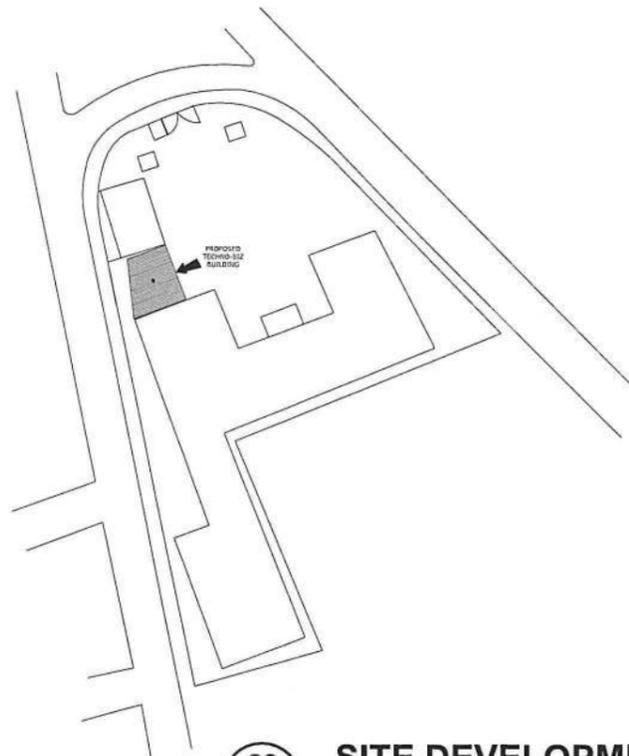
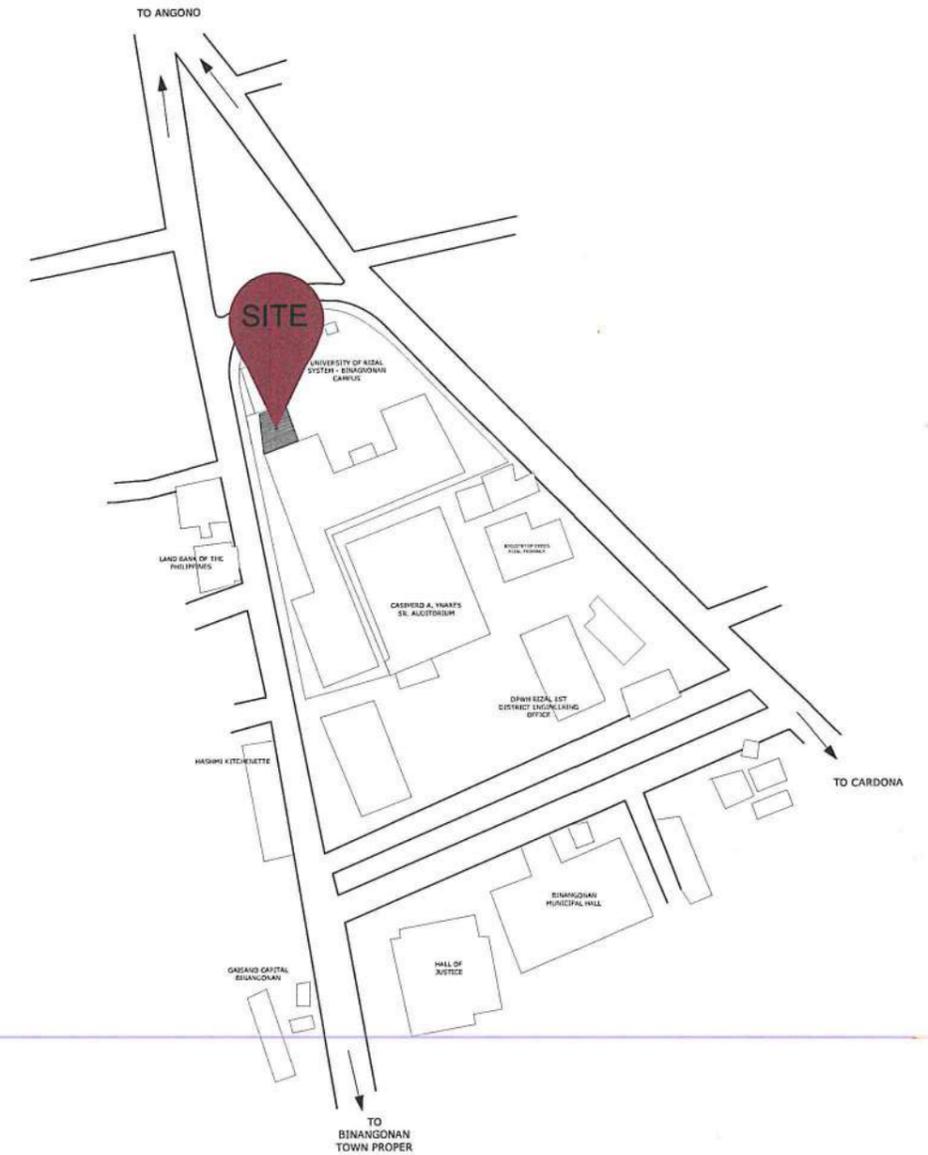




CS  
1 | 3 SCALE NTS  
**PERSPECTIVE**

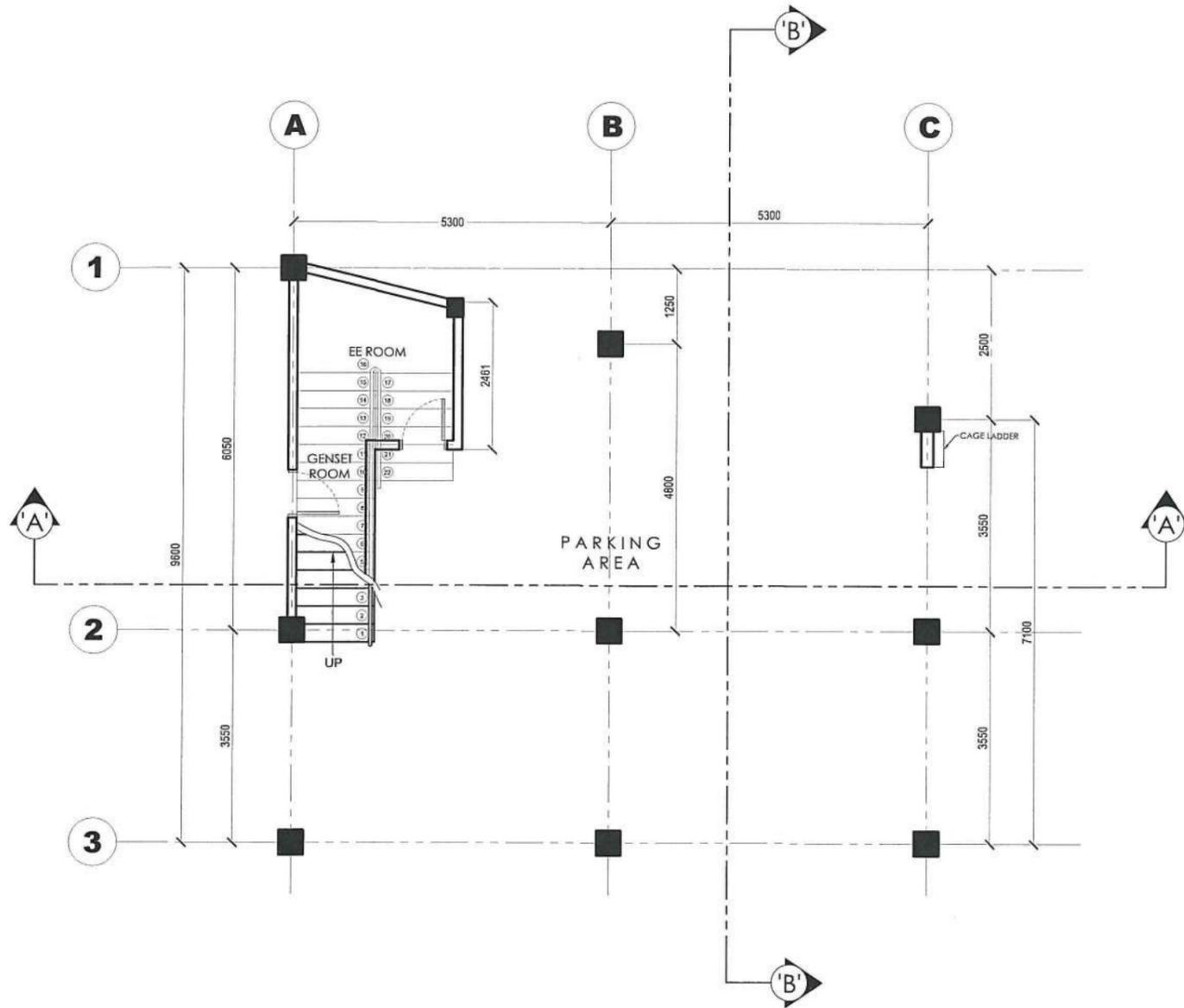


CS  
2 | 3 SCALE NTS  
**SITE DEVELOPMENT PLAN**

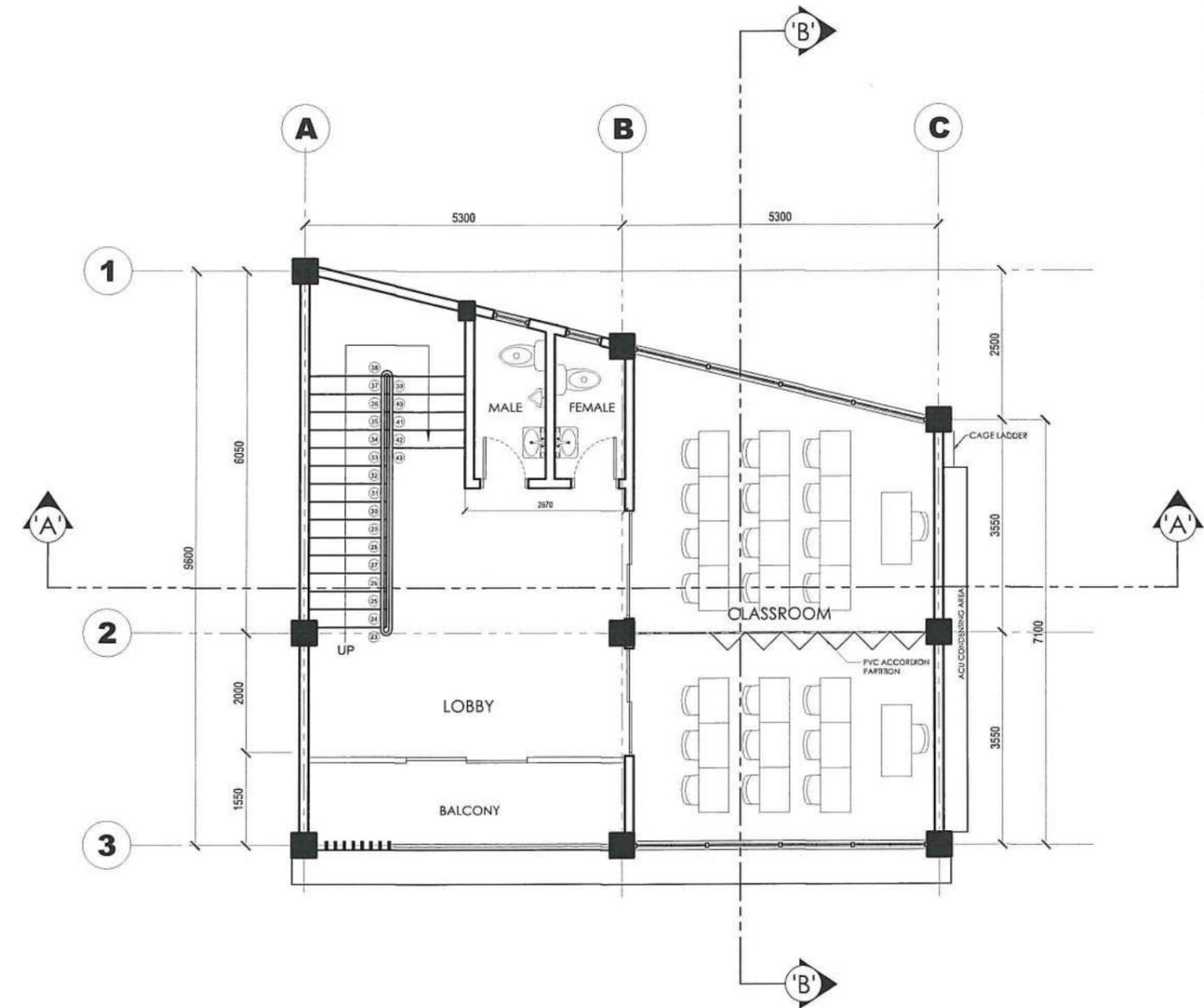


CS  
3 | 3 SCALE NTS  
**LOCATION MAP**

 <p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	<p>CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS</p> <p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>JOAN MARIE F. TIBURCIO, RCE PROJECT DEVELOPMENT OFFICER I, UPMU</p>	<p>AJON. RAMGEL C. JAVIER, UAP REGISTERED ARCHITECT</p>	<p>STEVE S.J. MILLARE, RENP HEAD, UPMU</p>	<p>MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p>NANCY T. PASCUAL, Ed. D., RGC PRESIDENT</p>	AS SHOWN	<p>C S</p>



**A-1**  
1 | 2  
**GROUND FLOOR PLAN**  
SCALE 1:100 MTS.



**A-1**  
2 | 2  
**SECOND FLOOR PLAN**  
SCALE 1:100 MTS.

**UNIVERSITY OF RIZAL SYSTEM**  
UNIVERSITY PROJECT MANAGEMENT UNIT

PROJECT TITLE:  
CONSTRUCTION OF TECHNO-BIZ BUILDING  
IN BINANGONAN CAMPUS

UNIVERSITY OF RIZAL SYSTEM  
BINANGONAN CAMPUS

PREPARED AND DRAWN BY:  
*[Signature]*  
JOAN MARIE P. TIBURCIO, RCE  
PROJECT DEVELOPMENT OFFICER I, UPMU

CHECKED BY:  
*[Signature]*  
Arch. RAMGEL C. JAVIER, Lap  
REGISTERED ARCHITECT

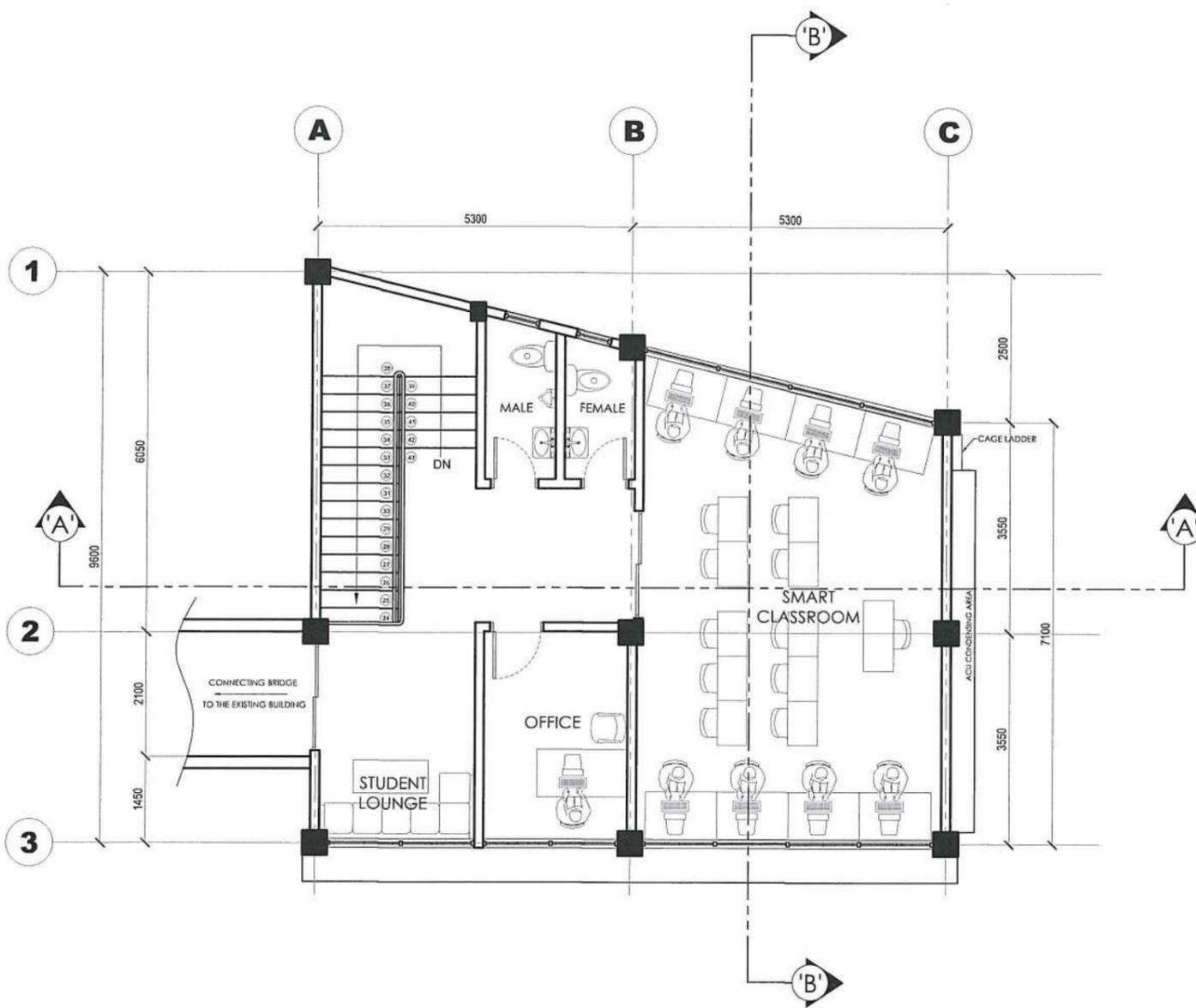
SUBMITTED BY:  
*[Signature]*  
STEVE S.J. MILLARE, REEnP  
HEAD, UPMU

RECOMMENDING APPROVAL:  
*[Signature]*  
MARVIN P. AMOIN, Ph.D.  
VICE PRESIDENT FOR  
ADMINISTRATION AND FINANCE

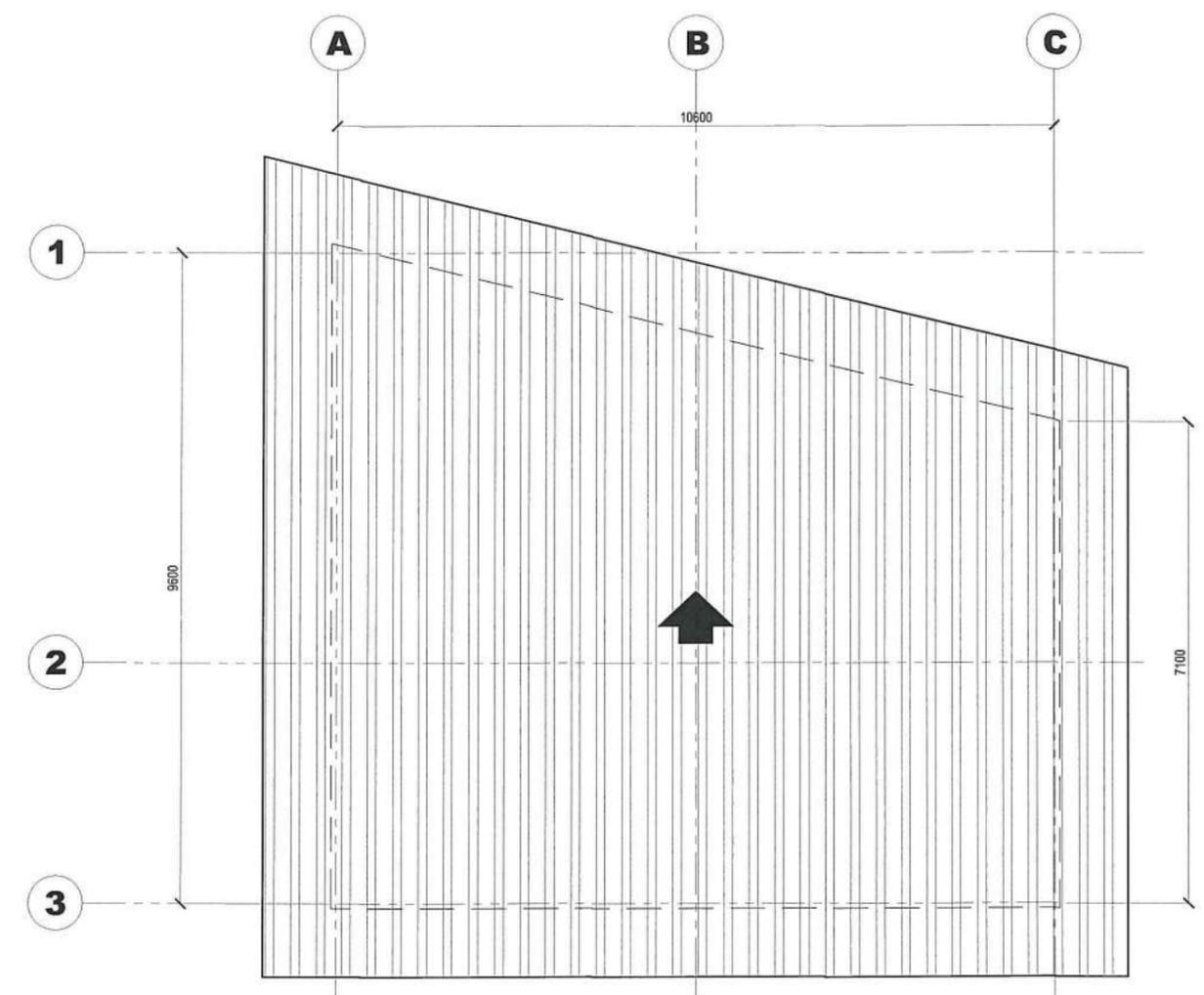
APPROVED BY:  
*[Signature]*  
NANCY T. PASCUAL, Ed. D., RGC  
PRESIDENT

SHEET CONTENT:  
AS SHOWN

SHEET NO.:  
**A**  
**1**



**A-2**  
1 2  
**THIRD FLOOR PLAN**  
SCALE 1:100 MTS.

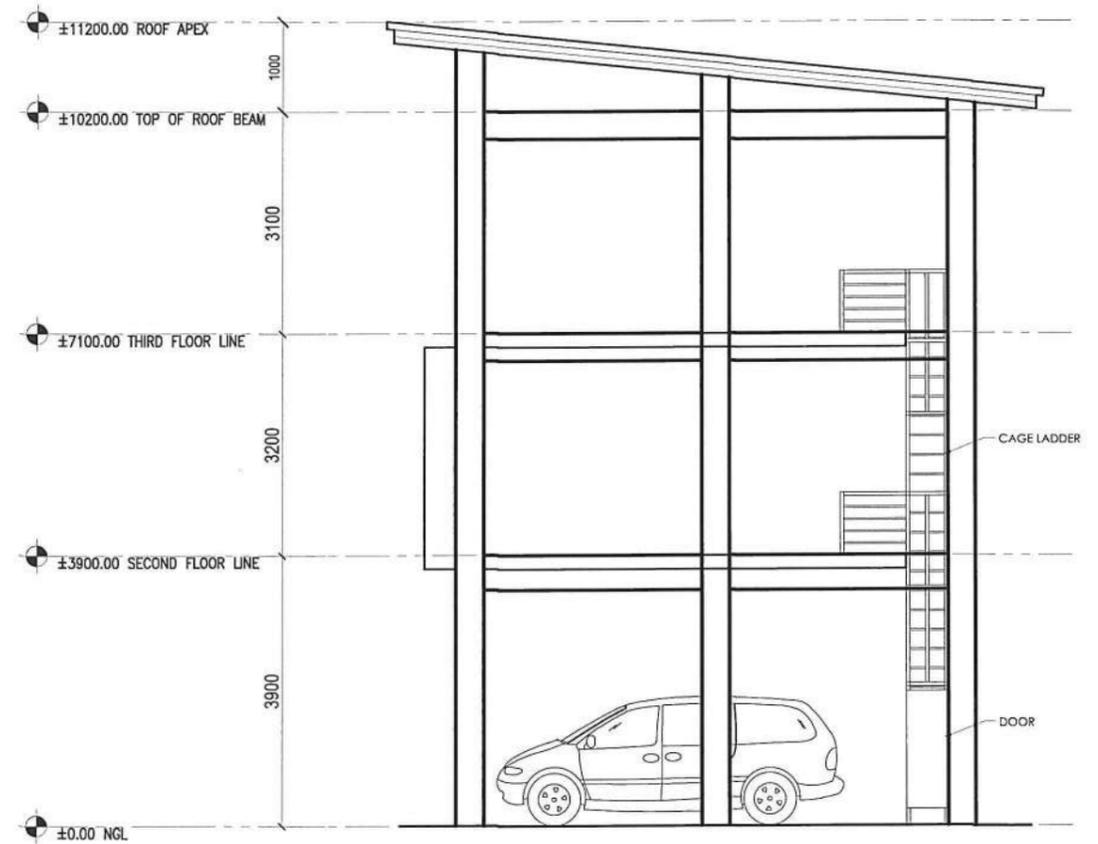


**A-2**  
2 2  
**ROOF PLAN**  
SCALE 1:100 MTS.

 <p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	<p>CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS</p> <p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p><i>[Signature]</i> JOAN MARIE F. INBURCIO, RCE PROJECT DEVELOPMENT OFFICER I, UPMU</p>	<p><i>[Signature]</i> Arch. RAMGEL C. JAVIER, Uap REGISTERED ARCHITECT</p>	<p><i>[Signature]</i> STEVE S.J. MILLARE, RENP HEAD, UPMU</p>	<p><i>[Signature]</i> MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p><i>[Signature]</i> NANCY T. PASCUAL, Ed. D., RGC PRESIDENT</p>	AS SHOWN	<p><b>A</b> <b>2</b></p>



**A-3**  
1 | 2  
**FRONT ELEVATION**  
SCALE 1:100 MTS.



**A-3**  
2 | 2  
**RIGHT ELEVATION**  
SCALE 1:100 MTS.



**UNIVERSITY OF RIZAL SYSTEM**  
UNIVERSITY PROJECT MANAGEMENT UNIT

PROJECT TITLE:  
CONSTRUCTION OF TECHNO-BIZ BUILDING  
IN BINANGONAN CAMPUS  
UNIVERSITY OF RIZAL SYSTEM  
BINANGONAN CAMPUS

PREPARED AND DRAWN BY:  
*[Signature]*  
JOAN MARIE F. TIBURCIO, RCE  
PROJECT DEVELOPMENT OFFICER I, UPMU

CHECKED BY:  
*[Signature]*  
ARCH. RAMGEL O. JAVIER, RUP  
REGISTERED ARCHITECT

SUBMITTED BY:  
*[Signature]*  
STEVE S.J. MILLARE, RENP  
HEAD, UPMU

RECOMMENDING APPROVAL:  
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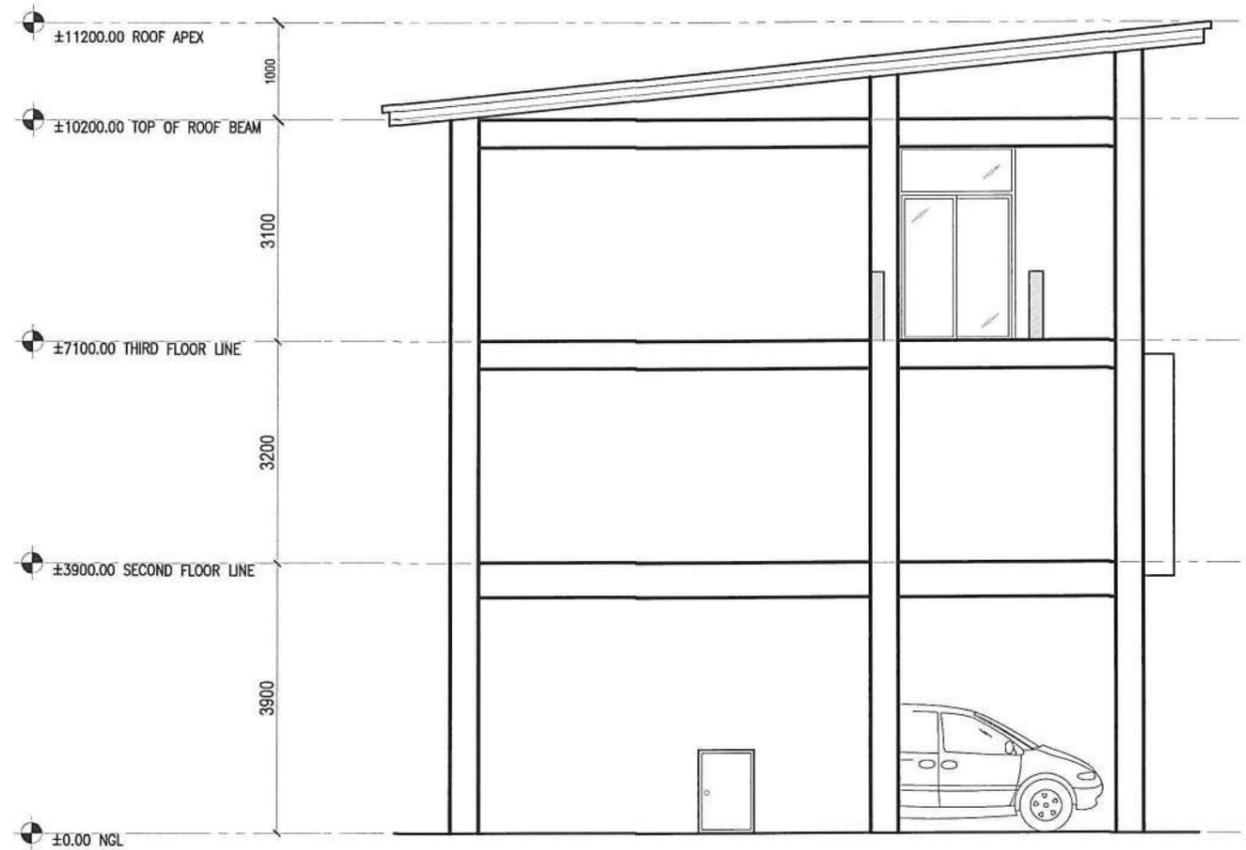
APPROVED BY:  
*[Signature]*  
NANCY T. PASCUAL, Ed. D., RGC  
PRESIDENT

SHEET CONTENT:  
AS SHOWN

SHEET NO.:  
**A**  
**3**



**A-4**  
1 | 2  
**REAR ELEVATION**  
SCALE 1:100 MTS.



**A-4**  
2 | 2  
**LEFT ELEVATION**  
SCALE 1:100 MTS.



**UNIVERSITY OF RIZAL SYSTEM**  
UNIVERSITY PROJECT MANAGEMENT UNIT

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IN BINANGONAN CAMPUS**  
UNIVERSITY OF RIZAL SYSTEM  
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PREPARED AND DRAWN BY:  
  
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**Arch. RAMGEL M. JAVIER, uap**  
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RECOMMENDING APPROVAL:  
  
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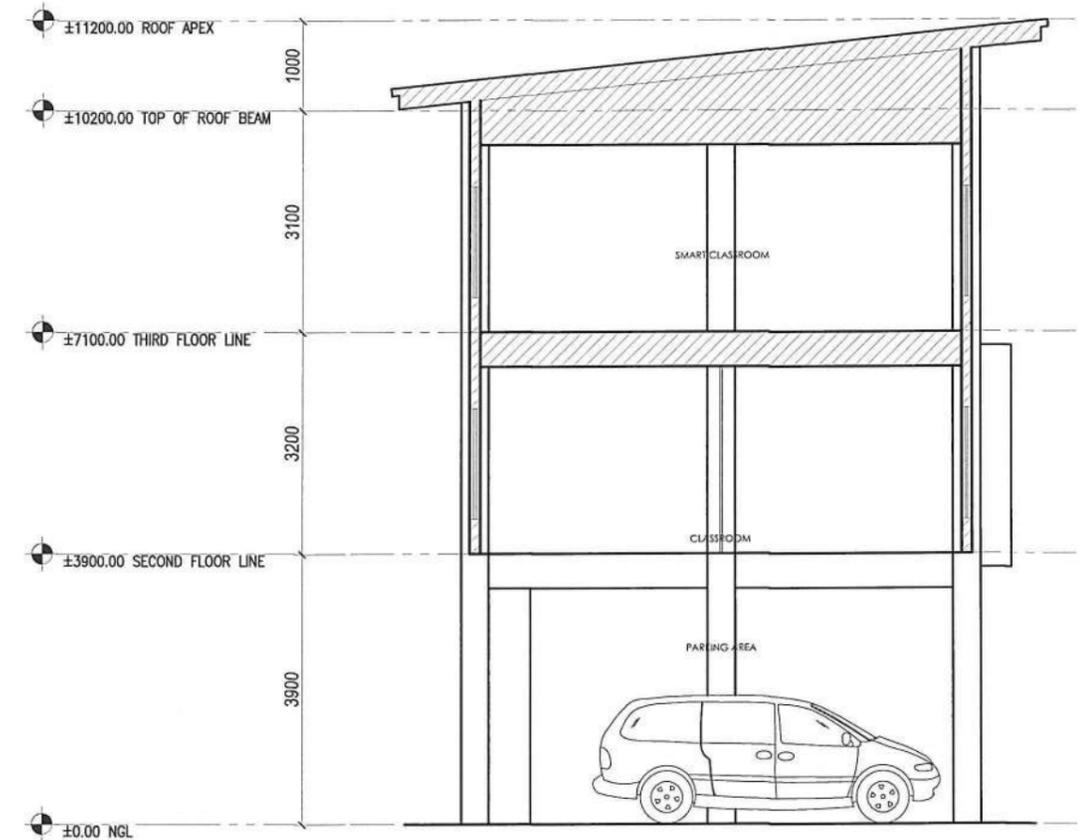
APPROVED BY:  
  
**NANCY T. PASCUAL, Ed. D., RGC**  
PRESIDENT

SHEET CONTENT:  
**AS SHOWN**

SHEET NO.:  
**A  
4**



**A-5**  
1 | 2  
**LONGITUDINAL SECTION**  
SCALE 1:100 MTS.



**A-5**  
2 | 2  
**CROSS SECTION**  
SCALE 1:100 MTS.



**UNIVERSITY OF RIZAL SYSTEM**  
UNIVERSITY PROJECT MANAGEMENT UNIT

PROJECT TITLE:  
**CONSTRUCTION OF TECHNO-BIZ BUILDING  
IN BINANGONAN CAMPUS**  
UNIVERSITY OF RIZAL SYSTEM  
BINANGONAN CAMPUS

PREPARED AND DRAWN BY:  
*[Signature]*  
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PROJECT DEVELOPMENT OFFICER I, UPMU

CHECKED BY:  
*[Signature]*  
**Arch. RAMGEL C. JAVIER, uap**  
REGISTERED ARCHITECT

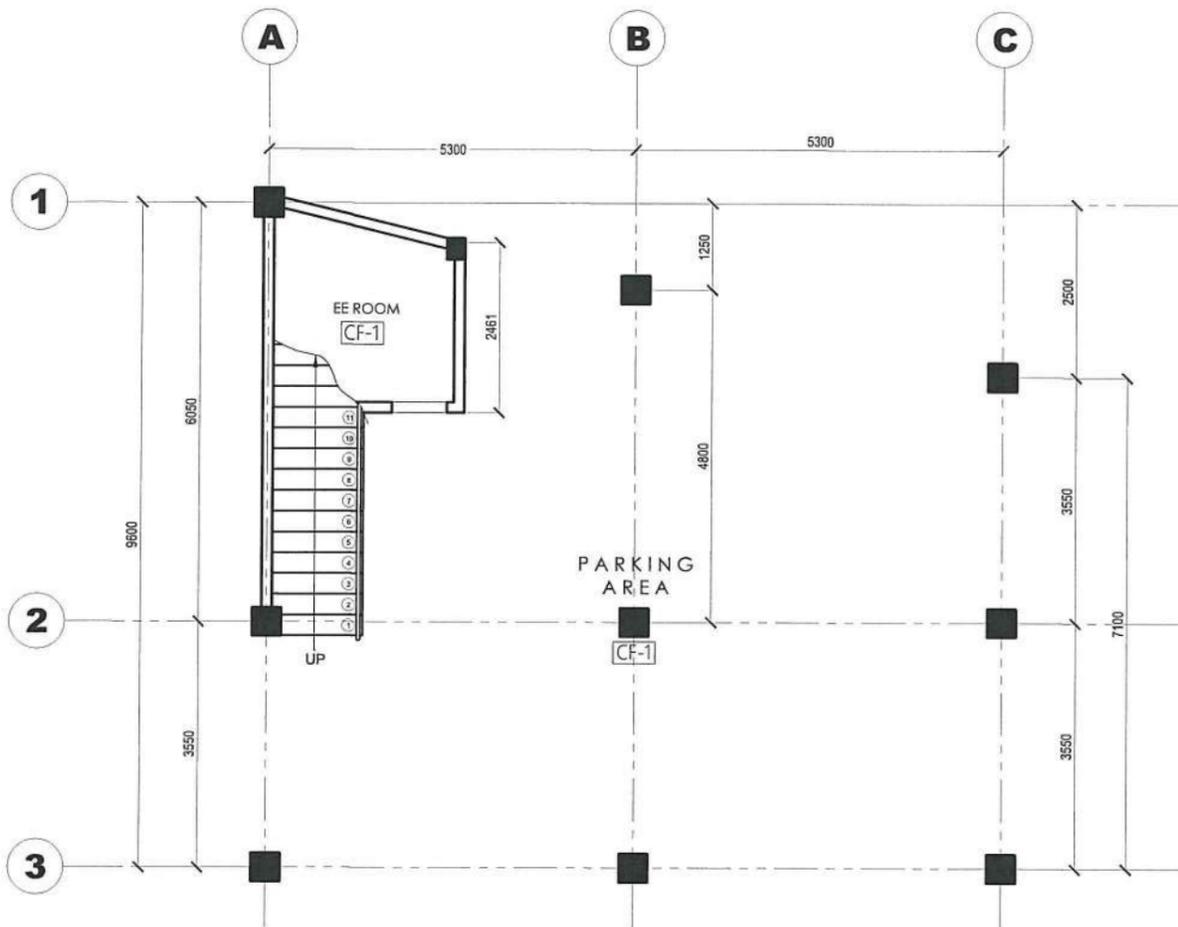
SUBMITTED BY:  
*[Signature]*  
**STEVE S.J. MILLARE, RE nP**  
HEAD, UPMU

RECOMMENDING APPROVAL:  
*[Signature]*  
**MARVIN P. AMOIN, Ph.D.**  
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ADMINISTRATION AND FINANCE

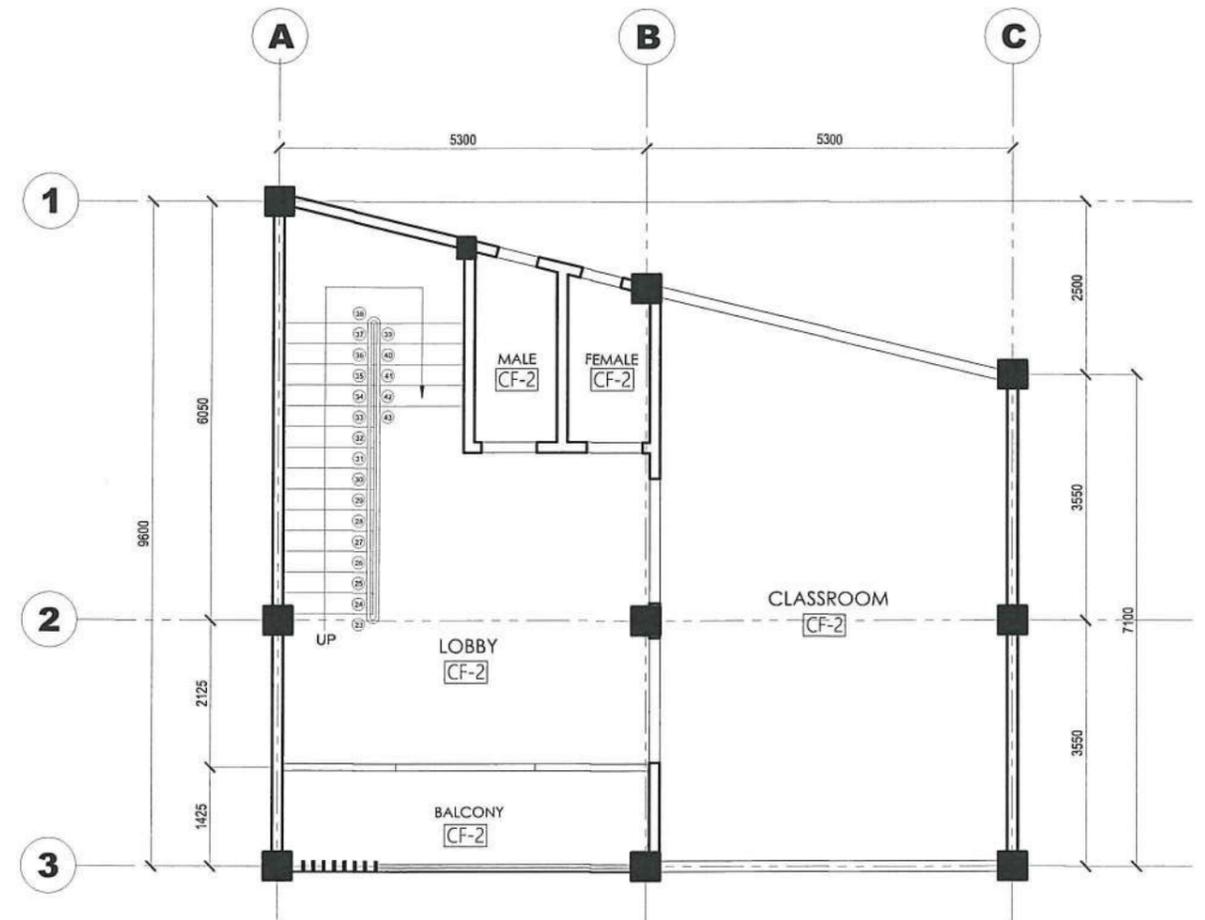
APPROVED BY:  
*[Signature]*  
**NANCY T. PASCUAL, Ed. D., RGC**  
PRESIDENT

SHEET CONTENT:  
**AS SHOWN**

SHEET NO.:  
**A  
5**

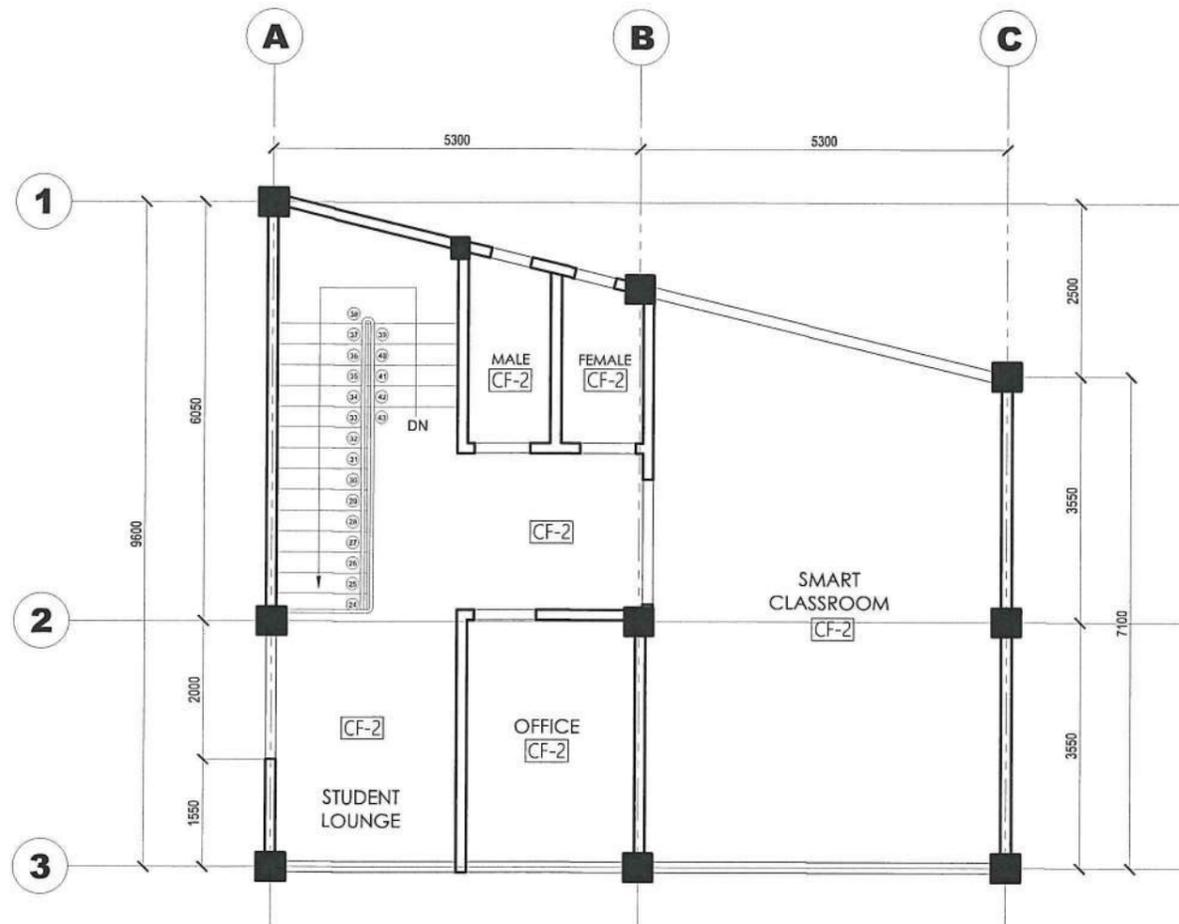


**GROUND FLOOR REFLECTED CEILING PLAN**  
 A-6  
 1 2 SCALE 1:100 MTS.

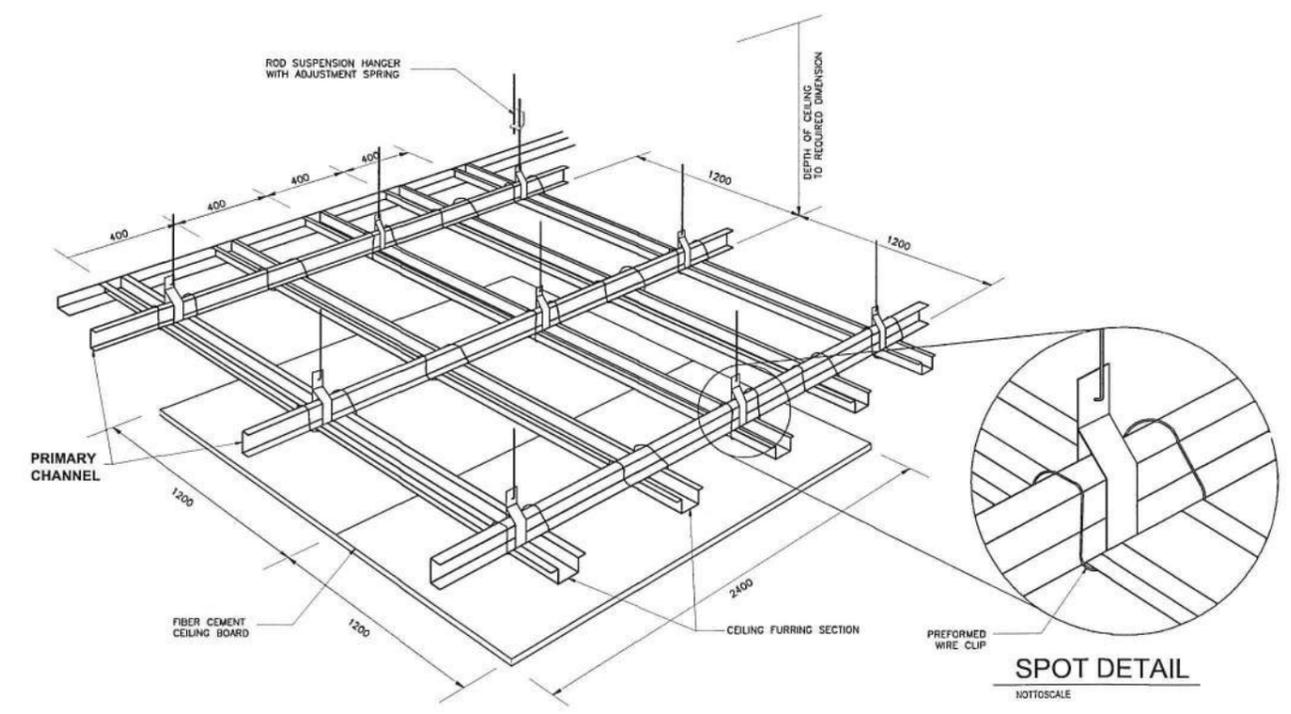


**SECOND FLOOR REFLECTED CEILING PLAN**  
 A-6  
 2 2 SCALE 1:100 MTS.

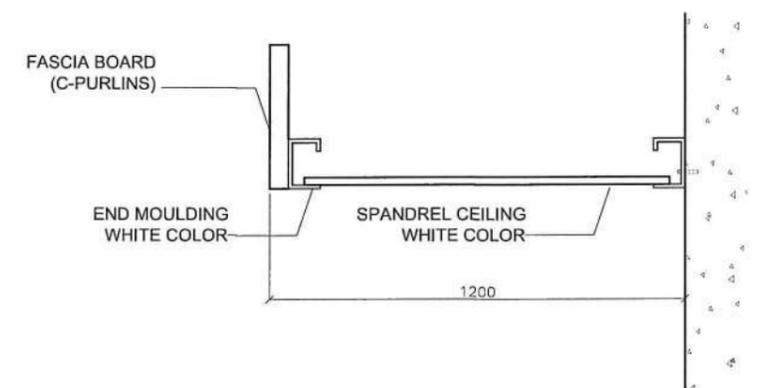
PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
UNIVERSITY OF RIZAL SYSTEM UNIVERSITY PROJECT MANAGEMENT UNIT CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS	JOAN MARIE P. TIBURCIO, ROE PROJECT DEVELOPMENT OFFICER I, UPMU	ARCH. RAMGEL G. JAVIERO, RAA REGISTERED ARCHITECT	STEVE S.J. MILLARE, RE/np HEAD, UPMU	MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE	NANCY T. PASCUAL, Ed. D., RGC PRESIDENT	AS SHOWN	A 6



**THIRD FLOOR REFLECTED CEILING PLAN**  
 A-7  
 1 | 3 SCALE 1:100 MTS.

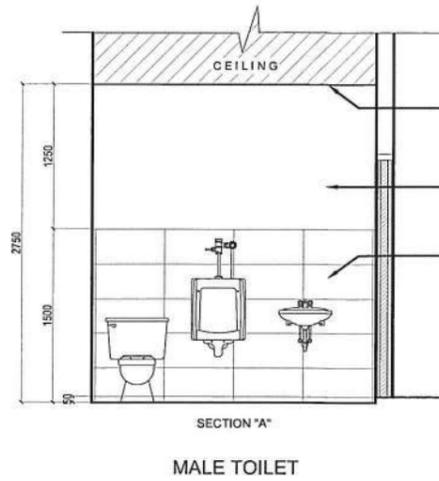
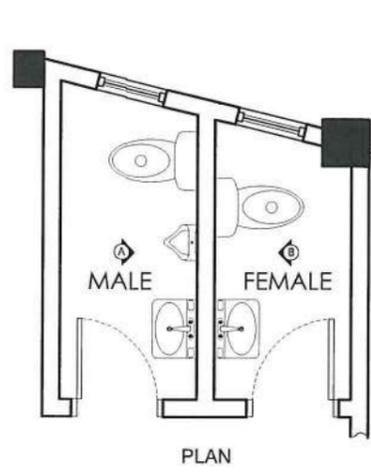


**CEILING DETAILS**  
 A-7  
 2 | 3 SCALE NTS.



**ROOF EAVES DETAILS**  
 A-7  
 3 | 3 SCALE NTS.

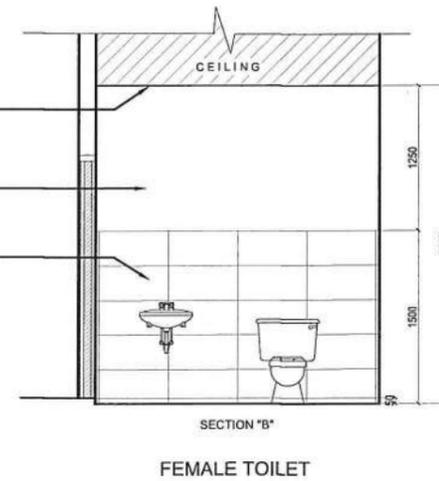
<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	<p>PROJECT TITLE:</p> <p>CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS</p> <p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>PREPARED AND DRAWN BY:</p> <p><i>[Signature]</i>          JOAN MARIE F. TIBURCIO, RCE          PROJECT DEVELOPMENT OFFICER I, UPMU</p>	<p>CHECKED BY:</p> <p><i>[Signature]</i>          ARCH. RAMGEL C. JAVIER, IAP          REGISTERED ARCHITECT</p>	<p>SUBMITTED BY:</p> <p><i>[Signature]</i>          STEVE S.J. MILLARE, RENP          HEAD, UPMU</p>	<p>RECOMMENDING APPROVAL:</p> <p><i>[Signature]</i>          MARVIN P. AMOIN, Ph.D.          VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p>APPROVED BY:</p> <p><i>[Signature]</i>          NANCY T. PASCUAL, Ed. D., RGC          PRESIDENT</p>	<p>SHEET CONTENT:</p> <p>AS SHOWN</p>	<p>SHEET NO.:</p> <p><b>A</b> <b>7</b></p>
	<p>URS-PMU-F-08</p>							



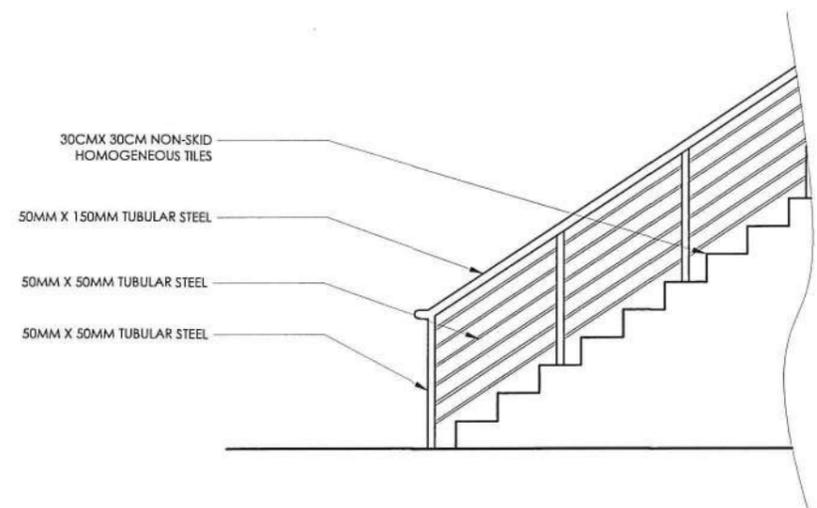
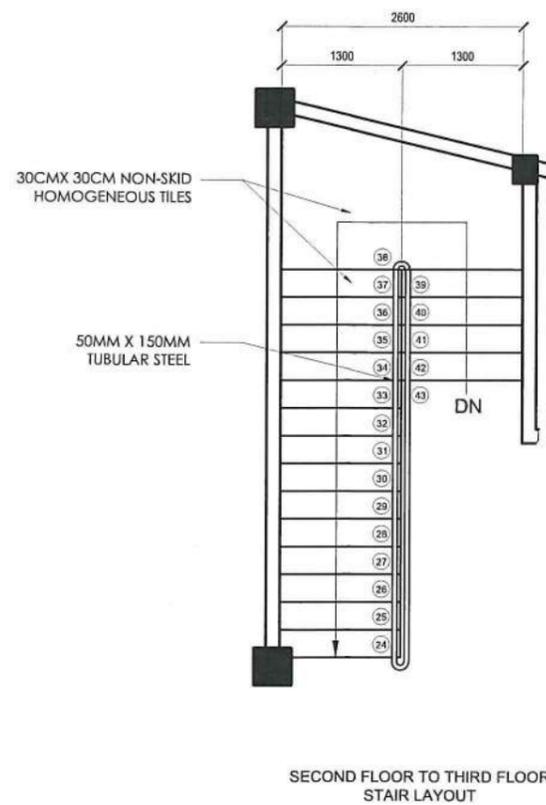
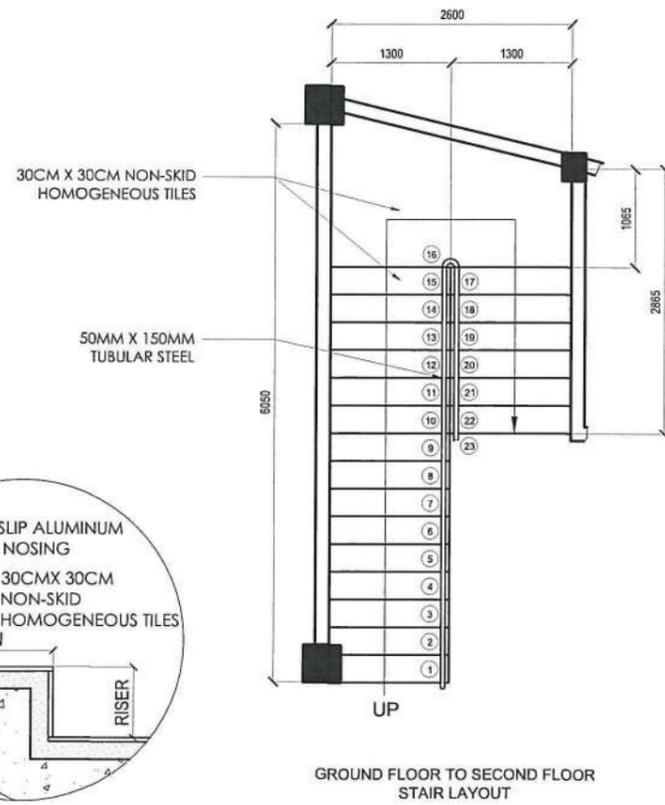
CEILING: 4.5MM THK. FIBER CEMENT BOARD ON LIGHT STEEL FRAMING SYSTEM; FLAT FINISH

WALLS: SEMI-GLOSS PAINT FINISH

WALL & FLOOR TILES: 0.3MX0.6M GLAZED TILES AND 0.3MX0.3M NON GLAZED TILES



**A-8 TOILET DETAILS**  
SCALE 1/2 NTS.



**A-8 STAIR DETAILS**  
SCALE 2/2 NTS.

<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	<p>CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS</p> <p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>JOAN MARIE F. TIBURCIO, RCE PROJECT DEVELOPMENT OFFICER I, UPMU</p>	<p>Arch. RAMON C. JAVIER, IAP REGISTERED ARCHITECT</p>	<p>STEVE S.J. MILLARE, RENP HEAD, UPMU</p>	<p>MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p>NANCY T. PASCUAL, Ed. D., RGC PRESIDENT</p>	AS SHOWN	<p><b>A</b> <b>8</b></p>

ELEVATION		ELEVATION		ELEVATION		ELEVATION		ELEVATION	
TAG :	W-1	TAG :	W-2	TAG :	W-3	TAG :	W-4	TAG :	W-5
LOCATION :	FRONT	LOCATION :	REAR SIDE	LOCATION :	MALE AND FEMALE TOILET	LOCATION :	OFFICE	LOCATION :	STUDENT LOUNGE
TYPE :	6MM THK. GLASS SLIDING WINDOW WITH POWDER COATED ALUMINUM FRAME	TYPE :	6MM THK. GLASS SLIDING WINDOW WITH POWDER COATED ALUMINUM FRAME	TYPE :	1 LEAF, 6MM THK. GLASS AWNING WINDOW WITH POWDER COATED ALUMINUM FRAME	TYPE :	6MM THK. GLASS SLIDING WINDOW WITH POWDER COATED ALUMINUM FRAME	TYPE :	10MM THK. TEMPERED GLASS SLIDING DOOR WITH POWDER COATED ALUMINUM FRAME
HARDWARE :	WINDOW LOCKSET, HEAVY DUTY GUIDE RAILS	HARDWARE :	WINDOW LOCKSET, HEAVY DUTY GUIDE RAILS	HARDWARE :	CRESCENT LOCK, PUSH OUT AWNING HINGE	HARDWARE :	WINDOW LOCKSET, HEAVY DUTY GUIDE RAILS	HARDWARE :	WINDOW LOCKSET, HEAVY DUTY GUIDE RAILS
NO. OF SET(S) :	2 SETS	NO. OF SET(S) :	2 SETS	NO. OF SET(S) :	4 SETS	NO. OF SET(S) :	1 SET	NO. OF SET(S) :	1 SET

ELEVATION		ELEVATION		ELEVATION		ELEVATION		ELEVATION		ELEVATION	
TAG :	D-1	TAG :	D-2	TAG :	D-3	TAG :	D-4	TAG :	D-5	TAG :	D-6
LOCATION :	EE ROOM	LOCATION :	LOBBY	LOCATION :	CLASSROOMS, STUDENT LOUNGE	LOCATION :	MALE AND FEMALE TOILET	LOCATION :	OFFICE	LOCATION :	GENSET ROOM
TYPE :	SINGLE SWING STEEL DOOR WITH STAINLESS HANDLE; 50MM X 100MM STEEL DOOR JAMB	TYPE :	10MM THK. TEMPERED GLASS SLIDING DOOR WITH POWDER COATED ALUMINUM FRAME	TYPE :	10MM THK. TEMPERED GLASS SLIDING DOOR WITH POWDER COATED ALUMINUM FRAME	TYPE :	SINGLE SWING STEEL DOOR WITH LOUVER & STAINLESS HANDLE; 50MM X 100MM STEEL DOOR JAMB	TYPE :	SINGLE SWING STEEL DOOR WITH STAINLESS HANDLE; 50MM X 100MM STEEL DOOR JAMB	TYPE :	SINGLE SWING STEEL DOOR WITH STAINLESS HANDLE; 50MM X 100MM STEEL DOOR JAMB
HARDWARE :		HARDWARE :	WINDOW LOCKSET, HEAVY DUTY GUIDE RAILS	HARDWARE :	WINDOW LOCKSET, HEAVY DUTY GUIDE RAILS	HARDWARE :		HARDWARE :		HARDWARE :	
NO. OF SET(S) :	1 SET	NO. OF SET(S) :	1 SET	NO. OF SET(S) :	4 SETS	NO. OF SET(S) :	4 SETS	NO. OF SET(S) :	1 SET	NO. OF SET(S) :	1 SET

A-9
**SCHEDULE OF DOORS AND WINDOWS**  
 1 1 SCALE 1:75 MTS.

 <b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS	 JOAN MARIE F. TIBURCIO, RCE PROJECT DEVELOPMENT OFFICER I, UPMU	 Arch. RAMGEL V. JAVIER, Uap REGISTERED ARCHITECT	 STEVE S.J. MILLARE, RE/np HEAD, UPMU	 MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE	 NANCY T. PASCUAL, Ed. D., RGC PRESIDENT	AS SHOWN	<b>A</b> <b>9</b>

ELEVATION		ELEVATION		ELEVATION		ELEVATION		ELEVATION	
TAG :	WG-1	TAG :	WG-2	TAG :	WG-3	TAG :	WG-4	TAG :	WG-5
LOCATION :	FRONT	LOCATION :	REAR SIDE	LOCATION :	MALE AND FEMALE TOILET	LOCATION :	OFFICE	LOCATION :	STUDENT LOUNGE
TYPE :	4.5mm X 38mm WINDOW GRILLES FRAME W/ 12mm SQUARE BAR HORIZONTAL AND VERTICAL GRILLES	TYPE :	4.5mm X 38mm WINDOW GRILLES FRAME W/ 12mm SQUARE BAR HORIZONTAL AND VERTICAL GRILLES	TYPE :	4.5mm X 38mm WINDOW GRILLES FRAME W/ 12mm SQUARE BAR HORIZONTAL AND VERTICAL GRILLES	TYPE :	4.5mm X 38mm WINDOW GRILLES FRAME W/ 12mm SQUARE BAR HORIZONTAL AND VERTICAL GRILLES	TYPE :	4.5mm X 38mm WINDOW GRILLES FRAME W/ 12mm SQUARE BAR HORIZONTAL AND VERTICAL GRILLES
NO. OF SET(S) :	2 SETS	NO. OF SET(S) :	2 SETS	NO. OF SET(S) :	4 SETS	NO. OF SET(S) :	1 SET	NO. OF SET(S) :	1 SET

A-10 **SCHEDULE OF WINDOW GRILLES**  
1 | 3 SCALE 1:75 MTS.

# TECHNO-BIZ BUILDING

FONT NAME: ARIAL      HEIGHT: 250mm  
 DEPTH: 50mm          FINISHES: 304 STAINLESS STEEL MIRROR FINISH

A-10 **SIGNAGE DETAILS**  
2 | 3 SCALE NTS.



HEIGHT: 500mm  
 DEPTH: 50mm  
 FINISHES: 304 STAINLESS STEEL

A-10 **SIGNAGE DETAILS**  
3 | 3 SCALE NTS.

SCHEDULE OF FINISHES			
ROOM/SPACE	FLOOR FINISH	WALL FINISH	CEILING FINISH
GROUND FLOOR			
PARKING AREA		SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-1 PLAIN CEMENT - PAINT FINISH
EE ROOM/ GENSER ROOM	EPOXY (GRAY) PAINT ON PLAIN CEMENT SURFACE	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-1 PLAIN CEMENT - PAINT FINISH
STAIR	300mm X 300mm NON-SKID HOMOGENEOUS TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
SECOND FLOOR			
CLASSROOM	600mm X 600mm SYNTHETIC GRANITE TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
MALE AND FEMALE TOILET	300mm X 300mm NON GLAZED CERAMIC TILES	300mm X 600mm GLAZED CERAMIC TILES	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
LOBBY	600mm X 600mm SYNTHETIC GRANITE TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
BALCONY	600mm X 600mm NON GLAZED TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
STAIR	300mm X 300mm NON-SKID HOMOGENEOUS TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
THIRD FLOOR			
SMART CLASSROOM	600mm X 600mm SYNTHETIC GRANITE TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
MALE AND FEMALE TOILET	300mm X 300mm NON GLAZED CERAMIC TILES	300mm X 600mm GLAZED CERAMIC TILES	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
OFFICE	600mm X 600mm SYNTHETIC GRANITE TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
STUDENT LOUNGE	600mm X 600mm SYNTHETIC GRANITE TILES	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	CF-2 4.5mm THK FCBM BOARD - PAINT FINISH
CONNECTING BRIDGE	EPOXY (GRAY) PAINT ON PLAIN CEMENT SURFACE	SEMI-GLOSS LATEX PAINT ON PUTTY FINISH	

<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS	 JOAN MARIE F. BURGOS, RCE <small>PROJECT DEVELOPMENT OFFICER I, UPMU</small>	 Arch. RAMGEY C. JAVIER /uap <small>REGISTERED ARCHITECT</small>	 STEVE S.J. MILLARE, RE/np <small>HEAD, UPMU</small>	 MARVIN P. AMOIN, Ph.D. <small>VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</small>	 NANCY T. PASCUAL, Ed. D., RGC <small>PRESIDENT</small>	AS SHOWN	A 10

# STRUCTURAL NOTES

1. GENERAL
  - 1.1 SETTING OUT
 

ALL NECESSARY BOUNDARY LINES, BUILDING LINES AND CORNER PEGS SHALL BE ESTABLISHED AND APPROVED BY A REGISTERED GEODETIC ENGINEER.

ALL DIMENSIONS MEASURED ON SITE SHALL BE CHECKED AND CONFIRMED WITH RELEVANT ARCHITECTURAL, STRUCTURAL AND M&E DRAWINGS.

ALL DISCREPANCIES IN THE DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE ORDERING OF MATERIAL AND COMMENCEMENT OF CONSTRUCTION OF THE RELEVANT WORKS.
  - 1.2 LEVELS
 

ALL NECESSARY REDUCED LEVELS OF THE EXISTING SITE AND PROPOSED BUILDING FORMATION LEVELS SHALL BE ESTABLISHED WITH REFERENCE TO APPROVED BENCH MARKS. ALL LEVELS SHOWN ARE IN METRIC MEASUREMENT.

ANY DISCREPANCIES IN THE MEASURED LEVELS AND THE LEVELS STATED IN THE RELEVANT ARCHITECTURAL DRAWINGS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER.
  - 1.3 DRAWINGS
 

ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWINGS AND SPECIFICATION.

ANY DISCREPANCIES BETWEEN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

THE LATEST REVISIONS IN THE DRAWINGS SHALL BE INCORPORATED IN THE CONSTRUCTION WORKS.
  - 1.4 INCORPORATION OF M&E REQUIREMENTS IN STRUCTURE
 

THE CONTRACTOR SHALL INCORPORATE ALL MECHANICAL, SANITARY AND ELECTRICAL WORKS TO BE EMBEDDED IN THE CONCRETE OR OPENINGS FOR PIPE OR DUCT WORKS BASED IN THE REQUIREMENTS OF M&E DRAWINGS IN HIS POSSESSION. HE SHALL CHECK THE M&E DRAWINGS AND RESOLVE DISCREPANCIES, IF ANY, BEFORE CONCRETING.

ANY DEVIATIONS IN THE STRUCTURAL WORK DUE TO SERVICES REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR HIS APPROVAL.
2. SUBSTRUCTURE WORKS
  - 2.1 EARTHWORKS
 

ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ALL EXCAVATIONS INCLUDING BUT NOT LIMITED TO FOOTINGS, PITS AND TRENCHES BELOW GROUND LEVEL, CULVERTS AND DRAIN PIPE TRENCHES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND PROVISION OF ADEQUATE SHORING AND STRUTTING TO THE SATISFACTION OF THE ARCHITECT/ENGINEER. DETAILS OF THE SHORING AND STRUTTING SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER.
  - 2.2 LEAN CONCRETE
 

UNLESS OTHERWISE STATED, A MINIMUM OF 37mm THICK LEAN CONCRETE LAYER SHALL BE PROVIDED ON ALL SOIL SURFACES FORMING THE UNDERSIDE OF ANY REINFORCED FOOTINGS, BEAMS, SLABS, SUMP PITS, DRAINS, ETC.

3. MATERIALS AND WORKMANSHIP
  - 3.1 STANDARDS AND SPECIFICATIONS
 

WHERE APPLICABLE, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE RELEVANT CODES:

    - A. NSCP 2015
    - B. NATIONAL BUILDING CODE OF THE PHILIPPINES
    - C. ACI 318M - 2014, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE BY THE ACI
  - 3.2 MATERIAL STRENGTHS
 

COLUMNS	: 27.5 MPa (4000 psi)
BEAMS AND SLABS	: 27.5 MPa (4000 psi)
FOUNDATION	: 27.5 MPa (4,000 psi)
SLAB ON FILL	: 17.0 MPa (2,500 psi)
  - 3.2.2 REINFORCING STEEL BAR/STRUCTURAL STEEL
 

12mmØ and SMALLER	: 275MPa (40ksi)
16mmØ and LARGER	: 414MPa (60ksi)
16mmØ and OTHER VERTICAL MEMBERS	: 414MPa (60ksi)
  - 3.3 WORKMANSHIP
 

CONCRETE COVER TO ALL REINFORCEMENT INCLUDING STIRRUPS (UNLESS OTHERWISE SHOWN ON DRAWINGS), SHALL BE NOT LESS THAN:

EXPOSED TO WEATHER OR IN CONTACT WITH EARTH  
SLABS  
BEAM SOFFIT AND SIDES  
COLUMNS  
WALLS  
FOOTINGS
  - 3.4 LAPS AND SPLICES (UNLESS OTHERWISE SPECIFIED)
 

BAR SIZE	TENSION LAP,mm
10	520
12	625
16	835
20	1,040
25	1,300
32	1,665

NO SPLICES SHALL BE MADE AT POINT OF MAXIMUM STRESS, I.E., TOP BARS IN BEAMS AND SLABS SHOULD NOT BE SPLICED AT MIDSPAN AND BOTTOM BARS AT SUPPORTS. SPLICES SHALL BE STAGGERED WHEREVER POSSIBLE.

CRANKING OF COLUMN BARS SHOULD NOT EXCEED A SLOPE OF 1 IN 10 WHENEVER POSSIBLE. NOT MORE THAN 50% OF COLUMN BARS SHOULD BE SPLICED AT ONE SECTION.

4. STANDARD PROVISIONS
 

REGARDLESS OF WHETHER OR NOT SHOWN IN DRAWINGS AND OTHER TENDER DOCUMENTS, THE FOLLOWING STANDARD PROVISIONS ARE CONSIDERED PART OF THE CONTRACT AND SHALL BE CARRIED OUT UNLESS OTHERWISE STATED.

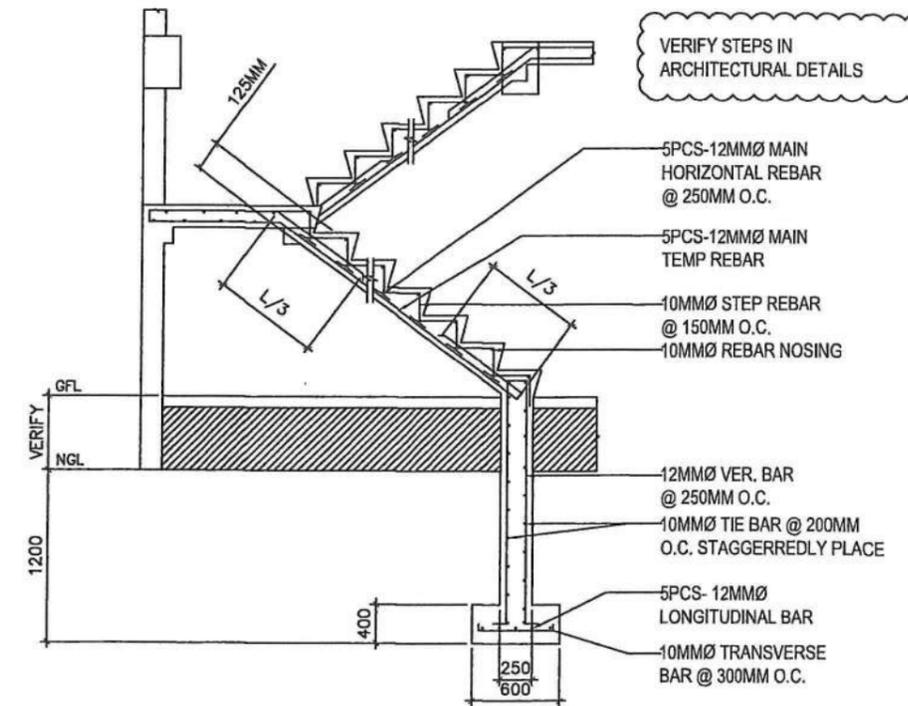
  - 4.1 STARTER BARS FOR WALLS AND COLUMNS
 

STARTER BARS FROM THE STRUCTURAL SYSTEM FOR R.C. WALLS AND COLUMNS SHALL CORRESPOND IN NUMBER AND SIZE TO THE REINFORCEMENT IN THE WALL OR COLUMN IN WHICH THEY ARE TO BE EMBEDDED. ALL STARTER BARS FOR WORKS NOT TO BE CARRIED OUT AT LEAST FOR ONE MONTH SHALL BE PROTECTED WITH 2 COATS OF CEMENT WASH. THE COATING SHALL BE MAINTAINED PERIODICALLY TO ENSURE PROTECTION TO THE REINFORCEMENT. BARS SHALL NOT BE BENT OR OTHERWISE DAMAGED WHILE THEY ARE EXPOSED.
  - 4.2 CONSTRUCTION JOINTS
 

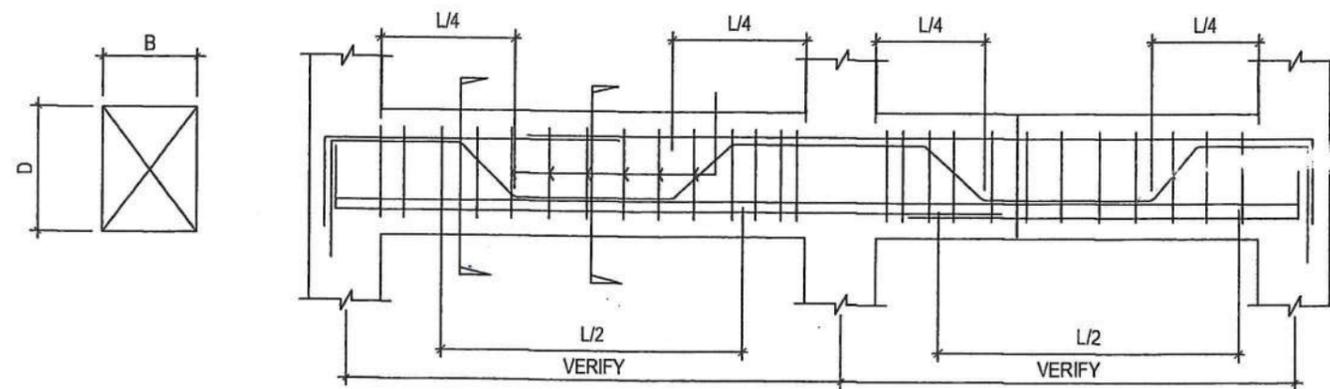
THE LOCATION OF CONSTRUCTION JOINTS AND THE CONCRETE CASTING PLAN SHALL BE SUBJECT TO THE APPROVAL OF THE CONTRACTOR.
  - 4.3 R.C. STIFFENERS FOR CONCRETE MASONRY WALLS
 

R.C. STIFFENERS FOR CONCRETE MASONRY WALLS AND STARTER BARS THEREFROM SHALL BE PROVIDED AS PER ARCHITECTURAL DRAWINGS, UNLESS OTHERWISE STATED:

A: FOR MASONRY WALLS 3.0m HIGH, USE 150mm X 300mm STIFFENER BEAMS AND COLUMNS REINFORCED WITH 4-Ø16 AND Ø10 @ 200mm O.C. SPACING OF STIRRUPS/LATERAL TIES. STIFFENERS SHALL BE SPACED AT NOT MORE THAN 5.00m APART.
5. CRITICAL CONSTRUCTION PROCEDURE
  - 5.1 TO MINIMIZE CRACKING DUE TO SHRINKAGE IN THE LARGE AREA SLABS AND WALLS, THE CONTRACTOR SHALL PROVIDE SHRINKAGE JOINTS (POUR STRIPS) AT APPROPRIATE INTERVALS AS APPROVED BY THE ARCHITECT/ENGINEER. THE JOINTS SHALL NOT BE CONCRETED UNTIL AT LEAST 7 DAYS AFTER THE ADJACENT CONCRETE PANELS HAVE BEEN CAST.
  - 5.2 CONCRETE IN FLOOR SLABS SHALL BE LAID TO FALLS AS SHOWN IN THE ARCHITECTURAL DRAWINGS DURING THE INITIAL CASTING OF THE
  - 5.3 FOUNDATION
    - 5.3.1 ALL FOUNDATIONS SHALL REST ON SOLID GROUND WITH AN ALLOWABLE SOIL BEARING PRESSURE OF NOT LESS THAN 195 kPa.
    - 5.3.2 ALL BACKFILL SHALL BE PLACED ON LAYERS NOT EXCEEDING 200mm THK IN DEPTH. LAYER SHALL BE MOISTENED AS DIRECTED AND SHALL BE THOROUGHLY COMPACTED BEFORE PLACING THE NEXT LAYER.



**S-1** TYPICAL STAIR DETAIL  
SCALE 1:100 MTS.



**S-1** TYPICAL BEAM DETAIL  
SCALE 1:100 MTS.



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BINANGONAN CAMPUS

PREPARED AND DRAWN BY:  
JEFREY M. LAWAS, RCE  
PROJECT DEVELOPMENT OFFICER II, UPMU

CHECKED BY:  
ROMMEL V. BARAQUIEL, RCE  
STRUCTURAL ENGINEER

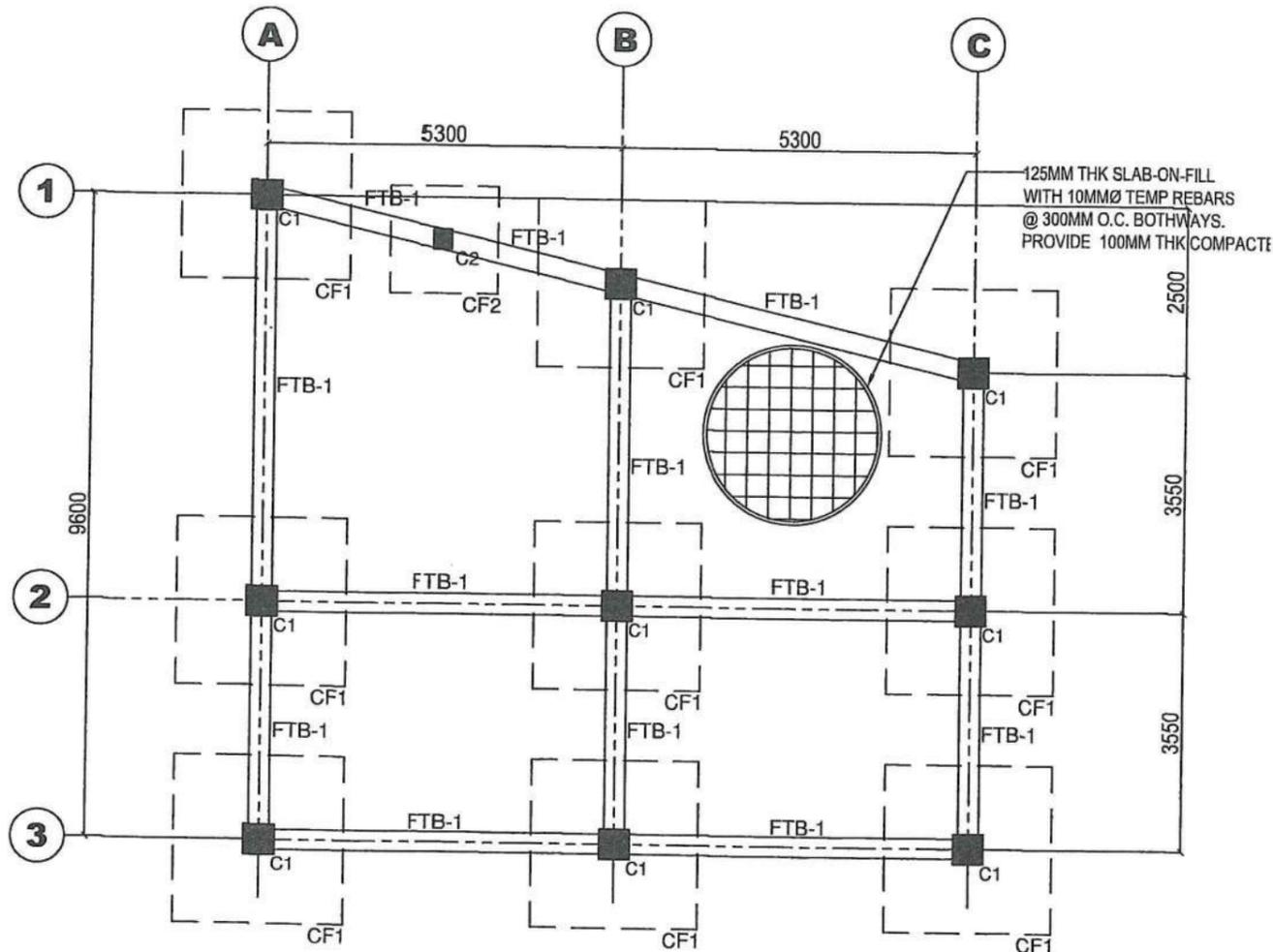
SUBMITTED BY:  
STEVE S.J. MILLARE, RErP  
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RECOMMENDING APPROVAL:  
MARVIN P. AMOIN, Ph.D.  
VICE PRESIDENT FOR  
ADMINISTRATION AND FINANCE

APPROVED BY:  
NANCY T. PASCUAL, Ed. D., RGC  
PRESIDENT

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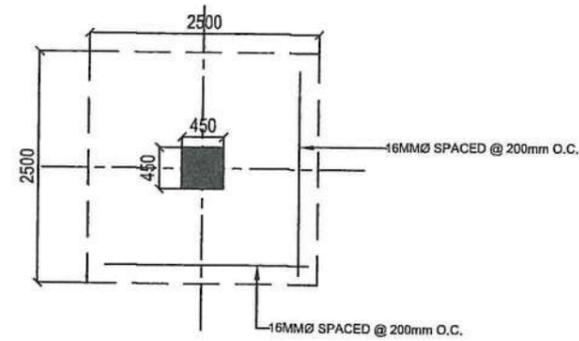
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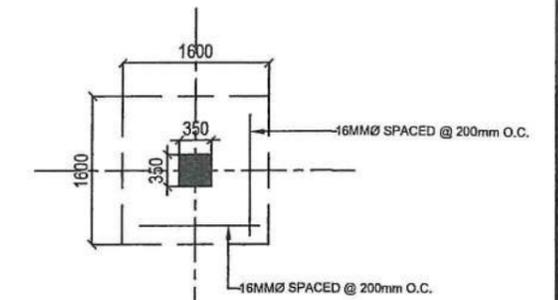
S-2 FOUNDATION PLAN  
1 4 SCALE 1:100 MTS.

FTG-3F	C1				
3F-ROOF	C1				
FTG-3F	C2				

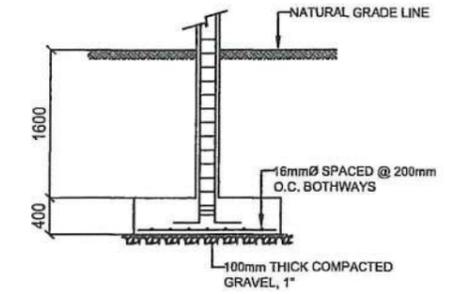
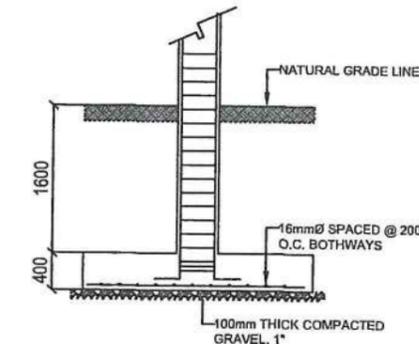
S-2 COLUMN DETAILS  
4 4 SCALE 1:100 MTS.



S-2 COLUMN FOOTING PLAN(CF-1)  
2 4 SCALE 1:75 MTS.



S-2 COLUMN FOOTING PLAN(CF-2)  
3 4 SCALE 1:75 MTS.



**FOOTING SCHEDULE**

FOOTING NUMBERS	COLUMN NUMBERS	FOOTING DIMENSION			FOOTING REINFORCEMENT	
		L	B	D	ALONG X	ALONG Y
CF1	C1	2500	2500	400	16mmØ @ 200mm O.C.	16mmØ @ 200mm O.C.
CF2	C2	1600	1600	400	16mmØ @ 200mm O.C.	16mmØ @ 200mm O.C.

**COLUMN SCHEDULE**

COLUMN MARK	SIZE	LEVEL	MAIN BAR
C1	450X450mm	FTG-3RD FLR	16pcs-20mmØ, with 12mmØ ties 4@100mm, 120mm @ mid height
C1	450X450mm	3RD FLR-ROOF	8pcs-20mmØ with 12mmØ ties 3@100mm, 120mm @ mid height
C2	350X350mm	FTG-3RD FLR	8pcs-20mmØ with 12mmØ ties 3@100mm, 120mm @ mid height



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PROJECT DEVELOPMENT OFFICER II, UPMU

CHECKED BY:  
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ROMMEL V. BARAQUIEL, RCE  
STRUCTURAL ENGINEER

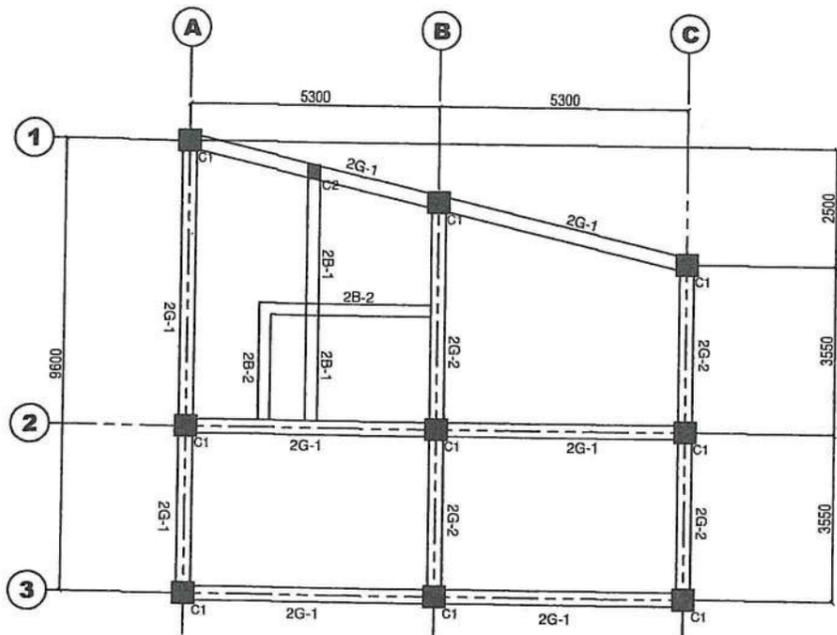
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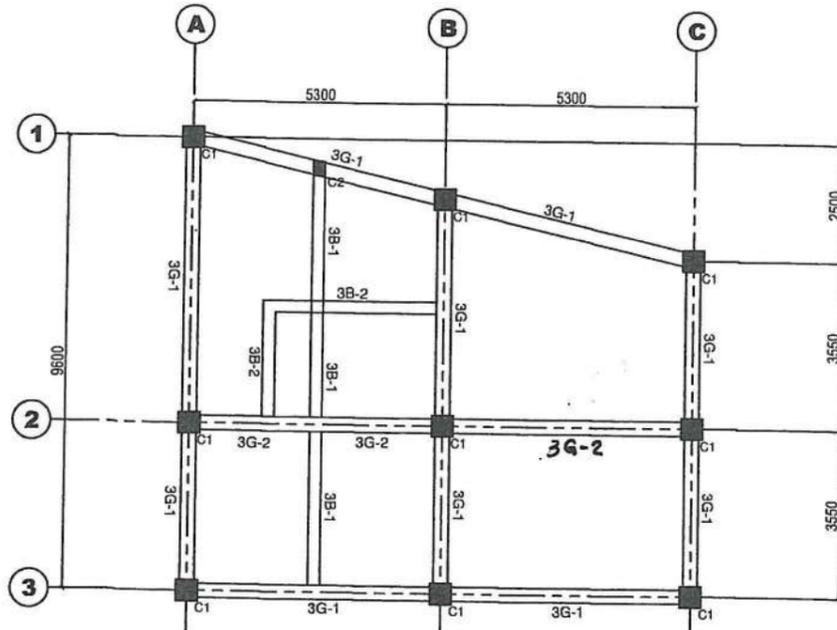
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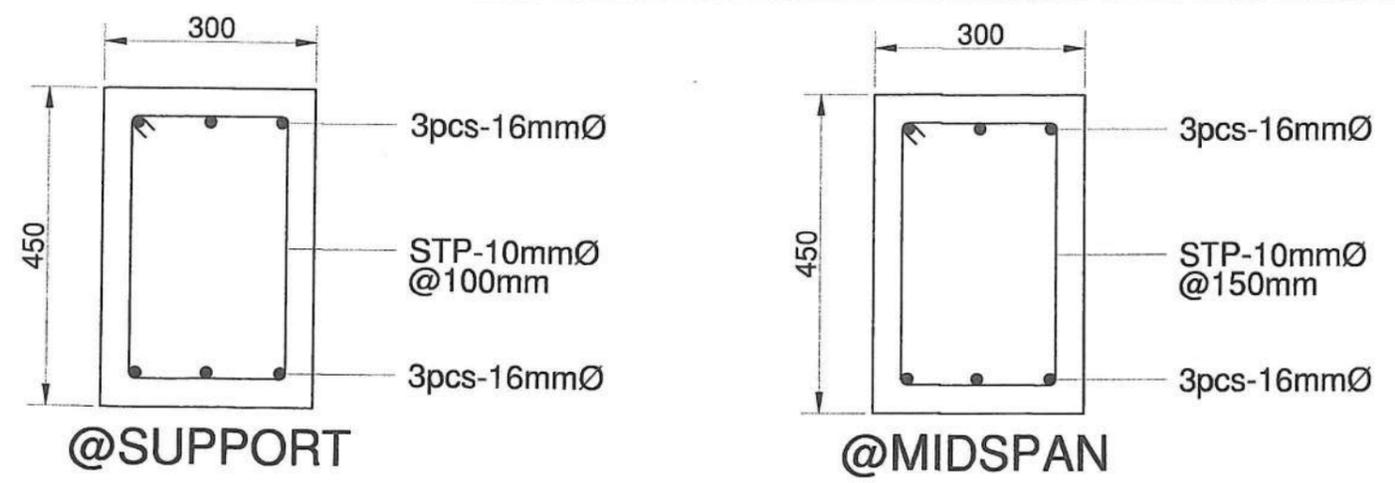
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S  
2



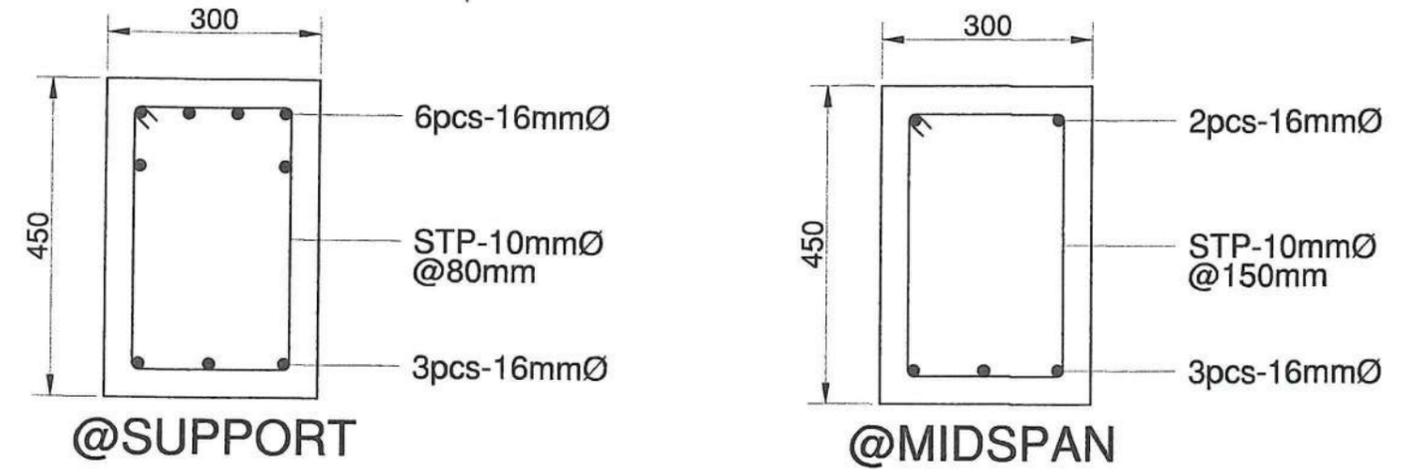
**2nd FLOOR FRAMING PLAN**  
 S-3 SCALE 1:150 MTS.



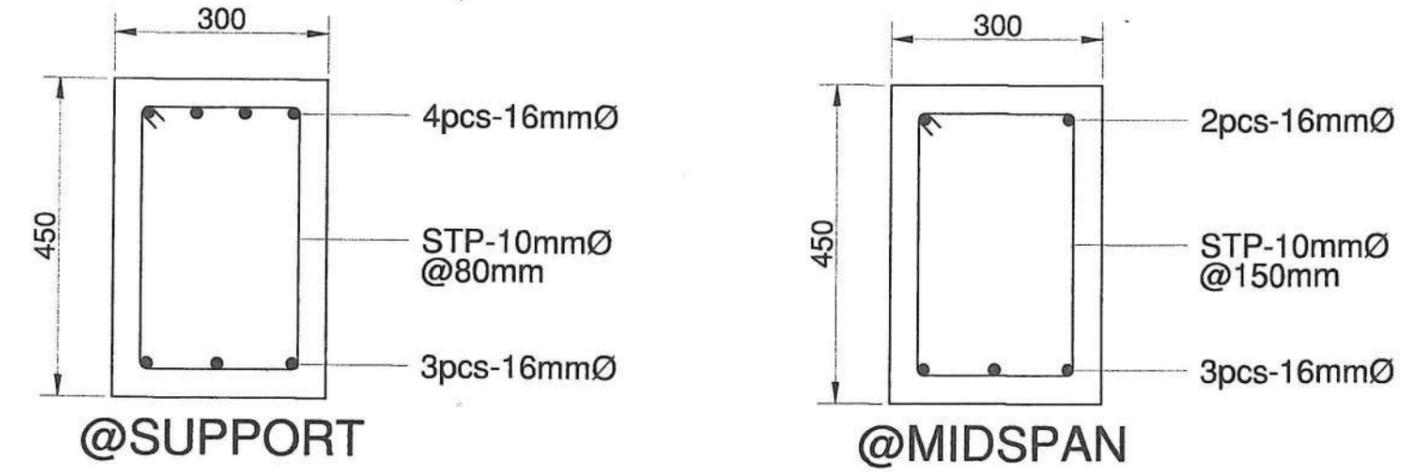
**3rd FLOOR FRAMING PLAN**  
 S-3 SCALE 1:150 MTS.



**FOOTING TIE BEAM CROSS-SECTION(FTB-1)**  
 S-3 SCALE 1:10 MTS.

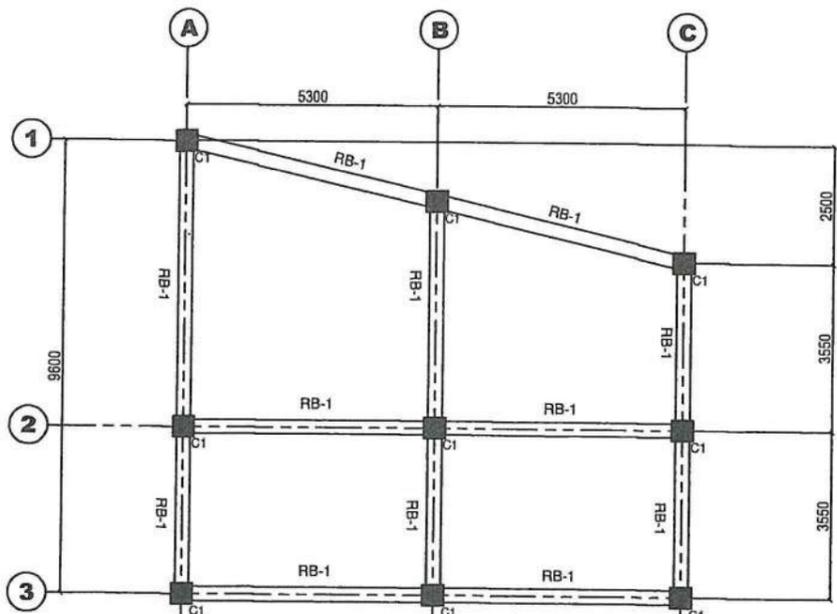


**2nd FLOOR BEAM CROSS-SECTION(2G-1)**  
 S-3 SCALE 1:10 MTS.

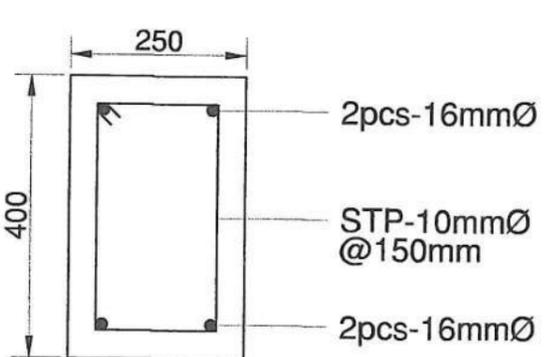
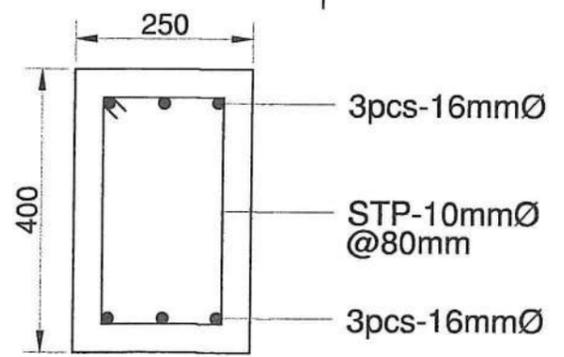


**2nd FLOOR BEAM CROSS-SECTION(2G-2)**  
 S-3 SCALE 1:10 MTS.

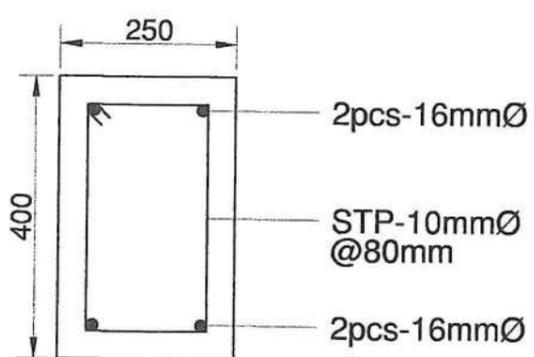
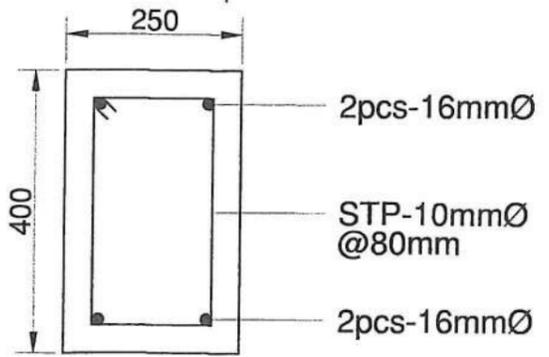
<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	<p>PROJECT TITLE:</p> <p>CONSTRUCTION OF TECHNO-BIZ BUILDING IN URS BINANGONAN CAMPUS</p> <p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>PREPARED AND DRAWN BY:</p> <p><i>[Signature]</i> JEFFREY M. LAWAS, RCE PROJECT DEVELOPMENT OFFICER II, UPMU</p>	<p>CHECKED BY:</p> <p><i>[Signature]</i> ROMMEL V. BARAQUIEL, RCE STRUCTURAL ENGINEER</p>	<p>SUBMITTED BY:</p> <p><i>[Signature]</i> STEVE S.J. MILLARE, REhP HEAD, UPMU</p>	<p>RECOMMENDING APPROVAL:</p> <p><i>[Signature]</i> MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p>APPROVED BY:</p> <p><i>[Signature]</i> NANCY T. PASCUAL, Ed. D., RGC PRESIDENT</p>	<p>SHEET CONTENT:</p> <p>AS SHOWN</p>	<p>SHEET NO.:</p> <p>S 3</p>
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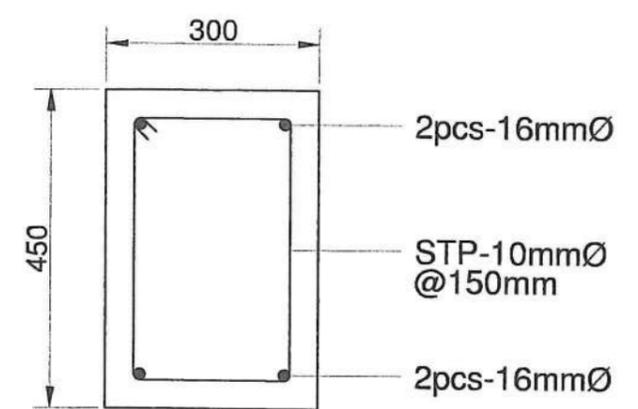
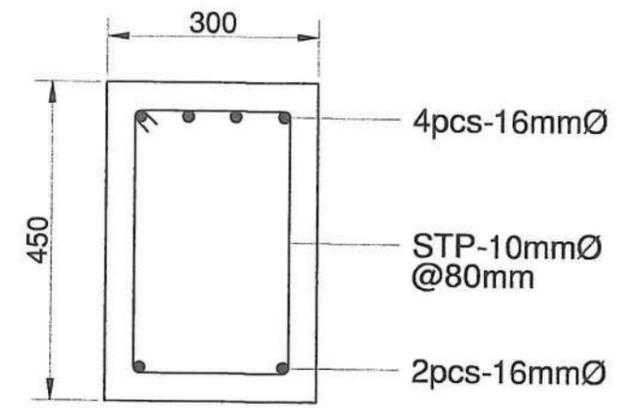
**S-4 ROOF FRAMING PLAN**  
SCALE 1/6 1:150 MTS.



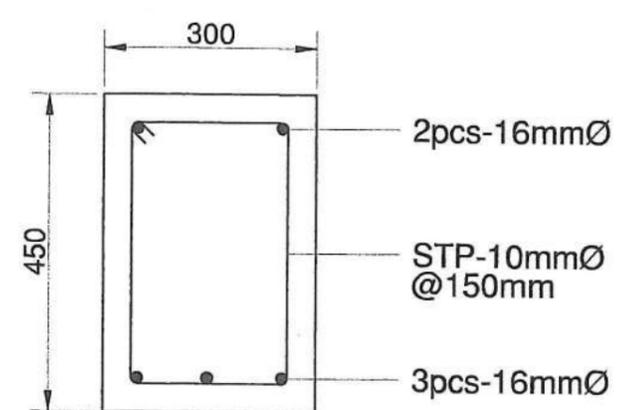
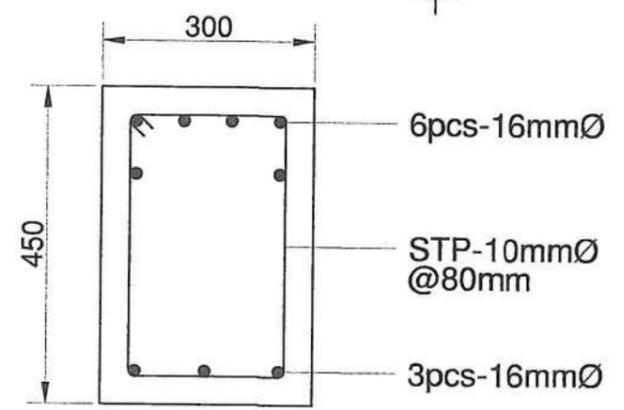
**S-4 2nd FLOOR BEAM CROSS-SECTION(2B-1)**  
SCALE 2/6 1:10 MTS.



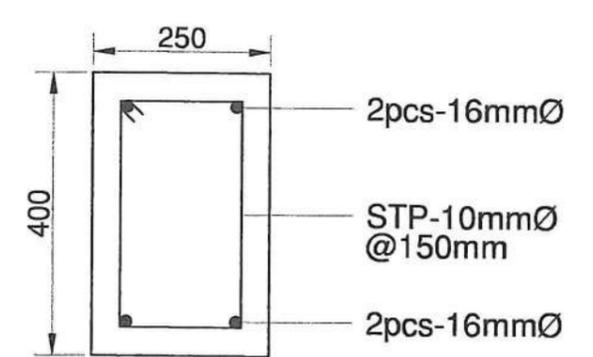
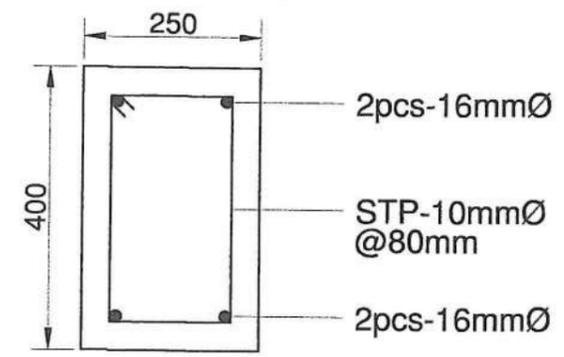
**S-4 2nd FLOOR BEAM CROSS-SECTION(2B-2)**  
SCALE 3/6 1:10 MTS.



**S-4 3rd FLOOR BEAM CROSS-SECTION(3G-1)**  
SCALE 4/6 1:10 MTS.

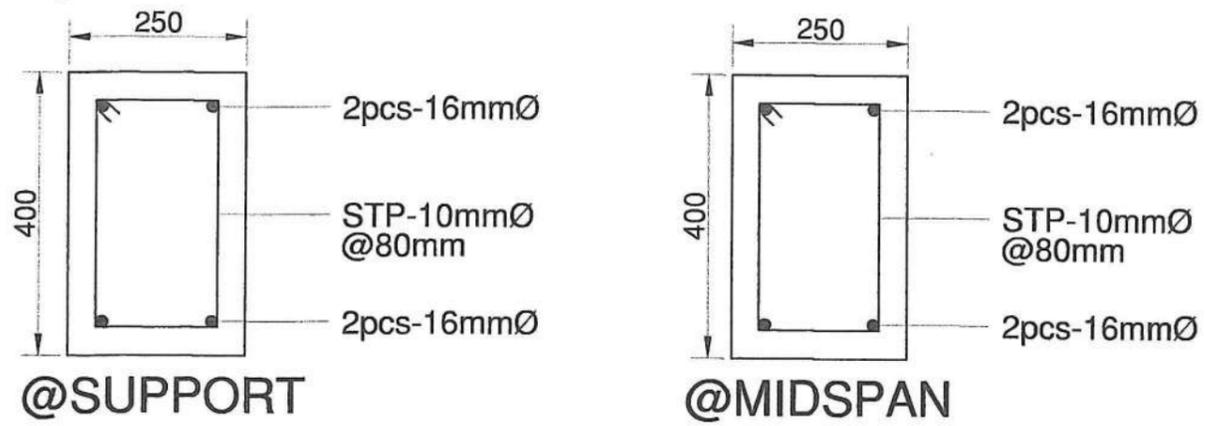


**S-4 3rd FLOOR BEAM CROSS-SECTION(3G-2)**  
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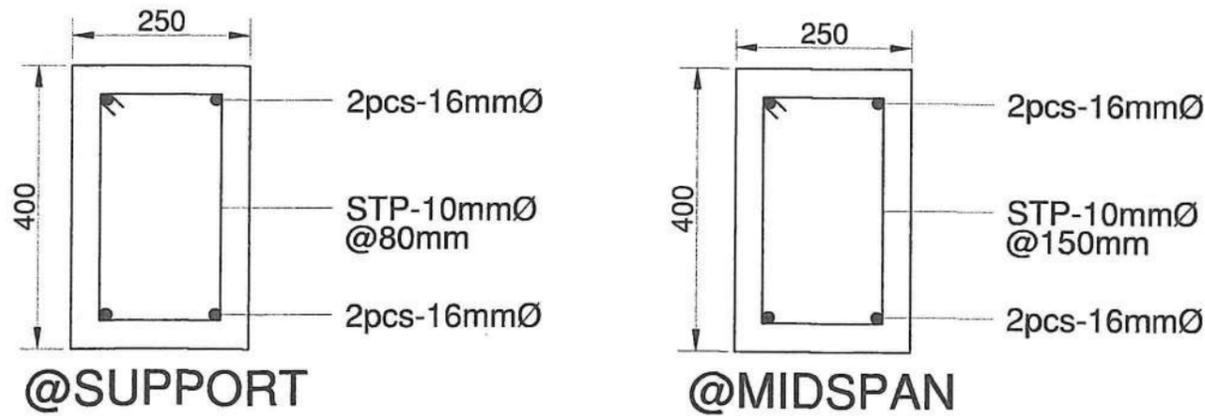


**S-4 3rd FLOOR BEAM CROSS-SECTION(3B-1)**  
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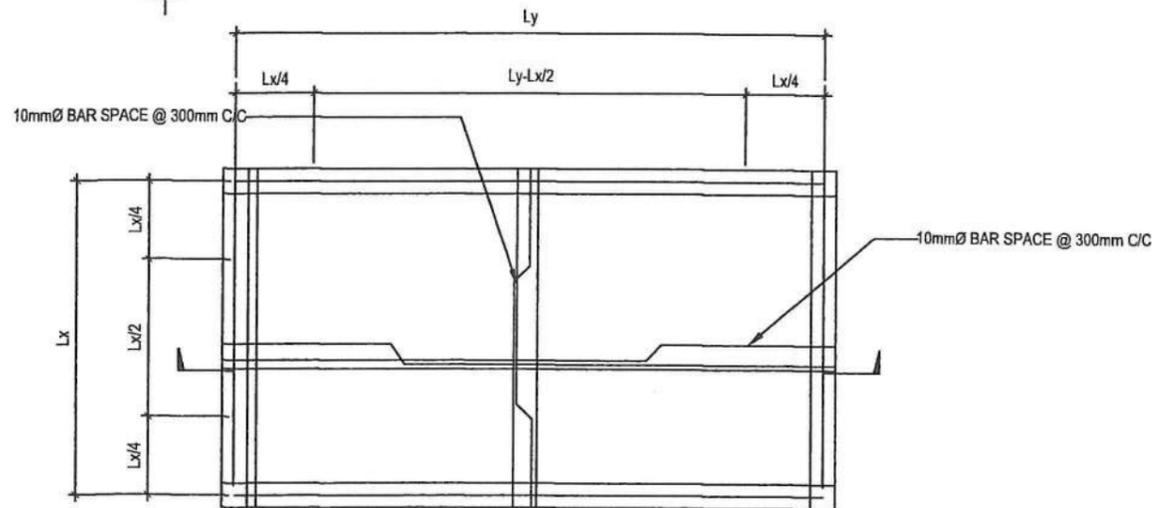
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	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>							



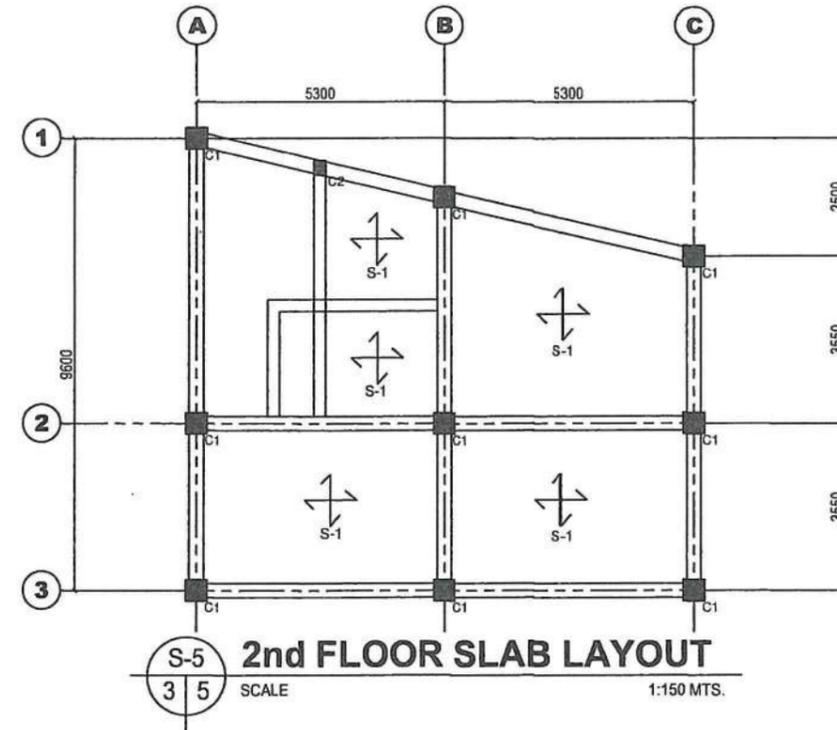
**S-5**  
1 | 5 SCALE 1:10 MTS.  
**3rd FLOOR BEAM CROSS-SECTION(3B-2)**



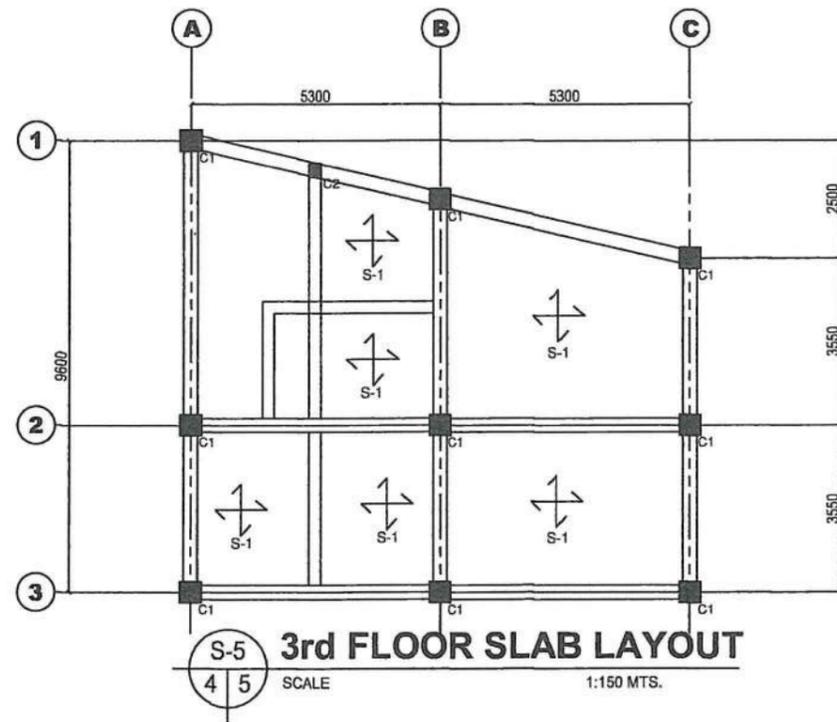
**S-5**  
2 | 5 SCALE 1:10 MTS.  
**ROOF BEAM CROSS-SECTION(RB-1)**



**S-5**  
5 | 5 NOT TO SCALE  
**SUSPENDED SLAB DETAIL**



**S-5**  
3 | 5 SCALE 1:150 MTS.  
**2nd FLOOR SLAB LAYOUT**

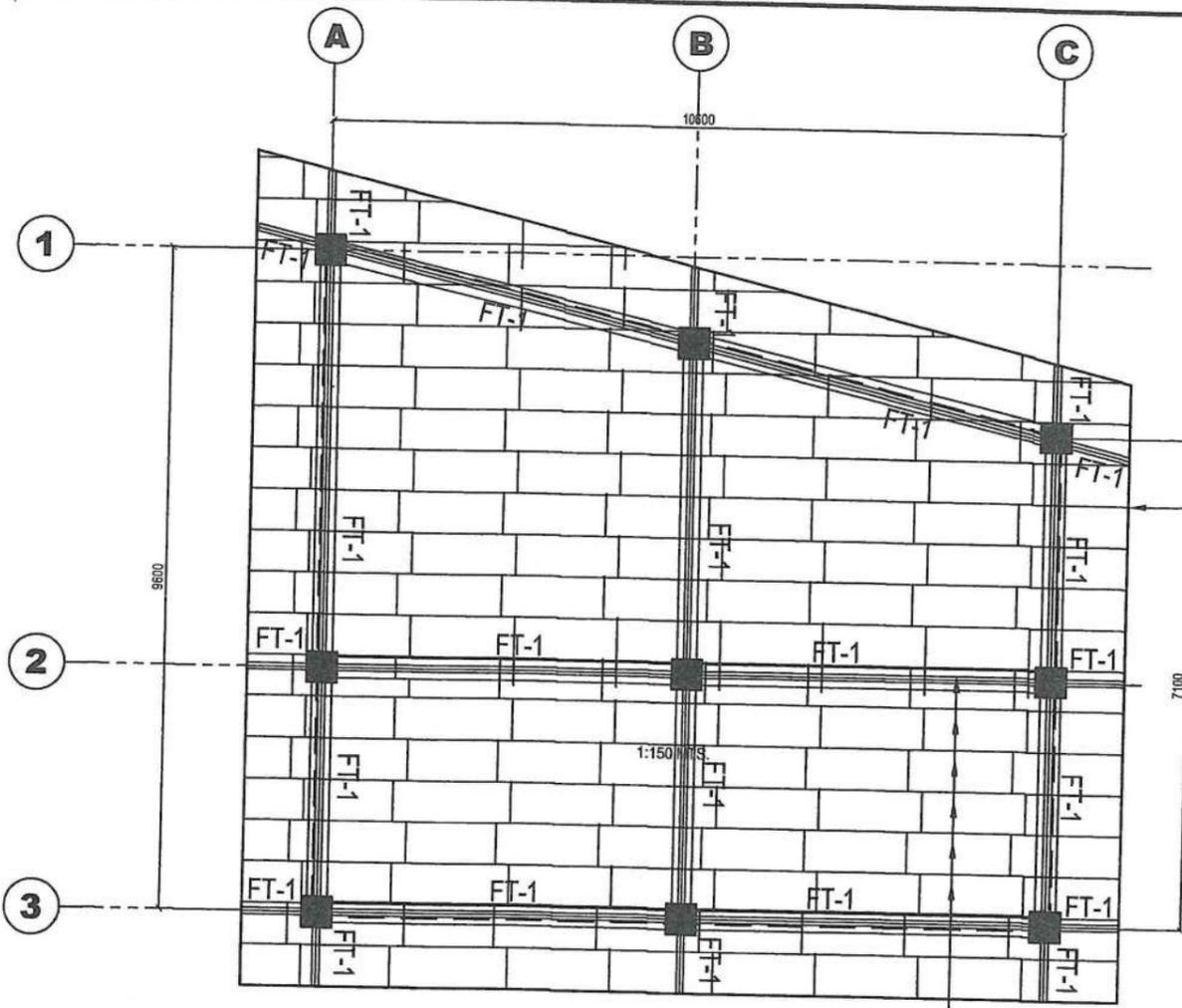


**S-5**  
4 | 5 SCALE 1:150 MTS.  
**3rd FLOOR SLAB LAYOUT**

**SCHEDULE OF SUSPENDED SLAB**

SLAB MARK	THICKNESS (mm)	REBAR LOCATION	REBAR PARALLEL TO SHORT SPAN			REBAR PARALLEL TO LONG SPAN			BOTTOM BARS AT MIDSPAN			REMARKS
			REBAR SIZE	TOP	BOTTOM	REBAR SIZE	TOP	BOTTOM	REBAR SIZE	PARALLEL TO SHORT SPAN	PARALLEL TO SHORT SPAN	
S-1	110	FREE-END	10mmØ	150	300	10mmØ	150	300	10mmØ	150	150	TWO-WAY
		CONT-END	10mmØ	150	300	10mmØ	150	300				

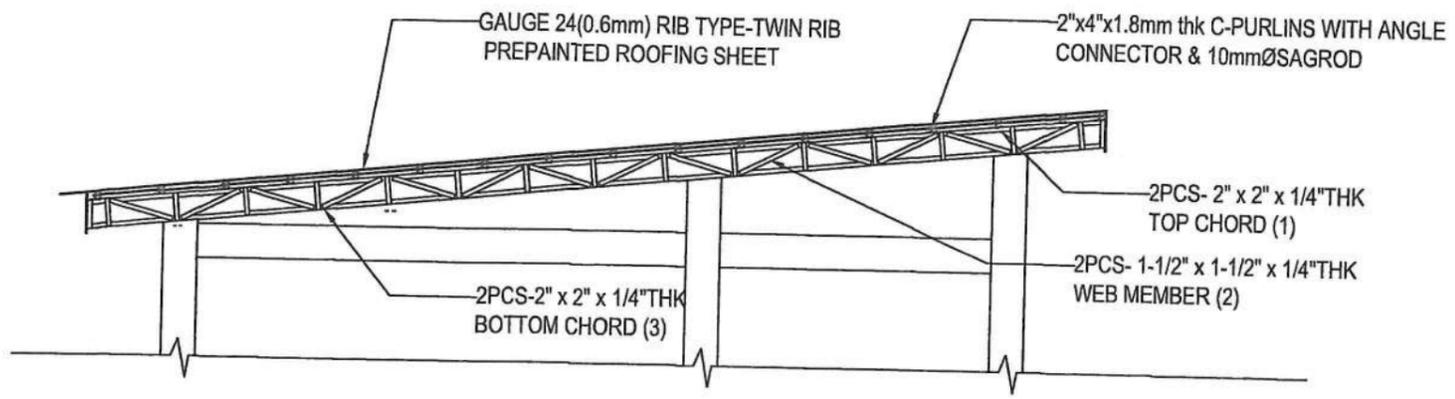
<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	<p>PROJECT TITLE: CONSTRUCTION OF TECHNO-BIZ BUILDING IN URS BINANGONAN CAMPUS</p>	<p>PREPARED AND DRAWN BY: <i>[Signature]</i> JERREY M. LAWAS, RCE PROJECT DEVELOPMENT OFFICER II, UPMU</p>	<p>CHECKED BY: <i>[Signature]</i> ROMMEL V. BARAQUIEL, RCE STRUCTURAL ENGINEER</p>	<p>SUBMITTED BY: <i>[Signature]</i> STEVE S.J. MIKLARE, RENP HEAD, UPMU</p>	<p>RECOMMENDING APPROVAL: <i>[Signature]</i> MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p>APPROVED BY: <i>[Signature]</i> NANCY T. PASCUAL, Ed. D., RGC PRESIDENT</p>	<p>SHEET CONTENT: AS SHOWN</p>	<p>SHEET NO.: <b>S</b> <b>5</b></p>
	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>							



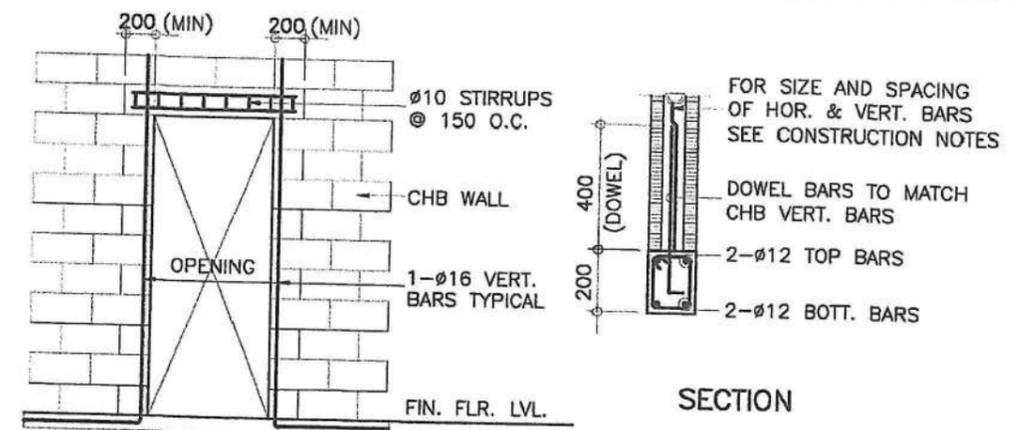
**S-6 ROOF FRAMING PLAN**  
SCALE 1/4  
1:100 MTS

PROVIDE GAUGE #24 SIDE FLASHING G.I. SHEET ATTACHE 12MM THK X 12" DEPTH FASCIA

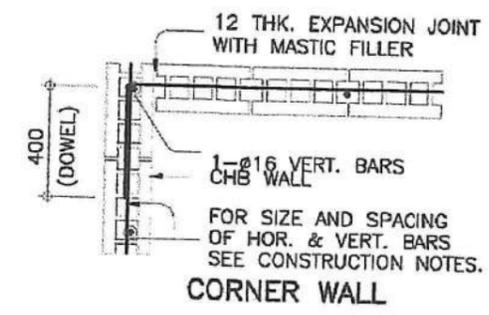
2" x 4" C-PURLINS @ 600MM O.C. WITH ANGLE CONNECTOR AND 10MMØ PLAIN BAR SAG ROD @ 1500MM O.C.



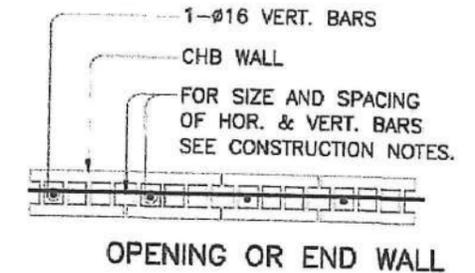
**S-6 ROOF FRAMING DETAIL**  
SCALE 2/4  
1:100 MTS



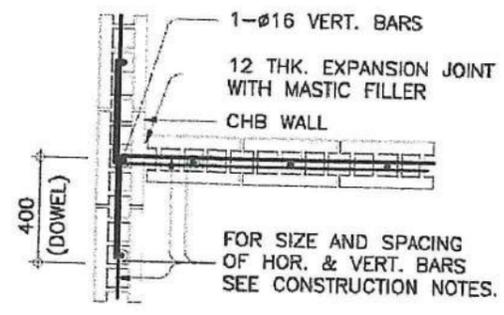
**ELEVATION**  
**S-6 TYP. DET. OF LINTEL BEAM AT CHB WALL OPENING**  
3/4 NOT TO SCALE



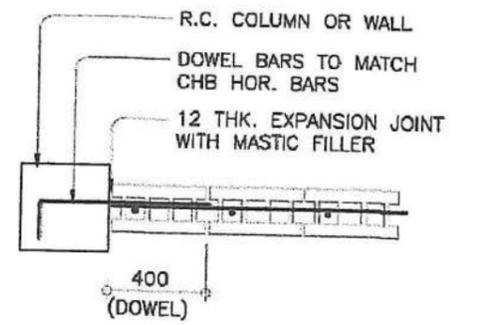
**CORNER WALL**



**OPENING OR END WALL**



**INTERSECTION WALL**



**INTERSECTING R.C. COL. OR WALL**

**S-6 TYP. CONNECTION DETAIL OF MASONRY WALL**  
4/4 NOT TO SCALE

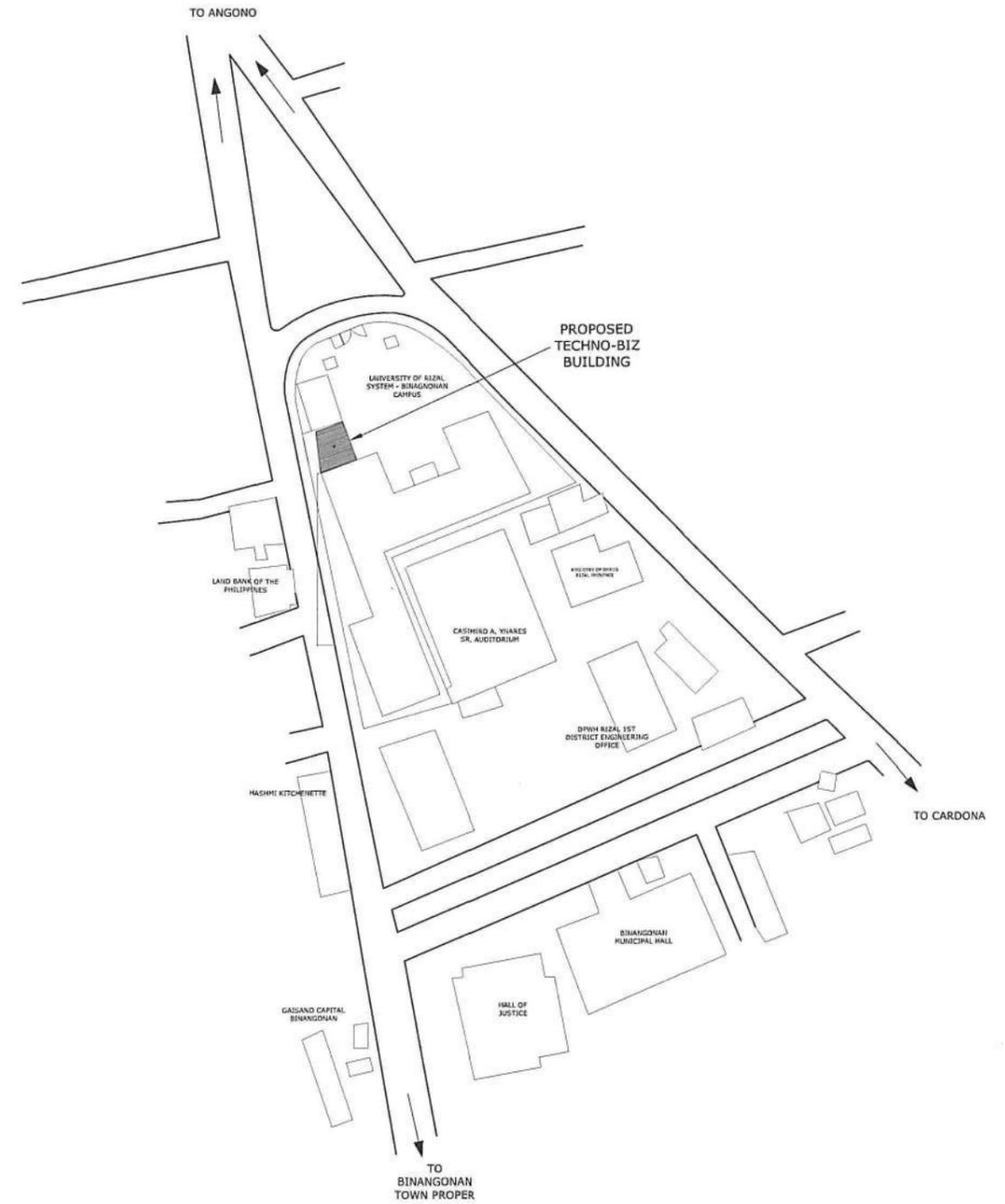
<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	<p>PROJECT TITLE: CONSTRUCTION OF TECHNO-BIZ BUILDING IN URS BINANGONAN CAMPUS</p>	<p>PREPARED AND DRAWN BY: <i>[Signature]</i> JEFFREY M. LAWAS, RCE PROJECT DEVELOPMENT OFFICER II, UPMU</p>	<p>CHECKED BY: <i>[Signature]</i> ROMMEL V. BARAQUIEL, RCE STRUCTURAL ENGINEER</p>	<p>SUBMITTED BY: <i>[Signature]</i> STEVE S. J. MILLARE, RENP HEAD, UPMU</p>	<p>RECOMMENDING APPROVAL: <i>[Signature]</i> MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p>APPROVED BY: <i>[Signature]</i> NANCY T. PASCUAL, Ed. D., RGC PRESIDENT</p>	<p>SHEET CONTENT: AS SHOWN</p>	<p>SHEET NO.: S 6</p>
	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>

**GENERAL NOTES**

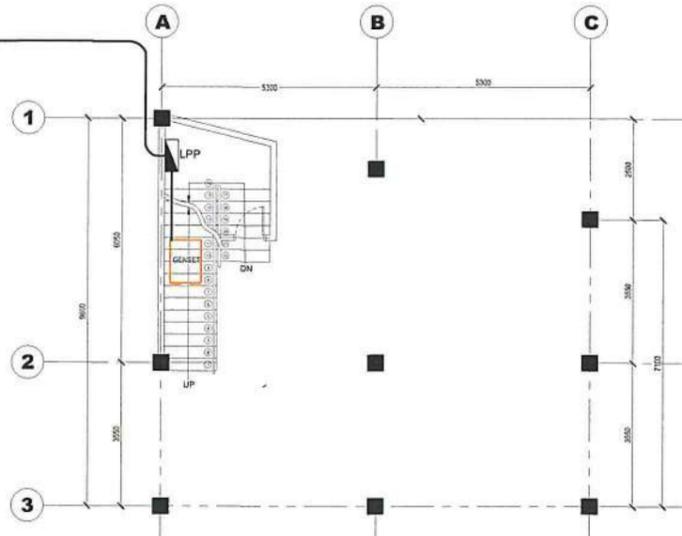
1. ALL ELECTRICAL WORKS HEREIN SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC), THE NEW ELECTRICAL ENGINEERING LAW (R.A. 7920), LAWS AND ORDINANCES OF THE LOCAL GOVERNMENT UNIT AND RULES AND REGULATIONS OF THE LOCAL ELECTRICAL POWER UTILITY COMPANY.
2. USE UNPLASTICIZED POLYVINYL CHLORIDE (PVC) FOR THE MAIN SERVICE ENTRANCE, FOR LOAD SIDE AND AUXILIARY IN CONFORMANCE WITH THE EXISTING ELECTRICAL CODE, UNLESS OTHERWISE SPECIFIED.
3. PANELBOARDS AND OVERCURRENT PROTECTION ENCLOSURES SHALL BE NEMA-1 FOR INDOOR USE AND NEMA-3R FOR OUTDOOR USE UNLESS OTHERWISE SPECIFIED.
4. POWER SERVICE ENTRANCE TO THE BUILDING SHALL BE 240V, 60HZ, SINGLE PHASE, 2-WIRE + GROUND.
5. ALL WIRING INSTALLATION SHALL BE CONCEALED FROM VIEW.
6. UNLESS OTHERWISE INDICATED, BRANCH CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN 2.0mm DIAMETER, SOLID COPPER, MEDIUM DRAWN, THHN TYPE, 600 VOLTS INSULATIONS.
7. MINIMUM SIZE OF CONDUIT SHALL BE 20mm DIA. FOR IMC AND uPVC. 15mm DIA. FOR EMT.
8. NO BRANCH CIRCUIT CONDUCTORS SHALL BE LOADED MORE THAN 80% OF ITS RATED AMPACITY.
9. BOXES SHALL BE PRESSED STEEL WITH REQUIRED THICKNESS IN CONFORMANCE WITH THE LATEST EDITION OF THE PEC.
10. MOUNTING HEIGHT OF PANEL AND DEVICES ARE AS FOLLOWS; (FROM FLOOR FINISH TO CENTER OF UNIT)
 

A. WALL SWITCHES	400 mm
B. WALL CONVENIENCE OUTLET	300 mm
C. COUNTER-TOP OUTLET	VERIFY ARCHITECT
D. TELEPHONE/CATV OUTLET	VERIFY ARCHITECT
E. EMERGENCY LIGHT OUTLET	VERIFY ARCHITECT
F. kWhr METER	1830 mm
G. PANELBOARD	1830 mm
11. GROUND ROD OF 15mm DIA. SHOULD BE CONNECTED BY GROUND CONNECTOR 14.0mm<sup>2</sup> (MAXIMUM) TO THE NEUTRAL BAR AT THE METER CENTER.
12. GROUND WIRE FROM THE NEUTRAL BAR AT THE METER CENTER SHOULD BE TAP TO THE BUILDING REINFORCING BAR OF NOT LESS THAN 1/2 INCHES DIAMETER LENGTH SHOULD BE MORE THAN 20R. USE SOLDERLESS CONNECTOR FOR EXPOSED CONNECTIONS. THERMOWELD IN CONCEALED IN CONCRETE OR EMBEDDED IN CONCRETE.
13. CONDUITS/RACEWAYS SHALL BE ADEQUATELY SUPPORTED AS REQUIRED IN CONFORMANCE WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC).
14. ONLY LISTED TOOLS, APPLIANCES AND EQUIPMENT COVERED BY PEC ART. 2.50.6.5 AND 2.10.1.8 (EXEMPTION-2) SHALL NOT BE REQUIRED TO BE G.F.C.I. PROTECTED.
15. DISTRIBUTION PANEL SHALL BE READILY ACCESSIBLE, THAT NO OBSTACLE SHOULD BLOCK ACCESS TO THE PANEL.
16. THE INSTALLATION SHALL BE DIRECTLY SUPERVISED BY A DULY LICENSED ELECTRICAL PRACTITIONER IN CONFORMANCE WITH R.A.7920.

SYMBOLS	DESCRIPTION
● S	SINGLE SWITCH
● 2S	TWO-GANG SWITCH
● 3S	THREE-GANG SWITCH
● S3W	SINGLE 3-WAY SWITCH
2 ⊖	DUPLEX CONVENIENCE OUTLET
WP ⊖	WEATHERPROOF OUTLET
●	12W, 230V, SURFACE MOUNTED CIRCULAR TYPE
●	12W, 230V, RECESSED DOWNLIGHT CIRCULAR TYPE
	300mm x 1200mm Eggcrate Aluminum Louver with 2-T5 LED Tube
	2-18W DAYLIGHT 1240x122x47mm T8 LED WEATHERPROOF OUTDOOR
	EMERGENCY LIGHT
	LIGHTING/POWER PANEL
Ⓢ	Smoke Detector
	Manual Pull Station and Alarm Bell
	Fire Alarm Control Panel
ⓐ	Wifi / Data Access Point
	Data Router Pull Box
	Telephone Terminal Cabinet / Telco Line Enclosure

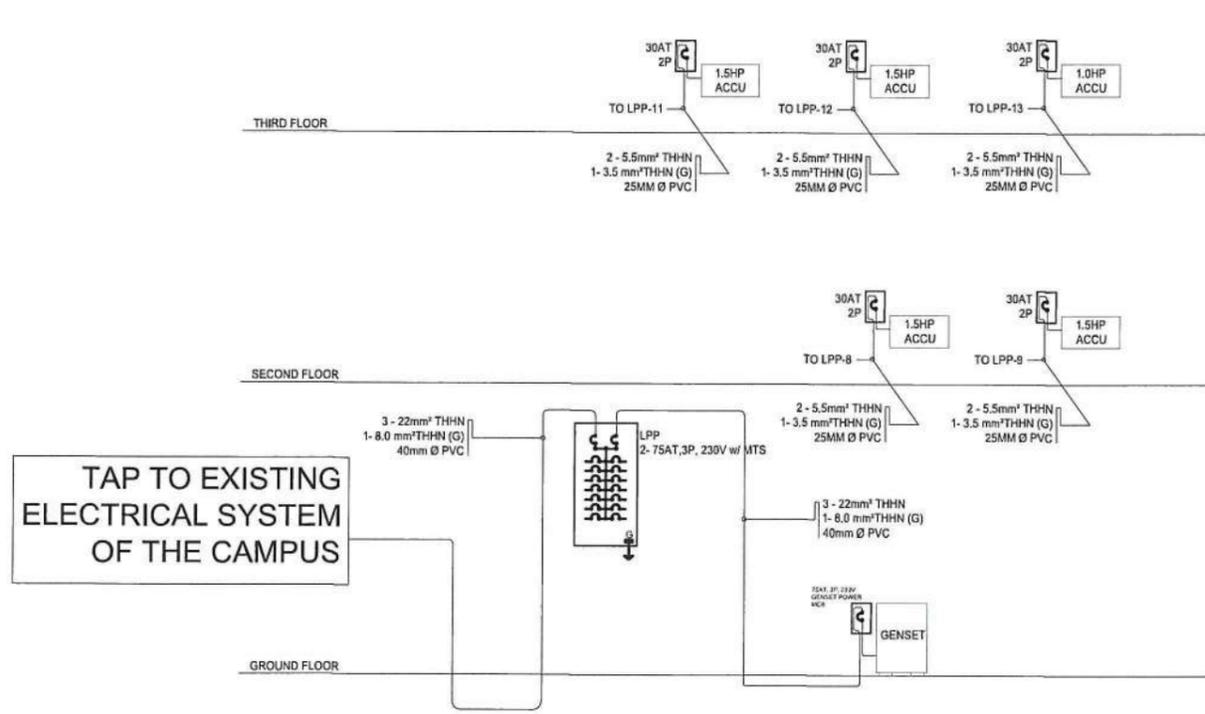


TAP TO EXISTING ELECTRICAL SYSTEM OF THE CAMPUS

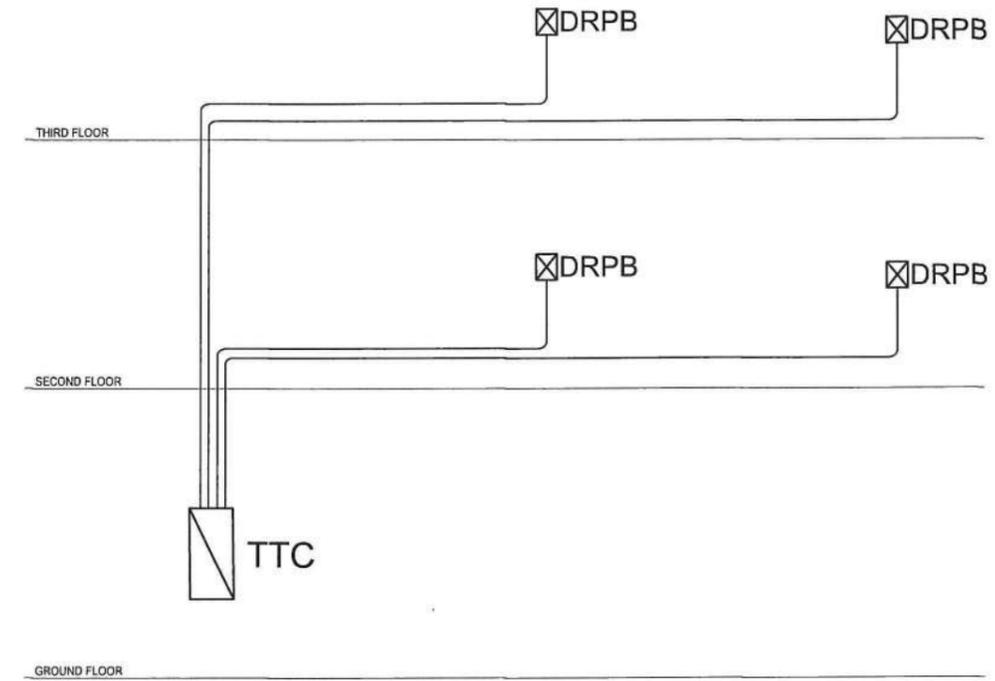


E-1
SCALE
NTS.

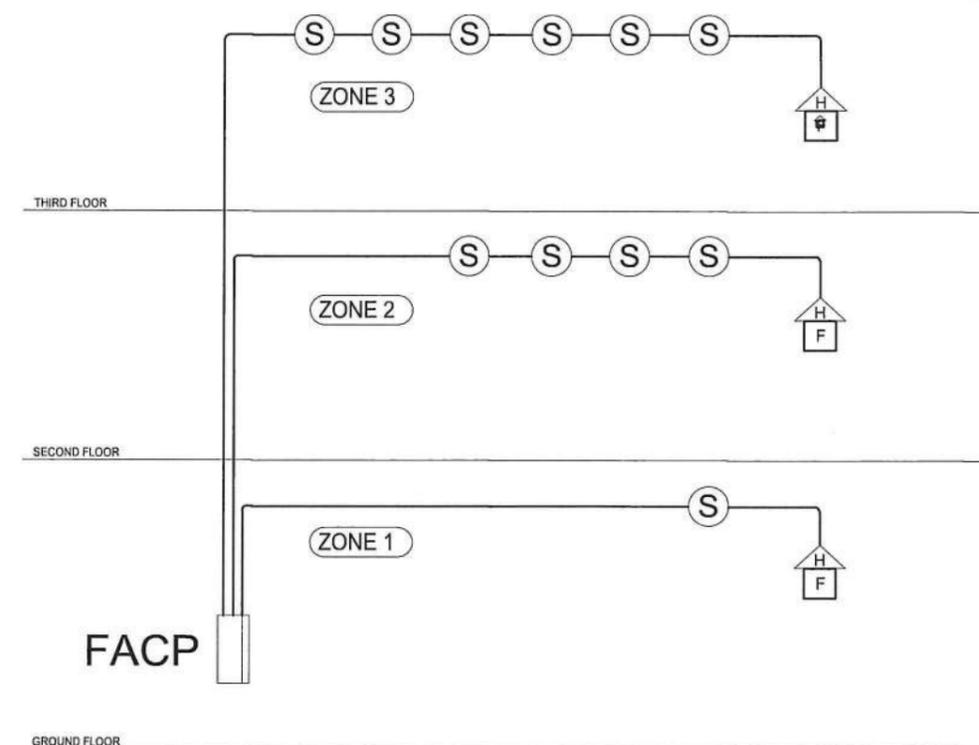
 <b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS  <small>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</small>	 BILL CESAR P. RAMOS, REE <small>PROJECT DEVELOPMENT OFFICER I, UPMU</small>	 CHRISTIAN A. BERONILLA, PEE, RMP <small>PROFESSIONAL ELECTRICAL ENGINEER</small>	 STEVE S.J. MILLARE, RE nP <small>HEAD, UPMU</small>	 MARVIN P. AMOIN, Ph.D. <small>VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</small>	 NANCY T. PASCUAL, Ed. D., RGC <small>PRESIDENT</small>	AS SHOWN	<span style="font-size: 2em; font-weight: bold;">E</span> <span style="font-size: 3em; font-weight: bold;">1</span>



**E-2 POWER RISER DIAGRAM**  
 1 3 SCALE NTS.



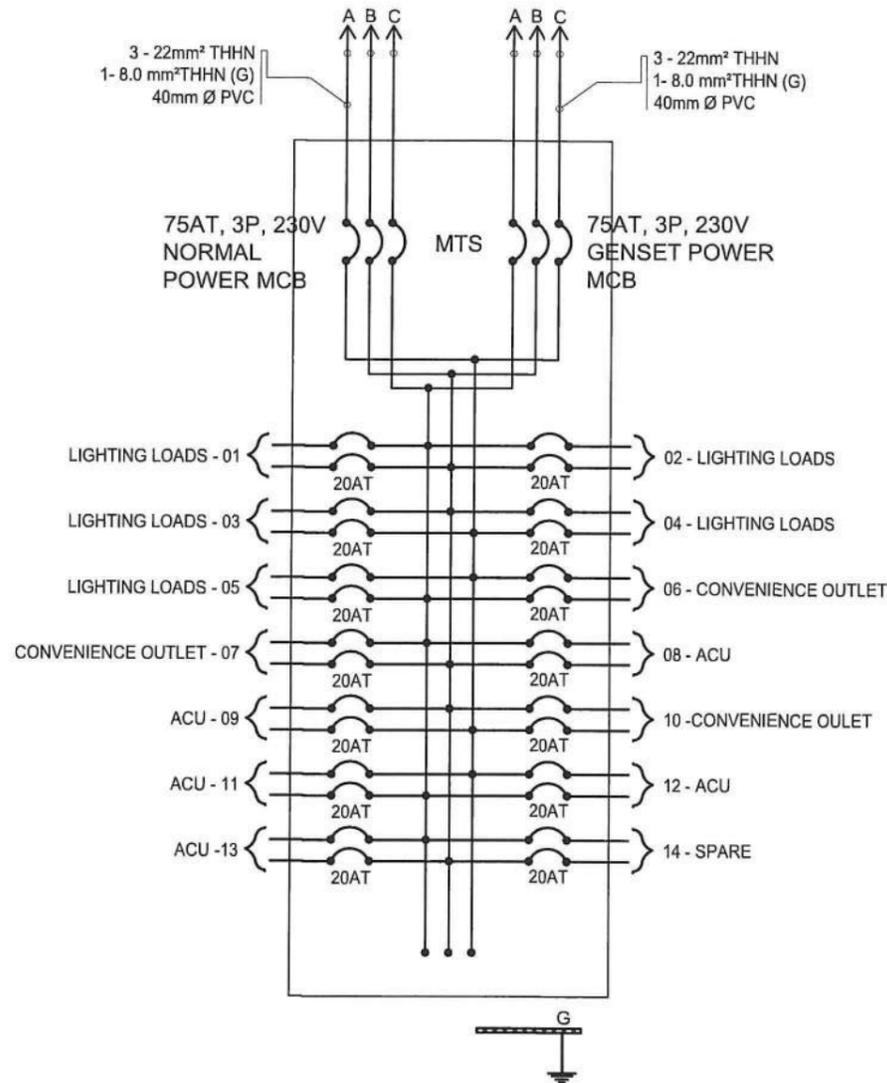
**E-2 DATA/TEL RISER DIAGRAM**  
 2 3 SCALE NTS.



**E-2 FDAS RISER DIAGRAM**  
 3 3 SCALE NTS.

 <b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT	PROJECT TITLE: CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS	PREPARED AND DRAWN BY:  BILL CESAR P. RAMOS, REE PROJECT DEVELOPMENT OFFICER I, UPMU	CHECKED BY:  CHRISTIAN A. BERONILLA, PEE, RMP PROFESSIONAL ELECTRICAL ENGINEER	SUBMITTED BY:  STEVE S.J. MILLARE, REnP HEAD, UPMU	RECOMMENDING APPROVAL:  MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE	APPROVED BY:  NANCY T. PASCUAL, Ed. D., RGC PRESIDENT	SHEET CONTENT: AS SHOWN	SHEET NO.: <b>E</b> <b>2</b>
	UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS							

# LPP

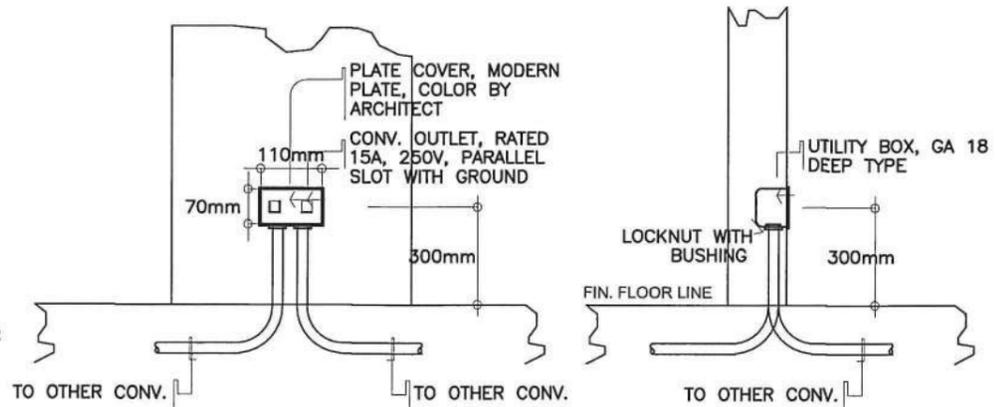
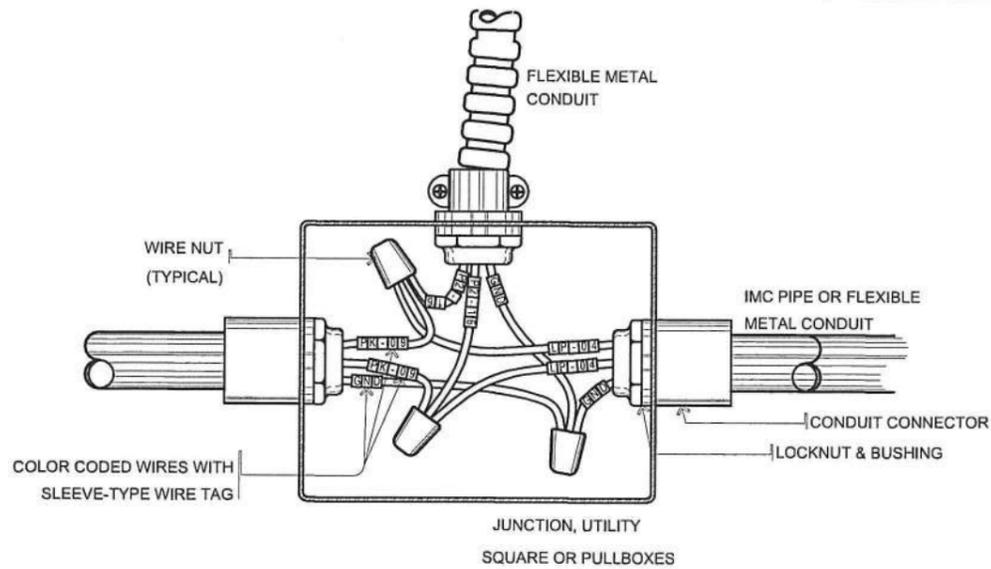


**E-3**  
1 | 2 SCALE NTS.  
**PANEL LP DETAILS**

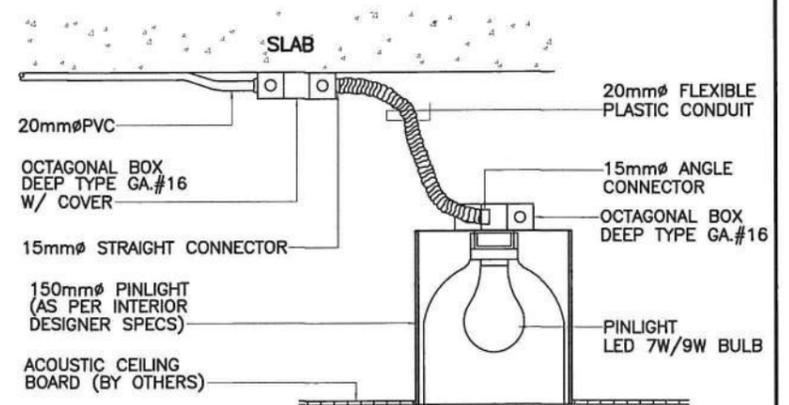
PANEL NAME: LIGHTING/POWER PANEL(LPP)			MAIN FEEDER WIRES						MAIN CIRCUIT BREAKER						
LOCATION: GROUND FLOOR			3-22mm² THHN (LINE)						75 AT/ 100AF, 3P, 230V, MCCB						
ENCLOSURE: NEMA 1			1-8.0mm² THHN (GROUND)						INDUSTRIAL TYPE						
MOUNTING: SURFACE MOUNTED WITH DEAD FRONT			IN 40mmØ PVC												
CKT. NO	LOADS	VA	AMPERE LOADS				PROTECTION				FEEDER WIRES	CONDUIT			
			AB	BC	CA	ABC	AT	AF	P	KAIC			TYPE	V	
1	2- 18W LED T8 Daylight WeatherProof Outdoor , 1- 12W LED Surface Mounted Circular Downlights	264	1.15				20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
2	6- 300mm x 1200mm Eggcrate Aluminum Louver with 2- 18W LED T8 Tube, 8- 12 W LED Recessed Circular Downlights, 1- EL	412	1.79				20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
3	6-300mm x 1200mm Eggcrate Aluminum Louver with 2- 18W LED T8 Tube, 2-EL	416		1.81			20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
4	6-300mm x 1200mm Eggcrate Aluminum Louver with 2- 18W LED T8 Tube, 6- 12 W LED Recessed Circular Downlights, 3-EL	588		2.56			20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
5	8-300mm x 1200mm Eggcrate Aluminum Louver with 2- 18W LED T8 Tube, 2- EL	488			2.12		20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
6	FACP, C.O	360			1.57		20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
7	7- Duplex C.O, 1- WP C.O	1,440	6.26				20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
8	1.5 HP Split Type ACU	2,300	10.00				30	50	2	10	I.T	230	2-5.5mm² THHN + 1-5.5mm² THHN (G)	25mmØ PVC	
9	1.5 HP Split Type ACU	2,300		10.00			30	50	2	10	I.T	230	2-5.5mm² THHN + 1-5.5mm² THHN (G)	25mmØ PVC	
10	11- Duplex C.O, 1- WP C.O	2,160		9.39			20	50	2	10	I.T	230	2-3.5mm² THHN + 1-3.5mm² THHN (G)	20mmØ PVC	
11	1.5 HP Split Type ACU	2,300			10.00		30	50	2	10	I.T	230	2-5.5mm² THHN + 1-5.5mm² THHN (G)	25mmØ PVC	
12	1.5 HP Split Type ACU	2,300			10.00		30	50	2	10	I.T	230	2-5.5mm² THHN + 1-5.5mm² THHN (G)	25mmØ PVC	
13	1.5 HP Split Type ACU	2,300	10.00				30	50	2	10	I.T	230	2-5.5mm² THHN + 1-5.5mm² THHN (G)	25mmØ PVC	
14	SPARE														
<b>TOTAL</b>		<b>17,628</b>	<b>29.20</b>	<b>23.76</b>	<b>23.69</b>	<b>0.00</b>									
<b>COMPUTATIONS:</b>															
<b>TOTAL CURRENT:</b>		$29.20 \times 1.732 + 25\% (0) =$		50.57 A		FEEDER: 3-22mm² THHN + 1-8.0mm² THHN (G) Wire in 40mmØ PVC									
<b>DEMAND LINE CURRENT:</b>		$50.57 \text{ A} \times 0.8 =$		40.46 A		MAIN BREAKER: 75 AT/ 100AF, 3P, 230V, MCCB									
<b>REQUIRED RATING:</b>		$23.36 \text{ A} \times 1.25 =$		50.57 A											

**E-3**  
2 | 2 SCALE NTS.  
**LOADING SCHEDULE**

<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS	BILL CESAR P. RAMOS, REE PROJECT DEVELOPMENT OFFICER I, UPMU	CHRISTIAN A. BERONILLA, PEE, RMP PROFESSIONAL ELECTRICAL ENGINEER	STEVE S.J. MILLARE, RE/EP HEAD, UPMU	MARVIN P. AMOIN, Ph.D. VICE PRESIDENT FOR ADMINISTRATION AND FINANCE	NANCY T. PASCUAL, Ed. D., RGC PRESIDENT	AS SHOWN	<b>E</b> <b>3</b>



**E-4**  
2 | 6 SCALE NTS.  
**TYPICAL CONVENIENCE OUTLET MTG. DETAILS**

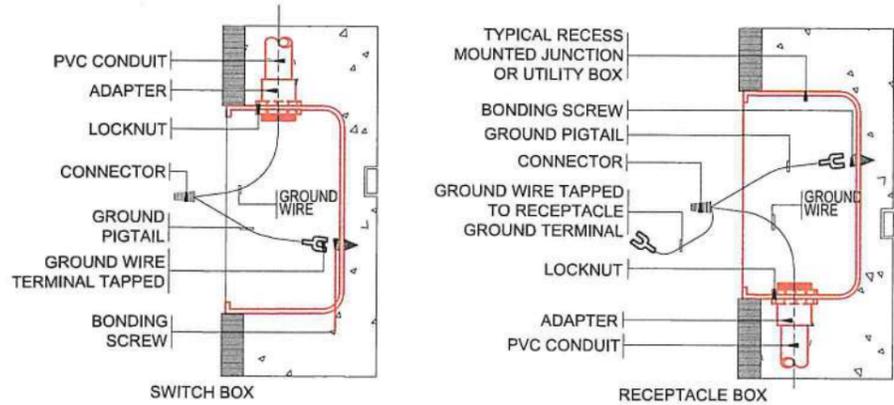


**E-4**  
3 | 6 SCALE NTS.  
**PINLIGHT INSTALLATION DETAIL**

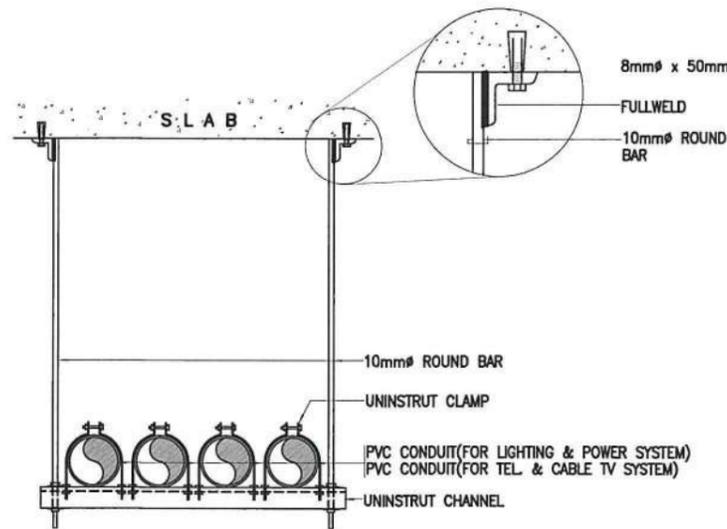
NEC TABLE 314.16 ELECTRICAL BOX FILL TABLE

BOX TRADE SIZE	DIMENSION	MAXIMUM NUMBER OF CONDUCTORS (in AWG)							
		18	16	14	12	10	8	6	
OCTAGONAL	100 x 54 mm, ga.16	14	12	10	9	8	7	4	
SQUARE	120 x 54 mm, ga.16	28	24	21	18	16	14	8	
UTILITY	100 x 54 x 54 mm, ga.16	9	8	7	6	5	4	2	

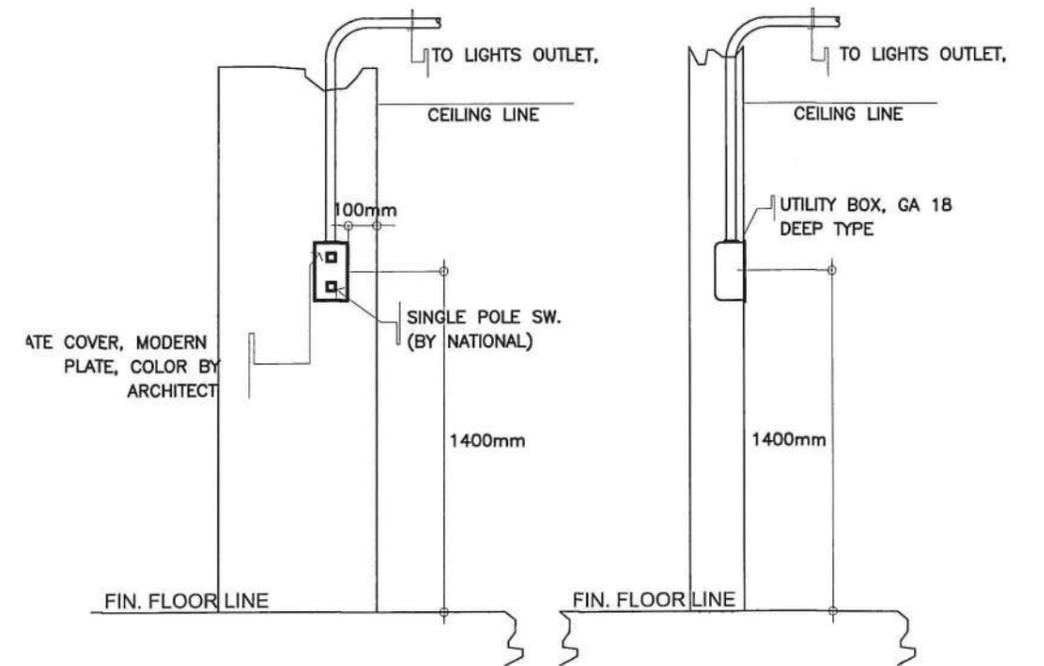
**E-4**  
1 | 6 SCALE NTS.  
**STANDARD ELECTRICAL BOX INSTALLATION**



**E-4**  
4 | 6 SCALE NTS.  
**TYPICAL GROUNDING CONNECTION DETAILS**

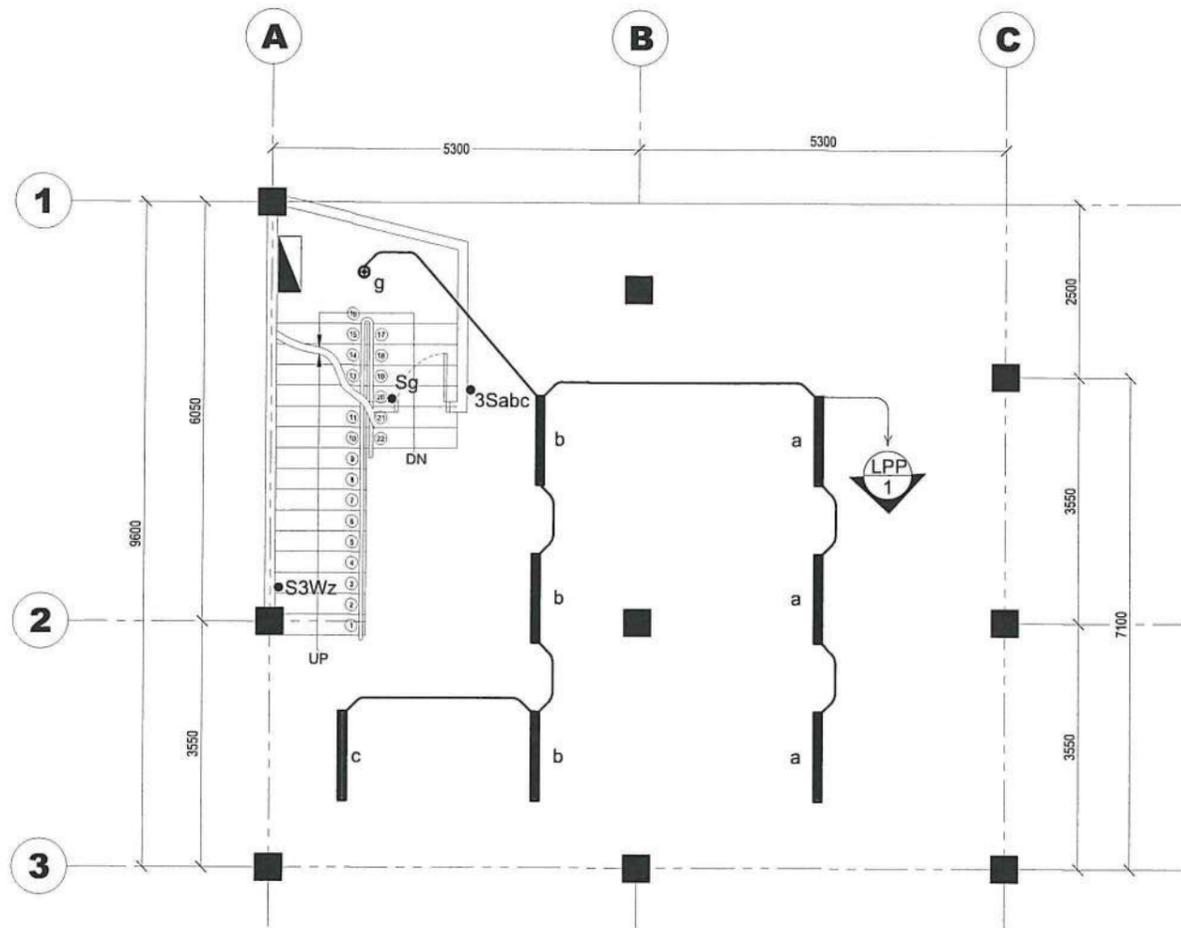


**E-4**  
5 | 6 SCALE NTS.  
**CONDUITS HANGER DETAIL**

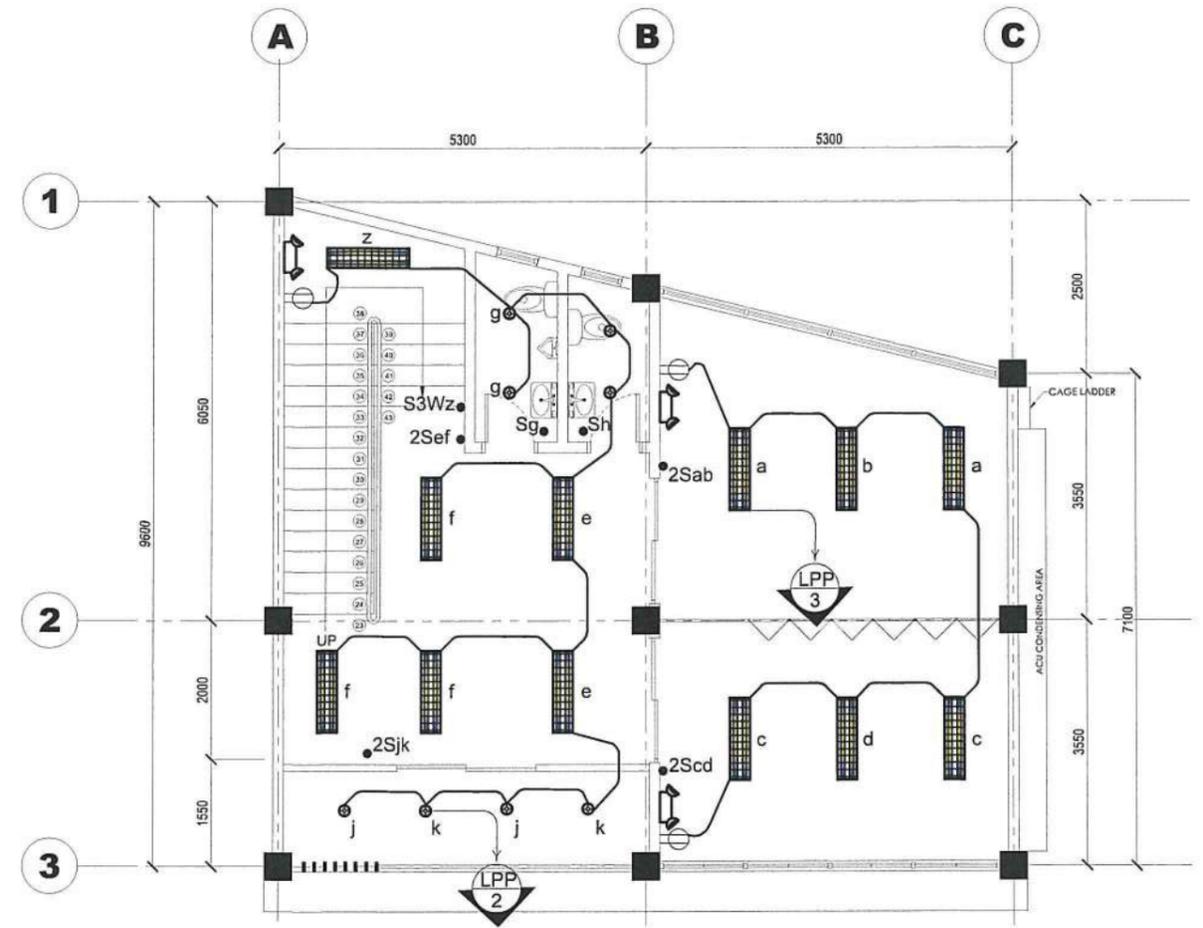


**E-4**  
6 | 6 SCALE NTS.  
**TYPICAL SWITCH MTG. DETAILS**

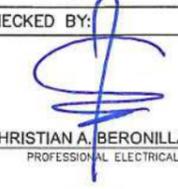
<p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
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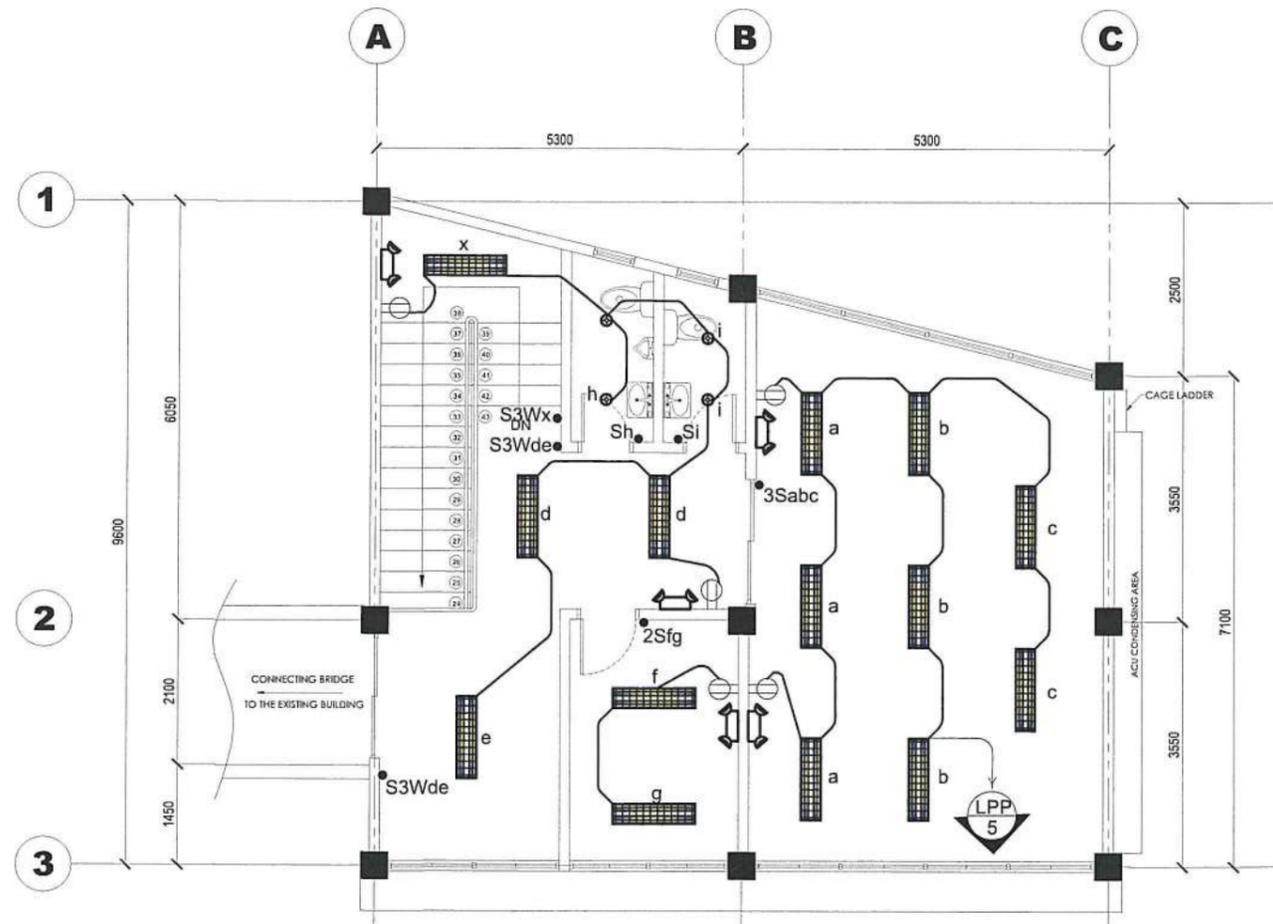


**E-5** **GROUND FLOOR LIGHTING LAYOUT**  
 SCALE 1:100 MTS.

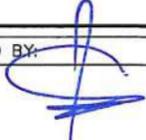
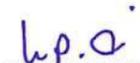


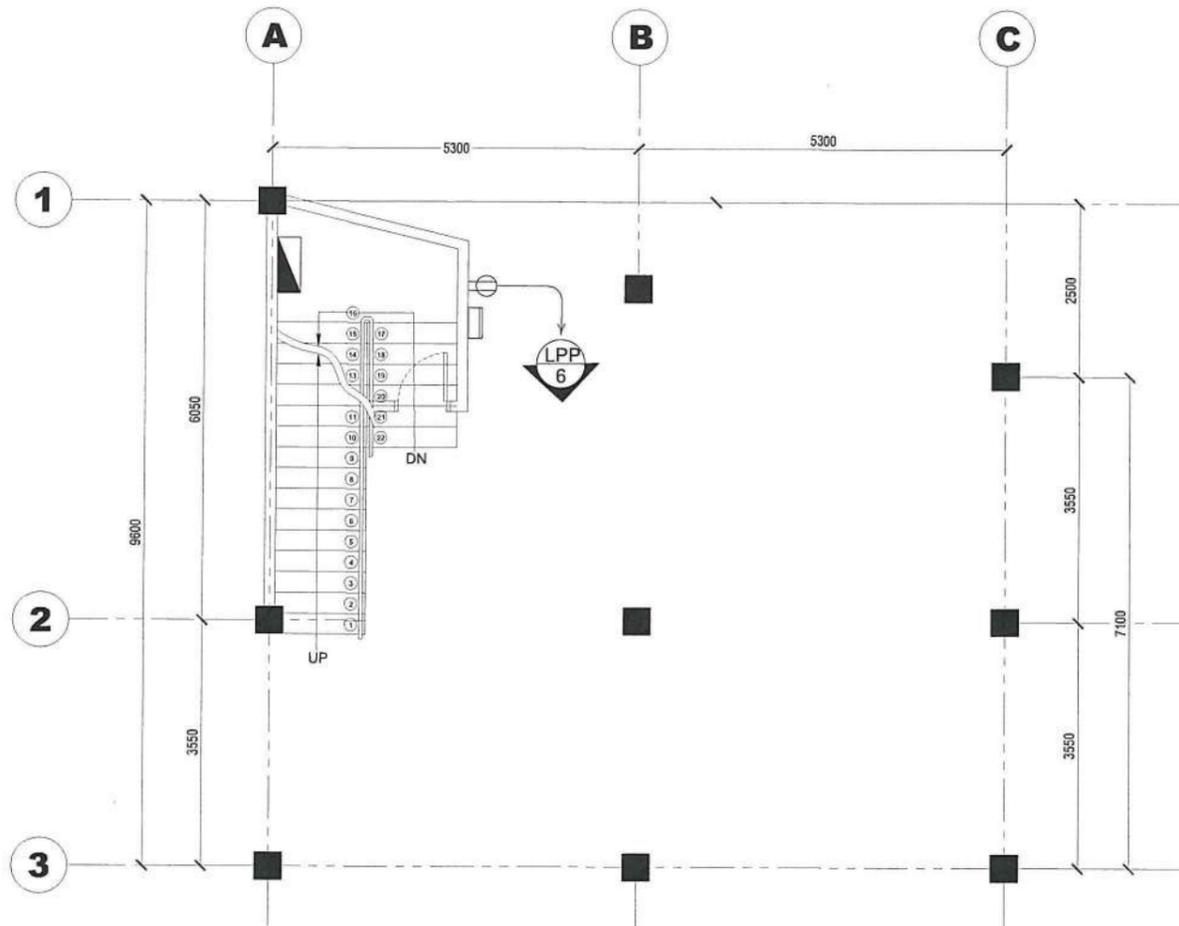
**E-5** **SECOND FLOOR LIGHTING LAYOUT**  
 SCALE 1:100 MTS.

 <b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS  <small>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</small>	 <b>BIEZ CESAR P. RAMOS, REE</b> <small>PROJECT DEVELOPMENT OFFICER I, UPMU</small>	 <b>CHRISTIAN A. BERONILLA, PEE, RMP</b> <small>PROFESSIONAL ELECTRICAL ENGINEER</small>	 <b>STEVE S. J. MILLARE, RENP</b> <small>HEAD, UPMU</small>	 <b>MARVIN P. AMOIN, Ph.D.</b> <small>VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</small>	 <b>NANCY T. PASCUAL, Ed. D., RGC</b> <small>PRESIDENT</small>	AS SHOWN	<b>E</b> <b>5</b>

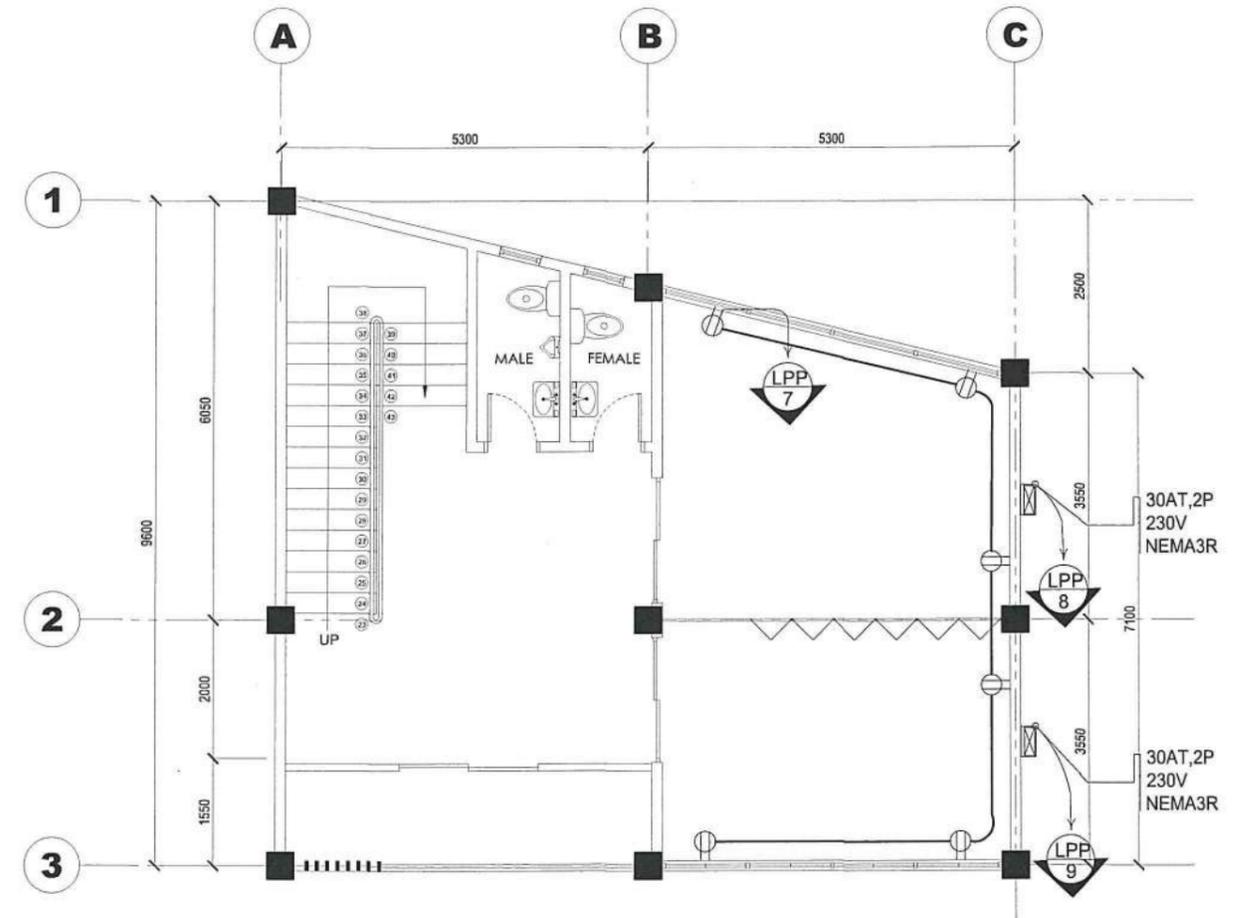


E-6
1 | 1
**THIRD FLOOR LIGHTING LAYOUT**  
 SCALE 1:100 MTS.

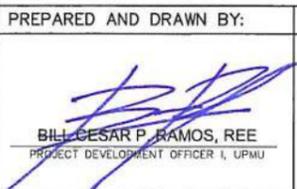
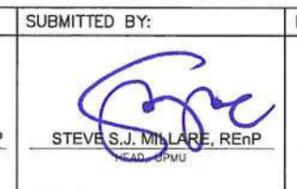
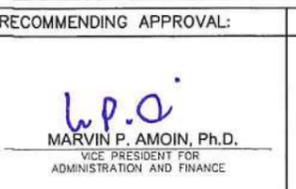
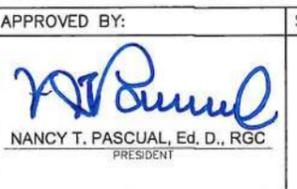
 <b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT	PROJECT TITLE: CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS <small>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</small>	PREPARED AND DRAWN BY:  <b>BILL CESAR P. RAMOS, REE</b> <small>PROJECT DEVELOPMENT OFFICER I, UPMU</small>	CHECKED BY:  <b>CHRISTIAN A. BERONILLA, PEE, RMP</b> <small>PROFESSIONAL ELECTRICAL ENGINEER</small>	SUBMITTED BY:  <b>STEVE S.J. MILLARE, RE nP</b> <small>HEAD, UPMU</small>	RECOMMENDING APPROVAL:  <b>MARVIN P. AMOIN, Ph.D.</b> <small>VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</small>	APPROVED BY:  <b>NANCY T. PASCUAL, Ed. D., RGC</b> <small>PRESIDENT</small>	SHEET CONTENT: AS SHOWN	SHEET NO.: <div style="border: 2px solid black; padding: 10px; font-size: 2em; font-weight: bold; text-align: center;">           E 6         </div>
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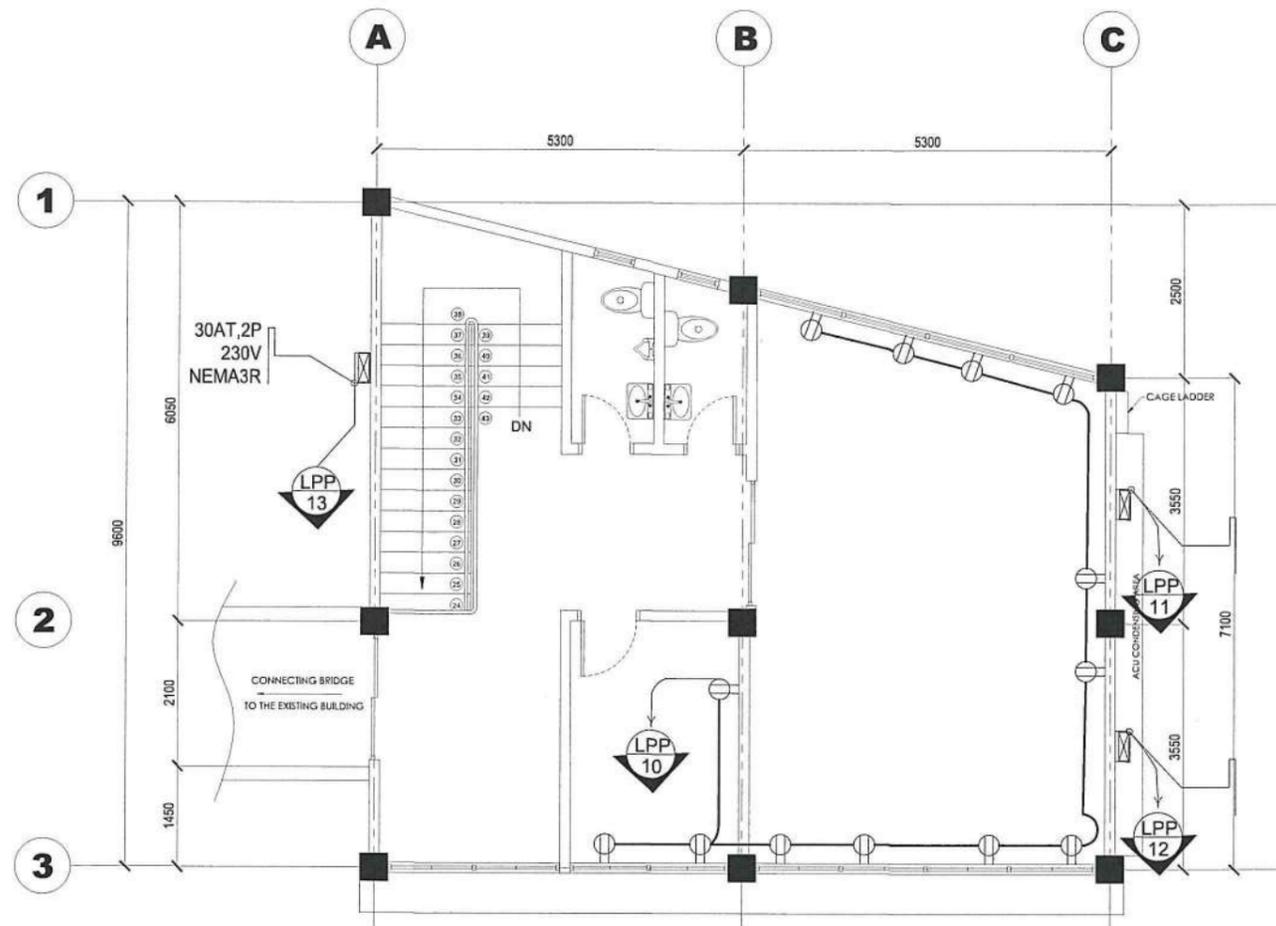


**E-7**  
1 2 SCALE 1:100 MTS.  
**GROUND FLOOR POWER LAYOUT**

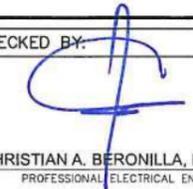


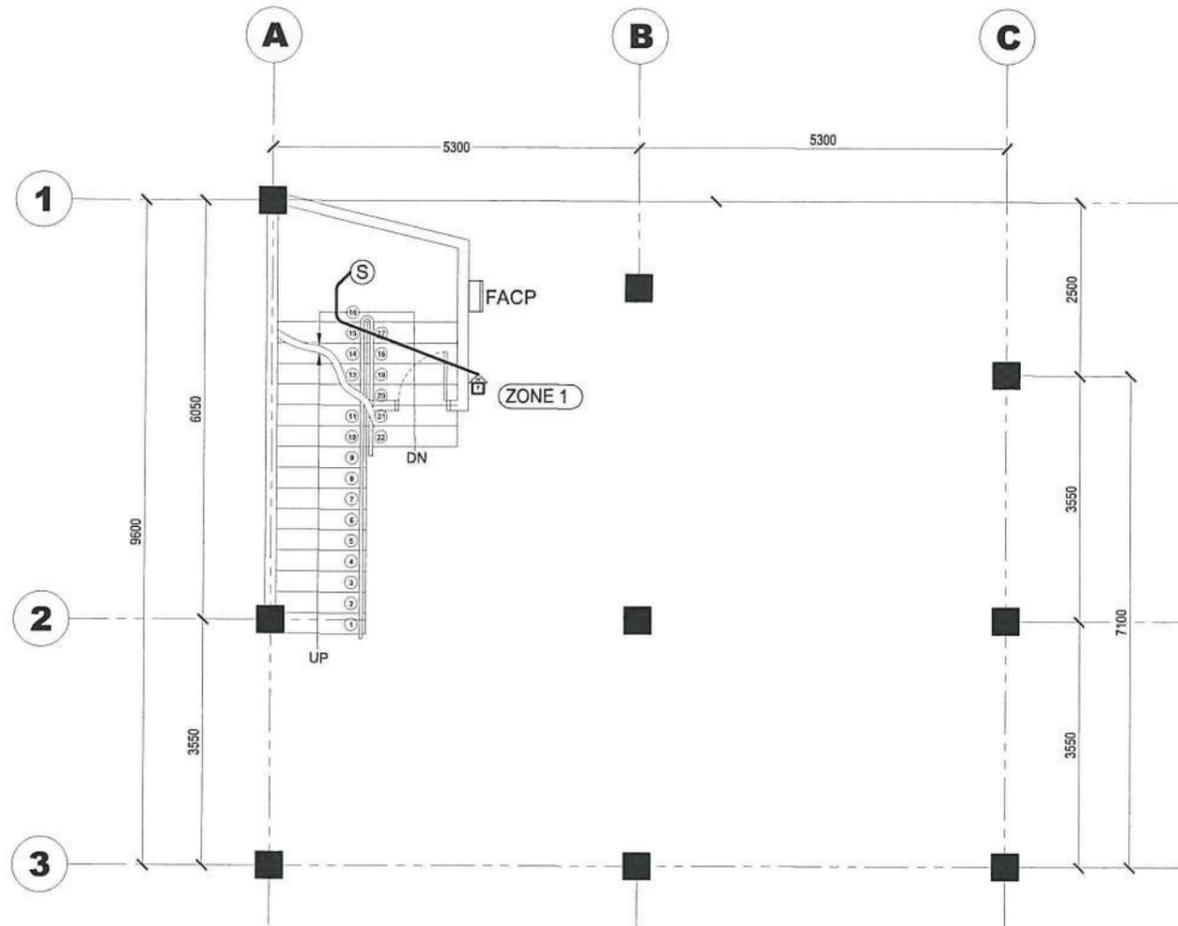
**E-7**  
2 2 SCALE 1:100 MTS.  
**SECOND FLOOR POWER LAYOUT**

 <p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
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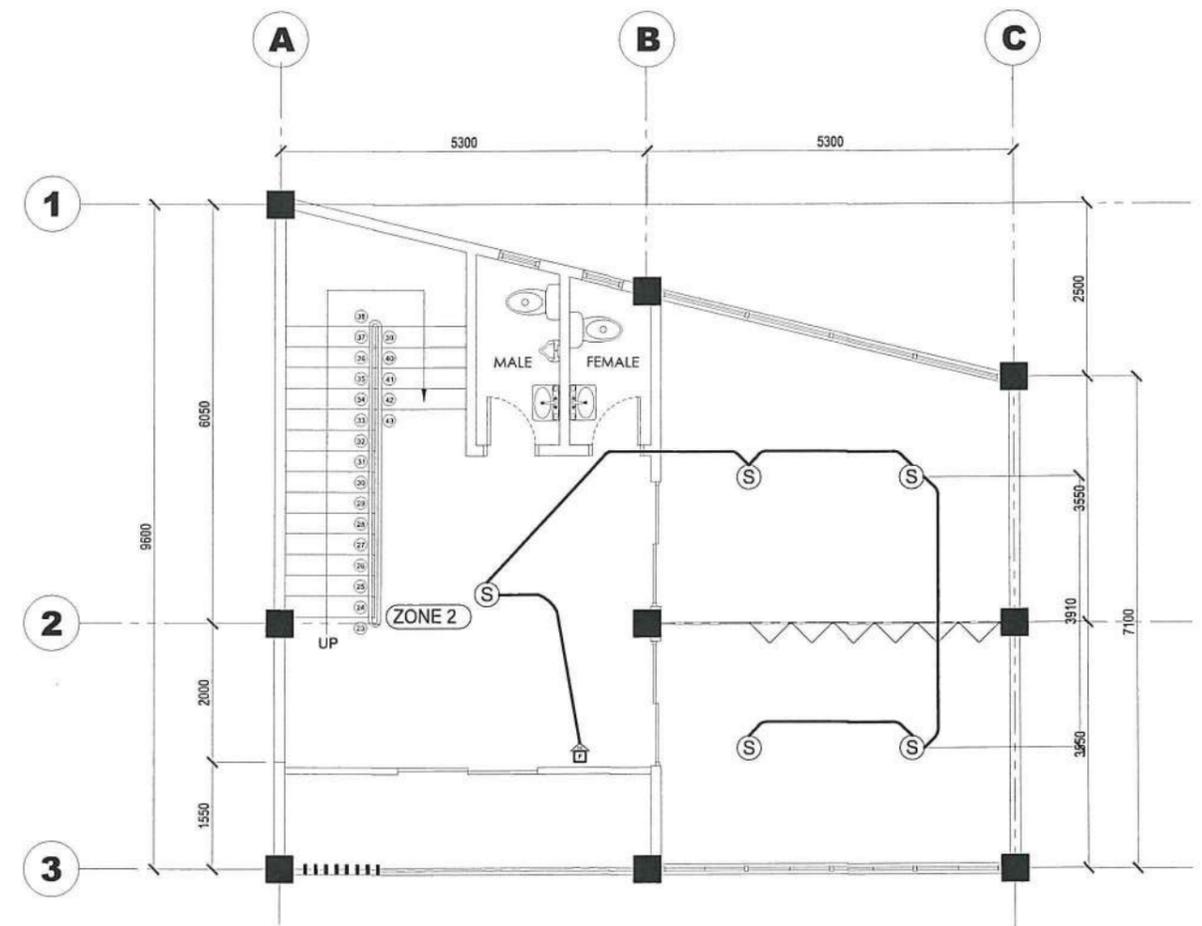


E-8
THIRD FLOOR POWER LAYOUT  
1 | 1
SCALE
1:100 MTS.

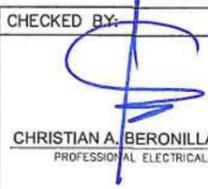
 <b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT	PROJECT TITLE: CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS <small>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</small>	PREPARED AND DRAWN BY:  <b>BILL CESAR P. RAMOS, REE</b> <small>PROJECT DEVELOPMENT OFFICER I, UPMU</small>	CHECKED BY:  <b>CHRISTIAN A. BERONILLA, PEE, RMP</b> <small>PROFESSIONAL ELECTRICAL ENGINEER</small>	SUBMITTED BY:  <b>STEVE S.J. MILLARE, REEnP</b> <small>HEAD, UPMU</small>	RECOMMENDING APPROVAL:  <b>MARVIN P. AMOIN, Ph.D.</b> <small>VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</small>	APPROVED BY:  <b>NANCY T. PASCUAL, Ed. D., RGC</b> <small>PRESIDENT</small>	SHEET CONTENT: AS SHOWN	SHEET NO.: <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>E</b>  <b>8</b> </div>
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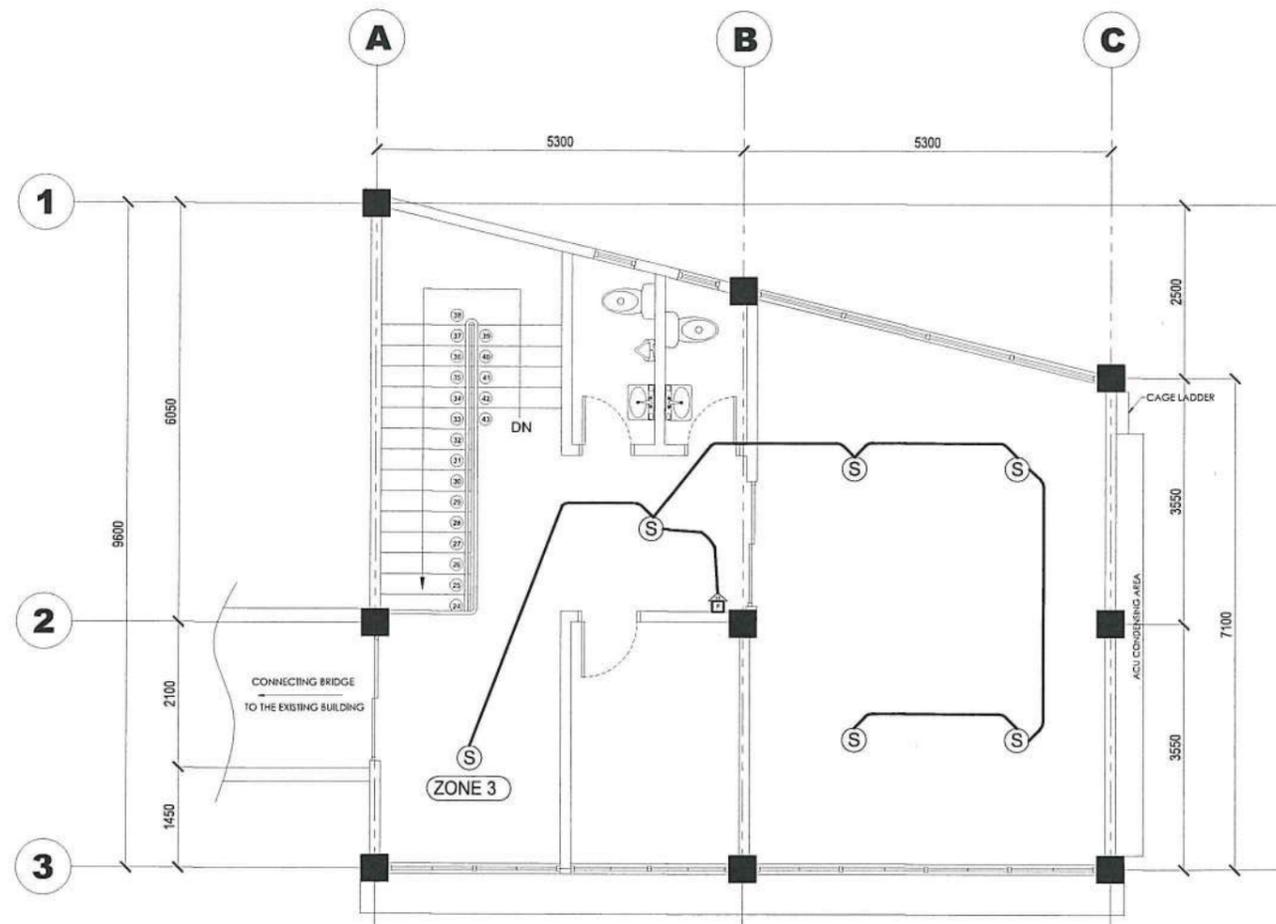


**E-9**  
 1 | 2 SCALE 1:100 MTS.  
**GROUND FLOOR FDAS LAYOUT**



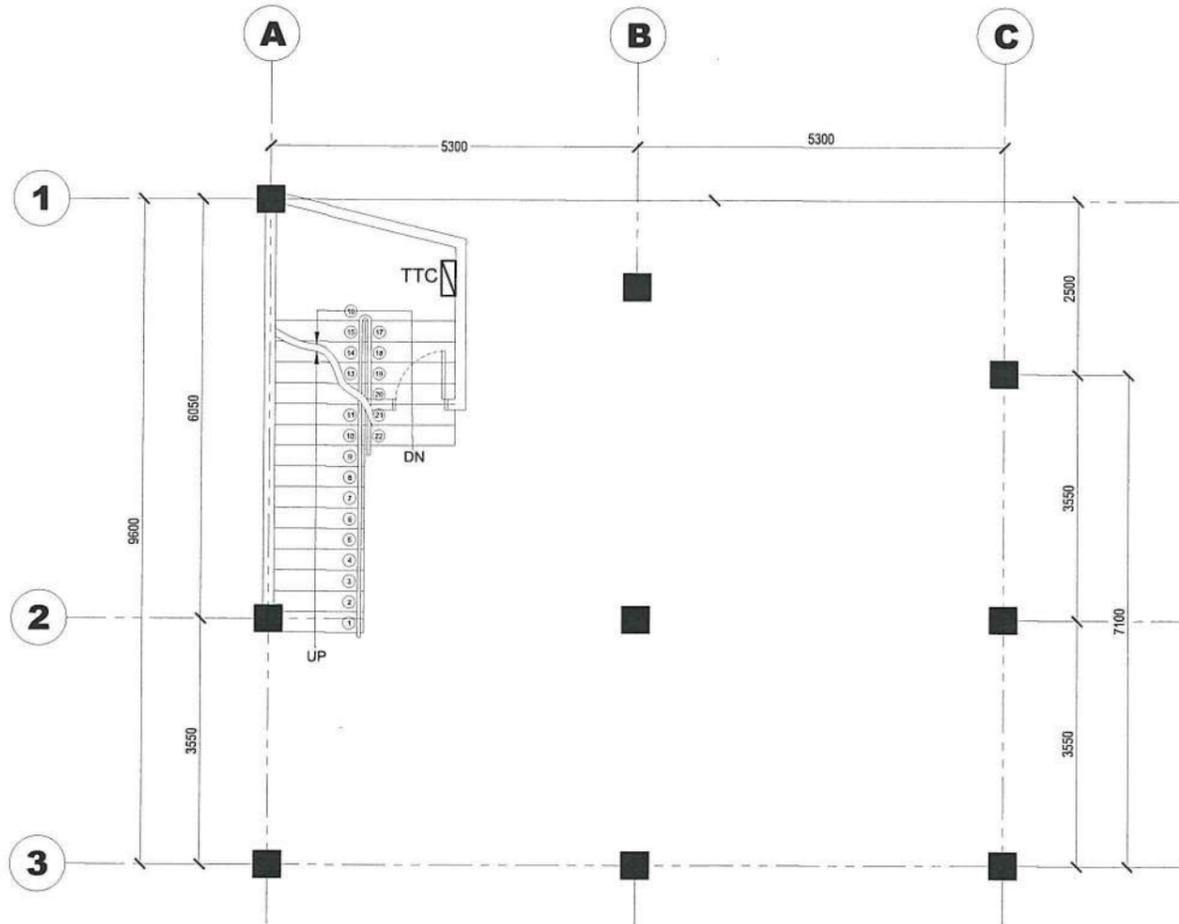
**E-9**  
 2 | 2 SCALE 1:100 MTS.  
**SECOND FLOOR FDAS LAYOUT**

 <p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
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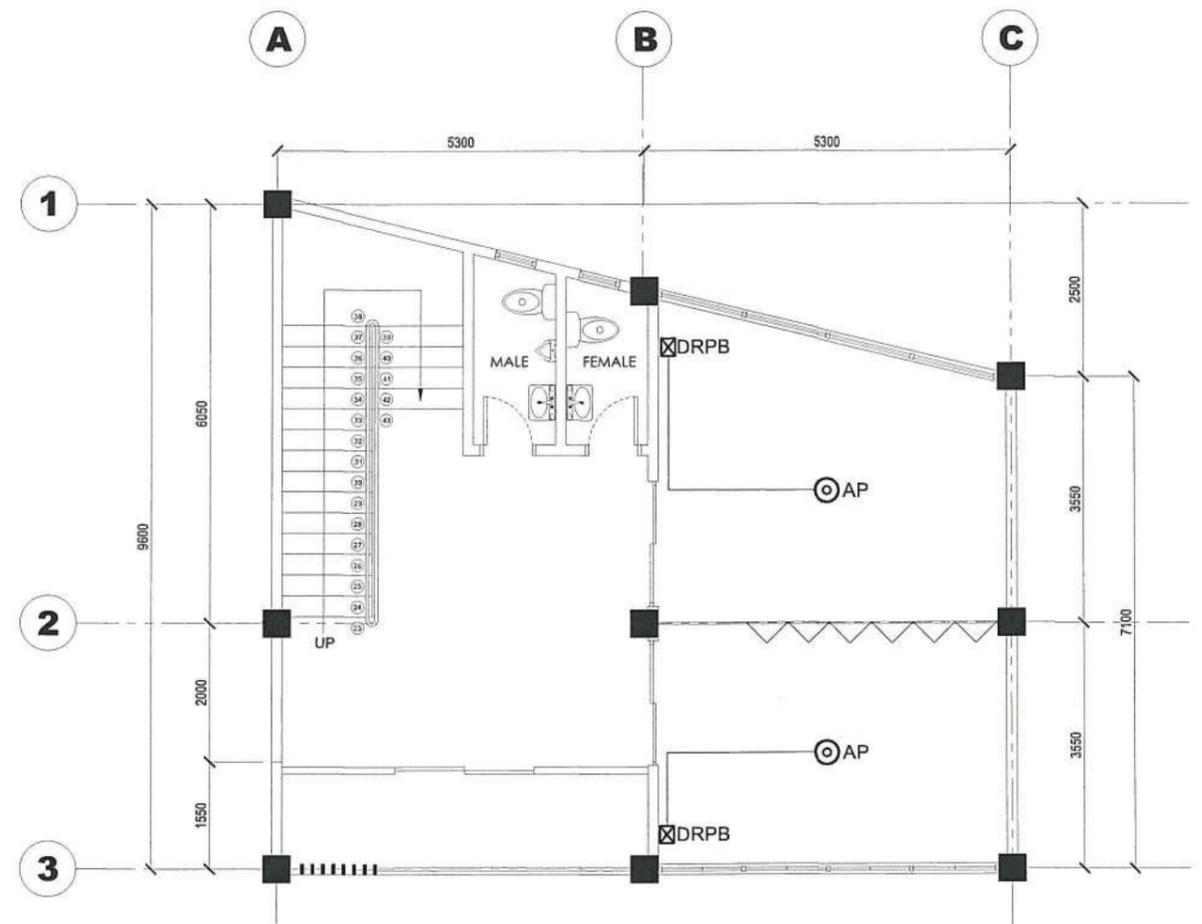
E-10
SCALE
1:100 MTS.

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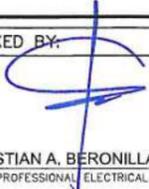
**E-11**  
1 | 2  
SCALE 1:100 MTS.

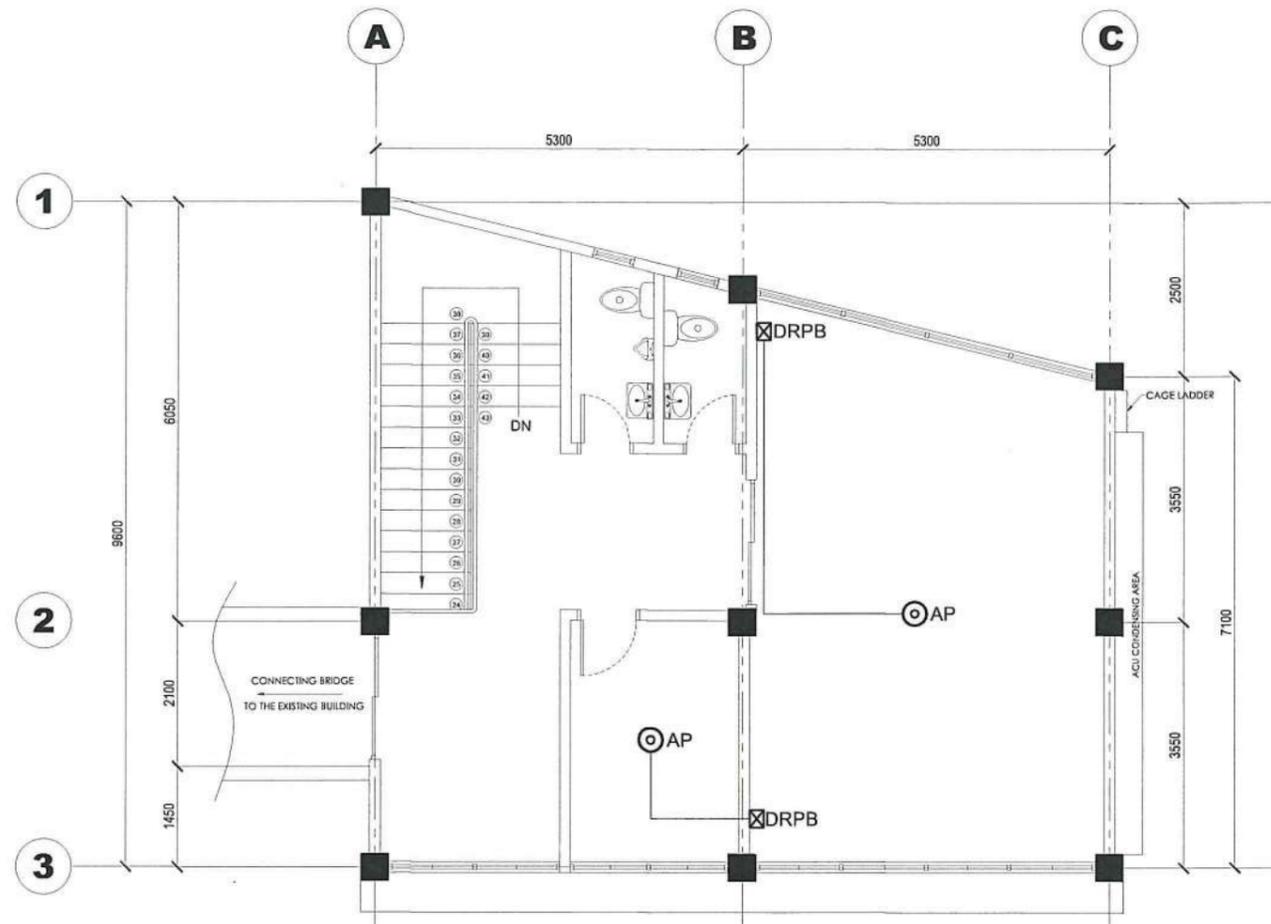
**GROUND FLOOR DATA/TEL LAYOUT**



**E-11**  
2 | 2  
SCALE 1:100 MTS.

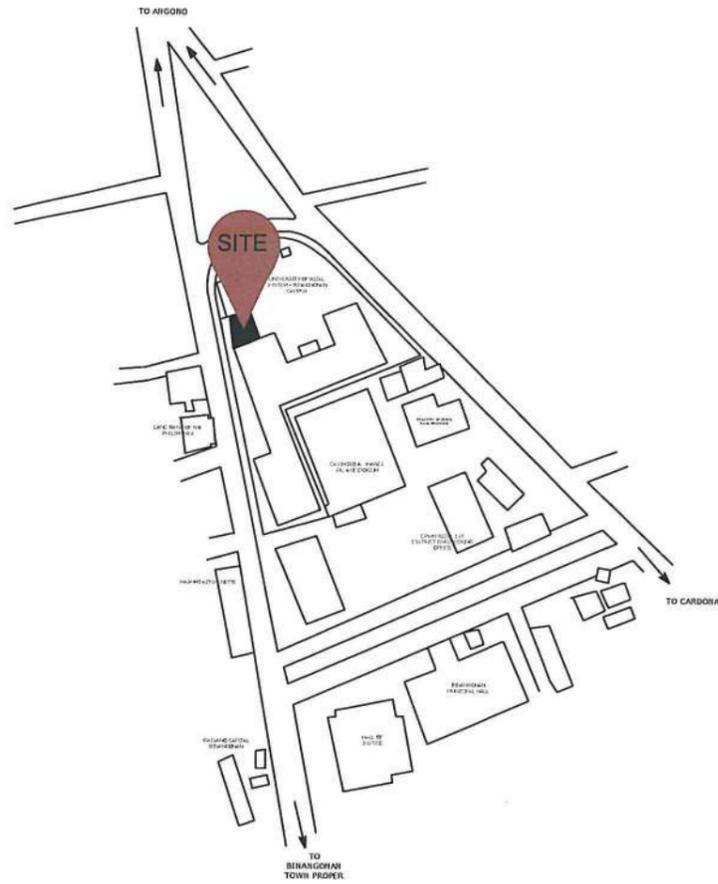
**SECOND FLOOR DATA/TEL LAYOUT**

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E-12
**THIRD FLOOR DATA/TEL LAYOUT**  
1 | 1
SCALE
1:100 MTS.

 <p><b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT</p>	<p>PROJECT TITLE:</p> <p style="text-align: center;"><b>CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS</b></p> <p style="text-align: center; font-size: small;">UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</p>	<p>PREPARED AND DRAWN BY:</p> <p style="text-align: center;"><b>BILL CESAR P. RAMOS, REE</b> PROJECT DEVELOPMENT OFFICER I, UPMU</p>	<p>CHECKED BY:</p> <p style="text-align: center;"><i>[Signature]</i> <b>CHRISTIAN A. BERONILLA, PEE, RMP</b> PROFESSIONAL ELECTRICAL ENGINEER</p>	<p>SUBMITTED BY:</p> <p style="text-align: center;"><i>[Signature]</i> <b>STEVE S. J. MILLARE, RErP</b> HEAD, UPMU</p>	<p>RECOMMENDING APPROVAL:</p> <p style="text-align: center;"><i>[Signature]</i> <b>MARVIN P. AMOIN, Ph.D.</b> VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</p>	<p>APPROVED BY:</p> <p style="text-align: center;"><i>[Signature]</i> <b>NANCY T. PASCUAL, Ed. D., RGC</b> PRESIDENT</p>	<p>SHEET CONTENT:</p> <p style="text-align: center; font-size: large;">AS SHOWN</p>	<p>SHEET NO.:</p> <div style="text-align: center; font-size: 2em; font-weight: bold;">             E 12           </div>
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**LOCATION MAP**

**GENERAL NOTES:**

1. ALL FIRE PROTECTION WORKS HEREIN INCLUDED SHALL BE EXECUTED AND INSTALLED IN ACCORDANCE WITH THE LATEST REQUIREMENT OF THE PHILIPPINE NATIONAL BUILDING CODE, FIRE CODE OF THE PHILIPPINES, NFPA AND THE REGULATION OF THE MUNICIPALITY.
2. ALL DIMENSION ARE IN MILLIMETER, UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR SHALL RESTORE/REPAIR AT HIS EXPENSE ANY EXISTING INSTALLATION/ PROPERTY DAMAGED DURING THE EXECUTION OF THE WORKS TO THE SATISFACTION OF THE CONSULTANT/OWNER. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
4. THE SATISFACTION OF THE CONSULTANT/OWNER. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
5. ALL FIRE PROTECTION EQUIPMENT SUPPLIED IN THE INSTALLATION SHALL BE UL/FM LISTED.
6. ALL PIPES OF ANY SIZE SHALL BE BLACK IRON (B.I) AND HDPE FOR UNDERGROUND .  

PIPE SIZES	WALL THICKNESS
25Ø THRU 75Ø	SCHEDULE 40 ERW
100Ø THRU 250Ø	SCHEDULE 80 SEAMLESS
100Ø THRU 250Ø	HDPE PIPE UNDERGROUND USE
7. PIPES PASSING THROUGH BUILDING STRUCTURES SHALL BE PROVIDED WITH PIPE SLEEVES MADE OF STANDARD STEEL PIPE, WITH 12mm. CLEARANCE ALL AROUND. THIS CLEARANCES SHALL BE CAULKED WITH FIRE RESISTANT MATERIAL.
8. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF THE SYSTEMS AND WORK INCLUDED IN THE CONTRACT. CONTRACTOR SHALL VERIFY ACTUAL SITE CONDITION AND SUBMIT SUPPLIER'S SCHEMATIC FOR APPROVAL BEFORE LAYING OUT WORK.
9. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE EXACT LOCATION AND DIMENSIONS OF ALL REQUIRED WALL AND FLOOR OPENING.
10. ALL SHOP DRAWINGS, PRODUCT DATA SUBMITTALS, SAMPLES, REVISION OR ANY OTHER INFORMATION SHALL BE SUBMITTED OR EXPRESSLY PRESENTED TO THE OWNER OR HIS REPRESENTATIVE AND CONSULTANTS FOR APPROVAL PRIOR TO IMPLEMENTATION.
11. EXACT LOCATIONS OF FIRE HOSE CABINET SHALL BE COORDINATED WITH THE ARCHITECTURAL LAYOUT AND SHALL BE SUBJECT TO THE ARCHITECT APPROVAL.
12. ALL FIRE PROTECTION WORKS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE OWNER'S GENERAL CONSTRUCTION SCHEDULE.

**FIRE PROTECTION DESIGN**

1. FIRE LINES SHALL BLACK IRON (B.I.) PIPES, SCHEDULE 40 & 80 CONFORMING TO ASTM A120 WITH FIRST AND FINAL COATING OF SAFETY RED PAINTS. FITTINGS SHALL CONFORM TO ASTM 53/A153.
2. COORDINATE ALL PIPE ROUTE TO OTHER SERVICES

**LEGENDS**

- PRESSURE GAUGE
- NEW FHC HOSE CABINET ( RECESSED TYPE )
- 10 LBS ( 4.5 KG ) PORTABLE TYPE ABC FIRE EXTINGUISHER

**PUMP EQUIPMENT SCHEDULE**

SYMBOL	QTY	PUMP TYPE	DESCRIPTION	EQUIPMENT RATING		POWER (KW)	REMARKS
				CAPACITY (GPM)	HEAD (BAR)		
FP 1	1	FIRE PUMP	ELEC. DRIVEN VERTICAL LINE TURBINE	100	7	6	COMPLETE WITH CONTROLLERS AND ACCESSORIES
JP 1	1	JOCKEY PUMP	ELEC. DRIVEN IN LINE	10	7	0.75	COMPLETE WITH CONTROLLERS AND ACCESSORIES



**UNIVERSITY OF RIZAL SYSTEM**  
UNIVERSITY PROJECT MANAGEMENT UNIT

PROJECT TITLE:  
**CONSTRUCTION OF TECHNO-BIZ BUILDING  
IN BINANGONAN CAMPUS**  
  
UNIVERSITY OF RIZAL SYSTEM  
BINANGONAN CAMPUS

DESIGNED BY:  
  
**KIMBERLY A. SAN JUAN, PME**  
PROFESSIONAL MECHANICAL ENGINEER  
REC. NO. 0006194 TIN: 401-289-389  
PTR NO. 6668445  
ISSUED ON: 01-06-2025  
ISSUED AT: QUEZON CITY

SUBMITTED BY:  
  
**STEVE S.J. MILLARE, REnP**  
HEAD, UPMU

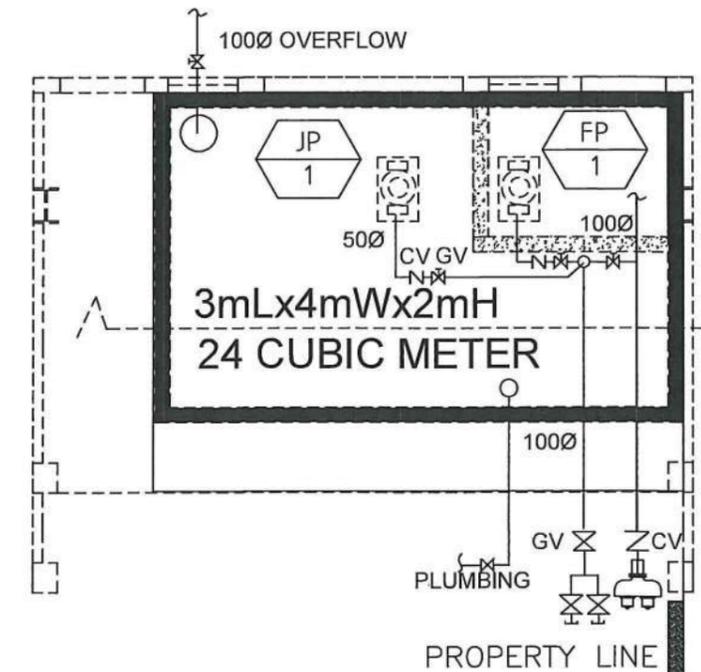
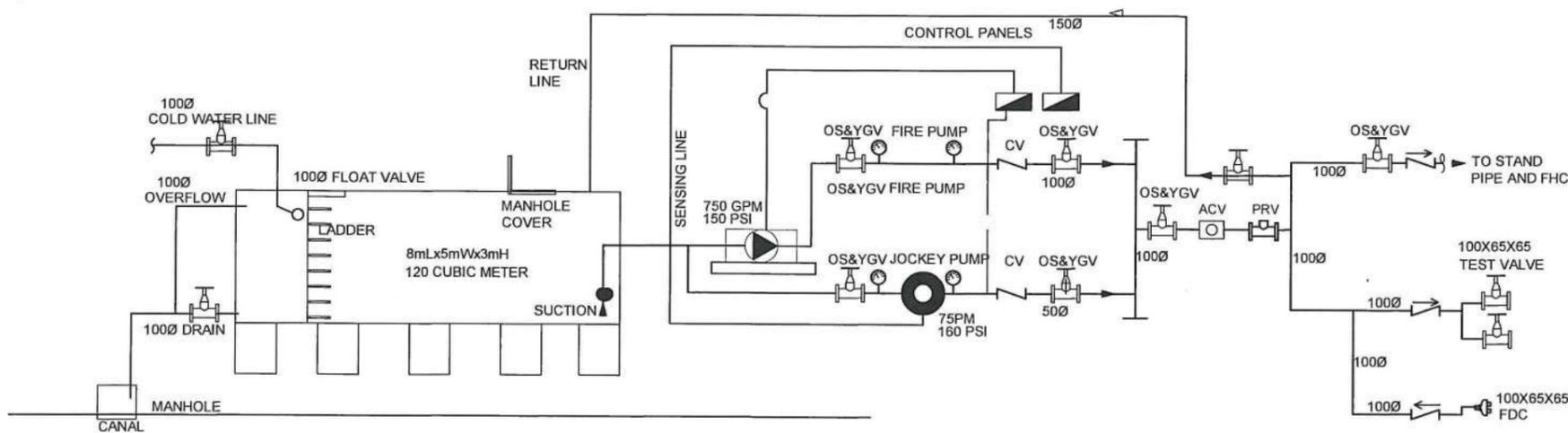
RECOMMENDING APPROVAL:  
  
**MARVIN P. AMOIN, Ph.D.**  
VICE PRESIDENT FOR  
ADMINISTRATION AND FINANCE

APPROVED BY:  
  
**NANCY T. PASCUAL, Ed. D., REnC**  
PRESIDENT

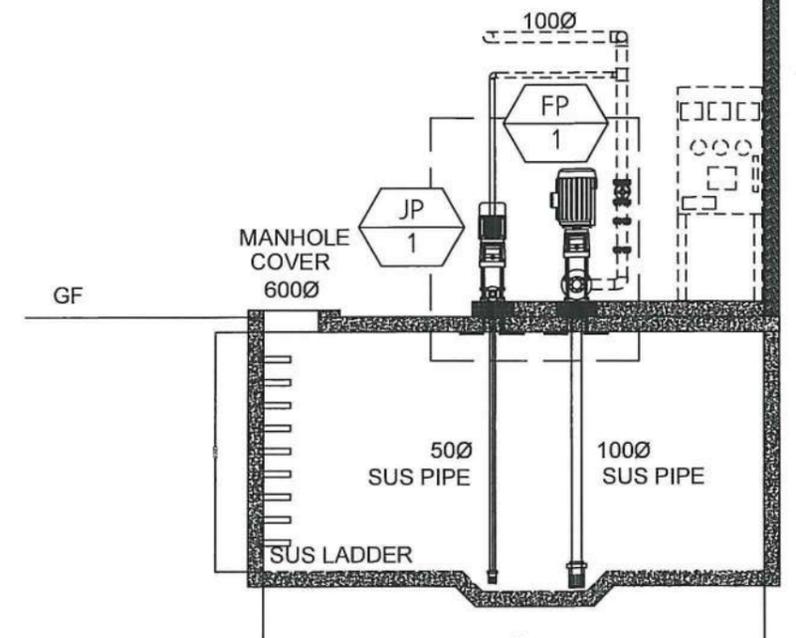
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**AS SHOWN**

SHEET NO.:  
**FP  
1**





REFER TO DIAGRAM PUMP VALVE DETAILS



1 PUMP ROOM BLOW UP DETAILS AND PIPING DIAGRAM  
 FP-4 SCALE: NTS



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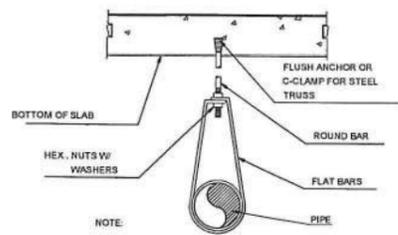
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 HEAD, UPMU

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 PRESIDENT

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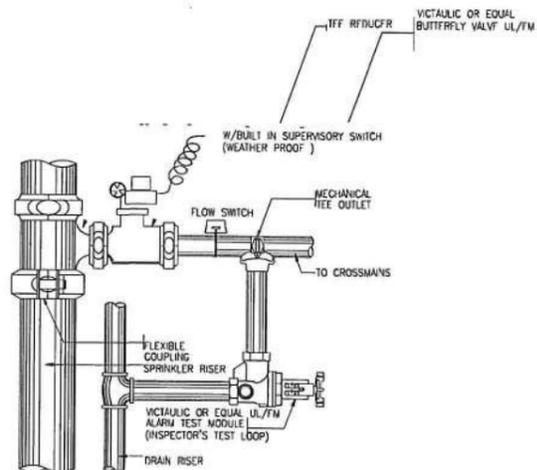
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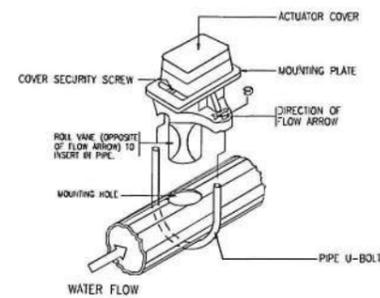
NOTE: CROSSMAN AND BRANCHLINE PIPE SHOULD BE MAXIMIZE TO THE CEILING LEVEL.

PIPE SIZE	STEEL PLATE BAR	ROD DIA.
mm.	IN. (THICK x WIDTH)	mm.
25	1 3.2 x 19 MM	9.5 3/8
32	2.35 3.2 x 19 MM	9.5 3/8
40	1.50 3.2 x 19 MM	9.5 3/8
50	2 3.2 x 19 MM	9.5 3/8

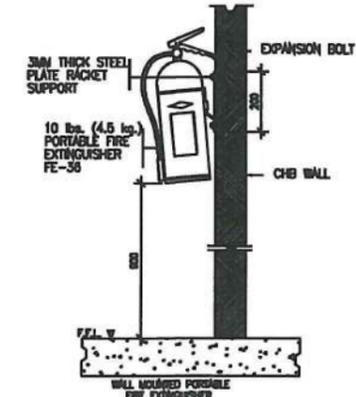
1 ADJUSTABLE FLAT IRON SUPPORT DETAIL  
FP-5 SCALE: NTS



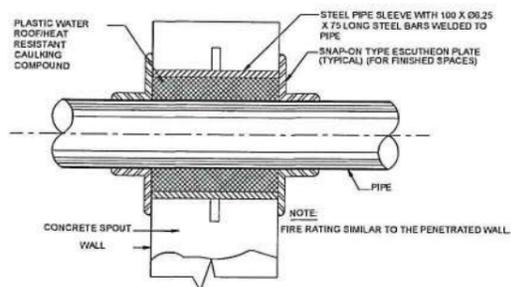
2 FLOOR CONTROL VALVE CONNECTION DETAIL  
FP-5 SCALE: NTS



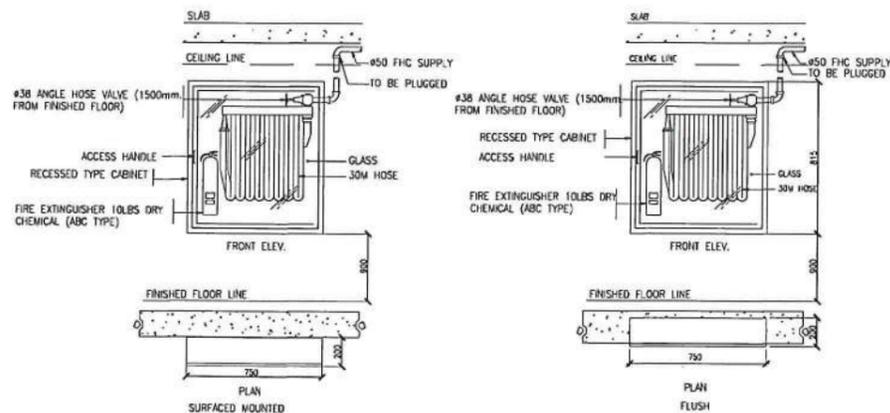
3 FLOW SWITCH DETAIL  
FP-5 SCALE: NTS



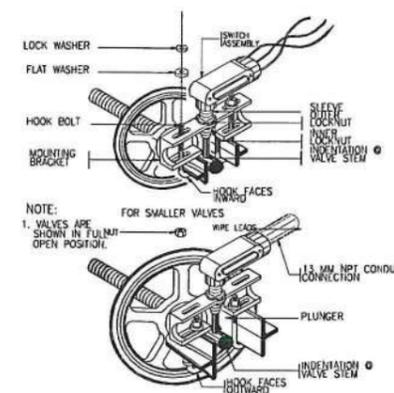
4 FIRE EXTINGUISHER MOUNTING DETAIL  
FP-5 SCALE: NTS



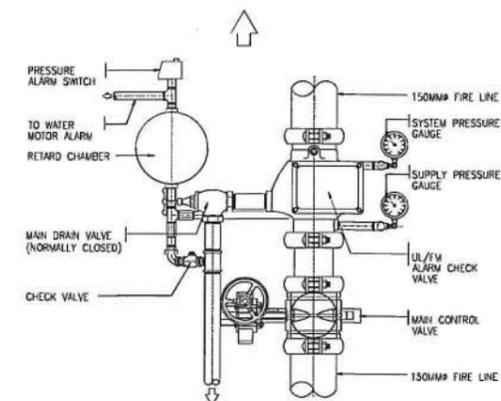
5 PIPE PENETRATION AT WALL DETAIL  
FP-5 SCALE: NTS



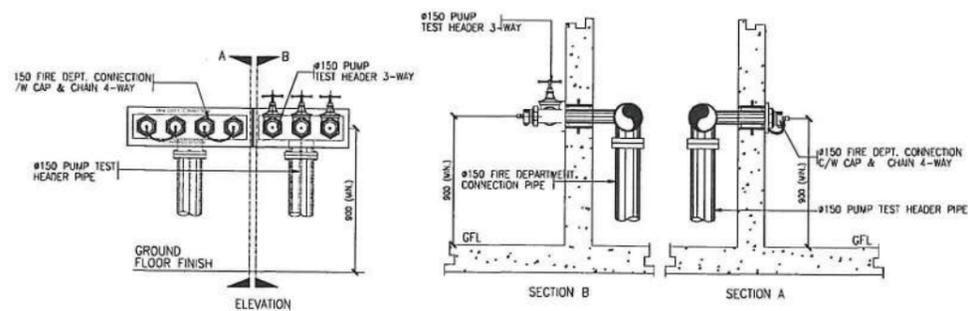
6 FIRE HOSE CABINET WITH FIRE EXTINGUISHER  
FP-5 SCALE: NTS



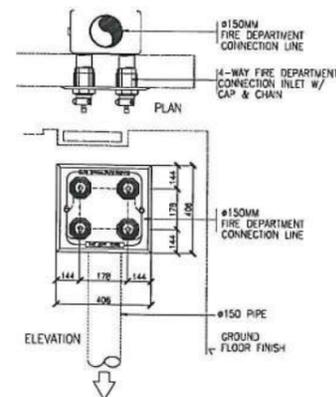
7 SUPERVISORY SWITCH CONNECTION DETAIL  
FP-5 SCALE: NTS



8 ALARM CHECK VALVE DETAIL  
FP-5 SCALE: NTS



9 FIRE DEPARTMENT & PUMP TEST HEADER DETAIL  
FP-5 SCALE: NTS



10 SWAY BRACE DETAIL  
FP-5 SCALE: NTS

PIPE SIZE (MM)	U-BOLT ROD SIZE (MM)
50	10
65	10
80	10
100	12
125	12
150	16
200	16



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PTR NO. 6868445  
ISSUED ON: 01-06-2025  
ISSUED AT: QUEZON CITY

SUBMITTED BY:

STEVE S. J. MULLARE, REnP  
HEAD, UPMU

RECOMMENDING APPROVAL:

MARVIN P. AMOIN, Ph.D.  
VICE PRESIDENT FOR  
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APPROVED BY:

NANCY T. PASCUAL, Ed. D., RGC  
PRESIDENT

SHEET CONTENT:

AS SHOWN

SHEET NO.:

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# GENERAL NOTES

- IT IS NOT INTENDED THAT THE DRAWINGS SHALL SHOW EVERY PIPE FITTING, VALVE AND APPURTENANCE. ALL SUCH ITEMS WHETHER SPECIFICALLY MENTIONED OR NOT, OR INDICATED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED IF NECESSARY TO COMPLETE THE SYSTEM TO THE SATISFACTION OF THE OWNER.
- ALL PLUMBING WORKS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISION OF THE NATIONAL PLUMBING CODE OF THE PHILIPPINES, THE REQUIREMENTS OF THE LOCAL PLUMBING INSPECTION OFFICE, PERTINENT PROVISIONS OF THE UNIFORM BUILDING CODE AND THE NATIONAL BUILDING CODE OF THE PHILIPPINES.
- ALL PLUMBING INSTALLATIONS SHALL BE COORDINATED WITH OTHER TRADES. ANY REVISION IN THE PIPING LAYOUT REQUIRED FOR PROPER EXECUTION OF OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE PROJECT ENGINEER.
- HORIZONTAL SANITARY SEWER PIPING SHALL BE RUN IN PRACTICAL ALIGNMENT AT A MINIMUM SLOPE OF 1% FOR PIPES 100MMØ AND LARGER AND 2% FOR 75MMØ AND SMALLER.
- ALL VENT PIPE SHALL BE FREE FROM DROPS OR SAGS AND SHALL BE SLOPED OR GRADED AS TO DRIP BACK BY GRAVITY TO THE DRAINAGE PIPE IT SERVES.
- ALL PLUMBING FIXTURES SHALL BE INDIVIDUALLY VENTED.
- ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETERS EXCEPT OTHERWISE SHOWN. INDICATED METRIC EQUIVALENT USED ON THESE PLANS FOR PIPE SIZES:
 

1/2" = 15mm	2" = 50mm	6" = 150mm
3/4" = 20mm	2 1/2" = 65mm	8" = 200mm
1 1/4" = 32mm	3" = 75mm	10" = 250mm
1 1/2" = 40mm	4" = 100mm	12" = 300mm
- THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE, SUCH AS, THE ACTUAL PIPE SIZES, LOCATIONS, DEPTHS, TOP AND INVERT ELEVATIONS OF ALL EXISTING PIPES AND RELATED STRUCTURES. THE CONTRACTOR SHALL PROVIDE THE NECESSARY EXCAVATIONS, BACKFILLING AND SURFACE RESTORATION OF THE AFFECTED AREAS IN THE LAYING OF SEWER, STORM DRAINAGE AND SUPPLY LINES.
- CONDENSATE DRAINAGE SYSTEM FOR AIRCONDITIONING EQUIPMENT INCLUDING PIPINGS, FITTINGS, SUPPORTS, ALL REQUIRED ACCESSORIES AND TAPPING PINTS SHALL BE PART OF MECHANICAL WORKS.
- PROVIDE VALVE BOX FOR EACH EMBEDDED GATE VALVE.
- THE SIZES OF WATER SUPPLY FIXTURES SHALL BE IN ACCORDANCE THE MANUFACTURER'S INSTRUCTIONS

# MATERIAL SPECIFICATIONS

## COLD WATER LINE

- SHALL BE POLYPROPYLENE RANDOM (TYPE 3) PN 10; HIGH RESISTANCE TO PRESSURE AN TEMPERATURE, CONFORMING TO EN ISO 15874

## SOIL, WASTE AND VENT LINES

- SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (uPVC) PIPE CONFORMING TO ASTM D2729

## DOWNSPOUTS AND DRAINAGE LINE (INSIDE AND OUTSIDE OF BUILDING)

- SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (uPVC) PIPE AND FITTINGS FOR 250mmØ AND SMALLER CONFORMING TO ASTM D2729
- SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGSS FOR 300mmØ AND LARGER, PE 3408 SDR 17 CONFORMING TO ASTM D3350, ASTM F714, AND ASTM D3261

# EQUIVALENT PIPE SIZE FOR WATER PIPES

NOMINAL PIPE SIZE DIAMETER	PIPE SIZES IN MILLIMETERS (mm)							
	15	20	25	32	40	50	63	75
POLYPROPYLENE RANDOM (PPR)	20	25	32	40	50	63	75	100
GALVANIZED IRON (GI)	15	19	25	32	40	50	65	80

## FIXTURE CONNECTION SIZE SCHEDULE

SYMBOL	FIXTURE	URBAN PIPE CONNECTION			REMARKS
		WASTE/SOIL (mm)	VENT PIPE (mm)	WATER PIPE (Ø)	
WC	WATER CLOSET	100ø	50ø	1/2"ø	FLUSH TANK
UR	URINAL	50ø	50ø	3/4"ø	FLUSH VALVE
LAV	LAVATORY	50ø	50ø	1/2"ø	
KS	KITCHEN SINK	50ø	50ø	1/2"ø	
SHO	SHOWER HEAD	---	---	1/2"ø	
SD	SHOWER DRAIN	50ø	50ø	---	
BT	BATH TUB	50ø	50ø	1/2"ø	
FD	FLOOR DRAIN	50ø	50ø	---	
SSK	SLOP SINK	75ø	50ø	1/2"ø	

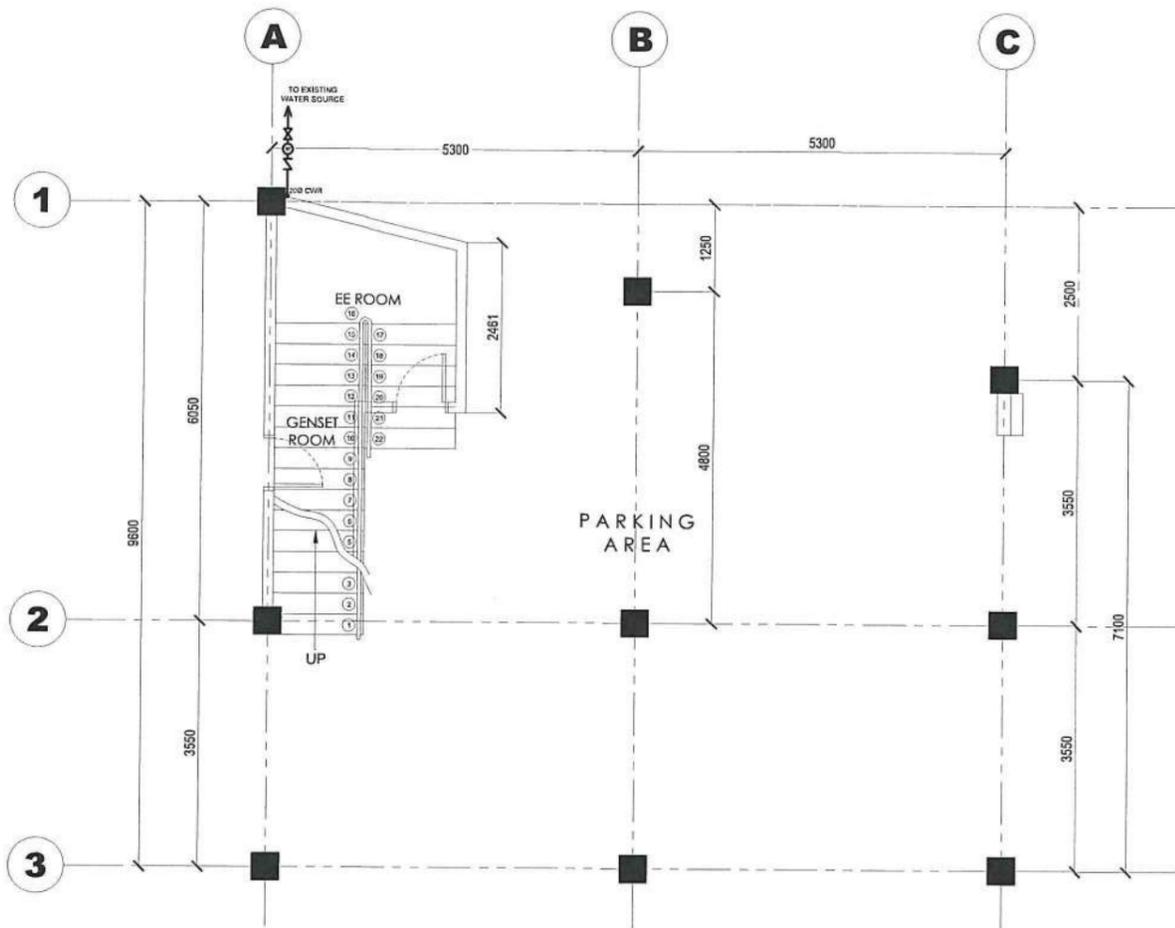
# PLUMBING LEGEND AND SYMBOLS

---	COLD WATERLINE	+	CHECK VALVE	MS	MEDICAL SINK
—	SOIL PIPE/ WASTE PIPE	+⊕+	WATER METER	SP	SOIL PIPE
—	VENT PIPE	+⊞+	INCREASER/ REDUCER	UR	URINAL
---	END CAP	CSWS	COMBINED SOIL AND WASTE STACK	VS	VENT STACK
⊕	FLOOR CLEANOUT	BS	BIDET SPRAY	VSTR	VENT STACK THRU ROOF
⊙	GROUND CLEANOUT	FD	FLOOR DRAIN	WC	WATER CLOSET
+	GATE VALVE	LAV	LAVATORY	WP	WASTE PIPE

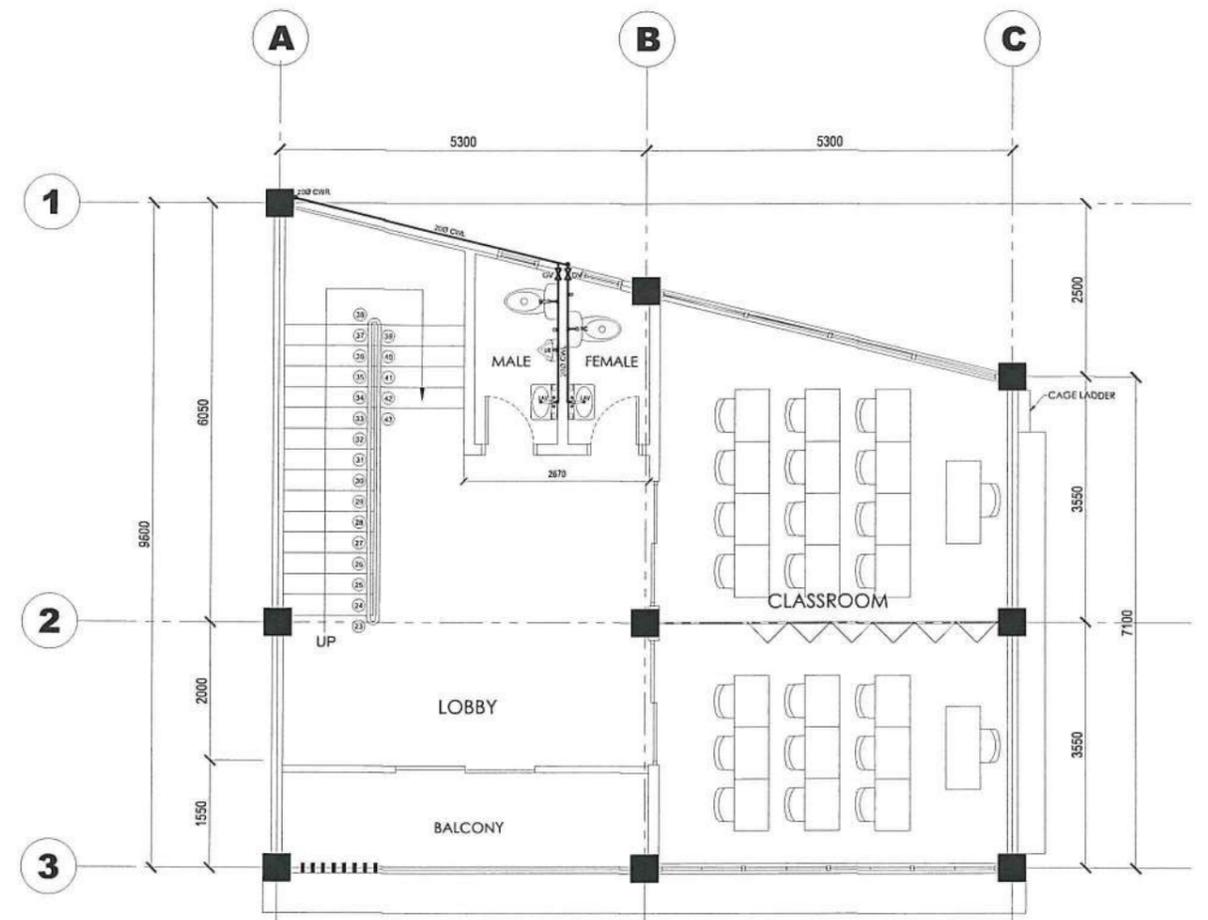
<b>AIR CHAMBER</b> 	<b>PIPE SUPPORT</b> 	<b>OFFSET PIPE CLAMP</b> 
<b>FLOOR CLEANOUT</b> 	<b>GROUND CLEANOUT</b> 	<b>VENT STACK THRU ROOF/ DECK</b> 

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**MISCELLANEOUS DETAILS**  
 1 1 SCALE NTS.

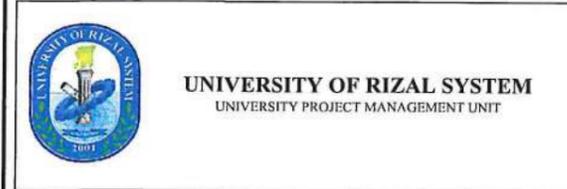
 <b>UNIVERSITY OF RIZAL SYSTEM</b> UNIVERSITY PROJECT MANAGEMENT UNIT	PROJECT TITLE:	PREPARED AND DRAWN BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	SHEET CONTENT:	SHEET NO.:
	CONSTRUCTION OF TECHNO-BIZ BUILDING IN BINANGONAN CAMPUS  <small>UNIVERSITY OF RIZAL SYSTEM BINANGONAN CAMPUS</small>	 <b>JOAN MARIE F. TIBURCIO, RCE</b> <small>PROJECT DEVELOPMENT OFFICER 1, UPMU</small>	 <b>CHRISTIAN A. BERONILLA, PEE, RMP</b> <small>REGISTERED MASTER PLUMBER</small>	 <b>STEVE S. MILLARE, RE/PP</b> <small>HEAD, UPMU</small>	 <b>MARVIN P. AMOIN, Ph.D.</b> <small>VICE PRESIDENT FOR ADMINISTRATION AND FINANCE</small>	 <b>NANCY T. PASCUAL, Ed. D., RGC</b> <small>PRESIDENT</small>	AS SHOWN	<div style="font-size: 2em; font-weight: bold; text-align: center;">P</div> <div style="font-size: 4em; font-weight: bold; text-align: center;">1</div>



**GROUND FLOOR WATERLINE SYSTEM PIPING LAYOUT**  
 P-2  
 1 2 SCALE 1:100 MTS.



**SECOND FLOOR WATERLINE SYSTEM PIPING LAYOUT**  
 P-2  
 2 2 SCALE 1:100 MTS.



PROJECT TITLE:  
 CONSTRUCTION OF TECHNO-BIZ BUILDING  
 IN BINANGONAN CAMPUS  
 UNIVERSITY OF RIZAL SYSTEM  
 BINANGONAN CAMPUS

PREPARED AND DRAWN BY:  
  
 JOAN MARIE TIBURCIO, RCE  
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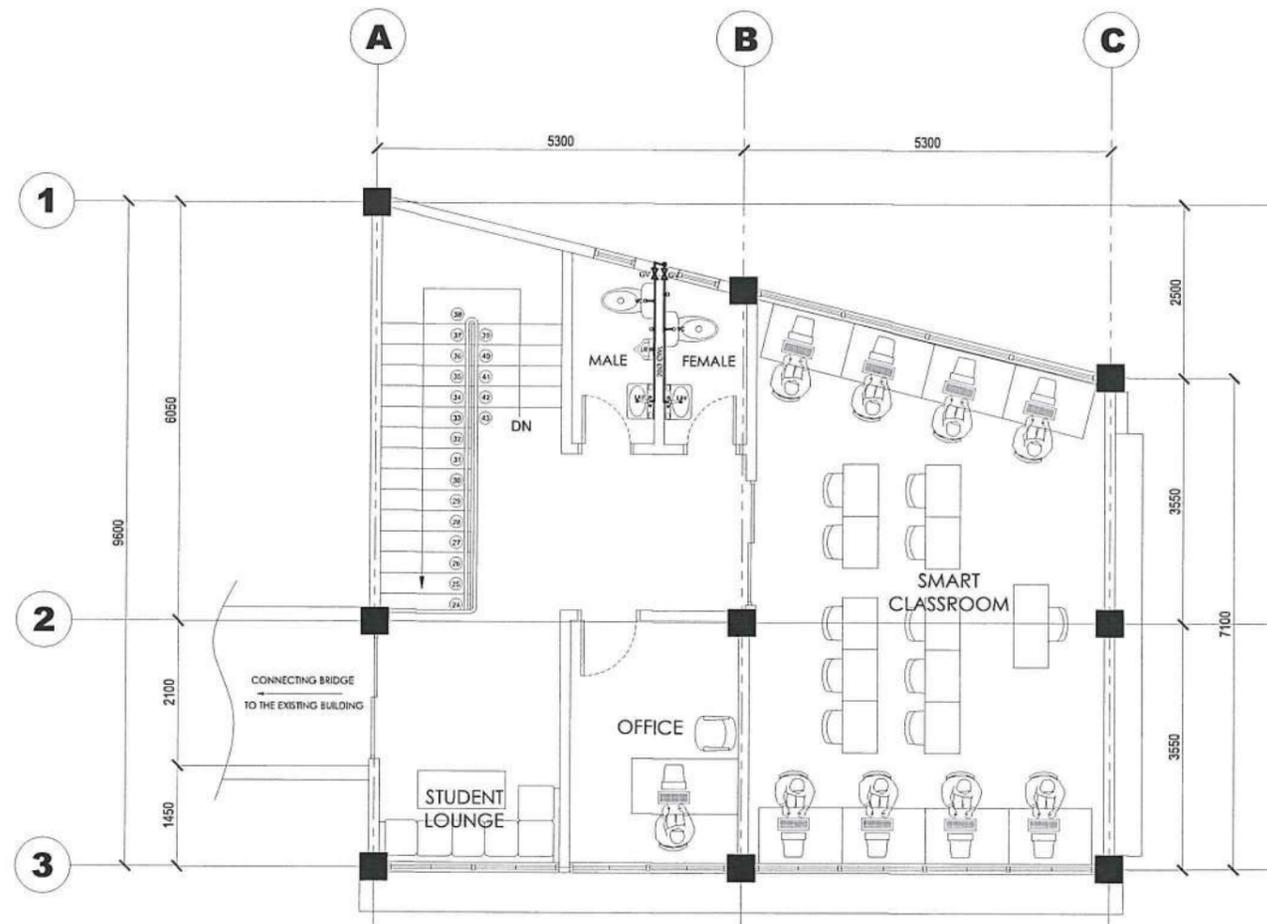
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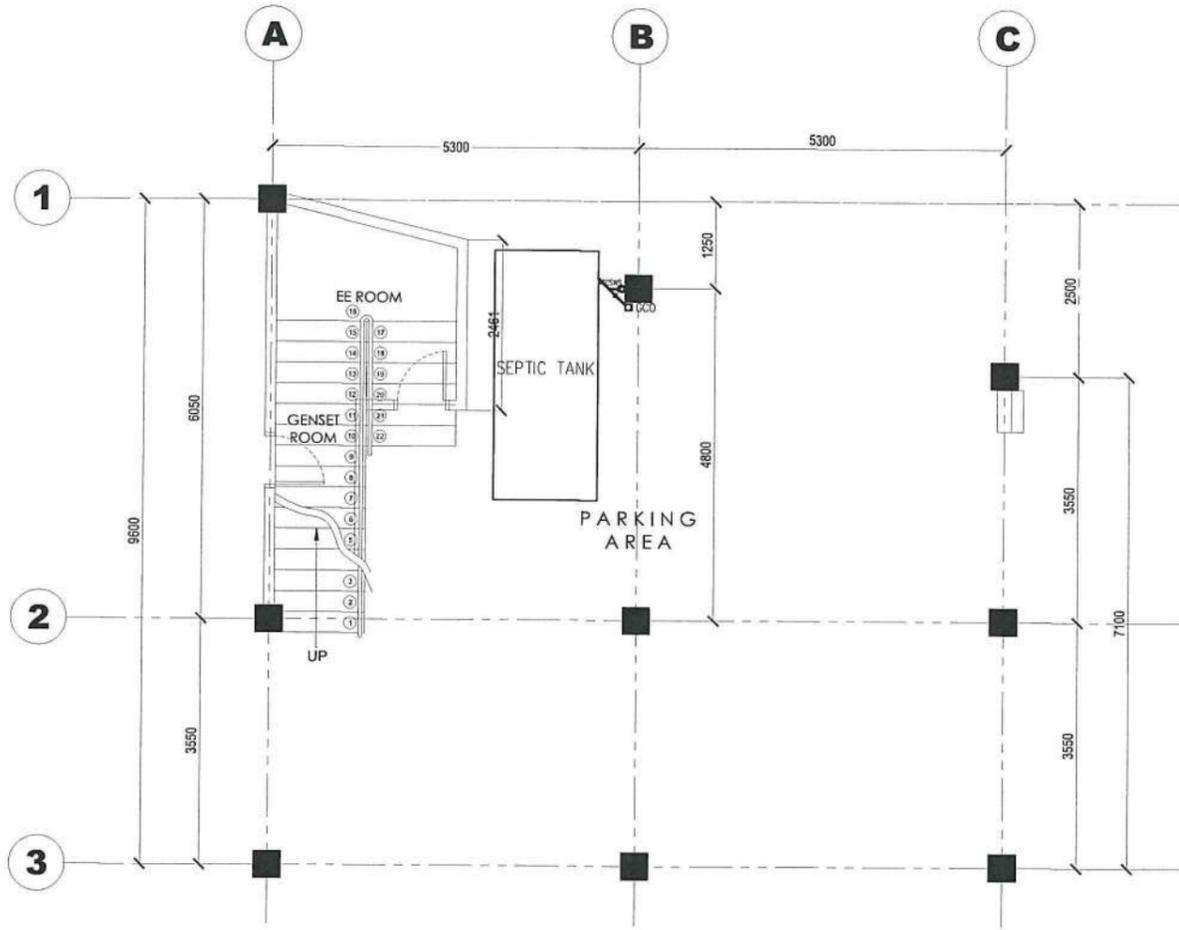
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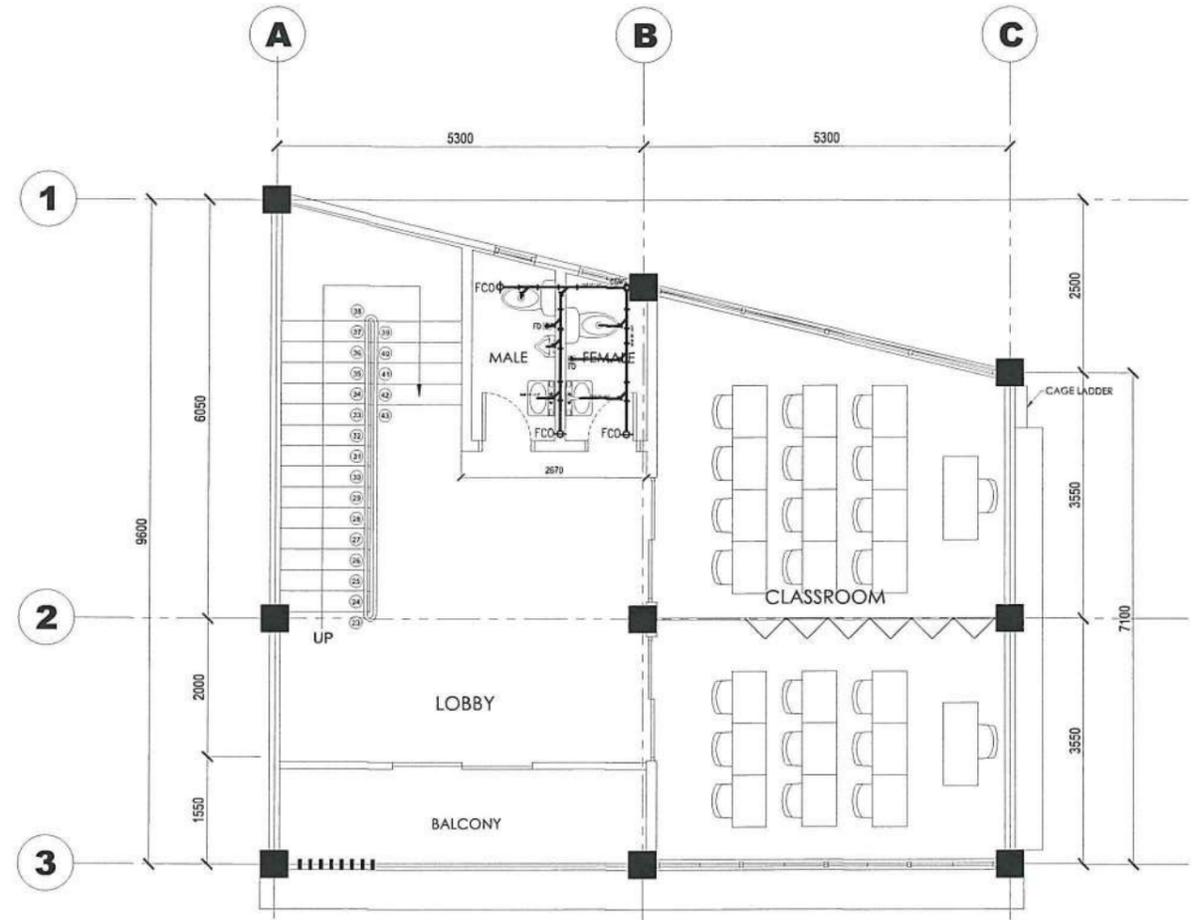


P-3  
1 | 1 SCALE **THIRD FLOOR WATERLINE SYSTEM PIPING LAYOUT** 1:100 MTS.

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**GROUND FLOOR  
SEWER LINE SYSTEM PIPING LAYOUT**  
 P-4  
 1 2 SCALE 1:100 MTS.

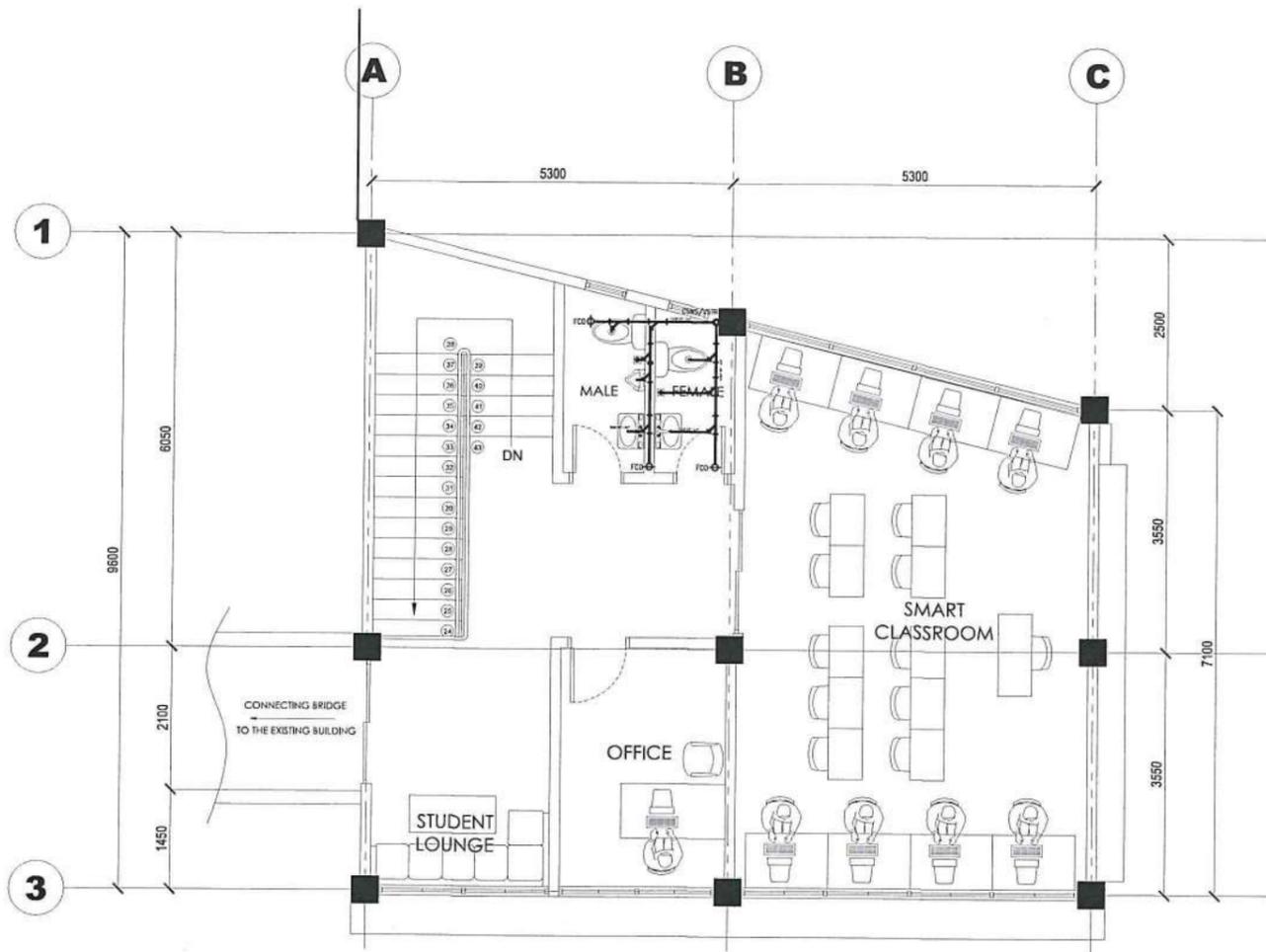


**SECOND FLOOR  
SEWER LINE SYSTEM PIPING LAYOUT**  
 P-4  
 2 2 SCALE 1:100 MTS.

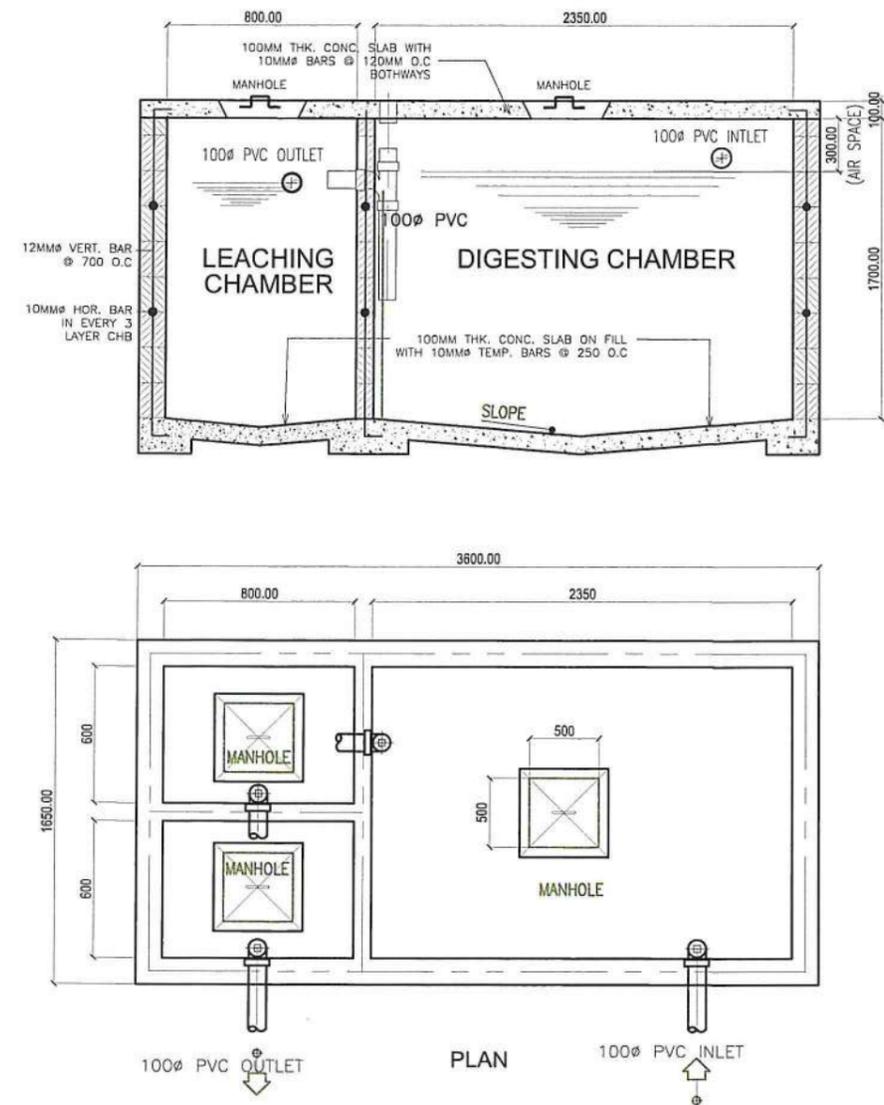
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1 2  
SCALE 1:100 MTS.



P-5  
2 2  
SCALE NTS.

**UNIVERSITY OF RIZAL SYSTEM**  
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PROJECT TITLE:  
CONSTRUCTION OF TECHNO-BIZ BUILDING  
IN BINANGONAN CAMPUS

UNIVERSITY OF RIZAL SYSTEM  
BINANGONAN CAMPUS

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