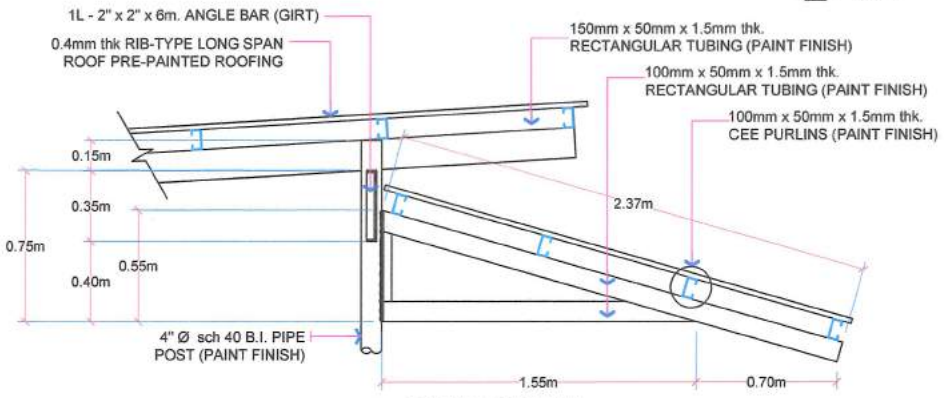
01 **COLUMN & FOOTING DETAIL**
SCALE: 1:35

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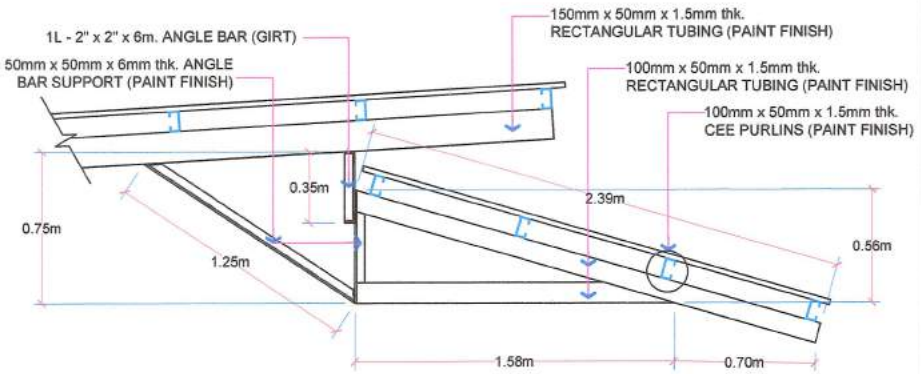
USE PAINT RED OXIDE



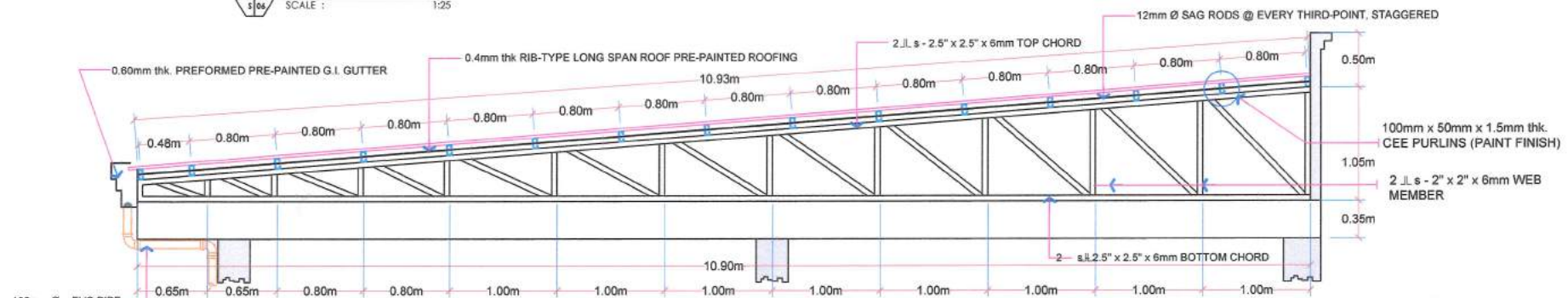
04
RAFTER 1 DETAIL
SCALE: 1:40



02
RAFTER 2 DETAIL
SCALE: 1:25



03
RAFTER 3 DETAIL
SCALE: 1:25



01
TRUSS DETAIL
SCALE: 1:40

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (093) 552 - 3824

TITLE:
**PROPOSED CONSTRUCTION OF
METER ROOM AND MOTORPOOL
BUILDING**

CHECKED & REVIEWED:
MICHAEL G. GABALES, REE
OIC Department Manager-ICTD

JEREMIAS A. REYES JR., MPA
OIC Department Manager-GSPMMD

RECOMMENDING APPROVAL:
FERDINAND S. FERRER, MPA
Assistant General Manager - Administration

APPROVED:
ARN B. GELLANGARIN, PME
General Manager

SHEET CONTENTS:
AS SHOWN

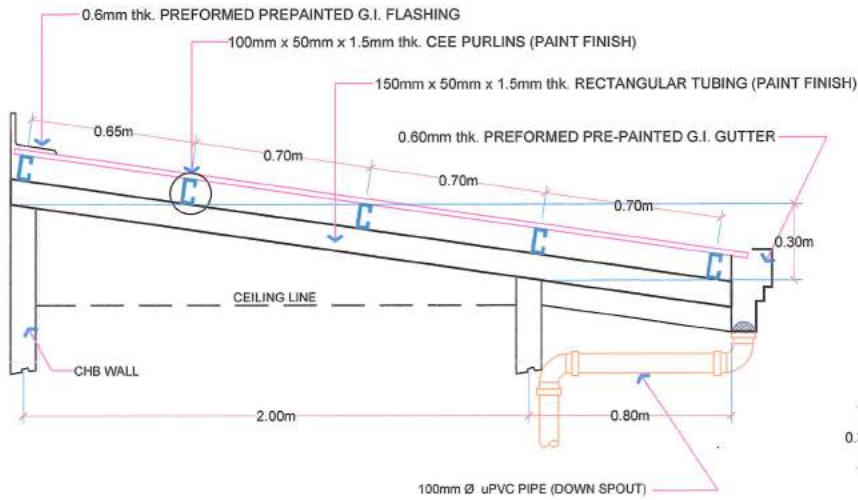
DRAWN BY: CJR, KLA
REV. NO. 1
CHECKED BY: RRB
DATE: 02 / 09 / 2022

SHEET NO.
S-06

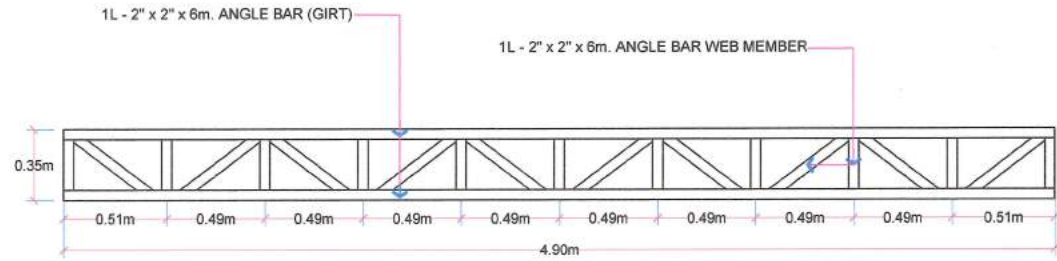
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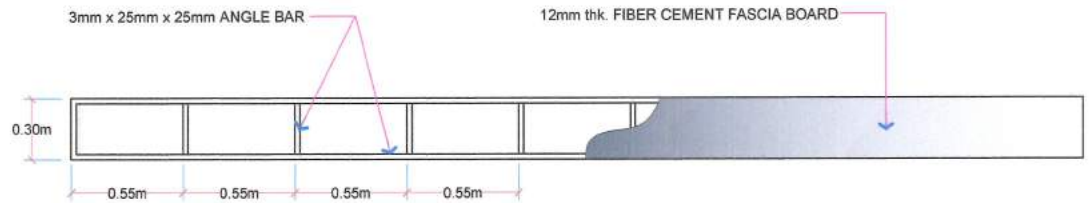
USE PAINT RED OXIDE



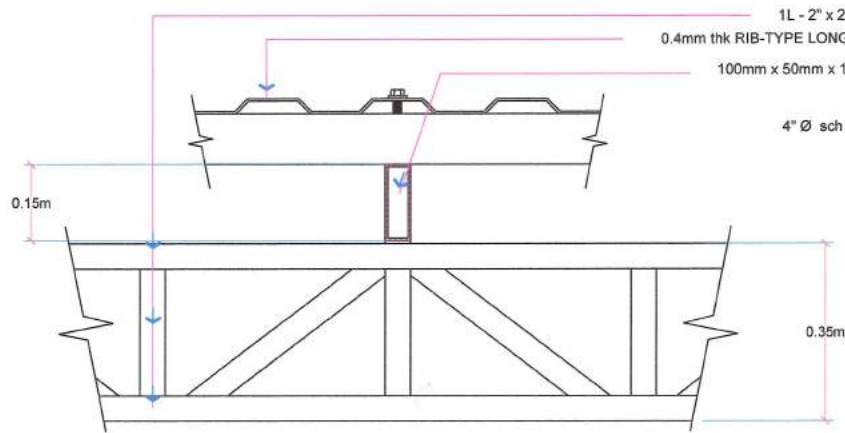
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5/07 **RAFTER 4 DETAIL**
SCALE : 1:20



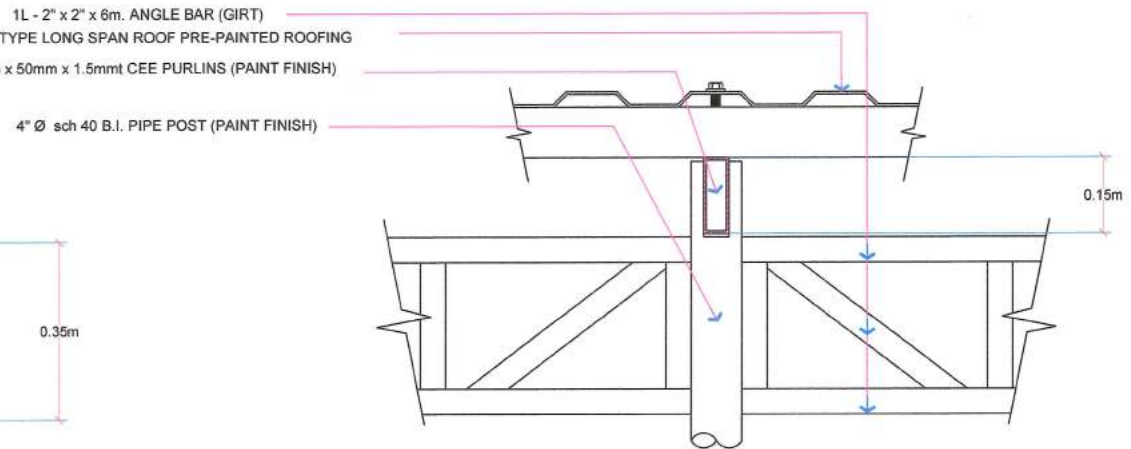
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3/07 **GIRT DETAIL**
SCALE : 1:25



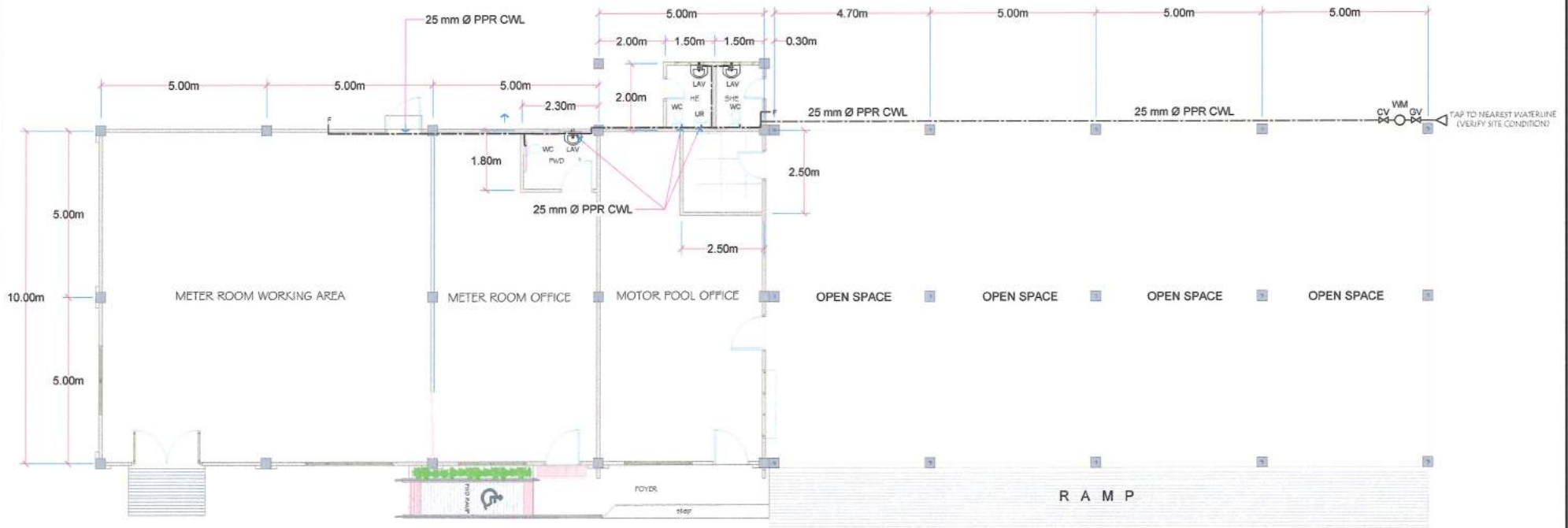
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3/07 **FASCIA FRAME DETAIL**
SCALE : 1:25



04
5/07 **DETAIL "A"**
SCALE : 1:10

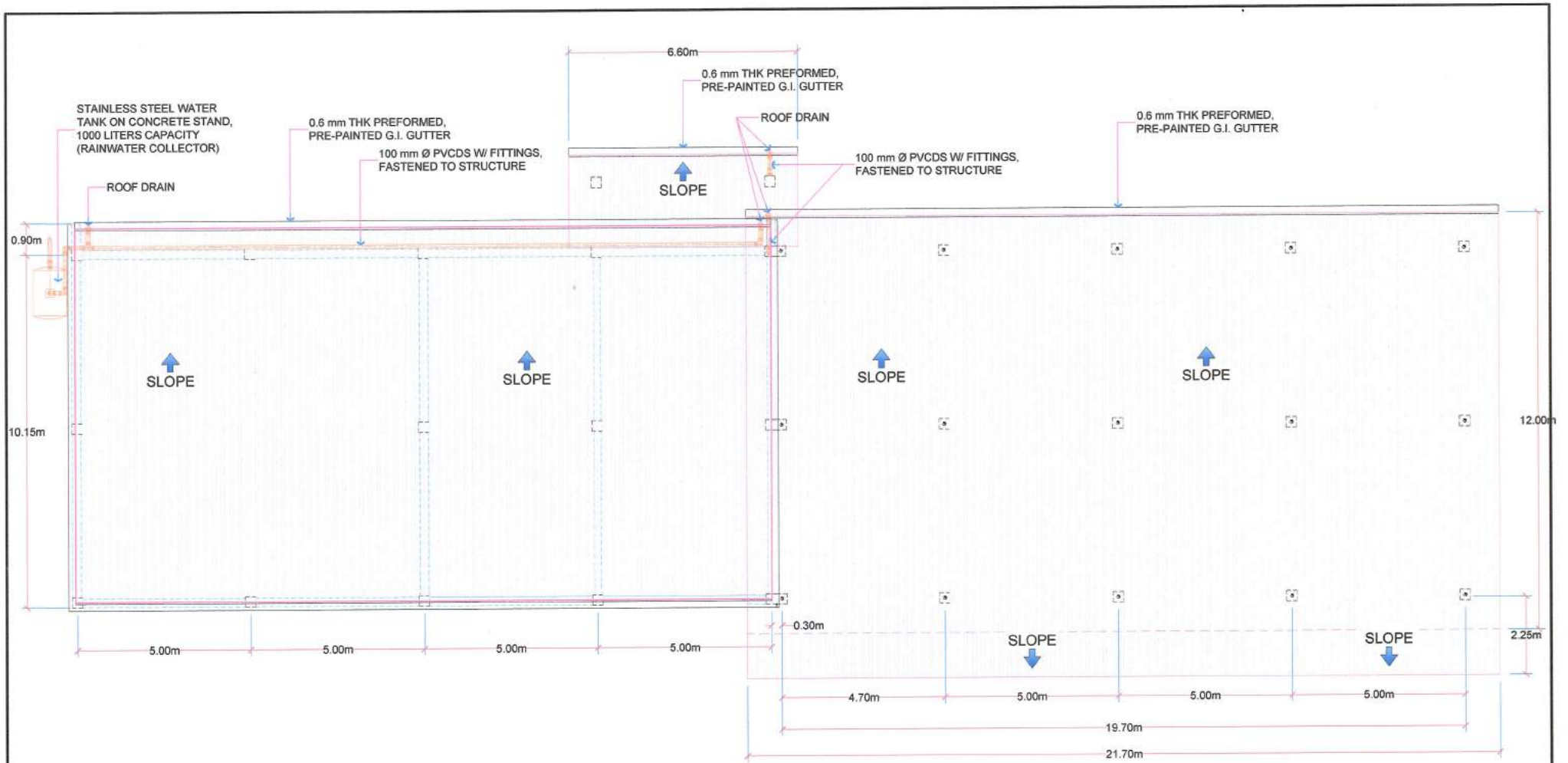


05
3/07 **DETAIL "B"**
SCALE : 1:10



FLOOR PLAN (WATERLINE LAYOUT)
 SCALE : 1:120

TITLE:	CHECKED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.
PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	AS SHOWN	P-02
PURCK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY	MICHAEL C. CABLES, REE ICD Department Manager-ICD	JEREMIAS A. REYES JR, MPA ICD Department Manager-GSPMMD	FERDINAND S. FERRER, MPA Assistant General Manager - Administration	ARN B. GELLANGARIN, PME General Manager	22 32
				DRAWN BY: CJR, PLA CHECKED BY: RRB	REV. NO. 1 DATE: 02 / 09 / 2022

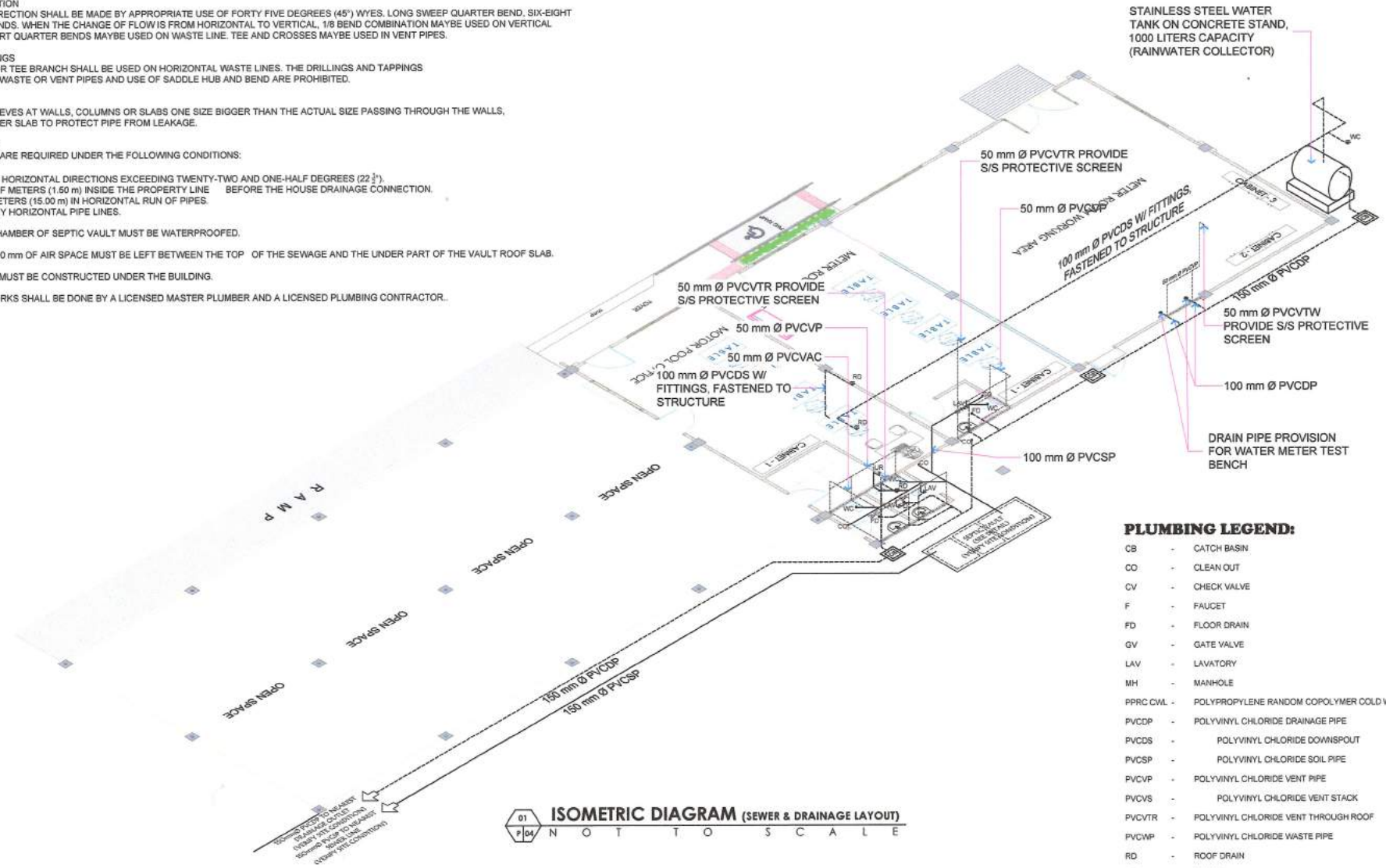


01
P-03
ROOF PLAN (DRAINAGE LAYOUT)
SCALE : 1:120 METERS

TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED: MICHAEL G. GABALES, REE CAG Department Manager-ICTO	RECOMMENDING APPROVAL: JEREMIAS A. REYES JR, MPA OIC Department Manager-GSP/MWD	APPROVED: FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: ARN B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN DRAWN BY: CJR, KLA REV. NO. 1 CHECKED BY: RRB DATE: 02 / 09 / 2022	SHEET NO. P-03 23 32
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PLUMBING NOTES:

1. GRADES OF HORIZONTAL PIPING
RUN ALL HORIZONTAL PIPINGS IN PERFECT ALIGNMENT AND AT A FORM GRADE OF NOT LESS THAN TWO PERCENT (2%)
2. CHANGE IN DIRECTION
ALL CHANGE IN DIRECTION SHALL BE MADE BY APPROPRIATE USE OF FORTY FIVE DEGREES (45°) WYES, LONG SWEEP QUARTER BEND, SIX-EIGHT OR SIXTEENTH BENDS. WHEN THE CHANGE OF FLOW IS FROM HORIZONTAL TO VERTICAL, 1/8 BEND COMBINATION MAYBE USED ON VERTICAL STACKS AND SHORT QUARTER BENDS MAYBE USED ON WASTE LINE. TEE AND CROSSES MAYBE USED IN VENT PIPES.
3. PROHIBITED FITTINGS
NO DOUBLE HUB OR TEE BRANCH SHALL BE USED ON HORIZONTAL WASTE LINES. THE DRILLINGS AND TAPPINGS OF HOUSE DRAIN, WASTE OR VENT PIPES AND USE OF SADDLE HUB AND BEND ARE PROHIBITED.
4. SLEEVES
PROVIDE PIPE SLEEVES AT WALLS, COLUMNS OR SLABS ONE SIZE BIGGER THAN THE ACTUAL SIZE PASSING THROUGH THE WALLS, COLUMNS OR UNDER SLAB TO PROTECT PIPE FROM LEAKAGE.
5. PIPE CLEAN-OUTS
PIPE CLEAN-OUTS ARE REQUIRED UNDER THE FOLLOWING CONDITIONS:
 - a. EVERY CHANGE IN HORIZONTAL DIRECTIONS EXCEEDING TWENTY-TWO AND ONE-HALF DEGREES (22 1/2°)
 - b. ONE AND ONE-HALF METERS (1.50 m) INSIDE THE PROPERTY LINE BEFORE THE HOUSE DRAINAGE CONNECTION.
 - c. EVERY FIFTEEN METERS (15.00 m) IN HORIZONTAL RUN OF PIPES.
 - d. AT THE END OF ANY HORIZONTAL PIPE LINES.
6. THE DIGESTION CHAMBER OF SEPTIC VAULT MUST BE WATERPROOFED.
7. NOT LESS THAN 300 mm OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE SEWAGE AND THE UNDER PART OF THE VAULT ROOF SLAB.
8. NO SEPTIC VAULT MUST BE CONSTRUCTED UNDER THE BUILDING.
9. ALL PLUMBING WORKS SHALL BE DONE BY A LICENSED MASTER PLUMBER AND A LICENSED PLUMBING CONTRACTOR.



PLUMBING LEGEND:

CB	-	CATCH BASIN
CO	-	CLEAN OUT
CV	-	CHECK VALVE
F	-	FAUCET
FD	-	FLOOR DRAIN
GV	-	GATE VALVE
LAV	-	LAVATORY
MH	-	MANHOLE
P/RC CWL	-	POLYPROPYLENE RANDOM COPOLYMER COLD WATER LINE
PVCDP	-	POLYVINYL CHLORIDE DRAINAGE PIPE
PVCDS	-	POLYVINYL CHLORIDE DOWNSPOUT
PVCSP	-	POLYVINYL CHLORIDE SOIL PIPE
PVCVP	-	POLYVINYL CHLORIDE VENT PIPE
PVCVS	-	POLYVINYL CHLORIDE VENT STACK
PVCVTR	-	POLYVINYL CHLORIDE VENT THROUGH ROOF
PVCWP	-	POLYVINYL CHLORIDE WASTE PIPE
RD	-	ROOF DRAIN
UR	-	URINAL
WC	-	WATER CLOSET
WM	-	WATER METER

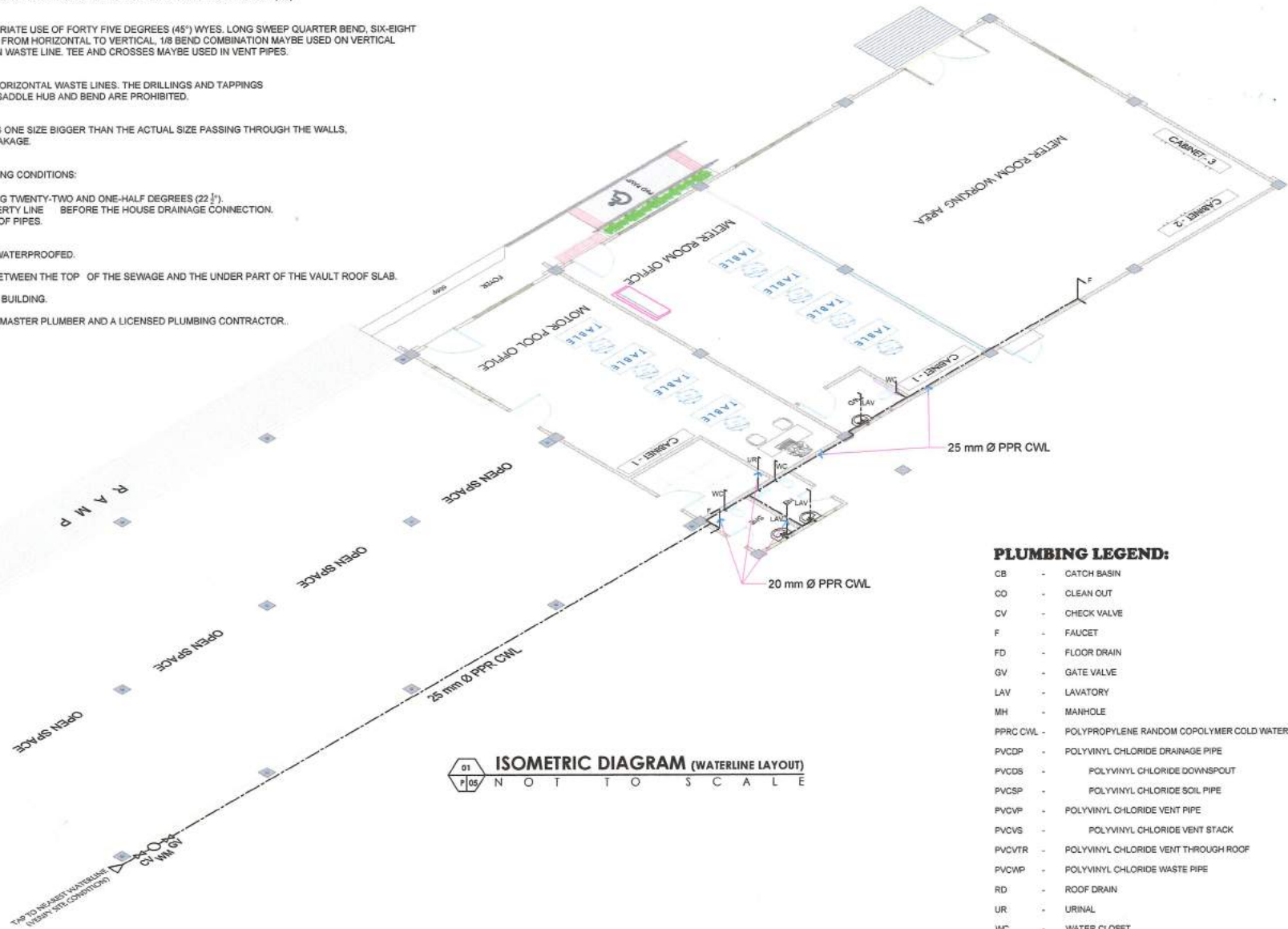
ISOMETRIC DIAGRAM (SEWER & DRAINAGE LAYOUT)
NOT TO SCALE

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED: <i>[Signature]</i> MICHAEL G. GABALES, REE CIC Department Manager- ICTD	CHECKED: <i>[Signature]</i> JEREMIAS A. REYES JR, MPA CIC Department Manager- G3PMMD	RECOMMENDING APPROVAL: <i>[Signature]</i> FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: <i>[Signature]</i> ARN B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. P-04
DRAWN BY: CJR,KLA REV. NO. 1					CHECKED BY: RRB DATE: 02 / 09 / 2022	24 32

PLUMBING NOTES:

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- CO - CLEAN OUT
- CV - CHECK VALVE
- F - FAUCET
- FD - FLOOR DRAIN
- GV - GATE VALVE
- LAV - LAVATORY
- MH - MANHOLE
- PPRC CWL - POLYPROPYLENE RANDOM COPOLYMER COLD WATER LINE
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- PVCSPP - POLYVINYL CHLORIDE SOIL PIPE
- PVCVP - POLYVINYL CHLORIDE VENT PIPE
- PVCVS - POLYVINYL CHLORIDE VENT STACK
- PVCVTR - POLYVINYL CHLORIDE VENT THROUGH ROOF
- PVCWP - POLYVINYL CHLORIDE WASTE PIPE
- RD - ROOF DRAIN
- UR - URINAL
- WC - WATER CLOSET
- WM - WATER METER

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

TITLE:
**PROPOSED CONSTRUCTION OF
METER ROOM AND MOTORPOOL
BUILDING**

CHECKED:

MICHAEL S. GABALES, REE
OIC Department Manager-ICID

JEREMIAS A. REYES JR, MPA
OIC Department Manager- GSP/MMD

RECOMMENDING APPROVAL:

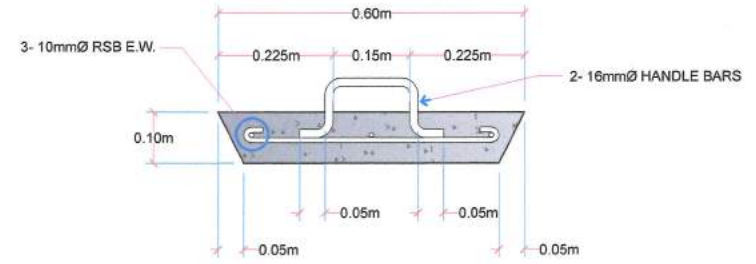
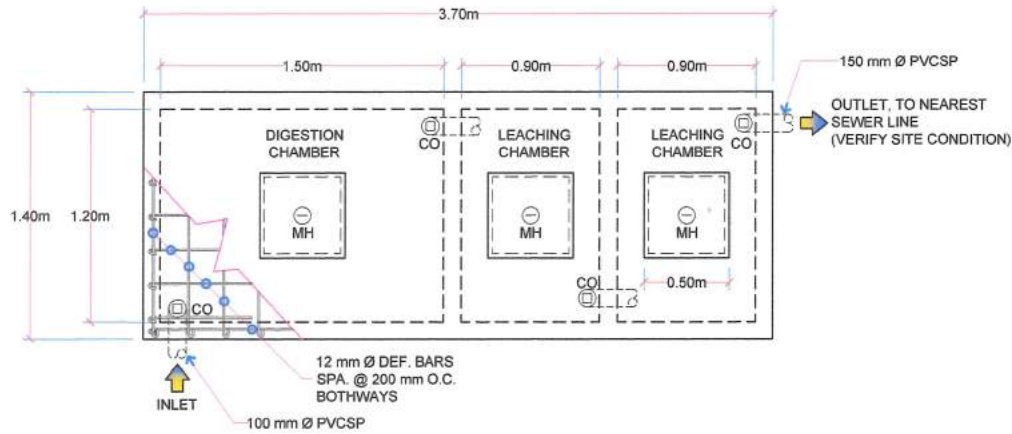
FERDINAND S. FERRER, MPA
Assistant General Manager - Administration

APPROVED:

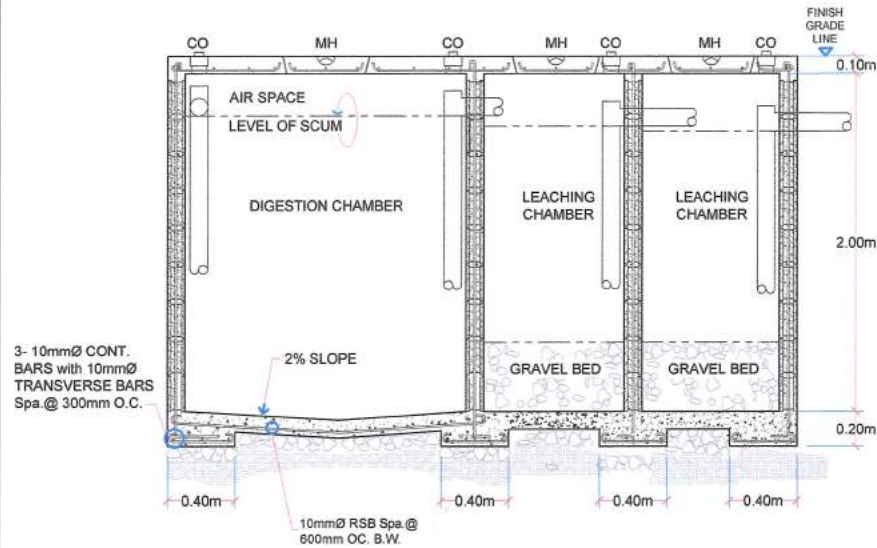
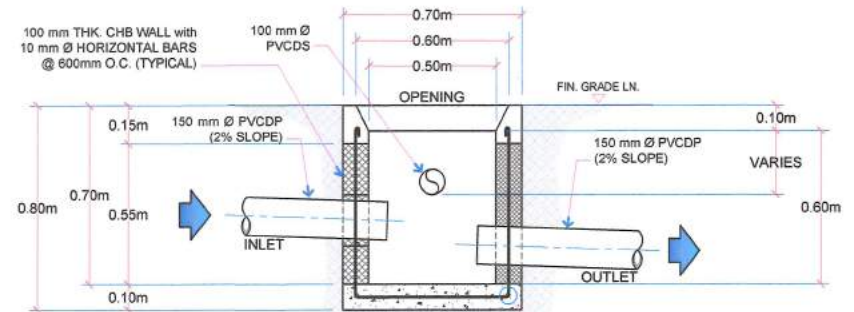
ARN B. GELLANGARIN, PME
General Manager

SHEET CONTENTS:
AS SHOWN
DRAWN BY: CJR, KLA
CHECKED BY: RRB
REV. NO. 1
DATE: 02 / 09 / 2022

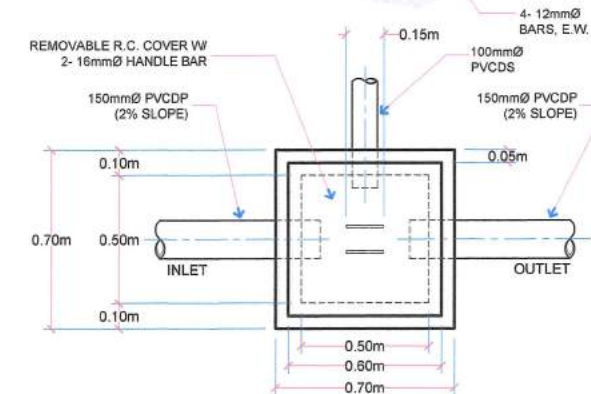
SHEET NO.
P-05
25 32



01
P/06
REMOVABLE R.C. COVER DETAIL
SCALE : 1:10



01
P/06
SEPTIC VAULT DETAIL
SCALE : 1:30






02
P/06
CATCH BASIN DETAIL
SCALE : 1:20

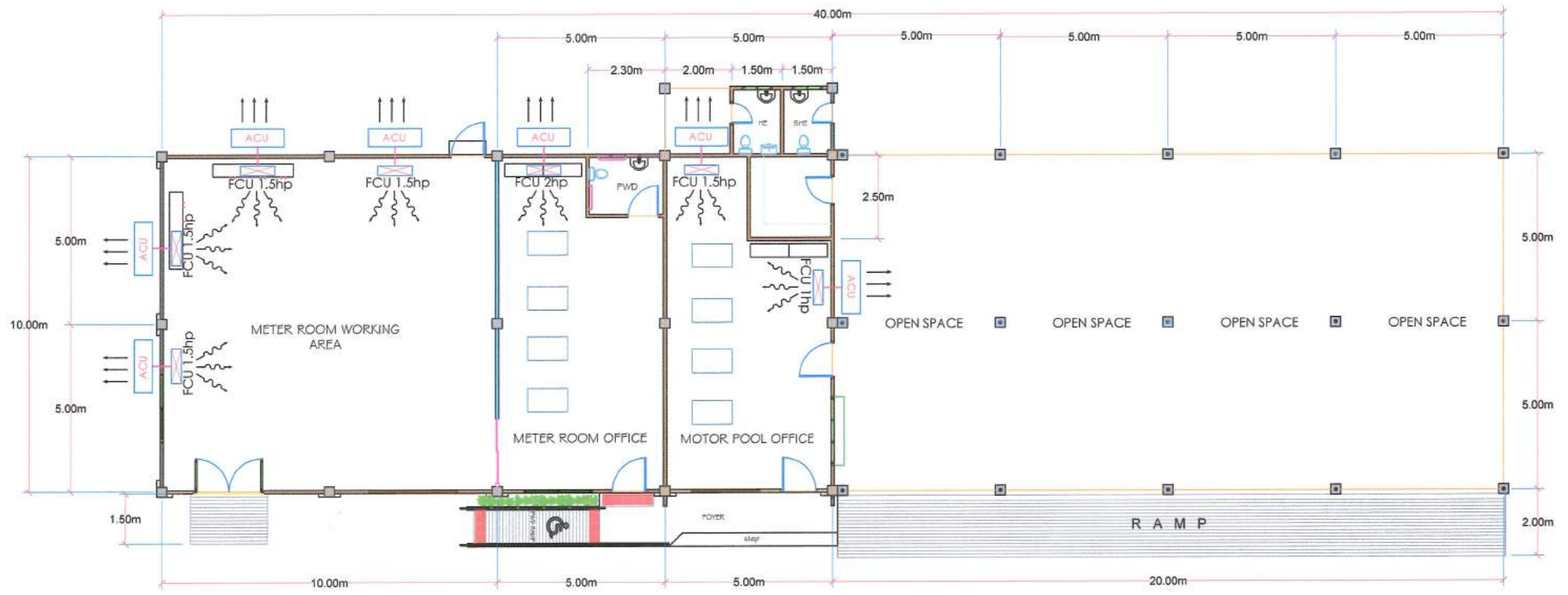
TITLE:	CHECKED:	RECOMMENDING APPROVAL:	APPROVED:	SHEET CONTENTS:	SHEET NO.
PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	MICHAEL G. GABALES, REE CIC Department Manager-ICID	JEREMIAS A. REYES JR, MPA CIC Department Manager- GSPMMD	FERDINAND S. FERRER, MPA Assistant General Manager - Administration	AS SHOWN	P-06
PURUK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY			ARN-B. GELLANGARIN, PME General Manager	DRAWN BY: CJR,KLA CHECKED BY: RRB	26 32
				REV. NO. 1 DATE: 02 / 09 / 2022	

MECHANICAL GENERAL NOTES:

1. ALL AIR-CONDITIONING AND VENTILATING UNITS SHALL BE NEW AND THE APPROVED PRODUCTS OF REPUTABLE MANUFACTURERS
2. FAN COIL UNITS SHALL BE SUM MODEL MOUNTED AND MUST BE PROVIDED WITH BLUE PVC DRAIN PIPE.
3. REFRIGERANT SUCTION LINES SHALL BE INSULATED WITH 13MM THK. ELASTOMERIC PRE-MOLDED RUBBER INSULATION.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK WITH THE OTHER TRADES CONCERNED AND WITH THE OTHER PROJECT ENGINEER.
5. THE WORKS THROUGHOUT SHALL BE EXECUTED IN THE MOST THROUGH MANNER KNOWN TO THE TRADE AND TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
6. PROVIDE PROPER FOUNDATION FOR THE MOUNTING OF EQUIPMENT FOUNDATION FOR THE FCU SHALL BE AT LEAST 100MM FROM FINISHED FLOOR LINE.
7. ALL AIR-CONDITIONING UNITS SHALL BE PROVIDED WITH THE AUTOMATIC MOTOR PROTECTOR TO BE INSTALLED BESIDE THE ACCU.
8. REFRIGERANT PIPES FOR SPLIT TYPE AIR-CON SHALL BE CLAD WITH A 4"Ø PVC PIPE PRIOR TO BEING EMBEDDED.
9. ALL REFRIGERANT PIPES SHALL BE LOCATED AT THE REAR OF THE FCU'S AND NOT ON THE USUAL SIDE LOCATION.
10. HANGER/SUPPORT MUST BE PAINTED WITH DOUBLE COAT OF RUST PROTECTIVE PAINT.
11. VERIFY ALL DIMENSIONAL LOCATION OF EQUIPMENT ON THE DRAWINGS OF RELATED TRADES AND INVESTIGATE ALL POSSIBLE INTERFERENCE AND CONDITION AFFECTING THE MECHANICAL WORK.
12. UPON THE COMPLETION OF THE A/C EQUIPMENT INSTALLATION, TEST ALL FACTORY AND FIELD INSTALLED REFRIGERANT PIPING WITH A LEAK DETECTOR TO ACQUIRE A LEAK-TIGHT CORRECT AND RE-TEST THE SYSTEM FOLLOWING THE MANUFACTURER'S RECOMMENDATIONS.
13. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S WARRANTY CERTIFICATE UPON THE COMPLETION OF THE PROJECT.

LEGEND & ABBRE.


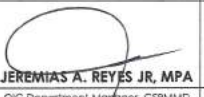
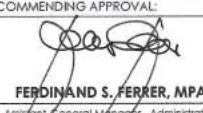
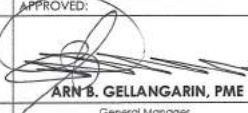
- FCU ----- FAN COIL UNIT
- HP ----- HORSEPOWER
- Ø ----- DIAMETER
-  ----- FAN COIL UNIT WALL MOUNTED with MAGNETIC SWITCH
-  ----- AIR CONDITIONING UNIT
-  ----- INSULATED REFRIGERANT PIPELINE

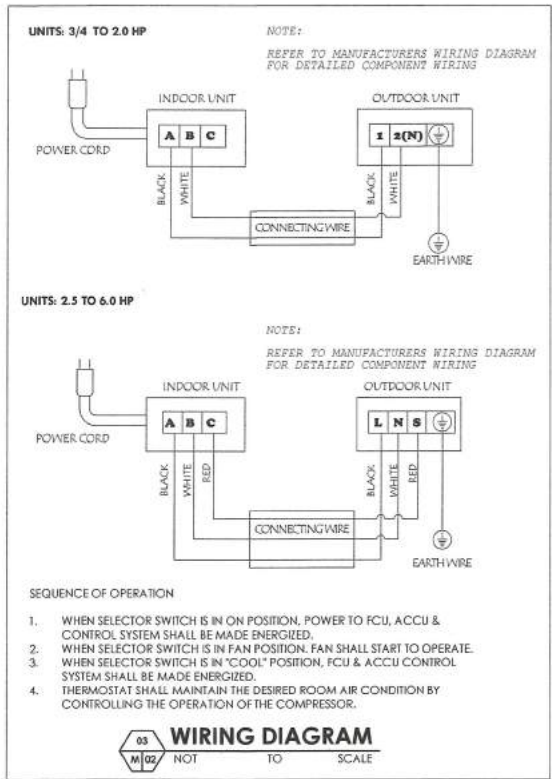


MECHANICAL PLAN
SCALE : 1:120

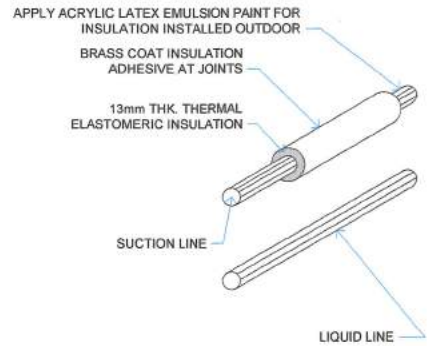


GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
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TEL. NO.: (083) 952 - 3824

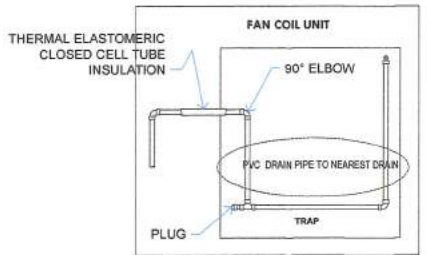
TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED:  MICHAEL G. CABALES, REE OIC Department Manager- ICTD	RECOMMENDING APPROVAL:  JEREMIAS A. REYES JR, MPA OIC Department Manager- GSP/MMD	APPROVED:  FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED:  ARN B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. M-01
PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY		DRAWN BY: C.JR. KLA CHECKED BY: RRB		REV. NO. 1 DATE: 02 / 09 / 2022	27	32



- NOTE:
1. ADHESIVE & LATEX PAINT SHOULD BE COMPATIBLE WITH THE INSULATION.
 2. LIQUID LINE EXPOSED TO DIRECT SUNLIGHT SHALL BE PROVIDED WITH INSULATION.
 3. PROVIDE #24 INSULATION SHIELD AT THE POINT OF SUPPORT.



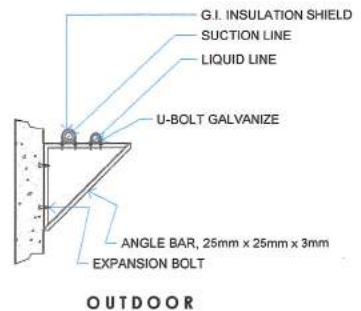
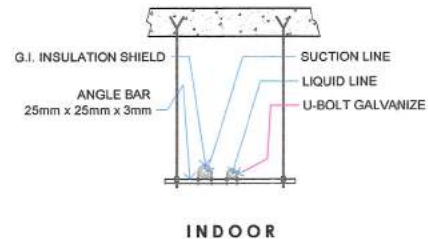
04 PIPE INSULATION DETAIL
M/02 NOT TO SCALE



02 CONDENSE DRAIN PIPE
M/02 NOT TO SCALE

RECOMMENDED SUPPORT SPACING FOR COPPER TUBING

TUBE O.D. (mm)	DISTANCE BETWEEN SUPPORT (M)
16	1.89
22-29	2.44
35-54	3.05



01 PIPE HANGER DETAIL
M/02 NOT TO SCALE

TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED: MICHAEL S. GABALES, REE OIC Department Manager-ICTD	RECOMMENDING APPROVAL: JEREMIAS A. REYES JR, MPA OIC Department Manager-GSPWMD	APPROVED: FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: ARN B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. M-02
					DRAWN BY: CJR, KLA REV. NO. 1	28 32
					CHECKED BY: RRB DATE: 02/09/2022	

GENERAL NOTES:

1. ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, EXISTING APPLICABLE ORDINANCES, RULES AND REGULATIONS OF THE LOCAL GOVERNMENT AND WITH THE REQUIREMENTS OF THE LOCAL POWER COMPANY.
2. THE TYPE OF SERVICE POWER SUPPLY TO BE USED SHALL BE SINGLE-PHASE, 2-WIRE, 230V, 60 HERTZ, A.C
3. THE CONTRACTOR SHALL VERIFY AND ORIENT THE ACTUAL LOCATION OF SERVICE ENTRANCE FOR CONNECTION TO THE POWER COMPANY SERVICE POINT.
4. UNLESS OTHERWISE SPECIFIED, THE MINIMUM SIZES OF WIRE AND GALVANIZED RIGID STEEL CONDUIT TO BE USED SHALL BE 3.5mm², THHN AND 15mm NOMINAL DIAMETER, RESPECTIVELY, LIKEWISE ALL ELECTRICAL WIRES SHALL BE COLOR-CODED.
5. ALL LIGHTING CIRCUIT HOME RUNS AND CONVENIENCE OUTLETS SHALL BE WIRED WITH NOT LESS THAN 3.5 mm² IN SIZE.
6. WHEREVER REQUIRED AND NECESSARY, PULL OR JUNCTION BOXES SHALL BE INSTALLED AT CONVENIENT AND INCONSPICUOUS LOCATION, ALTHOUGH SUCH BOXES ARE NOT SHOWN ON THE PLAN NOR MENTIONED IN THE SPECIFICATIONS.
7. ALL NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE.
8. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND OF THE APPROVED TYPE FOR LOCATION AND PURPOSE.
9. STANDARD TYPE OF ACCESSORIES, SPlicing DEVICES, TERMINATIONS AND OTHER APPURTENANCES FOR THE ENTIRE ELECTRICAL INSTALLATION SHALL BE USED.

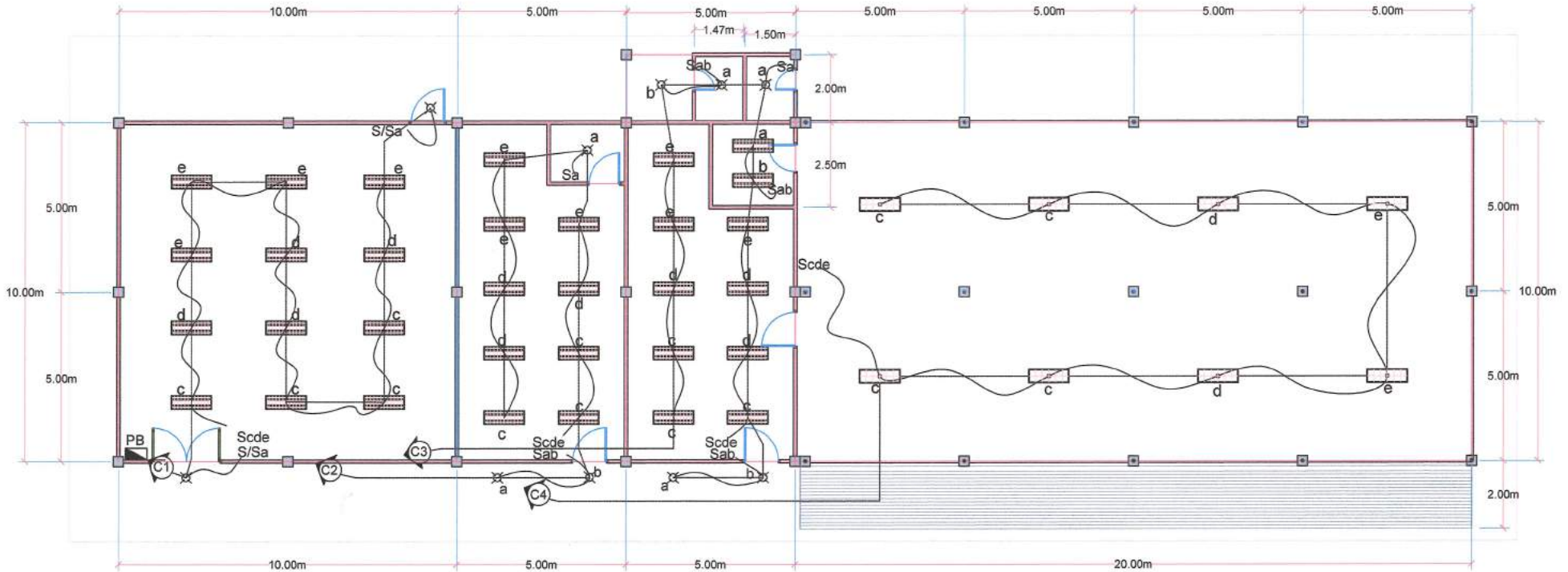
10. ALL WALL OUTLETS SHALL BE INSTALLED AT THE FOLLOWING HEIGHTS ABOVE THE FINISHED FLOOR LEVEL, UNLESS NOTED IN THE PLAN.

- a) WALL SWITCHES @ 1300mm
- b) WALL CONVENIENCE OUTLETS @ 300 mm

11. ALL ELECTRICAL WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER.

MOUNTING HEIGHTS:

- CONVENIENCE OUTLETS : 300mm FROM BOTTOM OF OUTLET TO FINISH FLOOR LEVEL.
- WALL SWITCHES : 1,370mm FROM BOTTOM OF SWITCH TO FINISH FLOOR LEVEL.
- PANEL BOARD : 1,830mm FROM TOP OF PANEL TO FINISH FLOOR LEVEL.
- KILOWATT HOUR METER : 1,830mm FROM CENTER OF DEVICES TO FINISH GRADE LEVEL.




















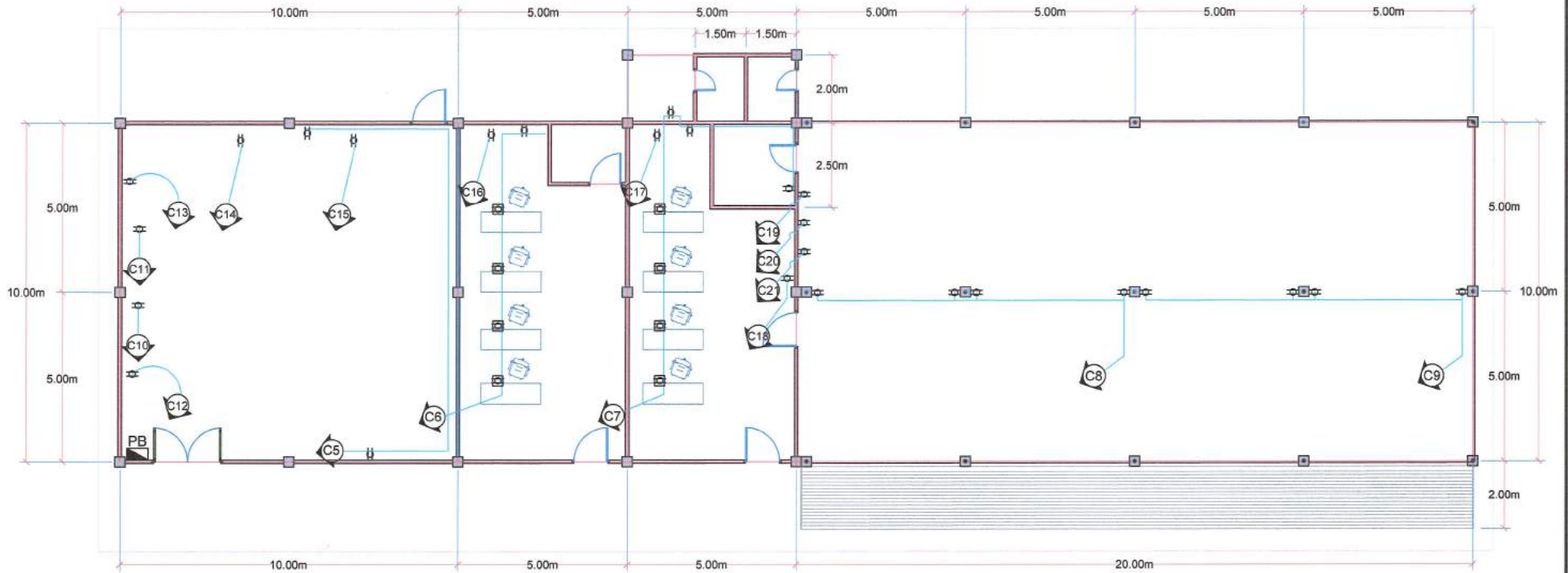
01 LIGHTING LAYOUT
SCALE : 1:120

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGA, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED: MICHAEL C. BALES, REE CIC Department Manager-ICTD	RECOMMENDING APPROVAL: JEREMIAS A. REYES JR, MPA CIC Department Manager- GSPMWD	APPROVED: FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED: ARN B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. E-01
PUROK UDAGRE, BRGY, CONEL GENERAL SANTOS CITY					DRAWN BY: CJR, KLA CHECKED BY: RRB DATE: 02 / 09 / 2022	REV. NO. 1 29 32





LEGEND

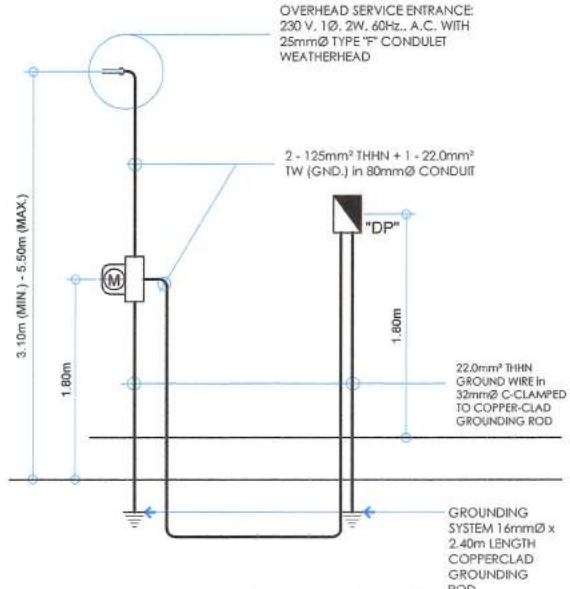
-  — 2 x 18W FLUORESCENT LIGHTING FIXTURE
-  — 2 x 36W FLUORESCENT LIGHTING FIXTURE
-  — PINLIGHT E27 RECESSED TYPE 6" DIA.
-  — CEILING LIGHT OUTLET
-  — DUPLEX CONVENIENCE OUTLET, GROUNDING TYPE 10 AMPS, 250 VOLT W/ MODERN PLATE COVER
-  — FLOOR DUPLEX OUTLET
-  — MAIN DISTRIBUTION PANEL
-  — ELECTRIC SERVICE METER
-  — GROUNDING SYSTEM
-  — ELECTRIC SERVICE ENTRANCE
-  — RACEWAY CONDUIT CONCEALED UNDER FLOOR
-  — CIRCUIT RUN
-  — RACEWAY CONDUIT CONCEALED IN CEILING
-  — HOMERUN DIRECT TO PANEL BOARD
-  — ONE GANG DEVICE SWITCH
-  — TWO GANG DEVICE SWITCH
-  — THREE GANG DEVICE SWITCH



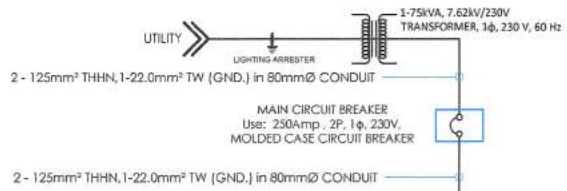
POWER LAYOUT
SCALE : 1:120

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (083) 552 - 3824

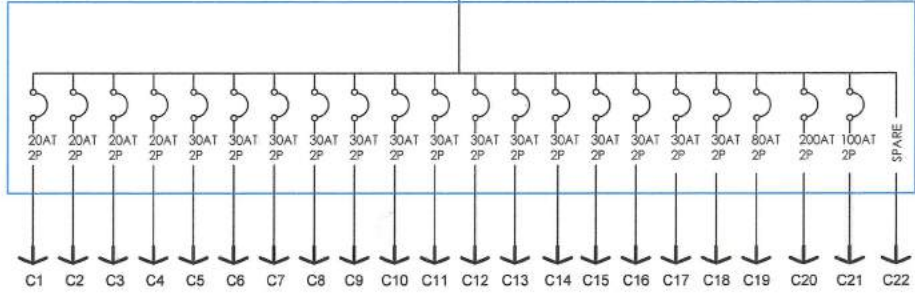
TITLE: PROPOSED CONSTRUCTION OF METER ROOM AND MOTORPOOL BUILDING	CHECKED & REVIEWED:  MICHAEL C. SABLES, REE OIC Department Manager-ICID	CHECKED & REVIEWED:  JEREMIAS A. REYES JR. MPA OIC Department Manager-GSPM/VD	RECOMMENDING APPROVAL:  FERDINAND S. FERRER, MPA Assistant General Manager - Administration	APPROVED:  ARN-B. GELLANGARIN, PME General Manager	SHEET CONTENTS: AS SHOWN	SHEET NO. E-02
PUROK UDAGRE, BRGY. CONEL, GENERAL SANTOS CITY	DRAWN BY: CJR, KLA	REV. NO. 1	CHECKED BY: RRB	DATE: 02 / 09 / 2022	30	32



ELECTRICAL RISER DIAGRAM
NOT TO SCALE



POWER SYSTEM SINGLE LINE DIAGRAM



SCHEDULE OF LOADS:

CIRCUIT NO.	PARTICULARS	NO. OF OUTLET	WATTS	PHASE	VOLTS	AMPERE	CB RATING	WIRE SIZE AND CONDUIT
1	2 x 18W LED TUBE LIGHTING FIXTURE	14	504	1	230	2.19	20 AT	2-2.0mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
2	2 x 18W LED TUBE LIGHTING FIXTURE	12	432	1	230	1.88	20 AT	2-2.0mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
3	2 x 18W LED TUBE LIGHTING FIXTURE	16	576	1	230	2.5	20 AT	2-2.0mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
4	2 x 36W LED TUBE LIGHTING FIXTURE	8	576	1	230	2.5	20 AT	2-2.0mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
5	CONVENIENCE OUTLET	2	720	1	230	3.13	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
6	CONVENIENCE OUTLET	5	1,800	1	230	7.83	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
7	CONVENIENCE OUTLET	7	2,520	1	230	10.96	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
8	CONVENIENCE OUTLET	4	1,440	1	230	6.26	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
9	CONVENIENCE OUTLET	4	1,440	1	230	6.26	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
10	CONVENIENCE OUTLET	1	360	1	230	1.57	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
11	CONVENIENCE OUTLET	1	360	1	230	1.57	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
12	Inverter Split Type 1.5 HP ACU (Magnetic Switch w/ Built-in 3-Prong Outlet)	1	1,200	1	230	5.22	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
13	Inverter Split Type 1.5 HP ACU (Magnetic Switch w/ Built-in 3-Prong Outlet)	1	1,200	1	230	5.22	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
14	Inverter Split Type 1.5 HP ACU (Magnetic Switch w/ Built-in 3-Prong Outlet)	1	1,200	1	230	5.22	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
15	Inverter Split Type 1.5 HP ACU (Magnetic Switch w/ Built-in 3-Prong Outlet)	1	1,200	1	230	5.22	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
16	Inverter Split Type 2.0 HP ACU (Magnetic Switch w/ Built-in 3-Prong Outlet)	1	1,800	1	230	7.83	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
17	Inverter Split Type 1.5 HP ACU (Magnetic Switch w/ Built-in 3-Prong Outlet)	1	1,200	1	230	5.22	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
18	Inverter Split Type 1.0 HP ACU (Magnetic Switch w/ Built-in 3-Prong Outlet)	1	900	1	230	3.91	30 AT	2-3.5mm ² THWN, 1-2.0mm ² TW(GND.) IN 15mm ² CONDUIT
19	5 HP MOTOR	2	8,440	1	230	28.0	80 AT	2-8.0mm ² TW, 1-5.5mm ² TW(GND.) IN 25mm ² CONDUIT
20	500A DAIDEN WELDING MACHINE	1	23,000	1	230	100	200 AT	2-30mm ² TW, 1-14.0mm ² TW(GND.) IN 32mm ² CONDUIT
21	300A YAMATO WELDING MACHINE	1	13,000	1	230	56.52	100 AT	2-22mm ² TW, 1-8.0mm ² TW(GND.) IN 25mm ² CONDUIT
22	SPARE							
TOTAL CONNECTED LOAD		85	61858	1	230	269.01		
Demand Factor Application			0.80					
DEMAND LOAD			49494.40					
Total Connection Load + 25% of the Largest Motor = 49494.40 + 0.25(23000) = 55244.40 VA								
I _{TOT} = 55244.40/230 = 240.2 A								
CB = 250AT/250AF, 2-POLES, 230V, 60Hz, CIRCUIT BREAKER								
FEEDER : 2-125mm ² THHN, 1-22.0mm ² TW(GND.) IN 80mm ² CONDUIT								
TOTAL LOAD IN KVA:								
KVA = 240.2(230)/1000								
KVA = 55.25								
USE: 1-75kVA, 7.62kV/230V, 60 Hz, 1ϕ TRANSFORMER								

SCHEDULE OF LIGHTING FIXTURES AND LAMPS

SYMBOLS	DESCRIPTION	INSTALLATION/MOUNTING
	TWO (2) - 18W, 230V, 60Hz AC, FLUORESCENT LIGHTING FIXTURE, BOX TYPE	SURFACED CEILING MOUNTING
	TWO (2) - 36W, 230V, 60Hz AC, FLUORESCENT LIGHTING FIXTURE, BOX TYPE	SUSPENDED/ HANGING
	ONE (1) - 10W, 230V, 6" DIA., LED DOWNLIGHT INDOOR CEILING PIN LIGHT	RECESSED TYPE

NOTE: ALL FLUORESCENT LIGHTING FIXTURES SHALL BE EQUIPPED WITH A HIGH POWER FACTOR, PRE-HEAT WITH STARTER AND THERMALLY PROTECTED BALLAST, COMPLETE WITH ALL NECESSARY ACCESSORIES, WIRED AND READY FOR USE.

GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGA, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (063) 552 - 3824

TITLE:
**PROPOSED CONSTRUCTION OF
METER ROOM AND MOTORPOOL
BUILDING**

PUROK UDAGRE, BRGY. CONEL GENERAL SANTOS CITY

CHECKED & REVIEWED:

MICHAEL C. GABALES, REE
OIC Department Manager-ICTD

JEREMIAS A. REYES JR, MPA
OIC Department Manager- GSP/MMD

RECOMMENDING APPROVAL:

FERDINAND S. FERRER, MPA
Assistant General Manager-Administration

APPROVED:

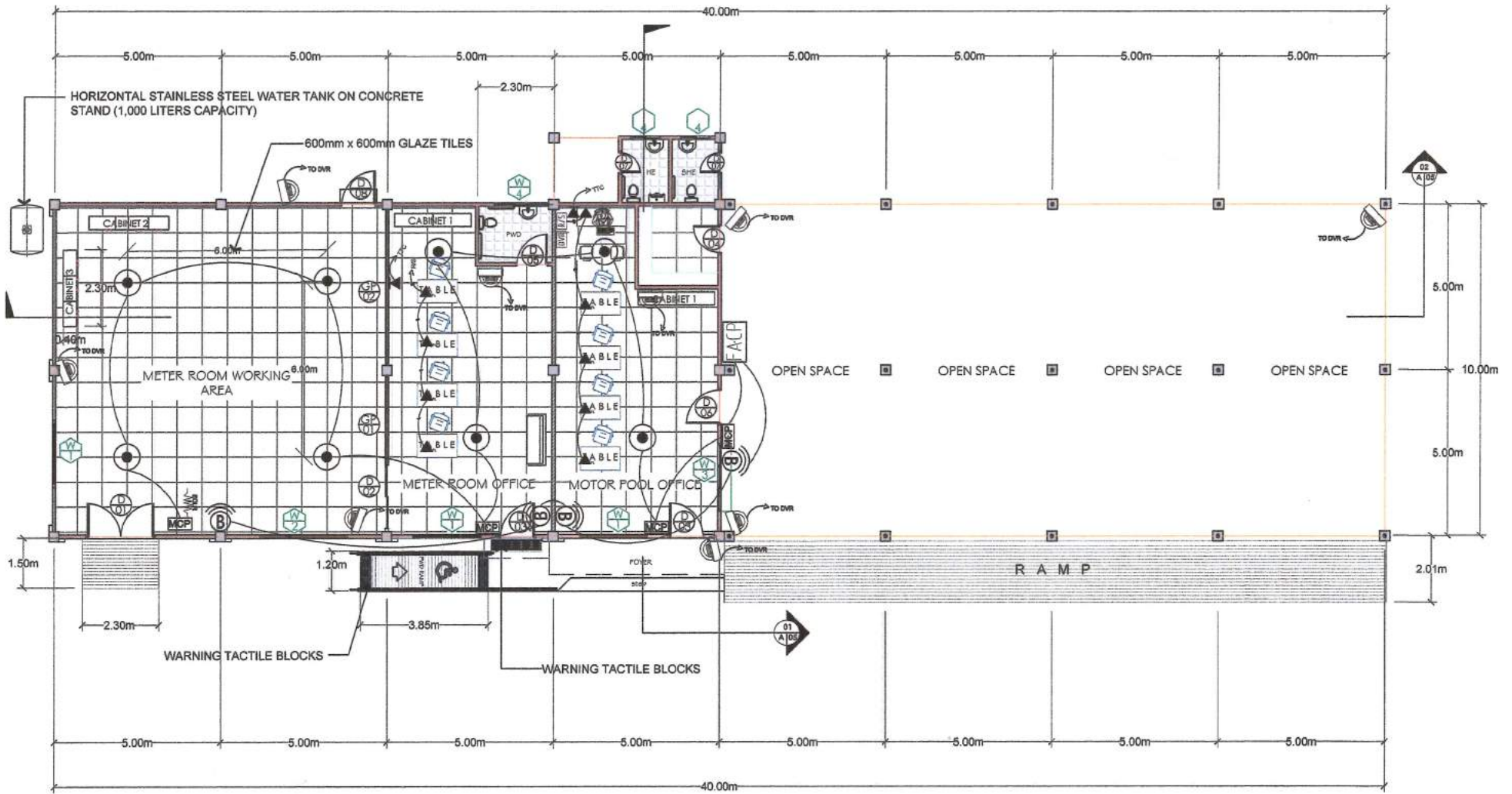
ABN B. GELLANGARIN, PME
General Manager

SHEET CONTENTS:
AS SHOWN

DRAWN BY: CJR, KLA
CHECKED BY: RRB
REV. NO. 1
DATE: 02 / 09 / 2022

SHEET NO.
E-03

31 32



FLOOR PLAN DETAIL
SCALE : 1:120



GENERAL SANTOS CITY WATER DISTRICT
E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY
ENGINEERING & CONSTRUCTION DEPARTMENT
PLANNING AND DESIGN DIVISION
TEL. NO.: (063) 552 - 3824

ROMEO M. BURGOS
PROFESSIONAL ELECTRONICS ENGINEER
REG. NO. 0000450 TRN. NO. 219-777-832-0000
PTR. NO. 0027009 DATE: 01-03-2022

PROJECT AND LOCATION:
**PROPOSED CONSTRUCTION OF
METER ROOM AND MOTOR
POOL BUILDING**
LOCATION: PURCK UDAGRE, BRGY. CONEL, GEN. SANTOS CITY

OWNER:
**GENERAL SANTOS CITY
WATER DISTRICT**
E. FERNANDEZ STREET, LAGAO, GEN. SANTOS CITY

ARN B. GELLANGARIN, PME
General Manager

SHEET CONTENTS:
AS SHOWN
DRAWN BY: CJR, KLA REV. NO. 1
CHECKED BY: RRB DATE: 02 / 09 / 2022

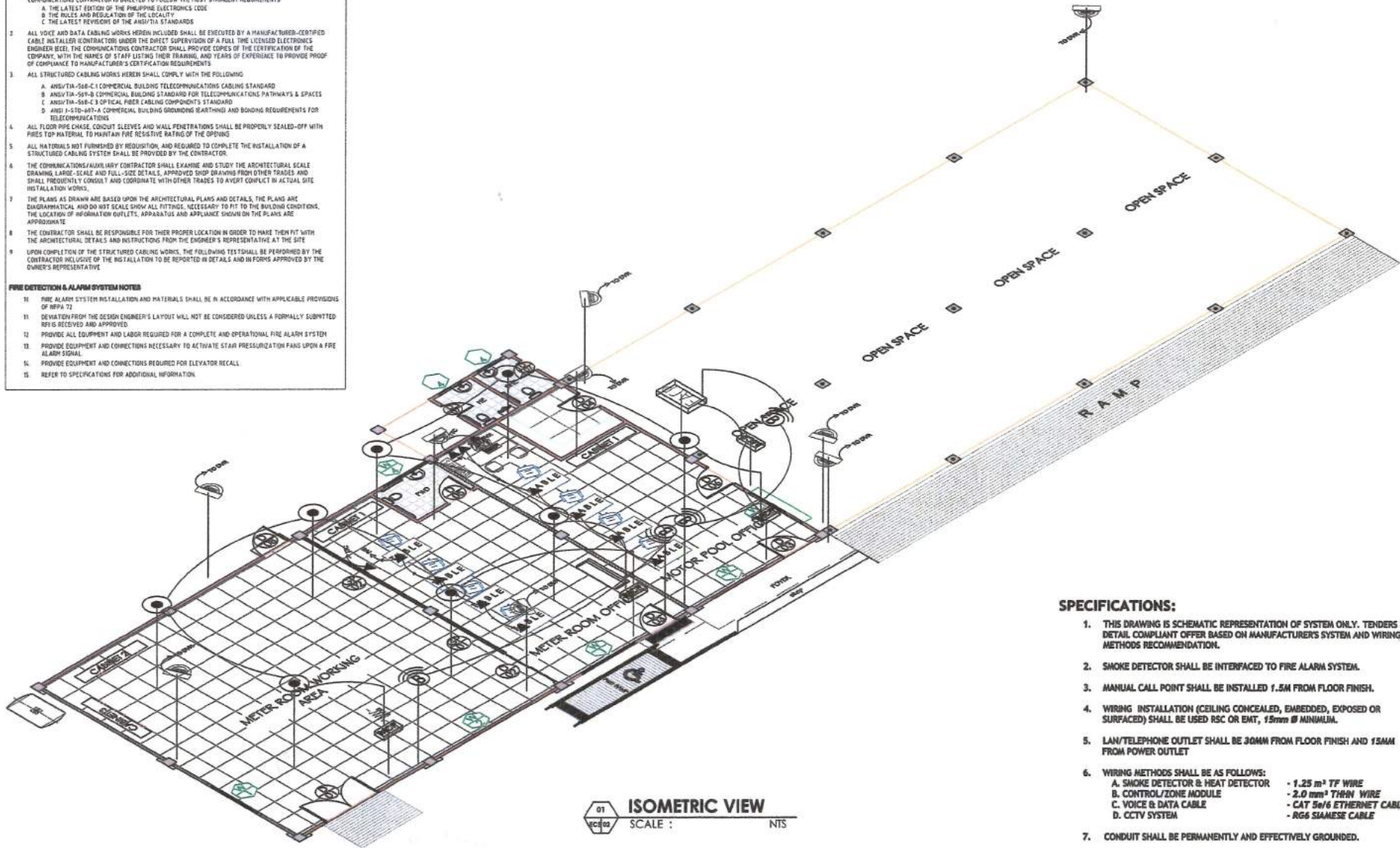
SHEET NO.
ECE-01
33

GENERAL NOTES

1. ALL WORKS PERFORMED UNDER THE SCOPE OF THIS SPECIFICATION SHALL CONFORM TO THE FOLLOWING CODES AND STANDARDS WHERE APPLICABLE. WHEN A CONFLICT OCCURS, THE COMMUNICATIONS CONTRACTOR IS DIRECTED TO FOLLOW THE MOST STRINGENT REQUIREMENTS.
 - A. THE LATEST EDITION OF THE PHILIPPINE ELECTRONICS CODE
 - B. THE RULES AND REGULATIONS OF THE LOCALITY
 - C. THE LATEST REVISIONS OF THE ANSI/TIA STANDARDS
2. ALL VOICE AND DATA CABLING WORKS HEREIN INCLUDED SHALL BE EXECUTED BY A MANUFACTURER-CERTIFIED CABLE INSTALLER (CONTRACTOR) UNDER THE DIRECT SUPERVISION OF A FULL TIME LICENSED ELECTRONICS ENGINEER (EEL). THE COMMUNICATIONS CONTRACTOR SHALL PROVIDE COPIES OF THE CERTIFICATION OF THE COMPANY, WITH THE NAMES OF STAFF LISTING THEIR TRAINING AND YEARS OF EXPERIENCE TO PROVIDE PROOF OF COMPLIANCE TO MANUFACTURER'S CERTIFICATION REQUIREMENTS
3. ALL STRUCTURED CABLING WORKS HEREIN SHALL COMPLY WITH THE FOLLOWING
 - A. ANSI/TIA-568-C commercial building telecommunications cabling standard
 - B. ANSI/TIA-568-B commercial building standard for telecommunications pathways & spaces
 - C. ANSI/TIA-568-C3 optical fiber cabling components standard
 - D. ANSI J-520-607-A commercial building grounding earthing and bonding requirements for telecommunications
4. ALL FLOOR PIPE CHASE, CONDUIT SLEEVES AND WALL PENETRATIONS SHALL BE PROPERLY SEALED-OFF WITH FIBRES TOP MATERIAL TO MAINTAIN FIRE RESISTIVE RATING OF THE OPENING
5. ALL MATERIALS NOT FURNISHED BY REQUESTOR, AND REQUIRED TO COMPLETE THE INSTALLATION OF A STRUCTURED CABLING SYSTEM SHALL BE PROVIDED BY THE CONTRACTOR
6. THE COMMUNICATIONS/AUXILIARY CONTRACTOR SHALL EXAMINE AND STUDY THE ARCHITECTURAL SCALE DRAWING, LARGE-SCALE AND FULL-SIZE DETAILS, APPROVED SHOP DRAWINGS FROM OTHER TRADES AND SHALL FREQUENTLY CONSULT AND COORDINATE WITH OTHER TRADES TO AVOID CONFLICT IN ACTUAL SITE INSTALLATION WORKS.
7. THE PLANS AS DRAWN ARE BASED UPON THE ARCHITECTURAL PLANS AND DETAILS, THE PLANS ARE DIAGRAMMATICAL AND DO NOT SCALE SHOW ALL FITTINGS, NECESSARY TO FIT TO THE BUILDING CONDITIONS. THE LOCATION OF INFORMATION OUTLETS, APPARATUS AND APPLIANCE SHOWN ON THE PLANS ARE APPROXIMATE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR PROPER LOCATION IN ORDER TO MAKE THEM FIT WITH THE ARCHITECTURAL DETAILS AND INSTRUCTIONS FROM THE ENGINEER'S REPRESENTATIVE AT THE SITE
9. UPON COMPLETION OF THE STRUCTURED CABLING WORKS, THE FOLLOWING TEST SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS AND IN FORMS APPROVED BY THE OWNER'S REPRESENTATIVE

FIRE DETECTION & ALARM SYSTEM NOTES

11. FIRE ALARM SYSTEM INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF NEPA 72
12. DEVIATION FROM THE DESIGN ENGINEER'S LAYOUT WILL NOT BE CONSIDERED UNLESS A FORMALLY SUBMITTED RFI IS RECEIVED AND APPROVED
13. PROVIDE ALL EQUIPMENT AND LABOR REQUIRED FOR A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM
14. PROVIDE EQUIPMENT AND CONNECTIONS NECESSARY TO ACTIVATE STAIR PRESSURIZATION FANS UPON A FIRE ALARM SIGNAL
15. PROVIDE EQUIPMENT AND CONNECTIONS REQUIRED FOR ELEVATOR RECALL
16. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION



01 ISOMETRIC VIEW
SCALE : NTS

SPECIFICATIONS:

1. THIS DRAWING IS SCHEMATIC REPRESENTATION OF SYSTEM ONLY. TENDERS TO DETAIL COMPLIANT OFFER BASED ON MANUFACTURER'S SYSTEM AND WIRING METHODS RECOMMENDATION.
2. SMOKE DETECTOR SHALL BE INTERFACED TO FIRE ALARM SYSTEM.
3. MANUAL CALL POINT SHALL BE INSTALLED 1.5M FROM FLOOR FINISH.
4. WIRING INSTALLATION (CEILING CONCEALED, EMBEDDED, EXPOSED OR SURFACED) SHALL BE USED RSC OR ENT, 15mm Ø MINIMUM.
5. LAN/TELEPHONE OUTLET SHALL BE 30MM FROM FLOOR FINISH AND 15MM FROM POWER OUTLET
6. WIRING METHODS SHALL BE AS FOLLOWS:
 - A. SMOKE DETECTOR & HEAT DETECTOR - 1.25 m³ TF WIRE
 - B. CONTROL/ZONE MODULE - 2.0 mm³ THHN WIRE
 - C. VOICE & DATA CABLE - CAT 5e/6 ETHERNET CABLE
 - D. CCTV SYSTEM - RG6 SIAMENSE CABLE
7. CONDUIT SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDED.

GENERAL SANTOS CITY WATER DISTRICT
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 ENGINEERING & CONSTRUCTION DEPARTMENT
 PLANNING AND DESIGN DIVISION
 TEL. NO.: (083) 652-3824

ROMEO M. BURGOS
 PROFESSIONAL ELECTRONICS ENGINEER

REG. NO. 000450 TIN. NO. 219-777-892-0000
 PPR. NO. 0027009 DATE: 01-03-2022

PROJECT AND LOCATION:
PROPOSED CONSTRUCTION OF METER ROOM AND MOTOR POOL BUILDING
 LOCATION: PUROK UDAGRE, BRGY. CONEL, GEN. SANTOS CITY

OWNER:
GENERAL SANTOS CITY WATER DISTRICT
 E. FERNANDEZ STREET, LAGA, GEN. SANTOS CITY

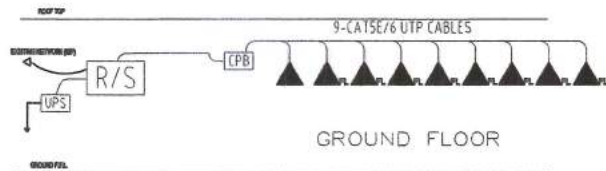
ARN B. GELLANGARIN, PME
 General Manager

SHEET CONTENTS:
AS SHOWN

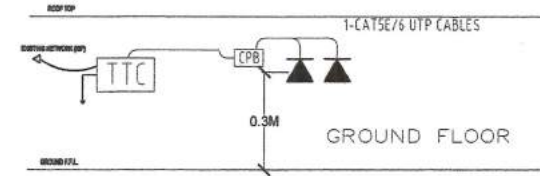
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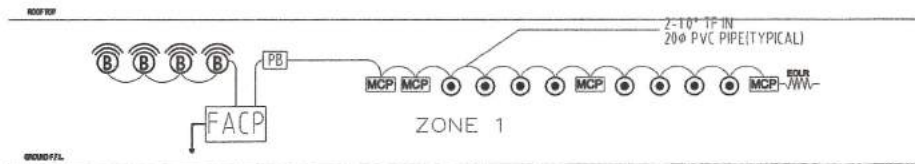
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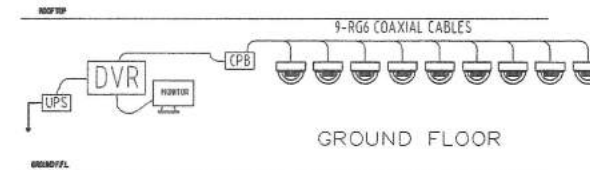
2 DATA SINGLE LINE DIAGRAM
ECE NOT TO SCALE



4 VOICE RISER DIAGRAM
ECE NOT TO SCALE



1 FDAS SINGLE LINE DIAGRAM
ECE NOT TO SCALE



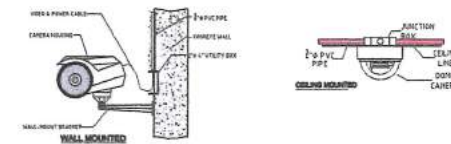
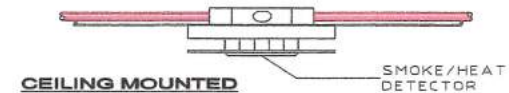
3 CCTV RISER DIAGRAM
ECE NOT TO SCALE

2 Zone Fire Alarm Control Panel

1. Maximum number of Analogue Conventional Detector Inputs: 20 detectors each zone
2. Available Options: 2-4 Zone and 6-8 Zone
3. 4 outputs for Alarm devices: Includes 2 bells/fire relay/ fault relay
4. Auxiliary resettable power output: 24VDC/ 100mA limiting protection
5. Automatic power switchover: mains power and secondary power (from batteries)
6. Independent functional buttons with indication: User friendly interface for easy operation and recognition
7. Access levels to enter the panel
8. Fault supervision and notification: inputs, outputs, system, power, earth, fuse
9. Disabling: zones disabling
10. Evacuation: Fire drills to simulate fire alarm condition on panel
11. Silence: sounders and buzzer silence
12. Walk test: indicators check

LEGEND:

- SMOKE DETECTOR
- HEAT DETECTOR
- MANUAL CALL POINT
- SOUNDER/STROBE
- FIRE ALARM CONTROL PANEL
- ROUTER/SWITCH 16-PORTS
- LAN OUTLET FLOOR MOUNTED
- LAN OUTLET
- TELEPHONE OUTLET
- DIGITAL VIDEO RECORDER
- CCTV CAMERA



5 DEVICE INSTALLATION DETAILS
ECE NOT TO SCALE

01 SINGLE LINE DIAGRAM
SCALE : NTS

<p>GENERAL SANTOS CITY WATER DISTRICT E. FERNANDEZ STREET, BRGY. LAGAO, GEN. SANTOS CITY ENGINEERING & CONSTRUCTION DEPARTMENT PLANNING AND DESIGN DIVISION TEL. NO.: (083) 652 - 3824</p>	<p>ROMEO M. BURGOS PROFESSIONAL ELECTRONICS ENGINEER</p>	PROJECT AND LOCATION:	OWNER:	SHEET CONTENTS:	SHEET NO.
		<p>PROG. NO. 0000450</p> <p>PR. NO. 0027009</p>	<p>TEN. NO. 219-777-632-0000</p> <p>DATE: 01-03-2022</p>	<p>PROPOSED CONSTRUCTION OF METER ROOM AND MOTOR POOL BUILDING</p> <p>LOCATION: PUKOK UDAGRE, BRGY. CONEL, GEN. SANTOS CITY</p>	<p>GENERAL SANTOS CITY WATER DISTRICT</p> <p>E. FERNANDEZ STREET, LAGAO, GEN. SANTOS CITY</p>