







Republic of the Philippines
Department of Education
Cordillera Administrative Region

**RESTORATION OF GABALDON BUILDING
-SIX (6) CLASSROOMS WITH TWO (2) OFFICES
BOKOD CENTRAL SCHOOL
BOKOD, BENGUET**

PREPARED BY:	CHECKED BY:	RECOMMENDING APPROVAL:	APPROVED BY:
 MICHICO ANNE A. DAGDAGEN District Project Engineer	 CHRISTOPHER B. HADSAN Regional Engineer	 EDGAR H. MADLANG Chief-ESSD	 ESTELA L. CARINO EDD, CESO III Regional Director-District IV

GENERAL ARCHITECTURAL NOTES

- ① THE CONTRACTOR SHALL VISIT THE SITE AND BE FAMILIAR WITH THE CONDITIONS THEREIN. HE/SHE SHALL INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT AND SHALL NOTIFY THE DEPED DIVISION AND PROJECT ENGINEER(S) OF ANY CONDITIONS REQUIRING MODIFICATION BEFORE PROCEEDING WITH THE WORK.
- ② THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK WITHOUT SECURING PRIOR APPROVAL OF SHOP/PLACEMENT AND/OR FABRICATION DRAWINGS FROM THE DIVISION AND DEPED PROJECT ENGINEER(S). FAILURE TO DO SO MAY AND ALL EXPENSE INCURRED BY INADEQUATE OR INCORRECT FABRICATION OR INSTALLATION INCLUDING THE DEPENDENT FABRICATION OF SUPPLIERS, THE OWNER AND HIS/HER SUBCONTRACTORS WILL BE ASSUMED OF ANY LIABILITY.
- ③ THE STRUCTURAL AND OTHER PLANS ARE OF FINAL IMPORTANCE WITH THE ARCHITECTURAL DRAWINGS IN DETERMINING THE SCOPE OF THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK WITH THE ARCHITECTURAL DRAWINGS BEFORE THE FABRICATION AND INSTALLATION OF STRUCTURAL AND OTHER DISCIPLINE WORK. SHOULD THERE BE A DISCREPANCY BETWEEN THE ARCHITECTURAL DRAWINGS AND THE ENGINEERING DRAWINGS THAT WOULD CAUSE AN IMPROPER OR INADEQUATE INSTALLATION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DEPED DIVISION FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK. THE ARCHITECTURAL DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO ADDITIONAL COST TO THE END USER DEPARTMENT.
- ④ THE CONTRACTOR SHALL ADVISE THE ARCHITECTURAL ENGINEER OF ANY DISCREPANCY OR DISCREPANCY IN THE WORK THAT OCCUR PRIOR TO THE COMMENCEMENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY DISCREPANCY OR DISCREPANCY IN THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY DISCREPANCY OR DISCREPANCY IN THE WORK.
- ⑤ THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ALL MATERIALS AND SUPPLIES FOR THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ALL MATERIALS AND SUPPLIES FOR THE WORK.
- ⑥ THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO THE START OF ANY WORK. ANY DISCREPANCIES BETWEEN DRAWINGS AND OTHER CONTRACT DOCUMENTS, AND BETWEEN VARIOUS TRADES SHALL BE BROUGHT TO THE CONCERNED REPRESENTATIVE'S ATTENTION FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- ⑦ DRAWING SHALL NOT BE SCALED, ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED IN MILLIMETERS UNLESS OTHERWISE STATED.
- ⑧ DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE SHOWN, WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, CONSULT THE PROJECT DIVISION AND PROJECT ENGINEER(S) BEFORE PROCEEDING WITH THE WORK.
- ⑨ ANY DETAILS, SYSTEMS AND MATERIALS WHICH ARE PROPOSED AND CHANGED MUST FIRST BE REVIEWED AND APPROVED PRIOR TO THE PREPARATION OF SHOP DRAWINGS AND INSTALLATION.
- ⑩ WORKS MUST BE CARRIED OUT IN CLOSE COORDINATION AND WITH PROPER PROTECTION TO MINIMIZE ANY INCONVENIENCE DUE TO NOISE, DUST, SMELL AND ACCESS TO OTHER OPERATIONS.
- ⑪ WHERE DETAILS ARE NOT SHOWN ON THE DRAWINGS, REFER TO CERTIFIED ELECTRICAL DRAWINGS AND MANUFACTURER'S EQUIPMENT DRAWINGS FOR ALL ELECTRICAL EQUIPMENT SUPPLIES. CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND TO OBTAIN APPROVAL BEFORE PROCEEDING TO WORK. CONTRACTOR SHALL BE DEEMED TO HAVE ALLOWED IN HIS/HER TENDER FOR ALL NECESSARY WORKS IN ACCORDANCE.
- ⑫ THE CONTRACTOR SHALL FURNISH AND INSTALL ALL STIFFENERS, BRACKETS, BACKING PLATES AND SUPPORTING STRUCTURES REQUIRED FOR THE PROPER INSTALLATION OF ALL GUESTWORK OR SUSPENDED EQUIPMENT. ALL GUESTWORK OR SUSPENDED EQUIPMENT SHALL BE INSTALLED IN HIS TENDER WHETHER SHOWN OR NOT.
- ⑬ THE CONTRACTOR SHALL COORDINATE ALL EQUIPMENT BASE AND HOUSEKEEPING WORKS WITH PLUMBING AND ELECTRICAL WORKS. VERIFY ACCURATE LOCATION, DESIGN, DIMENSION AND INSTALLATION OF PADS.
- ⑭ THE CONTRACTOR SHALL COORDINATE ALL ELECTRICAL FLOOR, ROOF AND WALL SLEEVES.
- ⑮ THE CONTRACTOR SHALL COORDINATE ALL WORKS IN ALL DISCIPLINES INCLUDING GENERAL NOTES, ABBREVIATIONS AND SYMBOLS. ALL NOTES APPEARING ON VARIOUS SHEETS FOR DIFFERENT SYSTEMS AND MATERIALS ARE TO BE REVIEWED AND APPLIED TO RELATED BUILDING COMPONENTS.
- ⑯ ALL EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES BETWEEN WALL AND FOUNDATION, BETWEEN WALLS AND ROOF AND MASONRY WALLS AND AT PENETRATION OF UTILITIES THROUGH THE ENVELOPE, SHALL BE SEALED, CALKED OR WEATHER-STRIPPED TO PREVENT AIR AND WATER LEAKAGE OR INFILTRATION.
- ⑰ PROVIDE CAPILLARY AND INTEGRAL-TYPE WATER PROOFING FOR FLOOR AND WALLS.
- ⑱ ALL DETAIL DRAWINGS AS SHOWN ARE SCHEMATIC ONLY, AND CONNECTIONS, ANCHORS, ETC. SHALL BE COORDINATED WITH THE STRUCTURAL FRAMING AND OTHER BUILDING COMPONENTS. IN ORDER TO PROVIDE A COMPLETE ENCLOSURE OF FINISH MATERIALS, STRUCTURAL REQUIREMENTS SHALL COMPLY WITH APPLICABLE CODES AND REGULATIONS.
- ⑲ MAJOR ENTRANCE/EXIT DOORS SHALL BE IN ACCORDANCE WITH THE ACCESSIBILITY FOR OTHER DISCIPLINES SHALL BE REFERRED TO IN DISCIPLINARY DRAWINGS.

DEPED STANDARD COLOR SCHEME

BUILDING FEATURES	DEPED COLOR SCHEME (UNIVERSAL PANTONE COLOR)	DAVIES PAINT COLOR SCHEME	OTHER PAINTS OR APPROVED EQUIVALENT
EXTERIOR WALL	PANTONE P4-11-09070CX	LATEX/ QDE EXTERIOR BEIGE	B715-A1
INTERIOR WALL	PANTONE 11-0907 TFX	LATEX/ QDE INTERIOR BEIGE	CRISP ECRU B715-A1
CEILING	PANTONE 11-4001 TOX	BRIGHT WONDER DV 500	PERMACOAT SEMI GLOSS LATEX BRIGHT WONDER B715-A1
ROOFING & WORKS	PANTONE 14-0115 TFX	MCS-FTAT WHITE/FLAT ENAMEL WHITE	PERMACOAT SEMI GLOSS LATEX DEPED WHITE B2501-A1
DOOR	PANTONE 16-0848 TFX	SCRF 14-00308	ROOF GARD AQUA PARADISE B600-D8
	JASMINE GREEN	SCRF 14-00308	QDE TEMPLATION B715-A3
COLUMNS & BEAMS	PANTONE 13-1011 TFG	LATEX/ QDE COLUMNS BEIGE	PERMACOAT SEMI GLOSS LATEX YELLOW RAIN

SYMBOLS REFERENCE

SYMBOL	DESCRIPTION NO.	DESCRIPTION
	PLASTERING	NO COLUMN/WALL
	DOOR MARK	NO COLUMN/WALL
	WINDOW MARK	NO COLUMN/WALL
	BRICK GROUND	BRICK GROUND
	FLOOR FINISH LATEX	FLOOR FINISH LATEX
	FLOOR FINISH ENAMEL	FLOOR FINISH ENAMEL

CHALK BOARD SPECIFICATION

MATERIALS:

- 25mm THICK SOLID TANGUILE OR EQUIVALENT
- 25mm THICK PLYWOOD
- 6mm THICK LAMINATE BOARD

PROVIDE:

- 75mm x 150mm x 150mm CHALKDUST BOX
- 25mm x 10mm x 10mm MESHWARE

FINISH:

- PRAYING AND CHALKBOX PAINT WITH QUICK DRYING ENAMEL.
- BOARD GROUND WITH BLACKBOARD PAINT (GREEN) OR BLACKBOARD SLATE

FLOOR FINISHES

FF-1	25mm x 25mm x 150mm TANGUILE (solid wood)	Wood
FF-2	25mm x 25mm x 150mm Plywood	Wood
FF-3	25mm x 25mm x 150mm Laminate Board	Wood

CEILING FINISHES

CF-1	25mm x 25mm x 150mm TANGUILE (solid wood)	Wood
CF-2	25mm x 25mm x 150mm Plywood	Wood



Republic of the Philippines
Department of Education
Office of the Regional Director
Region I
Regional Office

PROJECT TITLE: RESTRUCTION OF GABALDON BUILDING - SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION: BRAND CENTRAL SCHOOL, BORDO, BANGALAT

ESTELAL CARINO ENO, CESRO III
Regional Director/ Director IV

EDGAR H. MADLANG
CHECKED BY: CRK/ESSD

CHRISTOPHER B. MADSAV
Checked by: Engr. B. Madsav

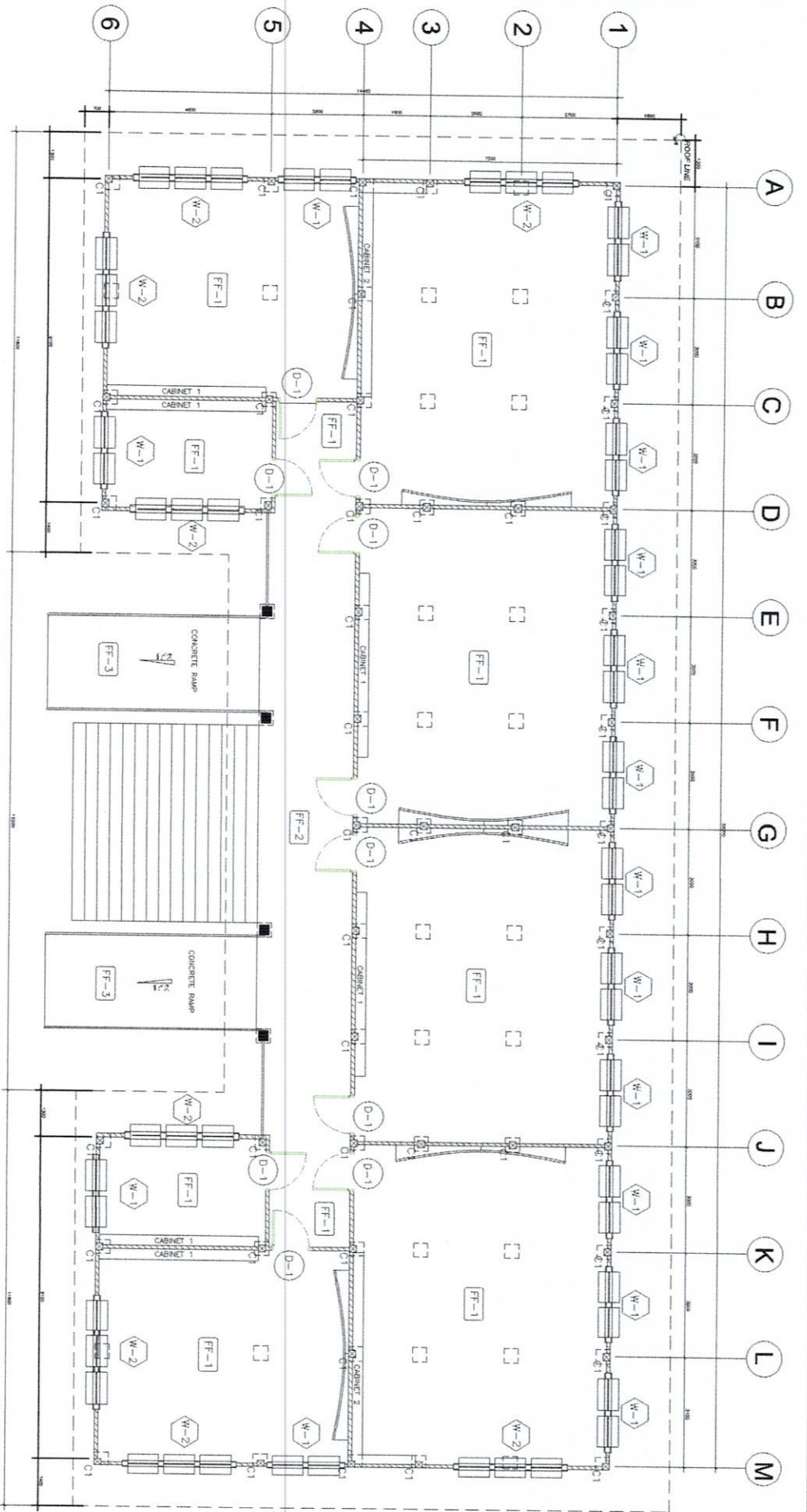
MICHELLE ANNE A. DAGDAGEN
Engr. M. A. Dagdagen

GENERAL ARCHITECTURAL NOTES

NOTE: ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL OTHER PLANS AND DRAWINGS. ALL DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY DISCREPANCY OR DISCREPANCY IN THE WORK.



PREPARED BY: [] ARCHITECT
[] ENGINEER
[] SURVEYOR
[] LANDSCAPE ARCHITECT



- FF-3 200 x 200 Red Button Type Tactile with Yellow Directional Tactiles as shown on details
- FF-2 EXISTING CONCRETE FLOORING to be laid with 400 x 400mm DARK RED NON SKID UNGLAZED Tiles
- FF-1 3/4" x 4" T&G TANGJULIE (OR EQUIVALENT) WOOD FLOORING WITH TERMITTE PROTECTION @ 6 CLASSROOMS & 2 OFFICES
- Existing Concrete Columns
- Existing Concrete Pedestals 400 x 400mm (to be retrofitted to 600 x 600mm)
- Wooden Post, 200 x 200 mm, mounted C1 on top of Concrete Pedestal

FLOOR FINISH FLOOR TYPE

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SCALE

FLOOR PLAN

NOTES



Republic of the Philippines
Department of Education
Central Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GABALON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
BOKOD CENTRAL SCHOOL
BOKOD, BENGUET

APPROVED BY
ESTELAL CARINO EDO CESRO III
Regional Director/ Director IV

DESIGNED BY
EDGAR H. MADLANG
CHARTERED

PREPARED BY
CHRISTOPHER B. MADANAN
Registered Engineer

PROJECT NO.
MICHO ANNE A. DAOGAGEN
Engineer II

SHEET CONTENT
FLOOR PLAN

NOTE
DO NOT SCALE TO ANY DIMENSION. ALL DIMENSIONS SHALL BE TAKEN FROM THE DIMENSION LINES AND DIMENSIONS ALL DIMENSIONS ARE TO BE TAKEN FROM THE DIMENSION LINES UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIMENSIONS AND THE STANDARD OFFICE REQUIREMENT BY THE SCHOOLS DIVISION OFFICE.

DATE ISSUED	PRELIMINARY	CONSTRUCTION
	<input type="checkbox"/>	<input type="checkbox"/>
	REVISED	AS BUILT
	<input type="checkbox"/>	<input type="checkbox"/>



Republic of the Philippines
 Department of Education
 Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
 RESTORATION OF GABARON BUILDING
 - SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
 BOKOD CENTRAL SCHOOL
 BOKOD, BENGUET

APPROVED BY:
ESTELA L. CARNO EDO, CESO III
 Regional Director (Division IV)

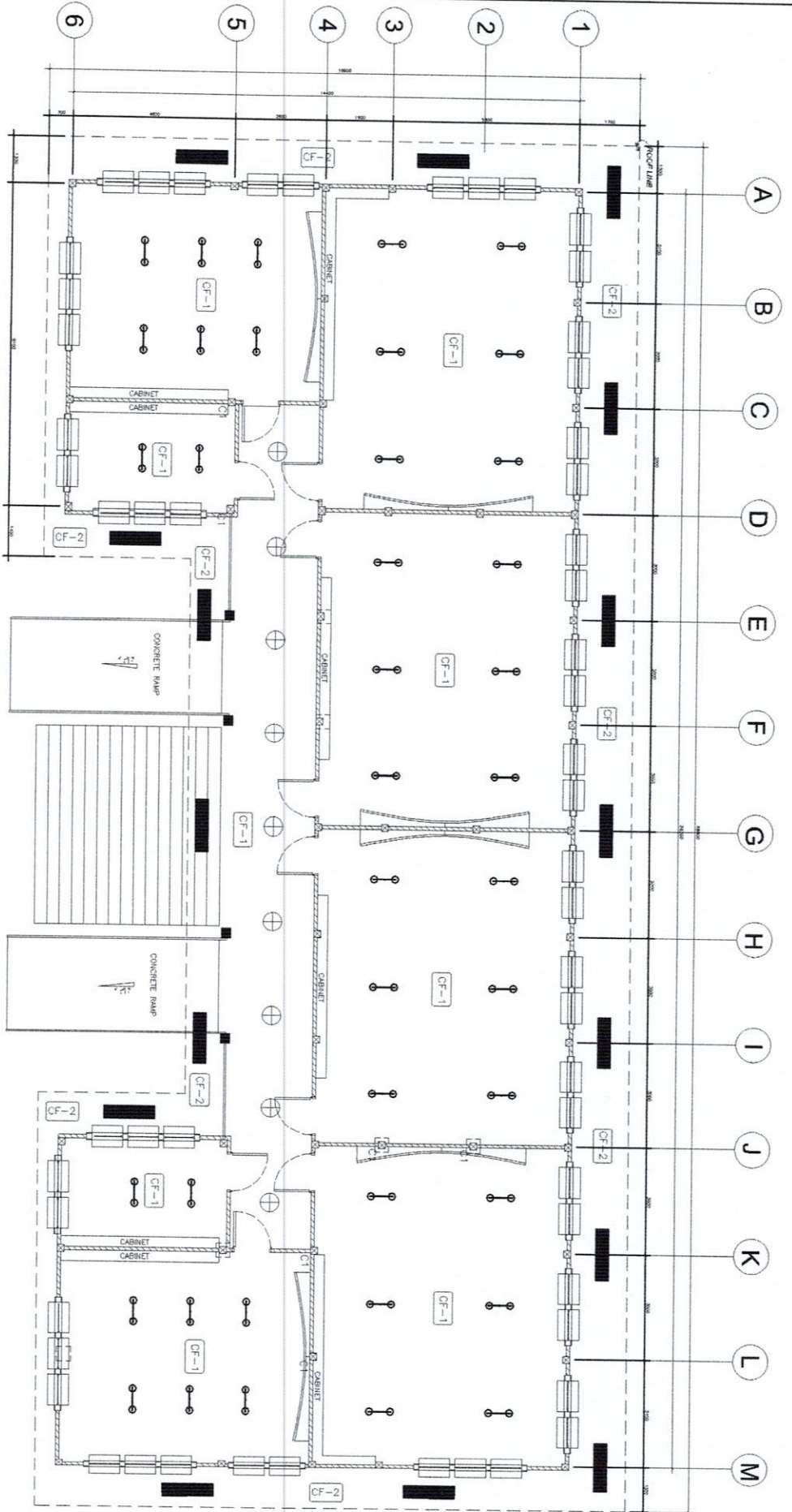
DESIGNED BY:
EDGAR H. MADLANG
 CHARTERED ENGINEER

PREPARED BY:
CHRISTOPHER B. MADSAN
 Registered Engineer

DESIGNED BY:
MICHO ANNE A. DAGDAGEN
 Engineer II

TITLE:
 REFLECTED CEILING PLAN

NOTES:
 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
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- CF-1 1/2" x 4" TAG TRUSSIBLE WOOD CEILING WITH TERRAZO FINISH @ ALL INTERIOR CORRIDOR
- CF-2 3/4" x 4" MARINE PLYWOOD WITH TERRAZO PROTECTION AND APPROVED PAINT FINISH @ EXTERIOR CEILING
- CF-1 CEILING FINISH
- CF-2 CEILING TYPE

- LAMPS TO BE USED:**
- ⊕ - 20WATTS LIGHTS on 300mm diameter globe diffuser w/ metal hanger (hallway)
 - ⊕ - 2 x 40WATTS lights on 300mm diameter reflectorized bowl-type housing & ROD Hanger
 - ▬ - CEILING VENT

4 REFLECTED CEILING PLAN
 A-9 SCALE

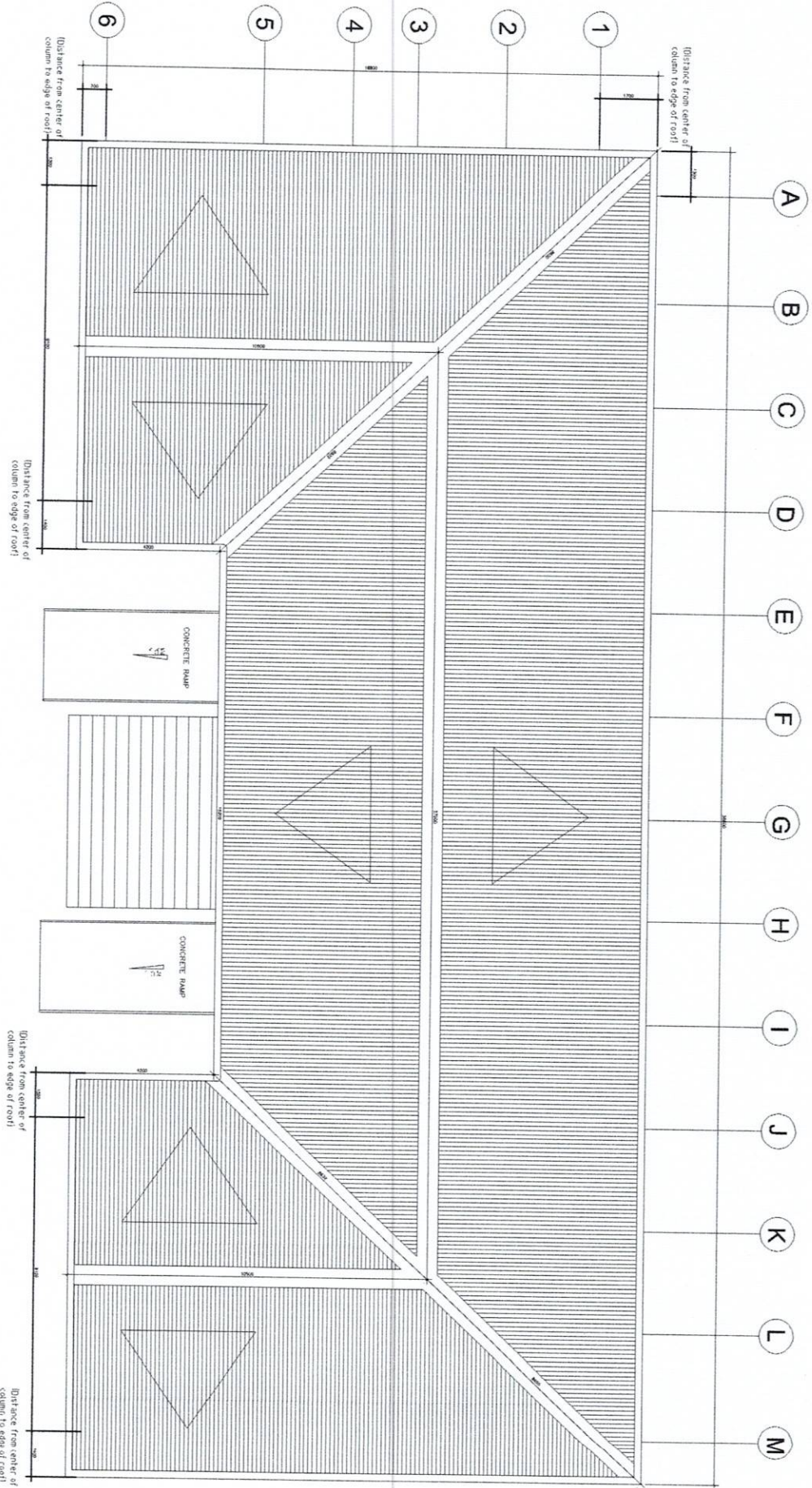
DATE ISSUED: _____

REVISIONS:

NO.	REVISION	DATE

APPROVED BY: _____

DATE ISSUED: _____



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SCALE

ROOF PLAN

NOTES



Republic of the Philippines
Department of Education
Office of the Regional Director
REGIONAL OFFICE

PROJECT TITLE:
RESTORATION OF GARLUDON BUILDING - SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
**BOKOD CENTRAL SCHOOL
BOKOD, BENGUET**

APPROVED BY:
ESTELA L. CARNO EDO, CESO III
Regional Director/ Director IV

DESIGNED BY:
EDGAR H. MADLANG
Civil Engineer

PREPARED BY:
CHRISTOPHER B. MADANAN
Registered Engineer

PROJECT CONTRACTOR:
MICHO ANNE A. DAODAGEN
Engineer II

SHEET CONTENTS:
ROOF PLAN

NOTE:
1. ALL NOTES AND SPECIFICATIONS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER PLANS AND DRAWINGS. ALL DIMENSIONS ARE TO BE GIVEN ON CENTER UNLESS OTHERWISE SPECIFIED.
2. THE DRAWING AND THE STRUCTURAL OFFICE ENGINEER BY THE ARCHITECT DIVISION.

SHEET CONTENTS:

<input type="checkbox"/>	PRELIMINARY	<input type="checkbox"/>	CONSTRUCTION
<input type="checkbox"/>	DRAWING	<input type="checkbox"/>	AS-BUILT

DATE ISSUED: _____



Republic of the Philippines
Department of Education
Cebu Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
RESTORATION OF GARLUDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
BOKOD CENTRAL SCHOOL
BOKOD, BANGUET

APPROVED BY:
ESTELA L. CARINO EDO, CESO III
Regional Director Division IV

DESIGNED BY:
EDGAR H. MADUJANG
Civil Engineer

CHECKED BY:
CHRISTOPHER B. MADANAN
Regional Engineer

DATE ISSUED:
MICHO ANNE A. DAGDAGEN
Engineer II

DATE REVISION:
FRONT REAR ELEVATION

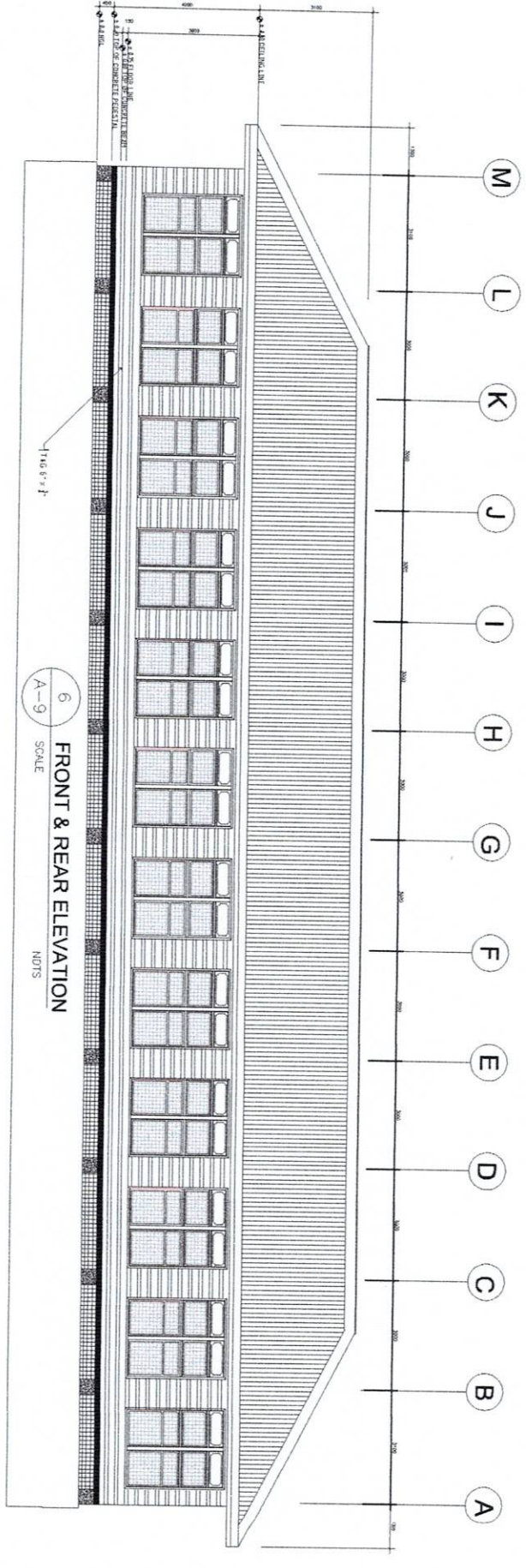
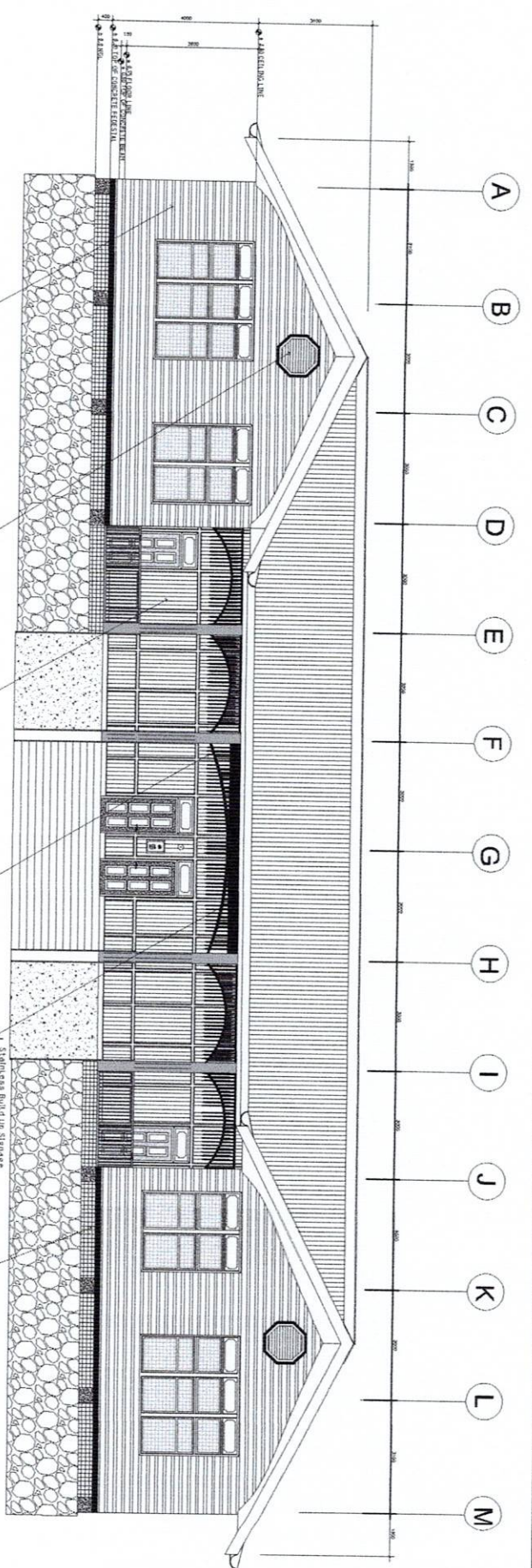
NOTE:
1. NOT SCALE FROM DRAWING. ALL DIMENSIONS TO BE SHOWN TO BE READ IN CONJUNCTION WITH ALL OTHER NOTES AND DIMENSIONS. ALL DIMENSIONS ARE TO BE GIVEN ON THE DRAWING UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT OR THE DIVISION OFFICE OF SCHEMATIC DESIGN.
2. ALL DIMENSIONS TO BE GIVEN ON THE DRAWING UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT OR THE DIVISION OFFICE OF SCHEMATIC DESIGN.

SHEET NO. 6

DATE REVISION:
 REVISION
 WORKS
 AS-BUILT

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SCALE

FRONT & REAR ELEVATION
NOTES





Republic of the Philippines
Department of Education
Cebu Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
RENOVATION OF GASLUDION BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
BOKOD CENTRAL SCHOOL
BOKOD, BANGUET

APPROVED BY:
ESTELA L. CARINO EDO, CESO III
Regional Director (Director IV)

DESIGNED BY:
EDGAR H. MADLANG
Civil Engineer II

CHECKED BY:
CHRISTOPHER B. MADSAW
Regional Engineer

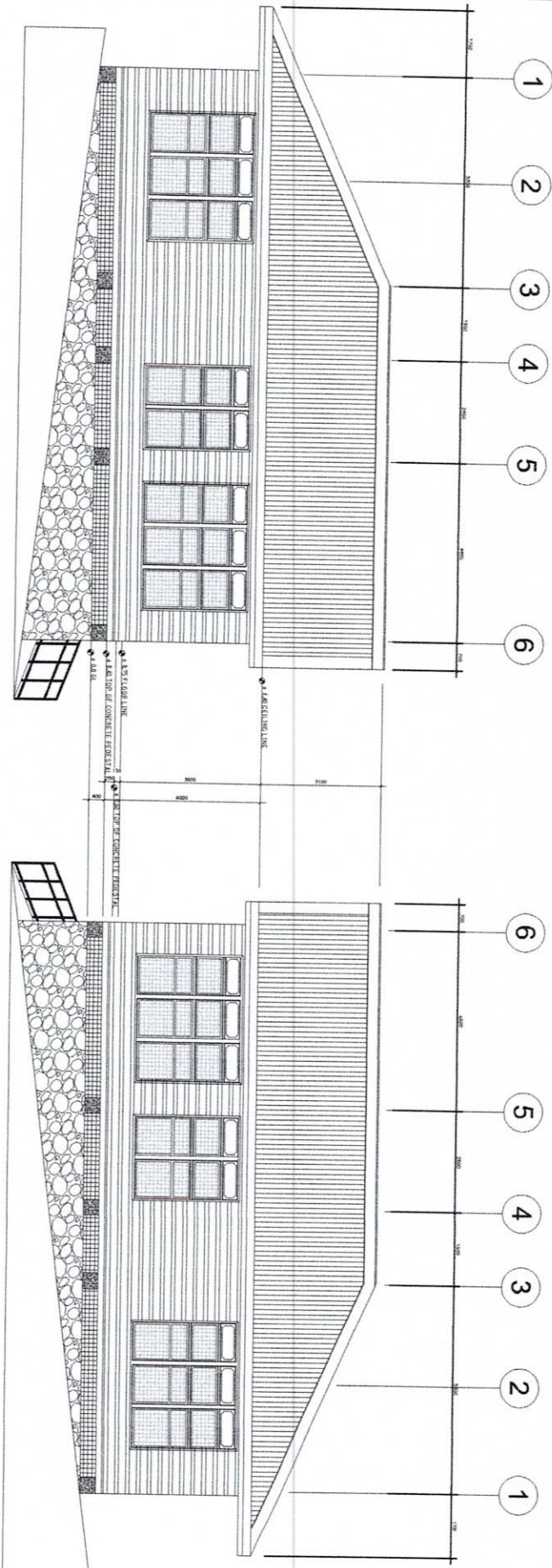
PREPARED BY:
MICHO ANNE A. DAGDAGEN
Engineer II

PROJECT CODE:
LEFT AND RIGHT SIDE ELEVATION

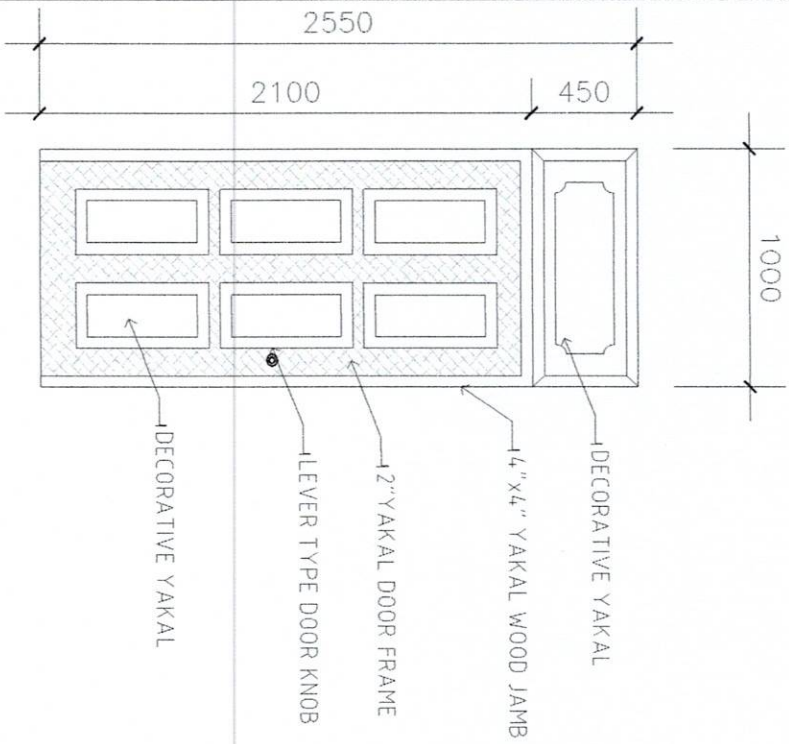
NOTE:
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PROJECT STATUS:

<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION
<input type="checkbox"/> WORKING	<input type="checkbox"/> AS-BUILT

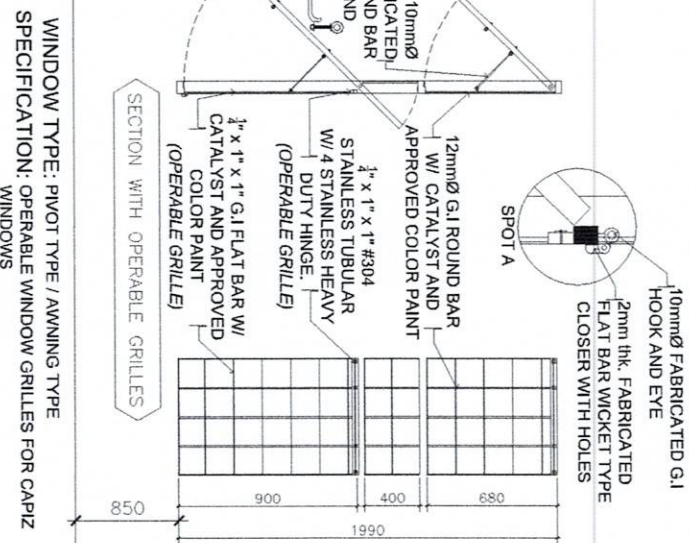
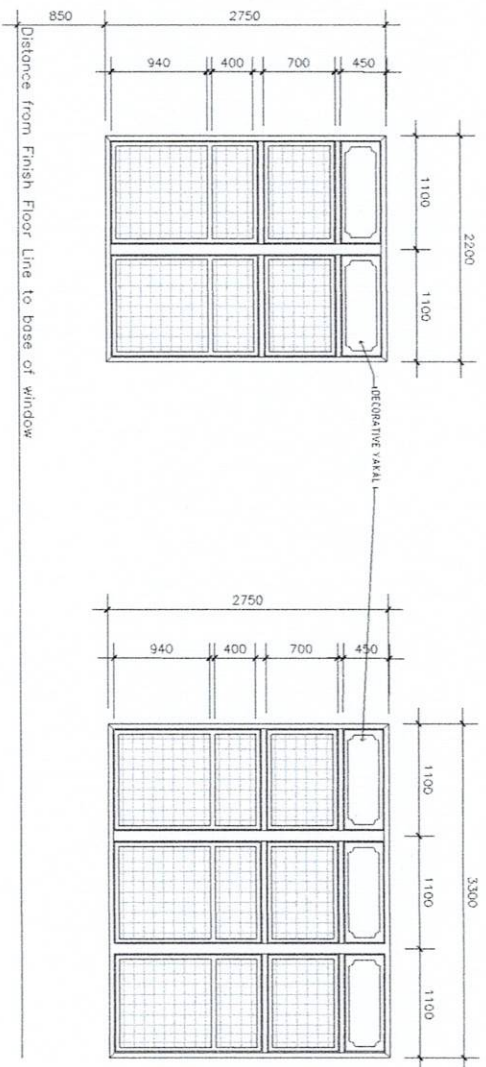


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SCALE
LEFT AND RIGHT SIDE ELEVATION
NOTES



DOOR AND WINDOW SCHEDULE

QTY	Ht, m	W, m	Description
D-19 SETS	2.10	1.00	Panel Door, Yakal
W-116 SETS	2.75	2.20	Awning Window, Capiz, s4s
W-26 SETS	2.75	3.30	Awning Window, Capiz, s4s



SECTION WITH OPERABLE GRILLES

WINDOW TYPE: PIVOT TYPE / AWNING TYPE
 SPECIFICATION: OPERABLE WINDOW GRILLES FOR CAPIZ WINDOWS

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DOOR AND WINDOW SCHEDULE AND DETAILS

NOTES

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SCALE



Republic of the Philippines
 Department of Education
 Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
 RESTORATION OF GARLALDON BUILDING
 - SM-10 CLASSROOMS WITH TWO (2) OFFICES

LOCATION
 TRODOR CENTRAL SCHOOL
 BOKOD, BENGUET

DESIGNED BY

ESTRELLA CARINO EMB, CESO III
 Regional Office Director IV

REVISIONS/REVISIONS

EDGAR H. MADUJANG
 CHIEF ESTD

CHRISTOPHER B. HADISAN
 Regional Engineer

MICHO ANNE A. DAGRAGEN
 Designer II

DOOR AND WINDOW SCHEDULE & DETAILS

NOTE
 DO NOT SCALE FROM DRAWING. ALL DIMENSIONS ARE TO BE TAKEN FROM SITE TO AND DIMENSIONS AND DIMENSIONS ARE TO BE TAKEN FROM THE DRAWING AND THE STANDARD PRACTICES REMAINED BY THE SCHOOL'S DIVISION OFFICE SUPERVISOR.

DESIGN/CONSTRUCTION
 DESIGN CONSTRUCTION
 BIDDING ASBUILT



APPROVED BY



Republic of the Philippines
Department of Education
Office of the Regional Director
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GARLIDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
BOKOD CENTRAL SCHOOL
BOKOD, BENGUET

APPROVED BY
ESTELA L. CARINO END, CESO III
Regional Director/Regional Office

DESIGNED BY
EDGAR H. MADLALING
CHARTERED

PREPARED BY
CHRISTOPHER B. HADSAW
Regional Engineer

ENGINEER
MICHICO ANNE A. DAGDAGEN
Engineer II

REVISIONS
NO. DATE BY
1. 01/15/2024 E.H.M. (EDGAR H. MADLALING) (DESIGN)
2. 01/15/2024 C.B.H. (CHRISTOPHER B. HADSAW) (CHECKING)
3. 01/15/2024 M.A.A. (MICHICO ANNE A. DAGDAGEN) (APPROVAL)

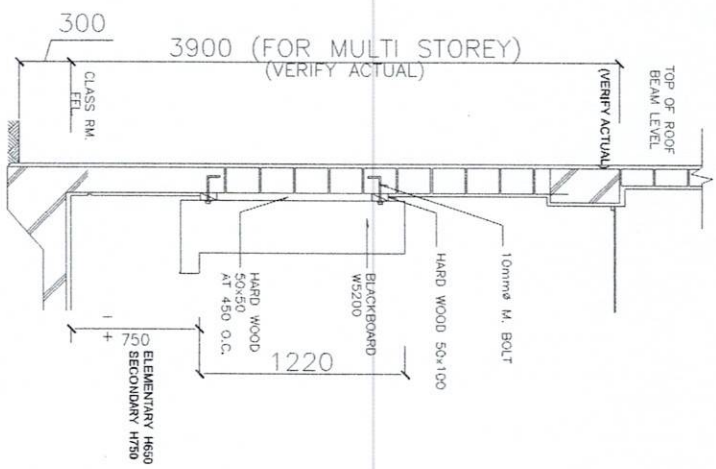
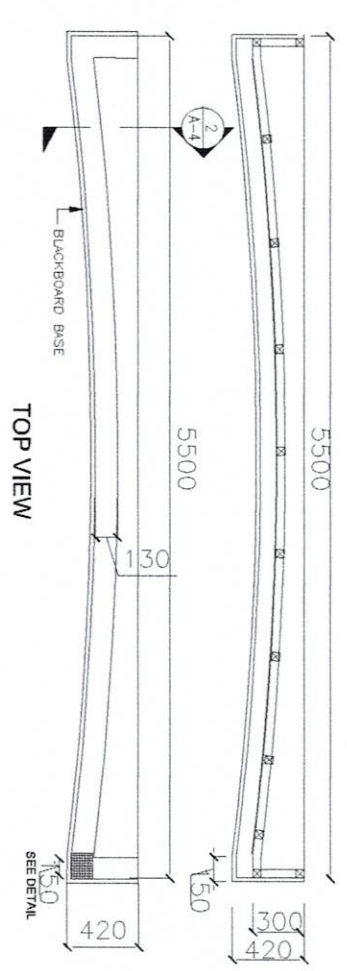
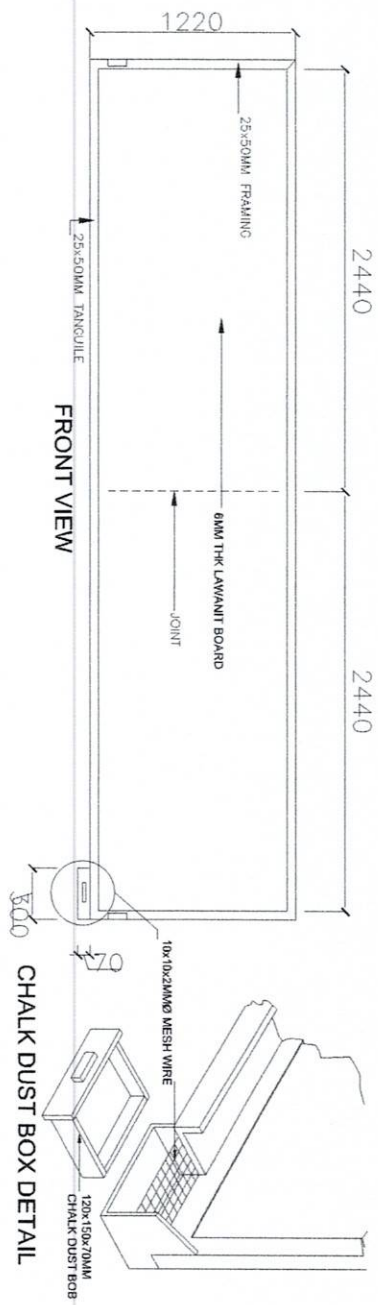
SPECIFICATION:

MATERIALS:
-25x300mm SOLID TANGKULE OR EQUIVALENT WOOD FRAMES.
-9mm THK LAMINANT BOARD
-9mm THK Plywood cover on Top, Bottom, Left and Right Side

PROVIDE:
-70x120x150mm CHALKDUST BOX
-270x10x10mm MESHWIRE

FINISH:

-FRAMING AND CHALKBOX PAINT WITH QUICK DRYING ENAMEL PAINT (BROWN) MUST BE SMOOTH FINISH, FREE OF ANY BULGES AD RIBERS
-BOARD PAINT WITH BLACKBOARD PAINT (GREEN) OR BLACKBOARD SLATE MUST BE SMOOTH FINISH, FREE OF ANY BULGES AD RIBERS



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A-9 SCALE
BLACK BOARD DETAILS
NOTS

GENERAL ENGINEERING NOTES:

1.0 STANDARDS AND REFERENCES

THE FOLLOWING SHALL GOVERN THE DESIGN, FABRICATION AND CONSTRUCTION OF THE PROJECT:

1.1 NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (N.S.C.P.), VOL. 1 6TH EDITION, 2010.

2.0 DESIGN CRITERIA

A. DEAD LOAD

CONCRETE -23.56kN/m²
STEEL -76.93kN/m²
100mm THK. CHB WALL -2.73 kPa
100mm THK. CHB WALL -2.11 kPa

B. LIVE LOAD

CLASSROOMS -1.00 kPa
TOILETS -1.30 kPa
CORRIDORS ABOVE STAIRS -2.40 kPa
CORRIDORS ON GROUND -3.80 kPa
-4.80 kPa

C. WIND LOAD (NSCP 2010)

BASIC WIND VELOCITY, V = 250 KPH
P = qh [(C_{wp}) - (C_{ep})] (DESIGN WIND PRESSURE)
WHERE: qh = VELOCITY PRESSURE (kPa)
C_{wp} = EXTERNAL PRESSURE COEFFICIENT
C_{ep} = INTERNAL PRESSURE COEFFICIENT

D. SEISMIC LOAD (NSCP 2010)

$$V = \frac{C_d}{R} W$$

(DESIGN BASE SHEAR)

$$V_{max} = \frac{2.50 C_d I}{R} W$$

$$V_{min} = 0.11 C_d I W$$

$$V_{min} = \frac{0.80 Z I M_d}{R} W$$
 (ZONE 4)

WHERE: W = TOTAL DEAD LOAD
I = NATURAL PERIOD = C_t(h_n)^{0.75}
C_t = NUMERICAL COEFFICIENT
WHERE: h_n = BUILDING HEIGHT
R = IMPORTANCE FACTOR = 1.50
C_d = DRAINAGE COEFFICIENT
C_w = 0.44V
SEISMIC COEFFICIENT C_s = 0.64h_o
NEAR SOURCE FACTOR (12km) I_m = 1.2
I_m = 1.0
Z = SEISMIC ZONE = 0.40 (ZONE 4)
S = SOIL TYPE = D

- DESIGN STRESSES
- A. CONCRETE
 - 1. COMPRESSIVE STRENGTH f'_c = 20.7 MPa (3,000 psi)
 - 2. TENSILE STRENGTH f'_t = 2.75 MPa (40,000 psi)
 - 3. MODULUS OF ELASTICITY E_c = 29,000 MPa (4,200,000 psi)
 - B. REINFORCING BARS AND GREATER
 - 1. YIELD STRENGTH f_y = 248 MPa (36,000 psi)
 - 2. TENSILE STRENGTH f_u = 290 MPa (42,000 psi)
 - 3. ELONGATION AT BREAK ϵ_t = 24% (36,000 psi)
 - C. STRUCTURAL STEEL ASTM-A36
 - 1. YIELD STRENGTH f_y = 248 MPa (36,000 psi)
 - 2. TENSILE STRENGTH f_u = 290 MPa (42,000 psi)
 - 3. ELONGATION AT BREAK ϵ_t = 24% (36,000 psi)
 - D. PURLINS
 - 1. YIELD STRENGTH f_y = 248 MPa (36,000 psi)
 - 2. TENSILE STRENGTH f_u = 290 MPa (42,000 psi)
 - 3. ELONGATION AT BREAK ϵ_t = 24% (36,000 psi)
 - E. COLD FORMED LIGHT GAGE SHAPES
 - 1. YIELD STRENGTH f_y = 346 MPa (50,000 psi)
 - 2. TENSILE STRENGTH f_u = 410 MPa (59,000 psi)
 - 3. ELONGATION AT BREAK ϵ_t = 24% (50,000 psi)
 - F. NON-LOAD BEARING CHB WALLS
 - 1. YIELD STRENGTH f_y = 248 MPa (36,000 psi)
 - 2. TENSILE STRENGTH f_u = 290 MPa (42,000 psi)
 - 3. ELONGATION AT BREAK ϵ_t = 24% (36,000 psi)
 - G. WELDS-USED E-60XX ELECTRODE
 - 1. TENSILE STRENGTH f_u = 690 MPa (100,000 psi)
 - 2. ELONGATION AT BREAK ϵ_t = 24% (100,000 psi)

- 3.0 FOUNDATION**
- 3.1 ASSUMED SOIL BEARING CAPACITY SHALL BE 96 kPa (2,000 PSF)
- 3.1.1 IN CASE THE ACTUAL LOCATION OF THE STRUCTURE IS LESS THAN THE ASSUMED DISTANCE FROM THE SEISMIC SOURCE OF 40km, NOTIFY THE DIRECTOR, BUREAU OF FIRE AND POLICE INSPECTION AND THE LOCAL STRUCTURAL CODE OF THE PHILIPPINES OR PHRIGOS SEISMIC SOURCE MAP
- 3.1.2 SOIL TEST SHALL BE CONDUCTED PRIOR TO START OF CONSTRUCTION.
- 3.1.3 IN CASE THE ACTUAL SOIL BEARING CAPACITY IS FOUND LESS THAN THE ASSUMED, 96 kPa, NOTIFY THE DIRECTOR, BUREAU OF DESIGN FOR PROPER REVISION OF FOUNDATION.
- 3.1.4 NO FOUNDATION SHALL REST ON FILL
- 3.1.5 SOIL BEARING CAPACITY SHALL BE INCREASED BY 35% WHEN IN CONSTRUCTION WITH SEISMIC OR WIND LOAD
- 3.2 ALL COLUMN FOOTINGS & TI BEAMS SHALL REST ON 100mm THK. WELL COMPACTED GRAVEL BASE COURSE.
- 3.3 BACK FILL SHALL BE PLACED IN LAYER AND EACH LAYER SHALL BE 200mm THK. AND SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY.
- 3.4 WHERE LOOSE/SOFT MATERIAL IS ENCOUNTERED AT DEPTH OF EMBEDEDMENT INDICATED, EXCAVATE TO FIRM LAYER AND REPLACE LOOSE MATERIALS UNDERNEATH THE FOOTING WITHIN THE FOOTING AREA PLUS 1/2 DEPTH OF SOFT MATERIAL ON ALL SIDES WITH SELECT GRANULAR BACKFILL. COMPACT SELECT GRANULAR BACKFILL TO 95% OF MAXIMUM DRY DENSITY.

4.0 MATERIALS

4.1 CONCRETE

- 4.1.1 CONCRETE COVER OVER REINFORCING BARS SHALL BE AS FOLLOWS:
- A. FOOTINGS, FOOTING-TIE BEAMS (CAST AGAINST EARTH) 75mm
 - B. BEAMS AND COLUMNS (TO STIRRUPS AND TIES) 40mm
 - C. WALLS, SIDE OF FOOTING-TIE BEAMS (CAST AGAINST FORMS) 40mm
 - D. SUSPENDED SLAB 20mm

4.1.2 BEFORE CONCRETE IS POURED, CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, ETC. RELATING TO THE WORK.

4.2 REINFORCING BARS

- 4.2.1 ALL REINFORCING BARS SHALL BE CLEAN OF RUST, OIL OR OTHER MATERIALS THAT WILL IMPAIR BOND.
- 4.2.2 ALL REINFORCING BARS SHALL BE ACCURATELY AND SECURELY PLACED BEFORE POURING CONCRETE OR APPLYING WORKING OR COVER.
- 4.2.3 LAPPED SPLICES SHALL BE STACKEDED WHERE POSSIBLE.
- 4.2.4 UNLESS OTHERWISE INDICATED, SPLICES OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH A11-S17M, EXCEPT THAT THE MINIMUM LAP SPLICE SHALL BE 40 BAR DIAMETER BUT NOT LESS THAN 600mm.
- 4.2.5 UNLESS SHOWN OTHERWISE ON PLANS, SPLICES SHALL BE AS FOLLOWS:

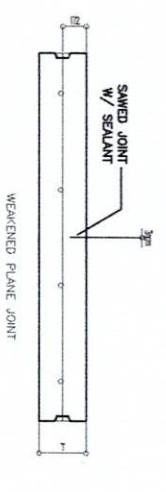
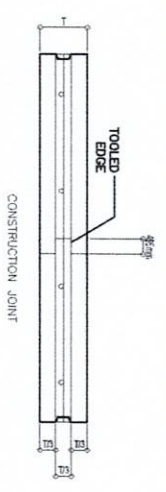
- A. INTERMEDIATE BEAMS: TOP BARS SHALL BE SPLICED AT MID-SPAN AND BOTTOM BARS AT THE SUPPORTS. TOP BARS SHALL BE SPLICED AT MID-SPAN AND BOTTOM BARS SHALL NOT BE SPLICED WITHIN THE COLUMN OR WITHIN A DISTANCE OF TWICE THE MEMBER DEPTH FROM THE FACE OF THE COLUMN. THE SPLICE LENGTH SHALL NOT BE LESS THAN 1.4 TIMES THE DEVELOPMENT LENGTH (LD) IN 4.2.8 BELOW BUT NOT LESS THAN 600mm.
- B. COLUMNS: LAP SPLICES SHALL BE MADE WITHIN THE CENTER HALF OF HEIGHT AND THE SPLICE SHALL NOT BE LESS THAN 30 BAR DIAMETER. WELDING OR MECHANICAL SPLICES SHALL BE USED IN COLUMNS. WELDED SPLICES SHALL NOT BE MORE THAN 1.4 TIMES THE DEVELOPMENT LENGTH (LD) AND THE MINIMUM VERTICAL DISTANCE BETWEEN TWO ADJACENT BAR SPLICES SHALL BE 600mm.
- C. CHB WALLS: VERTICAL BARS SHALL BE SPLICED AT THE TOP OF WALL FOOTINGS OR FOOTING-TIE BEAMS AND AT THE BOTTOM OF REINFORCED CONCRETE LINTEL BEAMS OR BEAMS.

- 4.2.6 UNLESS OTHERWISE INDICATED, ALL BEAMS TERMINATING AT A COLUMN SHALL HAVE TOP AND BOTTOM BARS EXTENDING TO THE FAR FACE OF THE COLUMN, TERMINATING IN A STANDARD 90° HOOK LENGTH OF ANCHORAGE WHICH SHALL NOT BE LESS THAN 600mm.
- 4.2.7 SHOP DRAWING FOR REINFORCEMENT SHALL BE SUBMITTED FOR APPROVAL OF THE ENGINEER PRIOR TO FABRICATION & INSTALLATION.
- 4.2.8 DEVELOPMENT LENGTH (LD) OF REINFORCING BARS SHALL BE AS FOLLOWS:

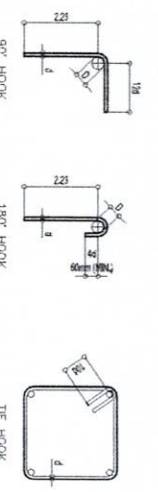
SIZE OF REBARS	DEVELOPMENT LENGTH
10mm	170mm
12mm	210mm
16mm	270mm
20mm	340mm
25mm	430mm

- 4.3 STRUCTURAL STEEL
- 4.3.1 ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 AND SHALL HAVE A MINIMUM YIELD STRESS, f_y = 248 MPa (36,000 psi).
- 4.3.2 WELDED STRUCTURAL STEEL SHALL BE FABRICATED AND ERRECTED IN ACCORDANCE WITH THE SPECIFICATIONS AND CODE OF STANDARD PRACTICE AS AMENDED TO DATE.
- 4.3.3 ALL BOLTS SHALL CONFORM TO ASTM A-307 UNLESS OTHERWISE INDICATED.
- 4.3.4 SHOP AND FIELD WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 AND PERFORMED BY QUALIFIED WELDERS.
- 4.3.5 ALL STEEL MEMBERS BE FABRICATED AND ERRECTED UNTIL SHOP DRAWINGS HAVE BEEN APPROVED BY THE STRUCTURAL ENGINEER.
- 4.3.6 WELDS/CONFORM WITH AMERICAN WELDING STANDARDS) USING E 60XX ELECTRODES; f_y = 93.77 MPa.
- 4.3.8 ANCHOR BOLTS (CONFORM WITH ASTM A-307) f_t = 98.60 MPa, f_v = 69 MPa.
- 4.4 CONCRETE HOLLOW BLOCKS (CHB):
- 4.4.1 UNLESS OTHERWISE INDICATED, CHB USED IN THIS WORK SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH f'_m = 3.45 MPa (500 psi).
- 4.4.2 ALL CHB CELLS SHALL BE FILLED SOLIDLY WITH GROUT.

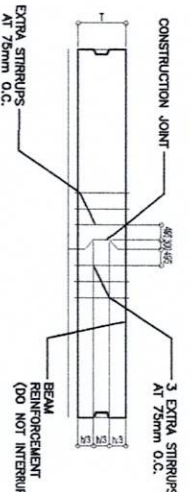
- 5.0 CONSTRUCTION JOINT**
- 5.1 CONSTRUCTION JOINT NOT INDICATED ON THE PLANS SHALL BE MADE SO AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER EXCEPT SLAB ON GRADE.
- 5.2 UNLESS SHOWN OTHERWISE, SLAB ON GRADE SHALL HAVE CONTROL JOINTS SPACED AT 6000mm MAXIMUM CENTER TO CENTER.
- 5.3 BEAMS CONSTRUCTION JOINT SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN. IT SHALL BE PROVIDED WITH 3 EXTRA STIRRUPS @ 75mm O.C. ON EACH SIDE OF THE JOINT.



NOTE: CONTROLLED JOINT CAN BE EITHER CONSTRUCTION JOINT OR WEAKENED PLANE JOINT.



NOTE: 1. ALL BENDS SHOWN IN DETAIL SCHEDULES SHALL BE STANDARD HOOK UNLESS OTHERWISE NOTED.
2. 180° HOOKS MAY BE SUBSTITUTED FOR 90° HOOKS.



SCALE



Regional Office of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GABALDON BUILDING - SIX IN CLASSROOMS WITH TWO (2) OFFICES

APPROVED BY
EDGAR H. MADLANAG
Regional Director Director IV

APPROVED BY
MICHICO ANNE A. DAGDAGEN
Engineer II

APPROVED BY
CHRISTOPHER B. HADJAN
Regional Engineer

APPROVED BY
ESTELLA CARINO EMO CESRO III
Regional Director Director IV

APPROVED BY
EDGAR H. MADLANAG
CHARLES SO

APPROVED BY
MICHICO ANNE A. DAGDAGEN
Engineer II

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CHRISTOPHER B. HADJAN
Regional Engineer

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ESTELLA CARINO EMO CESRO III
Regional Director Director IV

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Engineer II

APPROVED BY
CHRISTOPHER B. HADJAN
Regional Engineer

APPROVED BY
ESTELLA CARINO EMO CESRO III
Regional Director Director IV



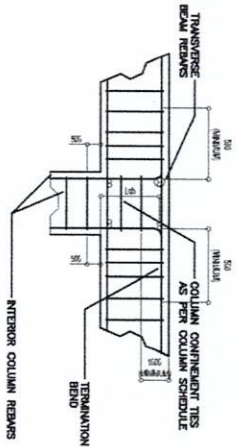
REVISIONS

NO.	DATE	DESCRIPTION
1		

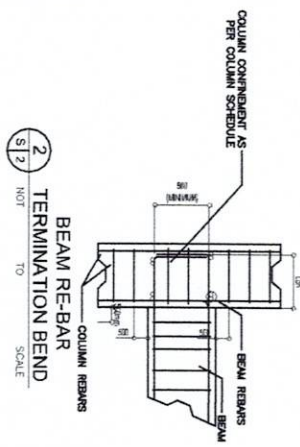
SPlicing REQUIREMENT OF REINFORCING BARS "Ls" or "Ld"

BAR SIZE	SHEET & 2 BAR SPACED THREE BAR SPACED	VERTICAL REINFORCEMENT	FLOOR SLABS	NOTE 1
16	1000MM	1000MM	1000MM	1000MM
20	1000MM	1000MM	1000MM	1000MM
25	1000MM	1000MM	1000MM	1000MM

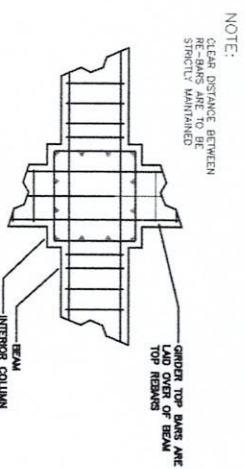
STRUCTURAL ELEMENTS	CLEAR SPAN	MINIMUM LAPS PERIOD (LAP LENGTH)	COLUMN REINFORCEMENT	
			ELABORATE	MINIMUM CLEARANCE
VERTICAL REINFORCEMENT	1	7	R.C. BEAMS	MIN. FOR EVERY 4.00 M. SPAN
SLAB & 2 BAR SPACED	1	7	R.C. BEAMS	MIN. FOR EVERY 4.00 M. SPAN
SLAB & 2 BAR SPACED	1	7	R.C. BEAMS	MIN. FOR EVERY 4.00 M. SPAN
SLAB & 2 BAR SPACED	1	7	R.C. BEAMS	MIN. FOR EVERY 4.00 M. SPAN



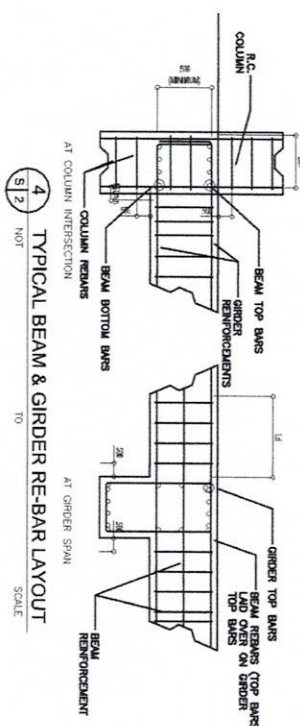
1 INTERIOR COLUMN TERMINATION BEND
S1/2 NOT TO SCALE



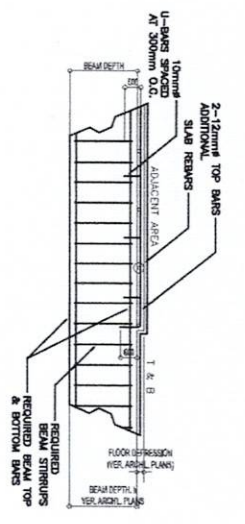
2 BEAM RE-BAR TERMINATION BEND
S1/2 NOT TO SCALE



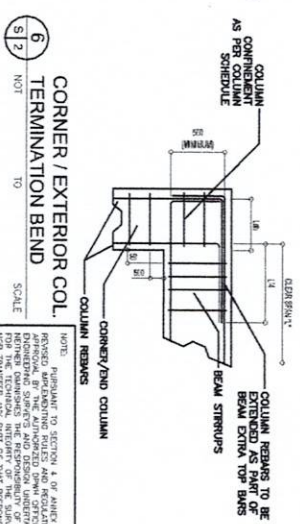
3 TYP. PLAN OF BEAM / GIRDER COL. JOINT
S1/2 NOT TO SCALE



4 TYPICAL BEAM & GIRDER RE-BAR LAYOUT
S1/2 NOT TO SCALE



5 BEAM DET. FOR T & B DEPRESSION
S1/2 NOT TO SCALE



6 CORNER / EXTERIOR COL. TERMINATION BEND
S1/2 NOT TO SCALE

NOTE: REVISION TO SECTION 4.0 OF ANNEX 'A' OF THE 014 APPROVAL BY THE AUTHORIZED DRAW OFFICES OF REGISTERED ENGINEERS AND ARCHITECTS IS THE RESPONSIBILITY OF THE LETTER APPROVING OFFICIALS. THE REGISTERED ENGINEER OR ARCHITECT SHALL BE HELD FULLY RESPONSIBLE DUE TO FAULTY DESIGN EXCEPT FOR THE CHANGES MADE THROUGH THE COMPETENCY OF THE CONSULTANTS APPROVING OFFICIALS.

Republic of the Philippines
Department of Education
Cebu Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
RESTORATION OF GARLALON BUILDING - SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
EDUCATIONAL CENTER
EDUCATIONAL CENTER
EDUCATIONAL CENTER

APPROVED BY:
ESTELA L. CARINO EMO, CESO III
Regional Director/Deputy IV

DESIGNED BY:
EDGAR H. MADLANG
Civil Engineer

REGISTERED BY:
CHRISTOPHER B. MADANAN
Registered Engineer

GENERAL STRUCTURAL NOTES

1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

2. ALL REINFORCING BARS SHALL BE AS PER THE SCHEDULE.

3. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

4. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

5. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

6. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

7. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

8. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

9. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

10. ALL REINFORCING BARS SHALL BE WELDED TOGETHER AT ALL JOINTS.

DATE ISSUED: _____

REVISIONS

NO.	DATE	DESCRIPTION
1	05/10/2024	ISSUED FOR PERMITS

APPROVED BY: _____

REGISTERED BY: _____

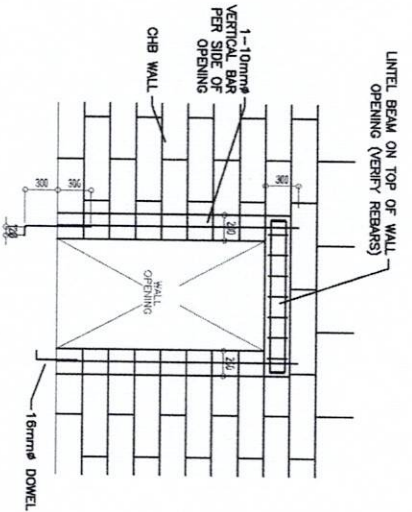
DESIGNED BY: _____

DATE ISSUED: _____

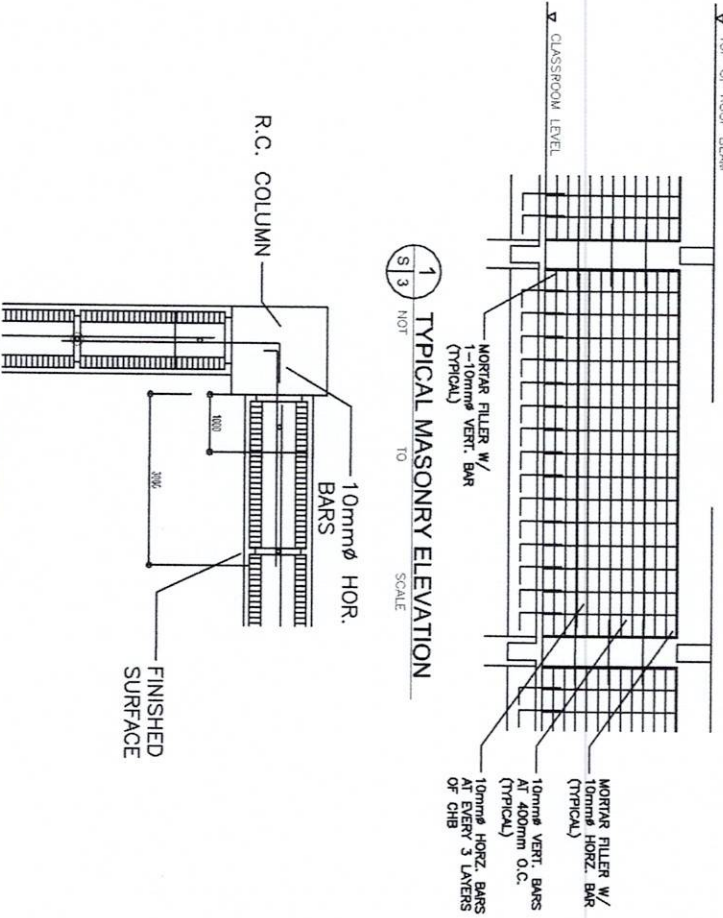
SCHEDULE OF MASONRY WORKS				MASONRY			
CHB WALL THICKNESS (MM.)	B (MM.)	H (MM.)	HORIZ. BARS	STIRRUPS	HORIZONTAL BARS	VERTICAL BARS	
100	100	200	2-10MM ϕ	10MM ϕ \oplus 300	10MM ϕ \oplus 600 MM. O.C.	10MM ϕ \oplus 600 MM. O.C.	
150	150	200	4-10MM ϕ	10MM ϕ \oplus 300	10MM ϕ \oplus 600 MM. O.C.	10MM ϕ \oplus 600 MM. O.C.	
200	200	200	4-10MM ϕ	10MM ϕ \oplus 300	10MM ϕ \oplus 600 MM. O.C.	10MM ϕ \oplus 600 MM. O.C.	

NOTE:

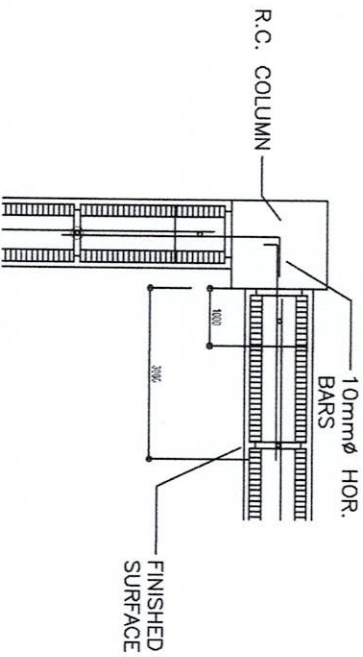
- REFER TO ARCHITECTURAL PLANS TO VERIFY LOCATIONS OF ALL CHB WALLS.
- REFER TO THICKNESS OF FINISHES TO ARCHITECTURAL PLANS.
- 12MM THICK GAP SHALL BE PROVIDED IN BETWEEN WALLS & COLUMNS, WALLS & BEAMS, & SLABS ON TOP.
- SILICONE SEALANT SHALL BE PROVIDED FOR ALL EXTERNAL WALL (CHB), FOR INTERNAL WALLS SEALANTS NEED NOT BE PROVIDED.
- STRUCTURAL R.C. WALLS (i.e. WATER TANK, ETC.) SHALL NOT BE PROVIDED W/ 12MM THK. GAPS ALL AROUND.
- STRUCTURAL GAPS SHALL IN NO CASE BE COVERED W/ PLASTER.



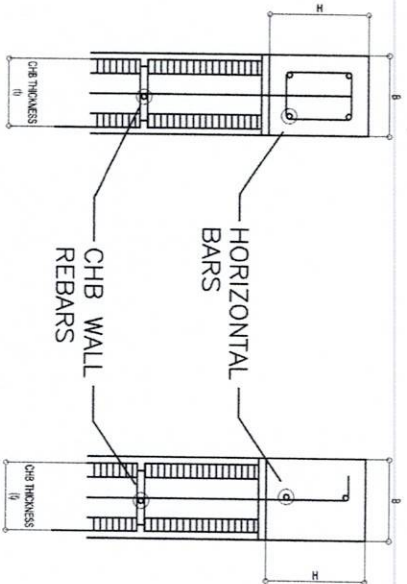
3 TYP. CHB WALL OPENING ELEV.
NOT TO SCALE



1 TYPICAL MASONRY ELEVATION
NOT TO SCALE



2 CHB EXTERIOR WALL SIDE ANCHORAGE DET.
NOT TO SCALE



4 TYPICAL LINTEL BEAM DETAIL
NOT TO SCALE



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GARLUDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

EDUCATIONAL INSTITUTION
BOKOD BRICKSET

DESIGNED BY
ESTELA L. CARINO EMD, CESO III

CHECKED BY
EDGAR H. MADUJANG

DESIGNED BY
CHRISTOPHER B. HADASAN

CHECKED BY
MICHICO ANNE A. DAODAGEN

GENERAL STRUCTURAL NOTES

NOTE:
DO NOT SCALE FROM DRAWING. ALL DIMENSIONS ARE TO BE AS SHOWN ON SITE. TO BE CHECKED AND CONFIRMED BY THE CONTRACTOR. ALL DIMENSIONS ARE TO BE AS SHOWN ON THE DRAWINGS AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE DIMENSIONS AND THE SIZES OF THE MATERIALS TO BE USED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE DIMENSIONS AND THE SIZES OF THE MATERIALS TO BE USED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE DIMENSIONS AND THE SIZES OF THE MATERIALS TO BE USED.



DATE ISSUED: _____
PREPARED BY: _____
DRAWN BY: _____
CHECKED BY: _____
DATE: _____



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESIDUATION OF GARLUDON BUILDING
- 5X (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
BOKOD CENTRAL SCHOOL
BOKOD, BANGUET

APPROVED BY

ESTEL L. CARINO EDLO, CESO III
Regional Director (Res. Div.)

RECOMMENDED BY

EDGAR H. MADLANG
Civil Engineer

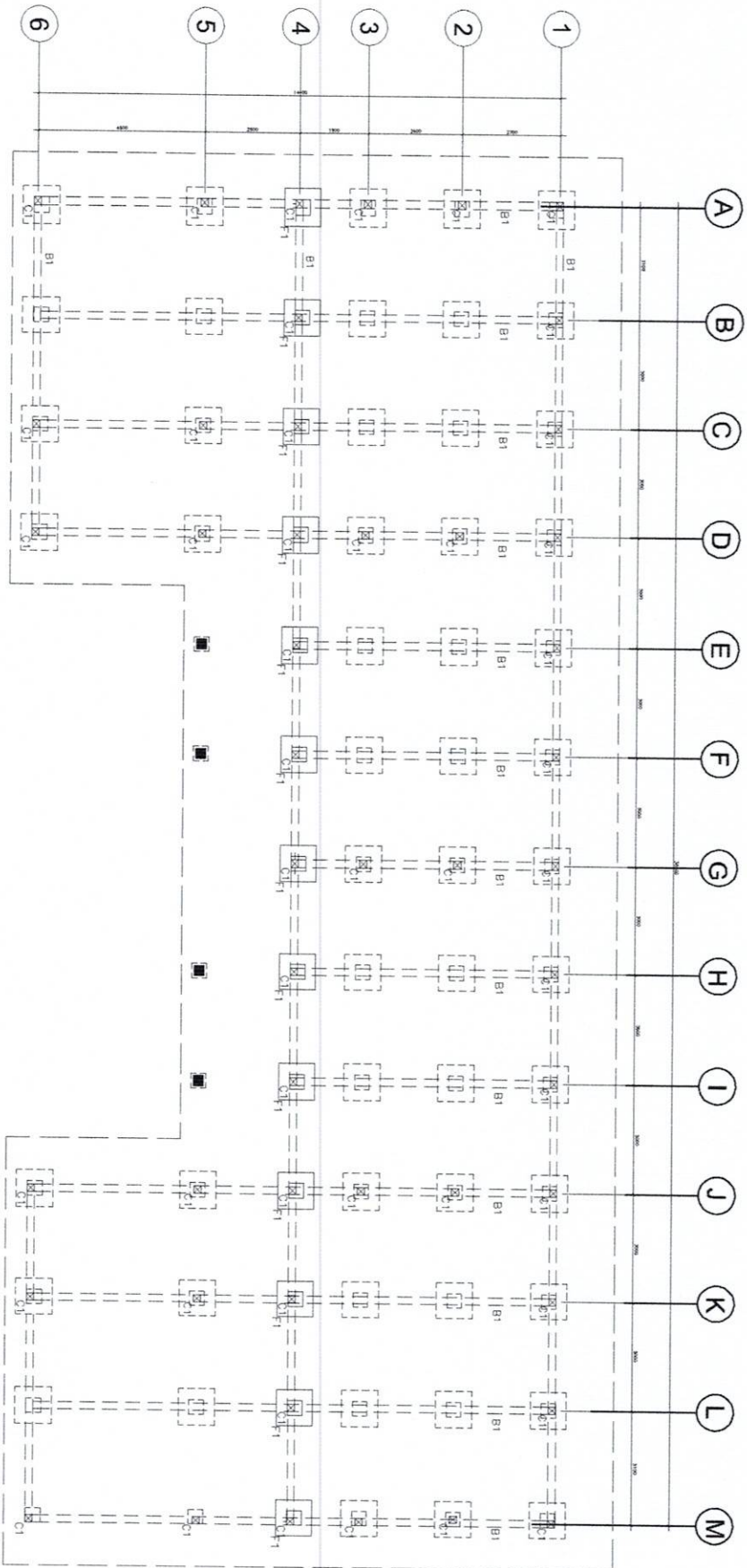
CHECKED BY

CHRISTOPHER B. HAUSAN
Regional Engineer

DESIGNED BY

MICHO ANNE A. DAGRAGEN
Engineer II

FOUNDATION PLAN



Legend:



NOTE:
1. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE.
2. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE.
3. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE.
4. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE.
5. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE.
6. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE.

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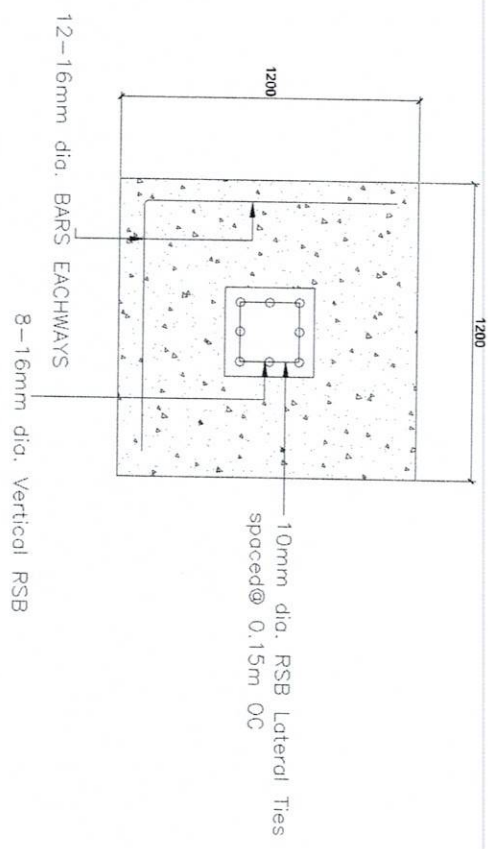
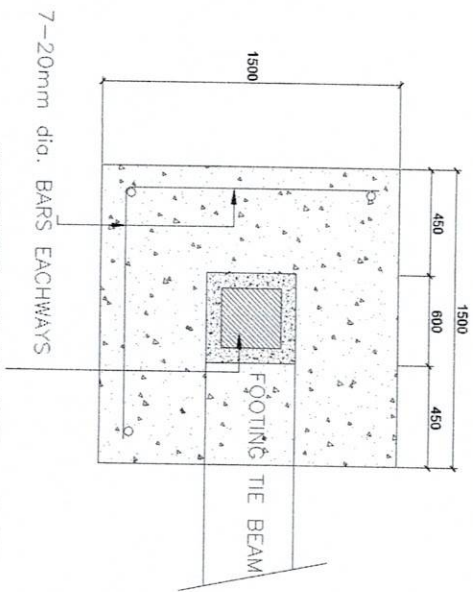
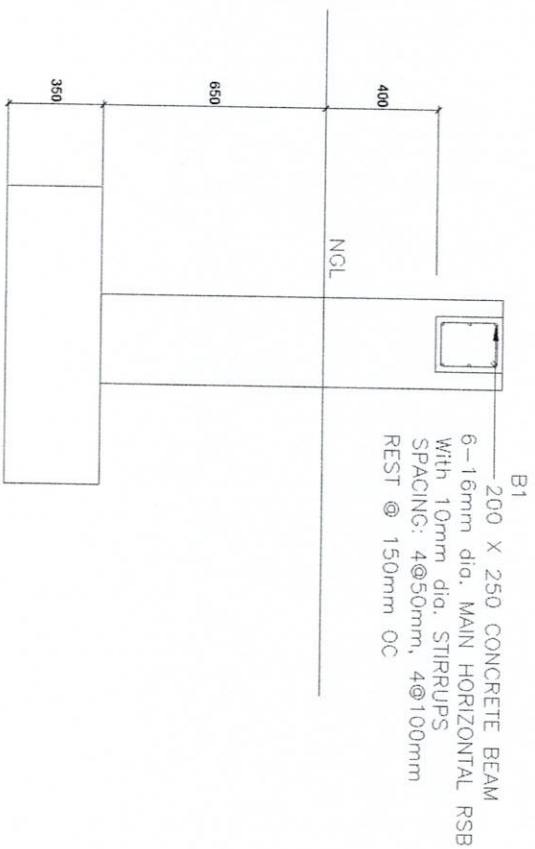
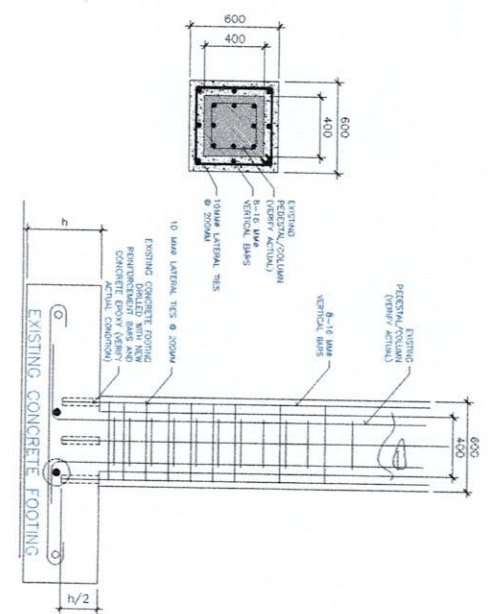
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S-10

FOUNDATION PLAN

SCALE

NOTES

PRELIMINARY CONSTRUCTION
 WORKING AS-BUILT
 INTERFERED



5
S-10

FOOTING DETAILS & RETROFITTING METHOD

NOTES



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
RENOVATION OF GABALDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
BOKOD CENTRAL SCHOOL
BOKOD, BANGUET

APPROVED BY:
ESTELA L. CARINO EDO, CESO III
Regional Director/ Director IV

EDGAR H. MADLANG
CHIEF ESSD

CHRISTOPHER B. HADSAN
Regional Engineer

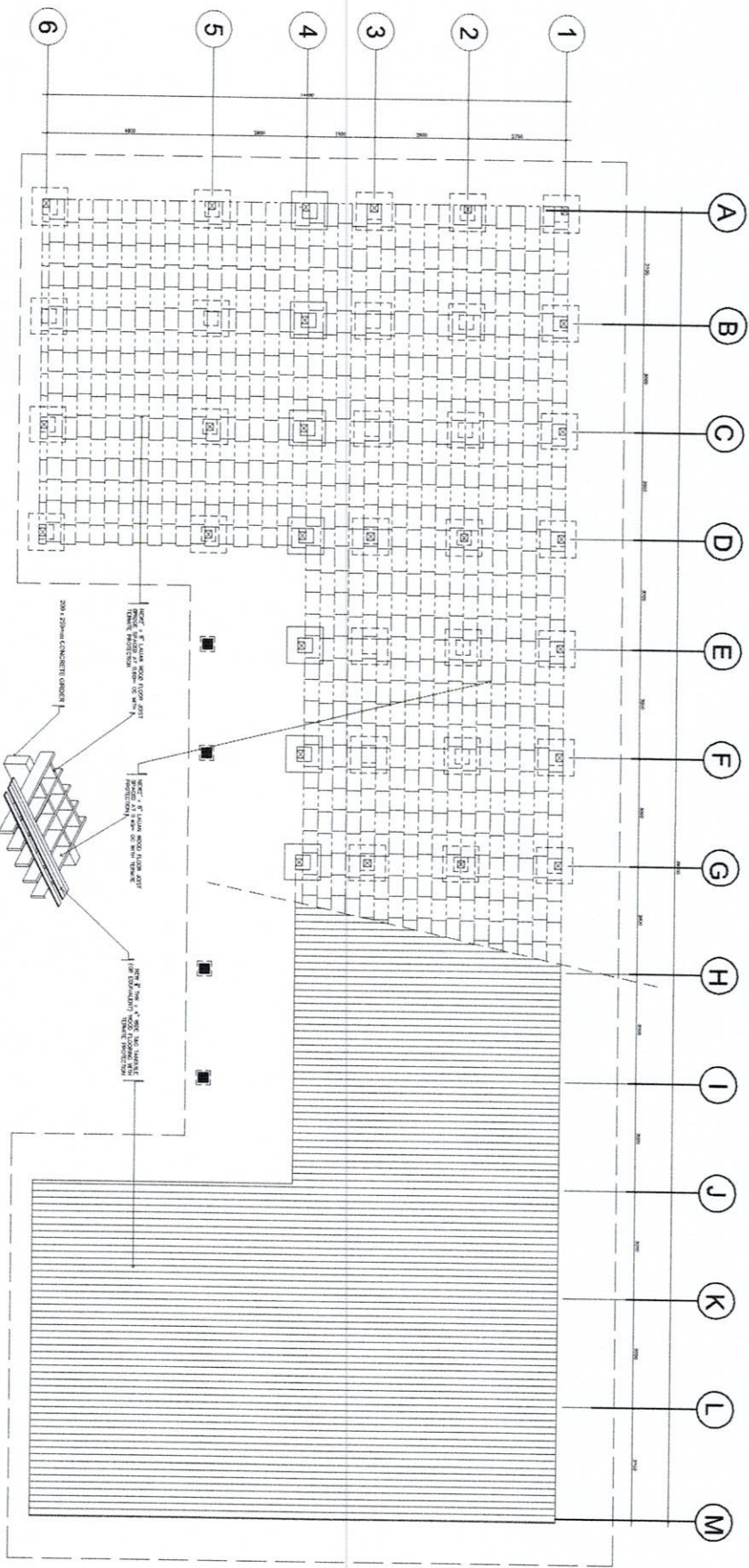
MICHICO ANNE A. DAGDAGEN
Engineer II

SHEET CONTENT:
TYPICAL RETROFITTING METHOD
NEW FOOTING, PIERCE & BEAM DETAILS

NOTE:
ON NOT SCALE DRAWING ALL MEASUREMENTS ARE TO BE TAKEN FROM THE CENTER LINE OF THE COLUMN WITH ALL OTHER BARS AND BARS ALL DIMENSIONS ARE TO BE TAKEN FROM THE CENTER LINE OF THE COLUMN. THE DRAWING AND THE STUDIOS OFFICE OF THE SCHOOLS DIVISION OFFICE OF BANGUET.

SHEET CONTENT:
PREPARED BY: []
CHECKED BY: []
DATE ISSUED: []

DATE ISSUED: []



6
S-10

FLOOR FRAMING PLAN & DETAILS

NOTES



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF CABALDOON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
BOKOD CENTRAL SCHOOL
BOKOD, BENGUET

DESIGNED BY
ESTELA L. CARINO EDD, CESO III
Regional Director Director IV

CHECKED BY
EDGAR H. MADLANG
CIVIL ENGINEER

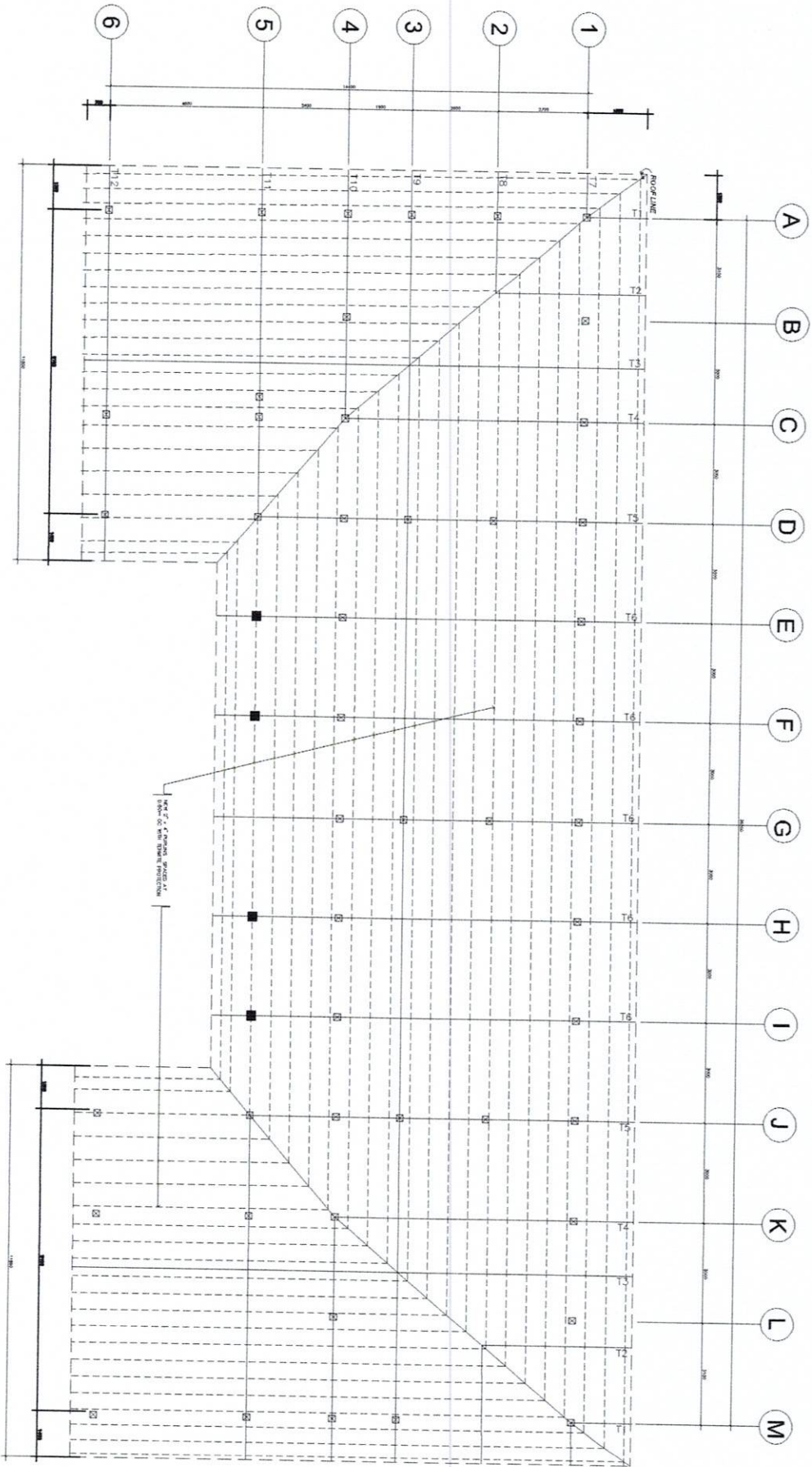
APPROVED BY
CHRISTOPHER B. HADSAW
Regional Engineer

ENGINEER II
MICHO ANNE A. DAOGADEN

SHEET CONTENT
FLOOR FRAMING PLAN & DETAILS

NOTE
DO NOT SCALE FROM DRAWING. ALL MEASUREMENTS ARE TO BE TAKEN ON SITE TO BE USED IN CONSTRUCTION WITH ALL OTHER PLANS AND SPECIFICATIONS. ALL WORK SHALL BE UNDER THE CLOSE SUPERVISION OF THE ENGINEER IN CHARGE OR DEPUTY PROJECT ENGINEER. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARDS OF THE BUREAU OF FIRE PREVENTION AND SAFETY DIVISION, OFFICE OF ENGINEER.

PREPARED BY
 DESIGN
 CONSTRUCTION
 MATERIAL
 FINISHED



7
S-10

ROOF FRAMING PLAN

NDTS



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
RECONSTRUCTION OF GARAJUDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
BOKOD CENTRAL SCHOOL
BOKOD, BENGUET

APPROVED BY:
ESTELA L. CARINO EDO, CESO III
Regional Director/ Director IV

DESIGNED BY:
EDGAR H. MADOLANG
Civil Engineer II

PREPARED BY:
CHRISTOPHER B. MADANAN
Civil Engineer II

CHECKED BY:
MICHO ANNE A. DAODAGEN
Engineer II

SHEET CONTENT:
ROOF FRAMING PLAN

NOTE:
DO NOT SCALE FROM DRAWING. ALL MEASUREMENTS ARE TO BE TAKEN FROM THE ORIGINAL SET OF DRAWINGS. ALL DIMENSIONS ARE TO BE TAKEN FROM THE DRAWING AND THE STANDARD OFFICE OF SCHOOL. THE SCHOOLS DIVISION OFFICE OF SCHOOL.

REVISIONS:
 PRELIMINARY
 WORKING
 BIDDING
 CONTRACTOR
 AS-BUILT
 CANCELLED
 REVISED



WOOD SCHEDULE	
①	4"x8" WD. TOP CHORD
②	2-2"x8" WD. BOTTOM CHORD
③	4"x4" WD. WEB MEMBER

8
S-10

SCALE

TRUSS SCHEDULE

NOTES



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GARLUDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
BOKOD CENTRAL SCHOOL
BOKOD, BENGUET

APPROVED BY

ESTELA L. CARINO EDD, CESO III
Regional Director/ Director IV

RECOMMENDING APPROVAL

EDGAR H. MADLANG
CHAR-ESSO

CLIENT

CHRISTOPHER B. HADSAN
Regional Engineer

DESIGNED BY

MICHO ANNE A. DAGDAGEN
Engineer II

SHEET CONTENT

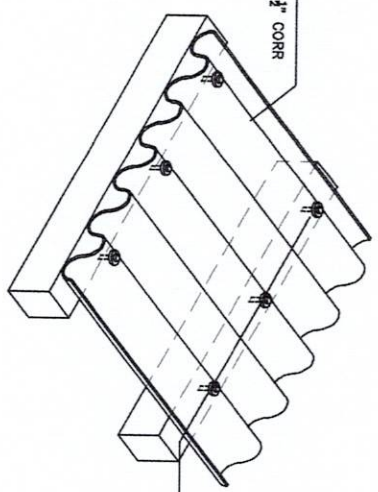
TRUSS SCHEDULE

NOTE
DO NOT SCALE FROM DRAWING. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE TO BE SHOWN IN CONFORMANCE WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS. THE ENGINEER ASSUMES NO LIABILITY FOR ANY DAMAGE OR LOSS OF LIFE OR PROPERTY ARISING FROM THE USE OF THIS DRAWING. THE ENGINEER'S OFFICE IS NOT RESPONSIBLE FOR THE STRUCTURAL DESIGN OF THE BUILDING.



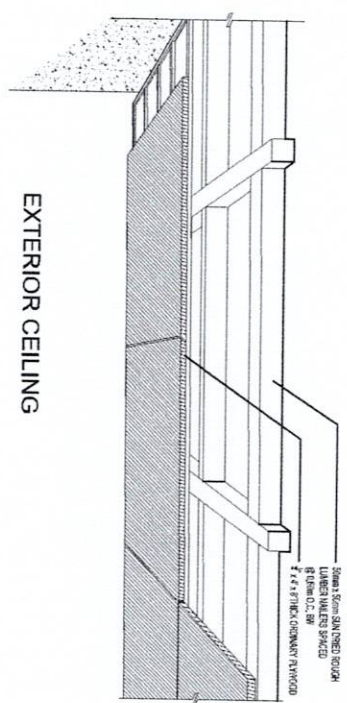
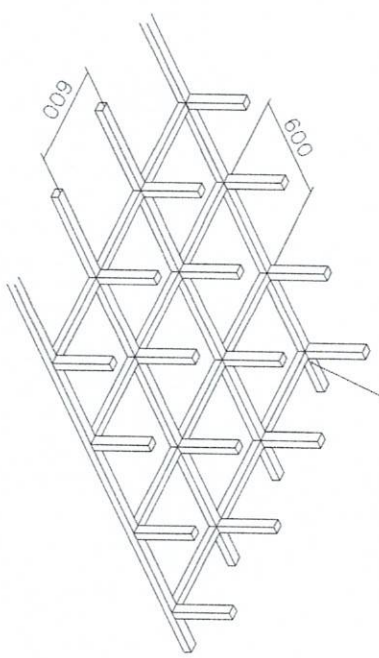
PREPARED BY
DESIGNED BY
CHECKED BY
CONSTRUCTION
ASSEMBLED

ROOFING SHEET LAPPING SHOULD BE 2 1/2" CORR NOT 1 1/2"



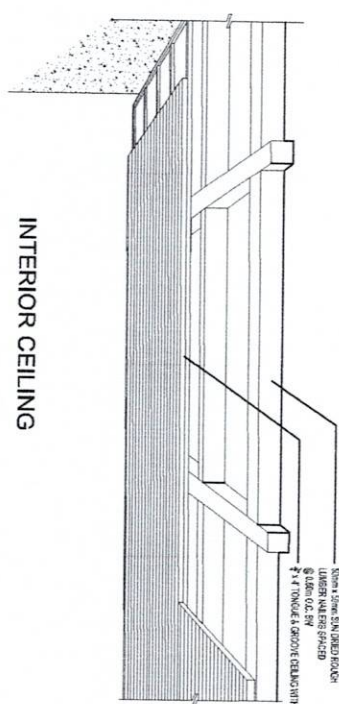
TEKSCHREW SHOULD BE SPACED AT EVERY 3 CORRUGATION

2" x 2" TANGIILE (OR EQUIVALENT) CEILING FRAME



EXTERIOR CEILING

1/2" GYPSUM BOARD
LUMBER WALE SPACED @ 600 O.C. MIN
1/4" THICK CONCRETE BEAM ON TOP



INTERIOR CEILING

1/2" GYPSUM BOARD
LUMBER WALE SPACED @ 600 O.C. MIN
1/4" THICK CONCRETE BEAM ON TOP

9
S-10

SCALE

ROOF & CEILING DETAILS

NOTES



Republic of the Philippines
Department of Education
Office of the Regional Director
Region IV - MIMAROPA
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GARLUDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCALITY
BOKOD CENTRAL SCHOOL
BOKOD, BENSUGUET

APPROVED BY
ESTELA L. CARINO EDO, CESO III
Regional Director/ Director IV

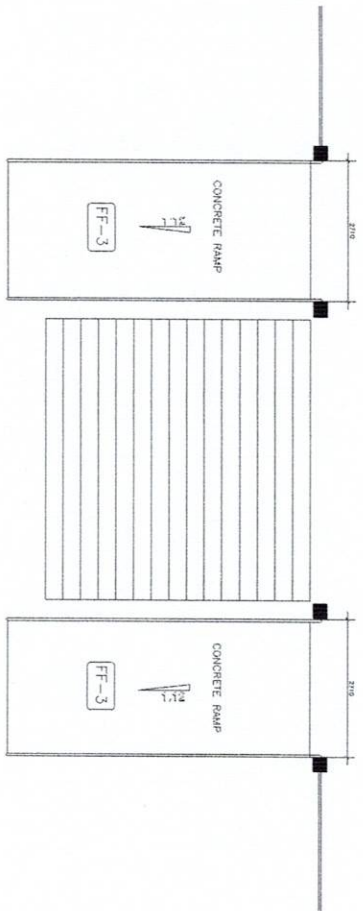
DESIGNED BY
EDGAR H. MADLANG
CHARTERED ENGINEER

PREPARED BY
CHRISTOPHER B. HADISAY
Regional Engineer

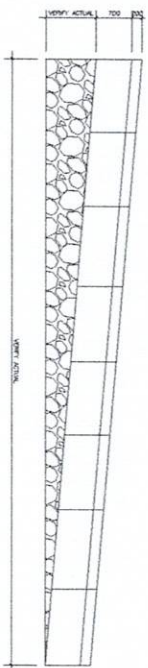
SHEET CONTENT
ROOF DETAILS
CEILING DETAILS
MICHO ANNE A. DAGDAGEN
Engineer II

NOTE:
DO NOT SCALE FROM DRAWING. ALL DIMENSIONS ARE TO BE KEPTED ON SITE TO BE READ IN CONJUNCTION WITH ALL OTHER PANS AND SPECIFICATIONS REPORTED TO THE ARCHITECT. THE ARCHITECT'S OFFICE IS NOT RESPONSIBLE FOR THE ACCURACY OF DIMENSIONS OR DEPEND PRODUCT ENGINEERING PANS DRAWING AND THE STUDENT OFFICE OF BENSUGUET.

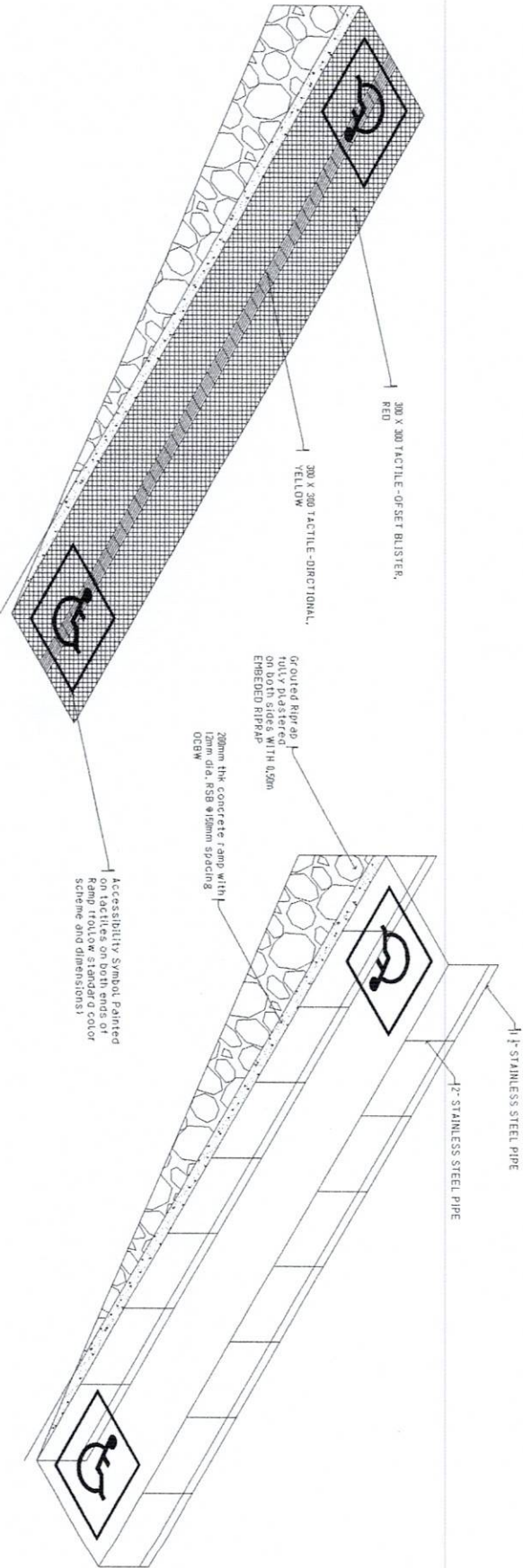
SHEET NO. 9
DATE ISSUED: PRELIMINARY CONSTRUCTION WORKING FINAL



PLAN



ELEVATION



10
S-10

CONCRETE RAMP DETAILS

NOTES



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GABALDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCAL TITLE
BOKOD CENTRAL SCHOOL
BOKOD, BANGALAY

APPROVED BY

ESTELA L. CARINO EDD, CESO III
Regional Director/ Director IV

RECOMMENDING PERSONNEL

EDGAR H. MAOLANG
CAMELESSO

CHECKED BY

CHRISTOPHER B. HAOSAN
Regional Engineer

PREPARED BY

MICHO ANNE A. DAGDAGEN
Engineer II

SHEET CONTENT:
CONCRETE RAMP DETAILS

NOTE

DO NOT SCALE FROM DRAWING. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE TO BE READ IN CONJUNCTION WITH ALL OTHER RAMP DETAILS. ANY DISCREPANCIES SHOULD BE REPORTED IMMEDIATELY TO THE ARCHITECT. ANY CHANGES TO THE CONCRETE RAMP DETAILS OR DESIGN SHALL BE APPROVED BY THE ARCHITECT. ANY CHANGES TO THE CONCRETE RAMP DETAILS OR DESIGN SHALL BE APPROVED BY THE ARCHITECT. ANY CHANGES TO THE CONCRETE RAMP DETAILS OR DESIGN SHALL BE APPROVED BY THE ARCHITECT.

SHEET CONTENT:

10
S-10

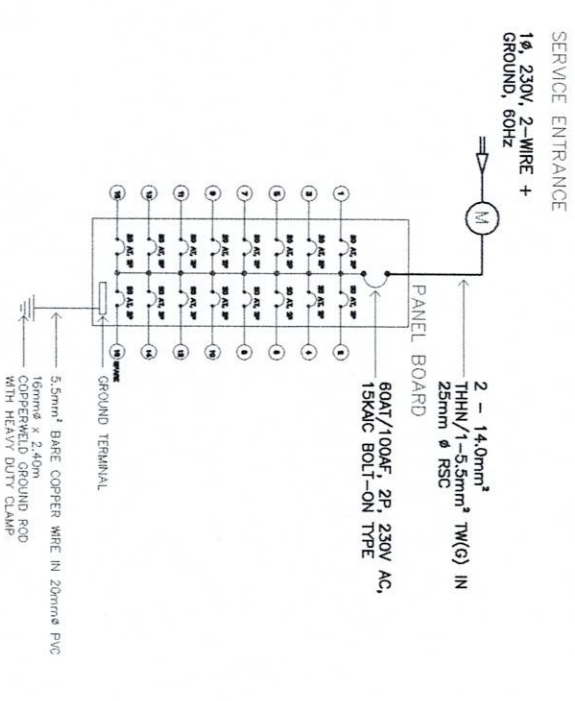
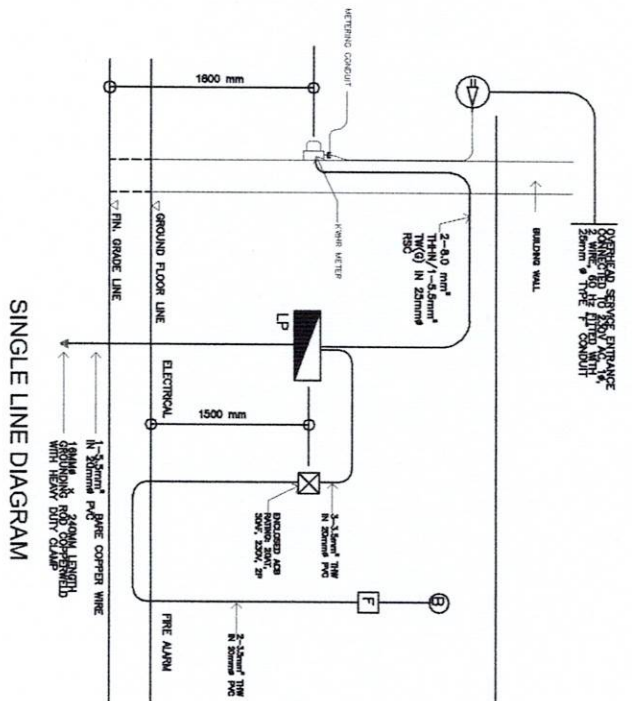
PRELIMINARY DESIGN CONSTRUCTION AS-BUILT
DATE ISSUED

GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL WORKS SHALL COMPLY IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC), THE RULES AND REGULATIONS OF THE LOCAL ENFORCING AUTHORITY AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY, THE ELECTRICAL WORKS SHALL BE UNDER THE IMMEDIATE SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER.
2. THE ELECTRICAL SERVICE POWER IS 1-PHASE, 2-WIRE + GROUND 230 V AC, 60 HZ.
3. WIRING METHOD SHALL BE AS FOLLOWS :
 - a. FEEDERS AND RISERS - RIGID STEEL CONDUIT
 - b. LIGHTING, POWER RECEPTACLE - POLYVINYL CHLORIDE CONDUIT BRANCH CKT., & AUXILIARY THICK WALL
 - c. ALL WIRES SHALL BE COPPER AND THERMOPLASTIC INSULATED TYPE "THHN" UNLESS OTHERWISE INDICATED IN THE PLAN. THE MINIMUM SIZE OF WIRE FOR POWER AND LIGHTING CIRCUIT HOMERUN SHALL BE 3.5mm² AND INSULATED FOR 600 VOLTS. SMALLEST RACEWAY SHALL BE 20mm ϕ TRADE/NOMINAL SIZE.
 - d. TYPE WITH FACTORY KNOCKOUTS
6. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND APPROVED TYPE FOR THE PARTICULAR LOCATION AND PURPOSE OF USAGE.
7. EQUIPMENT GROUNDING SYSTEM SHALL BE PROVIDED TO THE ELECTRICAL SYSTEM AS PER PHILIPPINE ELECTRICAL CODE REQUIREMENT.
8. MOUNTING HEIGHT OF WIRING DEVICES SHALL BE AS FOLLOWS :
 - a. LIGHT SWITCH - 1.20 M ABOVE FINISH FLOOR
 - b. CONVENIENCE OUTLET - 0.30 M ABOVE FINISH FLOOR
 - c. PANELBOARD - 1.80 M ABOVE FINISH FLOOR
 - d. FIRE ALARM STATION OUTLET - 1.50 M ABOVE FINISH FLOOR
 - e. PUSH BUTTON OUTLET - 1.20 M ABOVE FINISH FLOOR
 - f. FIRE ALARM & VIBRATING BELL - 0.30 M BELOW CEILING LINE

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
S ₀	ONE GANG DEVICE SWITCH		CIRCUIT HOMERUN
S _{0b}	TWO GANG DEVICE SWITCH		ENCLOSED CIRCUIT BREAKER
SF	FAN CONTROL SWITCH		FIRE ALARM CONTROL PANEL
---	RACEWAY CONDUIT CONCEALED IN CEILING		FIRE ALARM STATION OUTLET
---	RACEWAY CONDUIT CONCEALED UNDER FLOOR		FIRE ALARM BELL
	PANELBOARD, MARKED AS "MDP/DPA/DPB"		SERVICE METER
	CKT. BREAKER, RATING AS INDICATED		SERVICE ENTRANCE
	DUPLEX CONVENIENCE OUTLET, UNIVERSAL SLOTS,		
	GROUNDING TYPE, 16 AMPS, 250 VOLT		
	WEATHER PROOF DUPLEX CONVENIENCE OUTLET, UNIVERSAL SLOTS,		
	GROUNDING TYPE, 16 AMPS, 250 VOLT		
	WALL FAN SINGLE CONVENIENCE OUTLET, UNIVERSAL SLOTS,		
	GROUNDING TYPE, 16 AMPS, 250 VOLT		



RISER DIAGRAM



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
RESTORATION OF CABALONON BUILDING - SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION:
BONDO CENTRAL SCHOOL BOARD, BONDOL

APPROVED BY:

ERIELA L. CARINO EDD, CESO III
Regional Director/Inspector IV

DESIGNED BY:

EDGAR H. MADLING
CADDRESO

CHECKED BY:

CHRISTOPHER B. HADJANAY
Regional Engineer

PREPARED BY:

MICHO ANNE A. DAGDAGEN
Engineer II

SHEET CONTENT:
GENERAL ELECTRICAL NOTES

SINGLE LINE DIAGRAM

RISER DIAGRAM

DATE: _____

SCALE: _____

PROJECT NO.: _____

DATE OF REVISION: _____

REVISIONS:

NO. DATE BY

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

REVISIONS: REVISION ASHMET

DATE: _____



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE:
REPAIR AND RECONSTRUCTION OF GARLUDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

DESIGNER:
EDUCATIONAL SERVICES
SECTION: BUREAU

APPROVED BY:
ESTIVAL CARINO EDO, CESO III
Regional Director (Design II)

RECOMMENDED BY:
EDGAR H. MADALING
CIVIL ENGINEER

DESIGNED BY:
CHRISTOPHER B. HAUSAN
Regional Engineer

CHECKED BY:
MICHO ANNE A. DAGSAGAN
Engineer II

DATE:
10/10/2018

NOTE:
1. ALL SCALE FROM DRAWING. ALL MEASUREMENTS ARE TO BE TAKEN ON THE SITE TO BE CONSTRUCTED. ALL DIMENSIONS ARE TO BE TAKEN FROM THE EXISTING CONDITIONS UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO BE TAKEN FROM THE EXISTING CONDITIONS UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO BE TAKEN FROM THE EXISTING CONDITIONS UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO BE TAKEN FROM THE EXISTING CONDITIONS UNLESS OTHERWISE SPECIFIED.



PREPARED BY: PRELIMINARY CONSTRUCTION
 BIDDING AS-BUILT
DATE: 10/10/2018

CKT NO.	DESCRIPTION	VA LOAD	AMPS	CIRCUIT BREAKER			WIRE & CONDUIT SIZE		
				VOLTS	POLE	AT		AF	
1	LIGHT OUTLET	9 x 20 W	180	0.78	230	2	15	50	2-3.5mm ² THHN in 20mm dia PVC
2	LIGHT OUTLET	8 x 80 W	640	2.78	230	2	15	50	2-3.5mm ² THHN in 20mm dia PVC
3	LIGHT OUTLET	6 x 80 W	480	2.09	230	2	15	50	2-3.5mm ² THHN in 20mm dia PVC
4	LIGHT OUTLET	6 x 80 W	480	2.09	230	2	15	50	2-3.5mm ² THHN in 20mm dia PVC
5	LIGHT OUTLET	6 x 80 W	480	2.09	230	2	15	50	2-3.5mm ² THHN in 20mm dia PVC
6	LIGHT OUTLET	6 x 80 W	480	2.09	230	2	15	50	2-3.5mm ² THHN in 20mm dia PVC
7	LIGHT OUTLET	8 x 90 W	720	2.78	230	2	15	50	2-3.5mm ² THHN in 20mm dia PVC
8	CONV. OUTLET	6 x 180 W	1080	4.70	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
9	CONV. OUTLET	2 x 90 W	180	0.78	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
10	CONV. OUTLET	4 x 90 W	360	1.57	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
11	CONV. OUTLET	4 x 90 W	360	1.57	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
12	CONV. OUTLET	4 x 90 W	360	1.57	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
13	CONV. OUTLET	4 x 90 W	360	1.57	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
14	CONV. OUTLET	4 x 90 W	360	1.57	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
15	ALARM BELL	4 x 90 W	360	1.57	230	2	20	50	2-3.5mm ² THHN + 1-3.5mm ² TW(G) in 20mm dia PVC
16	SPARE		1500	6.52	230	2	20	50	2-3.5mm ² THHN in 20mm dia PVC
TOTAL			12920		VA				

IL @ 80% DF = 12920 VA (0.80) = 4494 A
230V

FEEDER: 2-14 0mm² THHN + 1-5 5mm² TW(G) in 25mm dia RSC
PROTECTION: MAIN: 60AT/100AF, 2P, 230V, 15KAIC, BOLT-ON

LOAD DIAGRAM

2

SCALE

NOTES

E-4



Republic of the Philippines
Department of Education
Cordillera Administrative Region
REGIONAL OFFICE

PROJECT TITLE
RESTORATION OF GALARDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
BOKOD CENTRAL SCHOOL
BOKOD, BENGUET

APPROVED BY

ESTELA L. CARINO EDU. CESO III
Regional Director/Teacher IV

RECOMMENDING APPROVAL

EDGAR H. MAOLANG
CHIEF/ESSO

DESIGNED BY

CHRISTOPHER B. MADSAW
Regional Engineer

PREPARED BY

MICHO ANNE A. DAGDAGEN
Engineer II

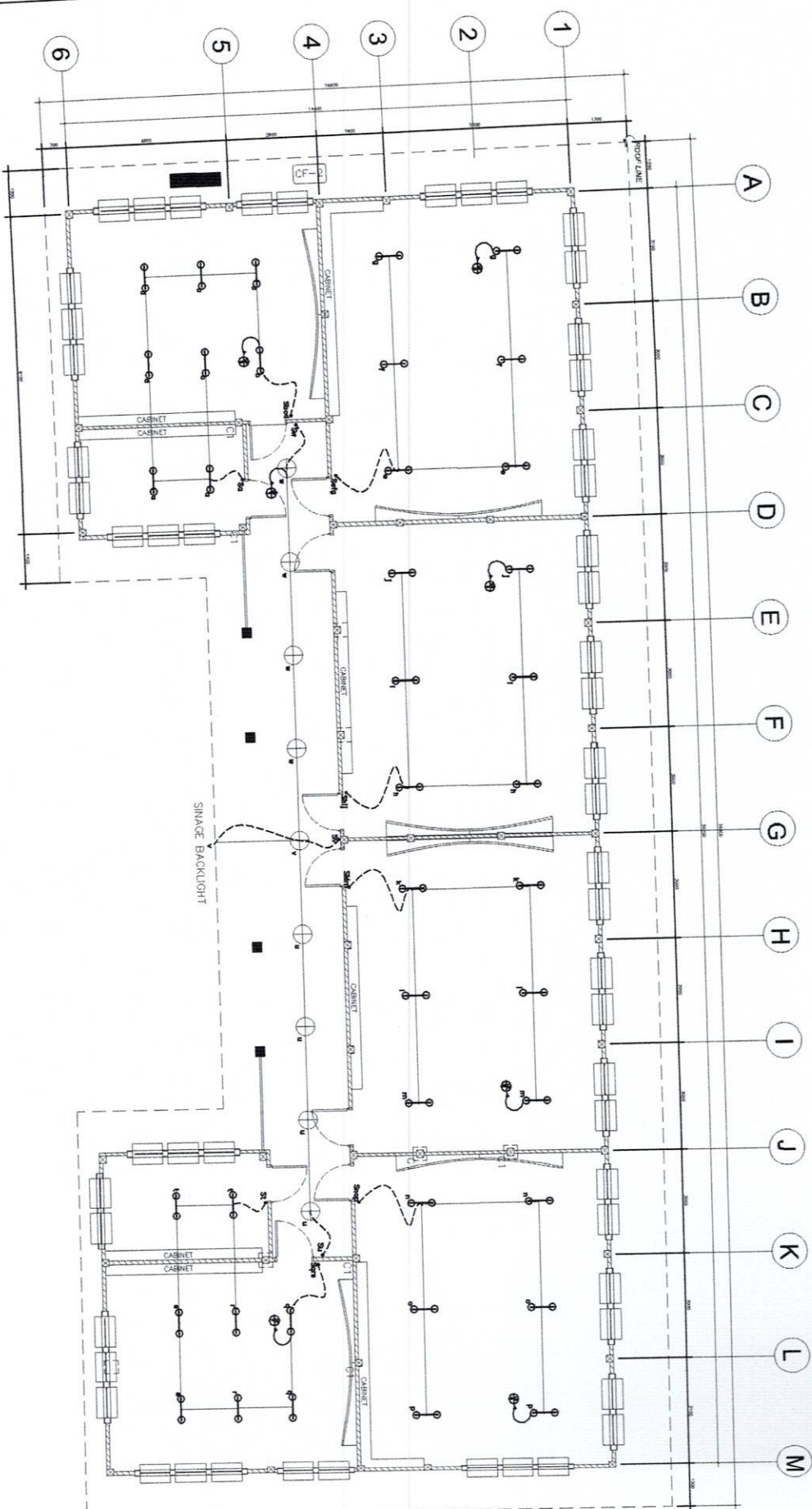
TITLE/CONTENT
LIGHTING LAYOUT

NOTE:
1. ALL VERTICAL SCALE FROM DRAWING. ALL DIMENSIONS ARE TO BE TAKEN ON SITE TO BE SHOWN IN CONSTRUCTION. MINOR CORRECTIONS TO BE MADE BY THE ARCHITECT. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE TO BE TAKEN FROM THE CENTERLINE OF THE CONSTRUCTION. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE TO BE TAKEN FROM THE CENTERLINE OF THE CONSTRUCTION. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE TO BE TAKEN FROM THE CENTERLINE OF THE CONSTRUCTION.

SHEET CONTENTS

PRELIMINARY CONSTRUCTION
WORKING AS-BUILT

LATE REVISION

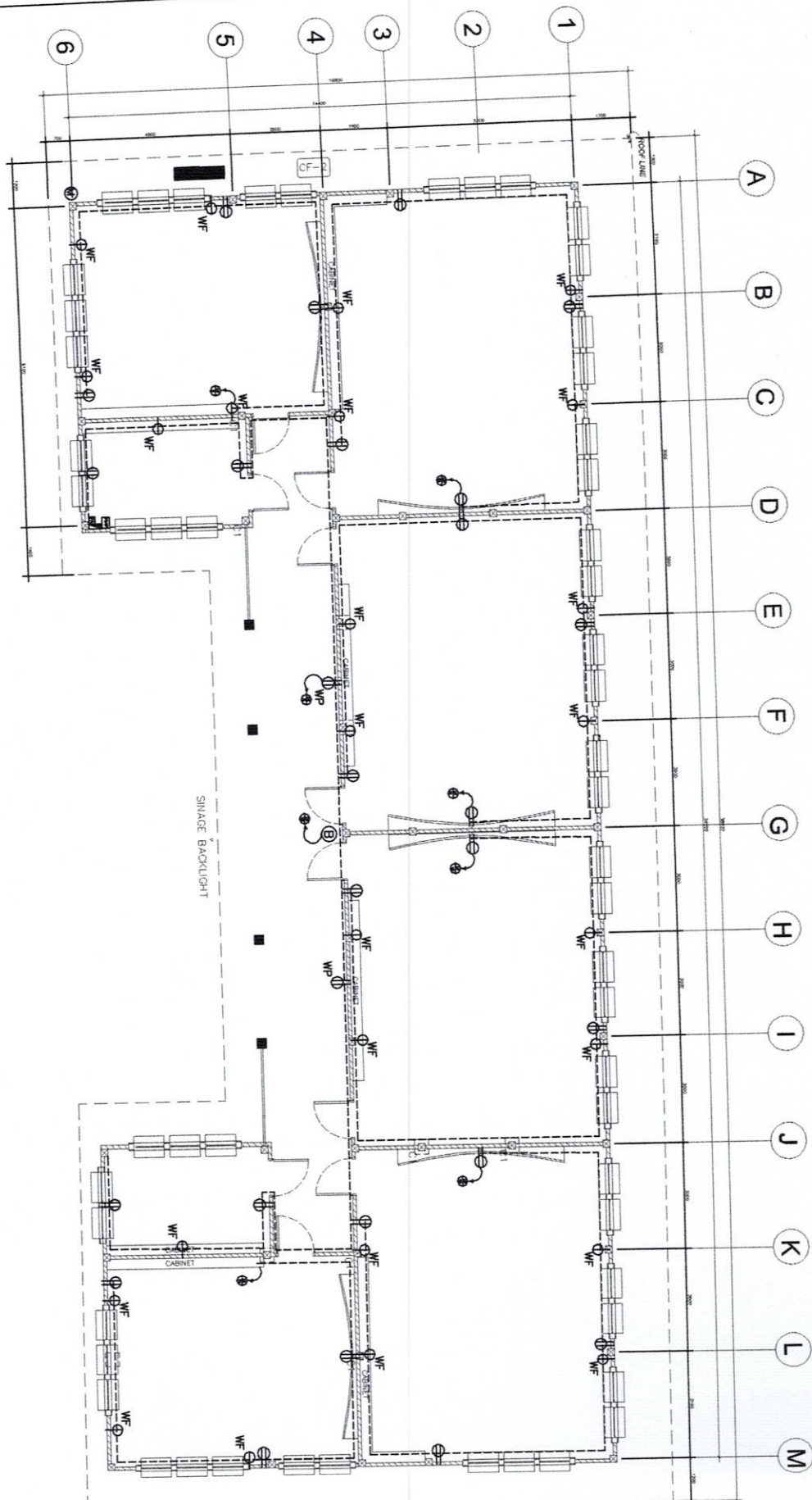


LIGHTING LAYOUT

3
E-4

SCALE

NOTES



4
E-4 SCALE

POWER LAYOUT

NOTES



Republic of the Philippines
Department of Education
Division Office - Region IV
REGIONAL OFFICE

PROJECT TITLE
RENOVATION OF GABALDON BUILDING
- SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
BONOD CENTRAL SCHOOL
BONOD, BIKOLAN

APPROVED BY
ESTELA L. CARINO EDD, CESO III
Regional Director

DESIGNED BY
EDGAR H. MADLANG
CHIEF/ESSO

PROJECTED BY
CHRISTOPHER B. HAUSAN
Regional Engineer

ENGINEER
MICHICO ANNE A. DAGDAGEN
Engineer II

POWER LAYOUT

NOTE
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72).
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72).
3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72).
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72).

SHEET CONTAINS

<input type="checkbox"/> PRELIMINARY	<input type="checkbox"/> CONSTRUCTION
<input type="checkbox"/> WORKING	<input type="checkbox"/> AS-BUILT

DATE ISSUED

GENERAL PLUMBING NOTES:

1. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISIONS OF THE NATIONAL PLUMBING CODE, THE NATIONAL BUILDING CODE & THE RULES & REGULATIONS OF _____ CITY, METRO MANILA.
2. COORDINATE THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
3. ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS. ANY RELOCATIONS REQUIRED FOR PROPER EXECUTION OF OTHER TRADE SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT OR ENGINEER.
4. PROPOSED SANITARY UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION, POSITION AND INVERT ELEVATION OF ALL EXISTING PIPES AND STRUCTURES AS VERIFIED BY THE CONTRACTOR.
5. ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 1% UNLESS OTHERWISE SPECIFIED.
6. SIZE OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE, COORDINATE THE WORKS WITH THE SEWER LINE EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTING POINT.
8. ALL PIPE SIZES ARE IN MILLIMETERS AND ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

DRAINS & CLEANOUTS
SIMILAR TO JPI OR SESENG BRAND OR APPROVED EQUAL
DRAINS AND FLOOR CLEANOUT

MATERIAL SPECIFICATIONS:

WATER DISTRIBUTION SYSTEM
SHALL BE HIGH DENSITY PPRC/POLYPROPYLENE RANDOM COPOLYMER CLASS PN-20 PIPE MATERIAL
FITTINGS SHALL BE FUSION WELD TYPE, IMPORTED CONFORMING TO GERMAN TECHNOLOGY DIN 8077-8078 AND ASTM 1201-93 SIMILAR TO "PLUSTEM", BRAND OR APPROVED EQUAL.

COLD WATER LINE
SHALL BE 1"-FLOW BRAND OR APPROVED EQUAL.

WATER METER
SHALL BE 1"-FLOW BRAND OR APPROVED EQUAL.

LEGEND & SYMBOLS:

WATER DISTRIBUTION SYSTEM	WASTE, SEWER & VENT SYSTEM
○ML ○MR ○N/S/DV ○CV ○PRV ○HB ○WM ○LP ○FV ○CPS ○CB	○FOO/GOO ○CCO/WCO ○WP/PWP ○SS/MS ○FD/SS ○VSTW
○ML ○MR ○N/S/DV ○CV ○PRV ○HB ○WM ○LP ○FV ○CPS ○CB	○FOO/GOO ○CCO/WCO ○WP/PWP ○SS/MS ○FD/SS ○VSTW
○ML ○MR ○N/S/DV ○CV ○PRV ○HB ○WM ○LP ○FV ○CPS ○CB	○FOO/GOO ○CCO/WCO ○WP/PWP ○SS/MS ○FD/SS ○VSTW
○ML ○MR ○N/S/DV ○CV ○PRV ○HB ○WM ○LP ○FV ○CPS ○CB	○FOO/GOO ○CCO/WCO ○WP/PWP ○SS/MS ○FD/SS ○VSTW

- PLUMBING NOTES:**
1. GRADES OF HORIZONTAL PIPINGS RUN ALL HORIZONTAL PIPINGS IN PERFECT ALIGNMENT AND AT A FLOOR GRADE NOT LESS THAN ONE PERCENT (1%).
 2. CHANGE IN DIRECTION ALL CHANGE IN DIRECTION SHALL BE MADE BY APPROPRIATE USE OF FORTY-FIVE DEGREE (45°) WYES, LONG SWEEP QUARTER BEND, SIXTY-THREE TO VERTICAL A SINGLE 1/8 BEND COMBINATION MAY BE USED FROM HORIZONTAL STICKS AND SHORT QUARTER BENDS MAY BE USED ON WASTE LINE, TEES AND CROSSES MAY BE USED IN BENT PIPES.
 3. PROHIBITED FITTINGS NO DOUBLE HUB OR TEE BRANCH SHALL BE USED ON HORIZONTAL SOIL AND WASTE LINES, THE DRILLINGS AND SPACING OF HOUSE DRAIN, WASTE OR VENT PIPES AND USED OF SADDLE HUB AND BEND ARE PROHIBITED.
 4. PIPE CLEAN-OUTS ARE REQUIRED UNDER THE FOLLOWING CONDITIONS:
 - a) FURNACE (22 1/2").
 - b) ONE-HALF AND ONE-HALF METERS (1.50m), INSIDE THE PROPERTY LINES BEFORE THE HOUSE DRAINAGE CONNECTION.
 - c) EVERY FIFTEEN METERS (15.00m) IN HORIZONTAL RUN OF PIPES.
 - d) AT THE END OF ANY HORIZONTAL PIPE LINES.
 5. THE DIGESTION AND STILLING CHAMBERS OF SEPTIC VAULT MUST BE WATERPROOFED.
 6. NOT LESS THAN 0.30 METER OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE SEWAGE AND THE UNDER PART OF VAULT ROOF SLAB.
 7. NO SEPTIC VAULT SHALL BE CONSTRUCTED UNDER THE BUILDING.
 8. ALL PLUMBING WORKS SHALL BE UNDER THE SUPERVISION OF A LICENSED MASTER PLUMBER AND A LICENSED PLUMBING CONTRACTOR.

PLUMBING FIXTURES

○LAV	LAVATORY
○WC	WATER CLOSET (TRANK TYPE)
○WC	WATER CLOSET (FLUSH VALVE)
○KS/US	KITCHEN SINK / UTILITY SINK
○UR	URINAL

DESIGN CRITERIA

1. LIVE LOAD 1000KPa
- II ALLOWABLE STRESSES
 - a. FOR FOOTING, BEAMS AND SLABS
 $f_c' = 20 \text{ MPa}$
 $f_y = 6.90 \text{ MPa}$, $f_m = 2.41 \text{ MPa}$
 - b. REINFORCING STEEL BARS
 FOR BARS SMALLER THAN 16mm
 $f_y = 230 \text{ MPa}$
4. ASSUMED ALLOWABLE BEARING CAPACITY $\gamma = 100KPa$

NOTE:
WATER TABLE IS 1500 BELOW GROUND LEVEL.

REVISIONS:

NO.	DATE	DESCRIPTION
1		
2		

APPROVED BY:

ESTELA L. CARINO EDO. CESO III
Regional Director/Engineer

EDGAR H. MADUANG
CHIEF/ESSO

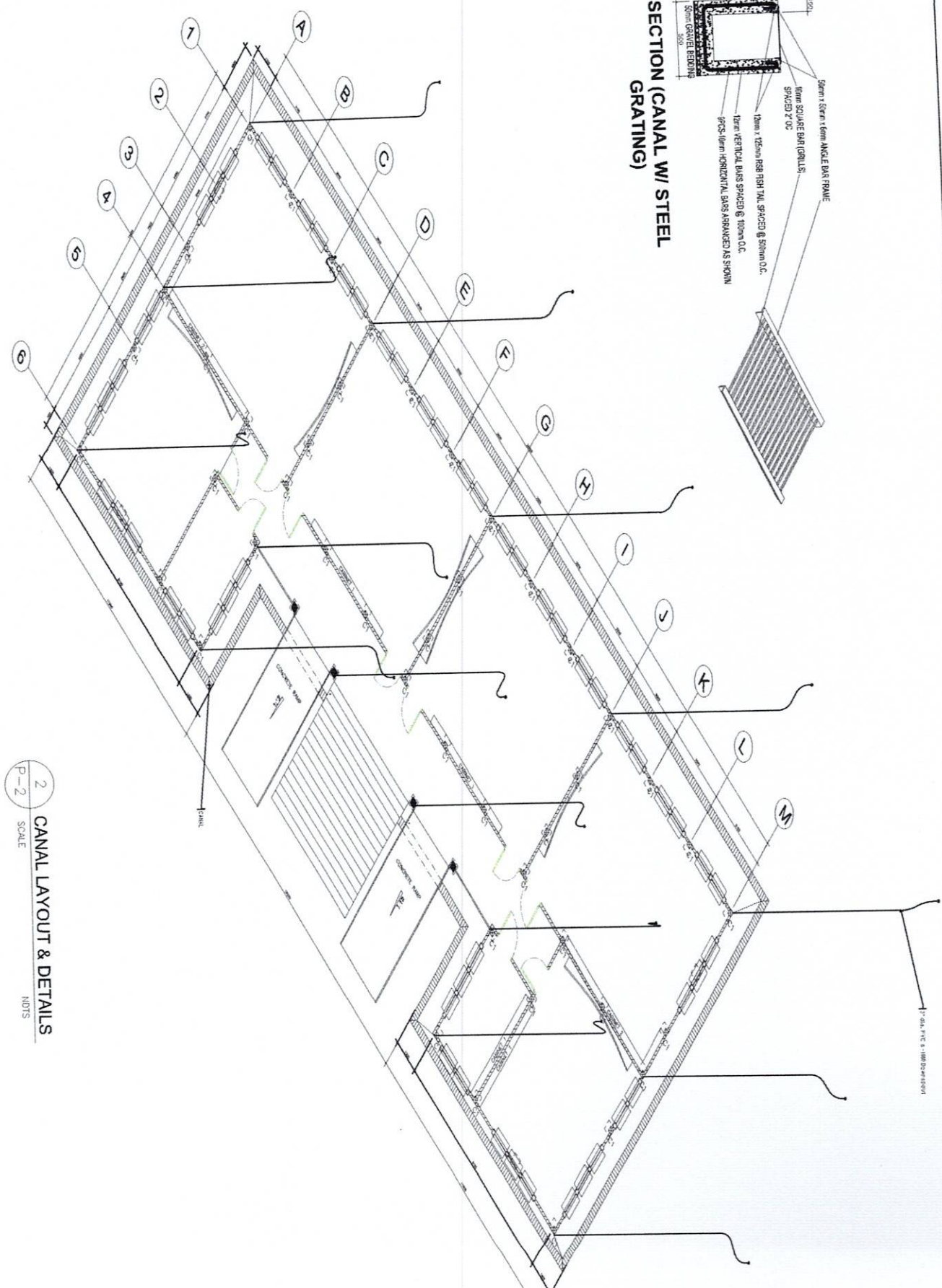
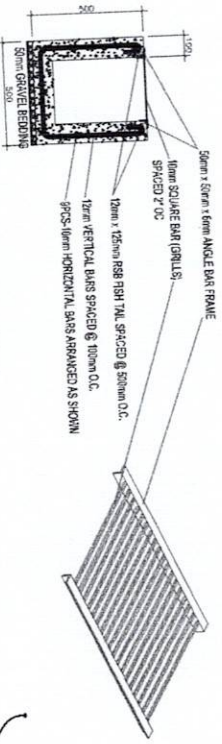
CHRISTOPHER B. HAOSAN
Regional Engineer

MICHO ANNE A. DAGDAGEN
Engineer II

GENERAL PLUMBING NOTES:

FOR NOT SCALE DRAWING. ALL DIMENSIONS TO BE REFERRED TO THE CENTERLINE OF THE PIPE UNLESS OTHERWISE INDICATED. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE INDICATED. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE INDICATED. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE INDICATED.

SECTION (CANAL W/ STEEL GRATING)



2 CANAL LAYOUT & DETAILS
 P-2 SCALE
 NOTS



Republic of the Philippines
 Department of Education
 Office of the Regional Director
REGIONAL OFFICE

PROJECT TITLE
 RESTORATION OF GALALDON BUILDING
 - SIX (6) CLASSROOMS WITH TWO (2) OFFICES

LOCATION
 BOKOD CENTRAL SCHOOL
 BOKOD, BENGUET

APPROVED BY
ESTELA L. CARINO EDO, CESO III
 Regional Director, Director IV

DESIGNED BY
EDGAR H. MADALING
 CHIEF ENGINEER

PREPARED BY
CHRISTOPHER B. HAOSAN
 Regional Engineer

ENGINEER
MICHO ANNE A. DAGDAGEN
 Engineer II

DESIGNER
DESIGN LAYOUT & DETAILS

NOTE
 01. NOT SCALE DRAWING. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE TO BE USED IN CONSTRUCTION WITH ALL OTHER PLANS AND DRAWINGS. ALL DIMENSIONS SHALL BE GIVEN IN METERS UNLESS OTHERWISE SPECIFIED. THE CONSTRUCTION DIVISION OR FIELD PROJECT ENGINEERING DIVISION OF THE BANGALONG AND SERVICES DIVISION OFFICE OF BENGUET.

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		

APPROVED BY

PREPARED BY CHECKED BY
 DRAWN BY APPROVED BY


**GROUP HANDWASHING
OPTION 1A
FOR ELEMENTARY
WITH ROOFING**

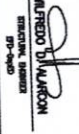


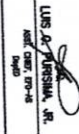
1 PERSPECTIVE
 A-1
 N T S

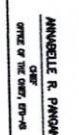
LINE & GRADE	
ARCHITECTURAL	
STRUCTURAL	
SANITARY	
ELECTRICAL	
MECHANICAL	

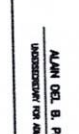
DEPARTMENT OF EDUCATION DIVISION OFFICE - CAGAYAN DEPARTMENT OF EDUCATION DIVISION OFFICE - CAGAYAN DEPARTMENT OF EDUCATION DIVISION OFFICE - CAGAYAN	
DRAWN BY : JAMESON P. OLLANO CAD OFFICER	ARCHITECT : JET MYNARD G. ROBISON ARCHITECT
REVISIONS APPROVAL : LUIS J. FARIÑA, JR. CHIEF OF THE DIST. OFF.	REVISIONS APPROVAL : ANNEBELLE R. PANGANI CHIEF OF THE DIST. OFF.
PREPARED BY : ALAN DEL B. PASCUA ARCHITECT/ENGINEER FOR ARCHITECTURE	PROJECT TITLE : GROUP HANDWASHING OPTION 1A FOR ELEMENTARY WITH ROOFING
OWNER : DEPARTMENT OF EDUCATION DepEd	SHEET NO. : A-1 SHEET COUNT : 3

DESIGNER:

JAMESON P. OULLAO
 CIVIL ENGINEER
 R.P. No. 100

CHECKER:

MARIBEL D. MARICON
 STRUCTURAL ENGINEER
 R.P. No. 100

RECOMMENDING APPROVAL:

LEO D. PASCUAL, JR.
 M.D. (C.E.T. 1974)
 M.D.

RECOMMENDING APPROVAL:

ANABELLE R. PANOM
 C.E.T. (1974)
 C.E.T.

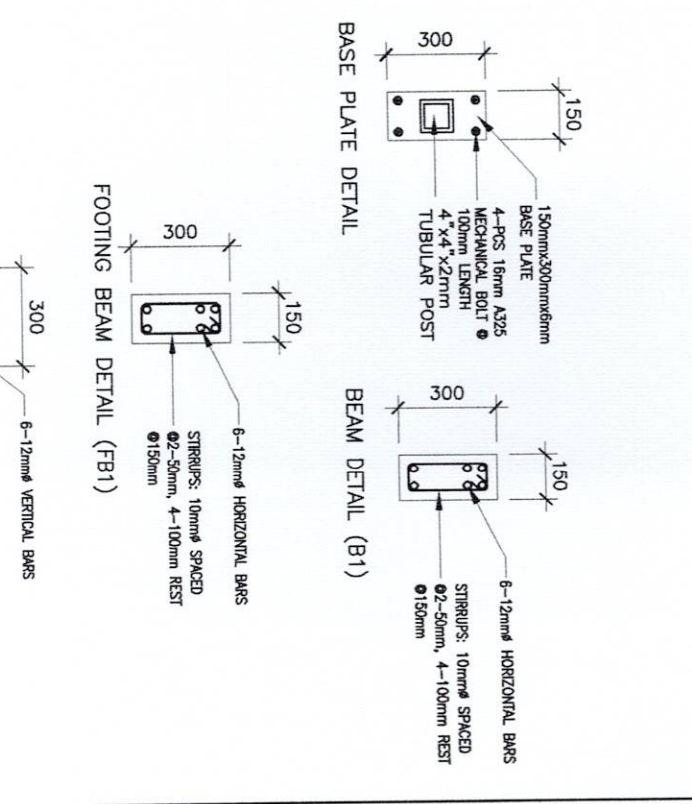
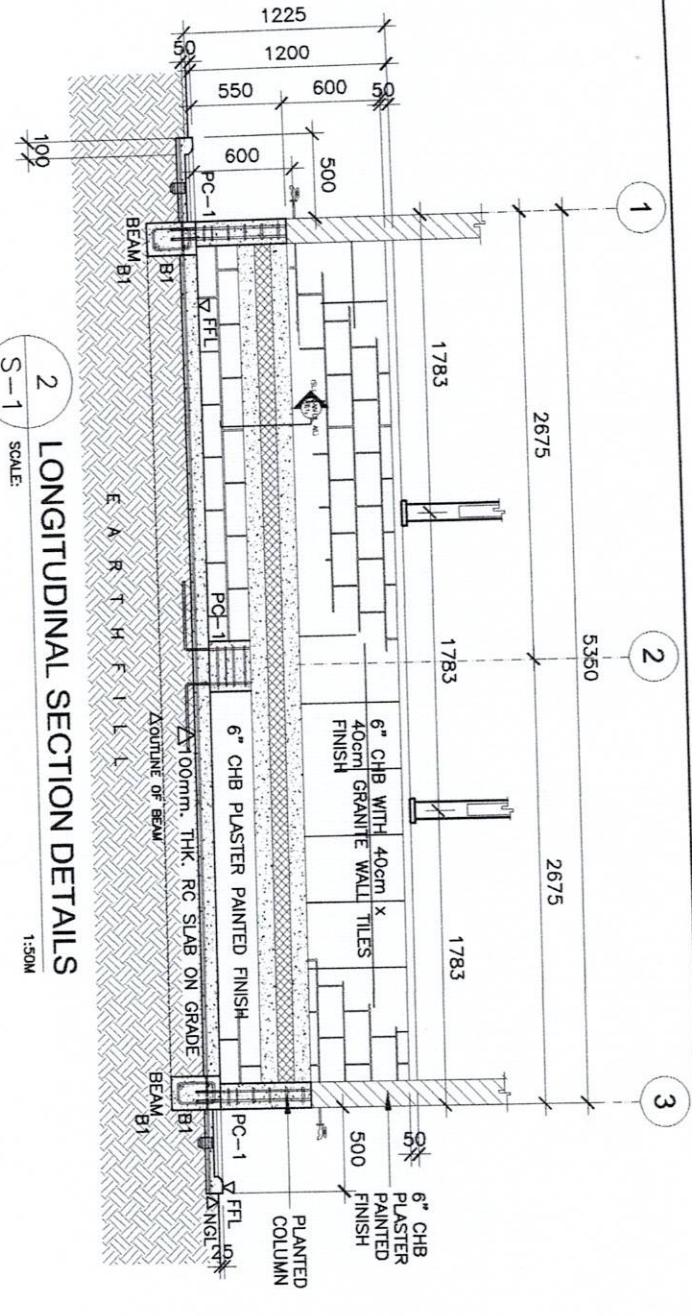
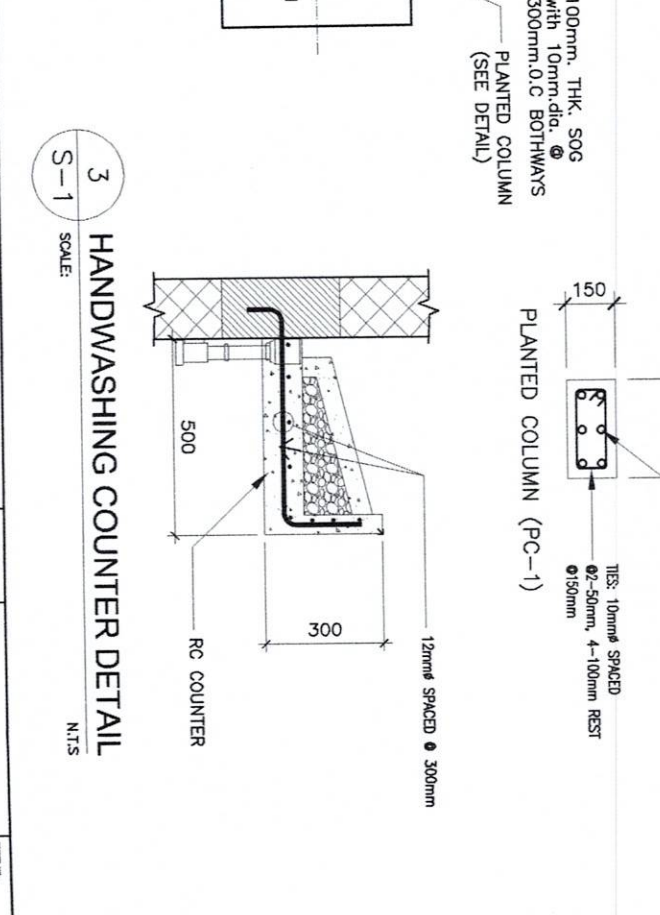
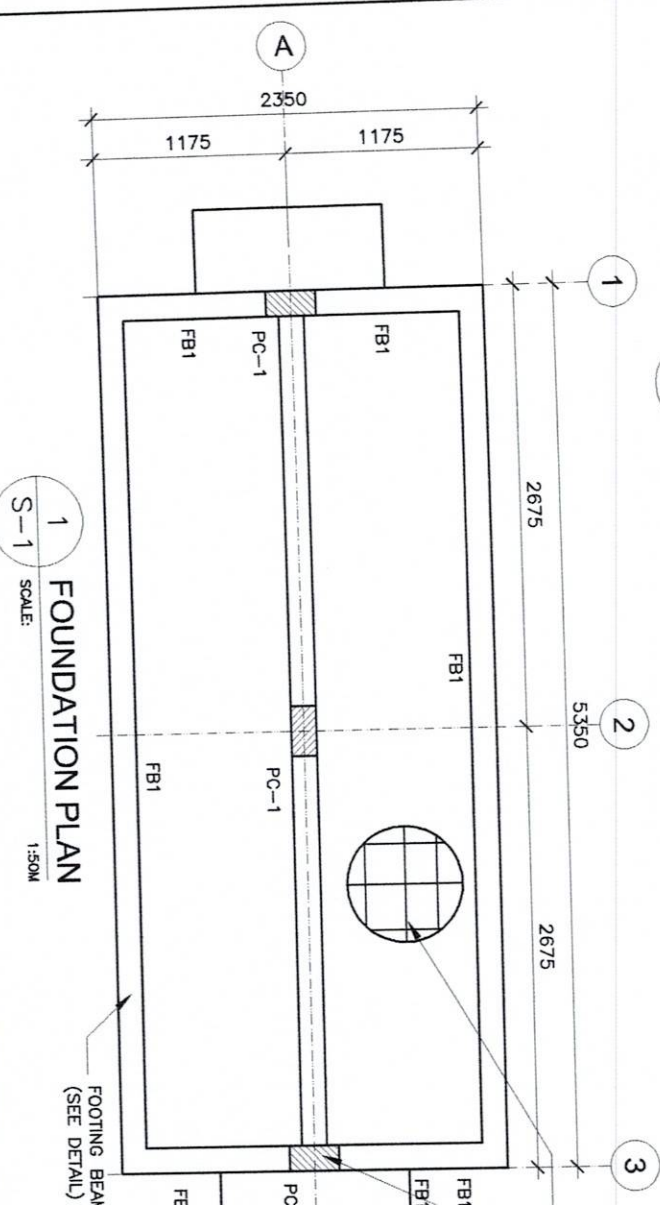
APPROVED BY:

ALAN DEL B. PASCUAL
 UNDERSECRETARY FOR ADMINISTRATION

PROJECT TITLE:
**GROUP HANDWASHING
 OPTION 1A
 FOR ELEMENTARY
 WITH ROOFING**

PROJECT CODE:
**DEPARTMENT OF EDUCATION
 DepEd**

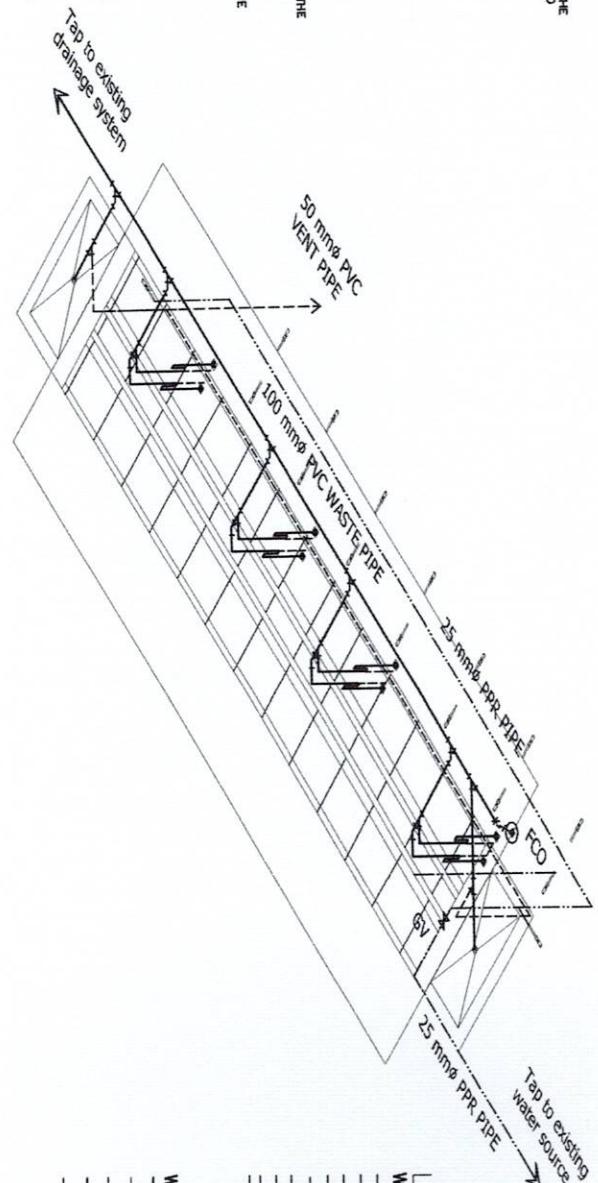
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**CONCEPTUAL SECTION
 COLUMN AND BEAM DETAIL
 FOUNDATION PLAN**

SHEET NO.:
S-1

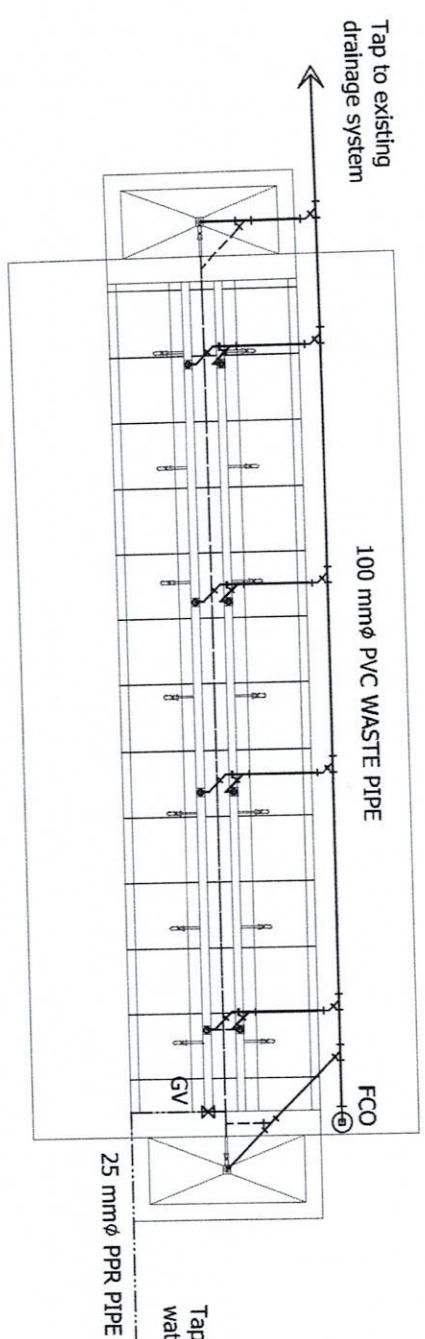


GENERAL NOTES:

1. ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE ALL PROVISIONS OF THE LATEST NATIONAL PLUMBING CODE OF THE PHILIPPINES AND LOCAL REGULATIONS AND ORDINANCES.
2. COORDINATE THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
3. ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS. ANY RELOCATIONS SHALL BE FOR PROPER EXECUTION OF OTHER TRADE SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT OR ENGINEER.
4. PROPOSED SANITARY UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION, DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES AND STRUCTURES AS VERIFIED BY THE CONTRACTOR.
5. ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 2% UNLESS OTHERWISE SPECIFIED.
6. SIZE OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE, COORDINATE THE WORKS WITH THE SEWER LINE EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTION POINT.
8. ALL PIPE SIZES ARE IN MILLIMETERS AND ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
9. ALL FIXTURES SHALL BE VENTED INDIVIDUALLY AND WATERLINES SHALL BE VALVE BY GROUP.
10. ALL CHANGES IN DIRECTIONS SHALL BE MADE BY THE APPROPRIATE USE OF FORTY FIVE (45) DEGREE FROM HORIZONTAL TO VERTICAL, A SINGLE BEND OR COMBINATION MAY BE USED ONLY ON VENT PIPE.
11. USE UPVC SANITARY PIPING SYSTEM SERIES 1000 FOR 100 DIA. AND SMALLER AND GRANIT SEWER MAIN UPVC PIPING SYSTEM FOR 150 DIA. AND BIGGER.
12. USE POLYPROPYLENE RANDOM, TYPE 3, PN20 FOR ALL WATER PIPING SYSTEM.
13. GATE VALVE SHALL BE BRONZE BODY, SOLID WEDGE TYPE, SCREENED OR FLANGED END.



1 ISOMETRIC VIEW
SCALE: 1:50M



1 WATER & DRAINAGE LINE LAYOUT
SCALE: 1:50M

LEGEND & SYMBOLS:

WATER DISTRIBUTION SYSTEM

CWL	COLD WATER LINE
DWR	WATER DISTRIBUTION
I/O/DV	ISOLATION VALVE / DATE VALVE / DRAIN VALVE
CV	CHECK VALVE
PRV	PRESSURE RELIEF/REDUCING VALVE
HIB	HOSE BIBB
WM	WATER METER
UP	UNION PATENT
FV	FLOOR VALVE
CRS	CONSTANT PRESSURE SYSTEM
CB	CIRCUIT BREAKER IN NEMA 4X ENCLOSURE

WASTE, SEWER & VENT SYSTEM

SP/WP	SEWER PIPE/WASTE PIPE
V/MC	VENT/VENT ABOVE CEILING
WP	WASTE PIPE
FCO/COO	FLOOR/GROUND CLEANOUT
COO/MCO	CEILING/WALL CLEANOUT
WP/WMP	WASTE PIPE/PARKING WASTE PIPE
SS/S/S/MS	SOIL/VENT /WASTE STACK
FD/S	FLOOR DRAIN/SLOP SINK
VSTIV	VENT STACK THRU WALL

DRAINAGE SYSTEM

DP	DRAIN PIPE
PMP	PARKING WASTE PIPE
FCO/COO	FLOOR/GROUND CLEANOUT
COO/MCO	CEILING/WALL CLEANOUT
DS	DOWNSPOUT
GD/DO/LD	GUTTER DRAIN/NECK DRAIN/LEADS DRAIN
TD/PS	TRENCH/POOL/PROMENADE DRAIN
CD/PBD	CANOPY DRAIN/PARKING BOX DRAIN
PBD	PARKING SLOT DRAIN
AD/CB	AREA DRAIN/CATCH BASIN
DJB	DRAINAGE JUNCTION BOX
S/OB	STREET INLET/CATCH BASIN
TDB	TRENCH DRAIN & DRAINAGE
DMM	DRAINAGE MANNHOLE
DS BBS	DOWNSPOUT BELOW BEAM SOFT

PLUMBING FIXTURES

LAV	LAVATORY
WC	WATER CLOSET (TANK TYPE)
WC	WATER CLOSET (FLUSH VALVE)
KS/US	KITCHEN SINK / UTILITY SINK
UR	URINAL

REPUBLIC OF THE PHILIPPINES
DepEd
DEPARTMENT OF EDUCATION
EDUCATION FACILITIES DIVISION
SCHOOL ADMINISTRATION

DESIGNED BY: ALVIN C. TAYAO
DRAWN BY: JAMES P. CILLANO
CHECKED BY: LUIS A. PASQUA, JR.
APPROVED BY: ANWARUL R. PANONM
PROJECT TITLE: GROUP HANDWASHING
OPTION 1A FOR ELEMENTARY WITH ROOFTOP

DATE: 11/20/2023

SCALE: 1:50M

SHEET NO. 1

**CONSTRUCTION OF
FOUR SEATER DETACHED TOILET**

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OFFICE OF THE CITY/MUNICIPAL
ENGINEER/BUILDING OFFICIAL

DISTRICT/CITY/MUNICIPALITY

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- A-2 PLAN, ROOF PLAN, SECTION, GENERAL VIEW, FRONT ELEVATION, SIDE ELEVATION, REAR ELEVATION, INTERIOR SECTION
- A-3 ROOF SECTION AND DETAIL, COLUMN SECTION, WINDOW SECTION, FLOOR SECTION, CEILING SECTION

LAND USE & ZONING

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- B-1 FOUNDATION PLAN, ROOF TRUSSES PLAN
- B-2 DETAIL, B-3 DETAIL

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- E-1 WIRING DIAGRAM, LIGHTING FIXTURE, WIRE SCHEDULE, PANEL SCHEDULE, LOAD SCHEDULE, WIRE TRAY SCHEDULE, CONDUIT SCHEDULE, PANEL BOARD SCHEDULE, WIRE TRAY SCHEDULE

STRUCTURAL

SANITARY

SANITARY

- S-1 PLAN, ROOF PLAN, SECTION, GENERAL VIEW, FRONT ELEVATION, SIDE ELEVATION, REAR ELEVATION, INTERIOR SECTION

ELECTRICAL

MECHANICAL



1
A-1
PERSPECTIVE
N T S

<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION MINDAORO AVENUE, PASIG CITY</p>		<p>OWNER :</p> <p>ANGEL S. MOLINA DR-2040</p>	<p>ARCHITECT :</p> <p>LET RICHARD S. ESCOBARDO DR-2040</p>	<p>RECOMMENDING APPROVAL :</p> <p>LUIS A. KUSISMA, JR. DR-2040</p>	<p>RECOMMENDING APPROVAL :</p> <p>ANNABELLE R. BANSAL OFFICE OF THE CHIEF, EP-42</p>	<p>APPROVED BY :</p> <p>ALVIN DEL T. PASCUA UNDERSECRETARY FOR ADMINISTRATION</p>	<p>PROJECT TITLE :</p> <p>FOUR SEATER TOILET DETACHED</p>	<p>PROJECT CODE :</p>	<p>OFFICE :</p> <p>DEPARTMENT OF EDUCATION DepEd</p>	<p>SHEET NO. :</p> <p>A-1 3</p>
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DESIGNED BY:
 ANNE S. SOLINA
 ARCHITECT

APPROVED BY:
 LET RICHARD R. CASASANO
 ARCHITECT

RECOMMENDATION APPROVAL 1:
 LUIS V. FURUSIA, JR.
 ARCHITECT

RECOMMENDATION APPROVAL 2:
 ANNABELLE R. BRANSON
 ARCHITECT

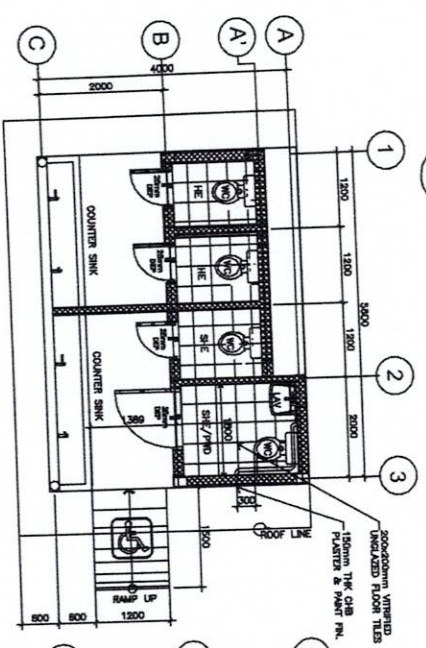
APPROVED BY:
 ALAIN DELA RIVERA PASQUA
 ARCHITECT

PROJECT TITLE:
 FOUR SEATER TOILET DETACHED

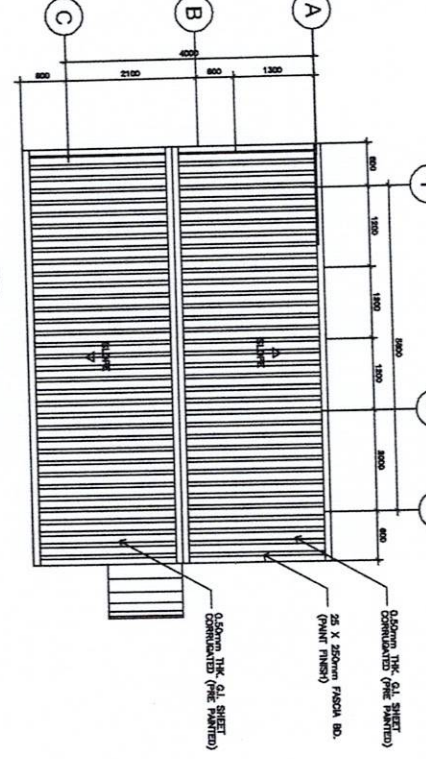
PROJECT NO.:
 DEPARTMENT OF EDUCATION
 DepEd

SHEET NO.:
A-2
 3

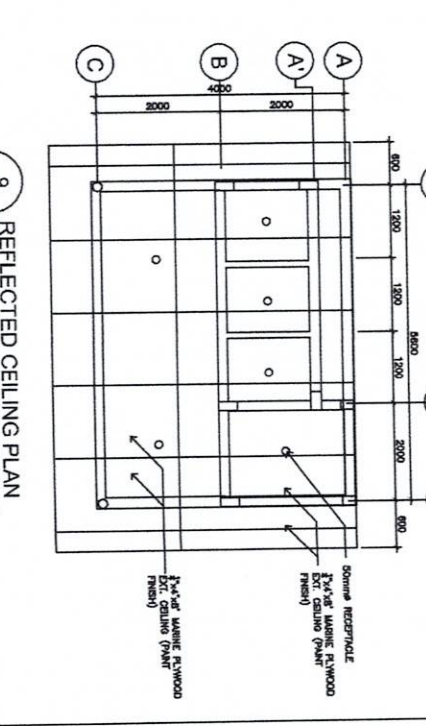
1 FLOOR PLAN
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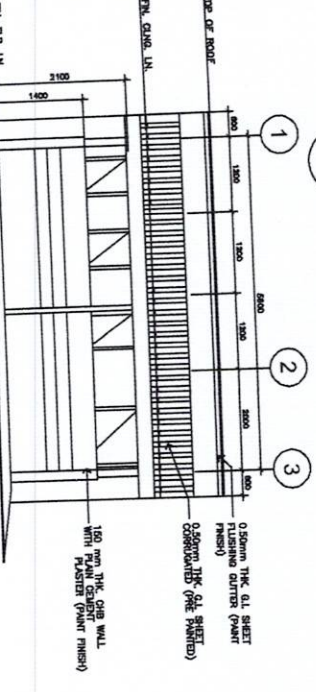
6 ROOF PLAN
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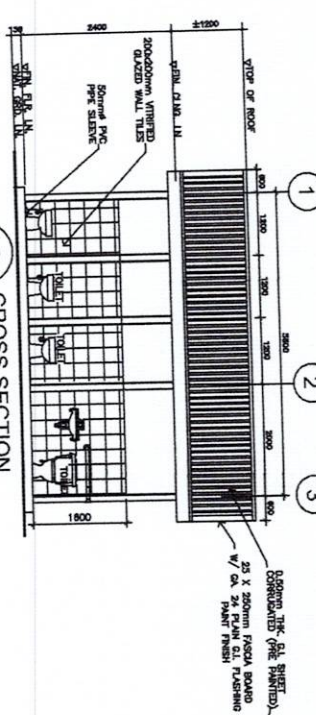
9 REFLECTED CEILING PLAN
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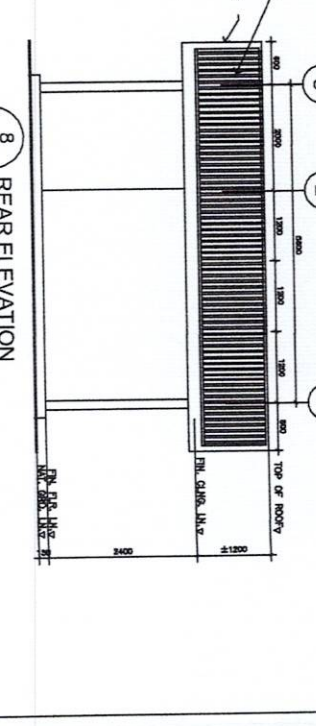
2 FRONT ELEVATION
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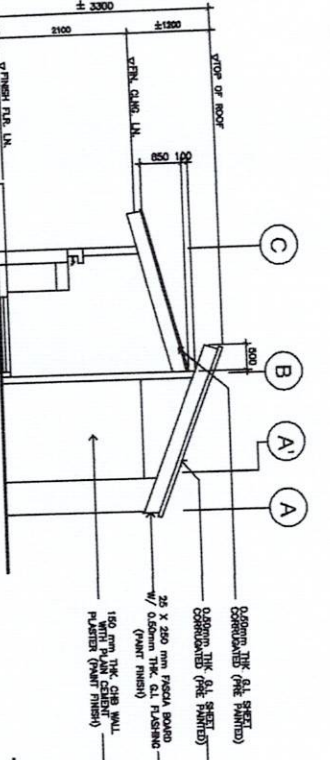
5 CROSS SECTION
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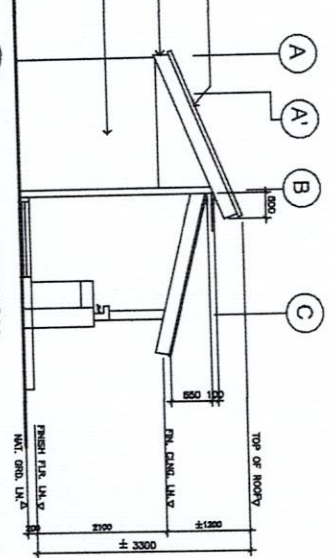
8 REAR ELEVATION
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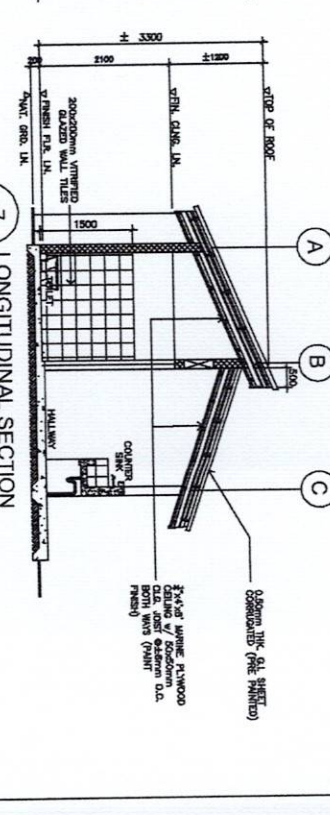
3 RIGHT SIDE ELEVATION
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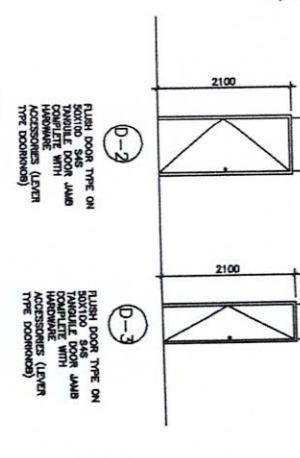
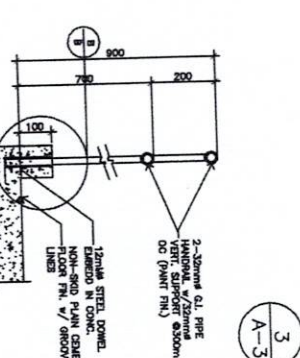
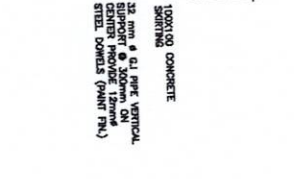
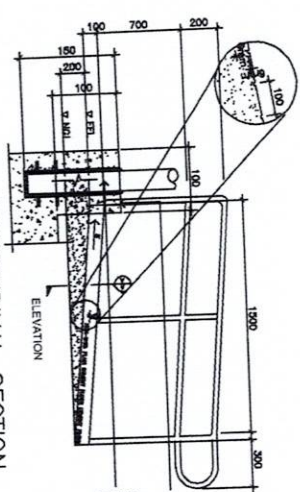
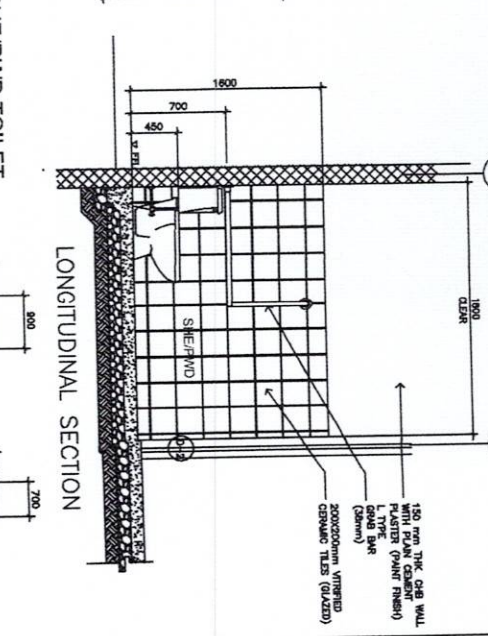
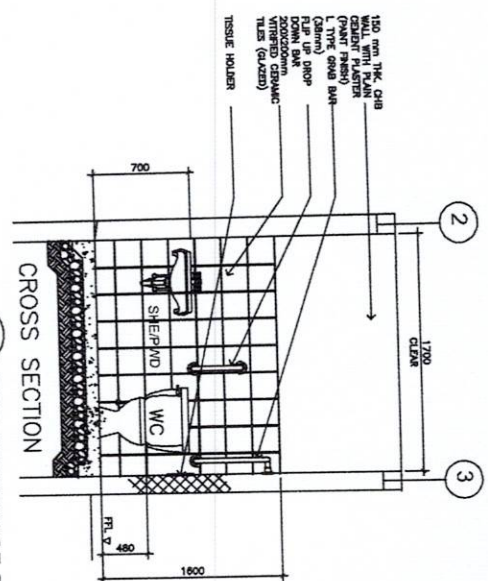
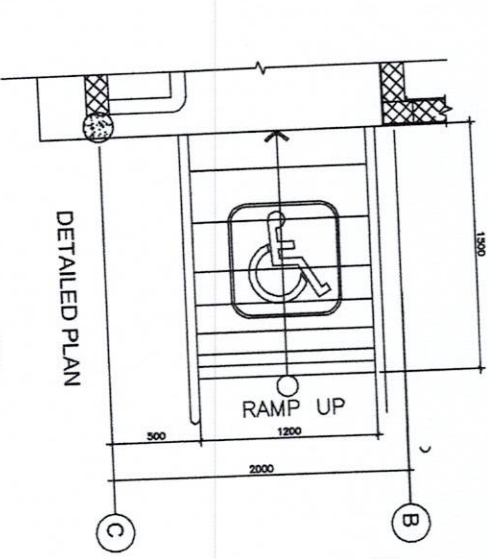
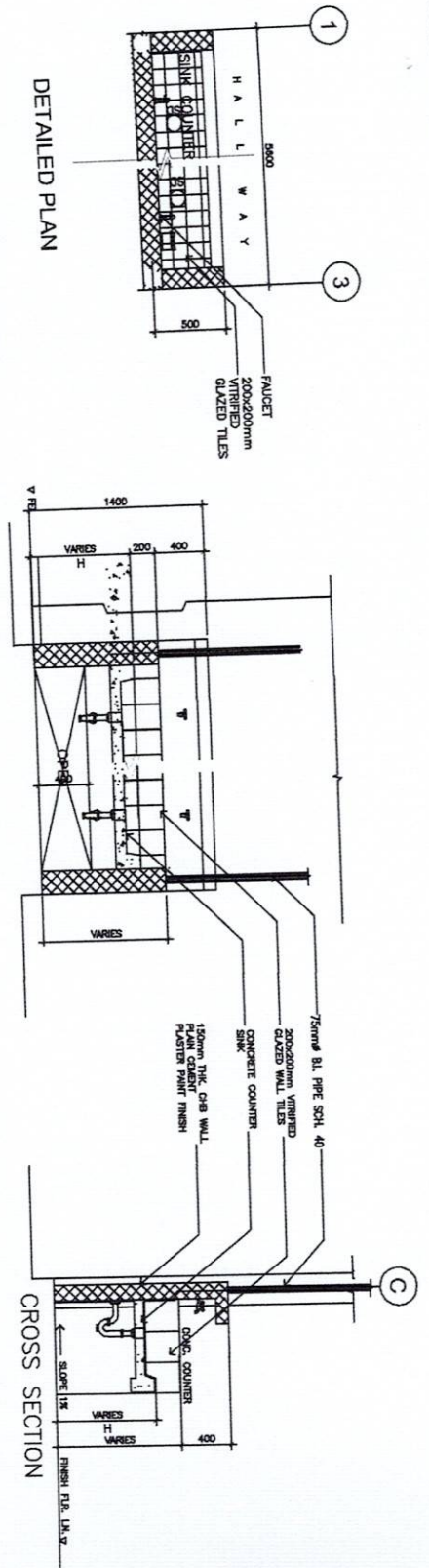
4 LEFT SIDE ELEVATION
 SCALE: 1:50M



7 LONGITUDINAL SECTION
 SCALE: 1:50M



SANITATION FACILITIES				
GRADES LEVEL	TOILET SEAT HEIGHT	COUNTER/SINK BASIN HEIGHT (MAX)	DOOR KNOB HEIGHT	
K-3	260 mm	580 mm	800 mm	
(KINDERGARTEN- GRADE III)				
4-6	300 mm	700 mm	1005 mm	
(GRADE IV- GRADE VI)				
7-12	380 mm	760 mm	1005 mm	
(SECONDARY)				



NOTE:
 1. HANDRAILS ARE MANDATORY IF THE HEIGHT OF THE RAMP MUST NOT EXCEED SIX (6) METERS (20 FT).
 2. PROVISION OF HANDRAILS MUST BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP.
 THE MINIMUM CLEARANCE IS:

LONGITUDINAL SECTION
 RAMP DETAILS
 SCALE: 1:100
 A-3

CROSS SECTION
 DET. SECTION OF SHE/PWD TOILET
 SCALE: 1:300
 A-3

LONGITUDINAL SECTION
 SCHEDULE OF DOORS
 SCALE: 1:300
 A-3

PROJECT TITLE:
 FOUR SEATER TOILET DETACHED

DEPARTMENT OF EDUCATION
 DepEd
 A-3



DESIGNED BY:
 ANNIE S. DALVA
 ARCHITECT

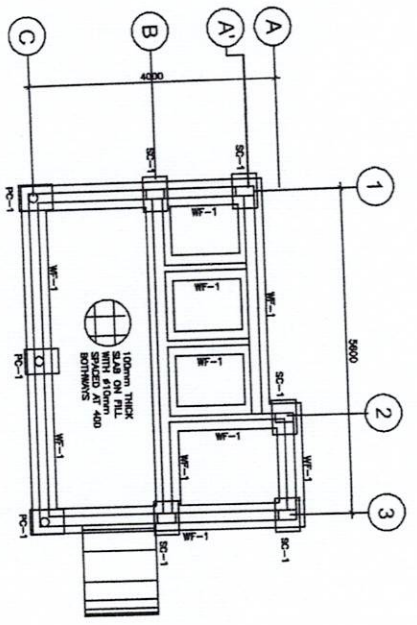
DESIGNED BY:
 LET FLORENCE CASABON
 ARCHITECT

DESIGNED BY:
 LUIS F. RUISSWA, JR.
 ARCHITECT

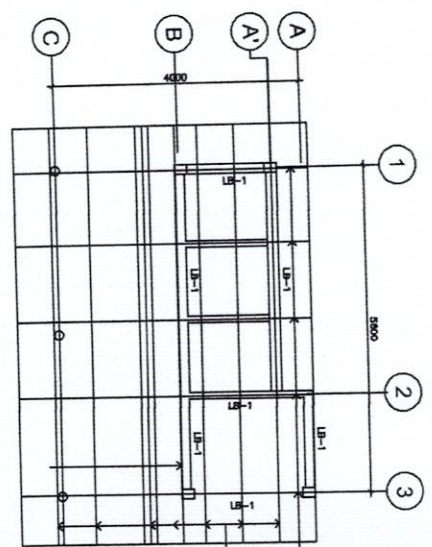
DESIGNED BY:
 ANNABELLE R. RAMON
 ARCHITECT

DESIGNED BY:
 ALAN DEL ROSA
 ARCHITECT

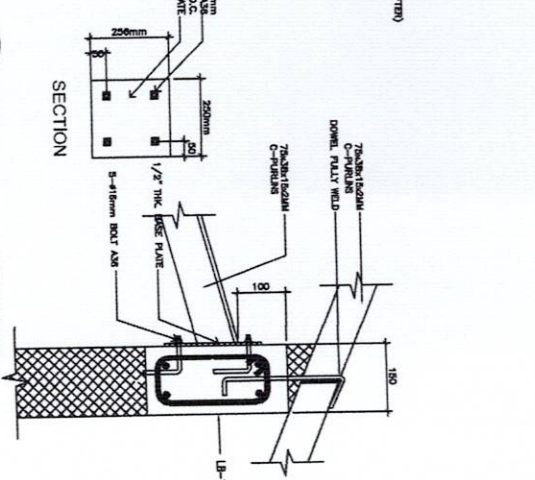
PROJECT NO.:
 DEPARTMENT OF EDUCATION
 DepEd
 A-3



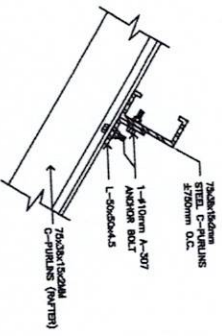
1 FLOOR PLAN
SCALE: 1 : 50 N



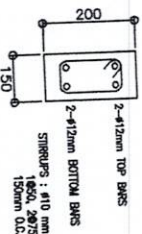
B ROOF FRAMING PLAN
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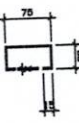
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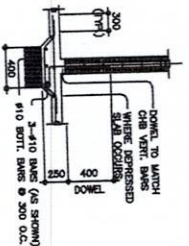
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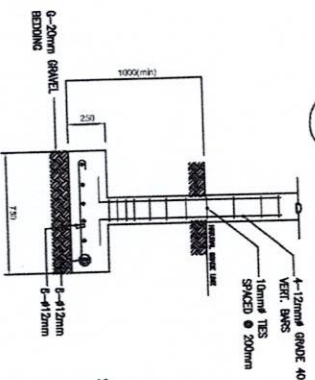
G LB-1 DETAIL
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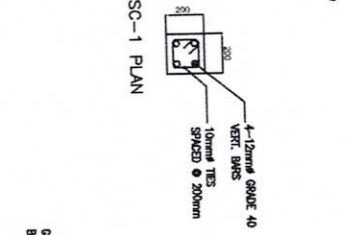
G DETAIL OF PURLINS
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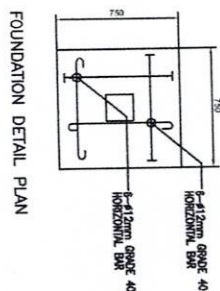
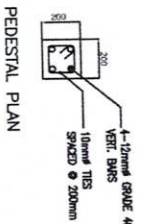
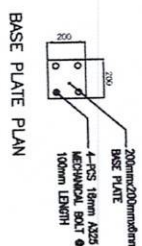
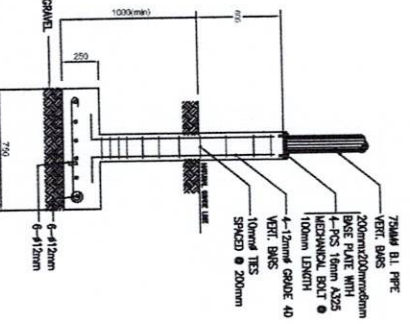
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SCALE: 1 : 50 N



H DETAIL OF SC-1
SCALE: 1 : 50 N

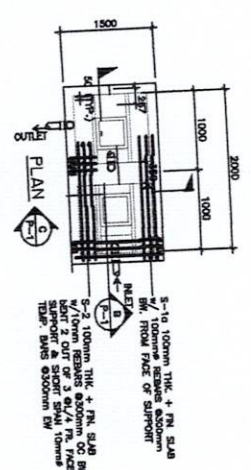


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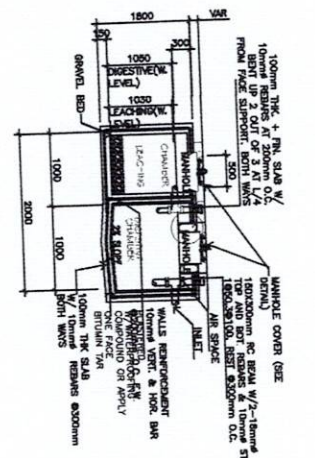


FOUNDATION DETAIL PLAN

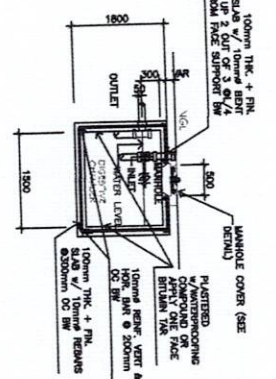
 REPUBLIC OF THE PHILIPPINES DepEd DEPARTMENT OF EDUCATION EDUCATOR FACILITIES DIVISION MANDALAY AVENUE, PASIG CITY	SHEET NO. : ALAN DE LA PASCUA DESIGNER FOR SUPERVISION	REVISIONS APPROVAL : LIZA F. RUZHINA, JR. REV. CHIEF ENGINEER	REVISIONS APPROVAL : ANNABELLE R. BASCUA OFFICE CHIEF OF THE DIST. OFF.	APPROVED BY : ALAN DE LA PASCUA DESIGNER FOR SUPERVISION	PROJECT TITLE : FOUR SEATER TOILET DETACHED	PROJECT CODE :	SHEET NO. : S-1 1
	SHEET NO. : ALAN DE LA PASCUA DESIGNER FOR SUPERVISION	REVISIONS APPROVAL : LIZA F. RUZHINA, JR. REV. CHIEF ENGINEER	REVISIONS APPROVAL : ANNABELLE R. BASCUA OFFICE CHIEF OF THE DIST. OFF.	APPROVED BY : ALAN DE LA PASCUA DESIGNER FOR SUPERVISION	PROJECT TITLE : FOUR SEATER TOILET DETACHED	PROJECT CODE :	SHEET NO. : S-1 1



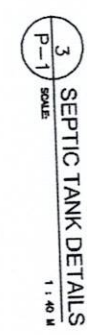
A PLAN DETAILS
SCALE: 1:100



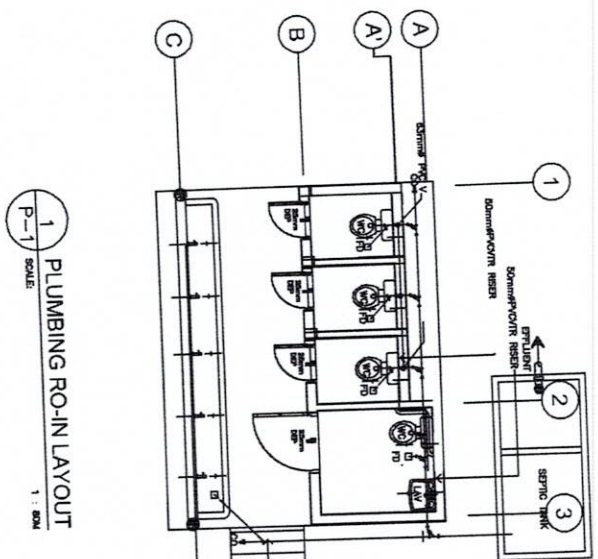
LONGITUDINAL SECTION



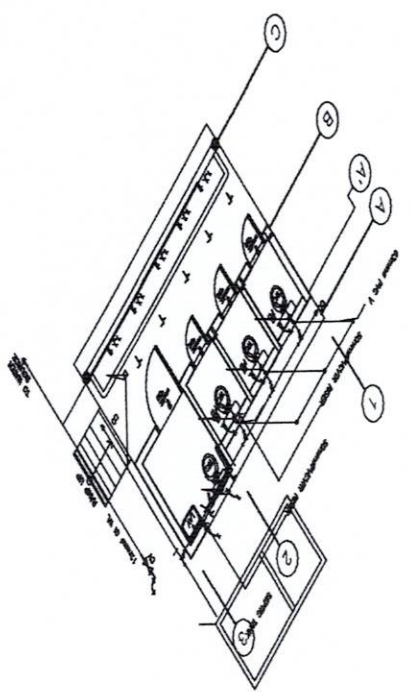
CROSS SECTION



3 SEPTIC TANK DETAILS
SCALE: 1:100



1 PLUMBING RO-IN LAYOUT
SCALE: 1:50



2 ISOMETRIC VIEW
SCALE: 1:50

LEGEND

CB	CAST IRON
CD	CONCRETE DRAIN PIPE
CO	GLASS OIL
CV	CHECK VALVE
HC	HOLE HUB
FD	FLOOR DRAIN
GM	GALVANIZED IRON COIL WATER MESH (SCH. 40)
MA	MANHOLE
PP	PPR POLYPROPYLENE CHLORIDE DOWNSPOUT
PPC	PPR POLYPROPYLENE CHLORIDE DRAIN PIPE
PPD	PPR POLYPROPYLENE CHLORIDE DOWNSPOUT
PPS	PPR POLYPROPYLENE CHLORIDE SOIL PIPE
PPV	PPR POLYPROPYLENE CHLORIDE VENT PIPE
PPW	PPR POLYPROPYLENE CHLORIDE VENT STACK
PPX	PPR POLYPROPYLENE CHLORIDE VENT THROUGH ROOF/PURLIN
PPY	PPR POLYPROPYLENE CHLORIDE WASTE PIPE
PPZ	PPR POLYPROPYLENE CHLORIDE WASTE STACK
RD	ROOF DRAIN
UD	URINAL DRAIN
WC	WATER CLOSET
LAV	LAVATORY
CS	COUNTER SINK

- GENERAL NOTES**
- GRADES OR HORIZONTAL SPACING PERMIT ADJUSTMENT AND AT A POINT NOT LESS THAN TWO PERCENT (2%)
 - ALL CHANGE IN DIRECTION SHALL BE MADE BY APPROPRIATE USE OF ELBOWS, SHORTS, TEES, OR SPLITTING BENDS. WHEN THE CHANGE OF DIRECTION IS FROM HORIZONTAL TO VERTICAL, THE CHANGE OF DIRECTION SHALL BE MADE BY THE USE OF SHORTS AND SHORT DOWNSPOUTS. WHEN USED ON WATER LINE, THE END PROCESS SHALL BE USED IN BEST PRACTICE.
 - PROVIDE 100mm (4") BRANCH SHALL BE USED ON TOPPING HORIZONTAL SOIL AND WASTE LINES. THE END USED OF SLOPE HUB AND BEND ARE PROHIBITED.
 - PIPE CLAMP-O-RING REQUIRED UNDER THE FOLLOWING CONDITIONS:
 - UPPER CHANGE OF HORIZONTAL DIRECTION EXCEEDING TWENTY (20) DEGREES (21.1°) INSIDE THE PROPERTY LINE.
 - UPPER CHANGE OF HORIZONTAL DIRECTION EXCEEDING TWENTY (20) DEGREES (21.1°) INSIDE THE PROPERTY LINE.
 - UPPER FIFTEEN METERS (15.00M) IN HORIZONTAL RUN OF 4" AT THE END OF ANY HORIZONTAL PIPE LINES.
 - THE DIRECTION CHAMBER OF SEPTIC TANK MUST BE WATERPROOFED.
 - NOT LESS THAN 0.30 METERS OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE TANK AND THE UNDER PART OF THE FLOOR SLAB.
 - NO SEPTIC VALVE SHALL BE CONSTRUCTED UNDER THE FLOOR SLAB.
 - ALL PLUMBING WORKS SHALL BE UNDER THE SUPERVISION OF A LICENSED WATER PLUMBER AND A LICENSED PLUMBING CONTRACTOR.

DESIGN CRITERIA

- LIVE LOAD** 1000N/m²
- ALLOWABLE STRESSES**
- CONCRETE
 - FOR FOOTING BEAMS AND SLABS
 - $f_c = 20 \text{ MPa}$
 - CONCRETE MASONRY UNITS
 - (LOAD BEARING CH)
 - $f_m = 4.30 \text{ MPa}$, $f_v = 2.41 \text{ MPa}$
 - REINFORCING STEEL BARS
 - FOR BARS SMALLER THAN 16mm²
 - $f_y = 250 \text{ MPa}$
 - FOR BARS EQUAL OR GREATER REBARING CAPACITY
 - $f_y = 300 \text{ MPa}$

NOTE:

- WATER TABLE IS 500 BELOW GROUND LEVEL.
- SLOPE DIRECTION OF FLOOR DRAIN

DESIGNED BY: ARVIN S. YOUNG DR-CHAD	DRAWN BY: ALVIN DELA ROSA DR-CHAD	REVISIONS APPROVAL: LUIS F. PUNSA, JR. DR-CHAD	REVISIONS APPROVAL: ANNABELLE R. BANSAL DR-CHAD	APPROVED BY: ALVIN DELA ROSA SUPERVISOR FOR PLUMBING	PROJECT TITLE: FOUR SEATER TOILET DETACHED	PROJECT CODE:	DRAWN BY: DEPARTMENT OF EDUCATION DepEd	SHEET NO: P-1 1
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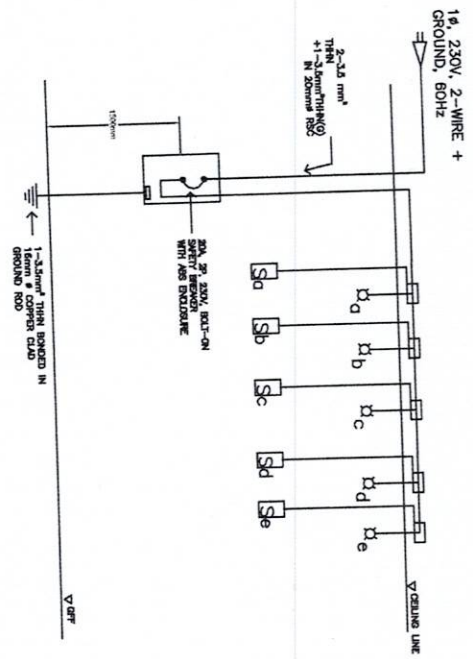
GENERAL NOTES :

1. ALL ELECTRICAL WORKS SHALL COMPLY IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC), THE RULES AND REGULATIONS OF THE LOCAL ENFORCING AUTHORITY AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY. THE ELECTRICAL WORKS SHALL BE UNDER IMMEDIATE SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER.
2. THE ELECTRICAL SERVICE POWER IS 1-PHASE, 2-WIRE + GROUND 230 V AC, 60 Hz.
3. WIRING METHOD SHALL BE AS FOLLOWS :
 a. FEEDERS AND RISERS - INTERMEDIATE METALLIC CONDUIT
 b. LIGHTING, POWER RECEPTACLE - POLYVINYL CHLORIDE CONDUIT
 c. BRANCH CRT., & AUXILIARY - THICK WALL
4. ALL WIRES SHALL BE COPPER AND THERMOPLASTIC INSULATED TYPE "THHN" UNLESS OTHERWISE INDICATED IN THE PLAN, THE MINIMUM SIZE OF WIRE FOR POWER AND LIGHTING CIRCUIT HOMERUN SHALL BE 3.5mm AND INSULATED FOR 600 VOLTS. SMALLEST RACEWAY SHALL BE 15mm² & TRADE/NOMINAL SIZE.
5. ALL OUTLET BOXES SHALL BE GALVANIZED GAUGE NO. 16 DEEP TYPE WITH FACTORY KNOCKOUTS.
6. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND APPROVED TYPE FOR THE PARTICULAR LOCATION AND PURPOSE OF USAGE.
7. EQUIPMENT GROUNDING SYSTEM SHALL BE PROVIDED TO THE ELECTRICAL SYSTEM AS PER PHILIPPINE ELECTRICAL CODE REQUIREMENT.
8. MOUNTING HEIGHT OF WIRING DEVICES SHALL BE AS FOLLOWS :
 a. LIGHT SWITCH - 1.20 M ABOVE FINISH FLOOR.
 b. CONVENIENCE OUTLET - 0.30 M ABOVE FINISH FLOOR.
 c. PANELBOARD - 1.50 M ABOVE FINISH FLOOR
 d. FIRE ALARM STATION OUTLET - 1.50 M ABOVE FINISH FLOOR
 e. PUSH BUTTON OUTLET - 1.20 M ABOVE FINISH FLOOR
 f. FIRE ALARM & VIBRATING BELL - 0.30 M BELOW CEILING LINE

LEGEND :

SYMBOL	DESCRIPTION
	CEILING LIGHT OUTLET
	1 x 40 WATTS FLUORESCENT LAMP
	ONE GANG DEVICE SWITCH
	TWO GANG DEVICE SWITCH
	THREE GANG DEVICE SWITCH
	RACEWAY CONDUIT CONCEALED IN CEILING
	PANELBOARD, MARKED AS "LP"
	CRT. BREAKER, RATING AS INDICATED
	TAMPED PROOF DUPLEX CONVENIENCE OUTLET, GROUNDING TYPE 16 AMPS, 250 VOLT WITH MODERN PLATE COVER
	CIRCUIT HOMERUN
	SERVICE ENTRANCE

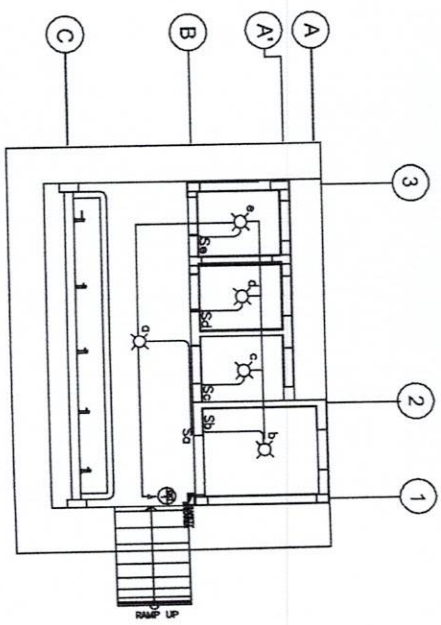
3 SINGLE LINE DIAGRAM
E-1 SCALE



2 LOAD COMPUTATION
E-1 SCALE

LIGHTING OUTLET = 5 x 20 WATTS = 100 WATTS
 VA LOAD = 100 X 1.25 = 125VA
 $IL = \frac{125 VA}{230 V} = 0.54 \text{ AMPERES}$
 FEEDER : 2 - 3.5mm² THHN + 1 - 3.5 mm² THHN (Ø) IN 20mm Ø RSC
 PROTECTION : 1 - 20A, 2P, 230V, BOLT-ON SAFETY BREAKER WITH ADS ENCLASURE

1 LIGHTING LAYOUT
E-1 SCALE



 DEPARTMENT OF EDUCATION EDUCATION FACILITIES DIVISION NEW ALCO AVE. PASIG CITY	REVISION NO. : DRAWN BY : CHECKED BY : APPROVED BY :	CONSULTING ENGINEER : REGISTERED ELECTRICAL ENGINEER DE-0440	REGISTERED ARCHITECT : REGISTERED ELECTRICAL ENGINEER DE-0440	REGISTERED ARCHITECT : REGISTERED ELECTRICAL ENGINEER DE-0440	REGISTERED ARCHITECT : REGISTERED ELECTRICAL ENGINEER DE-0440	REGISTERED ARCHITECT : REGISTERED ELECTRICAL ENGINEER DE-0440	PROJECT TITLE : FOUR SEATER TOILET DETACHED	PROJECT CODE : DEPARTMENT OF EDUCATION DepEd	SHEET NO. : DEPARTMENT OF EDUCATION DepEd SHEET COMMENT : LIGHTING LAYOUT (GENERAL NOTES) (REFER TO GENERAL DRAWING)
E-1 1									