Republic of the Philippines
Benguet State University
La Trinidad, 2601, Benguet Province
Tel/Fax No. 619-1839

BAGONG PILIPINAS

Bids and Awards Committee (BAC) – Infrastructure

INVITATION TO SUBMIT QUOTATION

December 4, 2023

Reference Number: **2023-1519**
Name of Project**: CONSTRUCTION OF THE OPEN UNIVERSITY (OU) BUILDING- PHASE 1**
Project Location: BSU Compound, Km 5, La Trinidad, Benguet
Approved Budget for the Contract (ABC): Php. 3,191,537.88
Contract Duration: 128 calendar days
Source of Fund: 2023 IGI

I. Introduction:

A. The Benguet State University, through the Bids and Awards Committee (BAC), is inviting registered contractors with valid license issued and classified by the Philippine Contractors Accreditation Board (PCAB) to bid for the above stated project. The project is a Phase I Construction of the BSU Open University Building. Scope of work includes the structural and finishing of the first floor of the building.

B. Prospective Bidders must have key personnel and equipment (owned, leased or under leased agreement) available for the prosecution of the project.

II. Scope of Work

Item No.	Scope of Work
Part I	Facilities for the Engineer
Part II	Other General Requirements (Permits and Clearances, Project Billboard/ signboard, Occupational Safety and Health Program, Mobilization)
Part A	Earthwork - Clearing and Grubbing, Structure Excavation, Embankment from structure excavation, gravel bedding
Part B	Plain and Reinforced Concrete Work - Structural concrete (3500 PSI, 4000 PSI); Reinforcing Steel (Grade 33,40,60); Forms and Falseworks
Part C	Finishings and Other Civil Works - CHB Non-load bearing, plain cement floor, cement plaster, painting works, steel doors and frames, PVC Doors and frames, aluminum glass windows, glazed tiles and trims, carpentry and joinery works, plumbing, septic vault
Part D	Electrical - Conduits, boxes and fittings; wires and wiring devices; power load center, switch gear and panelboards; lighting fixtures

III. Technical Personnel Required

a. Site Engineer/ site Architect – full time
b. Materials Engineer

c. Safety Officer/ Practitioner – part time
d. Construction Foreman

IV. List of Equipment – must be in good condition
a. 1 – Backhoe (0.80 m3)
b. 1 – Dump truck (12 yd3)
c. 1 – Plate compactor (5 HP)
d. 1 – Concrete Vibrator
e. 1 – Pumpcrete
f. 1 – Bar Cutter
g. 1 – Bar Bender

V. Eligibility Requirements (must be updated)- All eligibility requirements will be used for procurement purposes only.
a. PhilGEPS Registration (must be Platinum)
b. Business Permit
c. PCAB License
d. Computation of Net Financial Contracting Capacity (NFCC)
e. Income and Business Tax Returns
f. Audited Financial Statements
g. Certificate of Site Inspection
h. Omnibus Sworn Statement
i. List of Technical Personnel with updated PRC licenses and accreditation
j. List of Equipment with proof of ownership

VI. Procurement Activities:
a. Issuance of bid documents:
Interested bidders/ contractors can get a copy of the plans and designs, bill of quantities of the project **starting December 5, 2023** during office hours at the Procurement Management Office (PMO), 1st Floor, Administration Building, BSU, La Trinidad, Benguet

b. Deadline for Submission of Quotation
Quotation is to be submitted in a sealed envelope with the eligibility requirements on or before **December 12, 2023** at 10:00 AM at the Procurement Management Office (PMO), 1st Floor, Administration Building, BSU, La Trinidad, Benguet.

c. Opening of Quotation
December 12, 2023 at 10:00 AM at the RDC Hall, BSU Administration Building, La Trinidad, Benguet.

For further information, please refer to:

BAC Secretariat Committee
Benguet State University-La Trinidad Campus
Tel No. 661-1839
Email: procurement@bsu.edu.ph

(Sgd) SAMUEL S. POLIDEN
Chairperson
Bids and Awards Committee

Republic of the Philippines
BENGUET STATE UNIVERSITY
La Trinidad, Benguet
Tel No. (074) 661-1839

CERTIFICATE OF SITE INSPECTION REPORT

This is to certify that_____
(Name of Bidder or Technical Representative)

of _____
(Name of Entity)

with office address at _____

_____ had inspected the site/location for

the project: _____

located at _____

This certification is issued to Mr /Ms _____
(Name of Bidder or Representative)
as a part of his/her Technical Proposal.

Issued this _____ of _____, 2023.

Note: to be signed by the authorized representative from Project Management Unit (PMU)

Section 10

Bid Forms

Bid Form

Bid Securing Declaration

Omnibus Sworn Statement

Bid Form for the Procurement of Infrastructure Projects

[shall be submitted with the Bid]

BID FORM

Date: _____

Project Identification No.: _____

To: [name and address of Procuring Entity]

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers *[insert numbers],* the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract];*

b. We offer to execute the Works for this Contract in accordance with the PBDs;

c. The total price of our Bid in words and figures, excluding any discounts offered below is: *[insert information]*;

d. The discounts offered and the methodology for their application are: *[insert information]*;

e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties],* which are itemized herein and reflected in the detailed estimates,

f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;

g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines[1] for this purpose;

h. We are not participating, as Bidders, in more than one Bid in this bidding process, other

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[1] currently based on GPPB Resolution No. 09-2020

than alternative offers in accordance with the Bidding Documents;

i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.

k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity*].*

l. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Date: _____

Bid Securing Declaration Form

[shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

BID SECURING DECLARATION

Project Identification No.: *[Insert number]*

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.

2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f),of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.

3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
   a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
   b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
   c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] *[Insert signatory's legal capacity] Affiant*

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Omnibus Sworn Statement

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

A F F I D A V I T

I, *[Name of Affiant]*, of legal age, *[Civil Status]*, *[Nationality]*, and residing at *[Address of Affiant]*, after having been duly sworn in accordance with law, do hereby depose and state that:

1. ***Select one, delete the other:***

   If a sole proprietorship: I am the sole proprietor or authorized representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

   If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

2. ***Select one, delete the other:***

   [If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

   [If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

3. *[Name of Bidder]* is not "blacklisted" *or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board,* ***by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;***

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. ***Select one, delete the rest:***

If a sole proprietorship: The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a partnership or cooperative: None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a corporation or joint venture: None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:

   a) Carefully examining all of the Bidding Documents;

   b) Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;

   c) Making an estimate of the facilities available and needed for the contract to be bid, if any; and

   d) Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. ***In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code***.

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of ___, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity] Affiant

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

Construction Firm / Company Logo

(NAME OF CONSTRUCTION FIRM/COMPANY)

(ADDRESS OF CONSTRUCTION FIRM/COMPANY)

BILL OF QUANTITIES

PROJECT TITLE:	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I)
PROJECT LOCATION :	BSU COMPOUND, KM.5, BALILI, LA TRINIDAD, BENGUET
ABC :	PHP 3,191,537.88
PROJECT DURATION:	126 C.D. INCLUSIVE OF: 13 UNWORKABLE DAYS
IMPLEMENTATION MODE:	BY CONTRACT

PROJECT DESCRIPTION	EQUIPMENT NEEDED		EQUIPMENT NEEDED	
	NO.	DESCRIPTION	NO.	DESCRIPTION
The project is a PHASE - I Construction of the BSU Open University Building. Scope of work includes the structural and finishing of the first floor of the building.	1	Backhoe (0.80 m3)	1	One-bagger mixer
	1	Dump Truck (12 yd3)	TECHNICAL PERSONEL	
	1	Plate Compactor (5 hp)	NO.	DESCRIPTION
	1	Concrete Vibrator	1	Site Engineer / Site Architect
	1	Pumpcrete	1	Materials Engineer
	1	Bar Cutter	1	Safety Officer / Practicioner (part time)
	1	Bar Bender	1	Construction Foreman

ITEM NO.	DESCRIPTION	% WEIGHT	QUANTITY	UNIT	UNIT COST	TOTAL COST
PART I	FACILITIES FOR THE ENGINEER					
A.1.1 (6)	Provision of Field Office for the Engineer (Rental Basis)		0.71	month		
PART II	OTHER GENERAL REQUIREMENTS					
B.3	Permits and Clearances (Building Permit)		1.00	lump sum		
B.5	Project Billboard / Signboard		1.00	each		
B.7	Occupational Safety and Health Program		1.00	month		
B.9	Mobilization / Demobilization		1.00	lump sum		
PART A	EARTHWORK					
800 (1)	Clearing and Grubbing		214.50	sq.m.		
803 (1)a	Structure Excavation (Common Soil)		317.97	cu.m.		
804 (1)a	Embankment from Structure Excavation		333.87	cu.m.		
804 (4)	Gravel Bedding		10.50	cu.m.		
PART B	PLAIN AND REINFORCED CONCRETE WORK					
900 (1)c1	Structural Concrete, 3500 psi at 28 days (for foundations)		42.40	cu.m.		
900 (1)c2	Structural Concrete, 4000 psi at 28 days (for columns, beams, slabs, and stair)		58.76	cu.m.		
902 (1)a	Reinforcing Steel, GRADE 33 (Deformed) *for ties, stirrups, and slabs		7,502.17	kgs.		
902 (1)a1	Reinforcing Steel, GRADE 40 (Deformed) *for footings, beams, and stairs		6,568.84	kgs.		
902 (1)a2	Reinforcing Steel, GRADE 60 (Deformed) *for columns		2,796.00	kgs.		
903 (2)	Forms and Falseworks		140.63	sq.m.		
PART C	FINISHINGS AND OTHER CIVIL WORKS					
1046 (2)a1	100mm CHB Non-Load Bearing (Including Reinforcing Steel)		175.95	sq.m.		
1021 (1)a	Plain Cement Floor Finish		93.25	sq.m.		
1027 (1)	Cement Plaster Finish		387.08	sq.m.		
1032 (1)	Painting Works		438.00	sq.m.		
1006	Steel Doors and Frames		6.00	sq.m.		
1010 (2)c	Wooden Panel Door with Glass		2.00	sq.m.		
1043 (1)	PVC Doors and Frames		2.00	sq.m.		
1008	Aluminum Glass Windows		30.00	sq.m.		
1018 (1)	Glazed Tiles and Trims		39.28	sq.m.		
1018 (2)	Unglazed Tiles		17.53	sq.m.		
1003 (17)	Carpentry and Joinery Works		1.00	lump sum		
1002	Plumbing		1.00	lump sum		
SPL.1	Septic Vault		1.00	lump sum		
PART D	ELECTRICAL					
1100	Conduits, Boxes, and Fittings		1.00	lump sum		
1101	Wires and Wiring Devices		1.00	lump sum		
1102	Power Load Center, Switchgear and Panelboards		1.00	lump sum		
1103	Lighting Fixture		21.00	sets		
	TOTAL BID COST					

	BREAKDOWN OF BID COST	TOTAL COST
A.	DIRECT COST	
	EQUIPMENT	
	LABOR	
	MATERIALS	
B.	INDIRECT COST	
	OCM	
	CONTRACTOR'S PROFIT	
	TAXES	
C.	PROJECT COST(TOTAL A+B)	
	TOTAL BID COST IN FIGURES	

TOTAL BID AMOUNT IN WORDS: _____

I hereby submit the foregoing bid, and that I understood the terms and conditions of the contract.

(Signature)

NAME OF BIDDER/CONTRACTOR

POSITION

NAME OF CONSTRUCTION FIRM/ COMPANY

DATE: _____

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : A.1.1 (8) Provision of Field Office for the Engineer (Rental Basis)
Quantity : 0.71
Unit of Measurement : month
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Colored Printer (Can print up to A3 size paper)	1			
	b. 1.2m x 2.4m Wooden Table	1			
	c. Plastic Chairs with Backrest	6			
	d. 20 ft. Container Van (ACU maintained)	1			
	Sub - Total for B				
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			0% of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : B.3 Permits and Clearances (Building Permit)
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Professional Electrical Engineer				
	b. Master Plumber / Sanitary Engineer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Zoning Fee	lump sum	1		
	b. Fire Safety Inspection Clearance and Certificate	lump sum	1		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			0% of D	-
F.	Contractor's Profit (CP)			0% of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : B.5 Project Billboard / Signboard
Quantity : 1.00
Unit of Measurement : each
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Printed Billboard Tarpaulin (8' x 8')	sq.ft.	64		
	b. 1/4"x1.2mx2.44m Ordinary Plywood	pcs.	2		
	c. Good Lumber (Frames)	bd.ft.	35		
	d. Assorted CWNs	kg.	1		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : B.7 Occupational Safety and Health Program
Quantity : 1.00
Unit of Measurement : month
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Safety Officer / Practicioner (part time)	1			
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Assorted Safety Barricades and Enclosures	1	lump sum		
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Safety First Signage (2' x 3')	sets	3		
	b. Warning Signs (2' x 3')	sets	3		
	c. Caution Tape, 100ft	roll	1		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			0% of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : B.9 Mobilization / Demobilization
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Skilled Laborer				
	b. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Cargo/Service Truck (9-10 mt)				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			0% of D	-
F.	Contractor's Profit (CP)			0% of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 800 (1) Clearing and Grubbing
Quantity : 214.50
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 803 (1)a Structure Excavation (Common Soil)
Quantity : 317.97
Unit of Measurement : cu.m.
Output per hour : m^3

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Unskilled Laborer				
	Sub - Total for A				
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Backhoe (0.80 m^3)	1			
	b. Dump Truck (12 yd^3)	2			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 804 (1)a Embankment from Structure Excavation
Quantity : 333.87
Unit of Measurement : cu.m.
Output per hour : m^3

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Unskilled Laborer				
	Sub - Total for A				
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Backhoe (0.80 m^3)	1			
	b. Plate Compactor (5 hp)	1			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 804 (4) Gravel Bedding
Quantity : 10.60
Unit of Measurement : cu.m.
Output per hour : m^3

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Plate Compactor (5 hp)	1			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Gravel Bedding (G1) (w/ 5% Shrinkage Factor)	cu.m.	11		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 900 (1)c1 Structural Concrete, 3500 psi at 28 days (for foundations)
Quantity : 42.40
Unit of Measurement : cu.m.
Output per hour : m^3

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Concrete Vibrator	2			
	b. Pumpcrete	1			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Ready Mix Concrete (3500 psi at 28 days)	cu.m.	43		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 900 (1)c2 Structural Concrete, 4000 psi at 28 days (for columns, beams, slabs, and stair)
Quantity : 58.76
Unit of Measurement : cu.m.
Output per hour : m^3

	Designation	No. of Persons	No. of Hours	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Units**	**No. of Hours**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Concrete Vibrator	2			
	b. Pumpcrete	1			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Ready Mix Concrete (4000 psi at 28 days)	cu.m.	59		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 902 (1)a Reinforcing Steel, GRADE 33 (Deformed) *for ties, stirrups, and slabs
Quantity : 7502.17
Unit of Measurement : kgs.
Output per hour : kgs.

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Bar Cutter	1			
	b. Bar Bender	1			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Deformed Reinforcing Steel GRADE 33	kgs.	7503		
	b. #16 Galvanized Iron Wire	kgs.	113		
	c. Consumables (5% of material cost)				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 902 (1)a1 Reinforcing Steel, GRADE 40 (Deformed) *for footings, beams, and stairs
Quantity : 6588.84
Unit of Measurement : kgs.
Output per hour : kgs.

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foremen				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Bar Cutter	1			
	b. Bar Bender	1			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Deformed Reinforcing Steel GRADE 40	kgs.	6589		
	b. #16 Galvanized Iron Wire	kgs.	99		
	c. Consumables (5% of material cost)				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 902 (1)a2 Reinforcing Steel, GRADE 60 (Deformed) *for columns
Quantity : 2796.00
Unit of Measurement : kgs.
Output per hour : kgs.

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Bar Cutter	1			
	b. Bar Bender	1			
	Minor Tools (10% of labor cost)				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Deformed Reinforcing Steel GRADE 60	kgs.	2796		
	b. #16 Galvanized Iron Wire	kgs.	42		
	c. Consumables (5% of material cost)				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 903 (2) Forms and Falseworks
Quantity : 140.63
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	Installation				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Stripping				
	a. Skilled Laborer				
	b. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. H-Frame 1.7m x 1.2m, set	40			
	2 pcs. H-frames				
	4 pcs. diagonal cross braces				
	4 pcs. horizontal braces				
	8 pcs. Joint pins				
	b. Shoring Jack, 3.8m full extension	62			
	c. Adjustable U-head Jack, 0.6m	80			
	d. Adjustable Base Jack, 0.60m	80			
	e. 1-1/2" G.I. Pipe x 6.0 m	62			
	f. 1-1/2" G.I. Pipe x 3.0 m	16			
	g. 1-1/2" G.I. Pipe x 4.0 m	32			
	h. 1-1/2" G.I. Pipe x 1.0 m	216			
	i. Tie Rod x 0.60m.	276			
	j. Round Wing Nut	558			
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Phenolic Board (0.19mm x 1.2m x 2.4m) - 3 uses	pcs.	49		
	b. Good Lumber - 3 uses	bd.ft.	665		
	c. Consumables (5% of material cost)				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1046 (2)a1 100mm CHB Non-Load Bearing (Including Reinforcing Steel)
Quantity : 175.95
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. One-bagger mixer	1			
	c. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. 100mm thk. CHB (NOn-Load Bearing)	pcs.	2200		
	b. Cement	bags	93		
	c. Sand	cu.m.	8		
	d. 10mm dia. Reinforcing Steel, GRADE33	kgs.	571		
	e. #16 G.I. Tie Wire	kgs.	9		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1021 (1)a Plain Cement Floor Finish
Quantity : 93.25
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Cement	bags	68		
	b. Sand	cu.m.	6		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1027 (1) Cement Plaster Finish
Quantity : 387.08
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. H-Frame 1.7m x 1.2m, set	2			
	2 pcs. H-frames				
	4 pcs. diagonal cross braces				
	4 pcs. horizontal braces				
	8 pcs. Joint pins				
	b. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Cement	bags	128		
	b. Sand	cu.m.	11		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1032 (1) Painting Works
Quantity : 438.00
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. H-Frame 1.7m x 1.2m, set	2			
	2 pcs. H-frames				
	4 pcs. diagonal cross braces				
	4 pcs. horizontal braces				
	8 pcs. Joint pins				
	b. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	Interior Walls, Ceiling, Columns, and Beams = 213 sq.m.				
	a. Skimcoat (Konstrukt™ Permaplast ™ K-201 High Performance Acrylic Skimcoat or equivalent)	gals.	23		
	b. Primer (Boysen Acrytex™ Flat Latex #701 or equivalent)	gals.	9		
	c. Putty (Spot) (Boysen Acrytex™ Cast #1711 or equivalent)	gals.	9		
	d. Topcoat (Boysen Permacoat™ Latex or equivalent)	gals.	16		
	e. Thinning Solvent for Putty (Boysen Acrytex™ Reducer #1750 or equivalent)		2		
	e. Consumables				
	Chlorinated Rubber-based Floor Coating (1F Flooring) = 113sq.m.				
	a. Eposeal Clear (Davies or equivalent)	gals.	4		
	b. Epopatch (Davies or equivalent)	gals.	4		
	c. Acreex (Davies or equivalent)	gals.	5		
	d. Acreex (Davies or equivalent)	gals.	5		
	e. Acreex Reducer (Davies or equivalent)	gals.	1		
	f. Epoxy Reducer (Davies or equivalent)	gals.	1		
	g. Consumables				
	Cementious Waterproofing System (2F Slab) = 113sq.m.				
	a. Waterproofing Topcoat (Boysen Plexibond™ or equivalent)	gals.	24		
	b. Primer (Boysen Acrytex™ Primer or equivalent)	gals.	5		
	c. Cement	bag	1		
	d. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1006 Steel Doors and Frames
Quantity : 6.00
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Welding Machine	1			
	b. Minor Tools				
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. D 01 *Refer to plan for specifications.	sq.m.	3		
	b. D 02 *Refer to plan for specifications.	sq.m.	3		
	c. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1010 (2)c Wooden Panel Door with Glass
Quantity : 2.00
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. D 03 *Refer to plan for specifications	sq.m.	2		
	b. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1043 (1) PVC Doors and Frames
Quantity : 2.00
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. D/04 *Refer to plan for specifications.	sq.m.	2		
	b. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1008 Aluminum Glass Windows
Quantity : 30.00
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. W 01 *Refer to plan for specifications.	sq.m.	24		
	b. W 02 *Refer to plan for specifications.	sq.m.	2		
	c. W 03 *Refer to plan for specifications.	sq.m.	4		
	d. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1018 (1) Glazed Tiles and Trims
Quantity : 39.26
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Glazed Tiles	sq.m.	42		
	b. Cement	bags	13		
	c. Sand	cu.m.	2		
	d. Tile Grout	bags	5		
	e. Tile Adhesive (25 kg.)	bags	5		
	f. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (CCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1018 (2) Unglazed Tiles
Quantity : 17.53
Unit of Measurement : sq.m.
Output per hour : m^2

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Unglazed Tiles	sq.m.	19		
	b. Cement	bags	6		
	c. Sand	cu.m.	1		
	d. Tile Adhesive (25 kg.)	bags	3		
	e. Tile Grout	bags	3		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1003 (17) Carpentry and Joinery Works
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour : set

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Male Restroom Cubicle (*refer to plan) 19mm thk. Fabricated PVC Partition Panel Fixed on Metal Frame with Complete Accessories)	set	1		
	b. Female Restroom Cubicle (*refer to plan) 19mm thk. Fabricated PVC Partition Panel Fixed on Metal Frame with Complete Accessories)	set	1		
	c. Male Urinal Partition (*refer to plan) 19mm thk. Fabricated PVC Partition Panel Fixed on Metal Frame with Complete Accessories)	sets	2		
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1002 Plumbing
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Water Closet, Round Front (with fittings and accessories)	set	3		
	b. Urinal, Flush Valve (with fittings and accessories)	set	2		
	c. Lavatory, Wall Hung (with fittings and accessories)	set	3		
	d. 100mm dia. Stainless Floor Drain Plates	pcs.	5		
	e. 40mm dia. Stainless Steel Grab Bar (w/ accessories)	linear meter	4		
	f. 0.9m x 1.0m Facial Mirror (*for Female CR)	sq.m.	0.9		
	g. 100mm Ø PVC Pipe and Fittings, Series 1000 (WC to Septic Tank)	lump sum	1		
	h. 50mm Ø PVC Pipe and Fittings, Series 1000 (WC to Septic Tank)	lump sum	1		
	i. 13mm Ø x 4.00m Polyprophylene Random Copolymer (PPR-C) Pipe and	lump sum	1		
	j. 0.4m x 0.5m Stainless Kitchen Sink	set	1		
	k. Stainless Steel Faucet	pcs.	4		
	l. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : SPL.1 Septic Vault
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Ready Mix Concrete 3000psi @ 28 days	cu.m.	5.3		
	b. 10mm dia. RSB, GRADE33	kgs.	276.1		
	c. Plywood Ordinary (0.0125m x 1.2m x 2.44m) - 3 uses	pcs.	17		
	d. Good Lumber - 3 uses	bd.ft.	250		
	e. 100mm Ø PVC Pipe and Fittings, Series 1000 *refer to plan	lump sum	1		
	f. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscelleneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1100 Conduits, Boxes, and Fittings
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. 50mm Ø Rigid Steel Conduit (RSC)	pcs.	5		
	b. 25mm Ø Polyvinyl Chloride (PVC) Pipes	pcs.	5		
	c. 15mm Ø Polyvinyl Chloride (PVC) Pipes	pcs.	27		
	d. 25mm Ø Polyvinyl Chloride (PVC) Pipe Fittings	lump sum	1		
	e. 15mm Ø Polyvinyl Chloride (PVC) Pipe Fittings	lump sum	1		
	f. Junction / Utility / Pull / Square Boxes	lump sum	1		
	g. 25.4mm Ø Service Entrance Cap	pcs.	2		
	h. Secondary Rack with 2 pcs. Spool	pcs.	1		
	i. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (CCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1101 Wires and Wiring Devices
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. 8.0 mm^2 Electric Wire (TW / THHN / TWHN2)	linear meter	25		
	b. 3.5 mm^2 Electric Wire (TW / THHN / TWHN2)	linear meter	200		
	c. 2.0 mm^2 Electric Wire (TW / THHN / TWHN2)	linear meter	400		
	d. Single Pole Wall Switch on one switch plate	set	6		
	e. Duplex Wall Switch, 2 single pole on one switch plate	set	1		
	f. Duplex Convenience Outlet	set	15		
	g. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1102 Power Load Center, Switchgear and Panelboards
Quantity : 1.00
Unit of Measurement : lump sum
Output per hour :

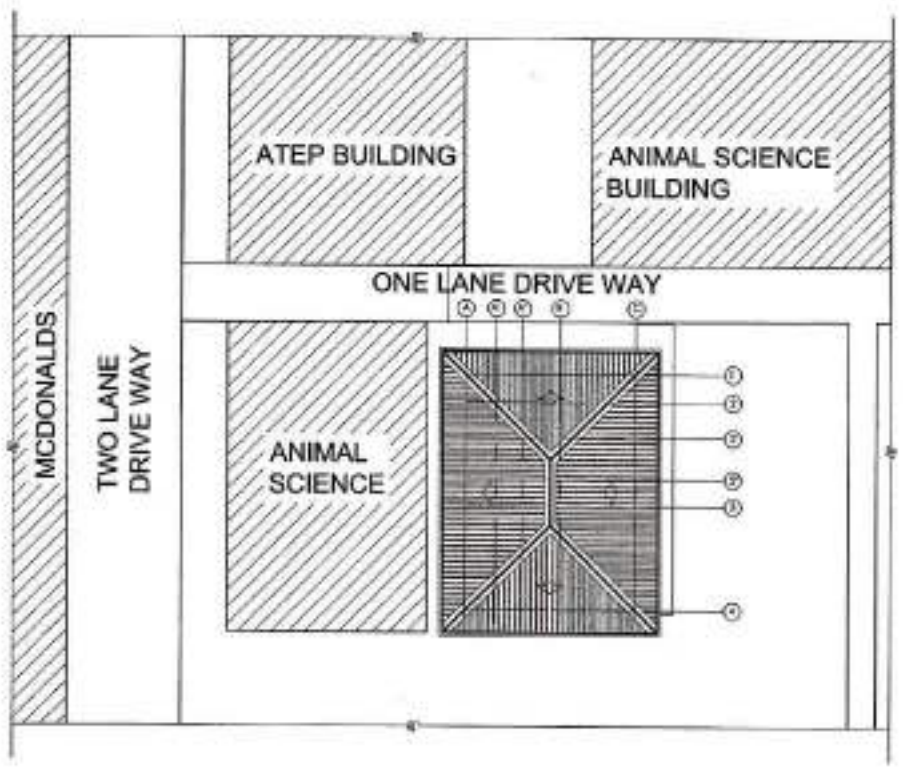
	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. Panelboard with Main Breaker and 140 Branches (Bolt-on Type) NEMA brand or equivalent	set	1		
	b. 40 Amp. Automatic Circuit Breaker (Bolt-on Type)	pcs.	1		
	c. 20 Amp. Automatic Circuit Breaker (Bolt-on Type)	pcs.	4		
	d. 15 Amp. Automatic Circuit Breaker (Bolt-on Type)	pcs.	2		
	e. 16mm dia. X 2m Ground Bare Copper	pcs.	1		
	f. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

DETAILED UNIT PRICE ANALYSIS (DUPA)

Item No./Description : 1103 Lighting Fixture
Quantity : 21.00
Unit of Measurement : sets
Output per hour :

	Designation	No. of Person/s	No. of Hour/s	Hourly Rate	Amount (PhP)
A.	Labor				
	a. Construction Foreman				
	b. Skilled Laborer				
	c. Unskilled Laborer				
	Sub - Total for A				-
	Name and Capacity	**No of Unit/s**	**No. of Hour/s**	**Hourly Rate**	**Amount (PhP)**
B.	Equipment				
	a. Minor Tools				-
	Sub - Total for B				-
	Name and Specification	**Unit**	**Quantity**	**Unit Cost**	**Amount (PhP)**
C.	Materials				
	a. 60 Watts Surface Mounted LED Pin Light with 6" Ø Casing and complete accessories	sets	21		
	b. Consumables				
	Sub - Total for C				-
D.	Total Direct Cost			(A+B+C)	-
E.	Overhead, Contingencies & Miscellaneous (OCM) Expenses			of D	-
F.	Contractor's Profit (CP)			of D	-
G.	Value Added Tax (VAT)			of (D+E+F)	-
H.	Total Indirect Cost			(E+F+G)	-
I.	Total Cost			(D+H)	-
J.	Unit Cost				-

A1 01-01 PERSPECTIVE
SCALE NTS



A1 01-03 SITE DEVELOPMENT PLAN
SCALE 1:400 MTS

A1 01-01 VICINITY MAP
SCALE NTS

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REPUBLIC OF THE PHILIPPINES
OFFICE OF THE BUILDING OFFICIAL

LA TRINIDAD, BENGUET
DISTRICT/CITY/MUNICIPALITY

LAND USE AND ZONING

LINE AND GRADE

ARCHITECTURAL

CIVIL / STRUCTURAL

ELECTRICAL

MECHANICAL

SANITARY

PLUMBING

ELECTRONICS

GEODETIC ENGINEER

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PTR No. | ISSUED: | PTR No. | ISSUED:

CAD BY: GREGO-SEPTEMBER 2023

PROPOSED OPEN UNIVERSITY BUILDING PHASE 1
BSU/CMS BSU COMPOUND LA TRINIDAD, BENGUET
PROJECT / LOCATION

BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ BSU OPEN UNIVERSITY DIRECTOR

ALLAN CASALDO SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

FELIPE SALAING COMILA
PRESIDENT

SHEET CONTENT: AS SHOWN
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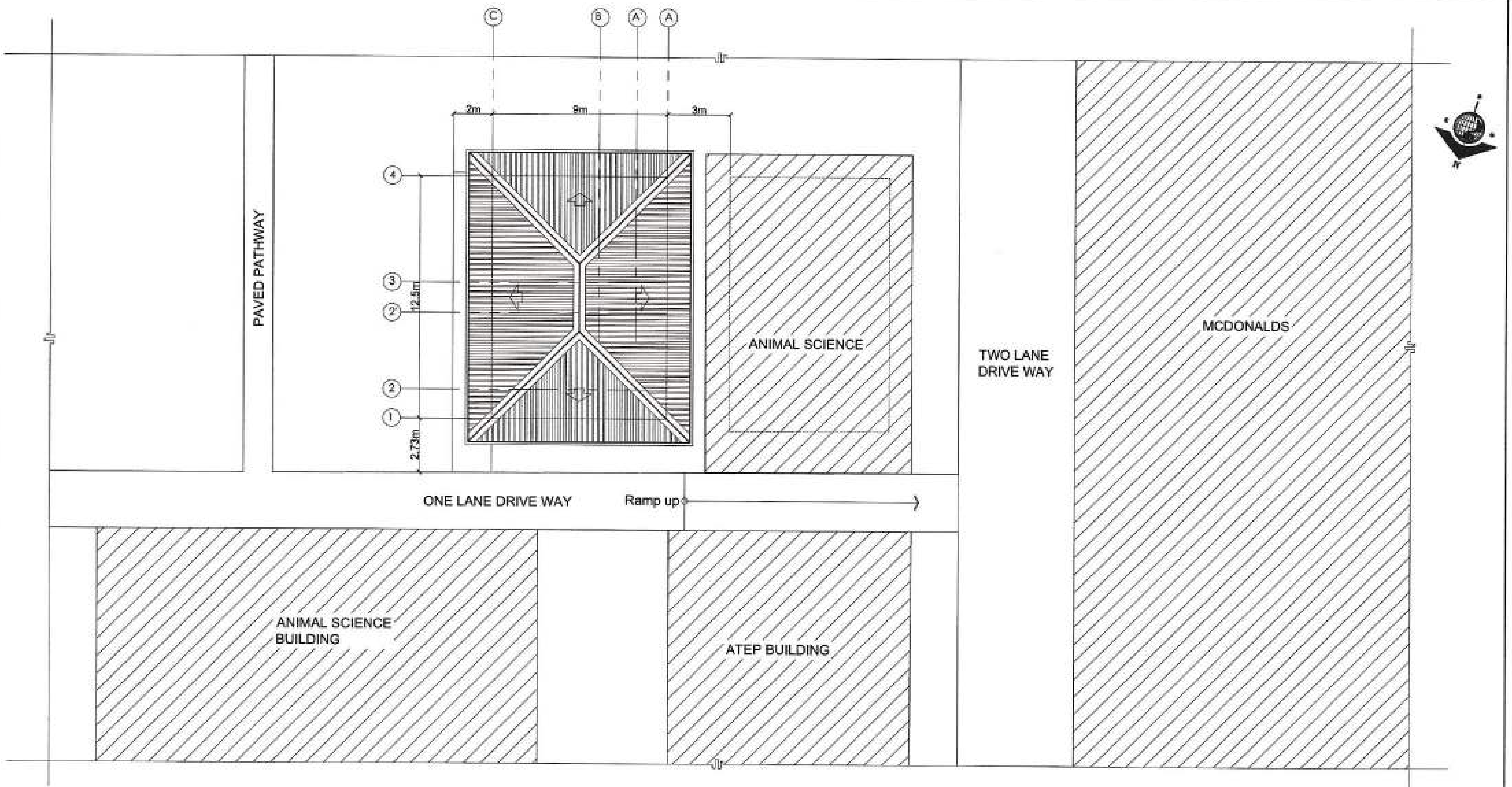
REVISION NO.:
SHEET NO.: A 01 10

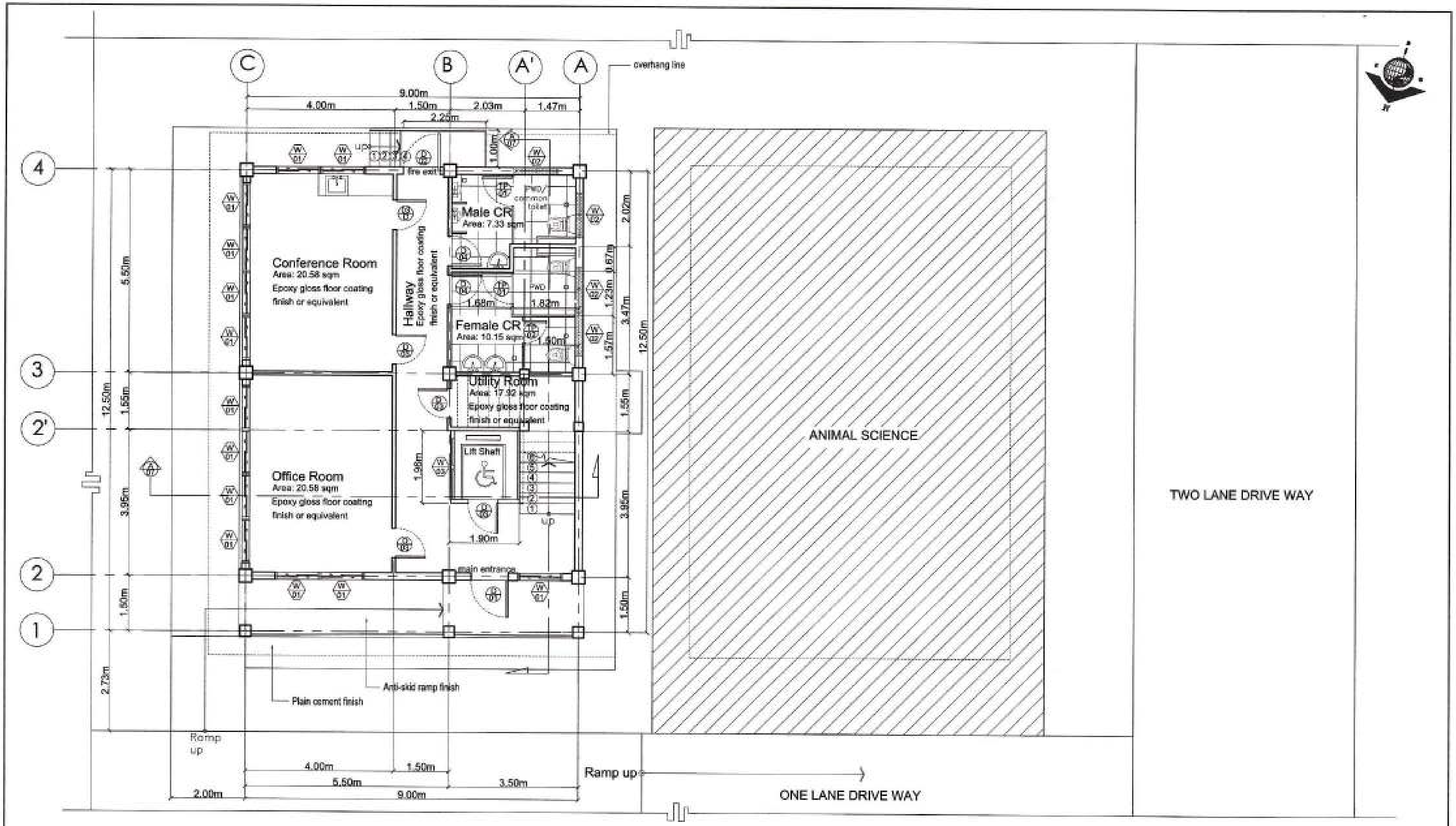


A2 01-01 SITE DEVELOPMENT PLAN

SCALE 1:200 MTS

HAZELINE N. TIBANGAY UNIVERSITY ARCHITECT PRC LIC. No. 028540 VALIDITY: PTR No. ISSUED:	PRC LIC. No. VALIDITY: PTR No. ISSUED:	CAD BY: ERGD-SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU JCMS BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARD T. APILIS END USER/ BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT

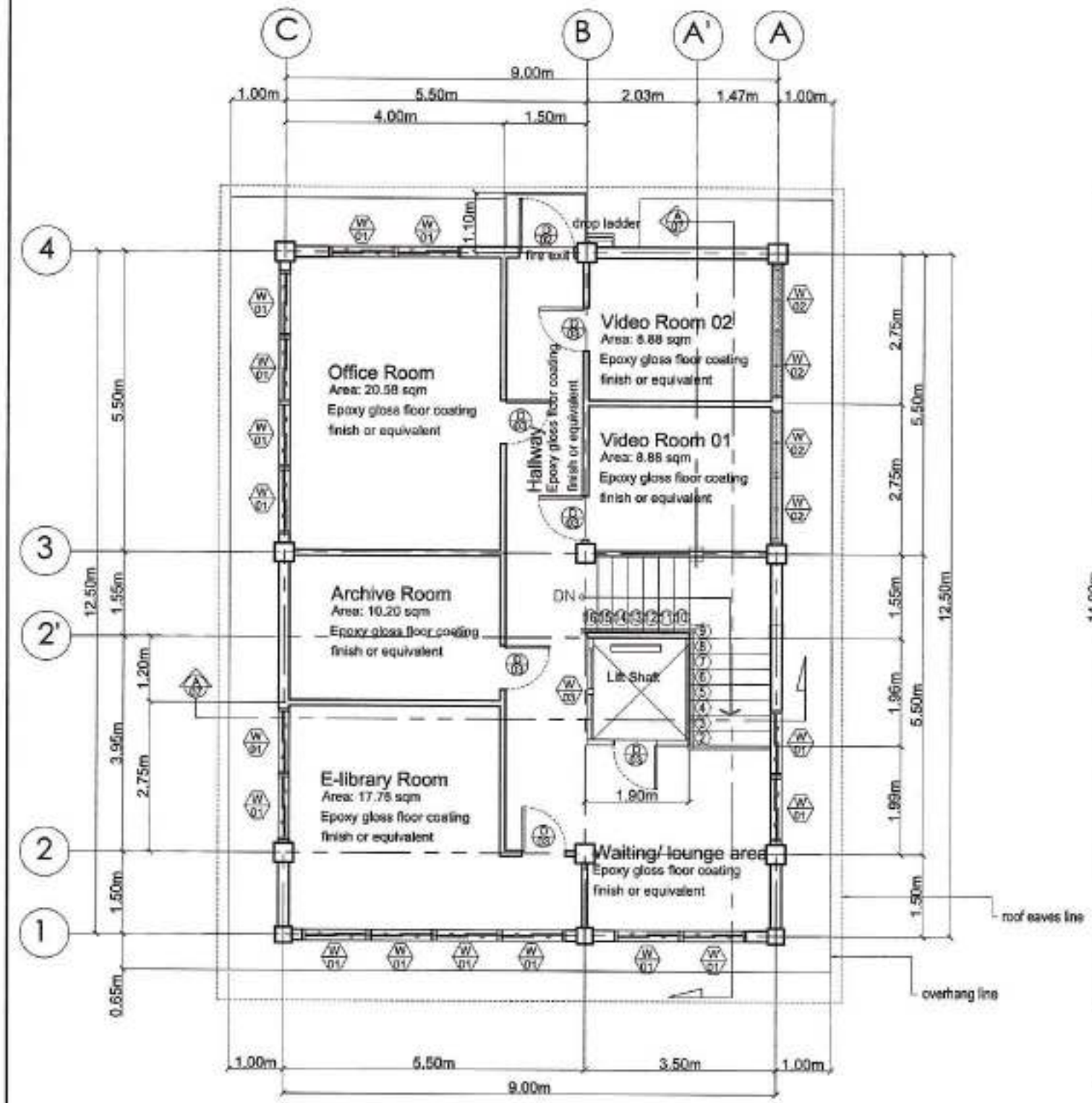
SHEET CONTENT: AS SHOWN REVISION DATE: REVISION NO.:	SHEET NO.: A 02/10



A3 01-01 FIRST FLOOR PLAN

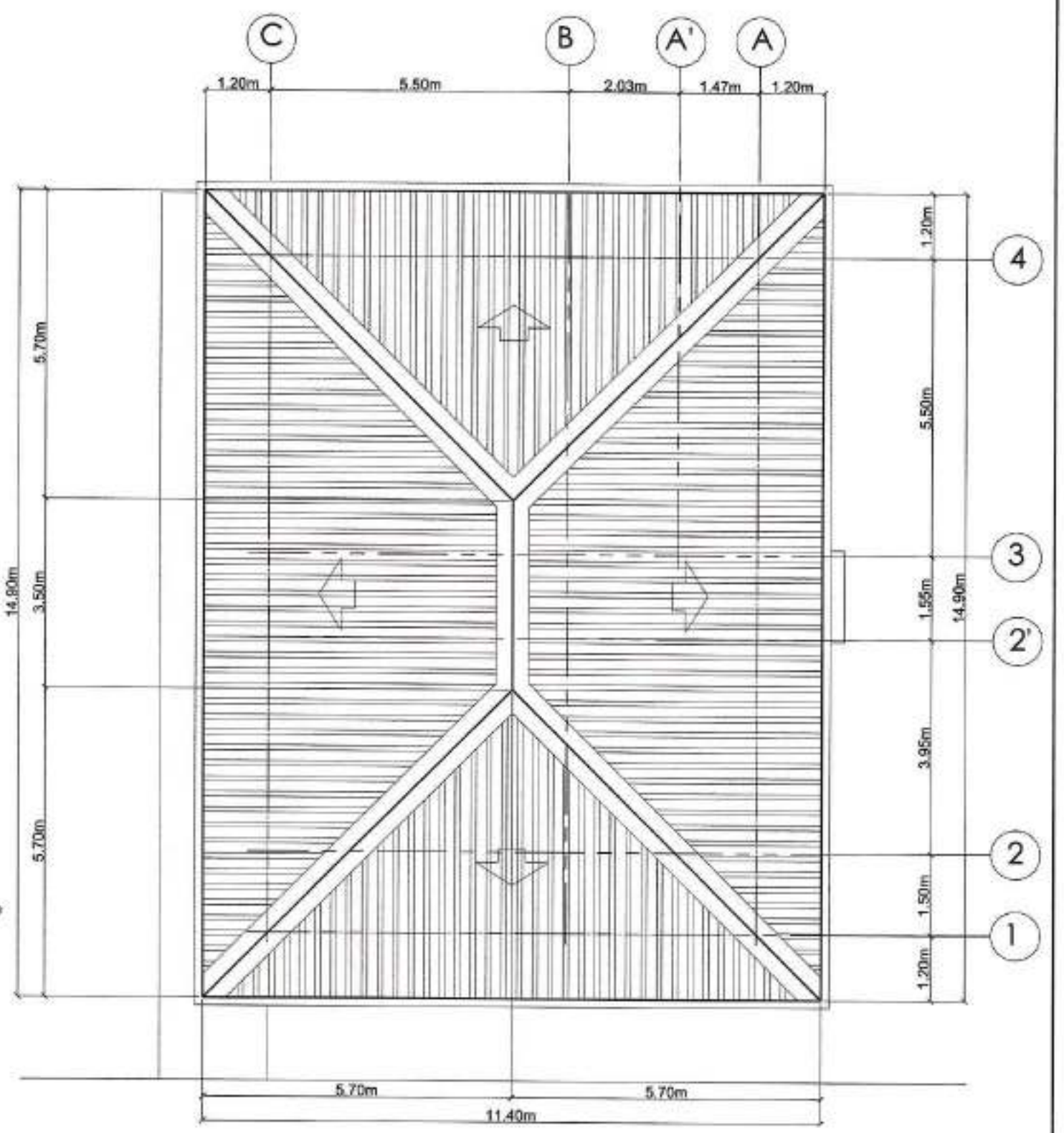
SCALE 1:100 MTS

HAZELINE N. TIBANGAY UNIVERSITY ARCHITECT P.R.C. LIC. No. 028640 VALIDITY: PTR No. ISSUED:	PRC LIC. No. VALIDITY: PTR No. ISSUED:	CAD BY: ERGD-SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU-KMS BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARD T. APILIS END USER/ BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET CONTENT: AS SHOWN REVISION DATE: REVISION NO. SHEET NO. A 03 10'



A4 / 01-01 SECOND FLOOR PLAN

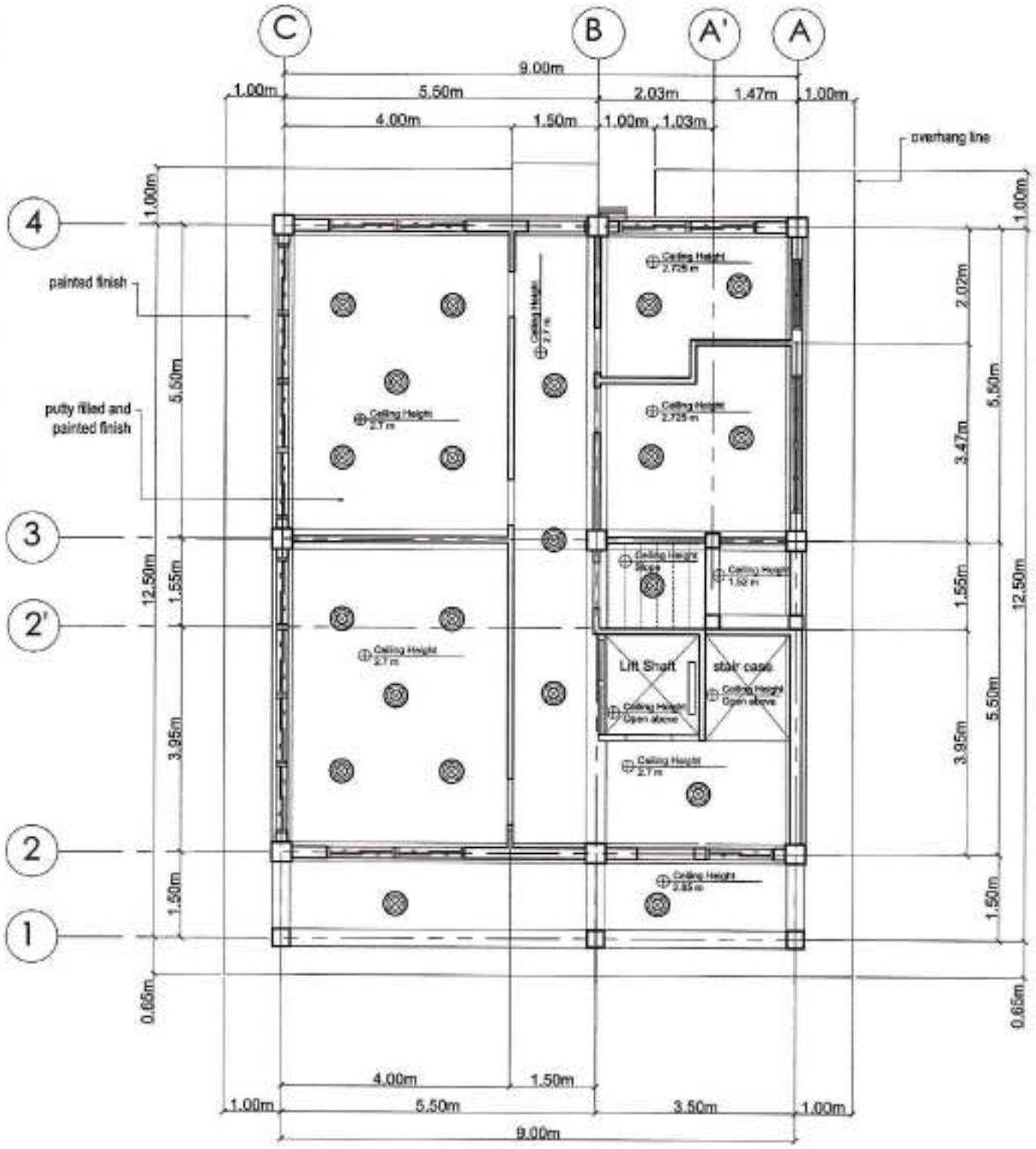
SCALE 1:100 MTS



A4 / 01-01 ROOF PLAN

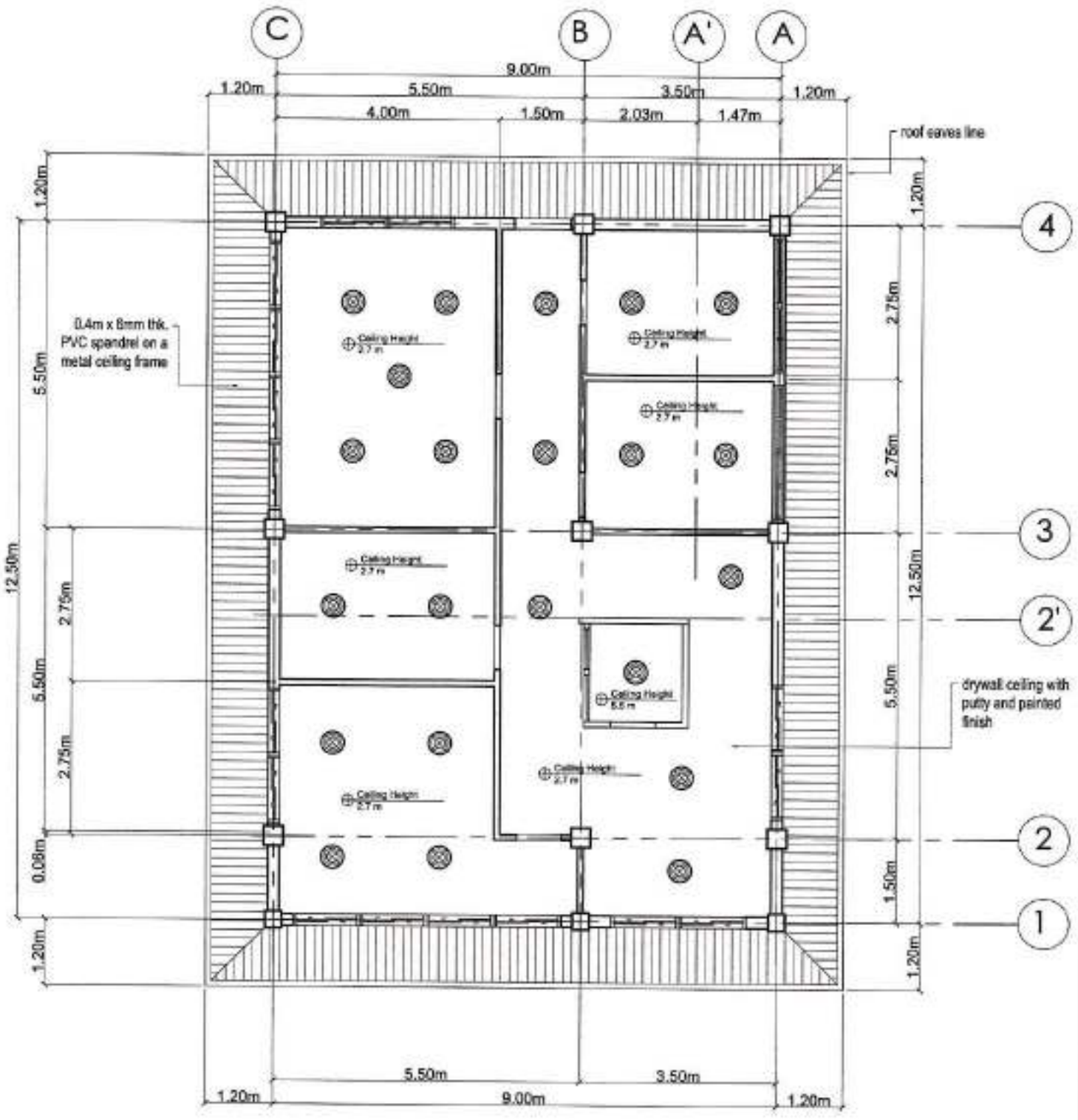
SCALE 1:100 MTS

HAZELINE N. TIBANGAY UNIVERSITY ARCHITECT PRC LIC No. 028340 / VALIDITY: / PTR No. / ISSUED:		PRC LIC No. / VALIDITY: PTR No. / ISSUED:	DRAWN BY: ENGR. SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU KM5 BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARD T. APILIS END USER/ BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO-SACBA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET CONTENT: AS SHOWN REVISION DATE: REVISION NO.:	SHEET NO.: A 04 10



A5 / 01-01 1ST FLOOR REFLECTED PLAN

SCALE 1:100 MTS



A5 / 01-01 2ND FLOOR REFLECTED PLAN

SCALE 1:100 MTS

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PRC LIC No. | VALIDITY: | PTR No. | ISSUED:

CAD BY: ERGO SEPTEMBER 2023

PROPOSED OPEN UNIVERSITY BUILDING PHASE 1
BSU KM.5 BSU COMPOUND LA TRINIDAD, BENGUET
PROJECT / LOCATION

BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

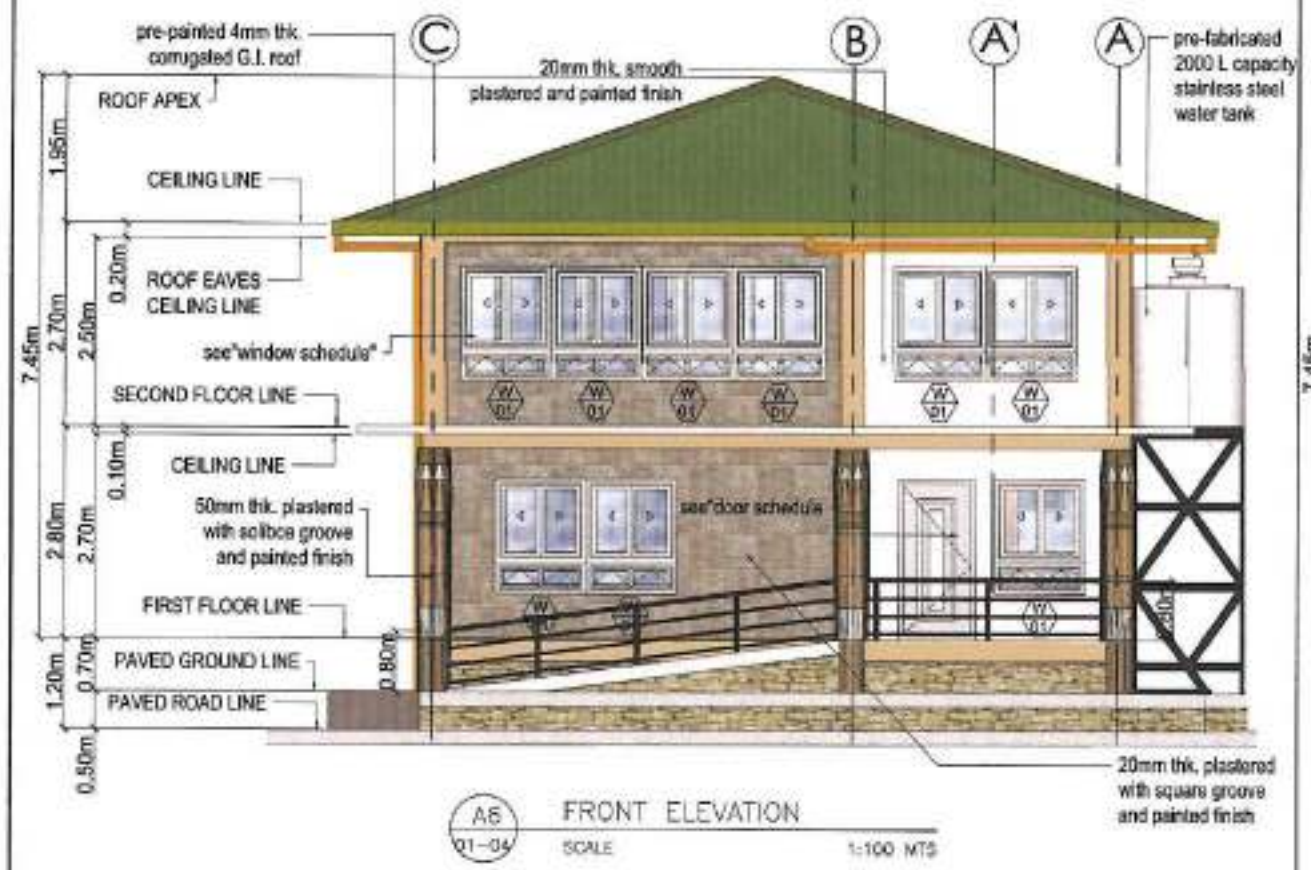
LEONARD T. APLIS
END USER/ BSU OPEN UNIVERSITY DIRECTOR

ALLAN CASALDO-SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

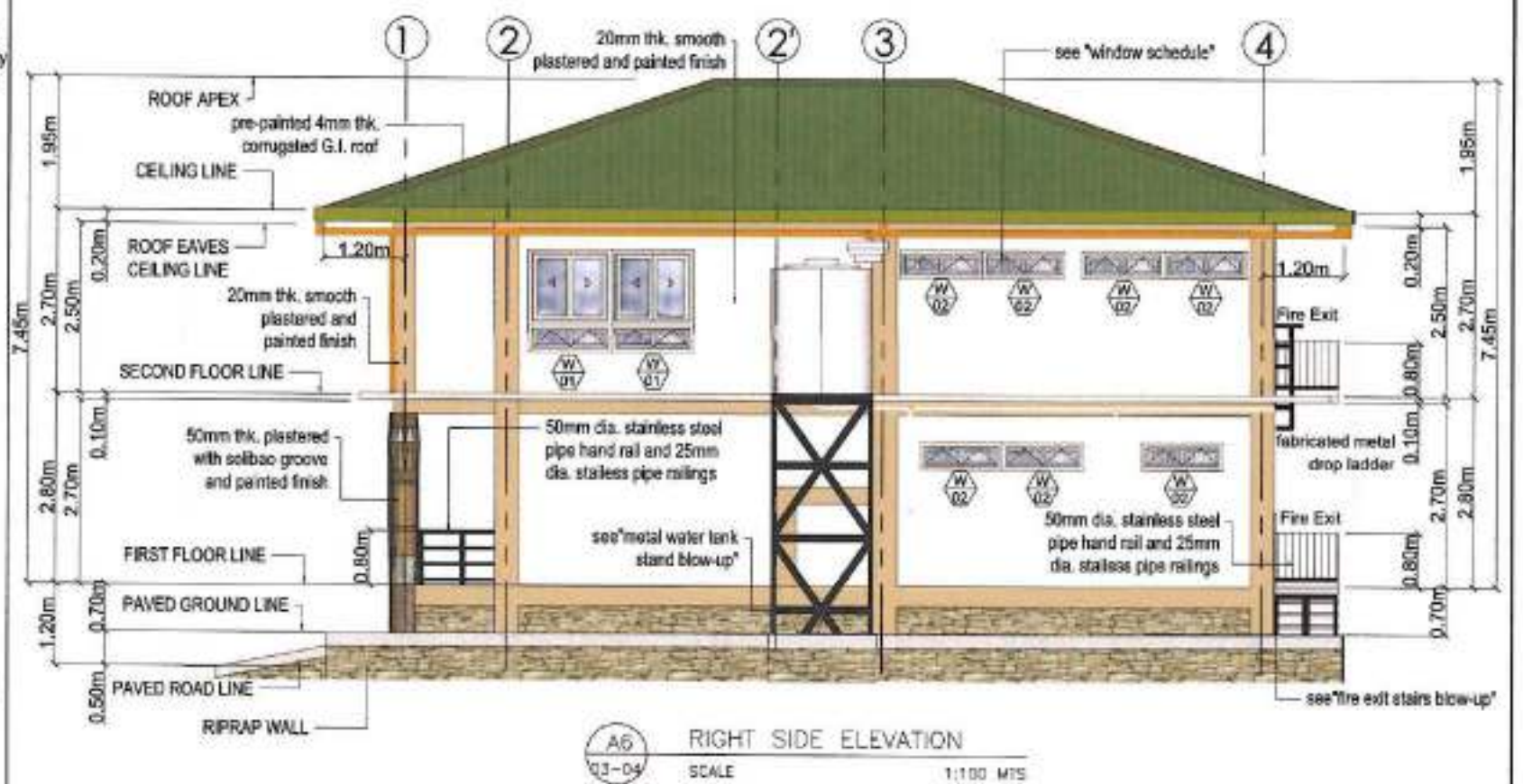
FELIPE SALAING COMILA
PRESIDENT

SHEET CONTENT: AS SHOWN
REVISION DATE:
REVISION NO.:

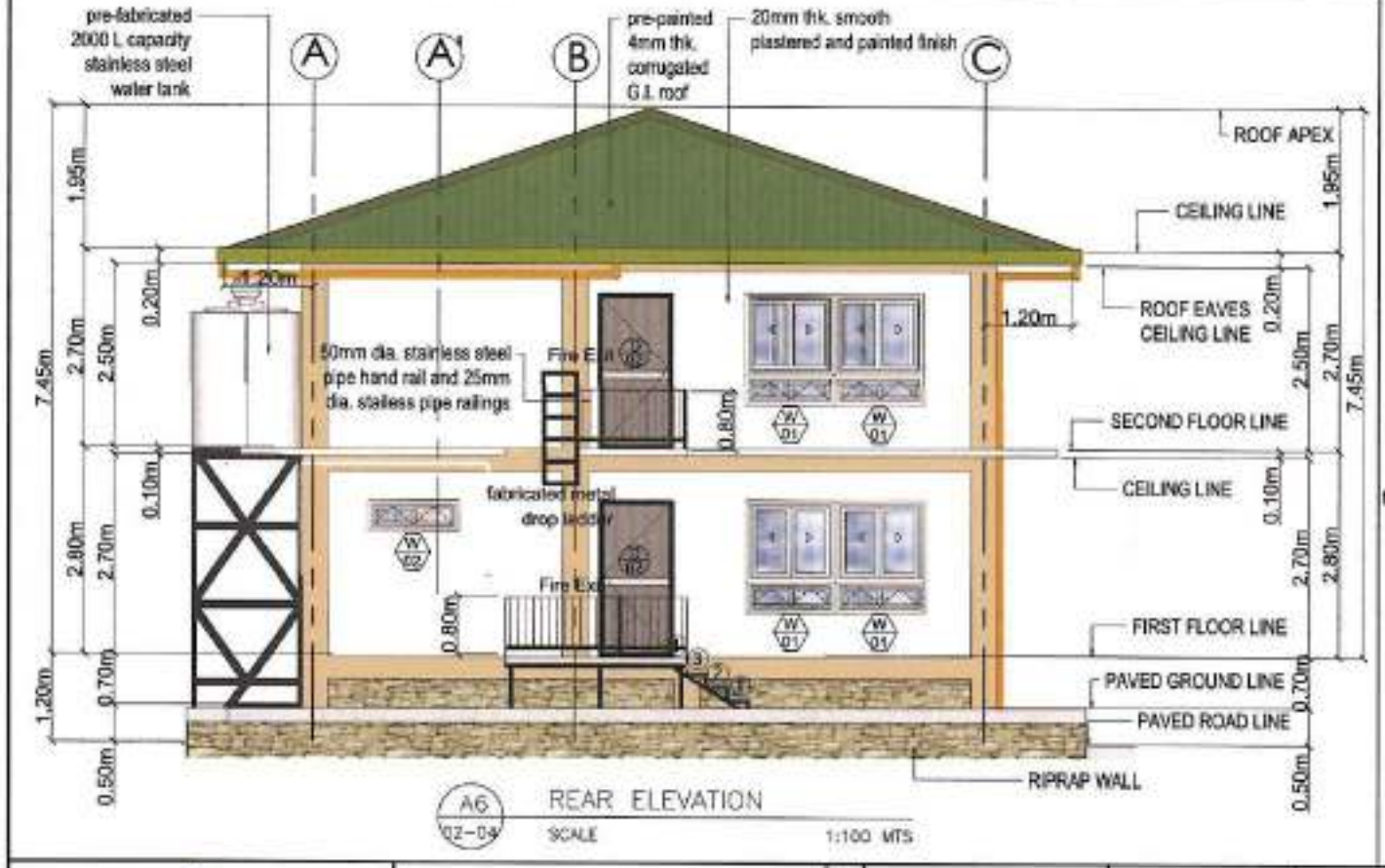
SHEET NO.: A 05 10



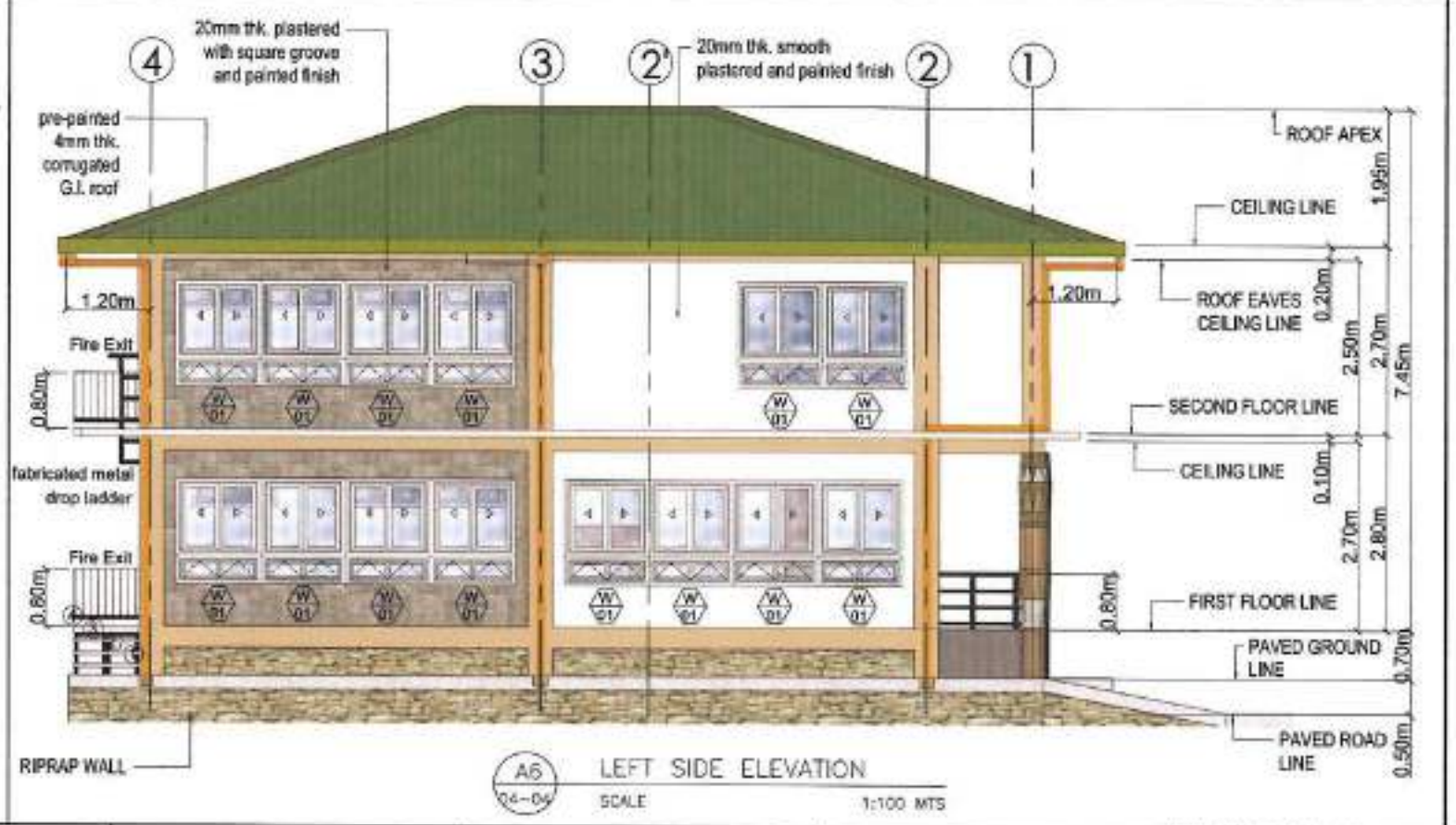
A6 01-04 FRONT ELEVATION
SCALE 1:100 MTS



A6 03-04 RIGHT SIDE ELEVATION
SCALE 1:100 MTS



A6 02-04 REAR ELEVATION
SCALE 1:100 MTS



A6 04-04 LEFT SIDE ELEVATION
SCALE 1:100 MTS

HAZELINE N. TIBANGAY
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PRC LIC. No. | VALIDITY:
PTR No. | ISSUED:

CAD BY: CHED-SEPTEMBER 2023

PROPOSED OPEN UNIVERSITY BUILDING PHASE 1
BSU KM.5 BSU COMPOUND LA TRINIDAD, BENGUET
PROJECT / LOCATION

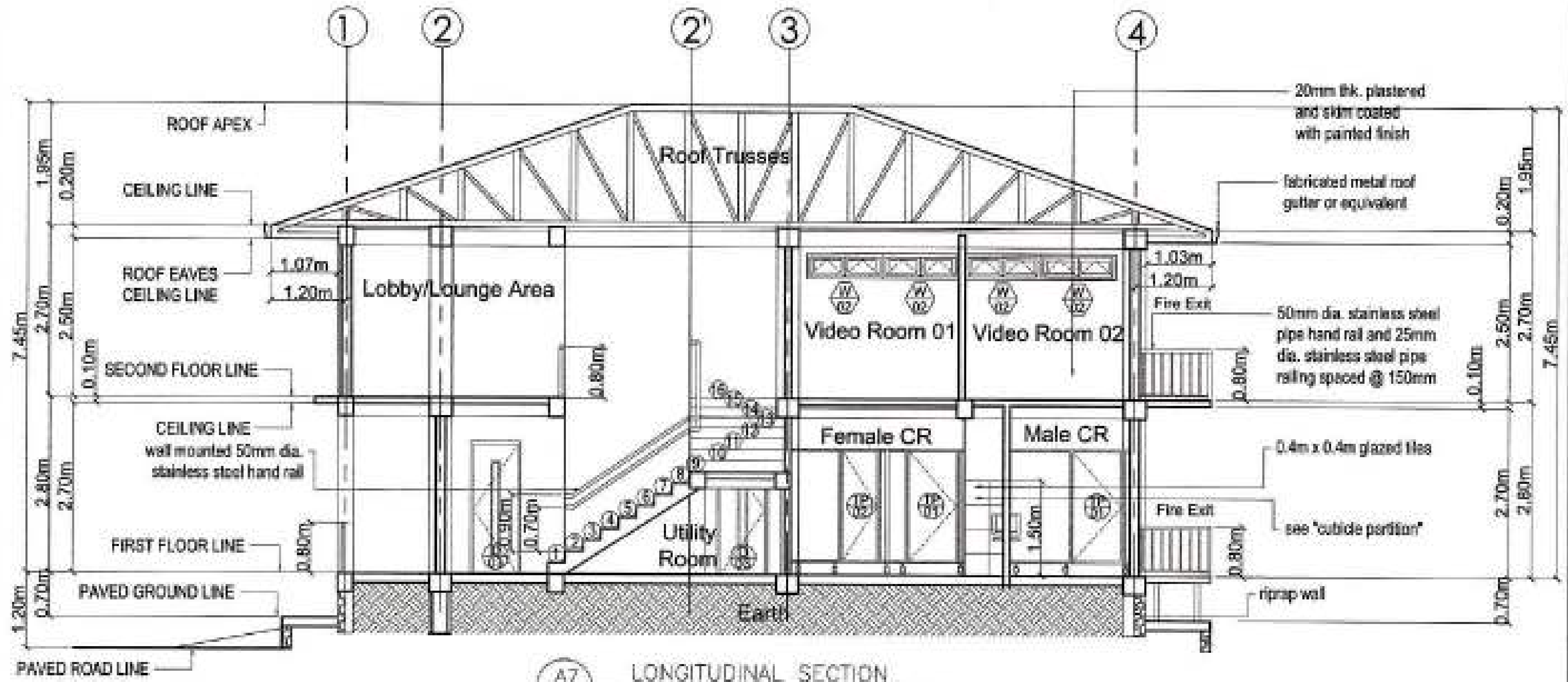
BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARD T. APILIS
END USER/ BSU OPEN UNIVERSITY DIRECTOR

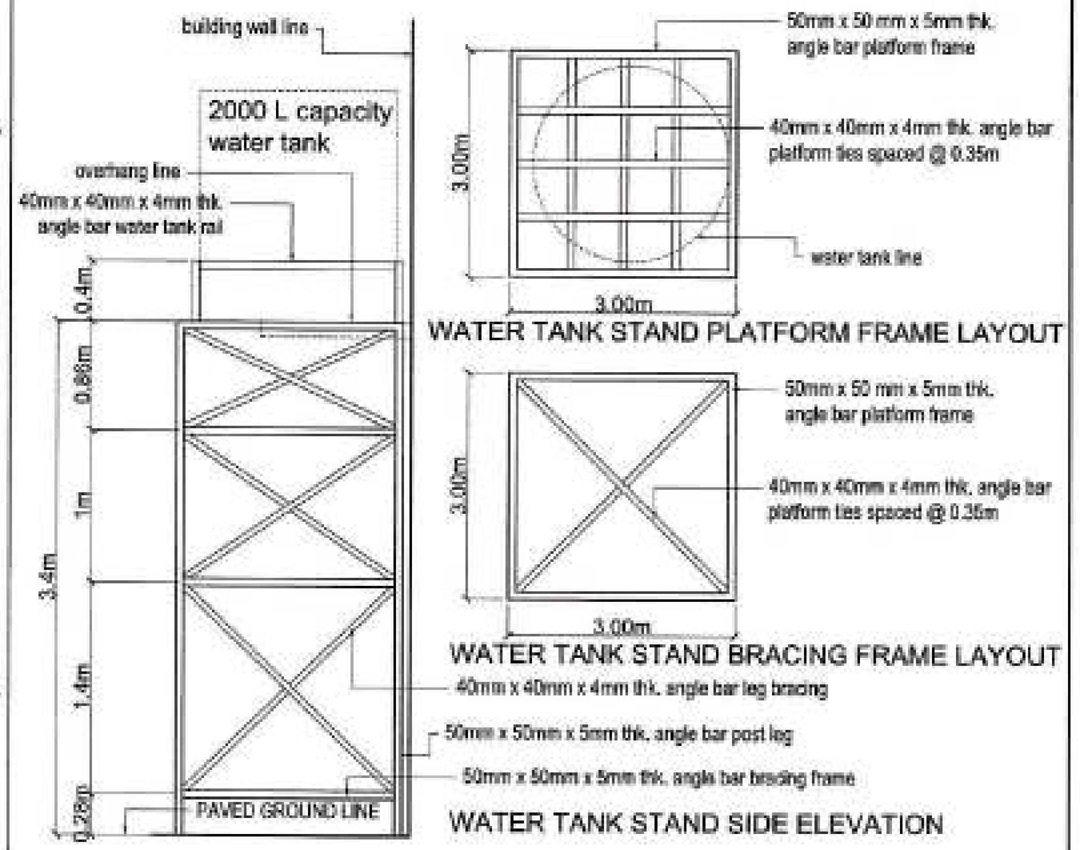
ALLAN CASALDO SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

FELIPE SALAING COMILA
PRESIDENT

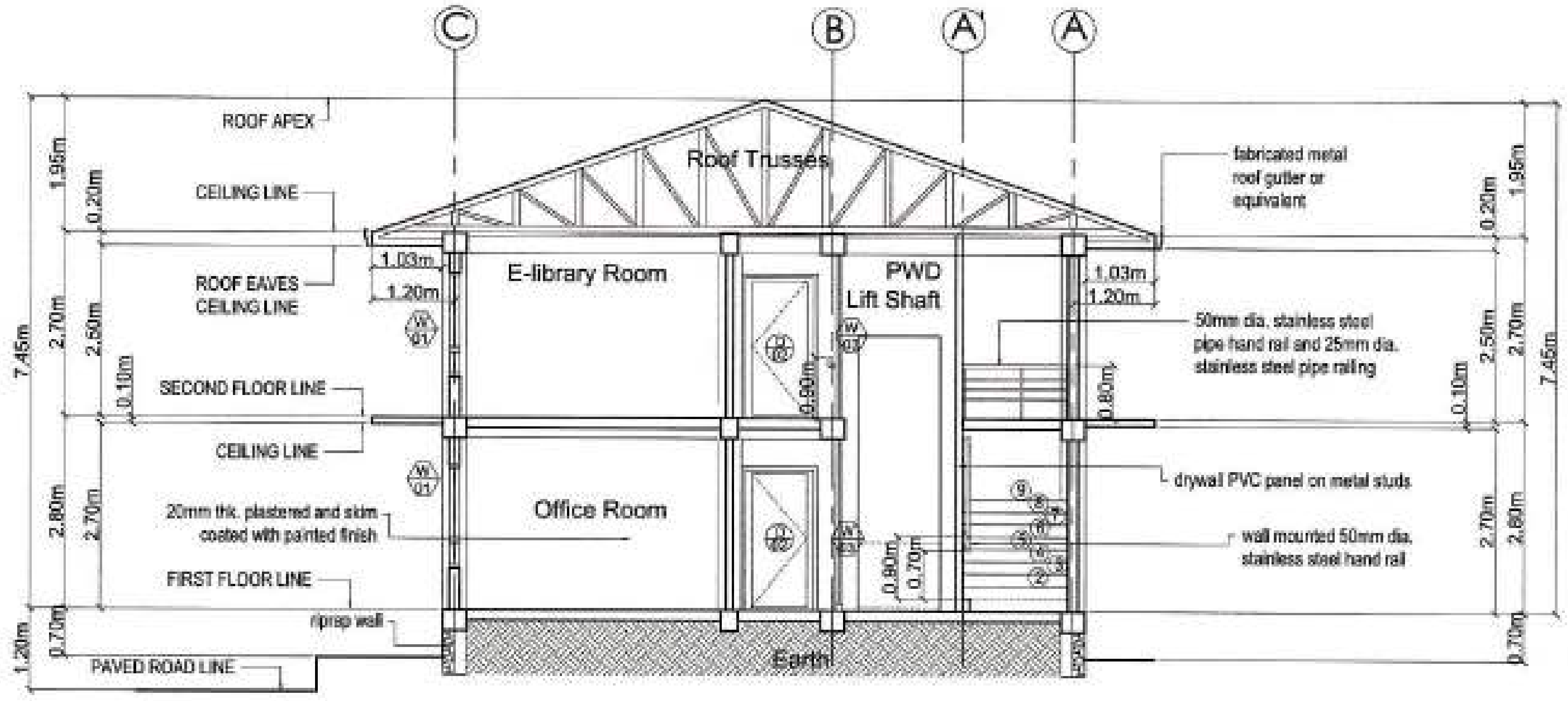
SHEET CONTENT: AS SHOWN
REVISION DATE:
REVISION NO:
SHEET NO.: A 06 10



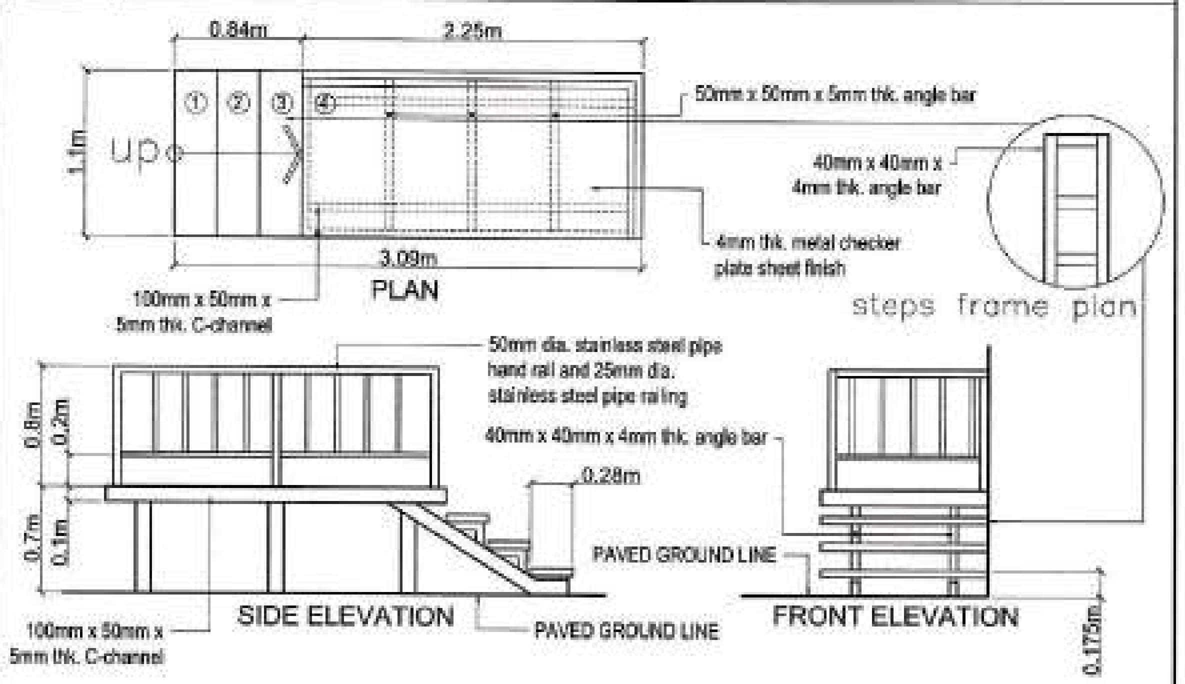
A7 01-02 LONGITUDINAL SECTION
SCALE 1:100 MTS



A7 01-01 WATER TANK STAND BLOW-UP
SCALE 1:50 MTS



A7 02-02 CROSS SECTION
SCALE 1:100 MTS



A7 01-01 FIRE EXIT STAIR BLOW-UP
SCALE 1:50 MTS

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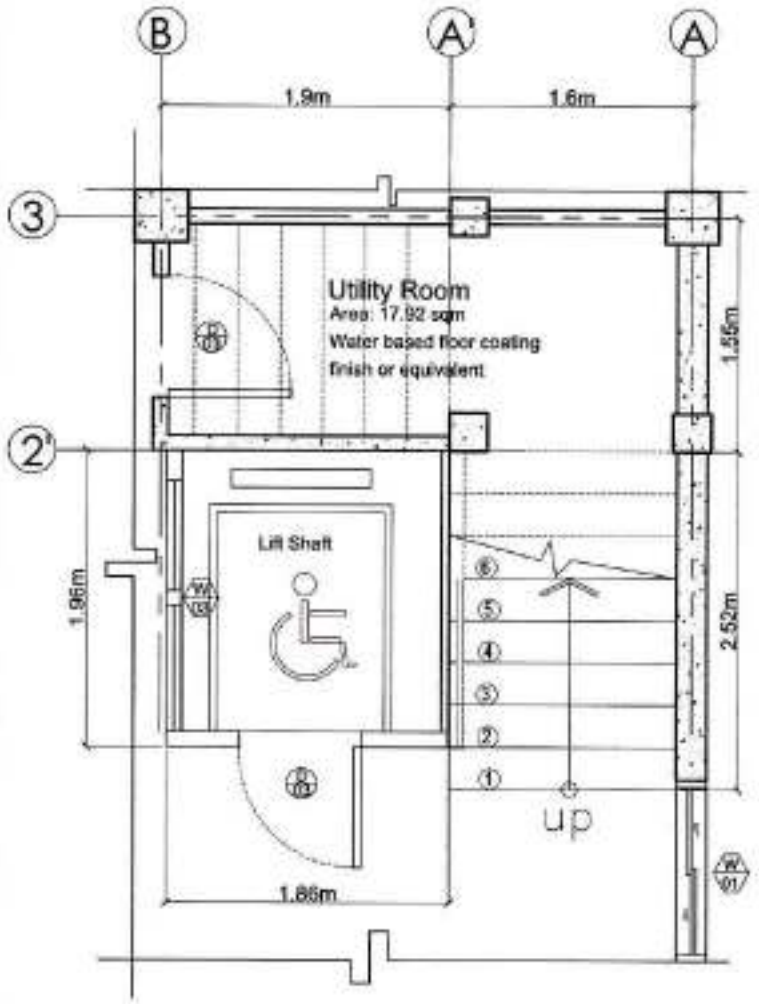
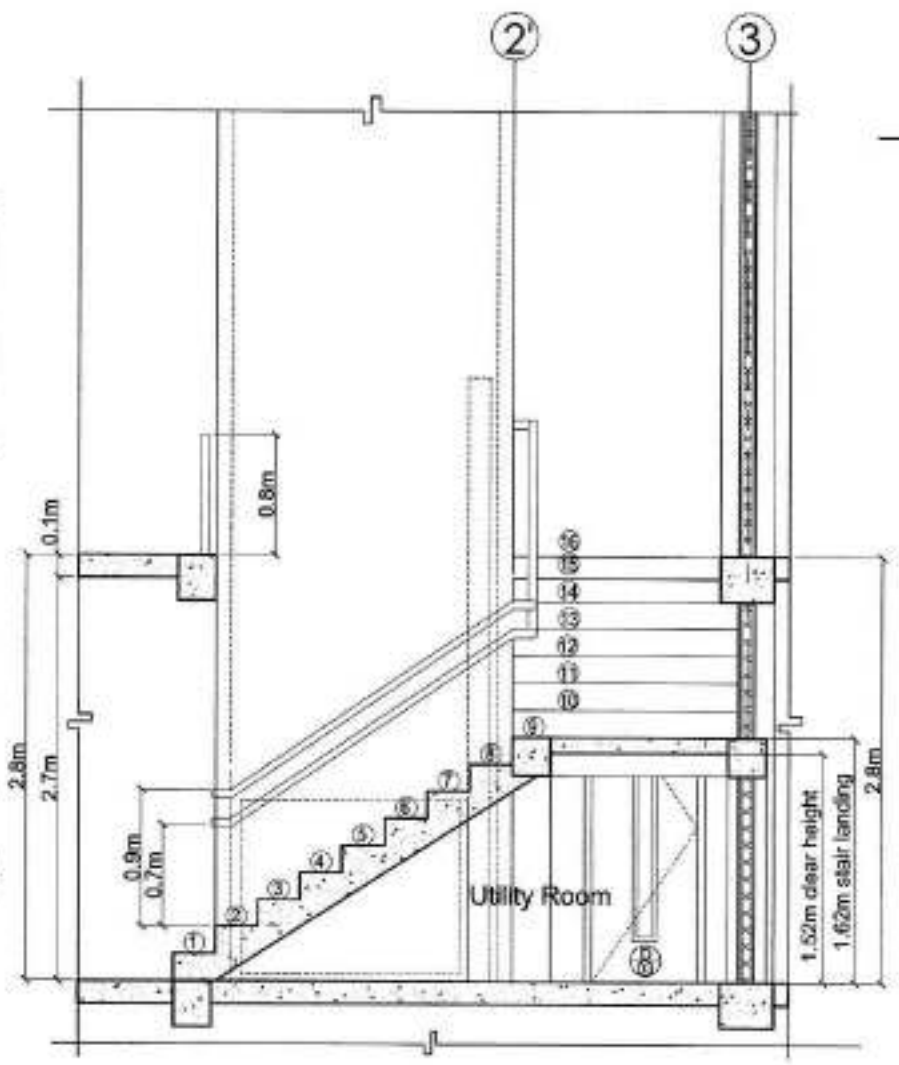
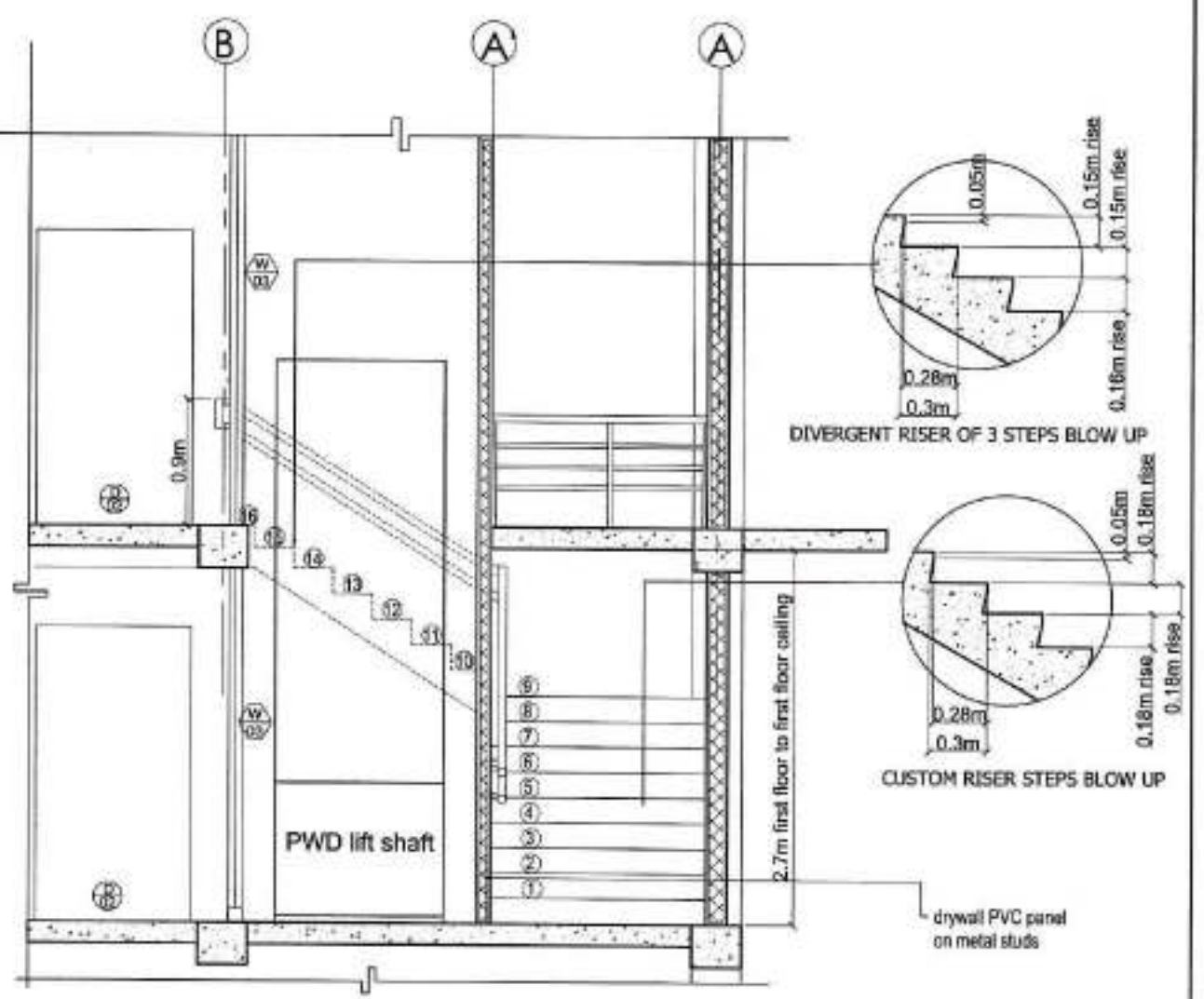
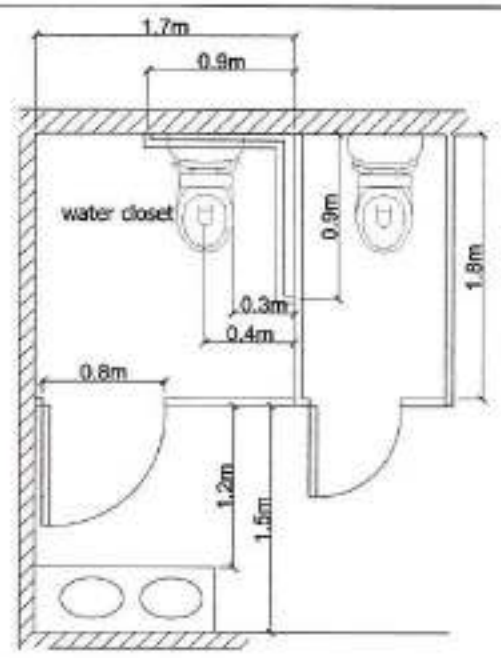


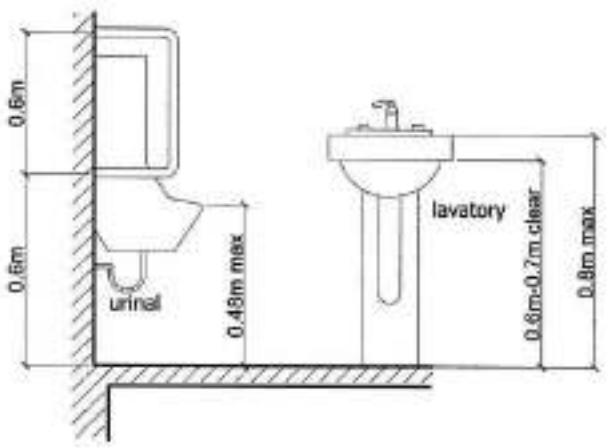


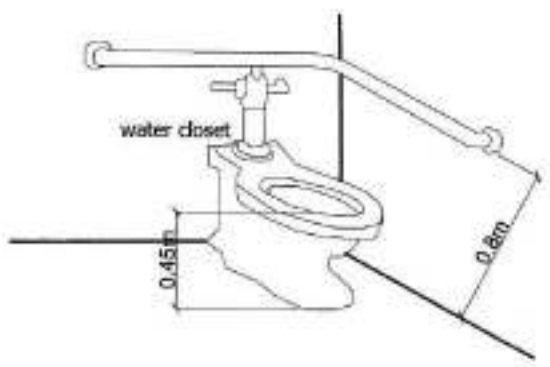


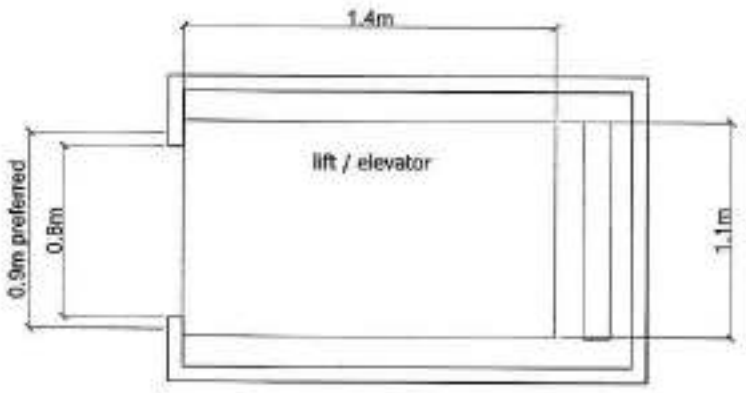
A8 01-01 STAIRS AND LIFT BLOW-UP PLAN AND ELEVATIONS

SCALE 1:50 MTS





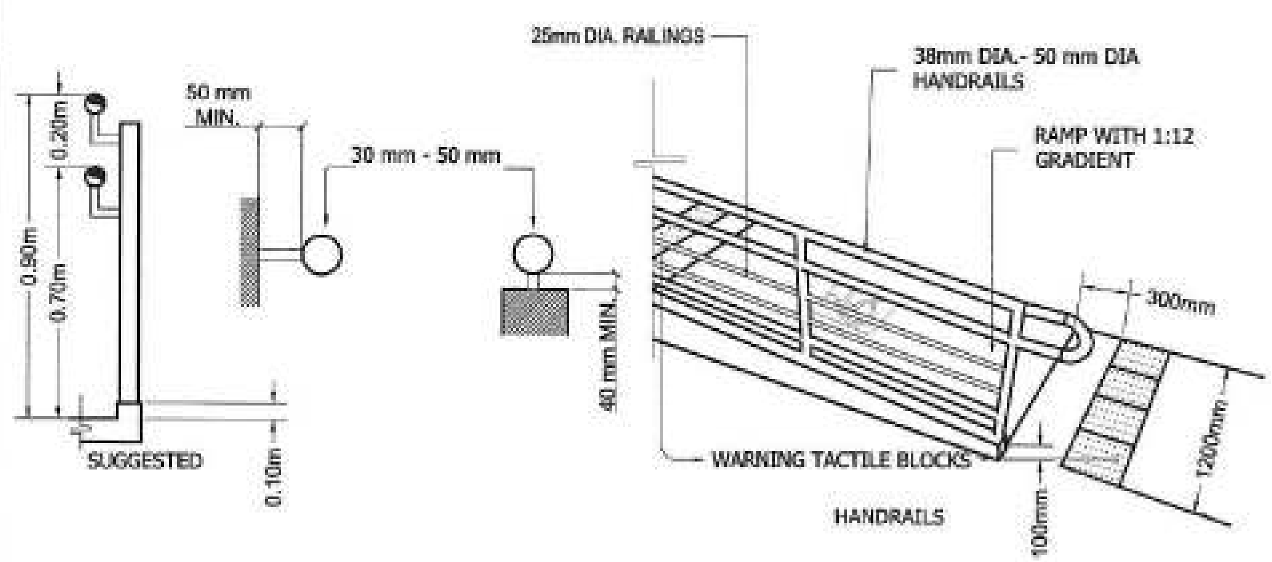




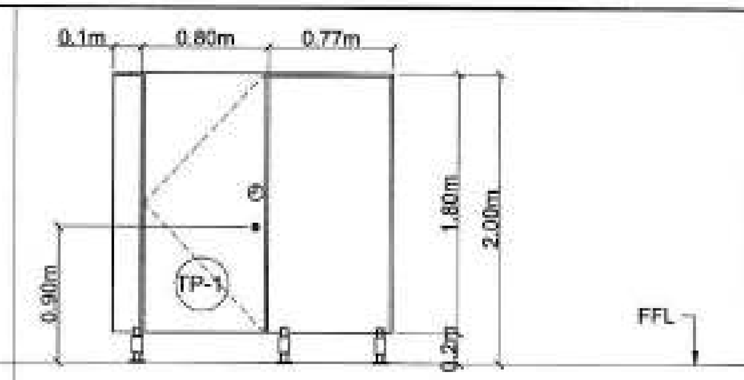
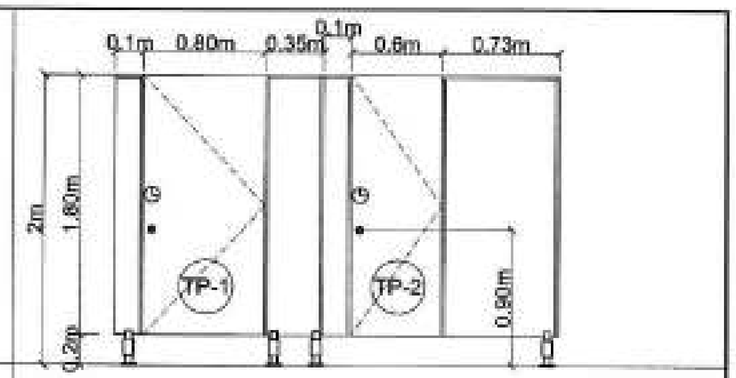
A8 01-01 MINIMUM DISTANCE AND SIZE FOR PWD FRIENDLY COMFORT ROOM AND LIFT

SCALE NTS.

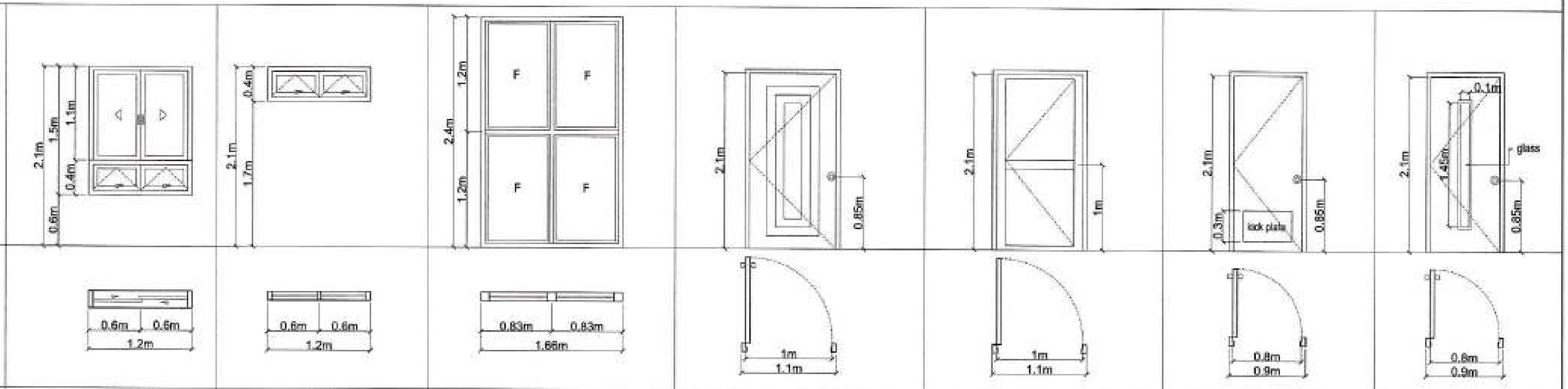
HAZELINE N. TIBANGAY UNIVERSITY ARCHITECT PRC LIC. No. 029540 VALIDITY: PTR No. ISSUED:		PRC LIC. No. VALIDITY: PTR No. ISSUED:	CAD BY: ERGIO-SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU JOMS BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARD T. APILIS END USER/ BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET CONTENT AS SHOWN REVISION DATE: REVISION NO.:	SHEET NO. A 08 10'



A9 / 01-01 EASY GRASP HANDRAIL DESIGN
SCALE NTS.

Elevation		
	1 - Set/s Location: male restroom	1 - Set/s Location: female restroom
Description	Fabricated 3/4 " THK. PVC board partition panel fixed on a metal frame w/ complete accessories	Fabricated 3/4 " THK. PVC board partition panel fixed on a metal frame w/ complete accessories
Total cubicles	PWD size Cubicle / common toilet cubicle = 1	Common size Cubicle/s = 1 PWD size Cubicle/s= 1

A9 / 01-01 MALE CR AND FEMALE CR CUBICLES SCHEDULE
SCALE 1:50 MTS



WINDOW/ DOOR MARK	W 01	W 02	W 03	D 01	D 02	D 04	D 03
DESCRIPTION	40mm x 100mm aluminum powder coated frame sliding window with bottom transom awning window, 6mm thk. clear glass w/ complete hardware and accessories.	40mm x 100mm aluminum powder coated frame awning window, 6mm thk. clear glass w/ complete hardware and accessories.	40mm x 100mm aluminum powder coated frame fixed window, 10mm thk. clear glass w/ complete hardware and accessories.	Pre-fabricated swing type steel door on a metal door jamb w/ complete hardware and accessories.	Factory manufactured fire rated fire exit steel door with jamb and complete hardware and accessories.	Factory manufactured swing type hollow core PVC door with door jamb and complete hardware and accessories.	Pre-fabricated swing type wood door on a wood door jamb with 6mm thk. clear glass vision panel, complete hardware and accessories.
SETS / LOCATION	29 SETS — Location: Offices, lobby, conference room, E-library	8 SETS — Location: Comfort rooms and video rooms	2 SETS — Location: Lift	1 SET — Location: Main entrance	2 SET — Location: Fire exit	2 SET — Location: Comfort room	11 SET — Location: Interior rooms

A9 / 01-01 WINDOWS SCHEDULE
SCALE 1:50 MTS

A9 / 01-01 DOORS SCHEDULE
SCALE 1:50 MTS

HAZELINE N. TIBANGAY
UNIVERSITY ARCHITECT
PRC LIC. No. 028840 VALIDITY:
PTR No. ISSUED:
PRC LIC. No. VALIDITY:
PTR No. ISSUED:

CAD BY: ENGD-SEPTEMBER 2023

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BSU-KM.5 BSU COMPOUND LA TRINIDAD, BENGUET
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BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
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LEONARD T. APILIS
END USER/ BSU OPEN UNIVERSITY DIRECTOR

ALLAN CASALDO-SACPA
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FELIPE SALAING COMILA
PRESIDENT

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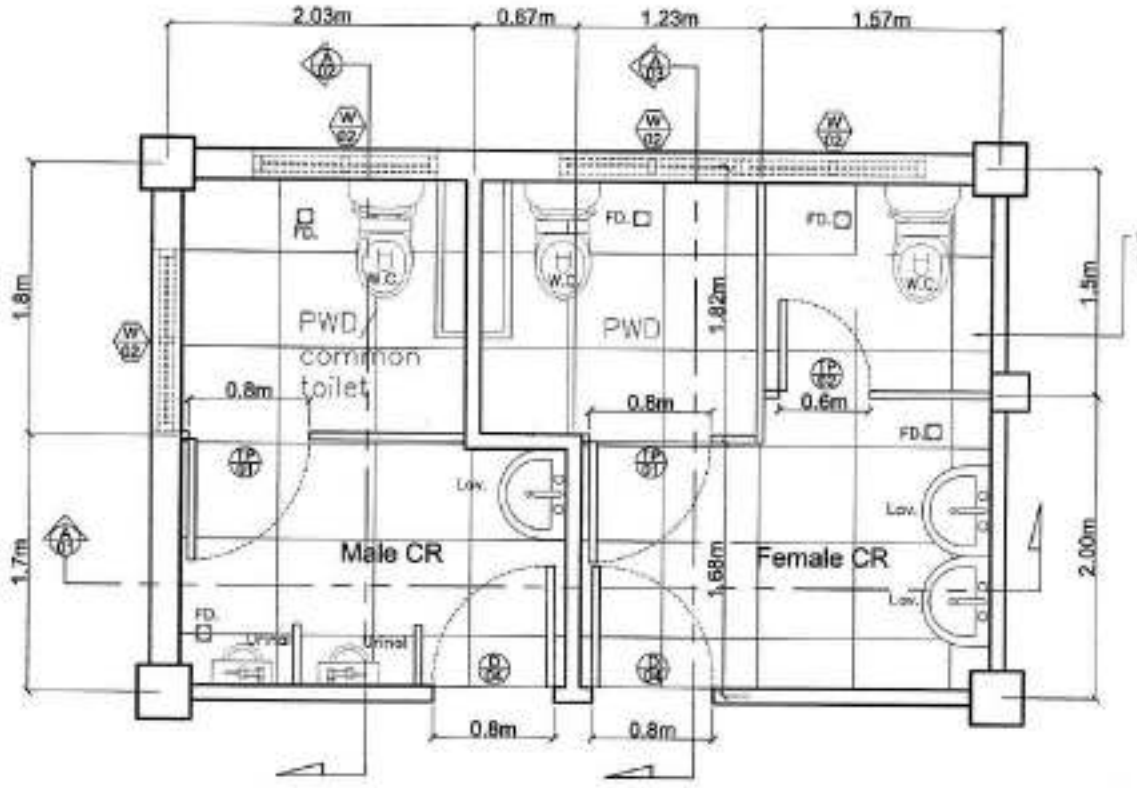
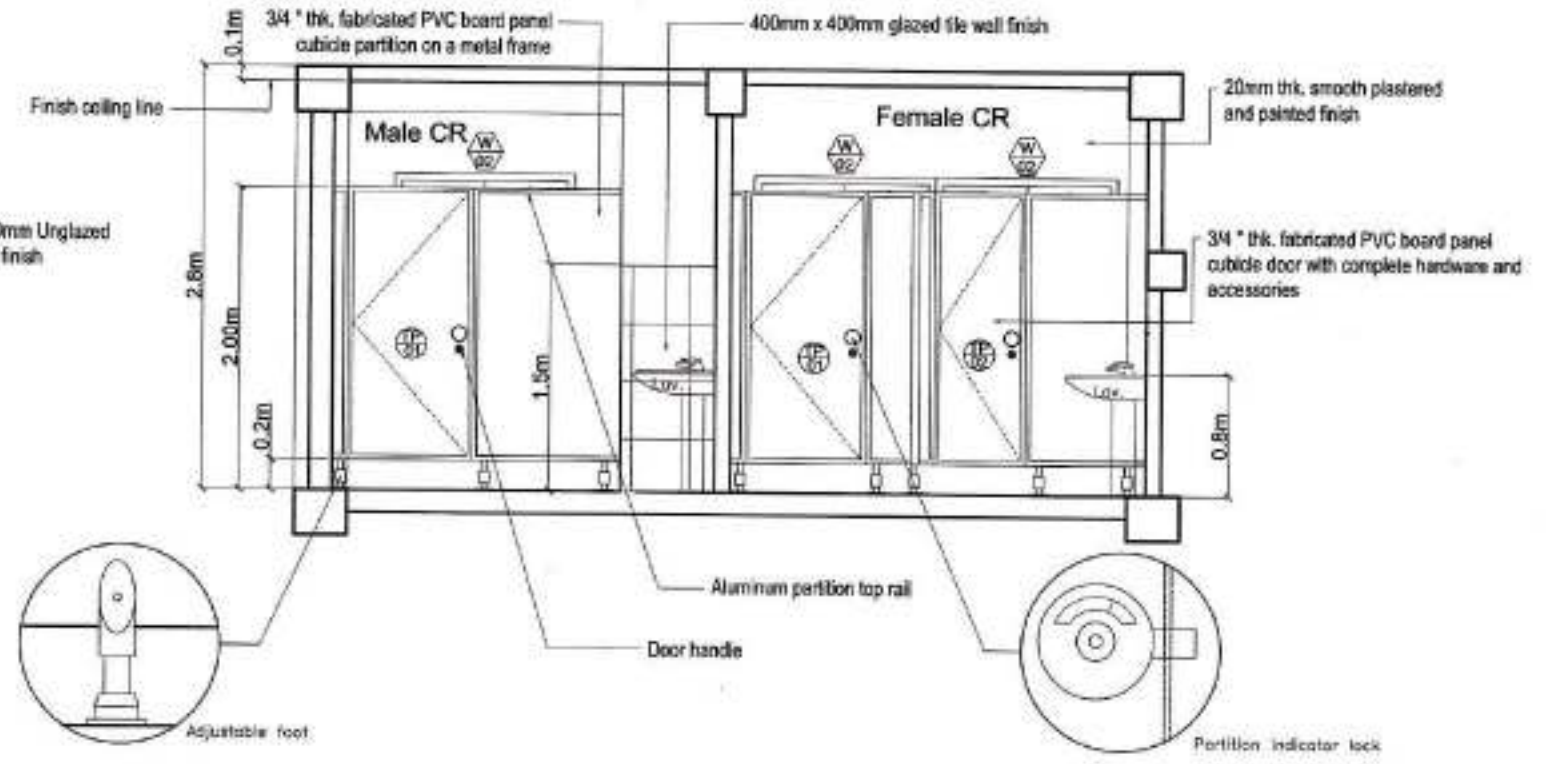


A9'
01-01

CR BLOW – UP PLAN

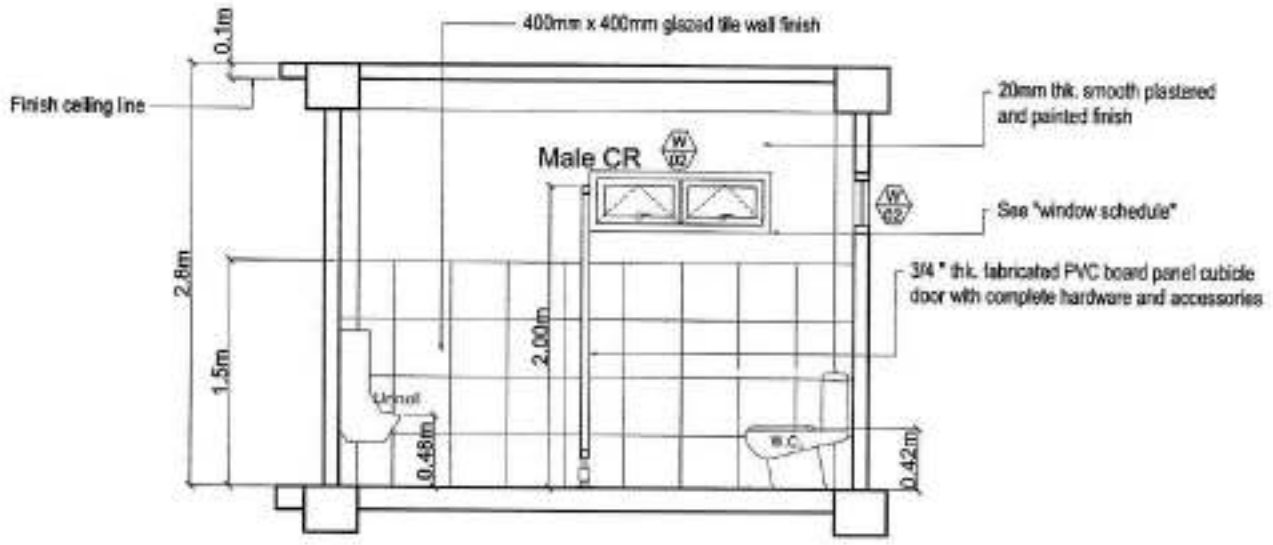
SCALE 1:50 MTS



A9'
01-03

CR BLOW – UP LONGITUDINAL SECTION

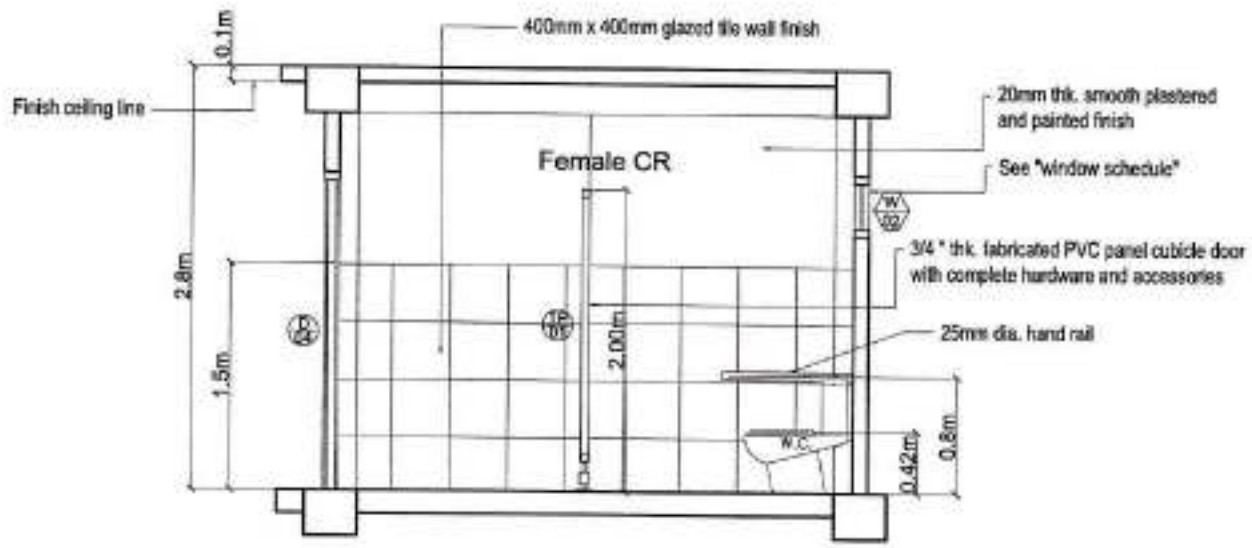
SCALE 1:50 MTS



A9'
02-03

MALE CR BLOW – UP CROSS SECTION

SCALE 1:50 MTS



A9'
03-03

FEMALE CR BLOW – UP CROSS SECTION

SCALE 1:50 MTS

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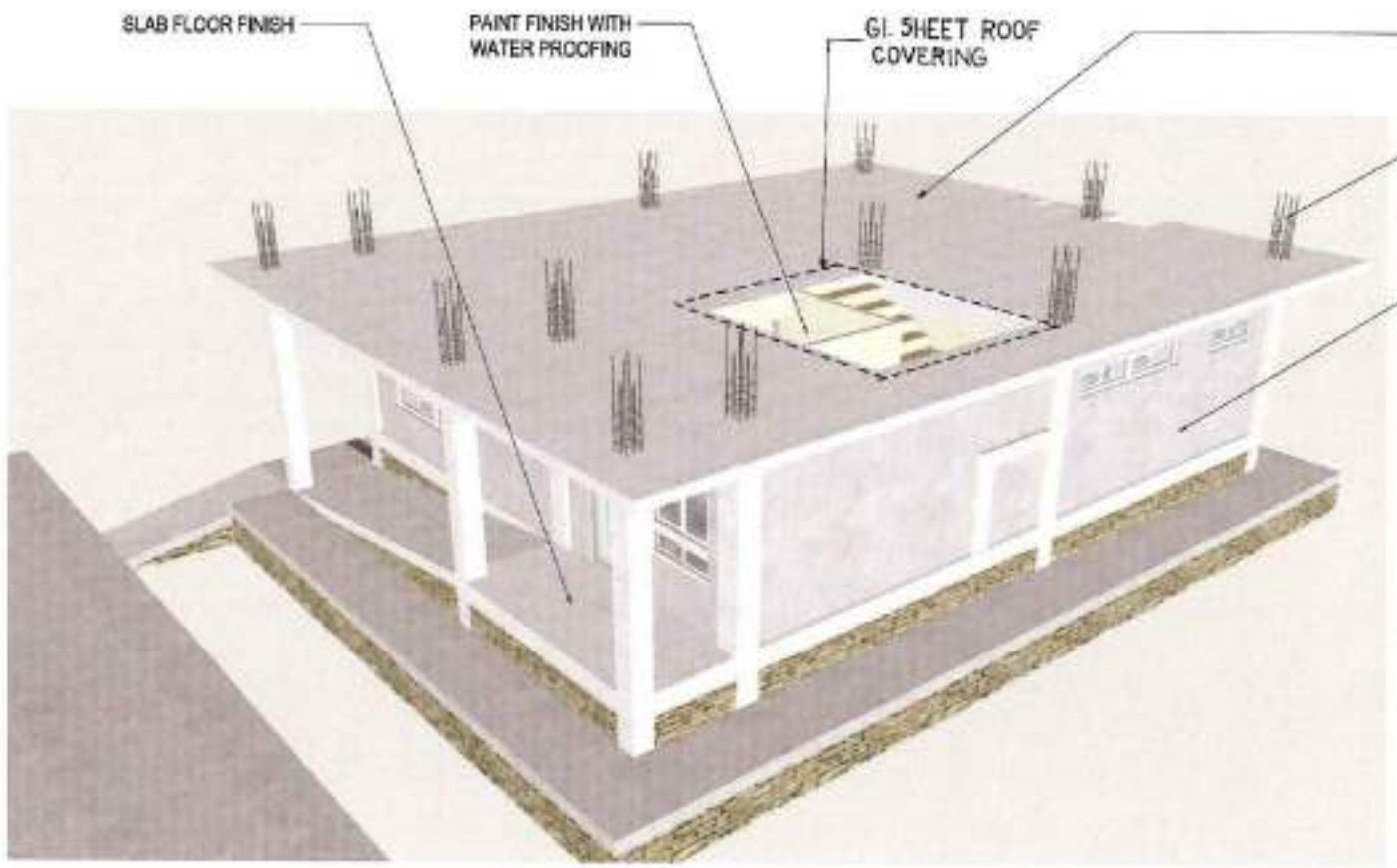
A10 / 01-01 CONFERENCE ROOM PERSPECTIVE
SCALE NTS.

A10 / 01-01 OFFICE ROOM PERSPECTIVE
SCALE NTS.

A10 / 01-01 FEMALE CR PERSPECTIVE
SCALE NTS.



A10 / 01-01 EXTERIOR PERSPECTIVE
SCALE NTS.

A10 / 01-01 MALE CR PERSPECTIVE
SCALE NTS.

A10 / 01-01 HALL WAY PERSPECTIVE
SCALE NTS.

HAZELINE F. TIBANGAY UNIVERSITY ARCHITECT PRC LIC No. 028649 / VALIDITY: / PTR No. / ISSUED:			CADD BY: ENGR. SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU JUNS BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARD T. APILIS END USER/ BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET CONTENT: AS SHOWN REVISION DATE: REVISION NO.:	SHEET NO.: A 10' 10'

GENERAL NOTES:

1. ALL ELECTRICAL WORKS SHALL CONFORM TO THE LATEST EDITION OF PHILIPPINE ELECTRICAL CODE, TO THE RULES AND REGULATIONS OF LOCAL AND NATIONAL AUTHORITIES CONCERNED AND THE REQUIREMENTS OF LOCAL UTILITY COMPANIES.
2. WIRING METHODS SHALL BE AS FOLLOWS
   a. MAIN SERVICE ENTRANCE . . . . . RIGID STEEL CONDUIT (RSC)
   b. RACEWAYS SURFACE MOUNTED IN CONCRETE WALL AND EMBEDDED IN CONCRETE FLOORING . . . . . POLYVINYL CHLORIDE (PVC)
   c. RACEWAYS NOT EMBEDDED IN CONCRETE . . . . . ELECTRICAL METALLIC TUBING (EMT)
3. SERVICE VOLTAGE ENTERING THE STRUCTURE SHALL BE 220 VOLTS SINGLE PHASE TWO WIRE SYSTEM.
4. MINIMUM SIZE OF WIRE AND OF CONDUIT SHALL BE 2.0 mm Ø THHN (#14 AWG) AND 15mm (1/ 2") NOMINAL DIAMETER RESPECTIVELY, UNLESS OTHERWISE SPECIFIED ON PLANS.
5. NO BRANCH CIRCUIT WIRING IN LIGHTING AND POWER SHALL HAVE A LOAD MORE THAN 80% OF IT'S RATING.
6. ALL MATERIALS TO BE USED SHALL BE NEW AND APPROVED TYPE APPROPRIATE FOR BOTH LOCATION AND INTENDED USE.
7. UNLESS OTHERWISE SPECIFIED PULLBOXES OR JUNCTION BOXES SHALL BE PROVIDED WHENEVER REQUIRED AND NECESSARY, ALTHOUGH SUCH BOXES ARE NOT INDICATED ON PLANS.
8. FOR EACH SPARE CIRCUIT IN PANEL BOARD, PROVIDE AN EMPTY CONDUIT 20mm Ø (3/ 4") DIAMETER TERMINATING TO A COVERED SQUARE BOX.
9. ALL LOADS SHALL BE PROPERLY AND ADEQUATELY GROUNDED.
10. ALL MATERIALS AND EQUIPMENT TO BE USED SHALL BE BRAND NEW AND OF APPROVED TYPE AS LOCATION AND PURPOSE.
11. KITCHEN PLANS SHALL GOVERN ON THE ACTUAL LOCATION AND DIMENSION PRIOR TO ROUGH-IN OF CONDUIT AND PIPES.
12. ALL INSTALLATIONS AND WIRING SHALL BE CONCEALED FROM VIEW AND SHALL BE ENCASED IN POLYVINYL CHLORIDE (PVC) CONDUITS OR ELECTRICAL METALLIC TUBING (EMT) OR RIGID STEEL CONDUITS (RSC).
13. ALL JUNCTION BOXES, DISCONNECTS, ETC. SHALL BE INSTALLED SO AS NOT TO INTERFERE WITH EQUIPMENT PLACEMENTS.
14. ALL 20-AMPERES CIRCUIT HOMERUN TO PANEL BOARD MORE THAN 30 METERS IN LENGTH SHALL BE 5.5mm ø THHN. (# 10), UNLESS OTHERWISE SPECIFIED ON PLANS.
15. LIGHT CONTROL SWITCHES SHALL BE RATED 10A 300V AND SHALL CARRY A LOAD GREATER THAN 50A.
16. AN EMPTY 3/ 4" DIA. RISER TERMINATING IN A 2" DEEP BY 4" OCTAGONAL BOX ABOVE CEILING SHALL BE PROVIDED TO ACCOMMODATE THE SPARE CIRCUIT IN PANEL BOARD.
17. ALL WORKS SHALL BE DONE WITH THE DIRECT SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER OR A REGISTERED MASTER ELECTRICIAN.
18. OUTLET BOXES SHALL BE AS FOLLOWS:
    A. LIGHT OUTLETS 1-1/ 2" DEEP BY 4" OCTAGONAL BOX WITH ONE OR TWO WAY ENTRIES
    B.RECEPTACLES 2-1/ 8" DEEP 2"X4" UTILITY BOX ONE GANG WITH RAISED PLASTIC COVER
19. MOUNTING HEIGHTS SHALL BE AS FOLLOWS:

a.	LIGHT SWITCHES	1370mm ABOVE FLOOR FINISH (A.F.F.)
b.	RECEPTACLES	300mm (A.F.F.)
c.	COUNTER HEIGHT OUTLET	1300mm (A.F.F.)
d.	TV/ TELEPHONE OUTLET	300mm (A.F.F.)
e.	DISCONNECT	1370mm (A.F.F.)
f.	PANEL BOARDS	1700mm (A.F.F.)
g.	OTHERS	REFER TO KITCHEN PLANS

1. ALL ELECTRICAL WORKS SHALL COMPLY WITH THESE PLANS AND SPECIFICATIONS. THE APPLICABLE PROVISIONS OF THE LATEST OF THE PHILIPPINE ELECTRICAL CODE (PEC), THE RULES AND REGULATIONS OF THE LOCAL ENFORCING AUTHORITY AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY.
2. THE ELECTRICAL SERVICE POWER SHALL BE 1-PHASE, 3-WIRE, 230V AC, 60Hz.
3. WIRING METHOD SHALL BE AS FOLLOWS:
   RIGID STEEL CONDUIT OR POLYVINYL CHLORIDE CONDUIT SCHEDULE 40 SHALL BE USED AS SPECIFIED IN THE PLAN
4. ALL WIRES SHALL COPPER AND THERMOPLASTIC INSULATED TYPE "THHN" UNLESS OTHERWISE INDICATED IN THE PLAN. THE MINIMUM SIZE WIRE FOR POWER AND LIGHTING CIRCUIT HOMERUNS SHALL BE 3.5mm² AND INSULATED FOR 600VOLTS. LIKE WISE, ALL CONDUCTORS SHALL BE COLOR-CODED. SMALLEST RACEWAY SHALL BE 15mmø.(NOMINAL)
5. ALL OUTLET BOXES SHALL BE GALVANIZED GAGE NO. 16 DEEP TYPE.
6. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND APPROVED FOR THE PARTICULAR LOCATION AND 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 - 1.20M ABOVE FINISH FLOOR
   b. CONVENIENCE OUTLET - 0.30M ABOVE FINISH FLOOR
9. ALL ELECTRICAL WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER.

ELECTRICAL LEGENDS:

SYMBOLS	DESCRIPTION
	LIGHTING OUTLET PINLIGHT
	LIGHT SWITCH INDICATOR
	ELECTRICAL LINE
S1	SINGLE POLE WALL SWITCH
S2	DUPLEX SWITCH, 2 SINGLE POLE SWITCHES ON ONE-GANG SWITCH PLATE
	CKT. BREAKER, RATING AS INDICATED
	DUPLEX CONVENIENCE OUTLET
C1	CIRCUIT NO. 1
C2	CIRCUIT NO. 2
PP1	DISTRIBUTION PANEL BOARD 1ST FLOOR
PP2	DISTRIBUTION PANEL BOARD 2ND FLOOR
LP	HOMERUN DIRECT TO PANELBOARD
M	SERVICE METER
	SERVICE ENTRANCE
MDP	MAIN DISTRIBUTION PANEL BOARD

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ELECTRICAL ENGINEER
PRC LIC. No. | VALIDITY:
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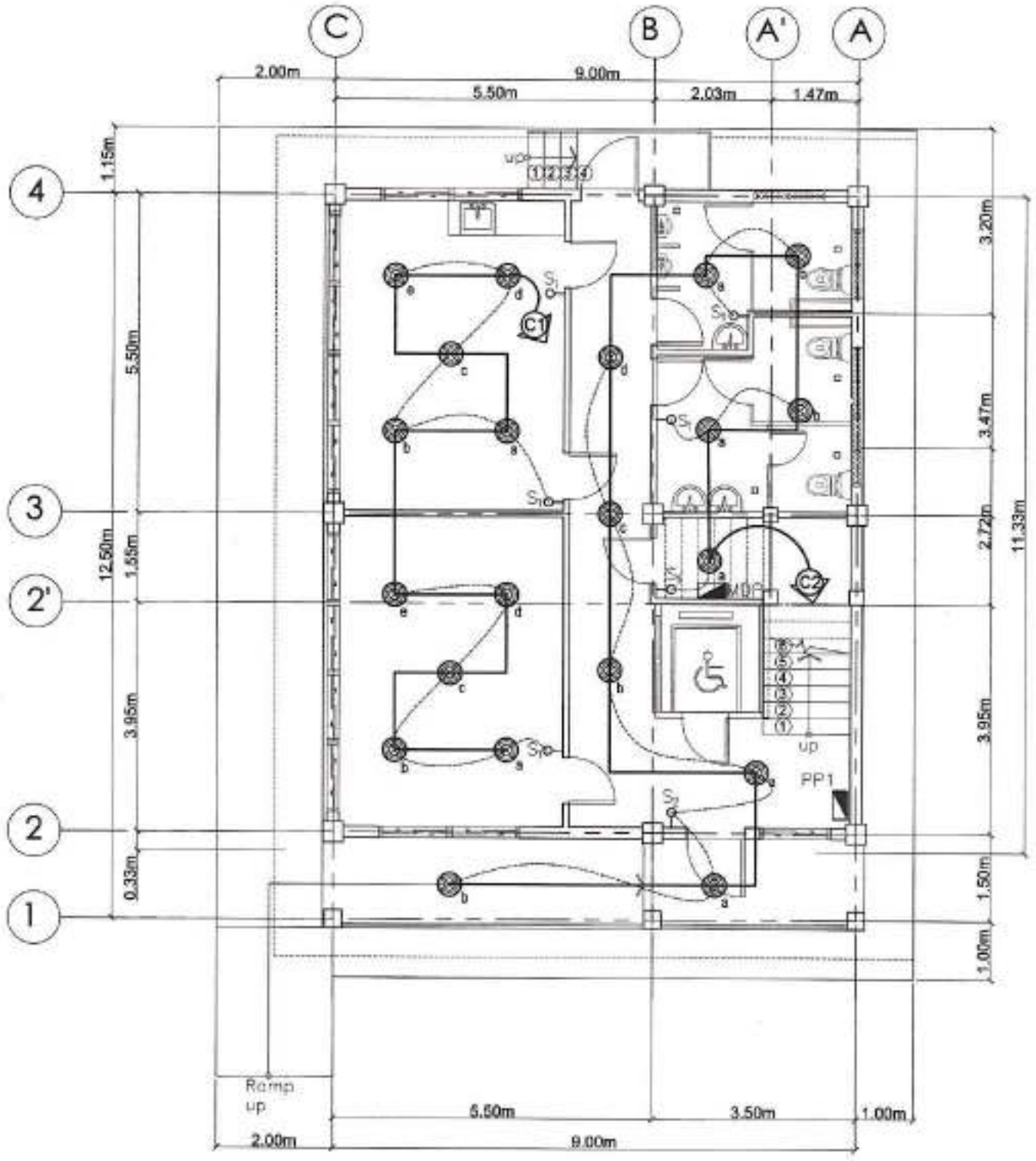
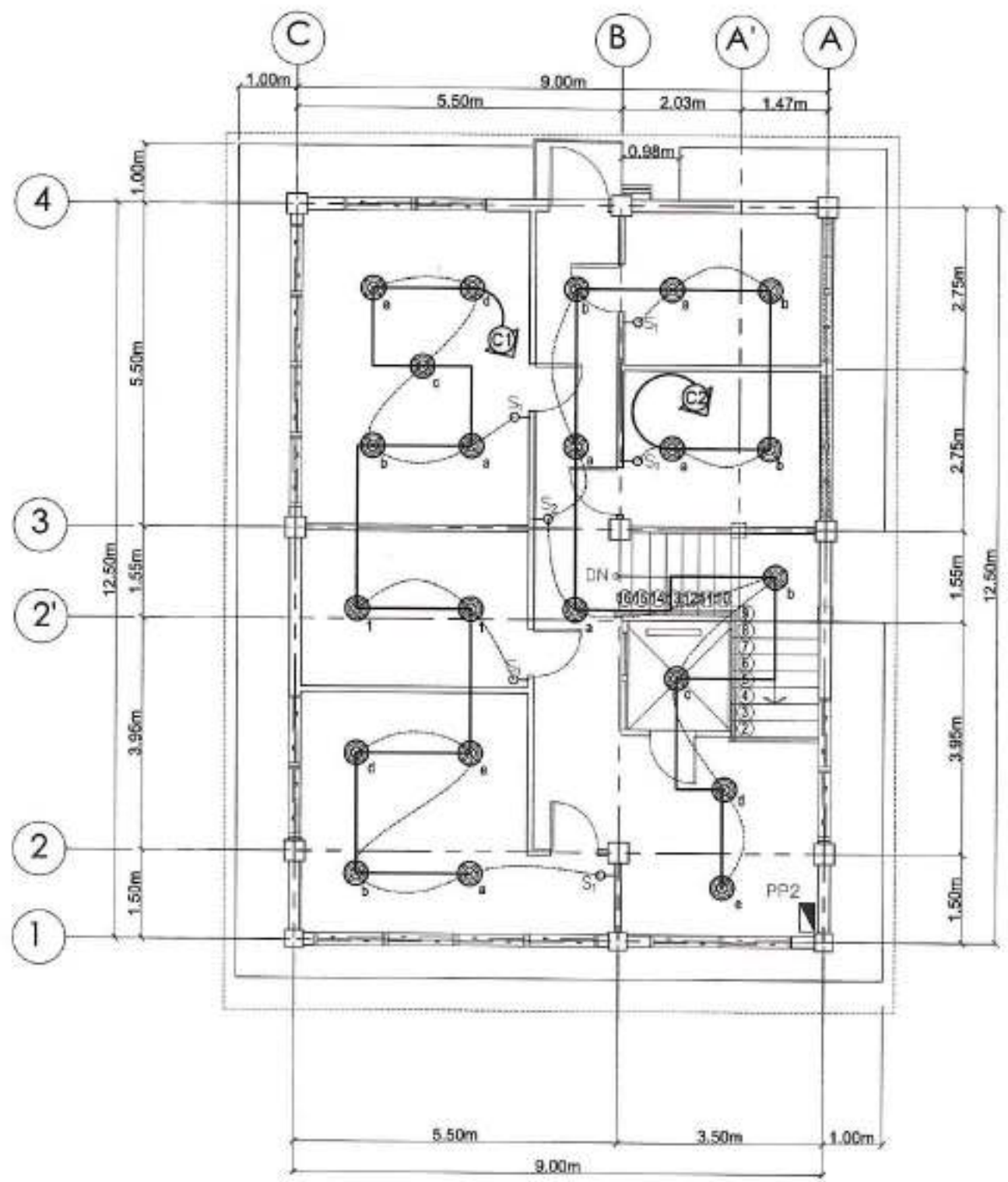


E2 01-02 1ST FLOOR LIGHTING OUTLET LAYOUT

SCALE 1:100 MTS



E2 02-02 2ND FLOOR LIGHTING OUTLET LAYOUT

SCALE 1:100 MTS

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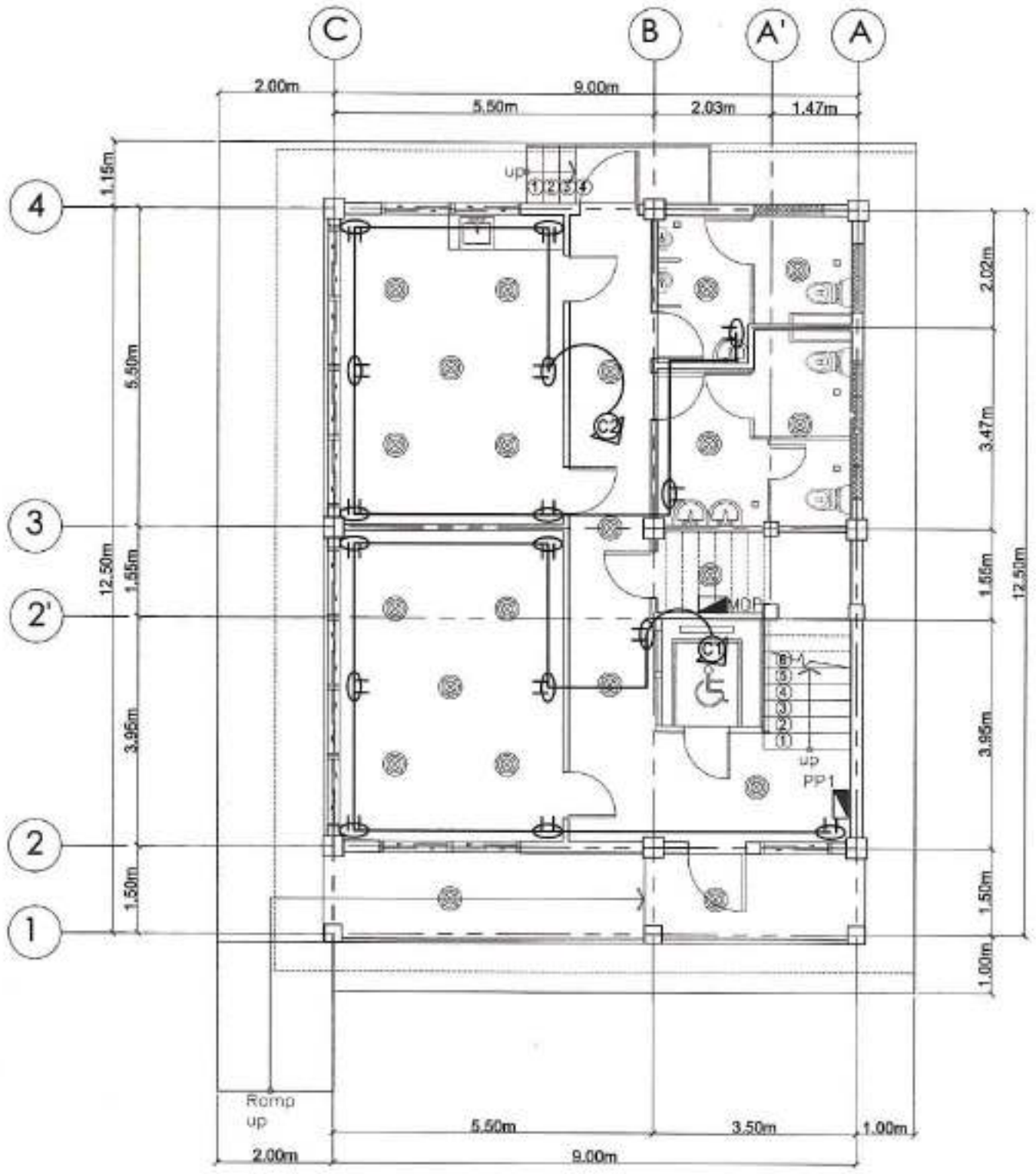
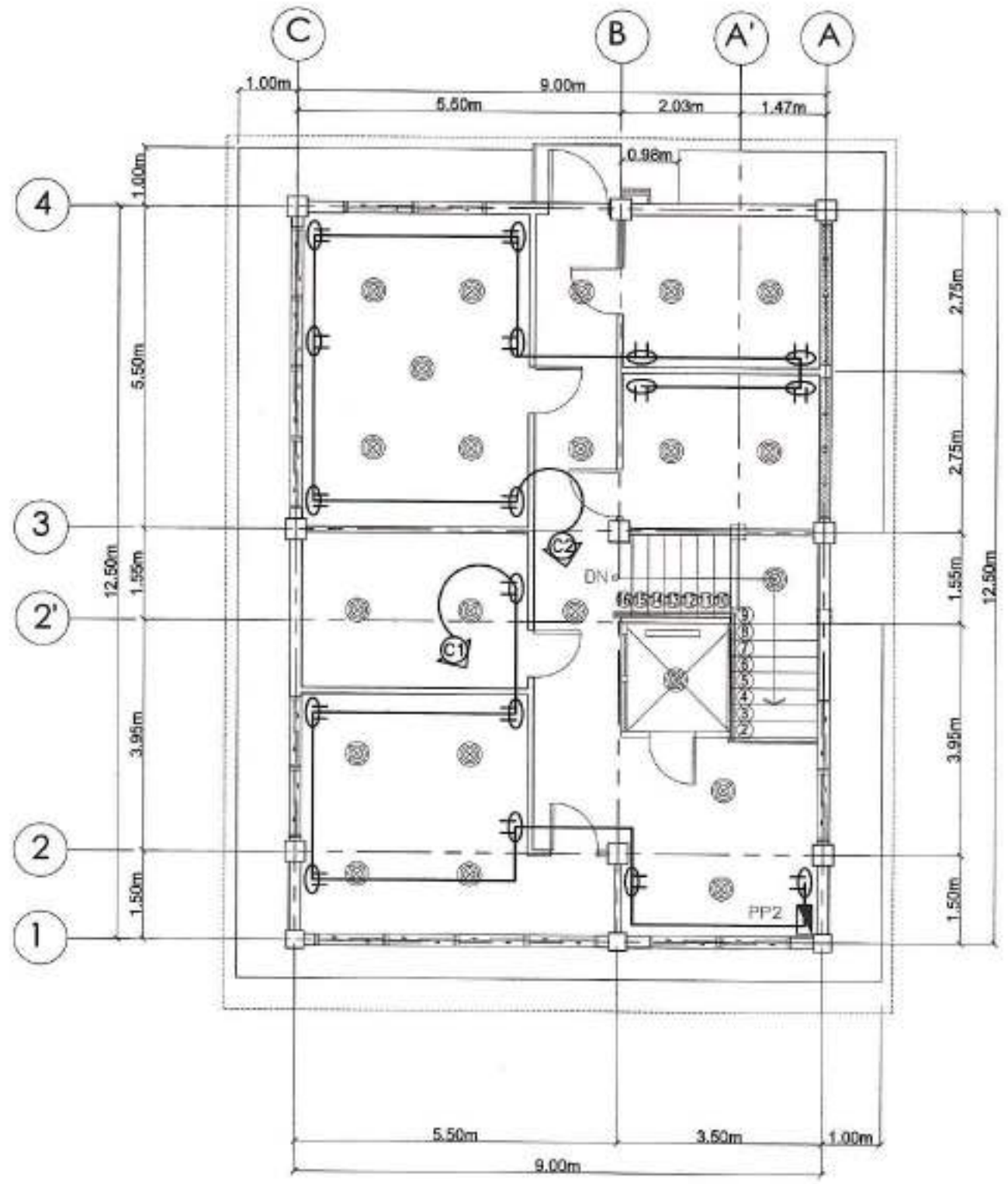


E3 01-02 1ST FLOOR CONVENIENCE OUTLET LAYOUT

SCALE 1:100 MTS



E3 02-02 2ND FLOOR CONVENIENCE OUTLET LAYOUT

SCALE 1:100 MTS

HAZELINN N. TIBANGAY UNIVERSITY ARCHITECT PRC I.D. No. 12849 / VALIDITY: PTR No. / ISSUED:	ELECTRICAL ENGINEER PRC I.D. No. / VALIDITY: PTR No. / ISSUED:	CAD BY: ENGR. SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU JOMS BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET CONTENT: AS SHOWN REVISION NO.:	SHEET NO.: E 03 05

ELECTRICAL LOAD TABULATION

PP1 FIRST FLOOR LEVEL

CKT. NO.	DESCRIPTION	QTY. L.O.	C.O.	S1	S2	VOLTS	WATTS	VA	AMPERE	TRIP BEAKER	P	KAIC	WIRE SIZE	CONDUIT SIZE
CKT. 01	LED PIN LIGHTING	10		2		230V	100	1000 W	4.35 AMP	15 AT	2	10	2–2.0mm² THHN	15mm ø Conduit PVC
CKT. 02	LED PIN LIGHTING	11		3	1	230V	100	1100 W	4.78 AMP	15 AT	2	10	2–2.0mm² THHN	15mm ø Conduit PVC
CKT. 03	DUPLEX CONVENIENCE OUTLET		8			230V	180	1440 W	6.26 AMP	20 AT	2	10	2–3.5mm² THHN	15mm ø Conduit PVC
CKT. 04	DUPLEX CONVENIENCE OUTLET		8			230V	180	1440 W	6.26 AMP	20 AT	2	10	2–3.5mm² THHN	15mm ø Conduit PVC
CKT. 05	SPARE					230V								
CKT. 06	SPARE					230V								
CKT. 07	SPARE					230V								
CKT. 08	SPARE					230V								
	SUB–TOTAL	21	16	5	1			4980W	21.65 AMP	40 AT			2–14 mm²	25mm ø Conduit PVC

PP2 SECOND FLOOR LEVEL

CKT. NO.	DESCRIPTION	QTY. L.O.	C.O.	S1	S2	VOLTS	WATTS	VA	AMPERE	TRIP BEAKER	P	KAIC	WIRE SIZE	CONDUIT SIZE
CKT. 01	LED PIN LIGHTING	11		3		230V	100	1100 W	4.78 AMP	15 AT	2	10	2–2.0mm² THHN	15mm ø Conduit PVC
CKT. 02	LED PIN LIGHTING	11		2	1	230V	100	1100 W	4.78 AMP	15 AT	2	10	2–2.0mm² THHN	15mm ø Conduit PVC
CKT. 03	DUPLEX CONVENIENCE OUTLET		7			230V	180	1260 W	5.47 AMP	20 AT	2	10	2–3.5mm² THHN	15mm ø Conduit PVC
CKT. 04	DUPLEX CONVENIENCE OUTLET		10			230V	180	1800 W	7.82 AMP	20 AT	2	10	2–3.5mm² THHN	15mm ø Conduit PVC
CKT. 05	SPARE					230V								
CKT. 06	SPARE					230V								
CKT. 07	SPARE					230V								
CKT. 08	SPARE					230V								
	SUB–TOTAL	22	17	5	1			5260W	22.85 AMP				2–14 mm² THHN	25mm ø Conduit PVC
	TOTAL	43	33	10	1			10240 W	44.50 AMP	40 AT			2–50 mm² THHN	25mm ø Conduit PVC

MOUNTING: SURFACE MOUNTED

MAIN: 100 AT, 2–POLE, 230 V

SYSTEM 230 VOLTS, SINGLE PHASE, 2–WIRE + G, 60 HZ

LOCATION: UTILITY ROOM

MAIN DISTRIBUTION PANEL

CKT NO.	DESCRIPTION	VA LOAD PER CIRCUIT	AMPERES	CKT. PROTECTION P	AT	AF	CIRCUIT HOMERUN LINE WIRE(THHN)	GROUND WIRE(THHN)	CONDUIT
01	PP1	4980	21.65	2	40	50	2–16 mm²	1–8.0 mm²	25 mm dia. RMC
02	PP2	5260	22.85	2	40	50	2–16 mm²	1–8.0 mm²	25 mm dia. RMC
03	SPARE	3000	13.04	2	30	50	2–8.0 mm²	1–5.5 mm²	25 mm dia. RMC
04	SPARE	3000	13.04	2	30	50	2–8.0 mm²	1–5.5 mm²	25 mm dia. RMC
	TOTAL CONNECTED LOAD:	16,240	70.58		100				

HAZELINE N. TIBANGAY
UNIVERSITY ARCHITECT
PRC LIC. No. 028640 VALIDITY:
PTR No. ISSUED:

ELECTRICAL ENGINEER
PRC LIC. No. VALIDITY:
PTR No. ISSUED:

CAD BY: SHOD-SEPTEMBER 2023

PROPOSED OPEN UNIVERSITY BUILDING PHASE 1
BSU KMS BSU COMPOUND LA TRINIDAD, BENGUET
PROJECT / LOCATION

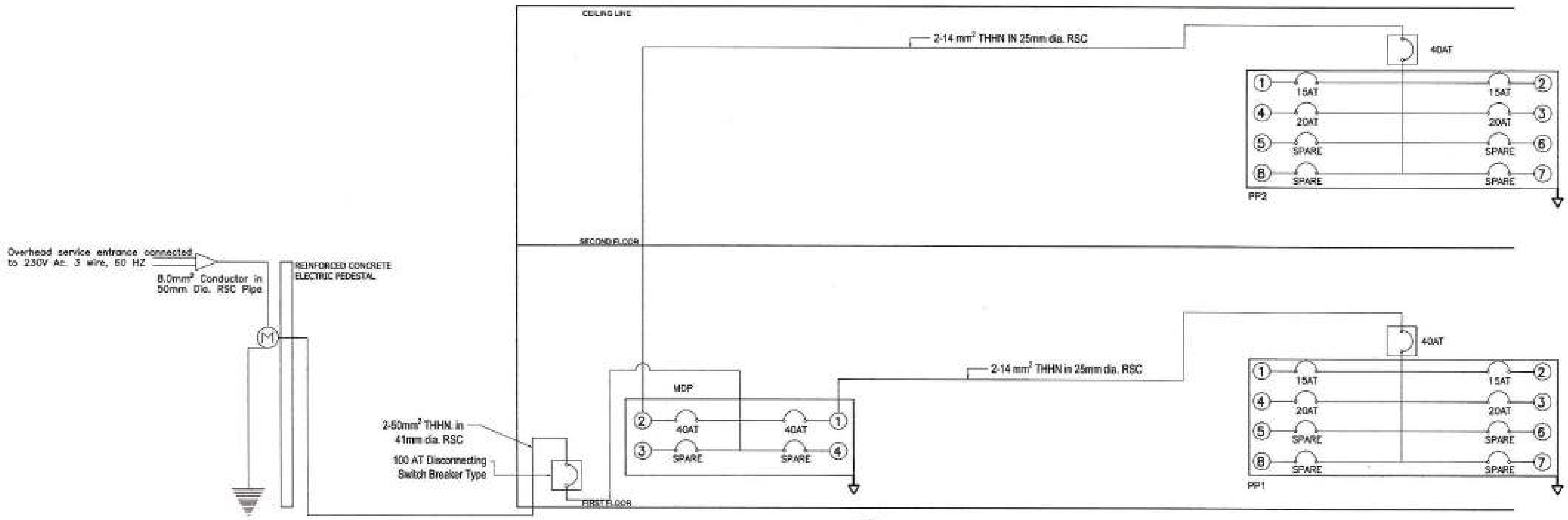
BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ BSU OPEN UNIVERSITY DIRECTOR

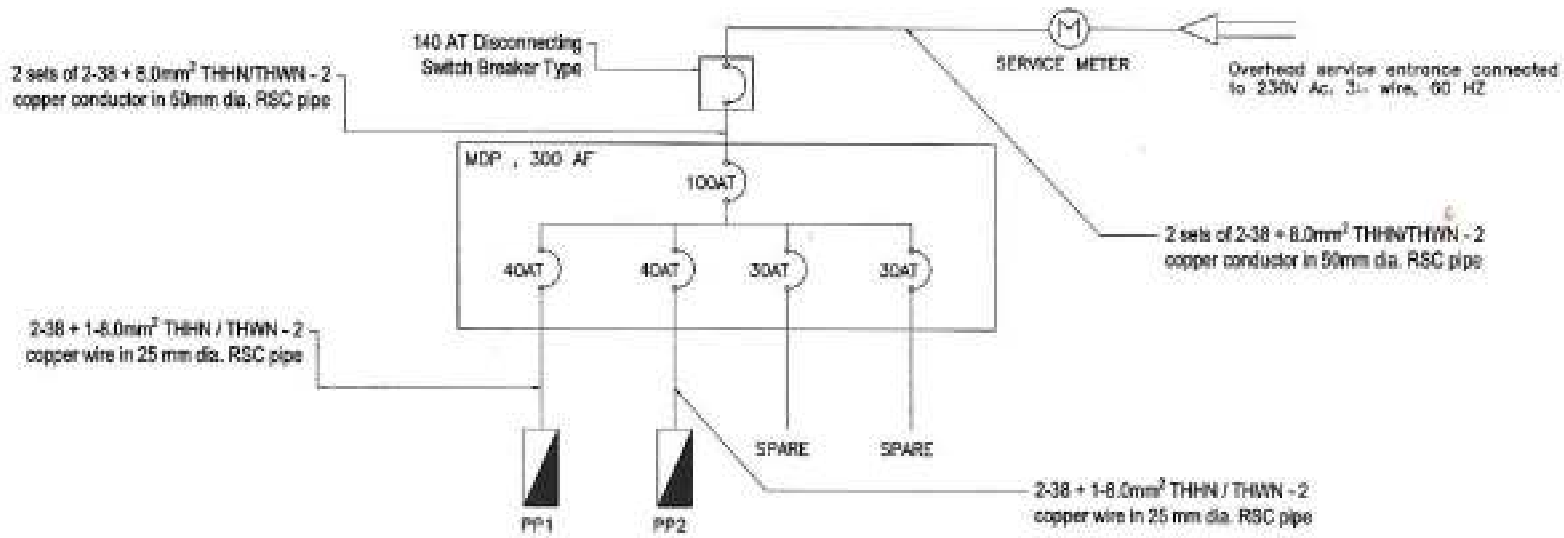
ALLAN CASALDO SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

ELEUTERIO SALAING COMILA
PRESIDENT

SHEET CONTENT: AS SHOWN
REVISION DATE:
REVISION NO.
SHEET NO.: E 04|05



E5 01-01 RISER DIAGRAM
SCALE N.T.S.



E5 01-01 SINGLE LINE DIAGRAM
SCALE N.T.S.

LOAD COMPUTATION:

TOTAL CONNECTED LOAD= 16240 VA

I_{TOTAL} = 80% DEMAND FACTOR , AS PERMITTED BY THE NATIONAL ELECTRICAL CODE

$\frac{16240 \times 80\%}{240 \text{ VOLTS}}$ = 54.13 AMP.

USE: 100 AT, 2P, 240V, 10 KAIC FOR MAIN SERVICE PROTECTION

SUB-FEEDER AND PROTECTION USE: 2 PIECES 8.0mm² or NO. 8 THW. COOPER WIRE

PVC CONDUIT PIPE USE 50mm Dia. PIPE

$I_{TOTAL} = \frac{54.13 \times 240V}{1000} \times 120\% = 15.59$ KVA

USE: 37.5 KVA DISTN TRANSFORMER (IF REQUIRED)

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SHEET CONTENT	SHEET NO.
AS SHOWN	E
REVISION DATE:	05 05
REVISION NO.:	

GENERAL NOTES:

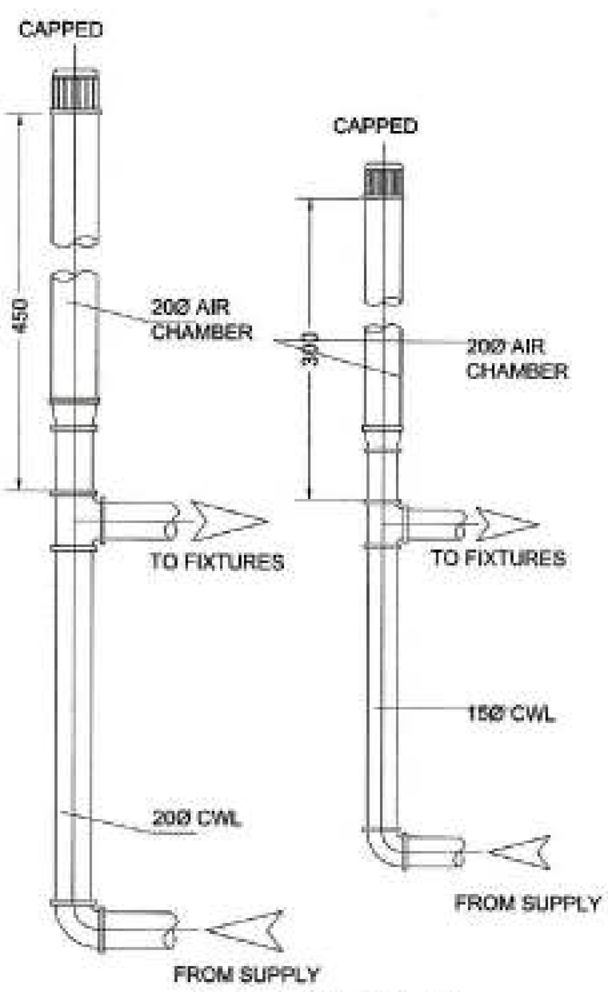
1. ALL PLUMBING WORKS TO BE DONE AND SIZES OF PIPES TO BE USED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL PLUMBING CODE OF THE PHILIPPINES AND LOCAL REGULATIONS AND ORDINANCES.
2. ALL PIPES SHALL BE INSTALLED AS INDICATED IN THE WORKING DRAWINGS. ANY RELOCATION REQUIRED FOR PROPER EXECUTION OF OTHER TRADES SHALL BE UPON THE APPROVAL OF THE SANITARY ENGINEER.
3. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. ALL PIPES SHALL BE PROVIDED W/ PROPER HANGER AND SUPPORT.
5. ALL FIXTURES SHALL BE VENTED INDIVIDUALLY AND WATERLINES SHALL BE VALVE BY GROUP.
6. UNLESS OTHERWISE SPECIFIED, ALL PLUMBING FIXTURES SHALL BE PROPERLY VENTED. MAXIMUM DISTANCE OF VENTILATION FROM FIXTURES SHALL BE 1.50m MEASURED ALONG THE LENGTH OF PIPE.
7. ALL PLUMBING FITTINGS SHALL BE ACCESSIBLE FOR MAINTENANCE. PROVIDE MANHOLE IF SUCH INSTALLATIONS ARE INSIDE THE CEILING.
8. ALL CHANGES IN DIRECTION SHALL BE MADE BY APPROPRIATE USE OF FORTY-FIVE DEGREES (45°) WYES, LONG SWEEP QUARTER BEND, ONE EIGHT WHEN THE CHANGE OF FLOW IS FROM HORIZONTAL TO VERTICAL A SINGLE BEND COMBINATION MAY BE USED ONLY ON VENT PIPE.
9. NO DOUBLE HUB OR DOUBLE TEE BRANCH SHALL BE USED ON HORIZONTAL SOIL OR WASTE LINES.
10. PROVIDE PIPE SLEEVES AT WALL, COLUMNS OR SLAB TO PROTECT FROM BREAKAGE.
11. ALL EXPOSED PIPINGS AND FITTINGS IN THE AREAS SHALL BE CHROME PLATED.
12. THE BRAND AND OTHER DETAILED PLUMBING FIXTURES SHALL BE IN ACCORDANCE WITH THE SCHEDULE FURNISHED BY THE ARCHITECT.
13. GATE VALVE SHALL BE BRONZE BODY, SOLID WEDGE TYPE, SCREWED OR FLANGE END.
14. USE POLYPROPYLENE RANDOM, TYPE 3, PN20 FOR ALL WATER PIPING SYSTEM.
15. USE uPVC SANITARY PIPING SYSTEM SERIES 1000 FOR 100 ø AND SMALLER AND GRAVITY SEWER MAIN uPVC PIPING SYSTEM FOR 150 ø AND BIGGER.
16. ENGINEER-IN-CHARGE TO VERIFY ACTUAL LOCATION AND ELEVATION OF STREET DRAINAGE, STREET SEWER AND STREET WATER MAINS FOR CONNECTION BEFORE CONSTRUCTION.

MATERIAL SPECIFICATIONS

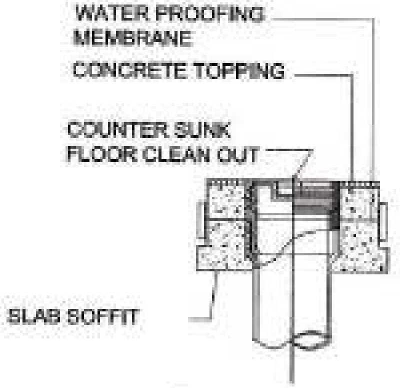
COLD WATER LINE (FOR INTERIOR PIPES)	– POLYPROPYLENE BY VESBO, UNITEC, WIRSBO & REHAU,OR APPROVED EQUIVALENT.
VENT & DOWNSPOUT	– 50 TO 150mm. Ø SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000. (FOR EXTERIOR AND EXPOSED PIPES) PNS/SAO 374. MANUFACTURED ACCORDING TO ASTM 2729.
DRAINAGE LINE	– 50 TO 150mm. Ø SHALL BE POLYVINYL CHLORIDE (PVC) PIPE. SERIES 1000. MANUFACTURED ACCORDING TO ASTM 2729. – 300mm. Ø LARGER SHALL BE REINFORCED CONCRETE PIPE. CONFORMING TO ASTM-76 & NON-REINFORCED CONCRETE PIPE 200mm. TO 350mm.Ø TO ASTM-C14.
SEWER LINE	– 50 TO 150mm. Ø SHALL BE POLYVINYL CHLORIDE (PVC) PIPE.SDR-35 MANUFACTURED ACCORDING TO ASTM 3034.
PIPE DIAMETER	– ALL PIPE DIAMETERS INDICATED IN THE DRAWINGS ARE INSIDE DIAMETERS.

PLUMBING LEGENDS

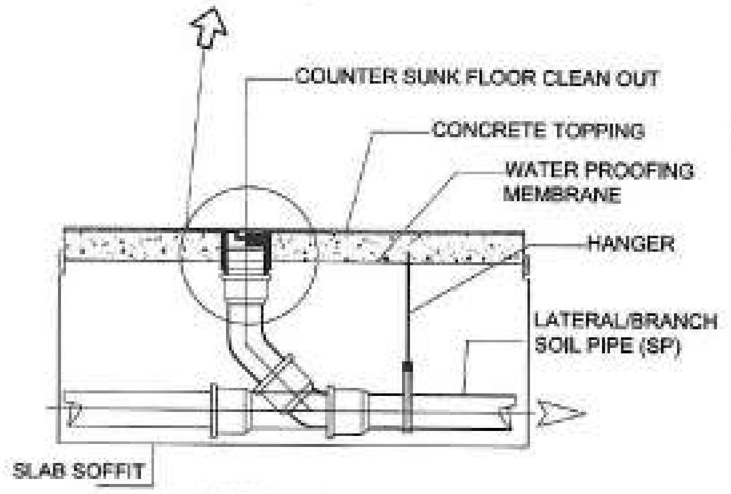
SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	GATE VALVE	fd.	FLOOR DRAIN
	CHECK VALVE	lav.	LAVATORY
	FLOW DIRECTION	wc.	WATER CLOSET
	WYE TEE PIPE	uri.	URINAL
	ANGLE FITTING PIPE	sink.	SINK
	P-TRAP PIPE		CLEAN-OUT PIPE
DS.	DOWN SPOUT		WATER TAP



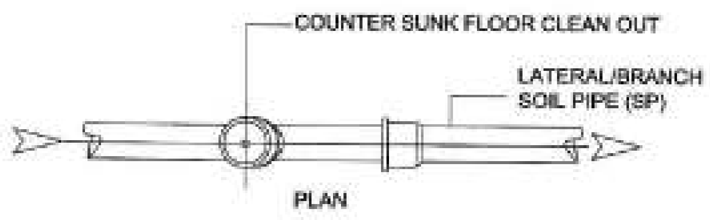
AIR CHAMBER DETAIL



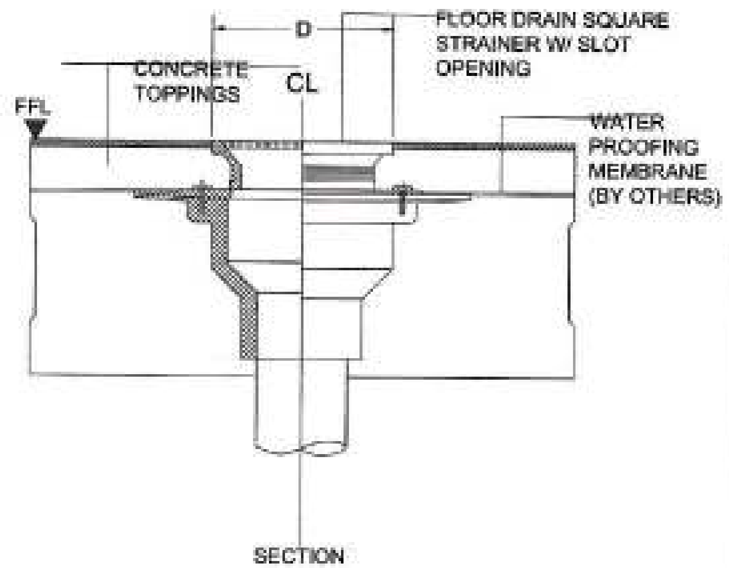
SPOT DETAIL



SECTION
FLOOR DRAIN DETAIL



PLAN



SECTION

HAZELINE N. TIBANGAY
UNIVERSITY ARCHITECT
PRC LIC. No. 0[illegible] | VALIDITY:
PTR No. | ISSUED:

PLUMBER / SANITARY ENGINEER
PRC LIC. No. | VALIDITY:
PTR No. | ISSUED:

CAD BY: EFGD-SEPTEMBER 2023

PROPOSED OPEN UNIVERSITY BUILDING PHASE 1
BSU KM 5 BSU COMPOUND LA TRINIDAD, BENGUET
PROJECT / LOCATION

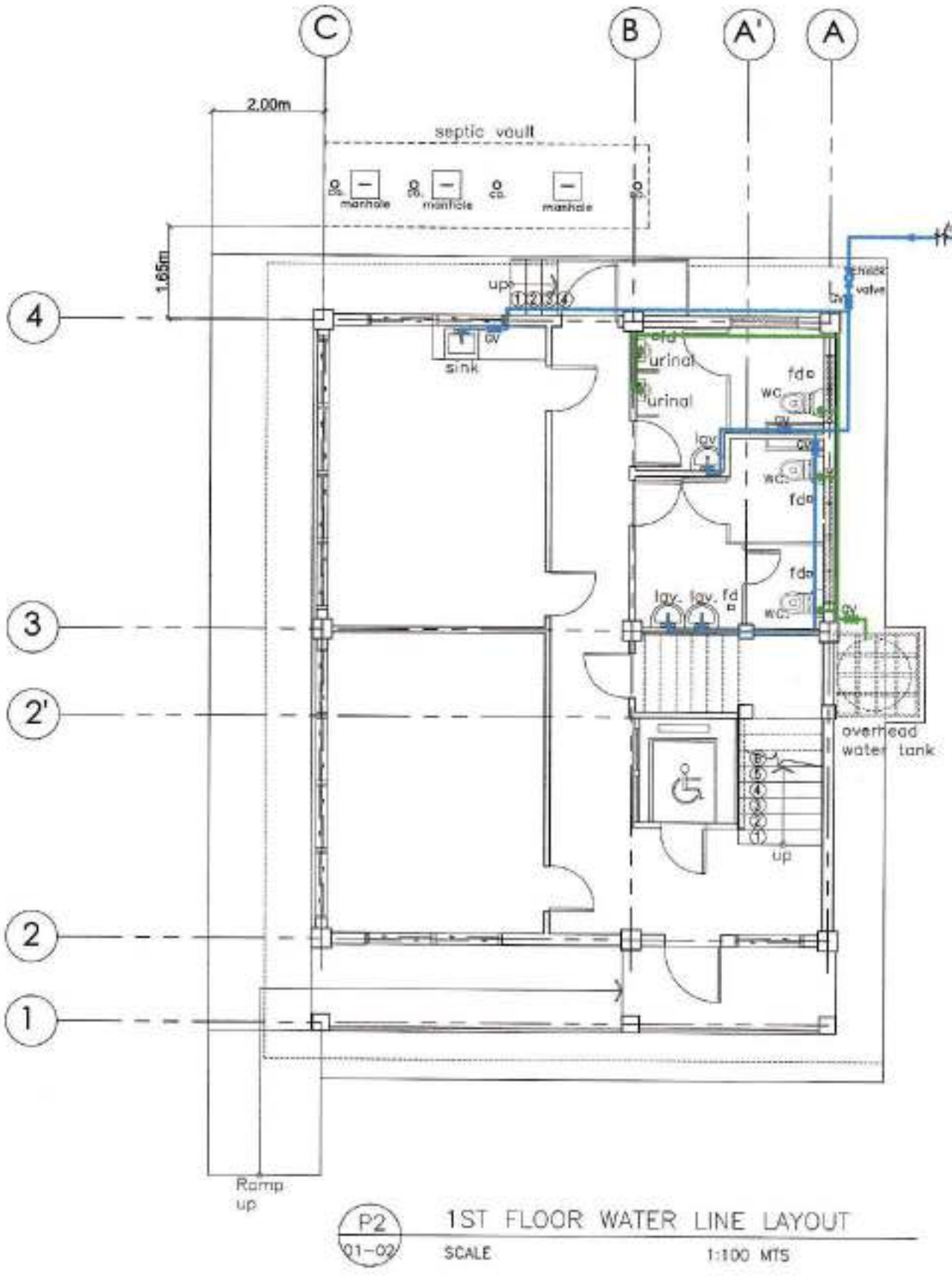
BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ BSU OPEN UNIVERSITY DIRECTOR

ALLAN CASALDO SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

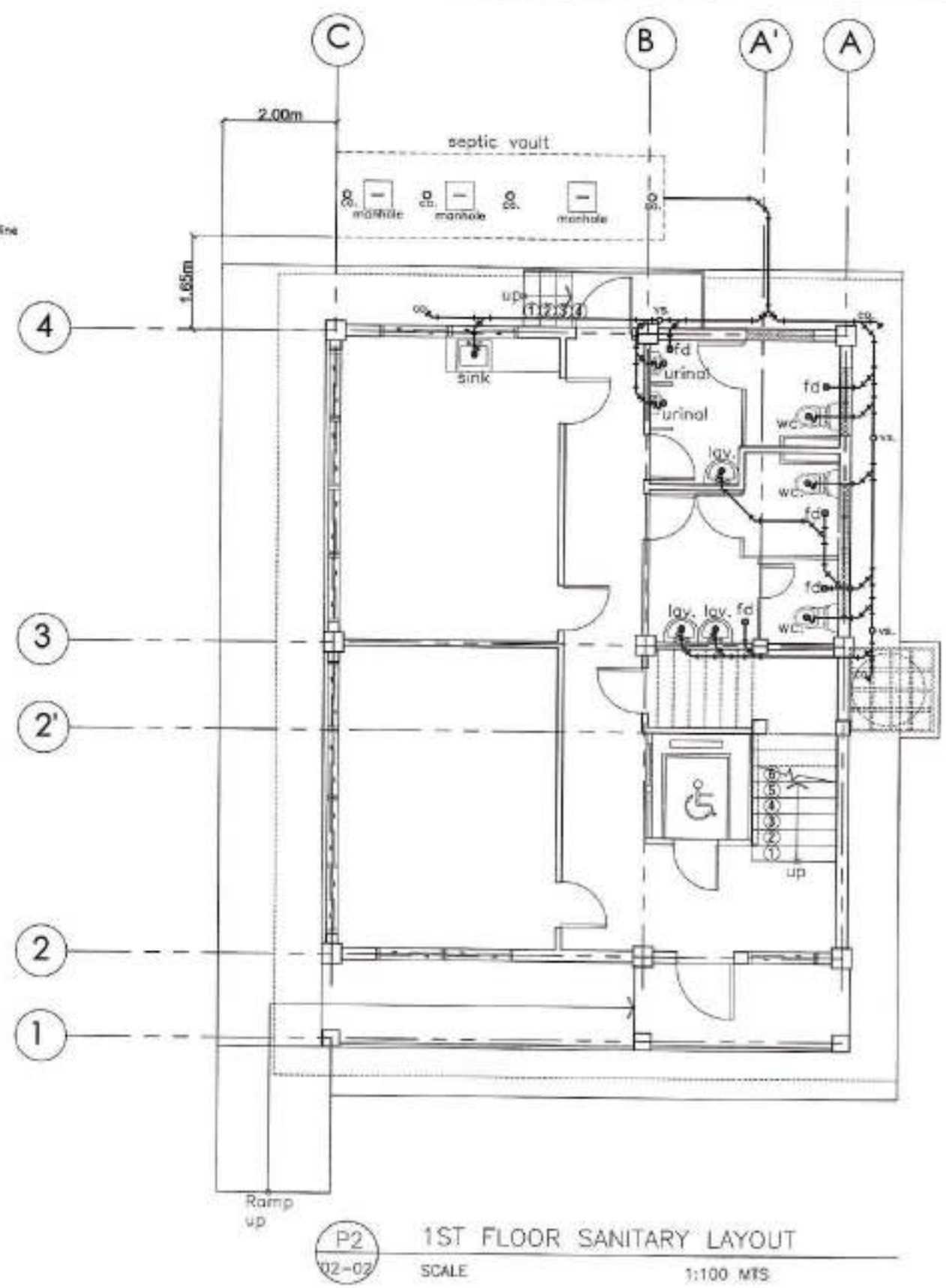
FELIPE SALAING COMILA
PRESIDENT

SHEET CONTENT: AS SHOWN
REVISION DATE:
REVISION NO.:
SHEET NO.: P 01 04



P2 01-02 1ST FLOOR WATER LINE LAYOUT

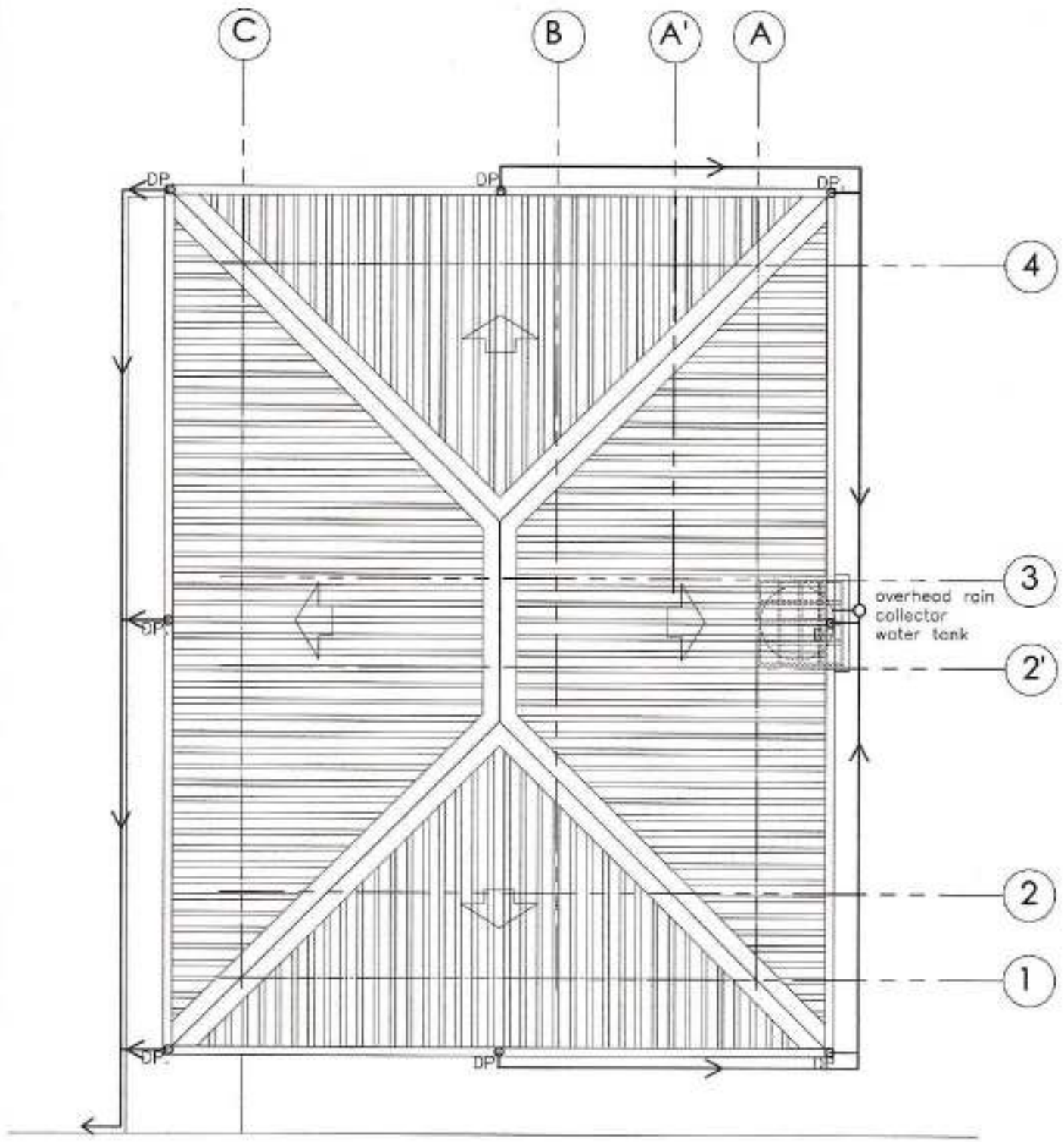
SCALE 1:100 MTS



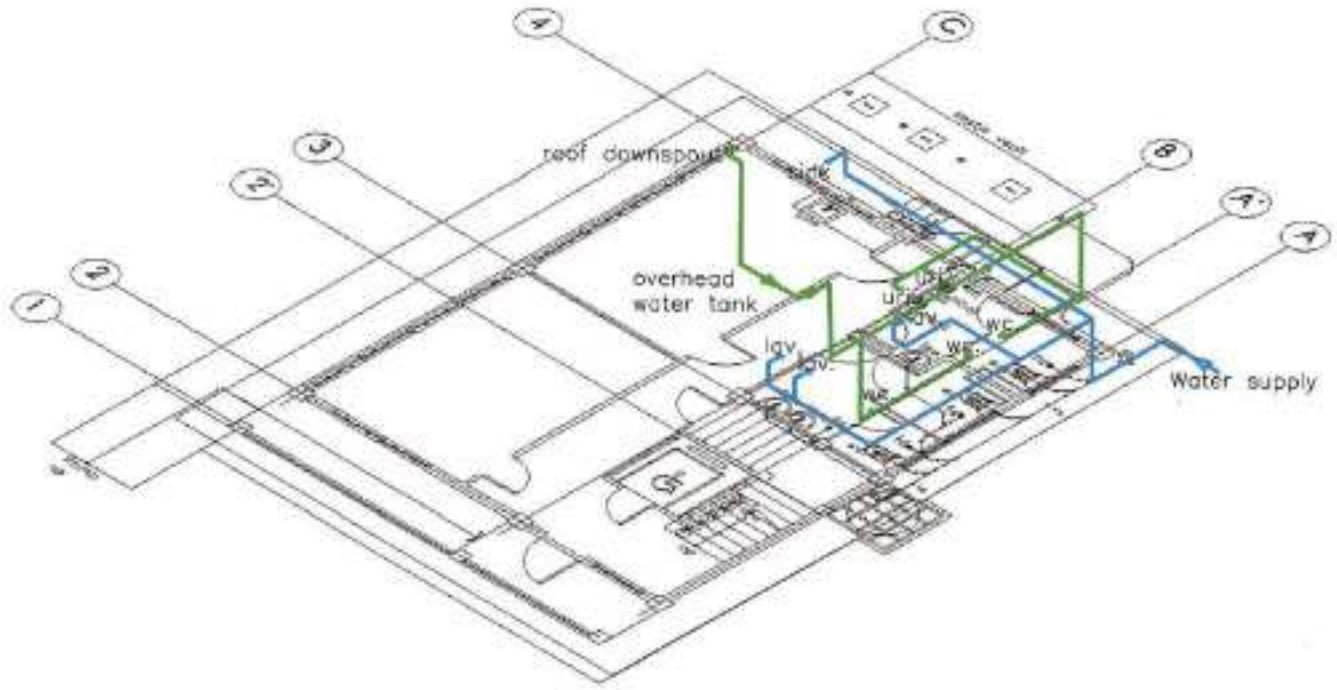
P2 02-02 1ST FLOOR SANITARY LAYOUT

SCALE 1:100 MTS

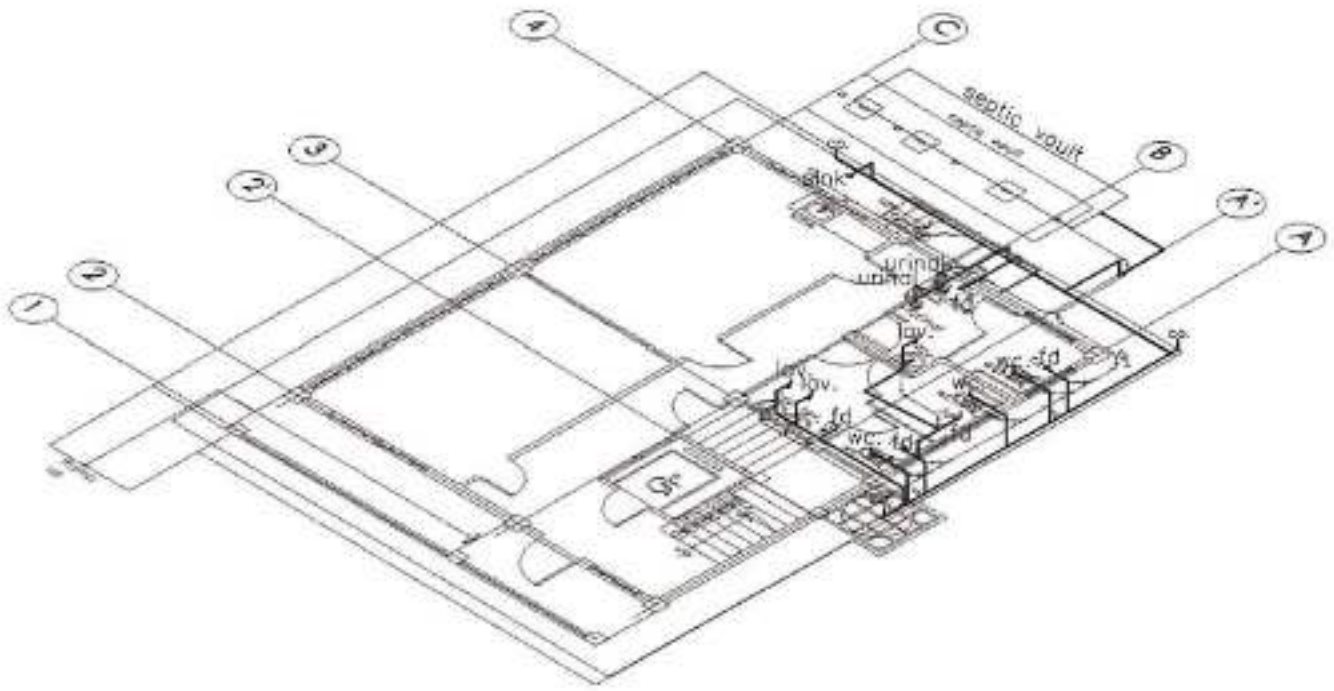
HAZELINE N. TIBANGAY UNIVERSITY ARCHITECT PRC LIC. No. 028048 VALIDITY: PTR No. ISSUED:	PLUMBER / SANITARY ENGINEER PRC LIC No. VALIDITY PTR No. ISSUED:	CAD BY ENGG-SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU JOMS BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	ELLYE SALAING COMILA PRESIDENT	SHEET CONTENT: AS SHOWN REVISION DATE: REVISION NO:	SHEET NO.: P 02 04



P3 01-01 ROOF DOWNSPOUT LAYOUT
SCALE NTS.



P3 01-02 1ST FLOOR WATER LINE ISOMETRIC
SCALE NTS.



P3 02-02 1ST FLOOR SANITARY ISOMETRIC
SCALE NTS.

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PLUMBING ANALYSIS

RESTROOM 1 (FIRST FLOOR - FEMALE CR. WITH PWD CUBICLE)

FIXTURES	NO. OF FIXTURES	EQUIVALENT FIXTURE UNIT	TOTAL FIXTURE UNIT
1. LAVATORY	2	1	2 FIXTURE UNIT
2. WATER CLOSET	2	6	12 FIXTURE UNIT
3. FLOOR DRAIN	3	2	6 FIXTURE UNIT
		SUB-TOTAL =	20 FIXTURE UNIT

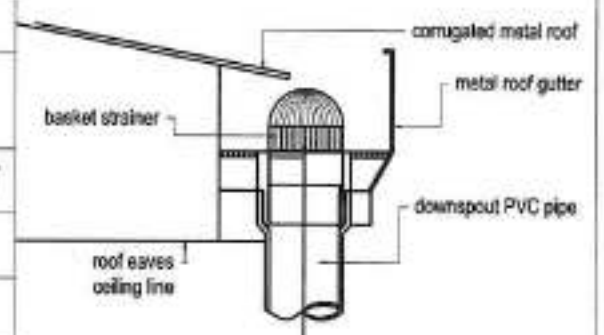
RESTROOM 2 (FIRST FLOOR - MALE CR. WITH PWD CUBICLE)

FIXTURES	NO. OF FIXTURES	EQUIVALENT FIXTURE UNIT	TOTAL FIXTURE UNIT
1. LAVATORY	1	1	1 FIXTURE UNIT
2. WATER CLOSET	1	6	6 FIXTURE UNIT
3. URINAL	2	2	4 FIXTURE UNIT
4. FLOOR DRAIN	2	2	4 FIXTURE UNIT
		SUB-TOTAL =	15 FIXTURE UNIT

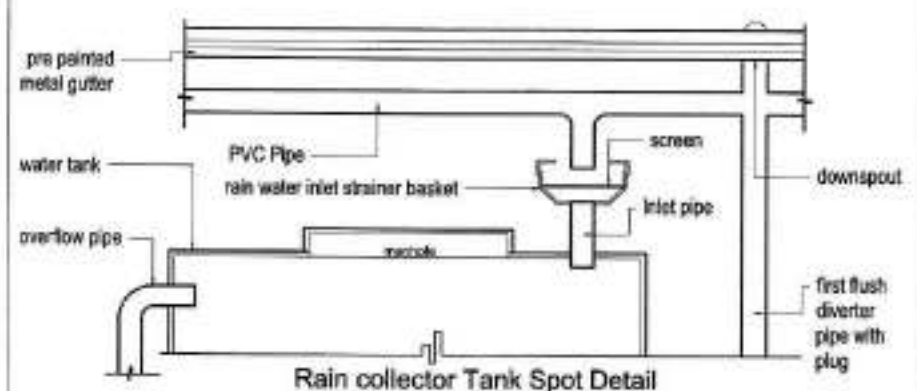
PANTRY (FIRST FLOOR)

FIXTURES	NO. OF FIXTURES	EQUIVALENT FIXTURE UNIT	TOTAL FIXTURE UNIT
1. KITCHEN SINK	1	1	1 FIXTURE UNIT
		SUB-TOTAL =	1 FIXTURE UNIT
		TOTAL =	36 FIXTURE UNIT

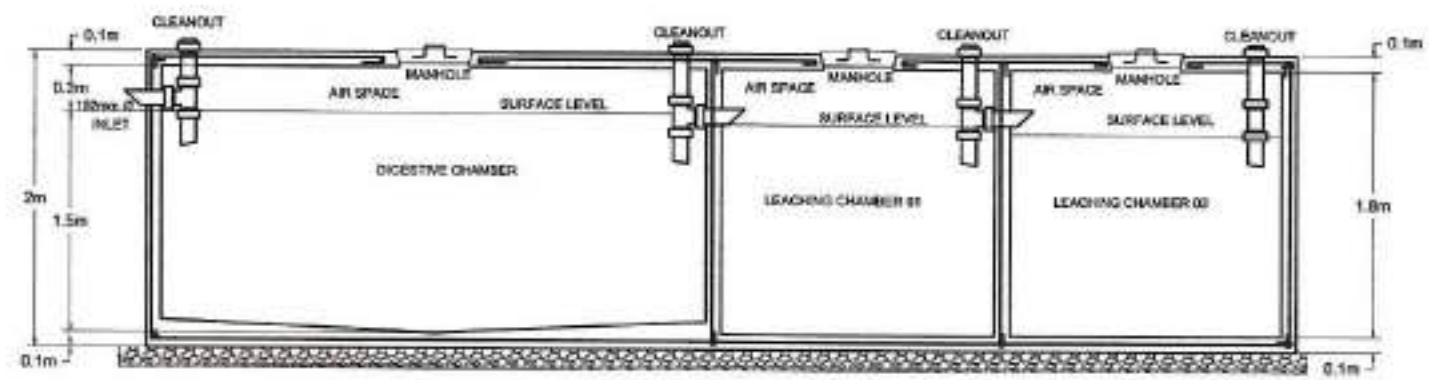
IN THE PRESENCE OF WATER CLOSET USE MINIMUM SIZE OF DISCHARGE PIPE = 75 MM DIA.
USE MINIMUM VENT PIPE SIZE = 50 MM DIA.



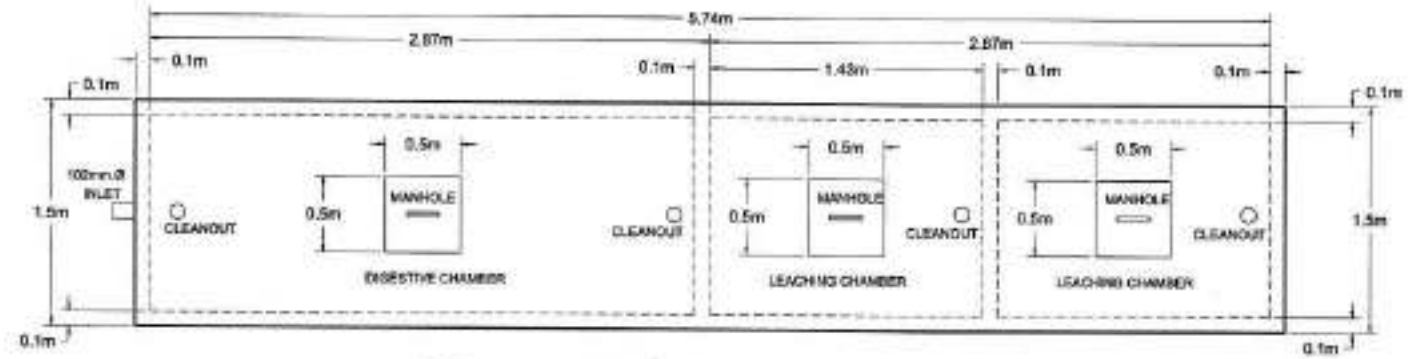
Downspout Blow-up Section



Rain collector Tank Spot Detail



P4 / 01-01 SEPTIC VAULT BLOW-UP SECTION
SCALE NTS.



P4 / 01-01 SEPTIC VAULT BLOW-UP PLAN
SCALE N.T.S.

SEPTIC TANK DIMENSION

L	W	H	Lc
5.74m	1.50m	2.00m	1.43m

Plain cement plastered finish with water proofing compound (to be applied with at least two coats water proofing membrane)

100 Persons Expected to use the Facility

0.086 cu.m. / person (school building) according to Max Fajardo

100 x 0.086 = 8.6 cu.m/person

Length of Digestion chamber = 8.6 / width(1.5) x depth(2) = 2.87m

Total length of Septic Tank(two leaching chamber)
= (2.87 / 2) + (2.87 / 2)+ 2.87 = 5.74m

HAZELINE N. TIBANGAY, UNIVERSITY ARCHITECT PRC LIC. No. 038640 VALIDITY: PTR No. ISSUED:	PLUMBER / SANITARY ENGINEER PRC LIC. No. VALIDITY: PTR No. ISSUED:	CAD BY: ERICO SEPTEMBER 2023	PROPOSED OPEN UNIVERSITY BUILDING PHASE 1 BSU-EMS BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER / BSU OPEN UNIVERSITY DIRECTOR	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	ELIPIO SALAING COMILA PRESIDENT	SHEET CONTENT: AS SHOWN REVISION DATE: REVISION NO.	SHEET NO.: P 04 04

GENERAL CONSTRUCTION NOTES

1. IN THE INTERPRETATION OF THE DRAWING, INDICATED DIMENSIONS SHALL GOVERN AND DISTANCES AND SIZES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
2. IN REFERENCE TO THE OTHER DRAWINGS, SEE ARCHITECTURAL DRAWINGS FOR DEPRESSIONS IN FLOOR SLABS , OPENING IN THE WALLS AND SLABS, INTERIOR PARTITIONS, LOCATION OF DRAINS, ETC.
3. 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 ARCHITECT.
4. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ACI 318 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.
5. ACI REFERS TO AMERICAN CONCRETE INSTITUTE, AISC TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND ASTM TO AMERICAN SOCIETY FOR TESTING MATERIALS.
6. CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
7. 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.
8. CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS, SILLS, STOOLS, EQUIPMENTS AND MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS.
9. ALL RESULTS OF MATERIAL TESTING FOR CONCRETE, REINFORCING BARS, AND STRUCTURAL STEEL MUST BE NOTED AND APPROVED BY THE STRUCTURAL DESIGNER.

NOTES ON CONCRETE MIXES & PLACING

1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AT THE END OF THE TWENTY EIGHTH (28) DAYS WITH CORRESPONDING MAXIMUM SIZE AGGREGATE AND SLUMPS AS FOLLOWS.

LOCATION	28 DAYS STRENGTH	MAX. SIZE OF AGG.	MAX. SLUMP
SLABS	4000 PSI (27.58 MPa.)	20 mm	100 mm
COLUMNS	4000 PSI (27.58 MPa.)	20 mm	100 mm
BEAMS	4000 PSI (27.58 MPa.)	20 mm	100 mm
FOOTINGS	3500 PSI (20.70 MPa.)	20 mm	100 mm

2. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS.
   - SUSPENDED SLABS ---------- 20mm
   - SLAB ON GRADE ---------- 40mm
   - WALLS ABOVE GRADE ---------- 25mm
   - BEAM STIRRUPS AND COLUMN TIES ---------- 40mm
   - WHERE CONCRETE IS EXPOSED TO EARTH BUT POURED AGAINST FORMS ---------- 50mm
   - WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH ---------- 75mm
3. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION. RE-HANDLING OR PLACING SHALL BE DONE PREFERABLY WITH BUGGIES, BUCKETS OR WHEELBORROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUGGIES, WHEELBORROWS OR BUCKETS IN WHICH CASE THEY SHALL NOT EXCEED SIX (6) METERS IN AGGREGATE LENGTH.
4. 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.
5. ALL ANCHOR BOLTS, DOWELS, AND OTHER INSERTS, SHALL BE PROPERLY POSITIONED & SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
6. ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN (7) CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.
7. 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
8. THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF POURING AND THE LOCATION OF THE CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER AT LEAST FOUR (4) DAYS PRIOR TO THE POURING FOR APPROVAL.
9. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE FORMS AND SHORING UNTIL THE CONCRETE MEMBERS HAVE ATTAINED THEIR WORKING CONDITION AND STRENGTH.

NOTES ON REINFORCEMENT

1. UNLESS OTHERWISE NOTED IN THE PLANS, THE YIELD STRENGTH OF REINFORCING BARS SHALL BE:
   - FOOTINGS ---------- FY = 276 MPA (40,000 PSI) GRADE 40
   - COLUMNS ---------- FY = 414 MPA (60,000 PSI) GRADE 60
   - BEAMS, SLABS ---------- FY = 276 MPA (40,000 PSI) GRADE 40

A. NON-LOAD BEARING WALL PARTITIONS, BEDDED SLABS, FLOOR AND ROOF SLABS, PARAPETS, CATCH BASIN, SIDE WALK - FY = 227.5 MPA (33,000 PSI)

2. ALL REINFORCING BARS SIZE 10MM OR LARGER SHALL BE DEFORMED IN ACCORDANCE WITH ASTM A 705. BARS SMALLER THAN 10MM MAY BE PLAIN.
3. SPLICES SHALL BE SECURELY WIRED TOGETHER & SHALL LAP OR EXTEND IN ACCORDANCE WITH TABLE A AND TABLE B (TABLE OF LAP SPLICE & ANCHORAGE LENGTH) UNLESS OTHERWISE SHOWN ON DRAWINGS. SPLICES SHALL BE STAGGERED WHENEVER POSSIBLE AND NO SPLICE SHALL BE MORE THAN 50%.

NOTES ON CONCRETE SLABS

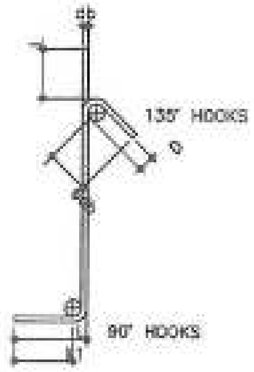
1. ALL SLAB REINFORCEMENTS SHALL BE 20MM CLEAR MINIMUM FROM BOTTOM AND FROM THE TOP OF SLAB.

NOTES ON STIRRUPS

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

180° END HOOKS

90° END HOOKS



135° HOOKS

90° HOOKS

MAIN BAR END HOOKS (ALL GRADES)

BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK D+2db	180° HOOK L	90° HOOK L
10mm ⌀	60	75	125	150
12mm ⌀	75	100	150	200
16mm ⌀	95	125	175	250
20mm ⌀	115	150	200	300
25mm ⌀	150	200	230	450
28mm ⌀	240	300	350	550
32mm ⌀	300	335	450	600

STIRRUP AND TIE HOOKS (ALL GRADES)

BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK D+2db	180° HOOK L	90° HOOK L
10mm ⌀	40	125	85	100
12mm ⌀	50	165	115	115
16mm ⌀	65	200	140	150
20mm ⌀	115	250	165	300
25mm ⌀	150	365	230	405

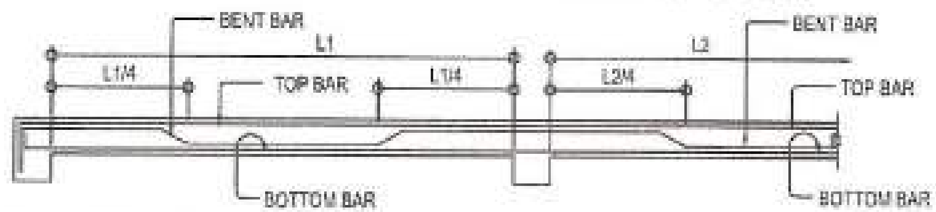
SHERIFF JOHN C. LA MADRID CIVIL ENGINEER	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER: DIRECTOR-OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S1 01 / 14

NOTES ON FOOTINGS

1. FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 84 KPA. THE CONTRACTOR SHALL REPORT TO THE ENGINEER, IN WRITING, THE ACTUAL SOIL CONDITIONS UNCOVERED AND CONFIRM ACTUAL BEARING CAPACITY OF SOIL BEFORE DEPOSITING CONCRETE.
2. FOOTING SHALL REST AT LEAST 3000MM BELOW NATURAL GRADE LINES UNLESS OTHERWISE INDICATED IN THE PLANS. NO FOOTING SHALL REST OF FILL.
3. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENTS SHALL BE 75MM CLEAR FOR CONCRETE DEPOSITED THE GROUND AND 50MM FOR CONCRETE DEPOSITED AGAINST A FORMWORK.

NOTES ON CONCRETE SLABS

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

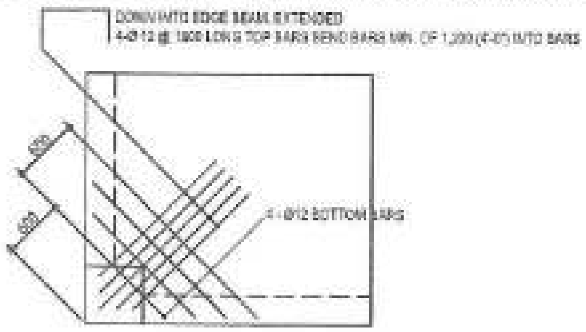


TYPICAL BAR BENDING AND CUTTING DETAILS FOR SLABS

3. IF SLABS ARE REINFORCED BOTH WAYS BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONG SPAN AT THE CENTER AND OVER THE LONGER 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 (1½) SLAB THICKNESS.
4. TEMPERATURE BARS FOR SLAB SHALL BE GENERALLY PLACED NEAR THE FACE IN TENSION AND SHALL NOT BE LESS THAN 0.0025 X GROSS CROSS-SECTIONAL AREA (Ag) OF THE SLAB (SEE SCHEDULE BELOW):

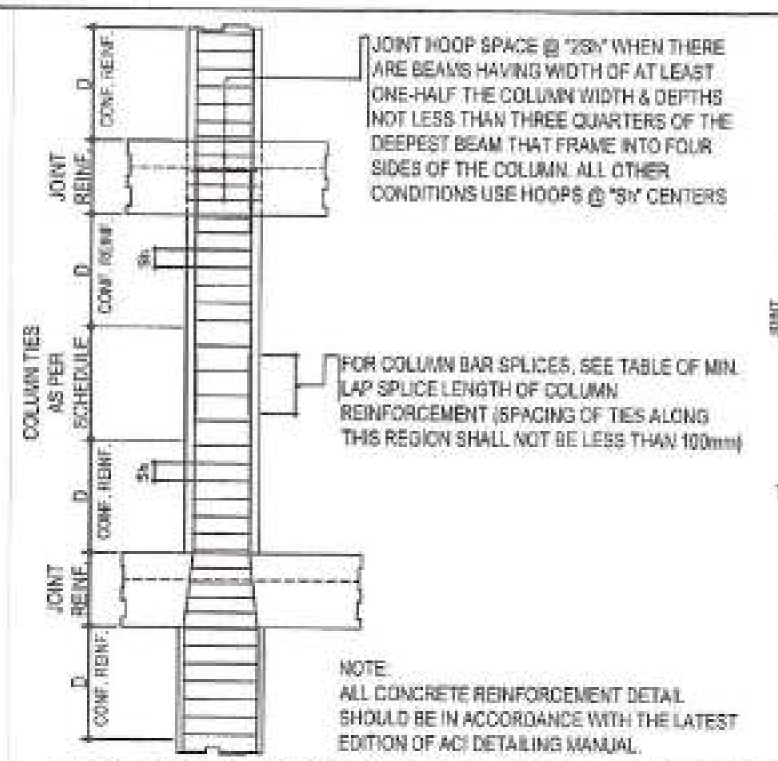
SCHEDULE OF MINIMUM SLAB REINFORCEMENT	
THICKNESS	MINIMUM TEMPERATURE BARS
100 mm	10 mm Ø 250mm EACH WAY
125 mm	10 mm Ø 225mm EACH WAY
150 mm	10 mm Ø 185mm EACH WAY
175 mm	10 mm Ø 150mm EACH WAY
200 mm	10 mm Ø 140mm EACH WAY

5. UNLESS OTHERWISE NOTED IN THE PLANS, ALL BEDDED SLABS SHALL BE REINFORCED WITH 10mm Ø AT 250mm O.C. EACH WAY TO CENTER OF SLAB AND CONSTRUCTION JOINTS FOR SAME SHALL NOT BE LESS THAN 3.65 METERS APART.
6. PROVIDE EXTRA REINFORCEMENTS FOR CORNER SLAB (TWO ADJACENT DISCONTINUOUS EDGES) AS SHOWN BELOW.
7. CONCRETE SLAB REINFORCEMENTS SHALL BE PROPERLY SUPPORTED WITH 10MM Ø STEEL CHAIR OR APPROVED EQUIVALENT SPACED AT 1.0 METER ON CENTER BOTH WAYS.

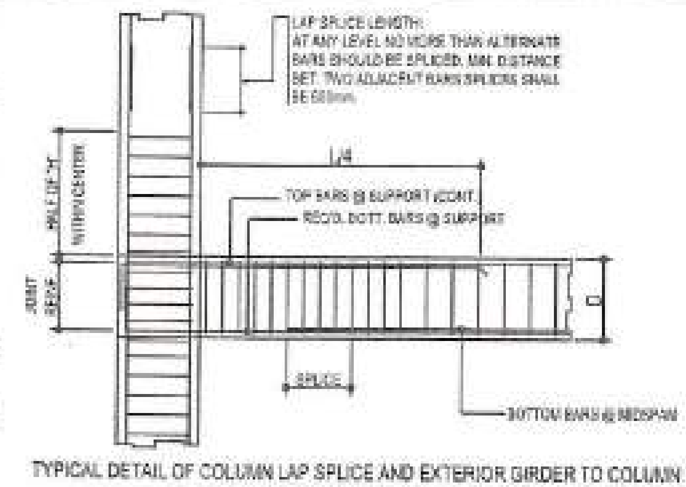


NOTES ON COLUMNS

1. 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, ⅙ THE CLEAR HEIGHT OF COLUMN OR 450MM.
2. COLUMN TIES SHALL BE PROTECTED EVERYWHERE BY A COVERING OF CONCRETE CAST MONOLITHICALLY WITH THE CORE WITH THE MINIMUM THICKNESS OF 40MM AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE IN MILLIMETERS.
3. 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 THROUGHOUT THE OFFSET REGION.
4. UNLESS OTHERWISE INDICATED IN THE PLANS, LAP SPLICES FOR VERTICAL COLUMN REINFORCEMENT SHALL BE MADE WITHIN THE CENTER HALF OF COLUMN HEIGHT, AND THE SPLICE 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 SPLICED AT ANY LEVEL AND THE VERTICAL DISTANCES BETWEEN THESE WELDS OR SPLICES OF ADJACENT BARS IS NOT LESS THAN 600mm.



TYPICAL COLUMN ELEVATION SHOWING DOWELS AND TIES SPACING



TYPICAL DETAIL OF COLUMN LAP SPLICE AND EXTERIOR GIRDER TO COLUMN CONNECTION

NOTES ON BEAMS AND GIRDERS

1. UNLESS, OTHERWISE NOTED IN PLANS, CAMBER ALL BEAMS AND GIRDER AT LEAST 6MMØ FOR EVERY 4.5M OF SPAN, EXCEPT CANTILLEVERS FOR WHICH THE CAMBER 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.
2. TYPICAL BARS BENDING AND CUTTING DETAILS FOR BEAMS SHALL BE AS SHOWN IN FIGURE B-2.
3. 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 TABLE 'A' FOR TENSION BARS AND TABLE 'B' FOR COMPRESSION BARS UNLESS SPECIFIED IN PLAN. TOP BAR SHALL NOT BE SPLICED 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 SPLICES.
4. IF THERE ARE TWO OR MORE LAYERS OF REINFORCING BARS, USE 25MMØ BAR SEPARATORS SPACED AT 1.0M ON CENTER, IN NO CASE SHALL THERE BE LESS THAN TWO (2) SEPARATORS BETWEEN TWO LAYERS OF BARS.
5. MINIMUM CONCRETE PROTECTION FOR REINFORCING BARS OR STEEL SHAPES SHALL BE AS SHOW IN FIGURE B-1 UNLESS SPECIFIED ELSEWHERE.
6. WHEN A BEAM CROSSES A GIRDER, REST BEAM ON TOP OF GIRDER BARS, BEAM REINFORCING BAR SHALL BE SYMMETRICAL ABOUT CENTER LINE WHENEVER POSSIBLE.
7. GENERALLY, NO SPLICE SHALL BE PERMITTED AT POINTS WHERE CRITICAL BENDING STRESSES OCCUR. SPLICES WHERE SO PERMITTED SHALL BE INDICATED IN THE TABLE 'A' AND 'B'. WELDED SPLICES 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 SPLICED THEREIN.

NOTES ON EMBEDDED PIPES

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

FIG. B-1 FIG. B-3

TYPICAL DETAILS FOR SLEEVES THRU CONCRETE BEAM

SHERIFF JOHN C. LA MADRID CIVIL ENGINEER PRC LIC. No. 0128508 VALIDITY: JULY 17, 2026 PTR No. 5205230 ISSUED: JANUARY 3, 2022	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER: DIRECTOR-OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT - ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S2 02 14

TABLE 'A'
TENSION BARS
EMBEDMENT LENGTHS AND LAPPED SPLICES IN MILLIMETERS

BAR SIZE (DEFORMED)	f'c = 20.7MPa (3,000 psi)		f'c = 27.6MPa (4,000 psi)	
	EMBEDMENT	LAPPED	EMBEDMENT	LAPPED
10mm ϕ	300	300	300	300
12 mm ϕ	300	300	300	300
16 mm ϕ	300	400	300	400
20 mm ϕ	400	550	350	500
25 mm ϕ	600	700	550	750
28 mm ϕ	750	1000	650	850
32 mm ϕ	950	1300	850	1100

TABLE 'B'
COMPRESSION BARS
EMBEDMENT LENGTHS AND LAPPED SPLICES IN MILLIMETERS

BAR SIZE (DEFORMED)	f'c = 20.7MPa (3,000 psi)		f'c = 27.6MPa (4,000 psi)	
	EMBEDMENT	LAPPED	EMBEDMENT	LAPPED
10mm ϕ	225	300	200	300
12 mm ϕ	275	300	250	300
16 mm ϕ	350	400	325	400
20 mm ϕ	450	500	475	500
25 mm ϕ	550	625	550	625
28 mm ϕ	625	675	625	675
32 mm ϕ	700	775	700	775

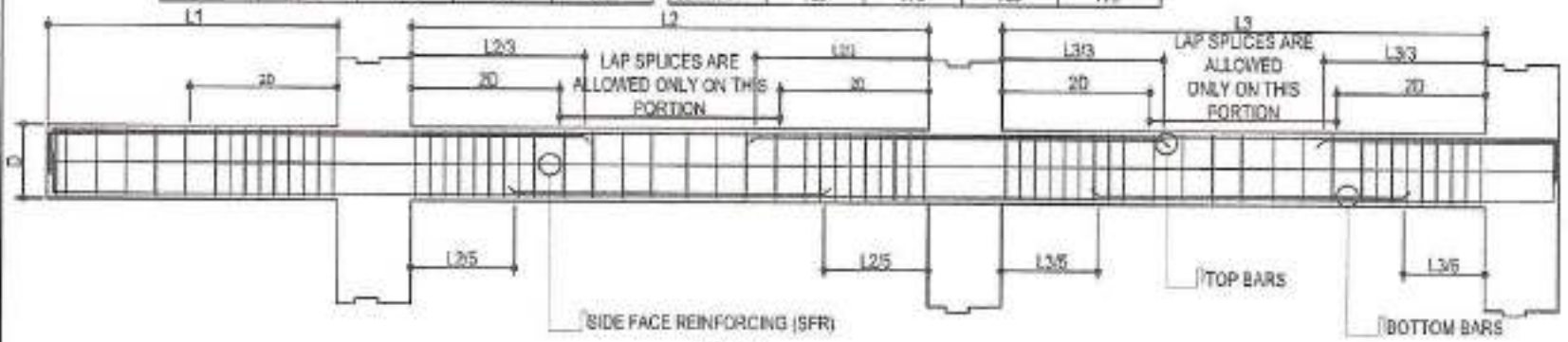


FIG. B-2
TYPICAL BEAM ELEVATION SHOWING DOWELS AND TIES SPACING

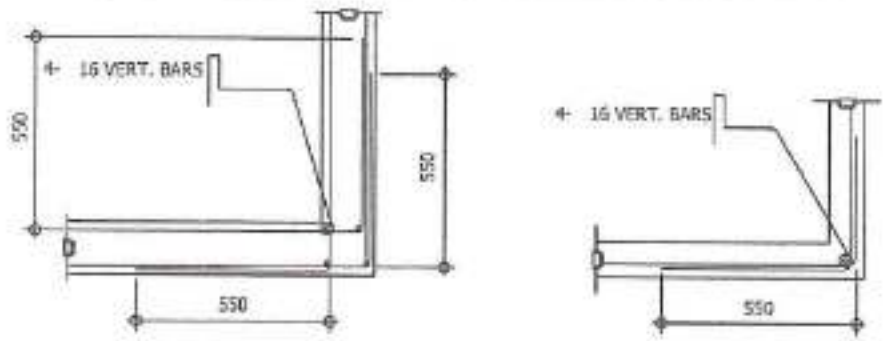
NOTES ON WELDS
1. USE E70xx ELECTRODES FOR ALL MEMBERS WELDED.
2. WELDS SHALL DEVELOP THE FULL STRENGTH OF MEMBERS JOINED UNLESS OTHERWISE SHOWN OR DETAILED IN THE DRAWINGS.

NOTES ON STRUCTURAL STEEL
1. 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.
2. ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A36 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
3. ALL WELDED CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS CONNECTED.
4. UNLESS OTHERWISE SPECIFIED, ALL WELDING RODS SHALL CONFORM AWS E60 ELECTRODES.
5. ALL BOLTS USED UNLESS OTHERWISE SPECIFIED SHALL BE ASTM A 307 BOLTS.

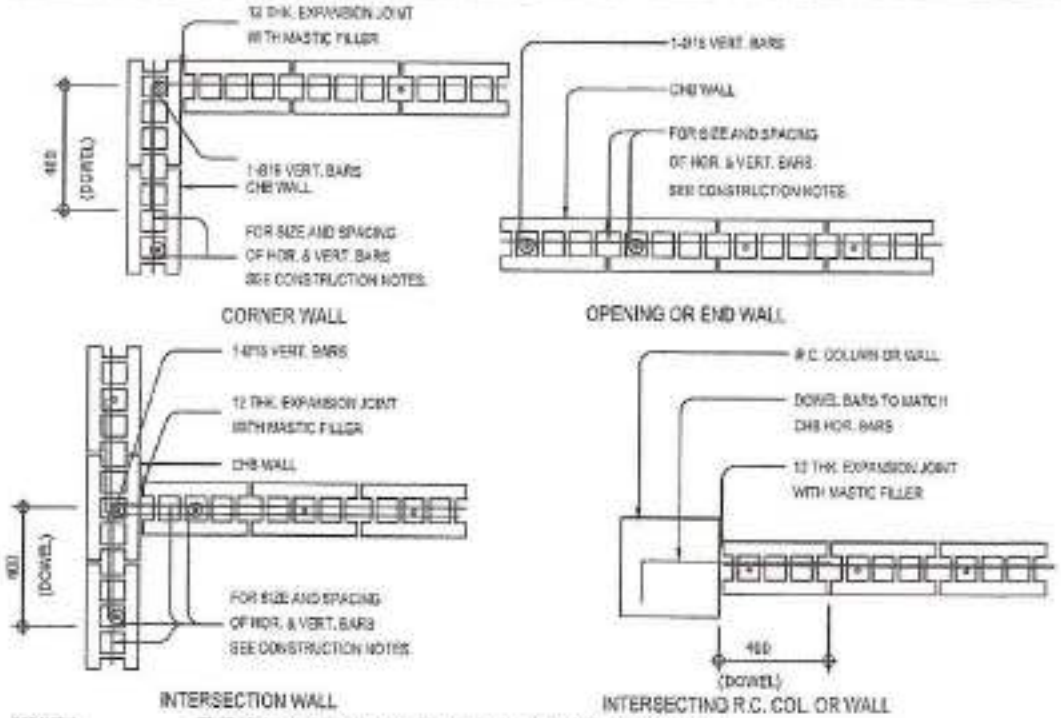
NOTES ON CONCRETE HOLLOW BLOCK WALLS
1. UNLESS OTHERWISE SHOWN IN THE PLANS, ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS ARE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT.
2. PROVIDE 150mm x 300mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 6mmØ TIES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

SCHEDULE OF CONCRETE HOLLOW BLOCK AND CERAMIC BLOCK REINFORCEMENT

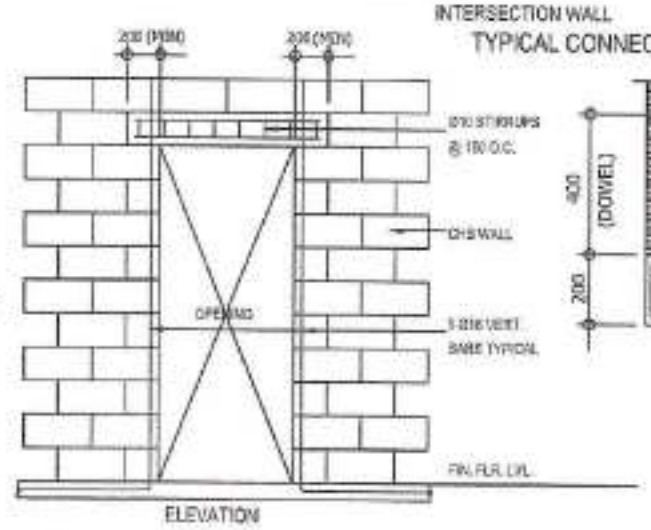
BLOCK THICKNESS	REINFORCEMENT		NOTES
	HORIZONTAL	VERTICAL	
75 mm	10mmØ @ 600mm O.C.	10mmØ @ 600mm O.C.	A. MINIMUM LAPS AT SPLICE = 0.25m B. PROVIDE RIGHT ANGLED REINFORCEMENT AT CORNERS 0.60m LONG C. WHERE CHB OR CERAMIC BLOCK WALL DOWELS JOIN COL. R.C. BEAMS AND WALL DOWELS WITH THE SAME SIZE AS VERTICAL OR HORIZONTAL REINFORCEMENT SHALL BE PROVIDED.
125 mm	10mmØ @ 600mm O.C.	10mmØ @ 600mm O.C.	
150 mm	10mmØ @ 600mm O.C.	10mmØ @ 600mm O.C.	
200 mm	12mmØ @ 600mm O.C.	12mmØ @ 600mm O.C.	



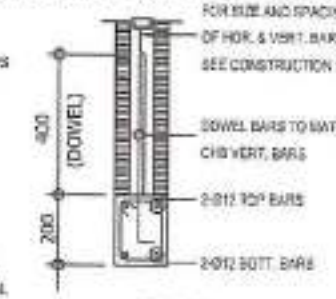
TYPICAL CONNECTION DETAIL OF R.C. WALL AT CORNERS

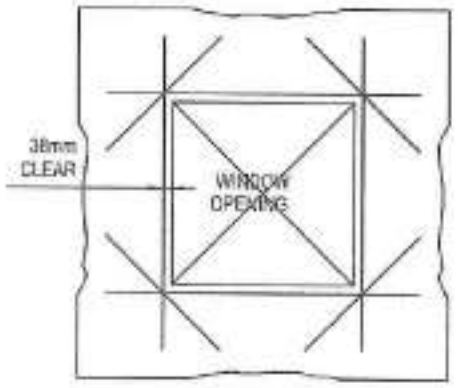


TYPICAL CONNECTION DETAIL OF MASONRY WALL



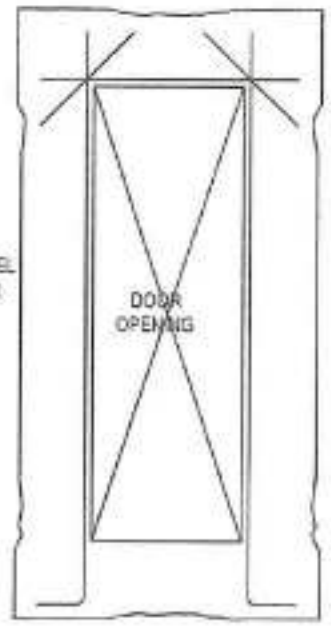
TYP. DET. OF LINTEL BEAM AT CHB WALL OPENING





NOTE:
PROVIDE THESE ADDITIONAL BARS FOR ALL OPENINGS PLUS BARS (NOT SHOWN) PARALLEL TO SIDE OF OPENING EQUAL TO THE NUMBER OF TERMINATED BARS AT OPENING.

SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION.



TYP. EXTERIOR WINDOW & DOOR OPENING

SHERIFF JOHN C. LA MADRID
CIVIL ENGINEER
PRC LIC. No. 0120359 VALID TO: JULY 31, 2025
PTR No. 8208236 ISSUED: JANUARY 3, 2023

HAZELINER R. TIBANGAY
HEAD, PROJECT MANAGEMENT UNIT

PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I)
BSU COMPOUND, KM 6, LA TRINIDAD, BENGUET
PROJECT / LOCATION

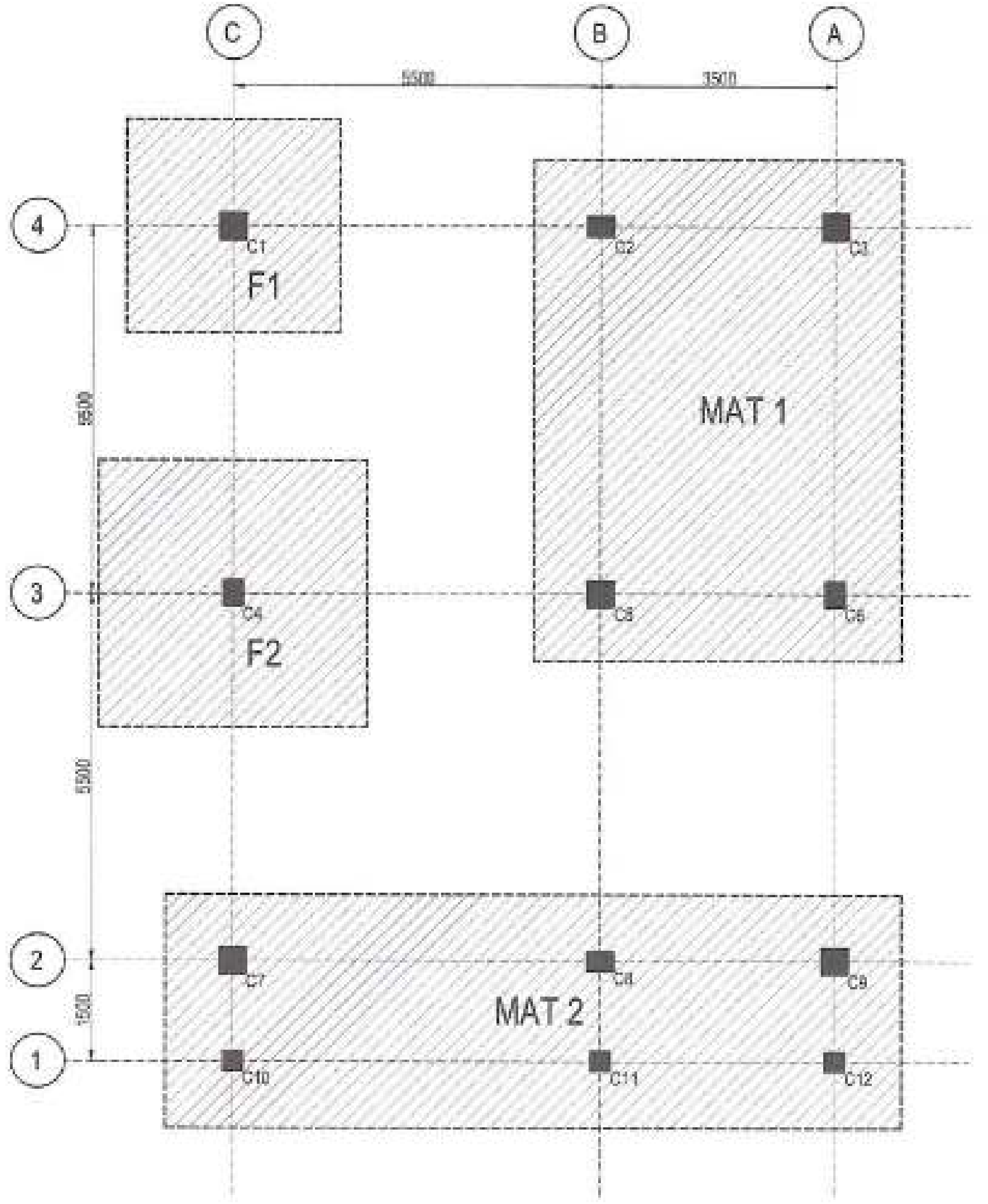
BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ DIRECTOR-OPEN UNIVERSITY

ALLAN CASALDO SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

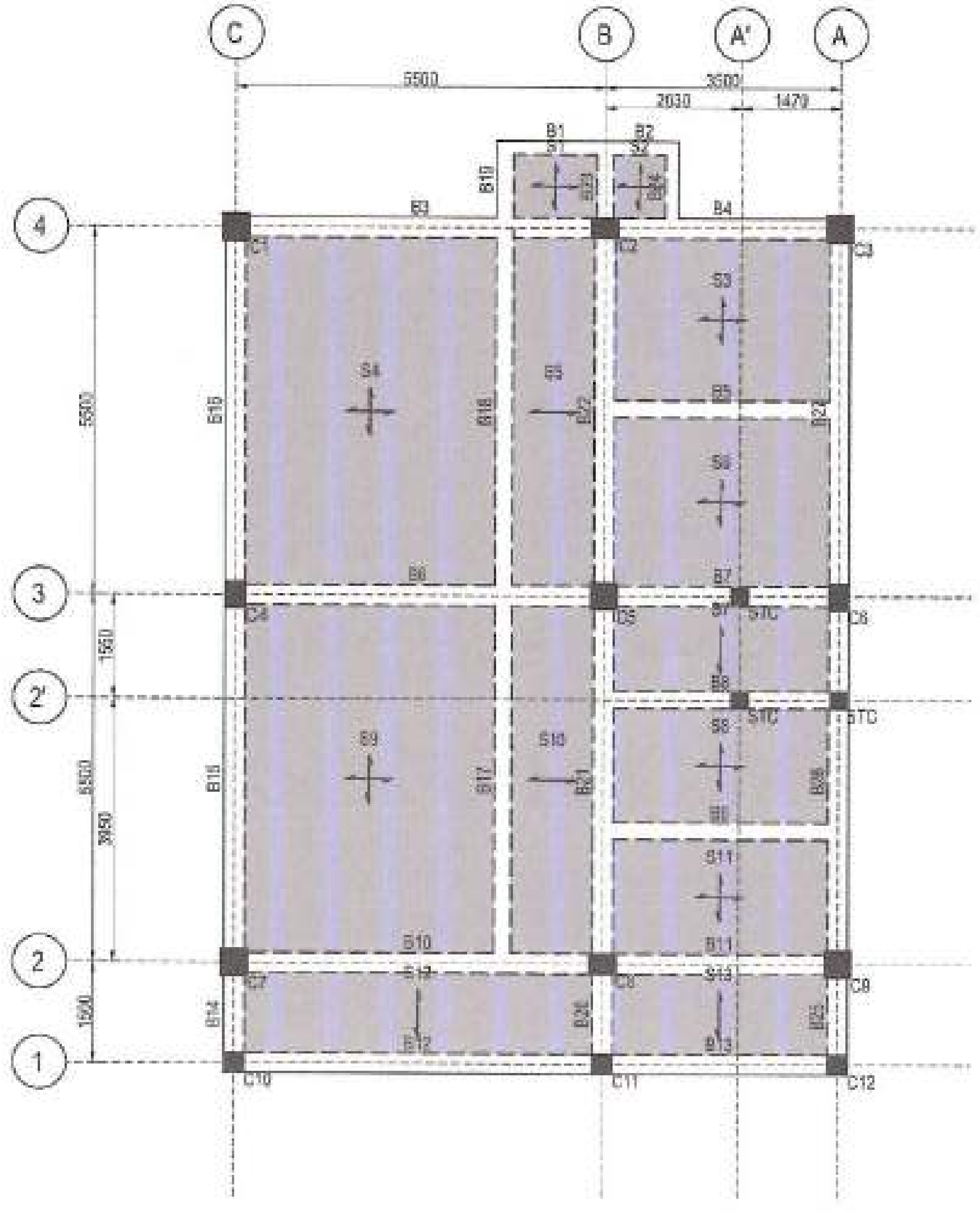
FELIPE SALAING COMILA
PRESIDENT

SHEET NO. S3 03 14



FOUNDATION LAYOUT

S 1 4 SCALE 1:100

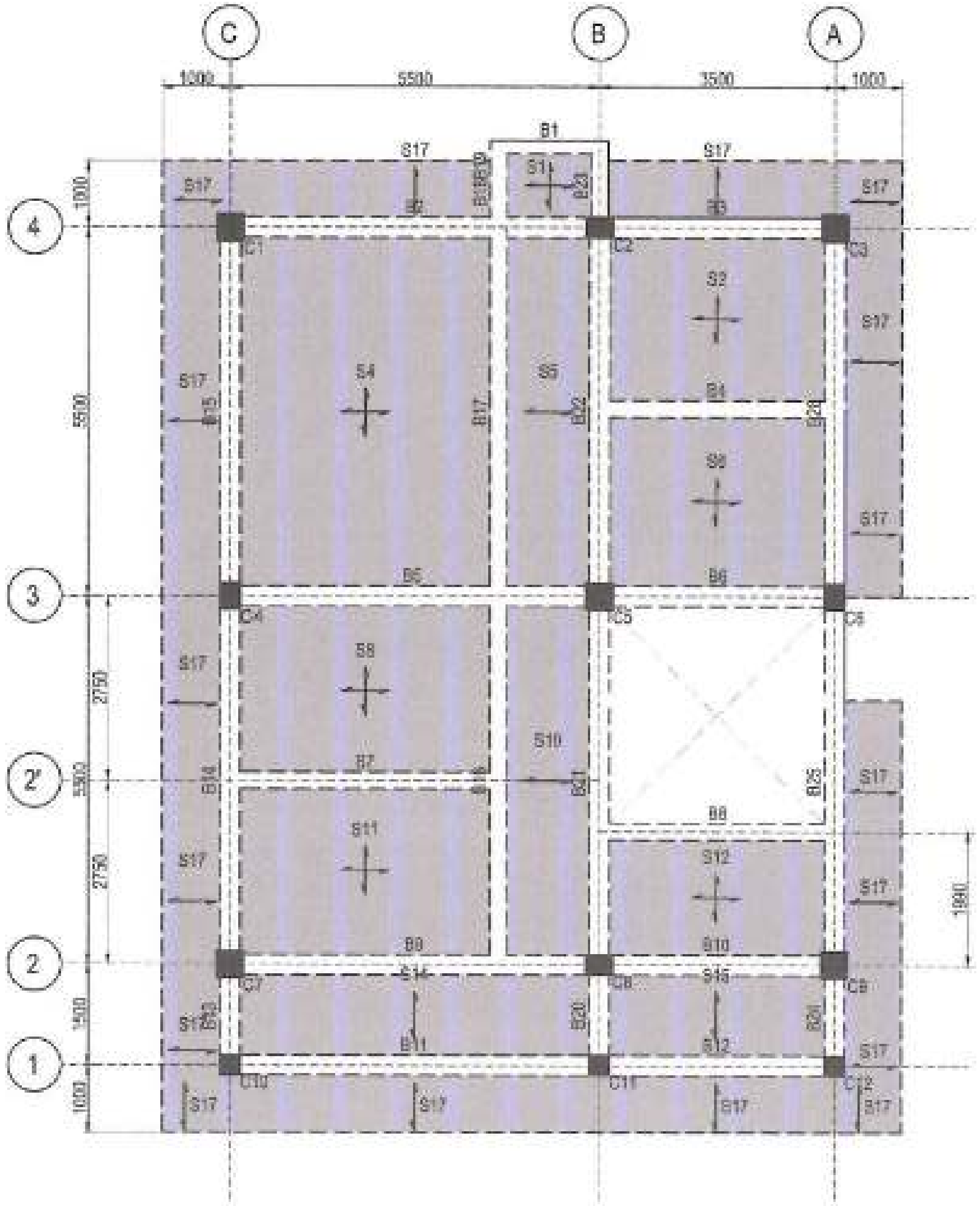


PLAN AT 3 M

FIRST FLOOR FRAMING PLAN

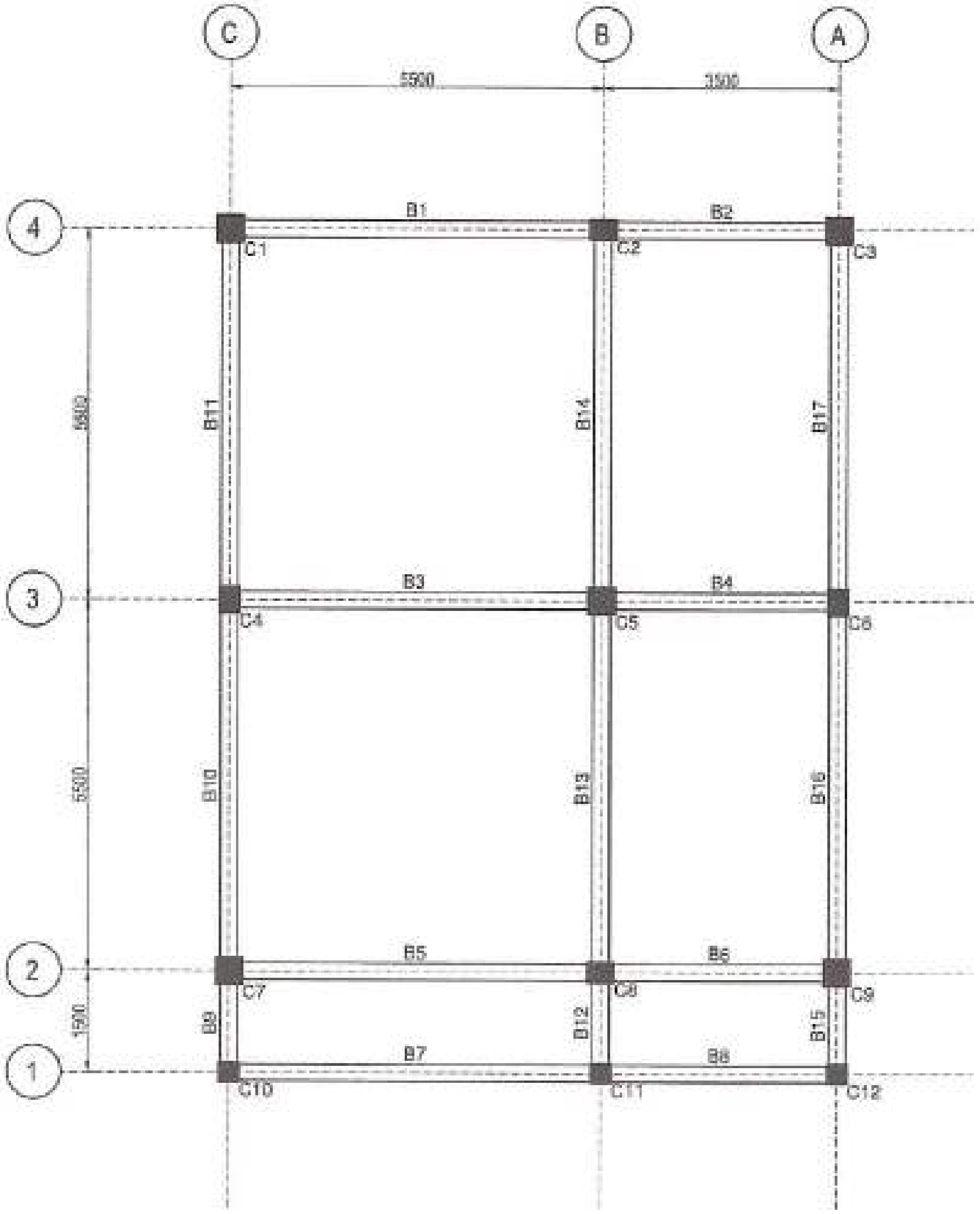
S 2 4 SCALE 1:100

SHERIFF JOHN C. LA MADRID CIVIL ENGINEER PRC LIC No. 0120359 VALIDITY: JULY 17, 2025 PTR No. 5205246 ISSUED: JANUARY 5, 2025	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ DIRECTOR-OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S4 04 14



SECOND FLOOR FRAMING PLAN

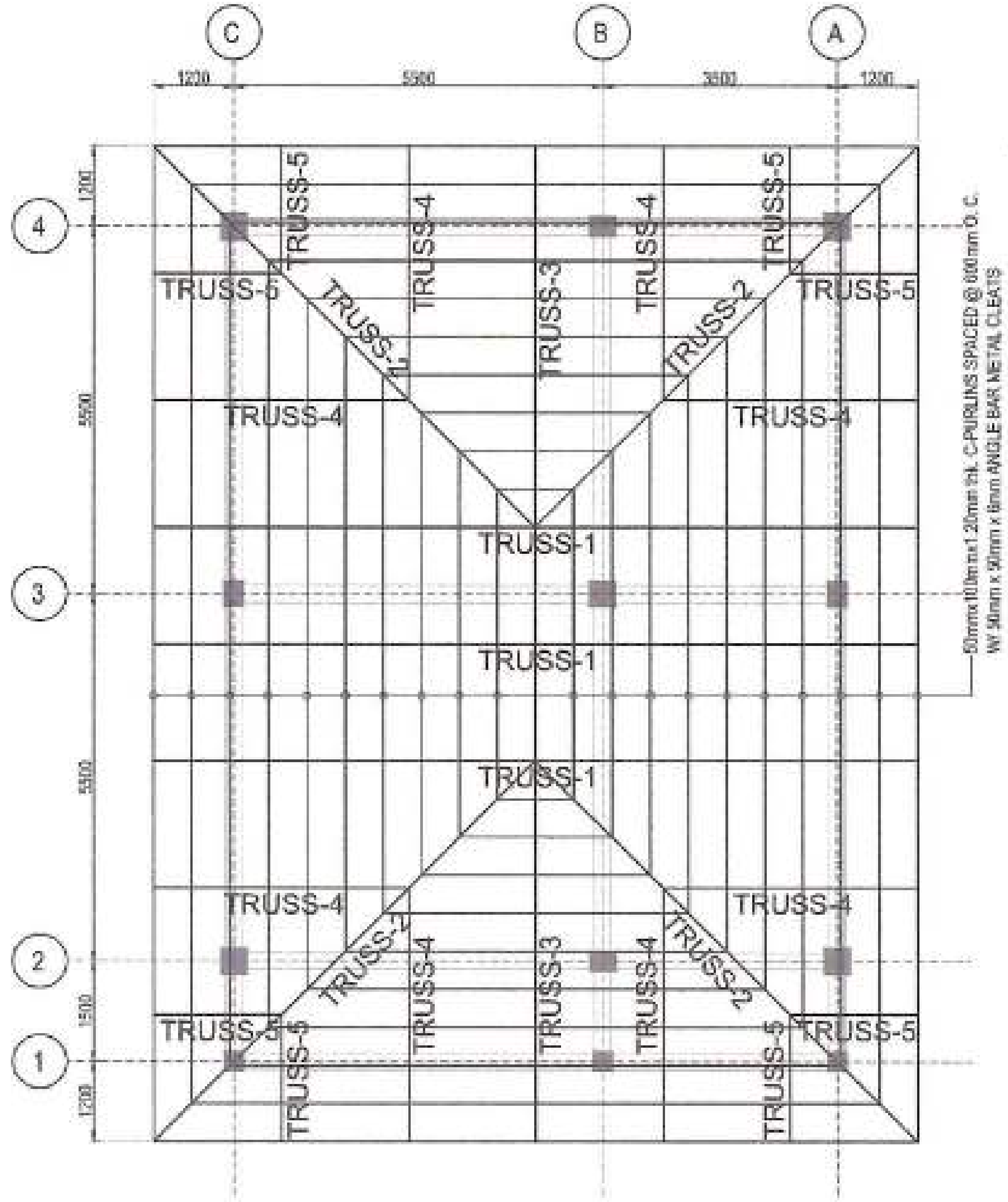
S 1 5 SCALE 1:100

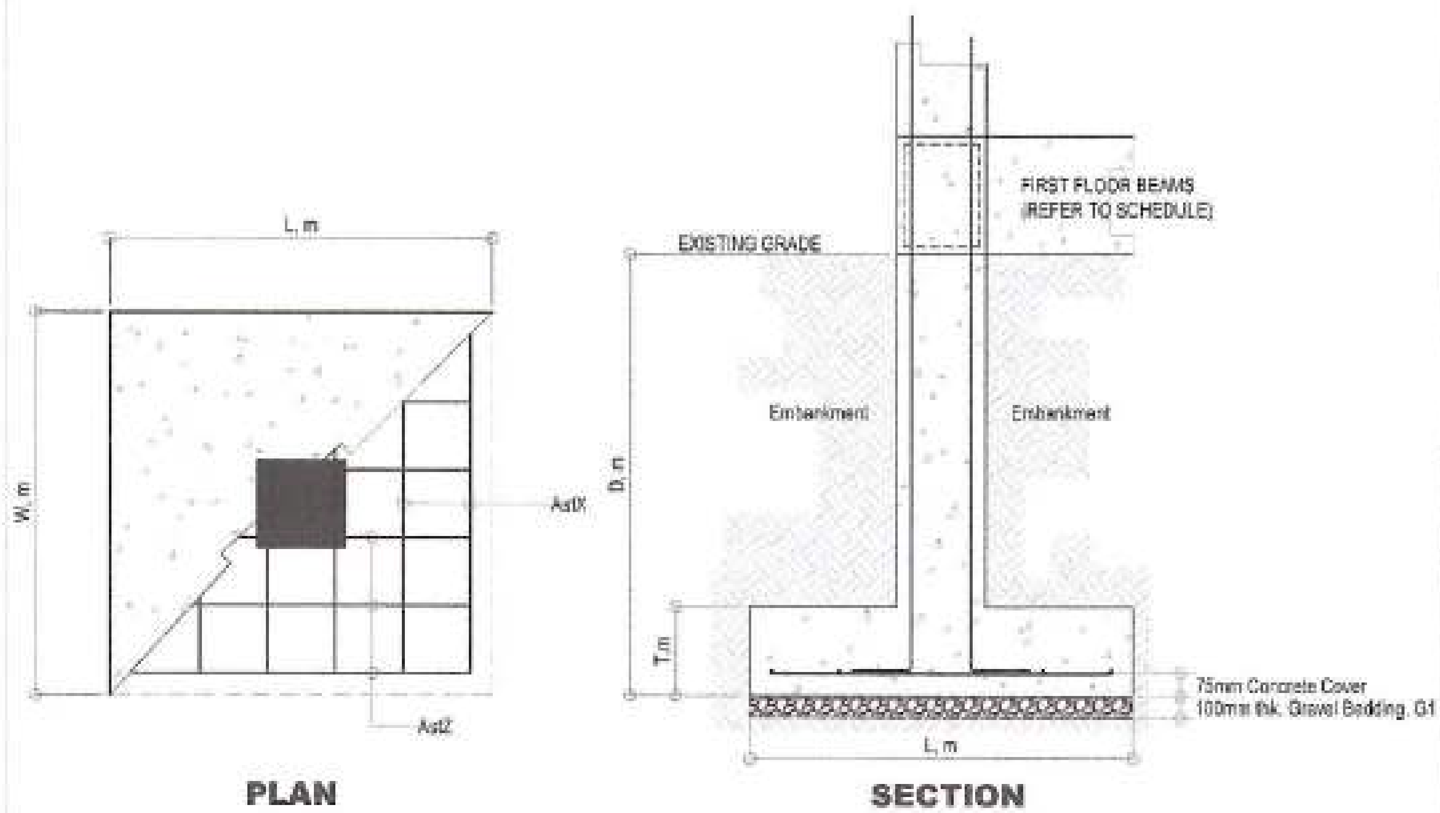


ROOF FRAMING PLAN @ BOTTOM CHORD LEVEL

S 2 5 SCALE 1:100

SHERIFF JOHN C. LA MADRID CIVIL ENGINEER	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER / DIRECTOR-OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT, ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S5 05 | 14





TYPICAL ISOLATED FOOTING DETAILS

MARK	FOOTING DIMENSIONS					REINFORCEMENT			
	L, m	W, m	T, m	D, m	CONCRETE COVER, m	AstX(TOP)	AstZ(TOP)	AstX(BOTTOM)	AstZ(BOTTOM)
F1	3.20	3.20	0.40	3.00	0.075	N/A	N/A	13pcs. - Ø16mm	13pcs. - Ø16mm
F2	4.00	4.00	0.40	3.00	0.075	N/A	N/A	17pcs. - Ø16mm	17pcs. - Ø16mm

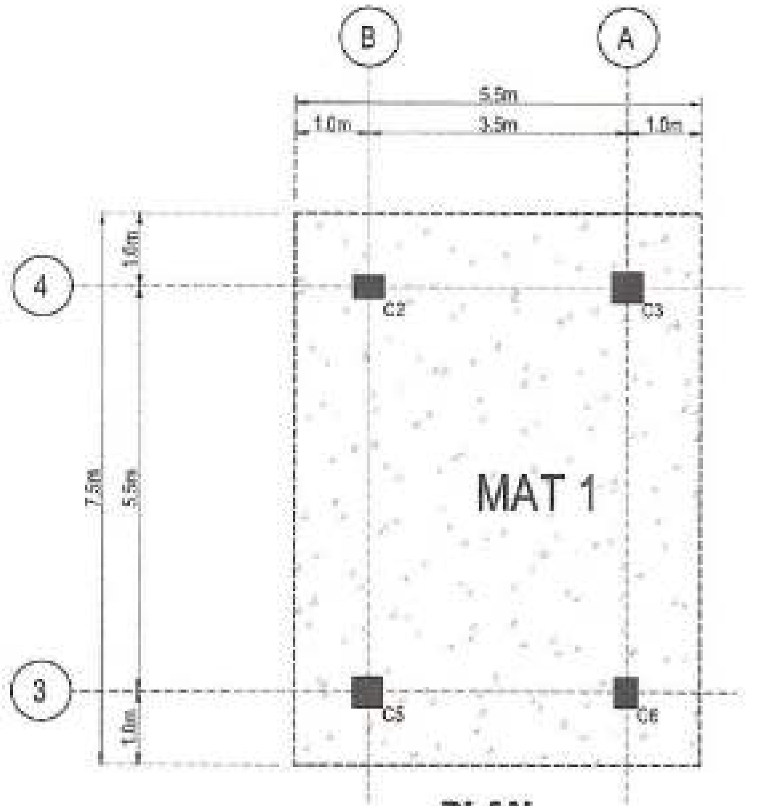
MATERIAL SPECIFICATION:
CONCRETE ---------- F'c = 3,500 PSI (27.58 MPA) @ 28 DAYS
REINFORCING STEEL BAR ---------- Fy = 40,000 PSI (275.8 MPA) GRADE 40 DEFORMED

ISOLATED FOOTING SCHEDULE

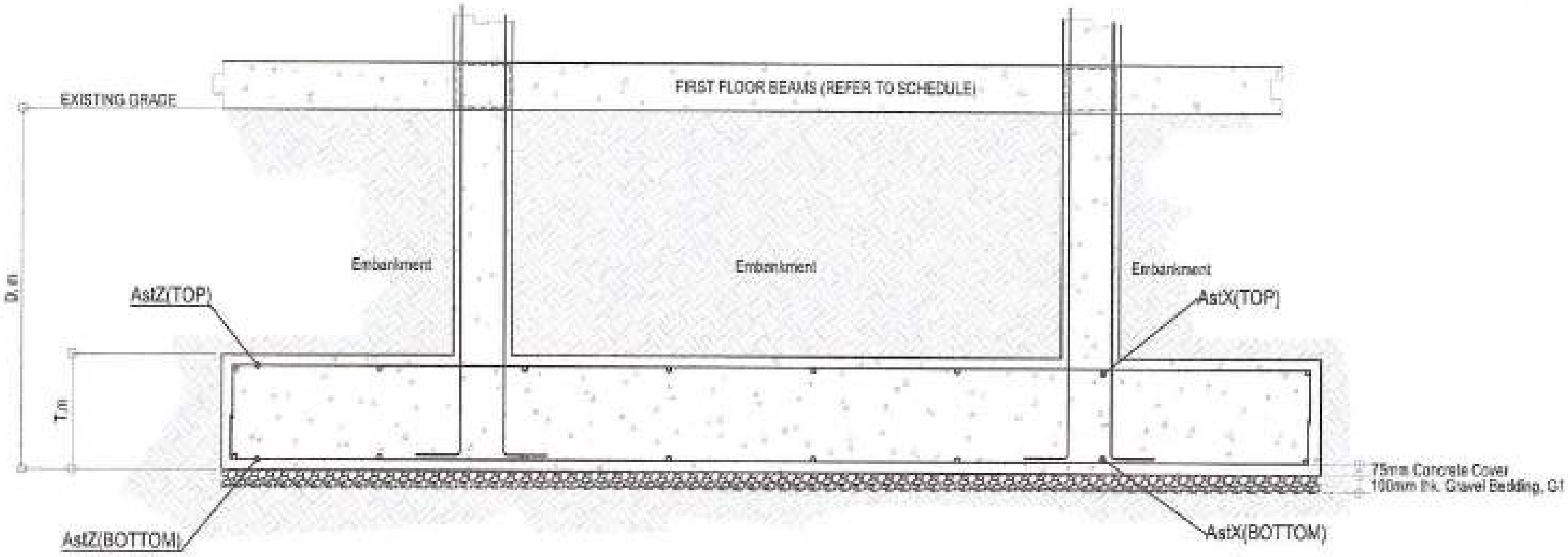
S 1 6 — **ROOF FRAMING PLAN @ TOP CHORD LEVEL** — SCALE 1:100

S 2 6 — **SCHEDULE OF ISOLATED FOOTINGS** — SCALE 1:100

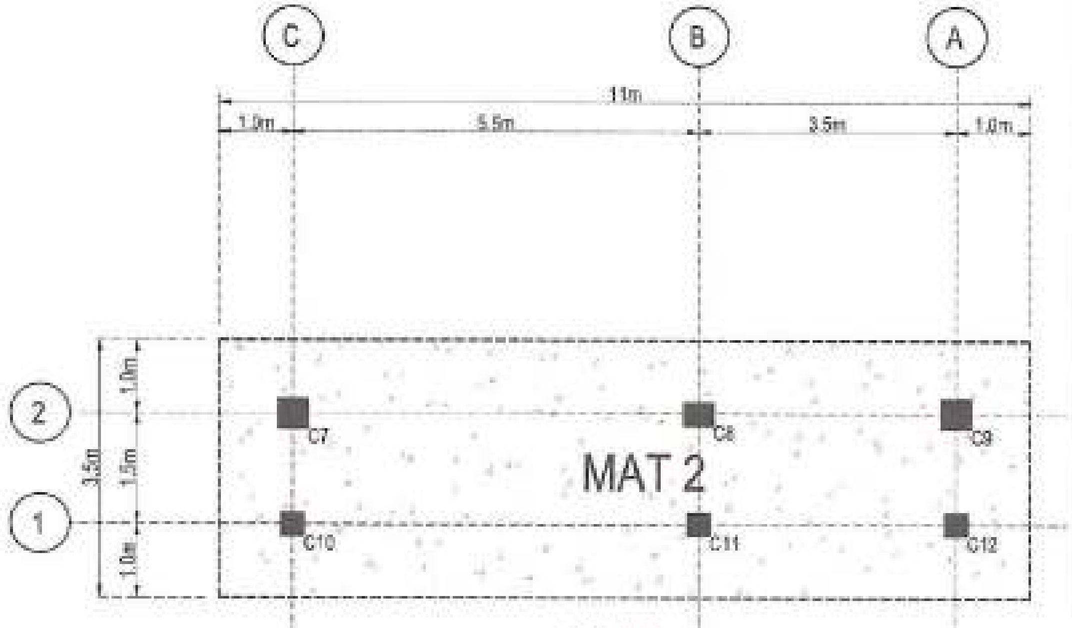
SHERIFF JOHN C. LA MADRID CIVIL ENGINEER	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ DIRECTOR OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S6 06 / 14



PLAN



TYPICAL SECTION



PLAN

Mark	FOUNDATION					REINFORCEMENT			
	L (m)	W (m)	T (m)	D (m)	Cover (m)	AstX(T)	AstZ(T)	AstX(B)	AstZ(B)
MAT 1	REFER TO PLAN	REFER TO PLAN	0.40	3.00	0.075	Ø16 @ 200 mm Equally Spaced Center-to-Center	Ø16 @ 200 mm Equally Spaced Center-to-Center	Ø16 @ 200 mm Equally Spaced Center-to-Center	Ø16 @ 200 mm Equally Spaced Center-to-Center
MAT 2	REFER TO PLAN	REFER TO PLAN	0.40	3.00	0.075	Ø16 @ 200 mm Equally Spaced Center-to-Center	Ø16 @ 200 mm Equally Spaced Center-to-Center	Ø16 @ 200 mm Equally Spaced Center-to-Center	Ø16 @ 200 mm Equally Spaced Center-to-Center

MATERIAL SPECIFICATION:
CONCRETE ---------------------- F'c = 3,500 PSI (27.58 MPA) @ 28 DAYS
REINFORCING STEEL BAR -------- Fy = 40,000 PSI (275.8 MPA) GRADE 40 DEFORMED

SCHEDULE OF MAT FOUNDATIONS

S 1 7

SCALE 1:100

SHERIFF JOHN C. LA MADRID
CIVIL ENGINEER

HAZELINE N. TIBANGAY
HEAD, PROJECT MANAGEMENT UNIT

PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I)
BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET
PROJECT / LOCATION

BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ DIRECTOR-OPEN UNIVERSITY

ALLAN CASALDO SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

FELIPE SALAING COMILA
PRESIDENT

SHEET NO.
S7
07 | 14

COLUMN MARKED	C1, C3, C7, C9	C2, C4, C6, C8	C5	C10, C11, C12	STC
6 M TO 9 M	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 100 Z1 OTHERS: Ø10 @ 100 Z2 LINKS: Ø10 @ 150 400 x 400, Φ Ø20 12 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 75 Z1 OTHERS: Ø10 @ 75 Z2 LINKS: Ø10 @ 150 300 x 400, Φ Ø20 10 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 100 Z1 OTHERS: Ø10 @ 100 Z2 LINKS: Ø10 @ 150 400 x 400, Φ Ø20 12 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 75 Z1 OTHERS: Ø10 @ 75 Z2 LINKS: Ø10 @ 150 350 x 350, ⊗ Ø16 8 - Ø16	
3 M TO 6 M	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 100 Z1 OTHERS: Ø10 @ 100 Z2 LINKS: Ø10 @ 150 400 x 400, Φ Ø20 12 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 75 Z1 OTHERS: Ø10 @ 75 Z2 LINKS: Ø10 @ 150 300 x 400, Φ Ø20 10 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 100 Z1 OTHERS: Ø10 @ 100 Z2 LINKS: Ø10 @ 150 450 x 450, Φ Ø20 12 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 75 Z1 OTHERS: Ø10 @ 75 Z2 LINKS: Ø10 @ 150 350 x 350, ⊗ Ø16 8 - Ø16	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 75 Z1 OTHERS: Ø10 @ 75 Z2 LINKS: Ø10 @ 150 300 x 300, ⊗ Ø16, ○ Ø12 4 - Ø16 + 4 - Ø12
0 M TO 3 M	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 100 Z1 OTHERS: Ø10 @ 100 Z2 LINKS: Ø10 @ 150 400 x 400, Φ Ø20 12 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 75 Z1 OTHERS: Ø10 @ 75 Z2 LINKS: Ø10 @ 150 300 x 400, Φ Ø20 10 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 100 Z1 OTHERS: Ø10 @ 100 Z2 LINKS: Ø10 @ 150 450 x 450, Φ Ø20 12 - Ø20	C27.58 : Fy414 , COVER = 40mm CONFINING ZONE = 450 MM Z1 MAIN LINK: Ø10 @ 75 Z1 OTHERS: Ø10 @ 75 Z2 LINKS: Ø10 @ 150 350 x 350, ⊗ Ø16 8 - Ø16	

NOTES:
1. BE = BOUNDARY ELEMENT AS PER NSCP C101 - 2015, PROVIDE CONFINING REINFORCEMENT ACROSS ENTIRE HEIGHT OF WALL IN THE BOUNDARY ELEMENT
2. Z1 = SPECIAL CONFINING ZONE AS PER NSCP C101 - 2015, Z2 = REMAINING ZONES AS PER NSCP C101 - 2015

S 1 8 COLUMN SCHEDULE

SCALE 1:100

SHERIFF JOHN C. LA MADRID
CIVIL ENGINEER

HAZELINE N. TIBANGAY
HEAD, PROJECT MANAGEMENT UNIT

PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I)
BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET
PROJECT / LOCATION

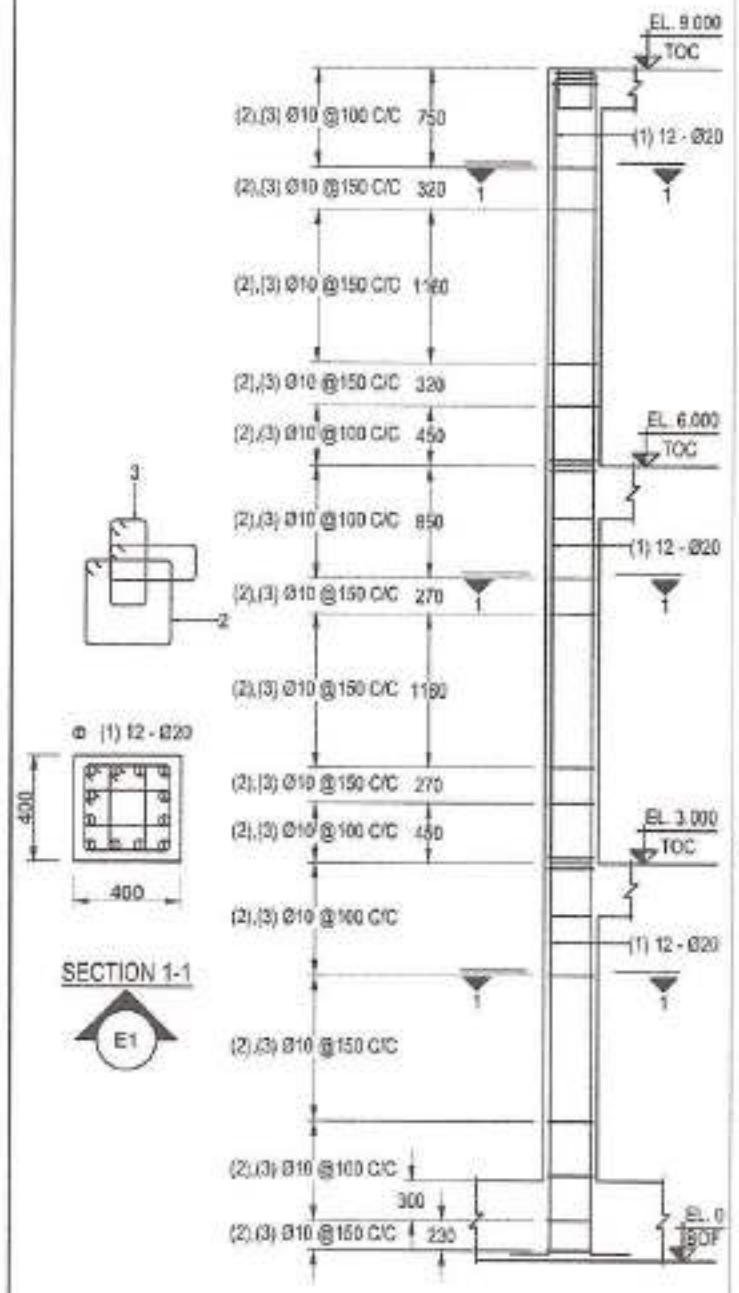
BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ DIRECTOR-OPEN UNIVERSITY

ALLAN CASALDO SACPA
VICE PRESIDENT, ADMINISTRATION AND FINANCE

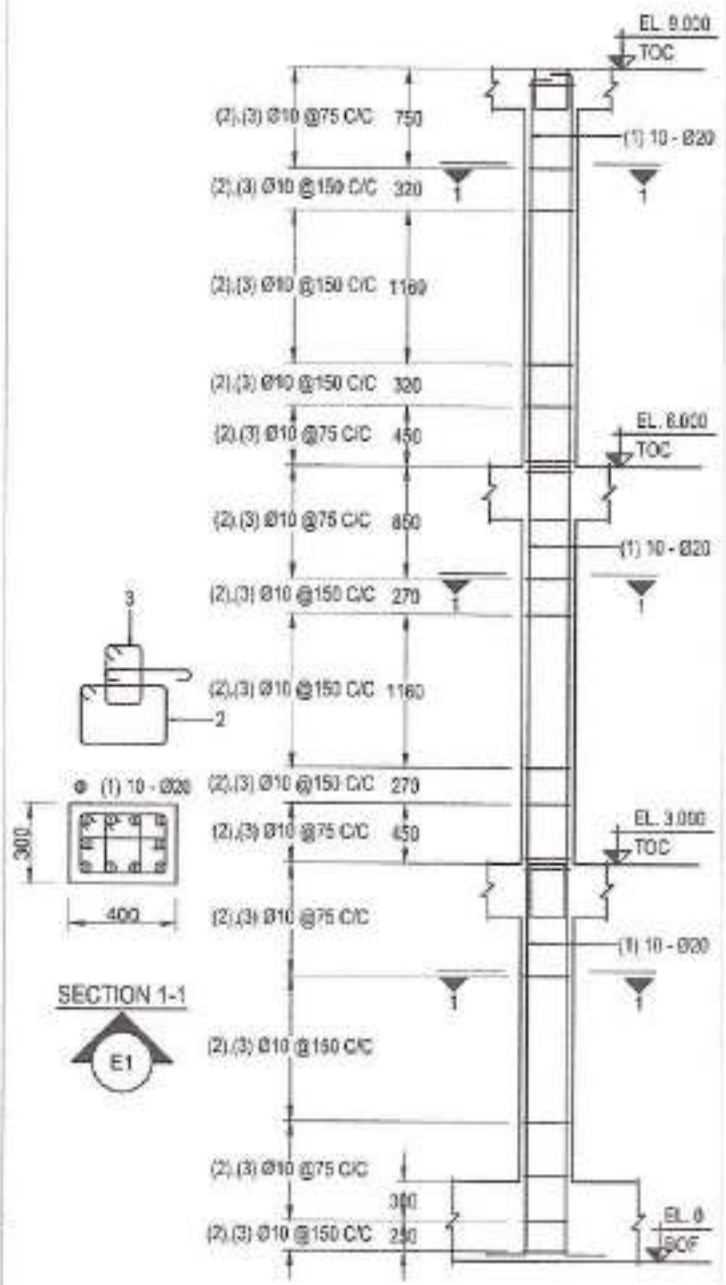
FELIPE SALAING COMILA
PRESIDENT

SHEET NO. S8 08 | 14



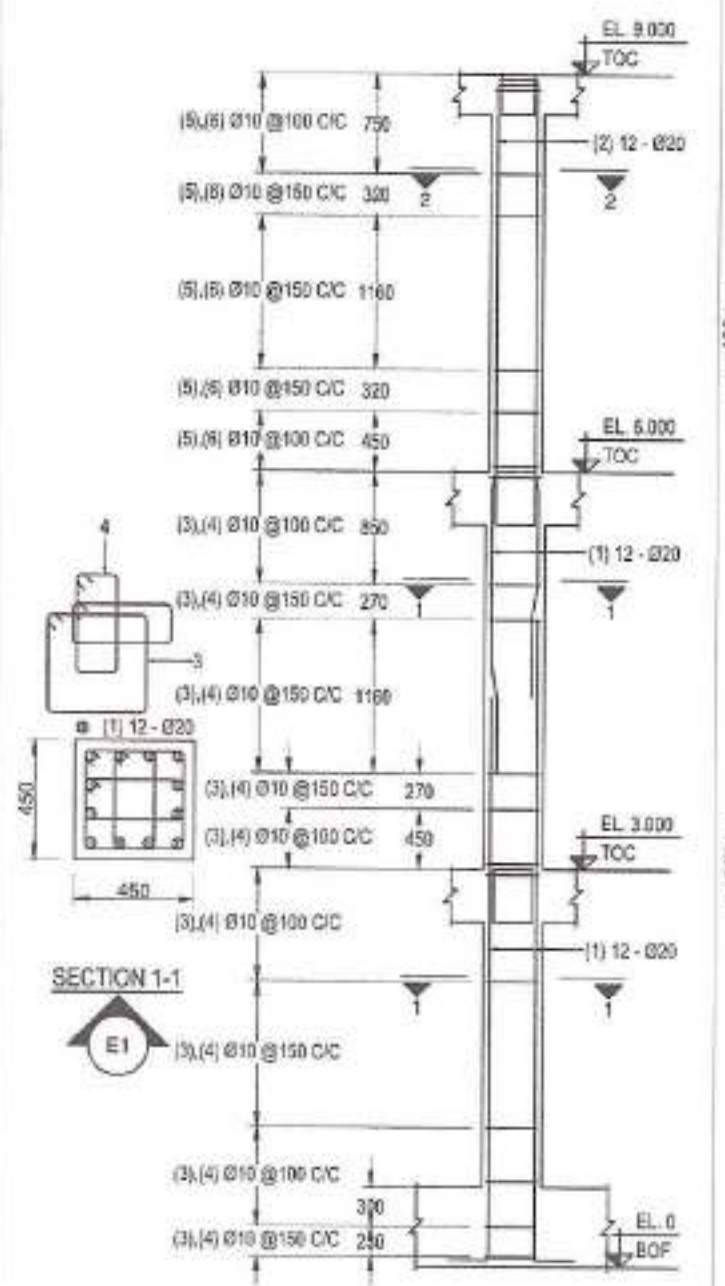
S 1 9 DETAILS OF COLUMN C1,C3,C7,C9

SCALE AS SHOWN



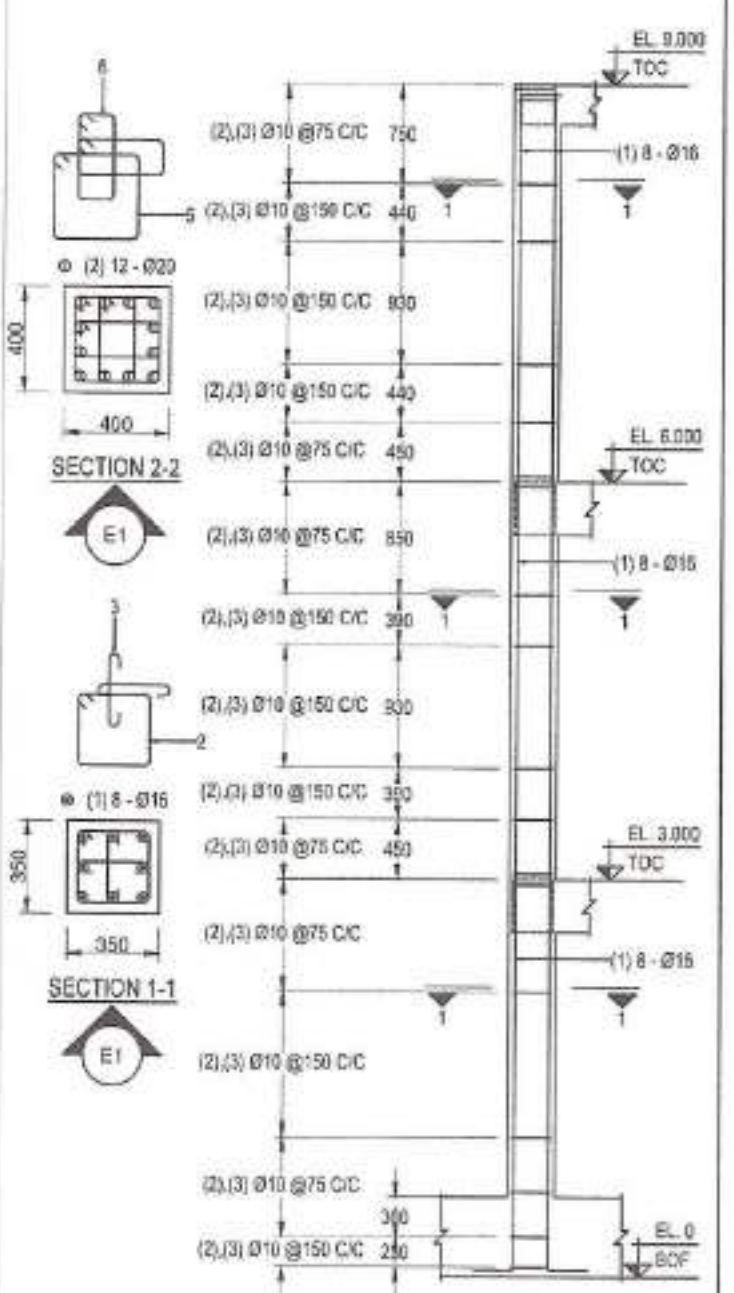
S 2 9 DETAILS OF COLUMN C2, C8

SCALE AS SHOWN



S 3 9 DETAILS OF COLUMN C4, C5, C6

SCALE AS SHOWN



S 4 9 DETAILS OF COLUMN C10, C12

SCALE AS SHOWN

S 5 9 COLUMN DETAILS

SCALE AS SHOWN

SHERIFF JOHN C. LA MADRID CIVIL ENGINEER PRC LIC. No.: 0[illegible] VALIDITY: JULY 17, 2025 PTR No.: 6[illegible] ISSUED: JANUARY 5, 2025	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, IGAS, LA TRINIDAD, BENGUET PROJECT / LOCATION		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ DIRECTOR-OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S9 09 | 14

BEAM SCHEDULE (C24:Fy276) (LEVEL: 3 m *FIRST FLOOR)

BEAM NUMBERS	SIZE		BOTTOM REINFORCEMENT			TOP REINFORCEMENT			SHEAR STIRRUPS			SIDE FACE RSB (SFR)	DIAGONAL	REMARKS
	B	D	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT			
B1	200	400	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	6 - 2L-Ø10@100 C/C	4 - 2L-Ø10@100 C/C	6 - 2L-Ø10@100 C/C	2 - Ø12EF	-	-
B2	200	400	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	4 - 2L-Ø10@100 C/C	2 - 2L-Ø10@100 C/C	4 - 2L-Ø10@100 C/C	2 - Ø12EF	-	-
B3	300	400	4 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	12 - 2L-Ø10@75 C/C	34 - 2L-Ø10@100 C/C	12 - 2L-Ø10@75 C/C	2 - Ø12EF	-	-
B4	300	400	4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	12 - 4L-Ø10@75 C/C	11 - 4L-Ø10@125 C/C	12 - 4L-Ø10@75 C/C	-	-	-
B5,B8,B9	250	300	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	10 - 2L-Ø10@125 C/C	8 - 2L-Ø10@125 C/C	10 - 2L-Ø10@125 C/C	-	-	-
B6	300	400	4 - Ø16	4 - Ø16	4 - Ø16	3 - Ø20 + 2 - Ø20	2 - Ø20	3 - Ø20 + 3 - Ø20	15 - 2L-Ø10@125 C/C	13 - 2L-Ø10@125 C/C	15 - 2L-Ø10@125 C/C	-	-	-
B7	300	400	4 - Ø16	4 - Ø16	4 - Ø16	3 - Ø20 + 3 - Ø20	2 - Ø20	3 - Ø20	10 - 2L-Ø10@125 C/C	8 - 2L-Ø10@125 C/C	10 - 2L-Ø10@125 C/C	-	-	-
B10	300	400	4 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16 + 4 - Ø16	4 - Ø16	4 - Ø16 + 4 - Ø16	12 - 4L-Ø10@75 C/C	27 - 4L-Ø10@125 C/C	12 - 4L-Ø10@75 C/C	2 - Ø12EF	-	-
B11	300	400	4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16 + 4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	12 - 4L-Ø10@75 C/C	11 - 4L-Ø10@125 C/C	12 - 4L-Ø10@75 C/C	2 - Ø12EF	-	-
B12	350	400	4 - Ø16	4 - Ø16	4 - Ø16	5 - Ø16	3 - Ø16	5 - Ø16	13 - 2L-Ø10@150 C/C	11 - 2L-Ø10@150 C/C	13 - 2L-Ø10@150 C/C	-	-	-
B13	350	400	4 - Ø16	4 - Ø16	4 - Ø16	5 - Ø16	3 - Ø16	5 - Ø16	8 - 2L-Ø10@150 C/C	7 - 2L-Ø10@150 C/C	9 - 2L-Ø10@150 C/C	-	-	-
B14	350	400	5 - Ø16 + 2 - Ø16	5 - Ø16	5 - Ø16 + 3 - Ø16	5 - Ø16 + 2 - Ø16	5 - Ø16	5 - Ø16 + 2 - Ø16	4 - 2L-Ø10@150 C/C	2 - 2L-Ø10@150 C/C	4 - 2L-Ø10@150 C/C	2 - Ø12EF	-	-
B15	300	400	4 - Ø16	4 - Ø16	4 - Ø16	5 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	12 - 2L-Ø10@75 C/C	27 - 2L-Ø10@125 C/C	12 - 2L-Ø10@75 C/C	2 - Ø12EF	-	-
B16	300	400	4 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	12 - 2L-Ø10@75 C/C	27 - 2L-Ø10@125 C/C	12 - 2L-Ø10@75 C/C	2 - Ø12EF	-	-
B17	250	400	3 - Ø16	3 - Ø16 + 2 - Ø16	3 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	15 - 2L-Ø10@125 C/C	13 - 2L-Ø10@125 C/C	15 - 2L-Ø10@125 C/C	-	-	-
B18	250	400	3 - Ø16	3 - Ø16 + 3 - Ø16	3 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	15 - 2L-Ø10@125 C/C	13 - 2L-Ø10@125 C/C	15 - 2L-Ø10@125 C/C	2 - Ø12EF	-	-
B19	250	400	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	4 - 2L-Ø10@125 C/C	2 - 2L-Ø10@125 C/C	4 - 2L-Ø10@125 C/C	2 - Ø12EF	-	CANTILEVERED
B20	300	400	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	5 - 2L-Ø10@125 C/C	3 - 2L-Ø10@125 C/C	5 - 2L-Ø10@125 C/C	2 - Ø12EF	-	-
B21	300	400	4 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 4 - Ø16	15 - 2L-Ø12@125 C/C	13 - 2L-Ø12@125 C/C	15 - 2L-Ø12@125 C/C	3 - Ø12EF	-	-
B22	300	400	4 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16 + 4 - Ø16	4 - Ø16	4 - Ø16 + 4 - Ø16	15 - 2L-Ø10@125 C/C	13 - 2L-Ø10@125 C/C	15 - 2L-Ø10@125 C/C	2 - Ø12EF	-	-
B23	250	400	2 - Ø16	2 - Ø16	2 - Ø16	3 - Ø16	3 - Ø16	3 - Ø16	4 - 2L-Ø12@125 C/C	2 - 2L-Ø12@125 C/C	4 - 2L-Ø12@125 C/C	3 - Ø12EF	-	CANTILEVERED
B24	200	400	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	5 - 2L-Ø10@100 C/C	3 - 2L-Ø10@100 C/C	5 - 2L-Ø10@100 C/C	2 - Ø12EF	-	CANTILEVERED
B25	300	400	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 4 - Ø16	5 - 2L-Ø10@125 C/C	3 - 2L-Ø10@125 C/C	5 - 2L-Ø10@125 C/C	2 - Ø12EF	-	-
B26	300	400	4 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16 + 4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	12 - 4L-Ø12@75 C/C	34 - 4L-Ø12@100 C/C	12 - 4L-Ø12@75 C/C	3 - Ø12EF	-	-
B27	300	400	4 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	4 - Ø16	4 - Ø16 + 2 - Ø16	12 - 4L-Ø10@75 C/C	27 - 4L-Ø10@125 C/C	12 - 4L-Ø10@75 C/C	2 - Ø12EF	-	-

SHERIFF JOHN C. LA MADRID CIVIL ENGINEER PRC LIC No. 0120359 VALIDITY: JULY 27, 2025 PTR No. 0000016 ISSUED: JANUARY 5, 2023	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ DIRECTOR-OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S10 10 | 14

BEAM SCHEDULE (C28:Fy276) (LEVEL: 6 m *SECOND FLOOR)

BEAM NUMBERS	SIZE		BOTTOM REINFORCEMENT			TOP REINFORCEMENT			SHEAR STIRRUPS			SIDE FACE RSB (SFR)	DIAGONAL	REMARKS
	B	D	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT			
B1	200	400	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	+ 2 - Ø16 2 - Ø16	+ 2 - Ø16 2 - Ø16	6 - 2L-Ø10@100 C/C	4 - 2L-Ø10@100 C/C	6 - 2L-Ø10@100 C/C	2 - Ø12EF	-	-
B2,B5	350	400	+ 5 - Ø16 2 - Ø16	+ 5 - Ø16 2 - Ø16	+ 5 - Ø16 2 - Ø16	+ 4 - Ø20 4 - Ø20	4 - Ø20	+ 4 - Ø20 4 - Ø20	12 - 4L-Ø10@75 C/C	34 - 4L-Ø10@100 C/C	12 - 4L-Ø10@75 C/C	-	-	-
B3	300	400	4 - Ø16	4 - Ø16	4 - Ø16	+ 4 - Ø20 4 - Ø20	+ 3 - Ø16 2 - Ø16	+ 3 - Ø16 2 - Ø16	12 - 2L-Ø12@75 C/C	11 - 2L-Ø12@125 C/C	12 - 2L-Ø12@75 C/C	2 - Ø12EF	-	-
B4,B7,B8	300	300	3 - Ø16	3 - Ø16	3 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16	10 - 2L-Ø10@125 C/C	8 - 2L-Ø10@125 C/C	10 - 2L-Ø10@125 C/C	-	-	-
B9	350	400	5 - Ø16	5 - Ø16	5 - Ø16	+ 5 - Ø16 2 - Ø16	3 - Ø16	+ 5 - Ø16 4 - Ø16	12 - 2L-Ø12@75 C/C	34 - 2L-Ø12@100 C/C	12 - 2L-Ø12@75 C/C	-	-	-
B6, B10	350	400	5 - Ø16	3 - Ø16	3 - Ø16	+ 5 - Ø16 4 - Ø16	3 - Ø16	5 - Ø16	12 - 2L-Ø10@75 C/C	14 - 2L-Ø10@100 C/C	12 - 2L-Ø10@75 C/C	2 - Ø12EF	-	-
B11	350	400	3 - Ø16	3 - Ø16	3 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16	13 - 2L-Ø10@150 C/C	11 - 2L-Ø10@150 C/C	13 - 2L-Ø10@150 C/C	-	-	-
B12	350	400	3 - Ø16	3 - Ø16	3 - Ø16	4 - Ø16	4 - Ø16	4 - Ø16	9 - 2L-Ø10@150 C/C	7 - 2L-Ø10@150 C/C	9 - 2L-Ø10@150 C/C	-	-	-
B13,B20	350	400	3 - Ø16	3 - Ø16	3 - Ø16	4 - Ø20	4 - Ø20	+ 4 - Ø20 4 - Ø16	4 - 2L-Ø10@150 C/C	2 - 2L-Ø10@150 C/C	4 - 2L-Ø10@150 C/C	-	-	-
B14,B21	350	400	+ 5 - Ø16 2 - Ø16	+ 5 - Ø16 2 - Ø16	+ 5 - Ø16 2 - Ø16	+ 4 - Ø20 4 - Ø16	4 - Ø20	+ 4 - Ø20 4 - Ø16	12 - 4L-Ø10@75 C/C	27 - 4L-Ø10@125 C/C	12 - 4L-Ø10@75 C/C	4 - Ø12EF	-	-
B15,B22	350	400	+ 5 - Ø16 2 - Ø16	5 - Ø16	5 - Ø16	+ 4 - Ø20 4 - Ø16	4 - Ø20	+ 4 - Ø20 2 - Ø16	12 - 2L-Ø10@75 C/C	46 - 2L-Ø10@75 C/C	12 - 2L-Ø10@75 C/C	2 - Ø12EF	-	-
B16,B17	300	400	+ 3 - Ø20 2 - Ø20	+ 3 - Ø20 3 - Ø20	+ 3 - Ø20 2 - Ø20	3 - Ø16	3 - Ø16	3 - Ø16	15 - 2L-Ø10@125 C/C	13 - 2L-Ø10@125 C/C	15 - 2L-Ø10@125 C/C	2 - Ø12EF	-	-
B18	250	400	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	4 - 2L-Ø10@125 C/C	2 - 2L-Ø10@125 C/C	4 - 2L-Ø10@125 C/C	2 - Ø12EF	-	CANTILEVERED
B19	250	400	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - Ø16	2 - 2L-Ø10@125 C/C	2 - 2L-Ø10@125 C/C	2 - 2L-Ø10@125 C/C	2 - Ø12EF	-	CANTILEVERED
B24	300	400	4 - Ø16	4 - Ø16	4 - Ø16	3 - Ø20	2 - Ø20	+ 3 - Ø20 3 - Ø20	5 - 2L-Ø10@125 C/C	3 - 2L-Ø10@125 C/C	5 - 2L-Ø10@125 C/C	2 - Ø12EF	-	-
B25	300	400	+ 4 - Ø16 2 - Ø16	+ 4 - Ø16 2 - Ø16	+ 4 - Ø16 2 - Ø16	+ 3 - Ø20 3 - Ø20	2 - Ø20	+ 3 - Ø20 3 - Ø20	12 - 2L-Ø12@75 C/C	46 - 2L-Ø12@75 C/C	12 - 2L-Ø12@75 C/C	3 - Ø12EF	-	-
B26	300	400	+ 4 - Ø16 2 - Ø16	+ 4 - Ø16 2 - Ø16	+ 4 - Ø16 2 - Ø16	+ 3 - Ø20 3 - Ø20	2 - Ø20	+ 3 - Ø20 3 - Ø20	12 - 2L-Ø12@75 C/C	46 - 2L-Ø12@75 C/C	12 - 2L-Ø12@75 C/C	2 - Ø12EF	-	-

SLAB SCHEDULE (C28 : FY227) (LEVEL : 3 M *FIRST FLOOR)

SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT				TOP REINFORCEMENT					REMARKS
		ALONG SHORT SPAN		ALONG LONG SPAN		OVER LONG SUPPORT		OVER SHORT SUPPORT		DISTRIBUTION	
		FULL LENGTH	CURTAILED	FULL LENGTH	CURTAILED	CONTINUOUS SUPPORT	END SUPPORT	CONTINUOUS SUPPORT	END SUPPORT		
S1, S2	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---
S3, S4, S9	100	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---
S5, S10	100	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	---	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S6, S8, S11	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---
S7	100	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	---	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S12	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S13	100	#10 @ 150 C/C	---	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---

SHERIFF JOHN C. LA MADRID
CIVIL ENGINEER
PRC I.D. No. 0126326 VALIDITY: JULY 17, 2023
PTR No. 8206215 ISSUED: JANUARY 5, 2021

HAZELINE N. TIBANGAY
HEAD, PROJECT MANAGEMENT UNIT

PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I)
BSU COMPOUND, KMS, LA TRINIDAD, BENGUET
PROJECT / LOCATION

BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ DIRECTOR-OPEN UNIVERSITY

ALLAN CASALDO SACPA
VICE PRESIDENT, ADMINISTRATION AND FINANCE

FELIPE SALAING COMILA
PRESIDENT

SHEET NO.
S11
11 | 14

BEAM SCHEDULE (C21:Fy276) (LEVEL: 9 m *ROOF BEAMS)

BEAM NUMBERS	SIZE		BOTTOM REINFORCEMENT			TOP REINFORCEMENT			SHEAR STIRRUPS			SIDE FACE RSB (SFR)	DIAGONAL	REMARKS
	B	D	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT	LEFT	MID SPAN	RIGHT			
B1	250	400	3 - Ø12	2 - Ø12	3 - Ø12	3 - Ø16	2 - Ø16	2 - Ø16	17 - 2L-Ø10@50 C/C	27 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B2	250	400	3 - Ø12	2 - Ø12	2 - Ø12	2 - Ø16	2 - Ø16	2 - Ø16	17 - 2L-Ø10@50 C/C	11 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B3,B13,B14	250	400	3 - Ø12	3 - Ø12	3 - Ø12	3 - Ø12 + 2 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	17 - 2L-Ø10@50 C/C	28 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B4	250	400	3 - Ø12	2 - Ø12	3 - Ø12	3 - Ø12 + 2 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	17 - 2L-Ø10@50 C/C	12 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B5,B10,B11,B16 ,B17	250	400	3 - Ø12	2 - Ø12	3 - Ø12	3 - Ø12 + 2 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	17 - 2L-Ø10@50 C/C	27 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B6	250	400	3 - Ø12	2 - Ø12	3 - Ø12	3 - Ø12 + 2 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	17 - 2L-Ø10@50 C/C	11 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B7	250	400	2 - Ø12	2 - Ø12	2 - Ø12	3 - Ø12	2 - Ø12	3 - Ø12	17 - 2L-Ø10@50 C/C	28 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B8	250	400	2 - Ø12	2 - Ø12	2 - Ø12	3 - Ø12	2 - Ø12	3 - Ø12	17 - 2L-Ø10@50 C/C	12 - 2L-Ø10@125 C/C	17 - 2L-Ø10@50 C/C	-	-	-
B9	250	400	3 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	3 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	13 - 2L-Ø12@50 C/C	-	13 - 2L-Ø12@50 C/C	-	-	-
B12	250	400	2 - Ø12	2 - Ø12	3 - Ø12	3 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	14 - 2L-Ø10@50 C/C	-	14 - 2L-Ø10@50 C/C	-	-	-
B15	250	400	2 - Ø12	2 - Ø12	3 - Ø12	2 - Ø12	2 - Ø12	3 - Ø12 + 2 - Ø12	13 - 2L-Ø10@50 C/C	-	13 - 2L-Ø10@50 C/C	-	-	-

SLAB SCHEDULE (C27,58 ; FY227) (LEVEL : 6 M *SECOND FLOOR)

SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT				TOP REINFORCEMENT					REMARKS
		ALONG SHORT SPAN		ALONG LONG SPAN		OVER LONG SUPPORT		OVER SHORT SUPPORT		DISTRIBUTION	
		FULL LENGTH	CURTAILED	FULL LENGTH	CURTAILED	CONTINUOUS SUPPORT	END SUPPORT	CONTINUOUS SUPPORT	END SUPPORT		
S1	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S2, S6	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---
S3, S10, S14,S16	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S4	100	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	---	#10 @ 145 C/C	#10 @ 150 C/C	#10 @ 135 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---
S5	100	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	---	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S7	100	#16 @ 125 C/C	---	#16 @ 125 C/C	---	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S8, S11	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---
S12	100	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---
S13	100	#10 @ 150 C/C	---	#10 @ 150 C/C	---	---	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S15	100	#10 @ 150 C/C	---	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	---
S17	100	#10 @ 150 C/C	---	#10 @ 300 C/C	#10 @ 300 C/C	#10 @ 150 C/C	#10 @ 150 C/C	---	#10 @ 150 C/C	#10 @ 150 C/C	CANTILEVERED

SHERIFF JOHN C. LA MADRID
CIVIL ENGINEER
PRC LIC. No.: 0000000 VALIDITY: JULY 17, 2025
PTR No.: 000000 ISSUED: JANUARY 3, 2025

HAZELINE N. TIBANGAY
HEAD, PROJECT MANAGEMENT UNIT

PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I)
BSU COMPOUND, KM 6, LA TRINIDAD, BENGUET
PROJECT / LOCATION

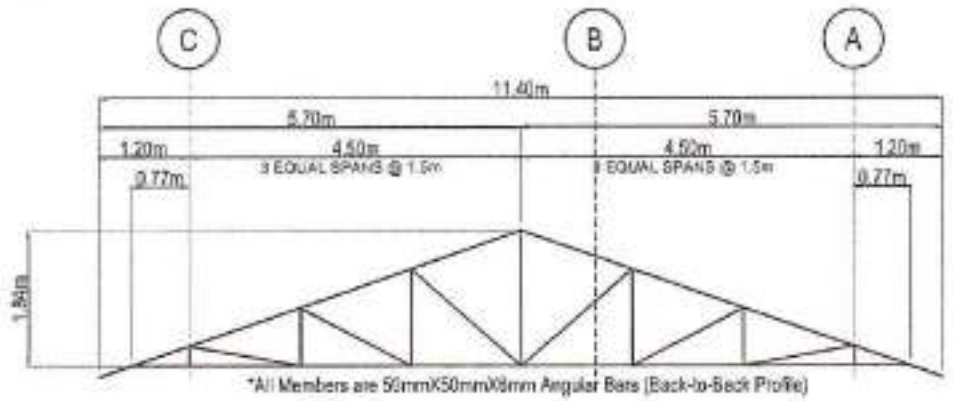
BENGUET STATE UNIVERSITY
LA TRINIDAD, BENGUET
OWNER

LEONARDO T. APILIS
END USER/ DIRECTOR-OPEN UNIVERSITY

ALLAN CASALDO SACPA
VICE PRESIDENT- ADMINISTRATION AND FINANCE

FELIPE SALAING COMILA
PRESIDENT

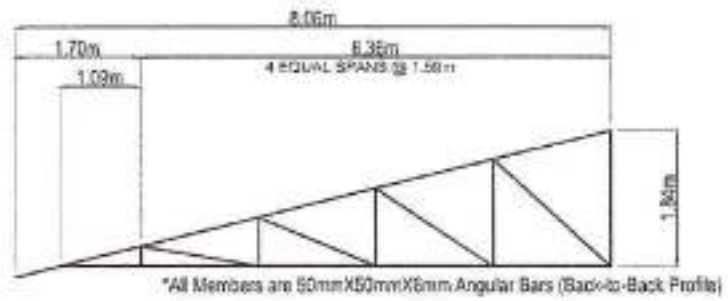
SHEET NO.
S12
12 | 14



*All Members are 50mmX50mmX6mm Angular Bars (Back-to-Back Profile)

S 1 13 TRUSS 1 DETAILS

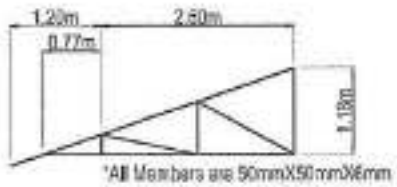
SCALE 1:100



*All Members are 50mmX50mmX6mm Angular Bars (Back-to-Back Profile)

S 2 13 TRUSS 2 DETAILS

SCALE 1:100



*All Members are 50mmX50mmX6mm Angular Bars (Back-to-Back Profile)

S 4 13 TRUSS 4 DETAILS

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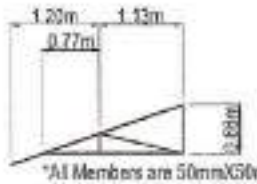
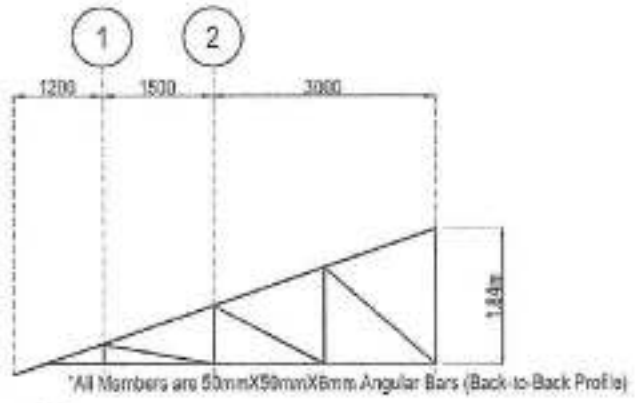


*All Members are 50mmX50mmX6mm Angular Bars (Back-to-Back Profile)

S 5 13 TRUSS 5 DETAILS

SCALE 1:100

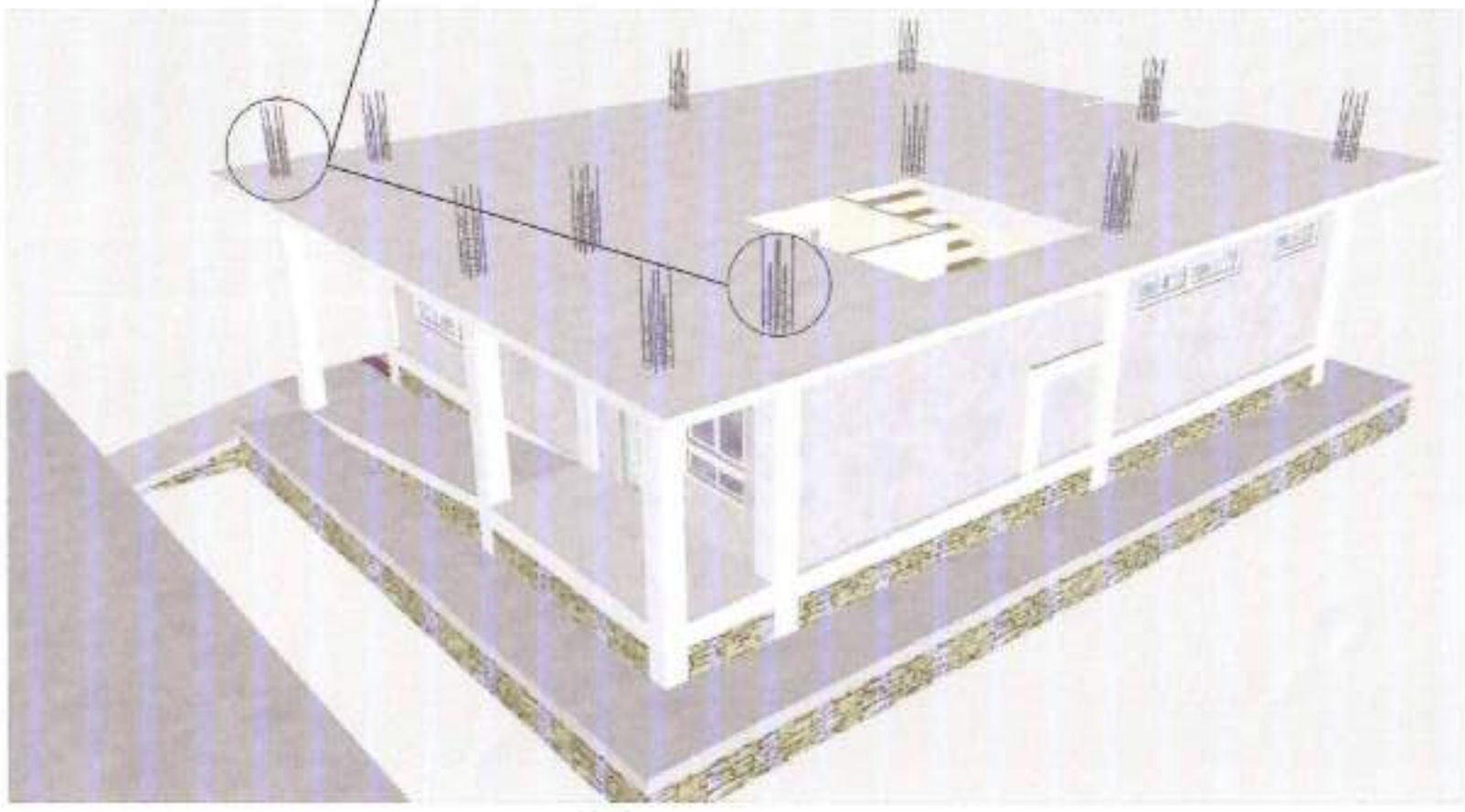


*All Members are 50mmX50mmX6mm Angular Bars (Back-to-Back Profile)

S 3 13 TRUSS 3 DETAILS

SCALE 1:100

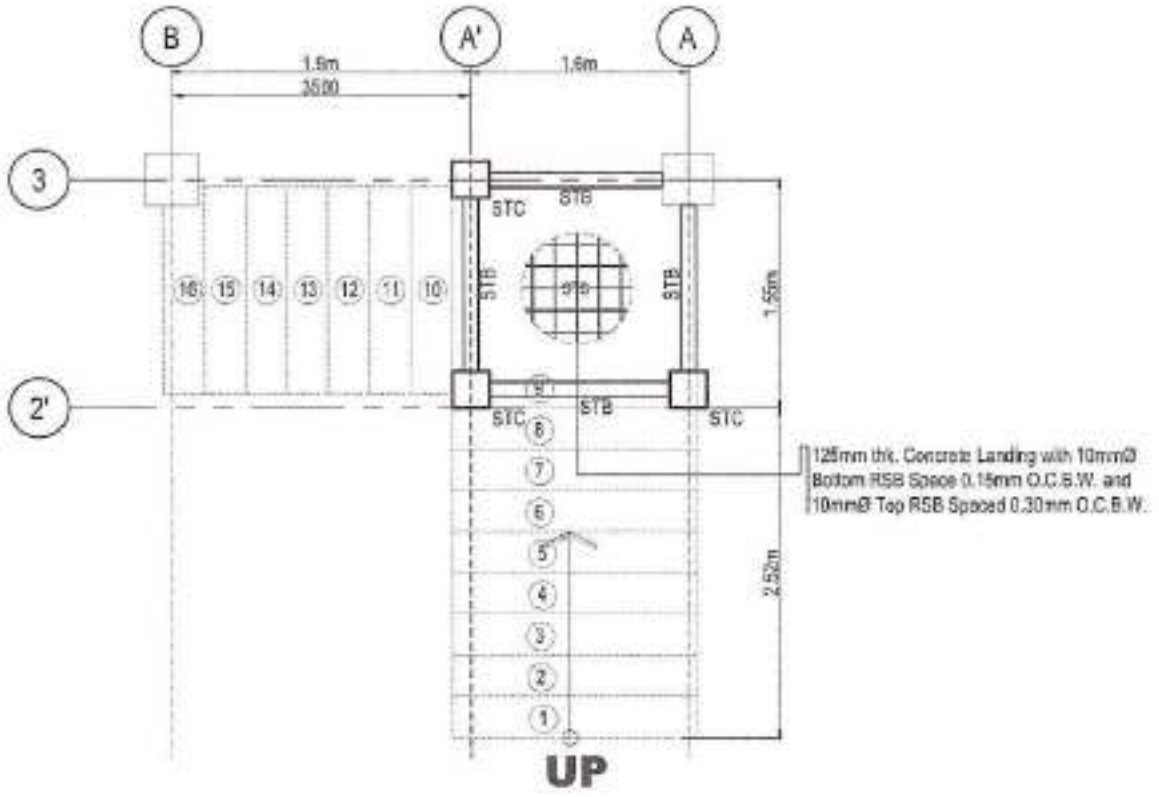
*NOTE: All Column Reinforcing Bars Shall be Protruded/Extended with Atleast 1.5m-2.0m



S 6 13 PHASE I STRUCTURAL LIMIT

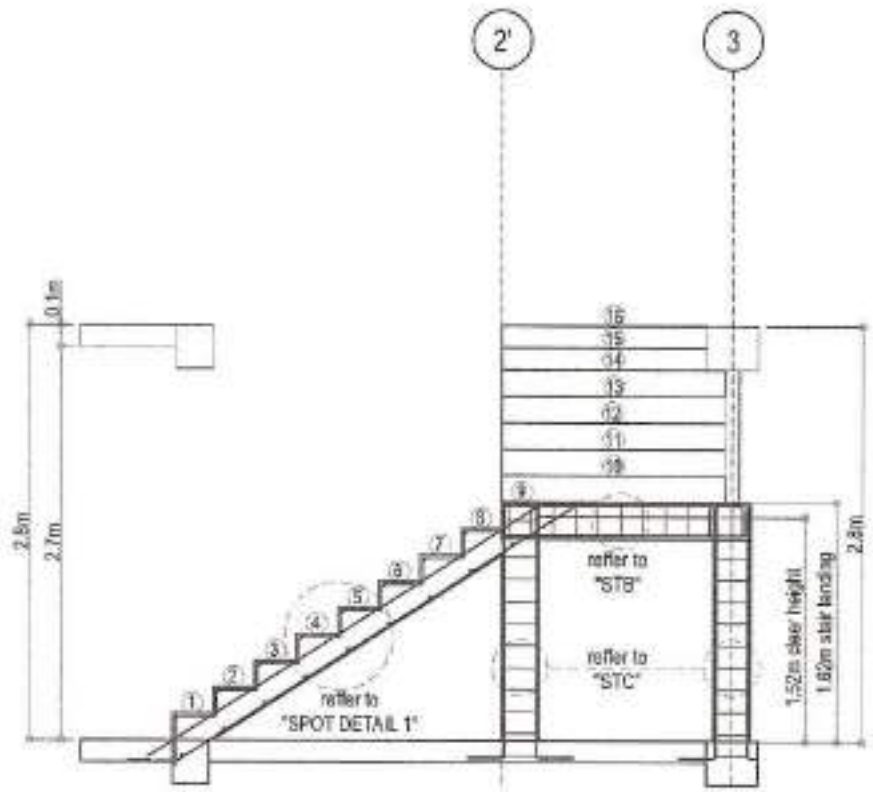
SCALE 1:100

SHERIFF JOHN C. LA MADRID CIVIL ENGINEER PRC LIC No.: 032039 VALIDITY: JULY 17, 2025 PTR No.: 8260201 ISSUED: JANUARY 3, 2025	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM.5, LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ DIRECTOR, OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	FELIPE SALAING COMILA PRESIDENT	SHEET NO. S13 13 | 14



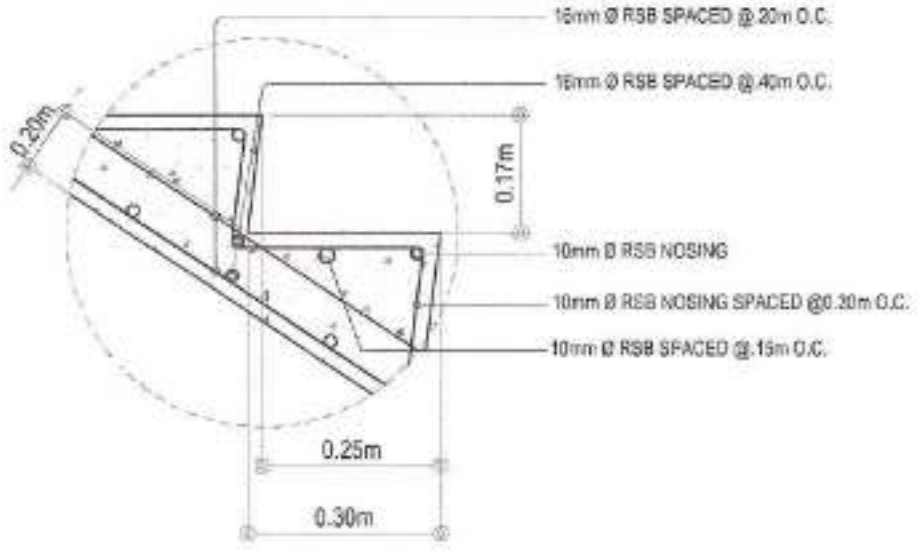
S 1 14 STAIR FRAMING PLAN

SCALE AS SHOWN



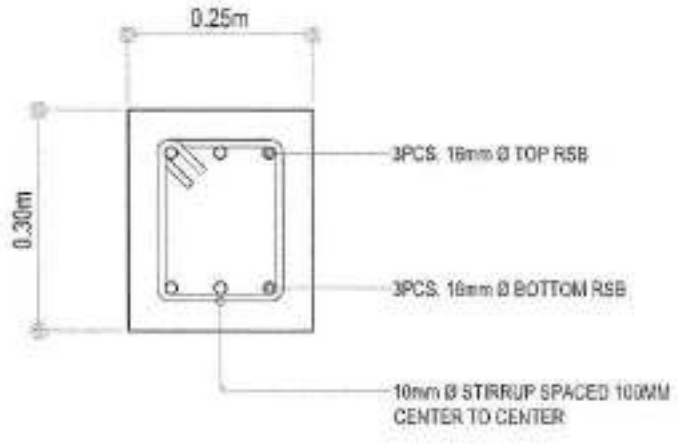
S 2 14 STAIR SECTION DETAILS

SCALE AS SHOWN



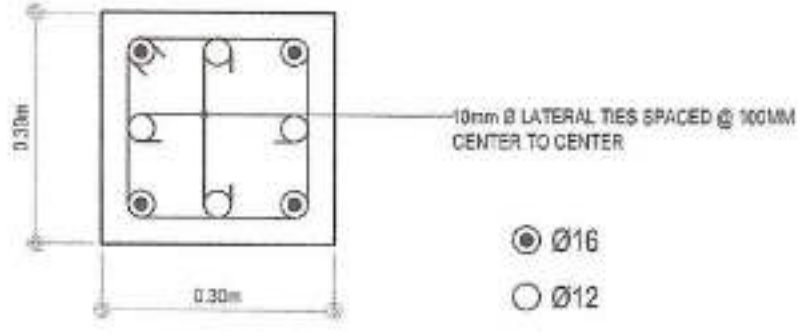
S 3 14 SPOT DETAIL 1

SCALE AS SHOWN



S 4 14 DETAIL OF STB

SCALE AS SHOWN



S 5 14 DETAILS OF STC

SCALE AS SHOWN

SHERIFF JOHN C. LA MADRID CIVIL ENGINEER PRC LIC. No.: 0126339 VALIDITY: JULY 15, 2025 PTR NO.: 8296216 ISSUED: JANUARY 3, 2025	HAZELINE N. TIBANGAY HEAD, PROJECT MANAGEMENT UNIT	PROPOSED OPEN UNIVERSITY BUILDING (PHASE-I) BSU COMPOUND, KM 6, LA TRINIDAD, BENGUET PROJECT / LOCATION	BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET OWNER	LEONARDO T. APILIS END USER/ DIRECTOR-OPEN UNIVERSITY	ALLAN CASALDO SACPA VICE PRESIDENT- ADMINISTRATION AND FINANCE	EDILBERTO SALAING COMILA PRESIDENT	SHEET NO. S14 14 | 14