PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING AT QCU MAIN CAMPUS (PHASE 2)

Project number:

21-00047

Sixth Edition July 2020

Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the "Works") through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contract, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv)the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

- a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.
- b. Specific details, such as the "*name of the Procuring Entity*" and "*address for bid submission*," should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.
- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

TABLE OF CONTENTS

Glossa	ry of Terms, Abbreviations, and Acronyms	5
Section	I. Invitation to Bid	8
Section	II. Instructions to Bidders	9
1.	Scope of Bid	10
2.	Funding Information	10
3.	Bidding Requirements	10
4.	Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices	10
5.	Eligible Bidders	11
6.	Origin of Associated Goods	11
7.	Subcontracts	11
8.	Pre-Bid Conference	12
9.	Clarification and Amendment of Bidding Documents	12
10.	Documents Comprising the Bid: Eligibility and Technical Components	12
11.	Documents Comprising the Bid: Financial Component	13
12.	Alternative Bids	13
13.	Bid Prices	13
14.	Bid and Payment Currencies	13
15.	Bid Security	14
16.	Sealing and Marking of Bids	14
17.	Deadline for Submission of Bids	14
18.	Opening and Preliminary Examination of Bids	14
19.	Detailed Evaluation and Comparison of Bids	14
20.	Post Qualification	15
21.	Signing of the Contract	15
Section	III. Bid Data Sheet	16
Section	IV. General Conditions of Contract	19
1.	Scope of Contract	20
2.	Sectional Completion of Works	20
3.	Possession of Site	20
4.	The Contractor's Obligations	20
5.	Performance Security	20
6.	Site Investigation Reports	21

7.	Warranty	.21
8.	Liability of the Contractor	.21
9.	Termination for Other Causes	.21
10.	Dayworks	.21
11.	Program of Work	.22
12.	Instructions, Inspections and Audits	.22
13.	Advance Payment	.22
14.	Progress Payments	.22
15.	Operating and Maintenance Manuals	.22
Section	V. Special Conditions of Contract	24
Section	VI. Specifications	26
Section	VII. Drawings	28
Section	VIII. Bill of Quantities	29
Section	IX. Checklist of Technical and Financial Documents	31

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

Contractor – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

Foreign-funded Procurement or Foreign-Assisted Project – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

GFI – Government Financial Institution.

GOCC – Government-owned and/or –controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term "related" or "analogous services" shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I. Invitation to Bid

Notes on the Invitation to Bid

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

- a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;
- b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;
- c. The deadline for the submission and receipt of bids; and
- d. Any important bid evaluation criteria.

The IB should be incorporated into the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.



REPUBLIC OF THE PHILIPPINES QUEZON CITY GOVERNMENT BIDS AND AWARDS COMMITTEE FOR INFRASTRACTURE &



May 25, 2021

CONSULTANCY

2nd floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

Invitation to Bid

No •	Project No.	Project Name	Location	Amount	Durati on Cal. Days	Office	Source Fund	
Bui	ldings – S	mall B						
1	21- 00039	Proposed Upgrading of Service Entrance at Payatas B Annex Elementary School	Payatas	1,015,592.29	30	City Engineering Department	Special Education Fund	
2	21- 00040	Proposed Upgrading of Service Entrance at Carlos P. Garcia High School	E. Rodriguez	1,677,689.20	60	City Engineering Department		
3	21- 00041	Proposed Construction of Vending Site at Mangga Street	Katipunan	2,077,798.42	60	City Engineering Department	Engineering Department	
4	21- 00042	Proposed Rehabilitation of Electrical System at Demetrio Tuazon Elementary School	Lourdes	2,554,487.62	90	City Engineering Department	Special Education Fund	
5	21- 00043	Proposed Rehabilitation of Old Barangay Hall at Barangay Libis (Phase 2)	Libis	3,282,450.73	90	City Engineering Department	Engineering Department	
6	21- 00044	Proposed Construction of Stage at San Francisco Elementary School	Del Monte	3,299,250.05	90	City Engineering Department		
7	21- 00045	Proposed Rehabilitation of Electrical System at Police Station 5	Fairview	3,330,404.77	90	City Engineering Department	Engineering Department	
Bui	ldings – N	<u>ledium A</u>						
8	21- 00046	Proposed Construction of Sto. Domingo Multi- Purpose Building (Phase 1)	Sto. Domingo	122,645,062.03	420	City Engineering Department	OCM-20% Community Development Fund	
Bui	ldings – N	<u>ledium B</u>						
9	21- 00047	Proposed Construction of Seven (7) Storey Academic Building at QCU Main Campus (Phase 2)	San Bartolome	167,209,016.04	420	City Engineering Department	ineering Trust Fund	
10	20- 00150B	Proposed Construction of New Kamuning Public Market (Phase 1)	Kamuning	173,882,714.62	510	City Engineering Department	Engineering Department	
Roa	ds – Small B							

11	21- 00048	Proposed Rehabilitation (Surface Improvement) of Makabayan Street	Obrero	1,394,478.44	20	City Engineering Department	OCM-20% Community Development Fund
12	21- 00049	Proposed Rehabilitation (Surface Improvement) of Parkway Street	Obrero	1,470,652.26	20	City Engineering Department	OCM-20% Community Development Fund
13	21- 00050	Proposed Rehabilitation (Surface Improvement) of Rolling Road	Obrero	1,764,985.43	25	City Engineering Department	OCM-20% Community Development Fund
14	21- 00051	Proposed Rehabilitation (Surface Improvement) of Mabilis Street	Pinyahan	2,570,503.04	25	City Engineering Department	OCM-20% Community Development Fund
15	21- 00052	Proposed Rehabilitation (Surface Improvement) of Dasmariñas Street	Damar	3,056,767.14	20	City Engineering Department	OCM-20% Community Development Fund
16	21- 00053	Proposed Rehabilitation of Road and Drainage at Ilang-Ilang Street (St. Andrew Subdivision)	Nagkaisang Nayon	4,217,010.66	90	City Engineering Department	OCM-20% Community Development Fund
17	21- 00054	Proposed Rehabilitation (Surface Improvement) of Corumi Street	Masambong	5,754,890.03	40	City Engineering Department	OCM-20% Community Development Fund
18	21- 00055	Proposed Rehabilitation of Road and Drainage at Batangas Street	Alicia	6,645,595.96	120	City Engineering Department	OCM-20% Community Development Fund
19	21- 00056	Proposed Rehabilitation of Road and Drainage at Actuarial Street	Bahay Toro	8,773,209.77	150	City Engineering Department	OCM-20% Community Development Fund
20	21- 00057	Proposed Rehabilitation of Road and Drainage at Linaw Street	Sienna	10,884,632.54	180	City Engineering Department	OCM-20% Community Development Fund
21	21- 00058	Proposed Rehabilitation of Road and Drainage at Road 23	Bahay Toro	14,841,163.26	180	City Engineering Department	OCM-20% Community Development Fund
22	21- 00059	Proposed Rehabilitation of Road and Drainage at Zamora Street	Paltok	17,526,621.80	180	City Engineering Department	OCM-20% Community Development Fund

- 1. The QUEZON CITY LOCAL GOVERNMENT, through *funding source of various years* intends to apply the sum stated above being the Approved Budget for the Contract (ABC) to payments under the contract *for the above stated Projects*. Bids received in excess of the ABC shall be automatically rejected at bid opening.
- 2. The **QUEZON CITY LOCAL GOVERNMENT** now invites bids for the above Procurement Project. Completion of the Works is required *as stated above*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
- Bidding will be conducted through open competitive bidding procedures using nondiscretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

- 4. Interested bidders may obtain further information from QUEZON CITY LOCAL GOVERNMENT BAC Secretariat and inspect the Bidding Documents at the address given below weekdays from 8:00 am. 5:00 p.m.
- 5. A complete set of Bidding Documents may be acquired by interested bidders on 26 May 2021 (Wednesday) from given address and website/s below and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB. The Procuring Entity shall allow the bidder to present its proof of payment for the fees presented in person.

STANDARD RATES:

Approved Budget for the Contract	Maximum Cost of Bidding Documents (in Philippine Peso)		
More than 1 Million up to 5 Million	5,000.00		
More than 5 Million up to 10 Million	10,000.00		
More than 10 Million up to 50 Million	25,000.00		
More than 50 Million up to 500 Million	50,000.00		
More than 500 Million	75,000.00		

The following are the requirements for purchase of Bidding Documents;

- 1. PhilGEPS Registration Certificate (Platinum 3 Pages)
- 2. Document Request List (DRL)
- Authorization to purchase bidding documents
 3.1 Secretary's Certificate (for corporation)
 3.2 Special Power of Attorney (for sole proprietorship)
- 4. Notarized Joint Venture Agreement (if applicable)
- 5. Letter of Intent

It must be duly received by the BAC Secretariat at 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound.

6. The QC- BAC- INFRASTRUCTURE & CONSULTANCY will hold a Pre-Bid Conference¹ on June 3, 2021 at 10:00 AM at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound or we encourage the prospective bidders to join through our Virtual Conference (ZOOM APP) which shall be open to prospective bidders.

Virtual Conference (ZOOM APP) Meeting ID: 854 9489 0133 Password: 273320

- Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before June 15, 2021. – 9:00AM. Late bids shall not be accepted.
- 8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.
- 9. Bid opening shall be on June 15, 2021 10:00 AM at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound and/or via Zoom. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

Virtual Conference (ZOOM APP) Meeting ID: 810 3646 5257 Password: 201522

¹ May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a pre-bid conference.

- 10. The *Quezon City Local Government* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
- 11. For further information, please refer to:

ATTY. DOMINIC B. GARCIA

OIC, Procurement Department 2nd Floor, Procurement Department, Finance Building, Quezon City Hall Compound Elliptical Road, Barangay Central Diliman, Quezon City. Tel. No. (02)8988-4242 loc. 8506/8710 Email Add: bacinfra.procurement@quezoncity.gov.ph Website: <u>www.quezoncity.gov.ph</u>

12. You may visit the following websites:

For downloading of Bidding Documents: <u>https://quezoncity.gov.ph/public-notices/procurement/</u>

By:

1 . .

ATTY. MARK DALE DIAMOND P. PERRAL Chairman BAC-Infra and Consultancy

Notes on the Instructions to Bidders

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

1. Scope of Bid

The Procuring Entity, Quezon City Government invites Bids for the PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING AT QCU MAIN CAMPUS (PHASE 2), with Project Identification Number 21-00047.

[Note: The Project Identification Number is assigned by the Procuring Entity based on its own coding scheme and is not the same as the PhilGEPS reference number, which is generated after the posting of the bid opportunity on the PhilGEPS website.]

The Procurement Project (referred to herein as "Project") is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for 2021 in the amount of One Hundred Sixty-Seven Million Two Hundred Nine Thousand Sixteen Pesos & 04/100 Ctvs. (P 167,209,016.04).
- 2.2. The source of funding is:
 - *a.* LGUs, the Annual or Supplemental Budget, as approved by the Sanggunian.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:

a. Subcontracting is not allowed.

- 7.1. *[If Procuring Entity has determined that subcontracting is allowed during the bidding*, *state:]* The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criterial stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.
- 7.2. *[If subcontracting is allowed during the contract implementation stage, state:]* The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary

requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

7.3. Subcontracting of any portion of the Project does not relieve the Contractor of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

8. **Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address on June 3, 2021 10:00 A.M. at 2nd Floor, Procurement Department-Bidding Room, Finance Building, Quezon City Hall Compound and/or we encourage the prospective bidders to join through our Virtual Conference (ZOOM APP) Meeting ID: 854 9489 0133 Password: 273320

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in Section IX. Checklist of Technical and Financial Documents.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their

complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

14. Bid and Payment Currencies

- 14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
- 14.2. Payment of the contract price shall be made in:
 - a. Philippine Pesos.

15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security in no case shall exceed One Hundred Twenty (120) calendar days from the date of opening of bids, unless duly extended by the bidder upon the request of the Head of the Procuring Entity (HoPE) of the Quezon City Local Government. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph **5** of the **IB**.

18. Opening and Preliminary Examination of Bids

18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC

shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 15 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Notes on the Bid Data Sheet (BDS)

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

- a. Information that specifies and complements provisions of the ITB must be incorporated.
- b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

Bid Data Sheet

ITB Clause						
5.2	For this purpose, similar contracts shall refer to contracts which have the same major categories of work.					
7.1	Subcontracting is not allowed.					
10.3	No additional contractor license or permit is required					
	In addition	eligible bidders	s shall qualify or comply	y with the following:		
	1. Bidders v	vith valid Philip	pine Contractors Accred	itation Board (PCAB)		
	Туре					
	Buildings – Medium B					
10.4	The minim following:	um work expe	erience requirements for	or key personnel are the		
	Qnty. K	ey Personnel	General Experience	Relevant Experience		
	1 Pr	oject Engineer	3 years	3 years		
	1 DPV	VH duly accredi	ted			
		terials Engineer	3 years	3 years		
	1 Sat	fety Engineer	3 years	3 years		
	1	Foreman	3 years	3 years		
	80 Sk	illed Worker	3 years	3 years		
	1	Driver	3 years	3 years		
	150 La	borer/Helper	1 year	3 months		
In addition, the bidder must execute an affidavit notarized stating that the foregoing personnel shall per for the project until its completion. Please see attached				l perform work exclusively		
10.5			nent requirements are th			
	Equipment Dump Truc Welding M Power Tool Minor Tool	achine s	Capacity	Number of Units 1 1 as needed as needed		
	In addition, the bidder must execute an affidavit of undertaking duly notarized stating that the foregoing equipment shall be used exclusively for					

	the project until its completion. Please see attached bid forms.
12	[Insert Value Engineering clause if allowed.]
15.1	The bid security shall be in the form of a Bid Securing Declaration with project number, or any of the following forms and amounts:
	a) The amount of not less than Php 3,344,180.32 or equivalent to two percent (2%) of ABC if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or
	b) The amount of not less than Php 8,360,450.80 or equivalent to five percent (5%) of ABC if bid security is in Surety Bond.
19.2	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20	No additional requirement.
21	Additional Contract Documents relevant to the Project as required:
	1. Construction Schedule and S-curve,
	2. Manpower Schedule,
	3. Construction Methods, 4. Equipment Utilization Schedule
	4. Equipment Utilization Schedule, 5. PERT/CPM or other acceptable tools of project scheduling, shall be
	included in the submission of Technical Proposal.

Notes on the General Conditions of Contract

The General Conditions of Contract (GCC) in this Section, read in conjunction with the Special Conditions of Contract in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

Matters governing performance of the Contractor, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

2. Sectional Completion of Works

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

3. Possession of Site

- 3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the SCC, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
 - 3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

5. **Performance Security**

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

8. Liability of the Contractor

Subject to additional provisions, if any, set forth in the **SCC**, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

10. Dayworks

Subject to the guidelines on Variation Order in Annex "E" of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.

11. Program of Work

- 11.1. The Contractor shall submit to the Procuring Entity's Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.
- 11.2. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex "E" of the 2016 revised IRR of RA No. 9184.

14. **Progress Payments**

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

15. Operating and Maintenance Manuals

15.1. If required, the Contractor will provide "as built" Drawings and/or operating and maintenance manuals as specified in the **SCC**.

15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

- a. Information that complements provisions of the GCC must be incorporated.
- b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

Special Conditions of Contract

GCC Clause	
2	Completion of work shall be within 420 calendar days.
4.1	The Procuring Entity shall give possession of all parts of the Site to the
	Contractor upon receipt of the Notice to Proceed.
6	The site investigation reports are: <i>[list here the required site investigation reports.]</i>
7.2	[Select one, delete the other.]
	[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:] Fifteen (15) years.
	[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:] Five (5) years.
	[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:] Two (2) years.
10	Dayworks are applicable at the rate shown in the Contractor's original Bid.
13	The amount of the advance payment is no more that fifteen percent (15%) of the Contract Price subject to approval by the HOPE and compliance with the conditions under RA 9184 and its IRR.
14	No further instructions.
15.1	The date by which operating and maintenance manuals are required is <i>thirty (30) days</i> The date by which "as built" drawings are required as part of final payment
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is ten (10%) percent of the contract price.

Section VI. Specifications

Notes on Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying or conditioning their Bids. In the context of international competitive bidding, the specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency, and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is mandatory. Most specifications are normally written specially by the Procuring Entity or its representative to suit the Works at hand. There is no standard set of Specifications for universal application in all sectors in all regions, but there are established principles and practices, which are reflected in these PBDs.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, ports, railways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, although not necessarily to be used in a particular Works Contract. Deletions or addenda should then adapt the General Specifications to the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the SCC.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted

subject to the Procuring Entity's Representative's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Procuring Entity's Representative at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's Representative's consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These notes are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final Bidding Documents.



Republic of the Philippines Quezon City

CITY ENGINEERING DEPARTMENT



Civic Center Building B, Quezon City Hall Compound, Elliptical Road Diliman, Central 1100 Quezon City Trunk líne: +63 2 8988 4242

TECHNICAL SPECIFICATIONS

QUEZON CITY INFRASTRUCTURE PROJECT PROJECT TITLE : PROPOSED CONSTRUCTION OF SEVEN (7) STOREY BUILDING AT QCU MAIN CAMPUS (PHASE 2) LOCATION: BARANGAY SAN BARTOLOME, DISTRICT 5, QUEZON CITY

I. GENERAL REQUIREMENTS

- a. Comply with the current and existing laws, ordinances and applicable codes, rules and regulations and standards. Any works perform contrary to the existing laws, rules and regulations, ordinances and standards without notice shall bear all cost arising therefrom.
- b. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- c. Should there be any change(s) in drawings or specifications, it is required to comply with the governing regulations, notify the implementing agency.
- d. Photographs shall be taken as, when and where directed at intervals of not more than one month. The photographs shall be sufficient in number and location to record the exact progress of the works. The photographs shall be retained and will become the property of the Government.
- e. Site verification / inspection shall be conducted to validate the scope of works. No extra compensation and extension of time shall be given due to negligence or inadvertence.
- f. The quality of materials shall be of the best grade of their respective kinds for the purpose. The work shall also be performed in the best and most capable manner in strict accordance with requirements of the plans and details. All materials not conforming to the requirements of these specifications shall be considered as defective.
- g. All equipment and installations shall meet or exceed minimum requirements of the standards and codes.
- h. Mobilization and Demobilization (if applicable)
 - i. Mobilization shall include all activities and related costs for transportation of personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the operations at the site.
 - ii. Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not anymore required within the construction site including the disassembly, removal and site clean-up of offices and other facilities assembled on the site specifically for this contract.
- i. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen. Provide a competent, experienced, full-time supervisor who is authorized to make decisions on behalf of the Contractor.
- j. Temporary Facilities and Utilities
 - i. All facilities shall be near the job site, where necessary and shall conform to the best standard for the required types.
 - ii. Temporary facilities shall be provided and maintained including sanitary facilities and first aid stations.

- iii. Temporary utilities shall be sufficiently provided until the completion of the project such as water, power and communication.
- iv. Temporary enclosure shall be provided within the construction site with adequate guard lights, railings and proper signages.
- v. Temporary roadways shall be constructed and maintained to sustain loads to be carried on them during the entire construction period.
- vi. Upon completion of the work, the temporary facilities shall be demolished, hauledout and disposed properly.
- k. Adequate construction safety and health protection shall be provided at all times during the execution of work to both workers and property.
 - i. A fully trained Medical Aide shall be employed permanently on the site who shall be engaged solely from medical duties.
 - ii. The medical room shall be provided in waterproof; it could be a building or room designated and used exclusively for the purpose and have a floor area of at least 15 square meters and a glazed window area of at least 2 square meters.
 - iii. The location of the medical room and any other arrangements shall be made known to all employees by posting on prominent locations suitable notices in the site.
 - iv. Additional safety precautions shall be provided in the observance of pandemic. Protocols set-forth by the government shall be strictly followed.
- Necessary protections to the adjacent property shall be provided to avoid untoward incidents / accidents.
- m. Final cleaning of the work shall be employed prior to the final inspection for certification of final acceptance. Final cleaning shall be applied on each surface or unit of work and shall be of condition expected for a building cleaning and maintenance program.

II. SITE WORKS

- A. All grades, lines, levels and dimensions shall be verified as indicated on the plans and details. Any discrepancies or inconsistencies shall be reported before commencing to work.
- B. Removal / demolition of existing structures shall be done in accordance to safety procedures.
- C. All excavations shall be made to grade as indicated in the plans. Whenever water is encountered in the excavation process, it shall be removed by pumping, care being taken that the surrounding soil particles are not disturbed or removed.
- D. All backfills shall be placed in layers not exceeding to 150mm in thickness and each layer shall be thoroughly compacted wetting, tamping and rolling.

III. CIVIL / STRUCTURAL WORKS

A. CONCRETE WORK

- a. Delivery, Storage, and Handling: All materials shall be so delivered, stored, and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready to be used. Packages or materials showing evidence of water or other damage shall be rejected.
- b. Unless otherwise specified herein, concrete works shall conform to the requirements of the ACI Building Code. Full cooperation shall be given on trades to install embedded items. Provisions shall be made for setting items not placed in the forms. Before

concrete is placed, embedded items shall have been inspected and tested for concrete aggregates and other materials shall have been done.

- c. Materials
 - i. Cement for concrete shall conform to the requirements of specifications for Portland Cement (ASTM C 150).
 - ii. Water used in mixing concrete shall be clean and free from other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
 - iii. Fine aggregates shall be beach or river sand conforming to ASTM C33, "Specification for Concrete Aggregates". Sand particle shall be course, sharp, clean free from salt, dust, loarn, dirt and all foreign matters.
 - iv. Coarse aggregates shall be either natural gravel or crushed rock conforming to the "Specifications for Concrete Aggregates (ASTM C33). The minimum size of aggregates shall be larger than one fifth (1/5) of the narrowest dimensions between sides of the forms within which the concrete is to be cast nor larger than three fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms.
- d. Proportioning and Mixing
 - i. Proportioning and mixing of concrete shall conform to the requirements for Item 405 of the standard specification with the following proportions:

Cement : Sand : Gravel

- Class "A" 1 : 2 : 3
- Class "B" 1 : 2 : 4
- Class "C" 1 : 2 1/2
- ii. Concrete mixture to be used for concrete shall conform with the structural requirements.
- Mixing concrete shall be machine mixed. Mixing shall begin within 30 minutes after the cement has been added to the aggregates.

e. Forms

- i. General Forms shall be used whatever necessary to confine the concrete and shape it to the required lines, or to insure the concrete of contamination with materials caving from adjacent, excavated surfaces. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss or mortar from the concrete. Forms shall be ¹/₄" waterproof plywood and form lumber.
- Cleaning of Forms before placing the concrete, the contact surfaces of the formed hall be cleaned of encrustations of mortar, the grout or other foreign material.
- iii. Removal of Forms forms shall be removed in a manner which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be formed at once and airing shall be started as soon as the surface is sufficiently hard to permit it without further damage.
- f. Placing Reinforcement:

Steel reinforcement shall be provided as indicated, together with all necessary wire tires, chairs, spacer supported and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed, shall be free from loose, flaky rust and scale, oil grease, clay and other coating and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be used in such manner that they will not be exposed or contribute in any way, to the discoloration or deterioration of the concrete.

- g. Conveying and Placing Concrete:
 - i. Conveying concrete shall be conveyed from mixer to forms as rapidly as applicable, by methods which will prevent segregation, or loss of ingredients. There will be no vertical drop greater than 1.5 meters except where suitable equipment is provided to prevent segregation and where specifically authorized.
 - ii. Placing concrete shall be worked readily into the corners and angles of the forms and around all reinforcement and imbedded items without permitting the material to segregate, concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequently segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum lateral movement specified.
 - iii. Time interval between mixing and placing. Concrete shall be placed before initial set has occurred and before it has contained its water content for more than 45 minutes. No concrete mix shall be placed before 60 complete revolution of the machine mixer.
 - iv. Consolidation of Concrete concrete shall be consolidated with the aid of mechanical vibrating equipment and supplemented by the hand spading and tamping. Vibrators shall not be inserted into lower cursed that have commenced initial set; and reinforcement embedded in concepts beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall by hand spading and tamping and vibrators shall not be used.
 - v. Placing Concrete through reinforcement In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement-sand ratios as used in concrete shall be first deposited to cover the surfaces.

h. Curing

- i. General All concrete shall be moist cured for a period not less than seven (7) consecutive days by an approved method or combination applicable to local conditions.
- ii. Moist Curing The surface of the concrete shall be kept continuously wet by covering with burlap plastic or other approved materials thoroughly saturated with water and keeping the covering spraying or intermittent hosing.

i. Finishing

- i. Concrete surfaces shall not be plastered unless otherwise indicated. Exposed concrete surfaces shall be formed with plywood, and after removal of forms, the surfaces shall be smooth, true to line and shall present or finished appearance except for minor defects which can be easily repaired with patching with cement mortar, or can be grounded to a smooth surface to remove all joint marks of the form works.
- ii. Concrete Slabs on Fill. The concrete slabs on fill shall be laid on a prepared foundation consisting of sub grade and granular fill with thickness equal to the thickness of the overlaying slab except when indicated.

B. MASONRY

a. Masonry Units (CHB):

100mm thick for all interior walls and 125mm thick for all exterior walls unless otherwise indicated.

Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.

Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.

b. Sand:

S-1, washed, clean and greenish in color.

c. Mortar:

One part "Portland" cement and two parts sand and water but not more than three parts sand and water.

d. Plaster bond:

Apply plaster bond to all wall area.

C. METAL WORK

a. Description

Metal works shall conform to the approved plans and to the Standard Specifications.

b. Reference Standards

Comply with the latest edition of the following as applicable, unless otherwise specified or modified.

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 1978: Specification for the Design, Fabrication and Erection of Structural Steel for Buildings. Code of Standard Practice for Steel Buildings and Bridges; Specification for Architecturally Exposed Structural Steel.
- AMERICAN WELDING SOCIETY (AWS): Standard Welding Symbols A2.068; Standard Welding Code D1 1-1973 (Rev 1-73 & 2-74) (To govern if in conflict with AISC)
- RESEARCH COUNCIL ON RIVETED AND BOLTED JOINTS OF THE ENGINEERING FOUNDATION (RCRBJ): Specification for Structural Joists using ASTM A-325-76s Bolts.
- STRUCTURAL STEEL PAINTING COUNCIL (SSPC): Painting Manual, Vol. 1; Good Painting Practice, Painting Manual, Vol. 2; Systems and Specifications.
- c. Source Quality Control

Errors of Shop Drawings, fabrication, correct fitting and alignment of the various metal Items or component members shall be the responsibility of the Contractor. However, the Contractor shall permit the Architect or an independent inspection agency, if engaged by the Owner, to inspect work in progress in his shop. Such inspections shall not relieve the Contractor of his responsibility to furnish materials and workmanship in accordance with the Contract Documents.

d. Product Delivery, Handling and Storage

Handle and store in such manner as to prevent damage or disfigurement. Store finished items or components above ground on platforms, pallets or other supports and protect from harmful elements.

e. Protection

The Contractor shall protect any existing work subject to damage during the installation of the specified work and shall adequately protect specified work during installation.

f. Field Quality Control

Facilities shall be provided by the Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Architect shall be corrected and replaced, at no additional cost to the Owner.

g. Materials

Products shall conform to the respective reference specifications and standards and to the requirements specified herein:

- 1. STEEL AND IRON: If not specified otherwise, use standard millfinished structural steel shapes or bar iron incompliance with AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings.
- 2. BOLTS, NUTS, STUDS AND RIVETS: ASTM A 307 & A 325
- SCREWS: Fed. Spec. FF-S-85, Fed. Spec. FF-S-92, and Fed. Spec. FF-S-111
- h. Fabrication

By mechanics skilled in the trade and in accordance with the manufacturer's directions, Metalwork shall be fabricated to allow for expansion and contraction of materials. Provide welding and bracing of adequate strength and durability, with tight, flush joints, dressed smooth and clean. Complete with bolts and nuts.

i. Measurements

Before fabrication, provide necessary field measurements and verify all measurements.

j. Metal Surfaces

Shall be clean and free from all scale, flake, rust, and rust pitting; well-formed and finished to shape and size, with sharp lines, angles and smooth surface. Shearing and punching shall leave clean true lines and surfaces. Weld or rivet permanent connections. Weld and flush rivets shall be used and finished flush smooth on surfaces that will be exposed after installation. Do not use screws or bolts where they can be avoided: when used, heads shall be countersunk, screwed up tight and threads nicked to prevent loosening.

k. Construction

Thickness of metals and details of assembly and supports shall give ample strength and stiffness for the minimum loads specified or indicated. Joints exposed to weather shall be formed to exclude water.

I. Shop Fabrication

Fabrication and assembly shall be done in the shop to the greatest extent possible.

m. Submittals

Shop Drawings. Submit along with catalogue, cuts, templates and erection and installation details, indicating thickness, type, grade, type of metal and dimensions. Show construction details, reinforcement, anchorage, and installation with relation to the construction.

n. Qualification of Welders

In accordance with AWS D1.1 with procedures, materials and equipment of the type required for the work.

o. Delivery and Storage

Protect from corrosion, deformation and other types of damage. Store items in an enclosed area free from contact with soil and weather. Contractor shall replace and removed damage items with new items.

p. Welding

Use weidingelectrode E70xx and perform welding, welding inspection aqnd corrective welding in accordance with AWS D1.1. Weld in a manner to prevent permanent distortion of the connected parts. Weld continuously along the entire area of contact (except where lack welding is permitted. Do not lack weld exposed to connections.) Grind smooth visible weld in finished installation.

q. Metal Purlins

Metal purlins shall be of high grade galvanized steel with minimum tensile strength of 275 MPA, 1.4mm in thickness.

D. ROOFING WORKS

- a. The roof shall be covered with Ga. 24 pre-painted G.I. rib-type roofing sheets as shown on the plans. The roofing shall be secured to the purtins with min. 2 ½" max. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the Ga. 24 pre-painted G.I. rib-type roofing sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- b. The roof shall be covered with 6mm thick Rib-type polycarbonate sheets as shown on the plans. The roofing shall be secured to the purlins with min. 2 ½" max. 3" long Tek screws. Ridge rolls, hip rolls and valleys to be used shall be those compatible with the 6mm thick solid polycarbonate sheets. They shall lap the roofing sheets at least 250mm. The ridge rolls, hip rolls and valleys shall be riveted to the roofing sheets.
- c. All roofing sheets adjacent to concrete hollow block and other masonry walls such as property line firewalls, shall be provided with Gauge 26 pre-painted plain G.1. Flashing to extend to the top and over to the other side of the wall. All fasteners shall be placed at the top of the corrugations of the roofing sheets to prevent water from standing around the fasteners.

E. WATERPROOFING

a. Waterproofing:

Furnish all labor, materials, equipment, plant and other facilities required to complete all waterproofing work as shown on the drawings and herein specified. All applications shall be strictly performed by an approved waterproofing Contractor.

F. Testing:

Test waterproofed area by seventy-two (72) hours and check for any seepages.

Note: Thickness should be as per Manufacturers Specifications and Installation depending on the Areas to be applied with.

IV. ARCHITECTURAL WORKS

A. WALLS AND FLOOR FINISHES

- 600mm x 600mm Unglazed Ceramic Tites including tile adhesive a.
- 50mm concrete Topping with Plain Cement Finish **b**.
- c. Stamp Concrete (Quadrangle)
- d. Rubberized Paint (Parking Area)
- e. Carpet Tiles including adhesive (Auditorium)
- f. 50mm Concrete Topping for Tiles
- g. 300mm x 600mm Ceramic Wall Tiles
 h. Urinal partition including stainless steel support and accessories
- **Decorative Stones** i.
- Plastering Guide/ Grooves
- Aluminum Composite Panel cladding 6mm thk, Nano finish including structural angular k. framing sections. Backer rod sealant (facade and canopies)

B. CEILING FINISHES

- a. 12mm thk Gypsum Board including framing and accessories
- b. 12mm thk Moisture Resistant Gypsum Board on lightweight aluminum frames
- c. 600mm x 600mm Acoustic Ceiling on T runner (Auditorium)
- d. Rubbed Concrete

C. DOORS & WINDOWS

a. Follow as per approved plan and specifications

D. PAINTING WORKS

- All primers, thinners and putty, also waterproofing for internal and external application e. shall be the same brand as the specified material.
- f. Application shall be as per paint Manufacturer's specification and recommendation.
- Provide all drop cloth and other covering requisite for protection of floors, walls, g. aluminum, glass, finishes and other works.
- All applications and methods used shall strictly follow the Manufacturer's Instructions h. and Specifications.
- All surfaces including masonry wall shall be thoroughly cleaned, puttied, i. sandpapered, rubbed and polished; masonry wall shall be treated with Neutralizer.
- All exposed finish hardware, lighting fixtures and accessories, glass and the like shall j. be adequately protected so that these are not stained with paint and other painting materials prior to painting works.
- All other surfaces endangered by stains and paint marks should be taped and covered k. with craft paper.

V. SANITARY / PLUMBING WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Supply, installation and testing of the following:
 - Potable water supply system complete in all respects including but not limited to **B**.1 submittals, shop drawings, piping, water meters, valves, bibbs, insulation, all accessories required for complete and operational of the system.
 - Water service connections including but not limited to water meters, float valves. Any **B.2** and all other works involve in providing the complete operation of the water supply system.

- B.3 Soil waste and vent system complete in all respect including but not limited to connection to existing sewer, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- B.4 Storm drainage system complete in all respect including but not limited to connection to existing storm drainage, submittals, shop drawings, pipes, fittings, valves, cleanout, drains, etc. Complete and operational.
- C. Workmanship and installation methods shall conform to the best modern practice. Employ skilled tradesmen to perform work under the direct supervision of fully qualified personnel.
- D. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes as specified in plans and program of work.
- E. Install equipment in strict accordance with manufacturers written recommendations.
- F. Physical sizes of all plant and equipment are to be suitable for the space allocated for the accommodation of such plant and equipment, taking into account the requirement of access for maintenance purposes.
- G. In selecting makes and types of equipment, the Contractor shall ascertain that facilities for proper maintenance, repair and replacement are provided.
- H. Where the Contractor proposes to use an item of equipment other than that specified or detailed in the drawing, which requires any redesign of the system, drawings showing the layout of the equipment and such redesign as required therefore shall be prepared by the Contractor at his own expenses. Where such approved deviation necessitates a different quantity and arrangement of materials and equipment's from that originally specified or indicated in the drawings, the Contractor shall furnish and install any such additional materials and equipment's required by the system at no additional cost.
- I. Equipment catalogue and manufacturer's specifications must be submitted for examination and details shall be submitted for approval before any equipment is to be ordered.
- J. This shall include all information necessary to ascertain the equipment comply with this specification and drawings. Data and sales catalogue of a general nature will not be accepted.
- K. All materials, equipment, components and accessories shall be delivered to the Site in a new condition, properly packed and protected against damage or contamination or distortion, breakage or structural weakening due to handling, adverse weather or other circumstances and, as far as practicable, they shall be kept in the packing cases or under approved protective coverings until required for use.
- L. Any items suffering from damage during manufacture, or in transit, or on site whilst in storage or during erection shall be rejected and replaced without extra cost.
- M. All sanitary fittings and pipework shall be cleaned after installation and keep them in a new condition.
- N. All installed pipelines shall be flushed through with water, rodded when necessary to ensure clearance of debris.
- O. Cleaning and flushing shall be carried out in sections as the installation becomes completed.
- P. The Contractor shall carry out hydraulic test on the complete plumbing systems and the drainage system to show that it is functioning satisfactorily within the requirements of this Specification and local regulations.
- Q. The Contractor shall provide suitable test pumps and arrange for a supply of water required in connection with testing of pipework. The test pump shall be fitted with pressure gauges which shall be of suitable range for the pressure being applied.
- R. Hydraulic tests shall be carried out as the pipework is installed and shall be completed before chases in walls and ducts are closed. Also test shall be carried out prior to false ceilings and other finishes are installed.

- S. Testing apparatus shall be provided by the Contractor. Where any section of pipework or equipment is unable to withstand the maximum pipework test pressure, it shall be isolated during the pipework test then that section of pipework or equipment shall be re-tested at the appropriate test pressure.
- T. The Sanitary Contractor must carry out any additional tests required by the end-user and/or approving agency.
- U. Drainage pipe shall be tested by filling the pipe with 3m. of water higher than the test section and wait for 15 min, then check for leakage at every joints.
- V. Testing of drainage systems shall be carried out in sections by dividing the system horizontally. Each section shall comprise pipework and fitting for three floors/storeys required for testing.
- W. Drainage pressure pipe shall be hydraulic tested at minimum pressure 50 psi.
- X. Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.
- Y. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- Z. Install lateral bracing with pipe hangers and supports to prevent swaying.
- AA. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- BB. Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- CC. Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

VI. ELECTRICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

F. PANELBOARDS

F.1 Fabricate and test panelboards according to IEEE 344 to withstand seismic forces defined in Division 16 Sections 16073 and 16074 "Hangers and Supports for Electrical Systems and Vibration and Seismic controls for Electrical Systems" respectively.

- F.2 Enclosures: Flush, Surface, Flush- and surface-mounted cabinets.
 - F.2.1 Rated for environmental conditions at installed location.
 - i. Indoor Dry and Clean Locations: NEMA 250, Type 1.
 - ii. Outdoor Locations: NEMA 250, Type 3R.
 - iii. Kitchen and Wash-Down Areas: NEMA 250, Type 4X, stainless steel.
 - iv. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - v. Indoor Locations Subject to Dust, Falling Dirt, and Dripping Noncorrosive Liquids: NEMA 250, Type 5 or Type 12.
 - F.2.2 Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
 - F.2.3 Hinged Front Cover: Entire front trim hinged to box and with standard door within hinged trim cover.
 - F.2.4 Skirt for Surface-Mounted Panelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
 - F.2.5 Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - F.2.6 Finishes:
 - i. Panels and Trim: Steel and galvanized steel, factory finished immediately after cleaning and pretreating with manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat.
 - ii. Back Boxes: Galvanized steel Same finish as panels and trim.
 - iii. Fungus Proofing: Permanent fungicidal treatment for overcurrent protective devices and other components.
 - F.2.7 Directory Card: Inside panelboard door, mounted in transparent card holder metal frame with transparent protective cover.
- F.3 Incoming Mains Location: Top or Bottom.
- F.4 Phase, Neutral, and Ground Buses:
 - F.4.1 Material: Hard-drawn copper, 98 percent conductivity.
 - F.4.2 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment grounding conductors; bonded to box.
 - F.4.3 Neutral Bus: 100 percent of phase bus 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.

VII. MECHANICAL WORKS

- A. Comply with the current applicable codes, ordinances, and regulations of the authority or authorities having jurisdiction, the rules, regulations and requirements of the utility companies (as applicable).
- B. Drawings, specifications, codes and standards are minimum requirements. Where requirements differ, the more stringent apply.
- C. All equipment and installations shall meet or exceed minimum requirements of the Standards and Codes.
- D. Execute work in strict accordance with the best practices of the trades in a thorough, substantial, workmanlike manner by competent workmen.
- E. When the tests and inspections have been completed, a label shall be attached to all devices tested. The label shall provide the name of the testing company, the date the tests were completed, and the initials of the person who performed the tests.

JONSTHAN RAYNALD T. ESPINO Planning and Programming Division

JOCELYN A NAONG Planning and Programming Division

Section VII. Drawings

[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]

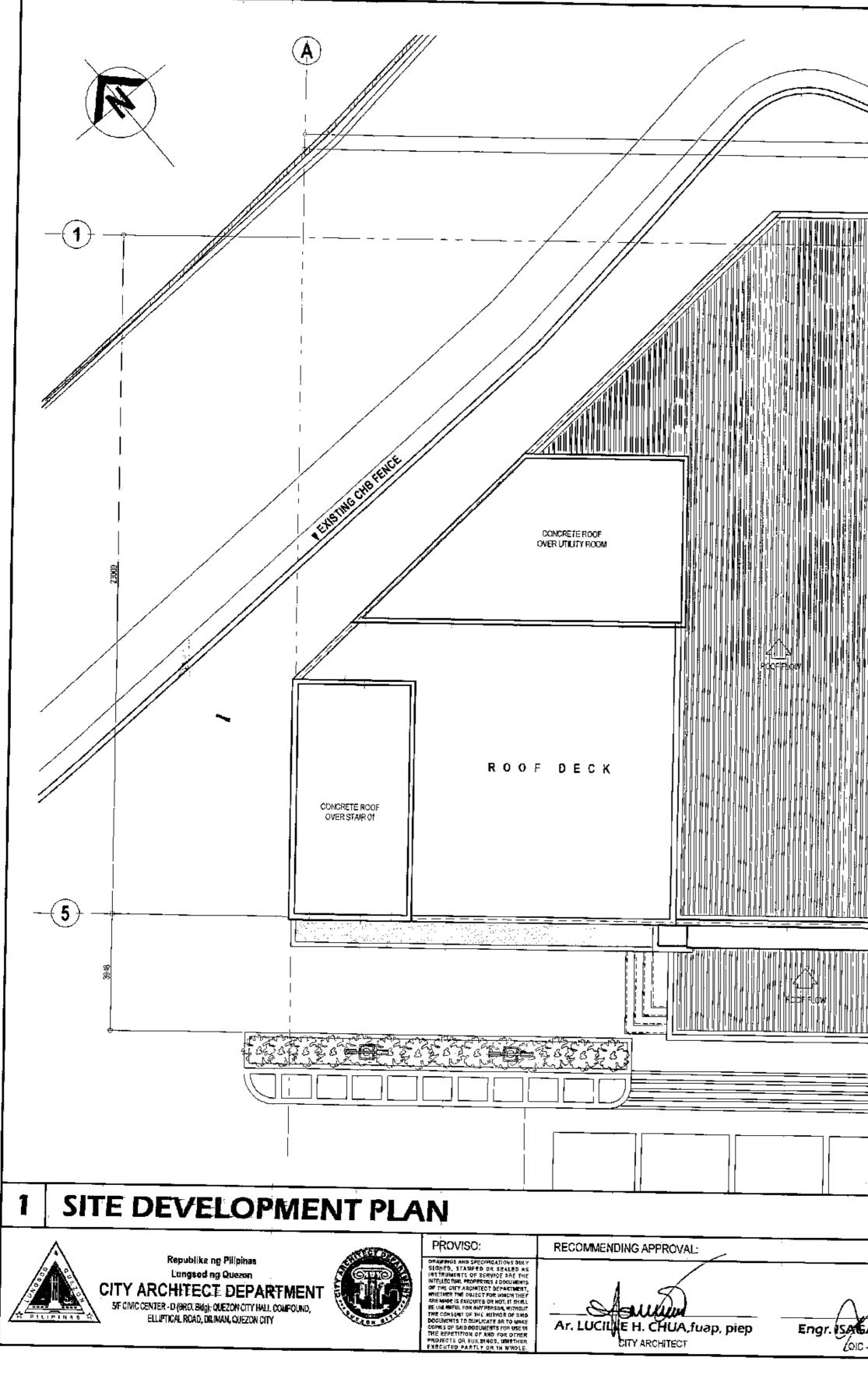


٠

•

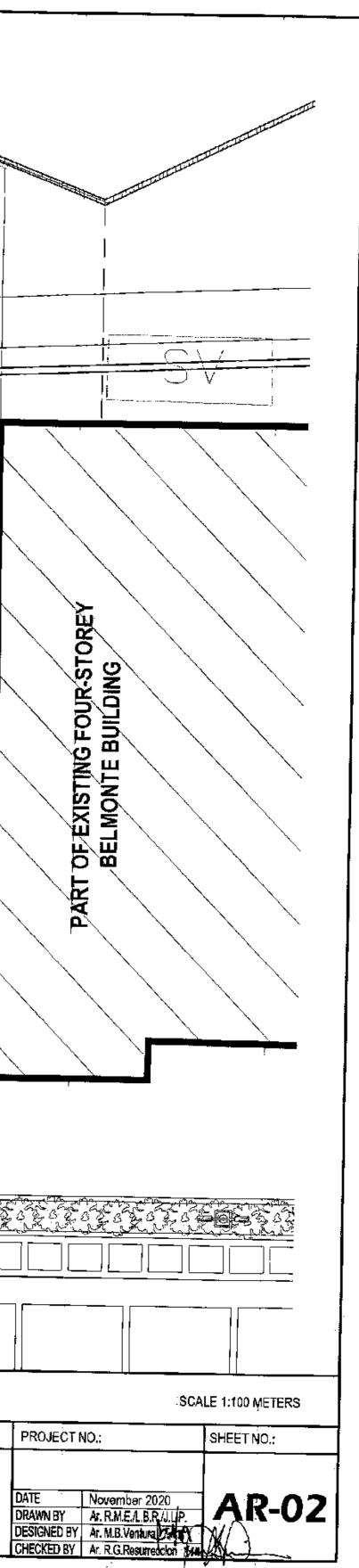
				TABLE O		ITEN	TS	
			ARCHITE	CTURAL			ELECTRICAL	
		AR-01	PERSPECTIVE: VICINITY				······································	
		AR-01	SITE DEVELOPMENT PLA		EL-32 EL-33		CK G.C.T.V SYSTEM LAYOUT	
and the second se		AR-03	GROUND FLOOR PLAN	· · · · · · · · · · · · · · · · · · ·	EL-34		AG PROTECTION SYSTEM; LIGHTNING ARRESTER D	
		AR-04 AR-05	SECOND FLOOR FLAN					
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		AR-05	FOURTH TO SIXTH FLOOR	RPLAN	-∟		MECHANICAL	
		AR-07	SEVENTH FLOOR PLAN	······································				
		AR-08 AR-09	ROOF PLAN		ME-01		NOTES; LEGENDS & SYMBOLS; PIPE SLEEVE DETA NT SCHEDULE	۱L.; ۲
		AR-09	FRONT ELEVATION		 		CASSETTE TYPE DETAIL; REFRIGERANT & CONDEN	SATE -
		AR-11	LEFT AND RIGHT ELEVAT	ION		DRAINPI		
		AR-12	CROSS SECTION		ME-03	HANGER	UNTED TYPE DETAIL; ACCLI MOUNTING DETAIL; PIP DETAIL	·E
		AR-13 AR-14	LONGITUDINAL SECTION		ME-04		FLOOR AR-CONDITIONING & VENT/LATION SYSTEM	1
		AR-15	SCHEDULE OF DOORS			LAYOUT		
		AR-16	SCHEDULE OF WINDOWS SCHEDULE OF GRILLE DO		ME-05	LAYOUT	FLOOR AIR CONDITIONING & VENTILATION SYSTEM	
		AR-17 AR-18	STAIR 01 DETAILS; STAIR		- ME-06		OOR AIR-CONDITIONING & VENTILATION SYSTEM LA	
		AR-19	STAIR 02 DETAILS		ME-07	<u> </u>	FOURTH FLOOR TO SIXTH FLOOR AIR-CONDITIONIN	G&
		AR-20 AR-21	GROUND FLOOR REFLECT		_		FLOOR AIR-CONDITIONING & VENTILATION SYSTEM	,
		AR-21	THIRD FLOOR REFLECTED		ME-08	LAYOUT		
		AR-23		HIFLOOR REFLECTED CEILING PLAN	ME-09		AN: STRUCTURAL OPENING ENTRANCE: SECTION O	
		AR-24 AR-25	SEVENTH FLOOR REFLEC		-	HOISTWA	Y; LAYOUT MANUAL; DIMENSION OF SIGNAL FIXTUR	ES
		AR-25	TOILET DETAILS		-		PLUMBING	
		AR-27	TOILET DETAILS					
		AR-28 AR-29	TOILET DETAILS		-		NOTES; LEGENDS & SYMBOLS; EQUIPMENT SCHED	
		AR-29 AR-30	RAILING DETAIL; RAMP DE	TAIL	- PL-01		ETER CONNECTION DETAIL; DETAIL OF SEPTIC TAN ADCB; DETAIL OF FLOOR DRAIN	К;
	and a state of the second s	AR-31		DETAIL OF MAIN ENTRANCE STAIR	- PL-02		DETAIL, SITE DEVELOPMENT PLAN, RAINWATER	
an -							DR DIAGRAM	
			STRUCT		PL-03 PL-04		LOOR SANITARY & STORM DRAINAGE LAYOUT	
		ST-01	GENERAL NOTES AND SPE	CIFICATION	- PL-05		OR SANITARY & STORM DRAINAGE LAYOUT	
機時後 一、「「「」「「」「「」「」「」「」「」「」」「」」「」」「」」「」」「」」「」」		ST-02	SECOND FLOOR FRAMING		PL-06		OURTH TO SIXTH FLOOR SAINITARY & STORM DRAIN	
		ST-03	THIRD FLOOR FRAMING PL		PL-07	LAYOUT SEVENTH	FLOOR SANITARY & STORM DRAINAGE LAYOUT	
		ST-04 ST-05	FOURTH FLOOR FRAMING		PL-08		K STORN DRAINAGE LAYOUT	
120411		ST-06	SIX FLOOR FRAMING PLAN		PL-09		RM DRAINAGE LAYOUT	
		ST-07	SEVENTH #LCOR FRAMING		- <u>PL-10</u> - PL-11		LOOR WATER LINE LAYOUT	
		ST-08	LOWER DECK & ROOF FRA	MING PLAN N; SCHEDULE & DETAIL OF SLAB;	PL-12		OR WATER LINE LAYOUT	
		ST-09	SERVICE ENTRANCE DE LA		PL-13		DURTH TO FIFTH FLOOR WATER LINE LAYOUT	
		ST-10	ELEVATOR DETAILS		PL-14 PL-15		DRWATER LINE LAYOUT	
		ST-11 ST-12	STAIR DETAILS SEPTIC TANK & CISTERN D	ETAN	PL-16		(WATER LINE LAYOUT	
		ST-13	GENSET CONCRETE PAD D		PL-17		VIEW OF SANITARY & STORM DRAINAGE SYSTEM:	
				· · · · · · · · · · · · · · · · · · ·		ISOMETRIC	VIEW OF WATERLINE LAYOUT	
	SCALE 1:100 METERS		ELECT	RICAL		FIR	E PROTECTION	
	· · · · · · · · · · · · · · · · · · ·	EL-01		S & SYMBOLS; VICINITY MAP]		ETROTECTION	
		EL-02	RISER DIAGRAM	S & STIMBULS; WORNTY MAP		GENERAL N	KOTES; MATERIAL SPECIFICATION; LEGENDS &	_
Manut 543	THE SITE	EL-03		ATA & L.A.N. RISER DIAGRAM	FP-01		EQUIPMENT SCHEDULE; DETAIL OF PIPE SLEEVE TH	-RU
Barro on Line State	5 m Lu	EL-04 EL-05	F.D.A.S. RISER DIAGRAM	· · · · · · · · · · · · · · · · · · ·			TAIL OF PIPE SLEEVE THRU WALL; DETAIL OF IS TEST PIPE	
	tionalich.	EL-05	SCHEDULE OF LOADS		· · · · · · · · · · · · · · · · · · ·	••••	SALVANIZED CLEVIS HANGER; DETAIL OF GALVANIZ	ZĘD
		EL-07	SCHEDULE OF LOADS				ER, FIRE HOSE CABINET; PENDENT TYPE SPRINKLI	
		EL-08 EL-09	SIFE DEVELOPMENT PLAN GROUND FLOOR LIGHTING		FP-02		WALL TYPE SPRINKLER HEAD; UPRIGHT SPRINKLE	
	Hard Constant and an	EL-09 EL-10	SECOND FLOOR LIGHTING				ALL OF SIAMESE CONNECTION; DETAIL OF ROOF	<u> </u>
	a statistica de la companya de la co	EL-11	THIRD FLOOR LIGHTING LA				TYPICAL GROUND TO 7TH FLOOR CONTROL VALVE	:
	Barangay	EL-12 EL-13	SEVENTH FLOOR LIGHTING		FP-03	SET-UP VAL SITE DEVEL	VE ALARM OPMENT PLAN	
	Lisineo Hoopita	EL-13 EL-14	ROOF DECK LIGHTING LAYO		FP-04	GROUND FL	OOR FIRE PROTECTION LAYOUT	
COCPUNITE Figerse Hal		EL-15	GROUND FLOOR POWER LA	YOUT	FP-05		DOR FIRE PROTECTION LAYOUT	
rien unter the second		EL-16 EL-17	SECOND FLOOR POWER LA THIRD FLOOR POWER LAYO				R FIRE PROTECTION LAYOUT URTH FLOOR TO SIXTH FLOOR FRE PROTECTION	<u></u>
ricohnia thiyiristiy		EL-18	TYPICAL FOURTH TO SIXTH		FP-07	LAYCUT		
	niChill Elversity.	EL-19	SEVENTH FLOOR POWER LA		FP-08 FP-09		OOR FIRE PROTECTION LAYOUT	
San y	artalona)Carigús	EL-20	ROOF BECK POWER LAYOU	-	FP-09 FP-10		PIRE PROTECTION LAYOUT	
		EL-21 EL-22		CTION ALARM SYSTEM LAYOUT				
- Cliff on City Polytechile 📷 🕬	JCPB C	EL-23	THIRD FLOOR FIRE DETECTI	ON ALARM SYSTEM LAYOUT				
		EL-24	· · · · · · · · · · · · · · · · · · ·	FLOOR FIRE DETECTION ALARM	Í			_
		EL-25	SYSTEMLAYOUT SEVENTH FLOOR FIRE DETE	CTION ALARM SYSTEM LAYOUT				
		EL-26	ROOF DECK FIRE DETECTIO	N ALARM SYSTEM LAYOUT				
Tan Silog Takkan (Masar 19		EL-27 EL-28		A & C.C.T.V SYSTEM LAYOUT				1
	:: : :	EL-28 EL-29	SECOND PLOOR VOICE, DAT THIRD FLOOR VOICE, DATA					
	· · · · · ·	EL-30	TYPICAL FOURTH TO SIXTH	FLOOR VOICE, DATA & C.C.T.V				i
AP S	NOT TO SCALE		SYSTEM LAYOUT					
· 4.4	NOT TO SUALE	EL-31	SEVERITI FLOUK VOICE, DA	TA& C.C.T.V SYSTEM LAYOUT				
	APPROVED BY :			PROJECT TITLE :			SHEET CONTENTS:	
	······································						· · · · · · · · · · · · · · · · · · ·	PROJE
				PROPOSED CONST		-	PERSPECTIVE VICINITY MAP	
	1			SEVEN (7) STOREY ACA @ OCU.I MAIN		DING	LOCATION MAP	DATE
								• • • • • T 🖬
GANIR VERZOSA I								
GANI R. VERZOSA Jr.	HON. MA. JOSEFI MAYOR	NA G. BE		(PHASE	2)			DRAWN B

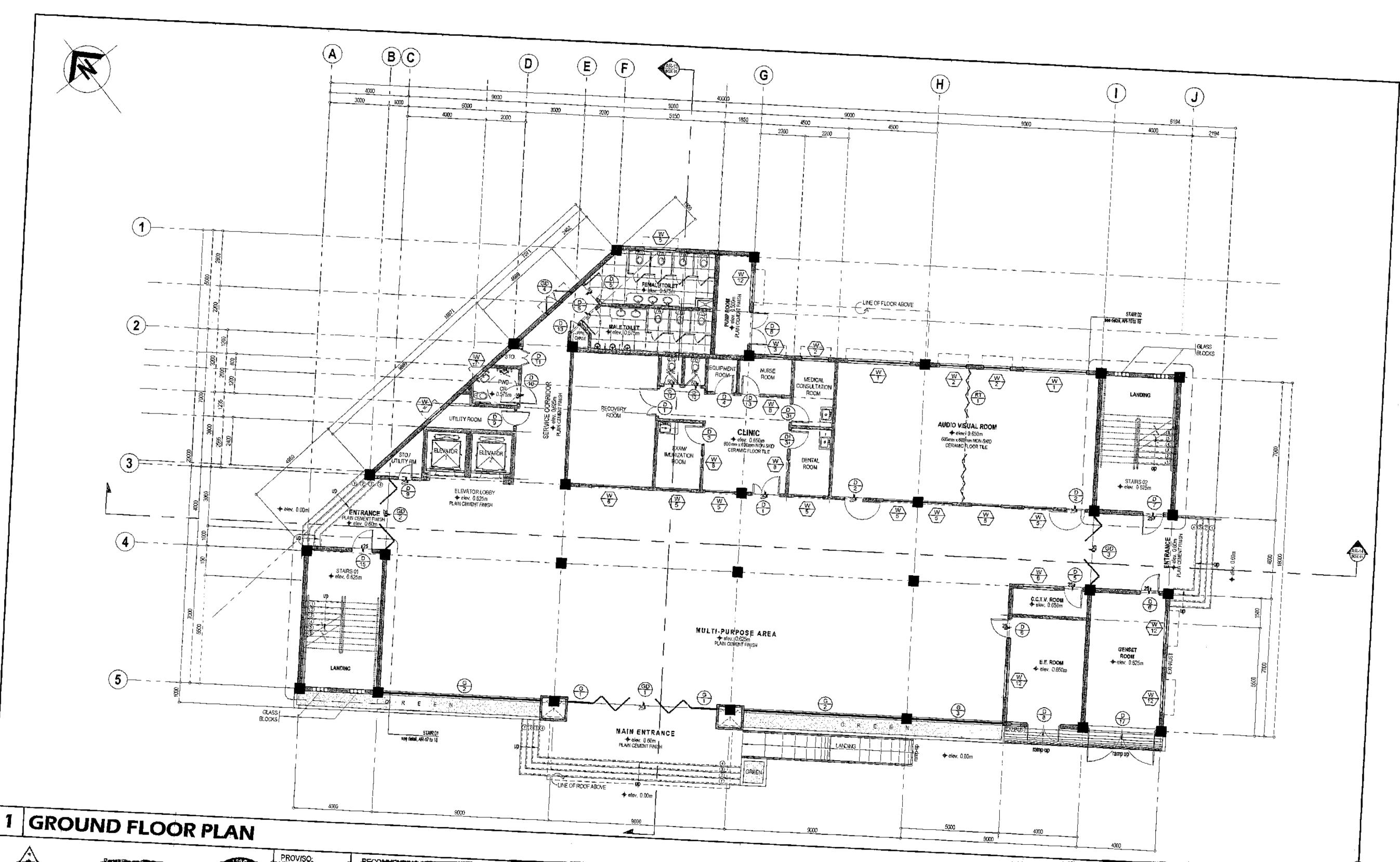
Republic of the Philippines DEPARTMENT OF PUBLIC WORKS & HIGHWAYS OFFICE OF THE BUILDING OFFICIAL
DISTRICT / CITY / MUNICIPALITY
LAND USE & ZONING
LINE & GRADE
·
ARCHITECTURAL
CIVIL / STRUCTURAL
ELECTRICAL
MECHANICAL
·
SANITARY
PLUMBING
ELECTRONICS
GEODETIC ENGINEER
November 2020 NBY Ar. R.M.E./J.L.P. NED BY Ar. M.B.Ventura ED BY Ar. R.G.Resurreccion 744
1 1

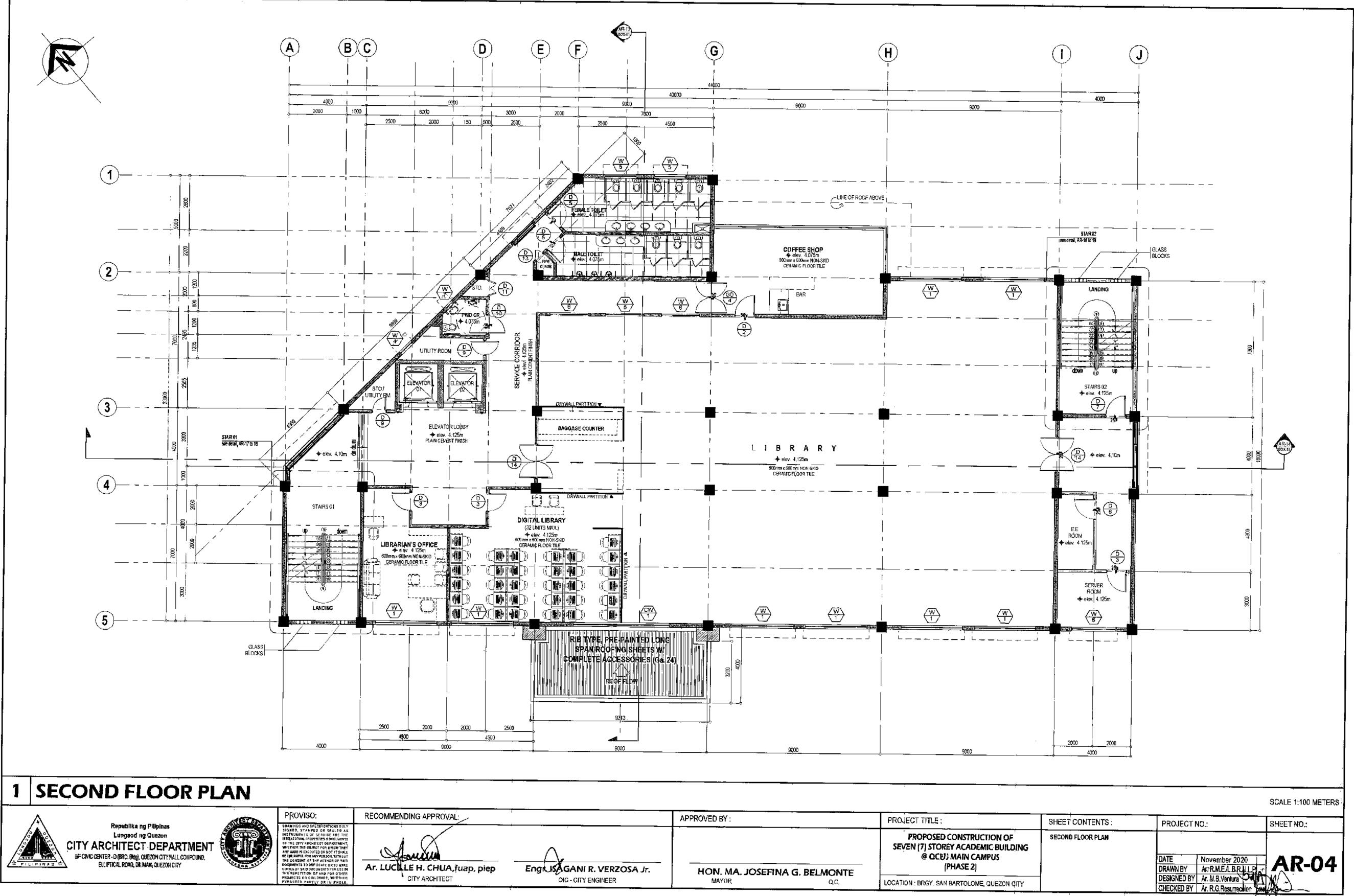


4000		
TEXISTING CHB FENCE	4000 PART OF PHASE 2	
	CONCRETE ROOF OVER STAIR 02	
	ROOF DECK	
PART OF EXISTING QCPU QUADRANGLE		

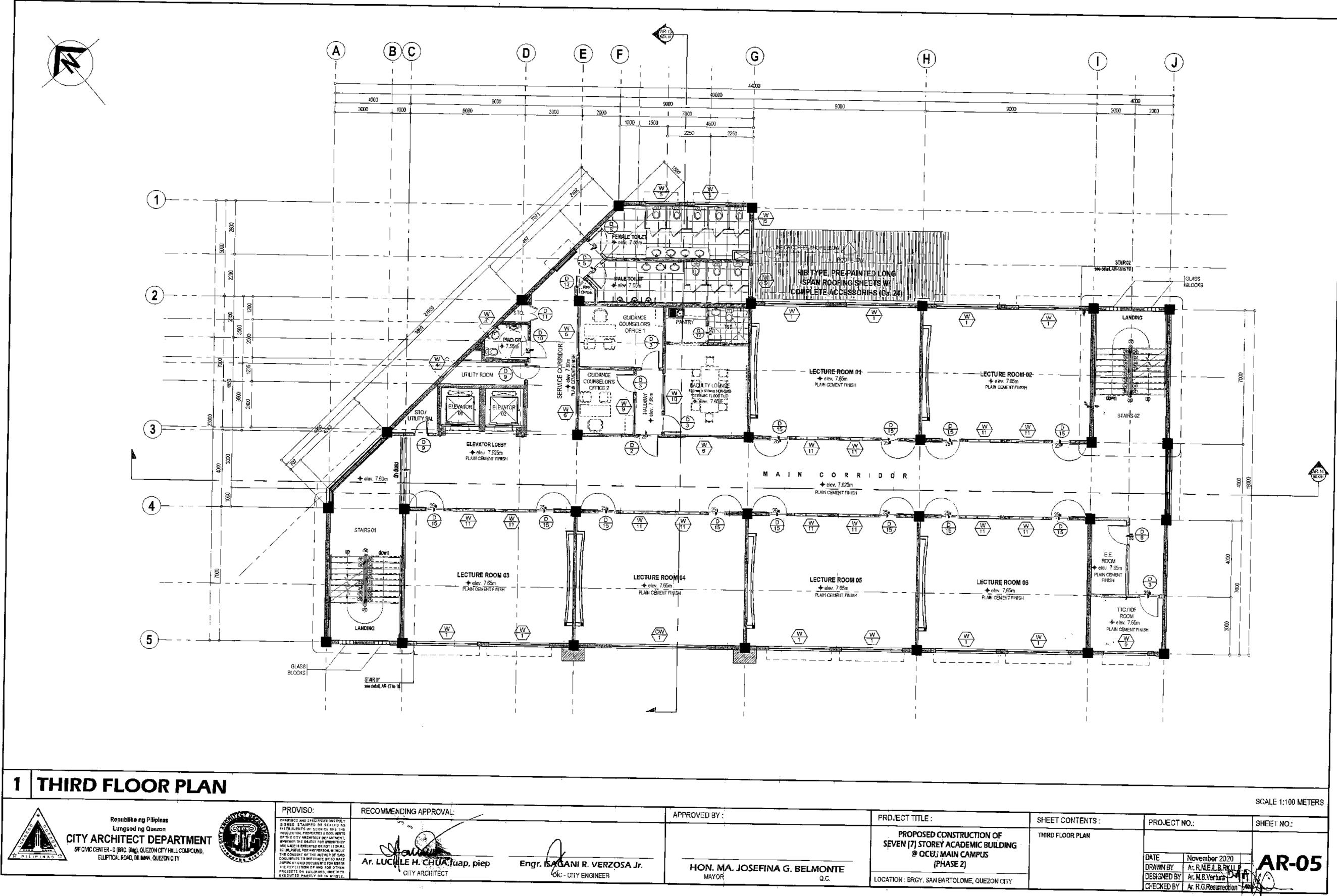
<u> </u>	APPROVED BY :	PROJECT TITLE ;	SHEET CONTENTS :	PROJ
ANI R. VERZOSA Jr. - City Engineer	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU.; MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	SITE DEVELOPMENT PLAN	DATE DRAWN DESIGN







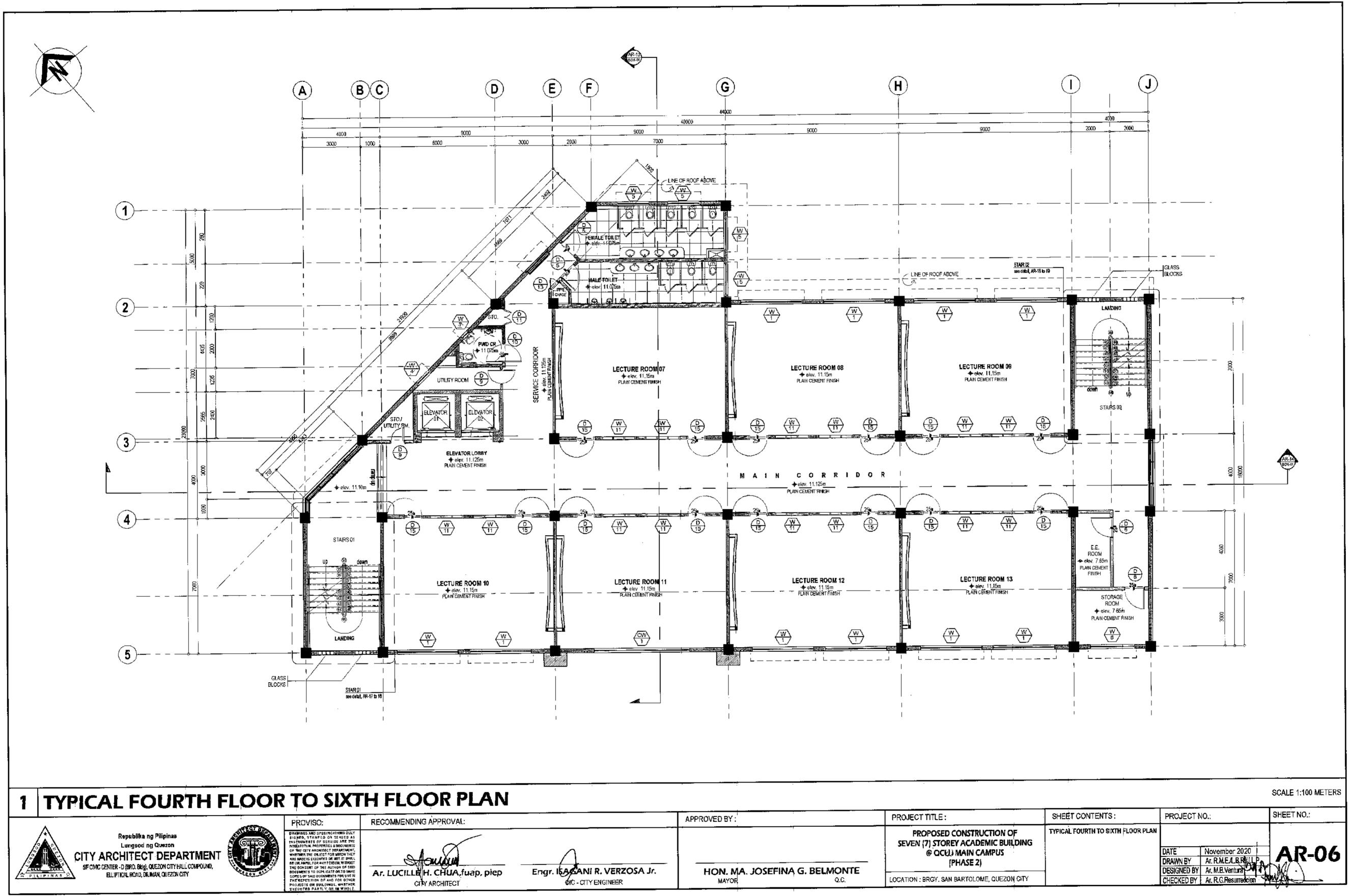
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE
AGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU) MAIN CAMPUS (PHASE 2)	SECOND FLOOR PLAN	DATE DRAWN E
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	1	DESIGNE



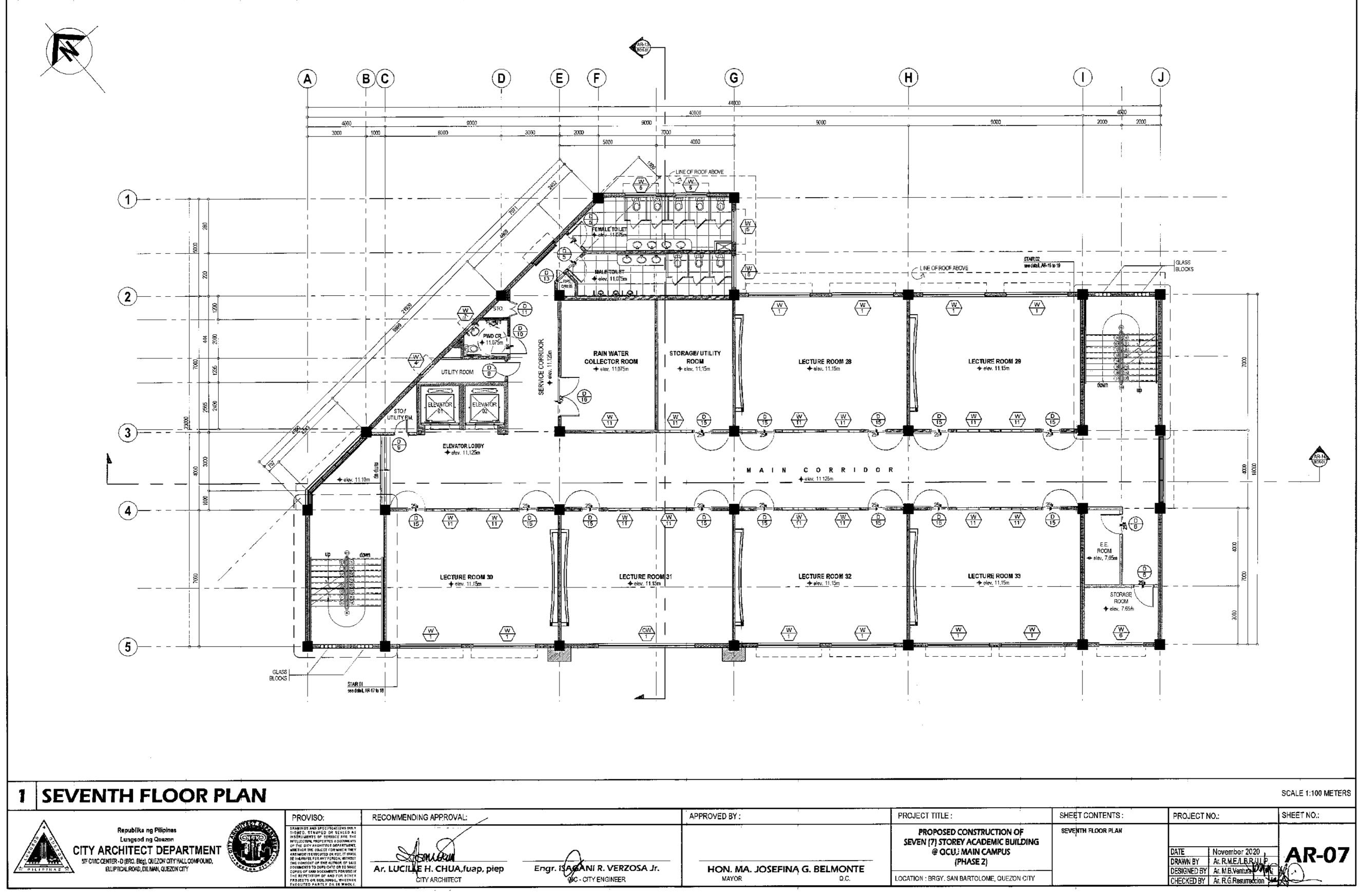
.

.

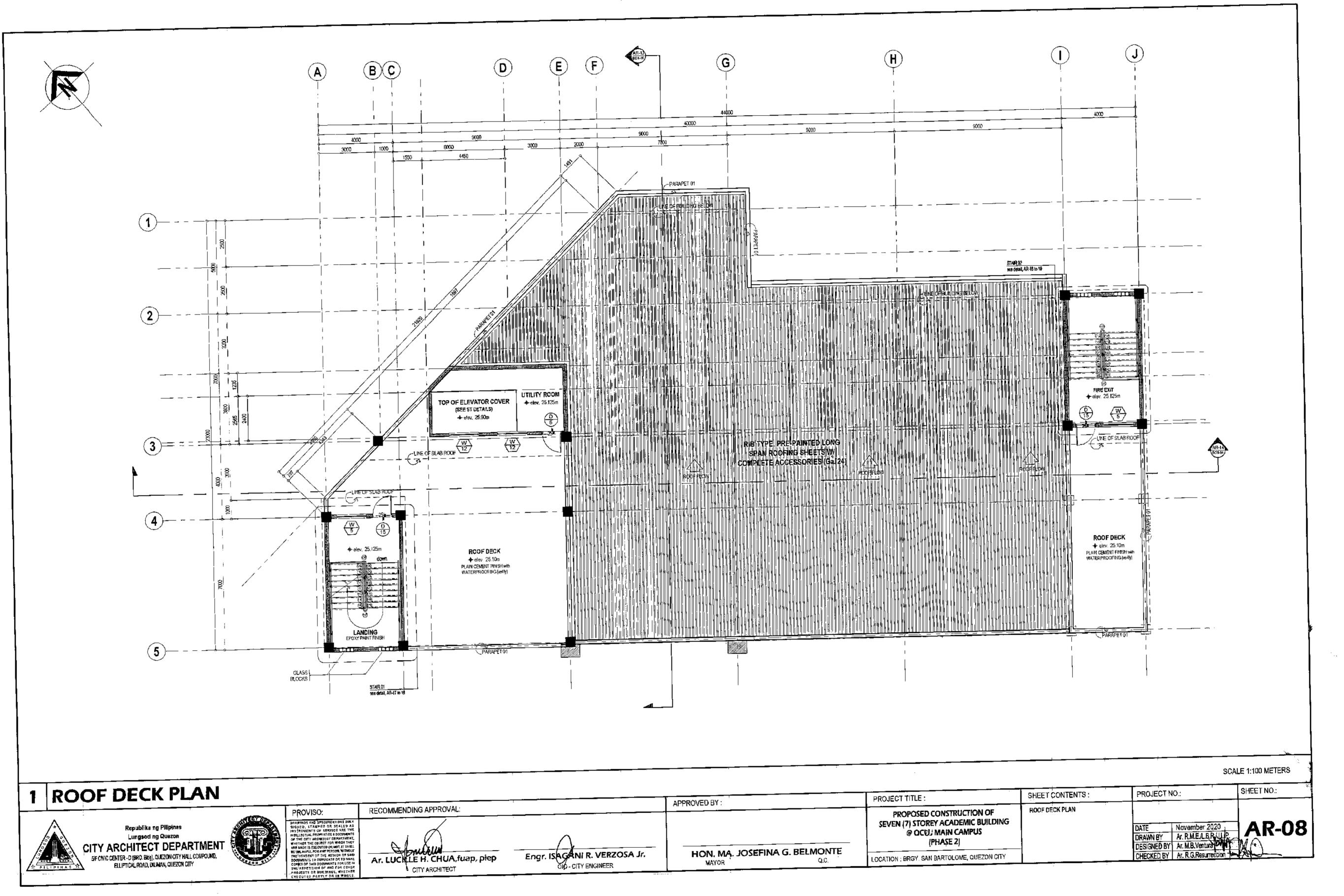
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
SANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU.; MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	THIRD FLOOR PLAN	DATE Drawn Design



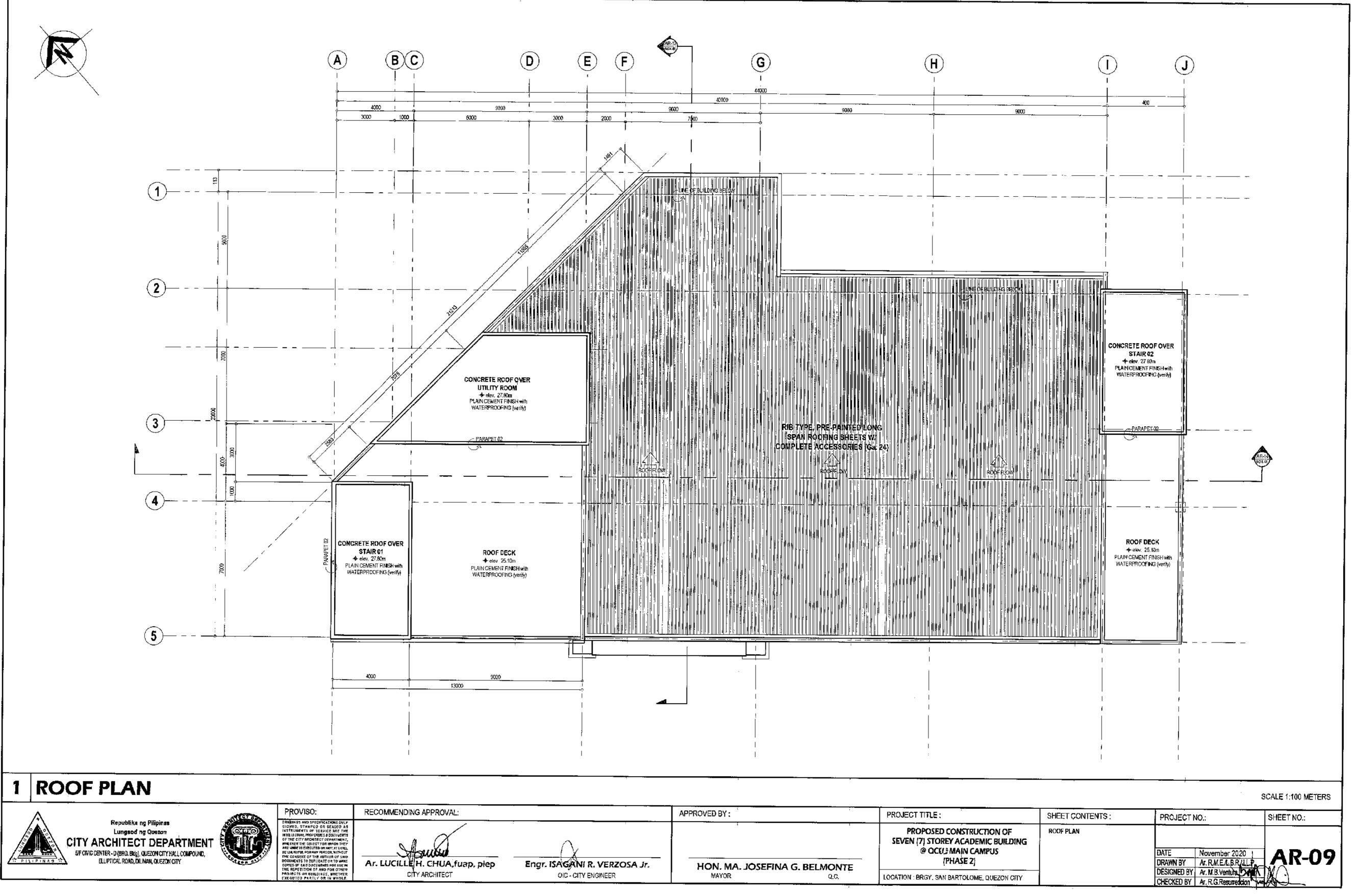
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PR
SCANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCUJ) MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	TYPICAL FOURTH TO SIXTH FLOOR PLAN	dati dra des che



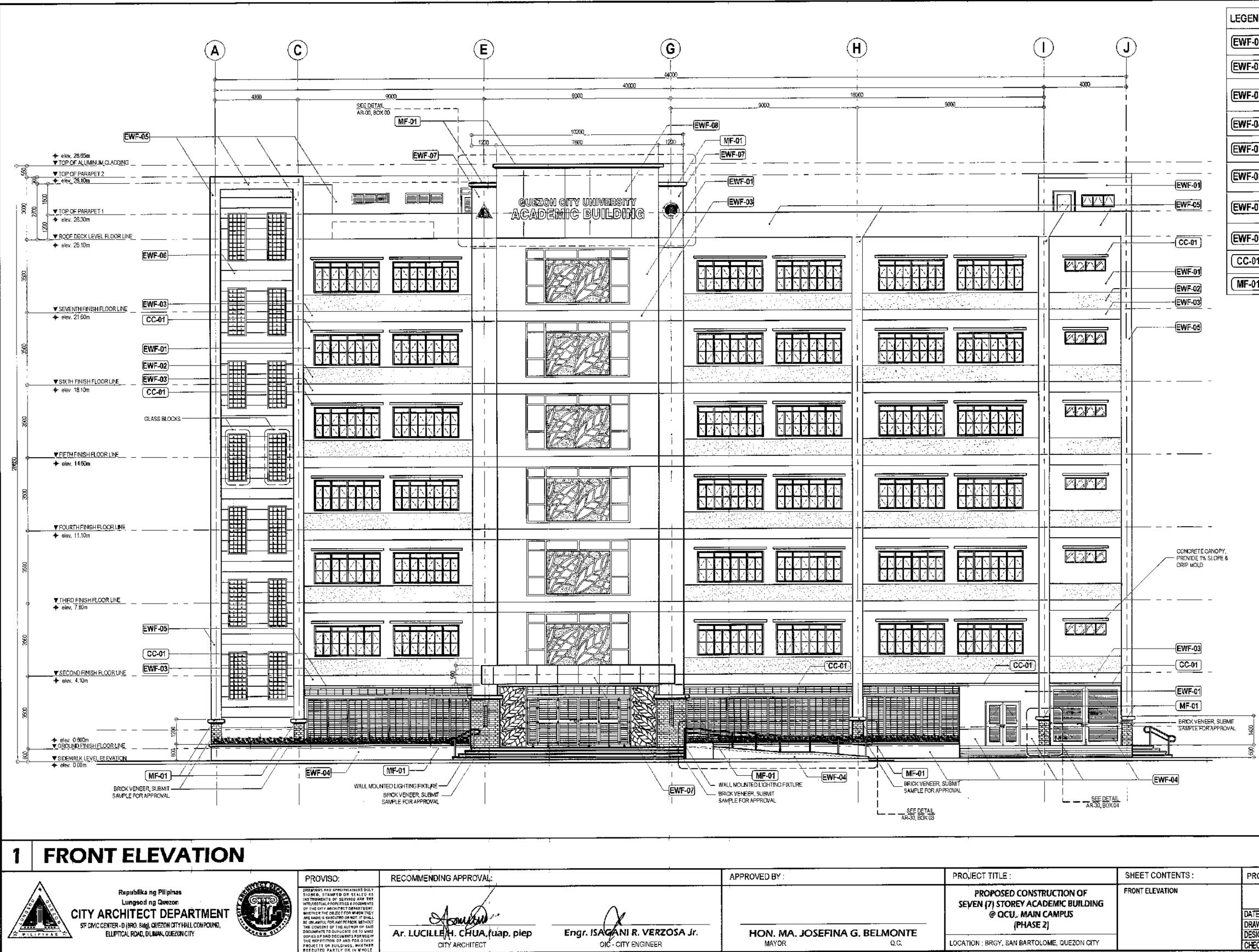
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
		PROPOSED CONSTRUCTION OF SEVEN [7] STOREY ACADEMIC BUILDING	SEVENTH FLOOR PLAN	
		@ QCU.) MAIN CAMPUS (PHASE 2)		DATE DRAWN
AGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	-	DESIGN



				_
		PROJECT TITLE :	SHEET CONTENTS :	P
Ir. ISAGANI R. VERZOSA Jr.	APPROVED BY : HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU.; MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	ROOF DECK PLAN	



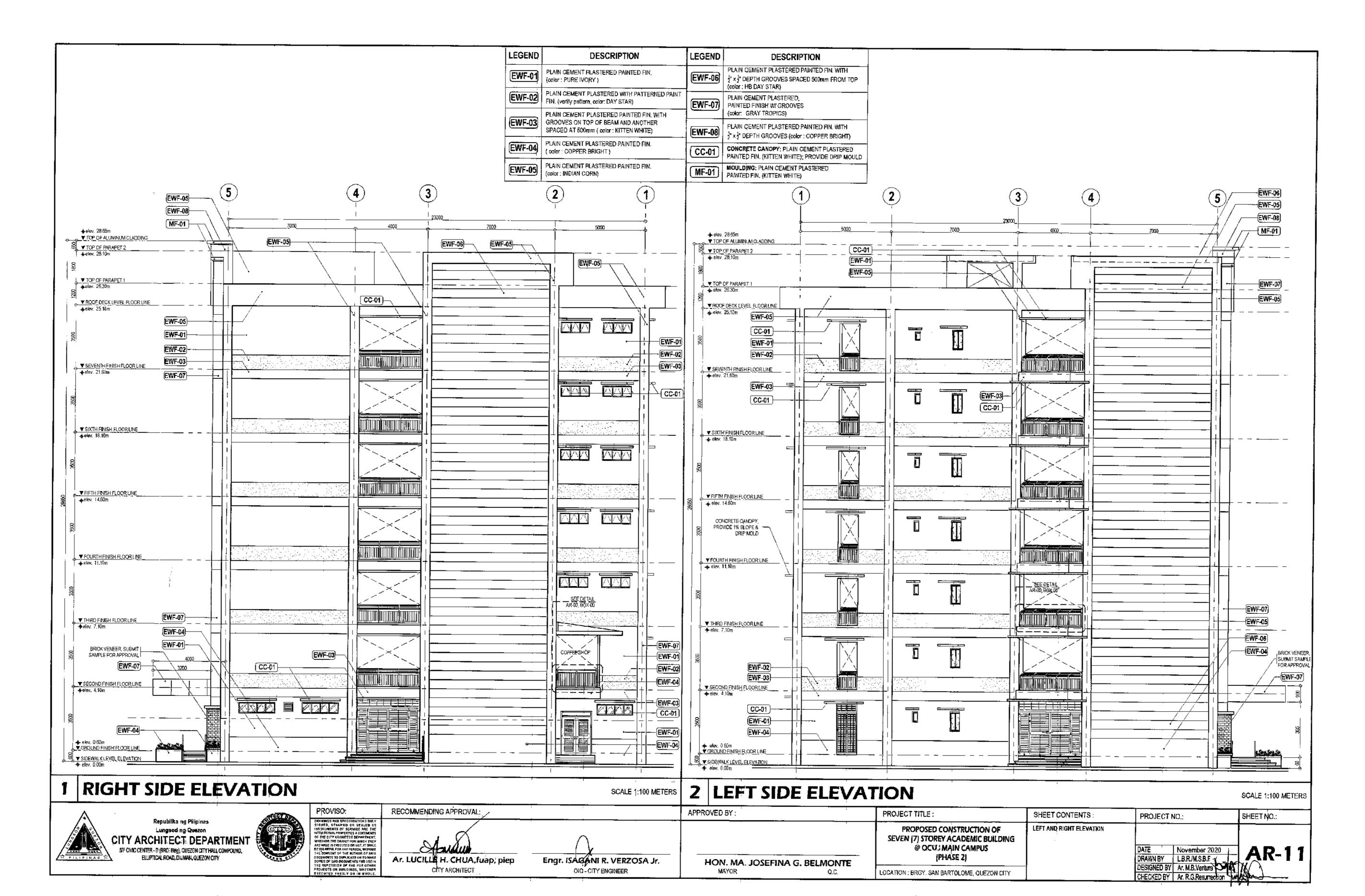
	APPROVED BY:	PROJECT TITLE :	SHEET CONTENTS :	PRO
γ		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	ROOF PLAN	
GANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	@ OCUE MAIN CAMPUS (PHASE Z)		DATE DRAW
C - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	-	DESIG

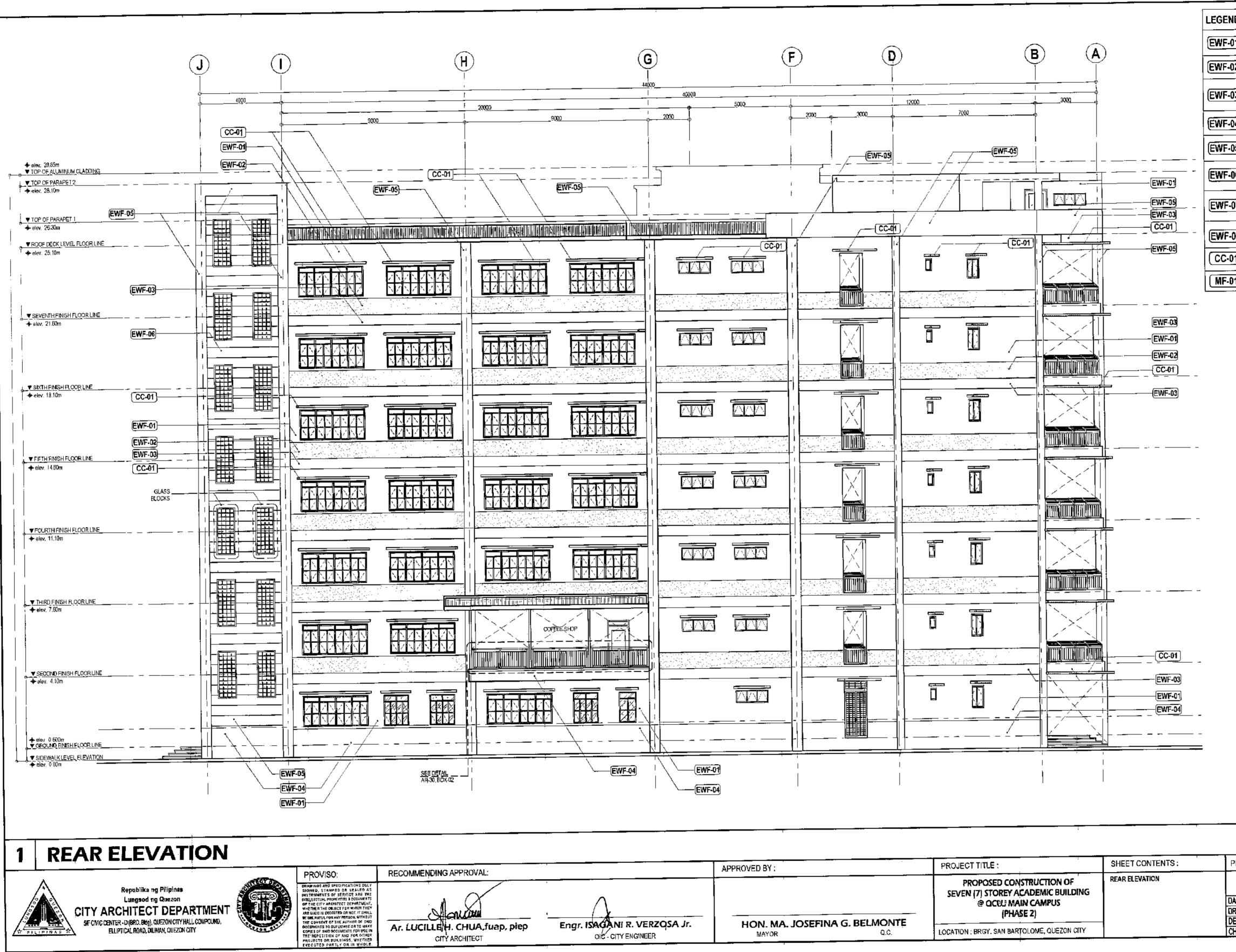


	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
SAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU_ MAIN CAMPUS (PHASE 2)	FRONT ELEVATION	DATE DRAWN DESIGN
	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECK

ND	DESCRIPTION
01)	PLAIN CEMENT PLASTERED PAINTED FIN. (color ; PURE IVORY)
02)	PLAIN CEMENT PLASTERED WITH PATTERNED PAINT FIN. (verify pattern, color; DAY STAR)
03)	PLAIN CEMENT PLASTERED PAINTED FIN. WITH GROOVES ON TOP OF BEAM AND ANOTHER SPACED AT 500mm (color : KITTEN WHITE)
04)	PLAIN CEMENT PLASTERED PAINTED FIN. (color : COPPER BRIGHT)
05)	PLAIN CEMENT PLASTERED PAINTED FIN. (color : INDIAN CORN)
06)	PLAIN CEMENT PLASTERED PAINTED FIN, WITH 2 x 2 DEPTH GROOVES SPACED 500mm FROM TOP (color : HB DAY STAR)
07)	PLAIN CEMENT PLASTERED, PAINTED FINISH W/ GROOVES (color: GRAY TROPICS)
08)	PLAIN CEMENT PLASTERED PAINTED FIN. WITH 2" × 2" DEPTH GROOVES (color : COPPER BRIGHT)
)1)	CONCRETE CANOPY: PLAIN CEMENT PLASTERED PAINTED FIN., PROVIDE DRIP MOULD (KITTEN WHITE)
1	MOULDING: PLAIN CEMENT PLASTERED PAINTED FIN. (KITTEN WHITE)

		SCALE 1:100 METERS
OJECTN	NO.:	SHEET NO .:
E WN BY IGNED BY CKED BY	November 2020 Ar. R.M.E.M.S.A.B. Ar. M.B.Ventura Ar. R.G.Resurretcion	AR-10





Maria

Ar. LUCILLEH. CHUA, fuap, piep

CITY ARCHITECT

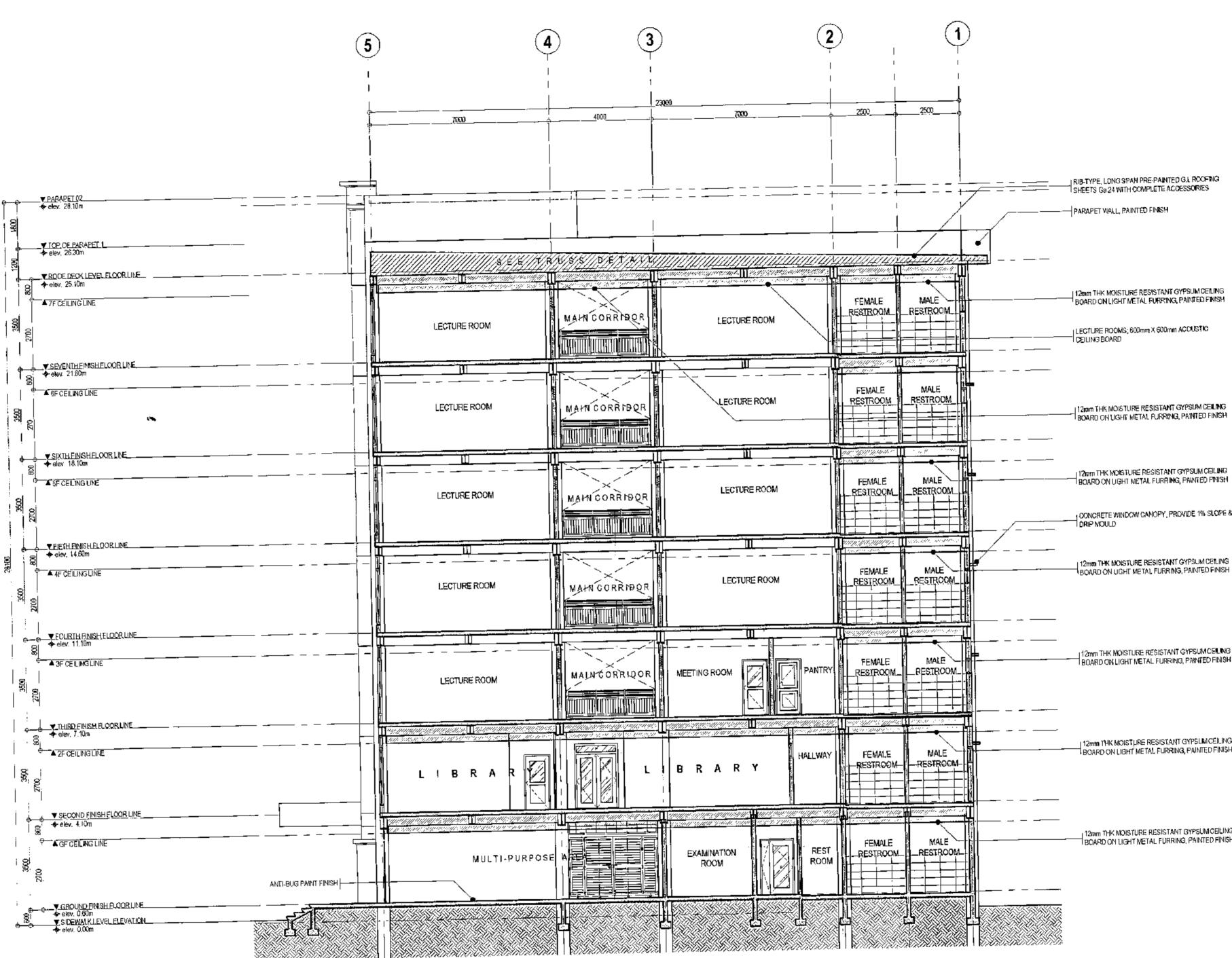
SFE CIVIC CENTER - D'(BRO, Bidg), QUEZON CITY HALL COMPOUND,

ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

T PILIPINAS

					SCALE 1:100 METERS
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJECT NO.:	SHEET NO .:
Engr. ISAGANI R. VERZQSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCUL: MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	REAR ELEVATION	DATE November 2020 DRAWN BY Ar. R.M.E./M.S.F.B. DESIGNED BY Ar. M.B.Venture 4 CHECKED BY Ar. R.G.Resurection 4	AR-12

D	DESCRIPTION
)1	PLAIN CEMENT PLASTERED PAINTED FIN. (color : PURE IVORY)
2	PLAIN CEMENT PLASTERED WITH PATTERNED PAINT FIN. (verify pattern, color: DAY STAR)
3	PLAIN CEMENT PLASTERED PAINTED FIN, WITH GROOVES ON TOP OF BEAM AND ANOTHER SPACED AT 500mm (color : KITTEN WHITE)
A)	PLAIN CEMENT PLASTERED PAINTED FIN. (color : COPPER BRIGHT)
)5	PLAIN CEMENT PLASTERED PAINTED FIN. (color : INDIAN CORN)
)6	PLAIN CEMENT PLASTERED PAINTED FIN. WITH 2" x 2" DEPTH GROOVES SPACED 500mm FROM TOP (color : HB DAY STAR)
07)	PLAIN CEMENT PLASTERED, PAINTED FINISH W/ GROOVES (color: GRAY TROPICS)
08)	PLAIN CEMENT PLASTERED PAINTED FIN. WITH ¹ / ₂ " x ¹ / ₂ " DEPTH GROOVES (color : COPPER BRIGHT)
1	CONCRETE CANOPY: PLAIN CEMENT PLASTERED PAINTED FIN., PROVIDE DRIP MOULD (KITTEN WHITE)
1	MOULDING: PLAIN CEMENT PLASTERED PAINTED FIN. (KITTEN WHITE)



CROSS SECTION 1



Republika ng Pilipinas Lungsod ng Quezon CITY ARCHITECT DEPARTMENT SIF CIVIC CENTER -D (BRO. Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, OLLIMAN, QUEZON CITY



PROVISO: DRAWINGS AND SPECIFICATIONS DULY SIGNED, STAMP FOOR SEALED AS INSTRUMENTS OF SERVICE ARE THE INSTRUMENTS OF SERVICE ARE THE INTELLECTIAL PROPERTIES & DOCUMENTS OF THE CETY AACHITECT DEPARTMENT, WHETHER THE DBLEDT FOR WHICH THEY ARE MADE IS ERECUTED OR NOT. IT SHALL BE UNLAWFUL FOR ANY PERSON, WINNAUT THE CONSENT OF THE AUTHOR OF SAUD GOCIUENTS TO DUPI CATE OR TO WARK DOCUMENTS TO DUPI CATE OR TO WARK DOCUMENTS TO BUILDINGS, WHETHER EXEPTITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXE DUTED PARTLY OR IN WHOLE.

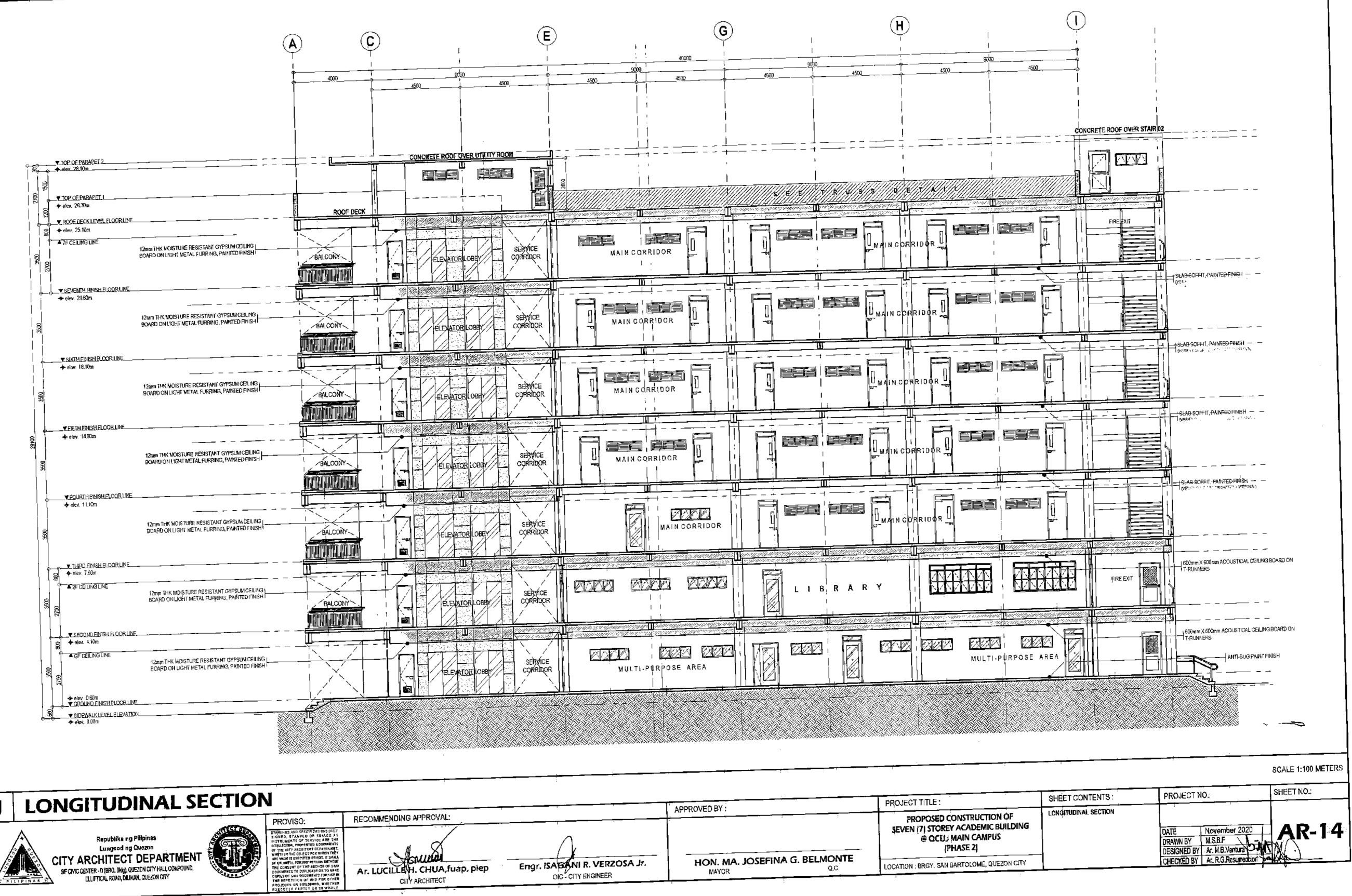
RECOMMENDING APPROVAL:

CAUSE Ar. LUCILLE H. CHUA, fuap, piep CITY ARCHITECT

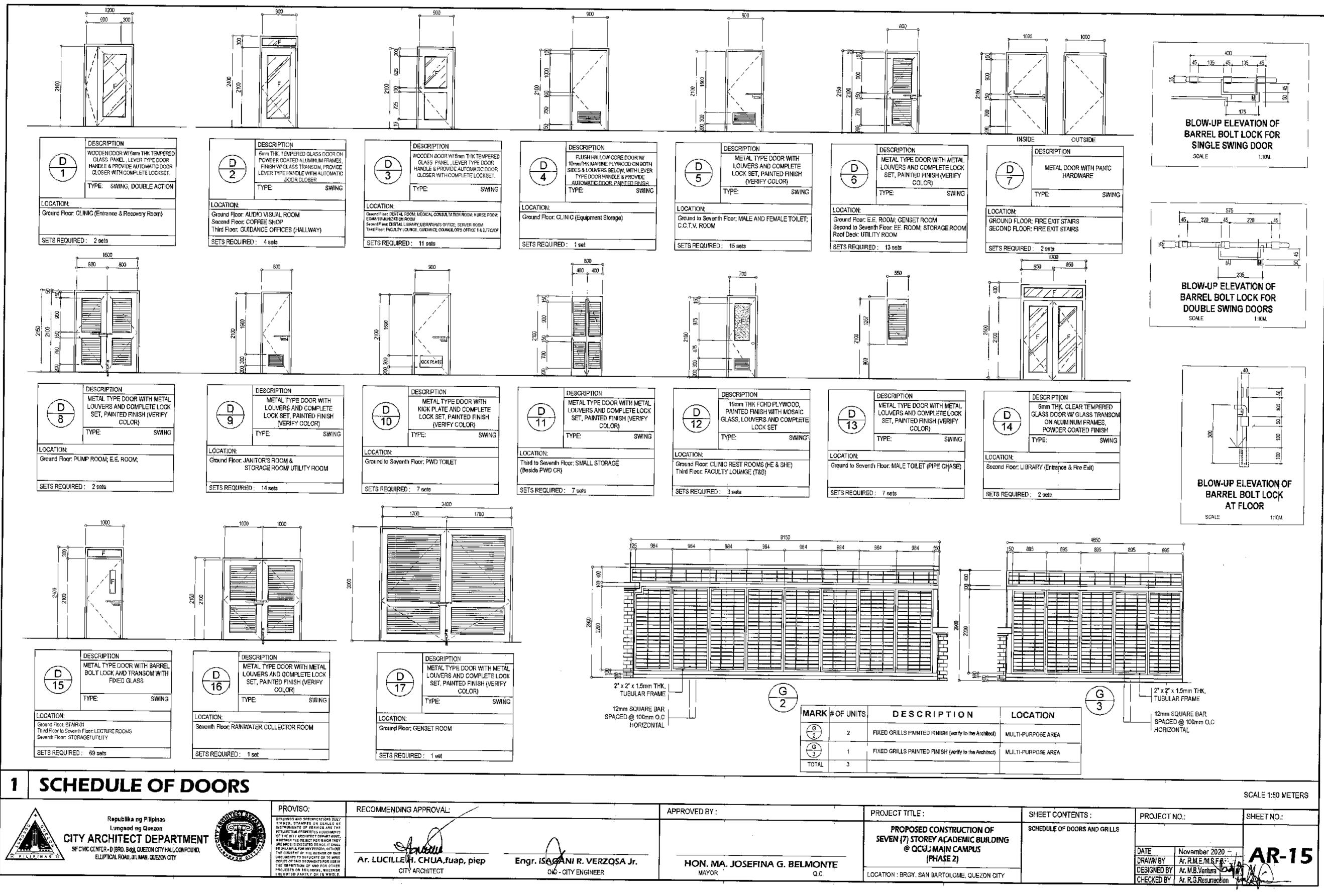
Engr. (

				I _
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	L₽
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN [7] STOREY ACADEMIC BUILDING @ QCU1 MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	CROSS SECTION	

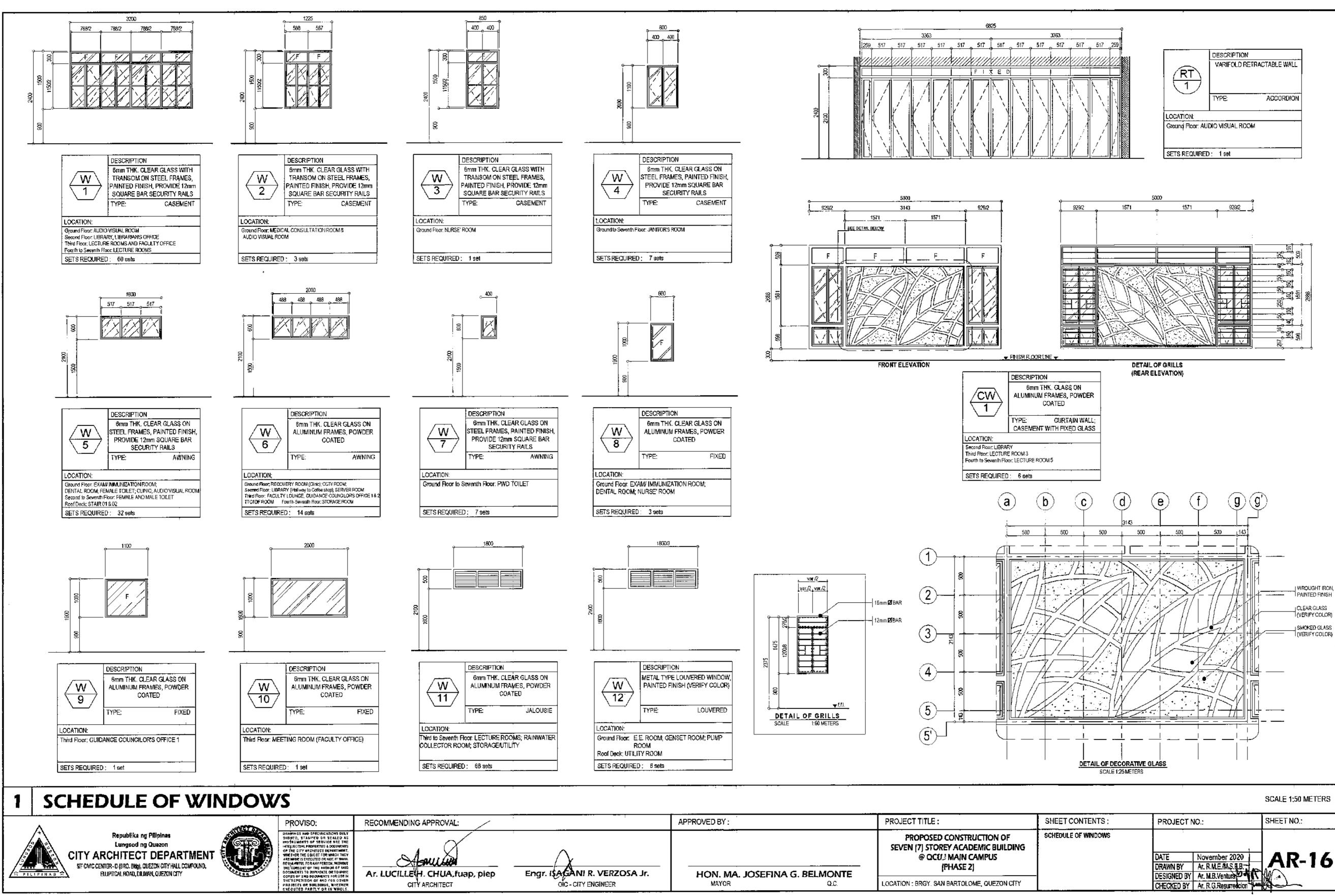
LM CEILING TED FINISH		
SUM CEILING NTED FINISH		
		SCALE 1:100 METERS



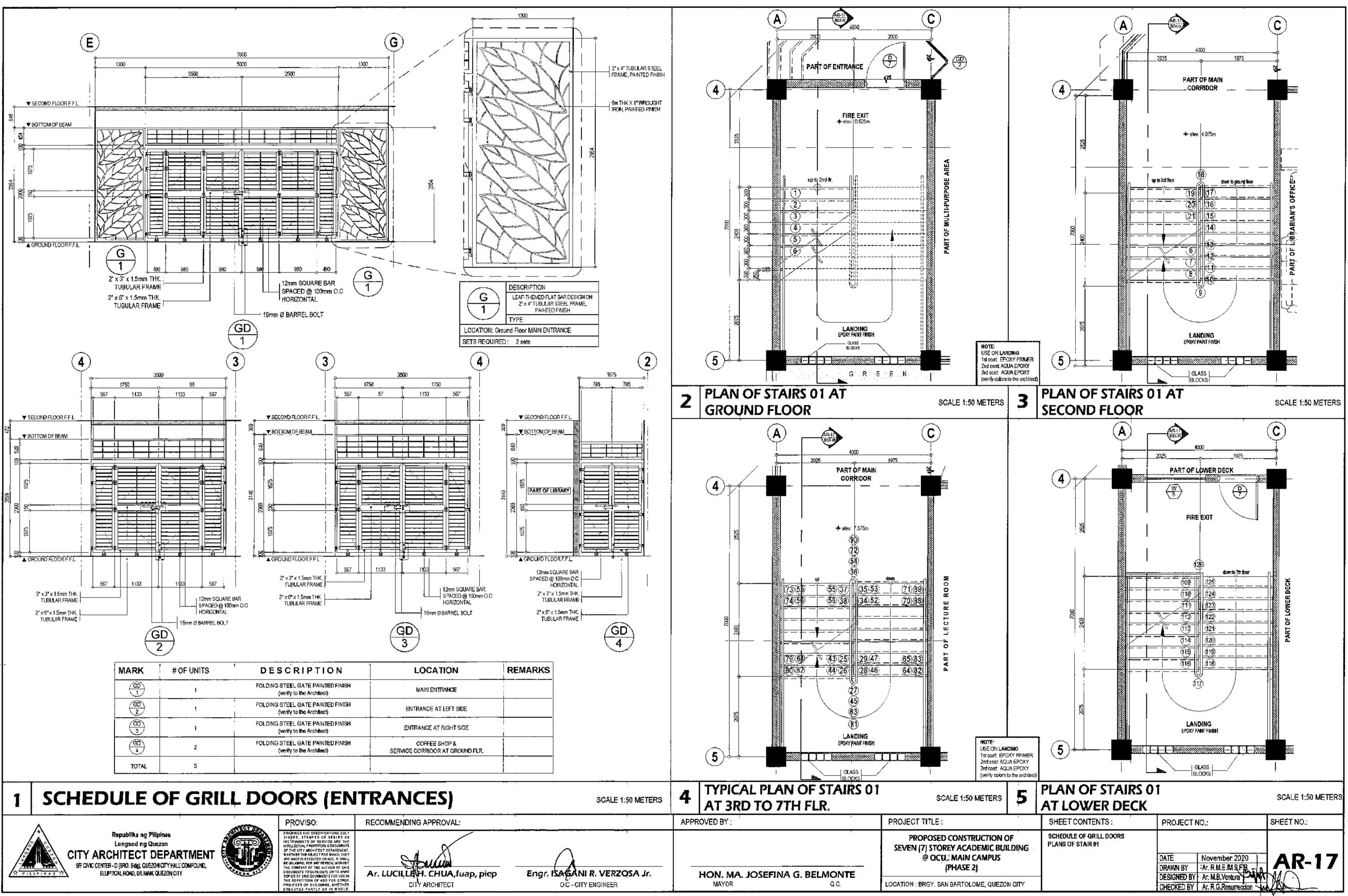
:				Т
		PROJECT TITLE :	SHEET CONTENTS :	4
	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCUJ MAIN CAMPUS {PHASE 2}	LONGITUDINAL SECTION	
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		نىلى.



······	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS ;	PROJ
AGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCULI MAIN CAMPUS (PHASE 2)	SCHEDULE OF DOORS AND GRILLS	DATE DRAWN I DESIGNE
OIQ - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECKE

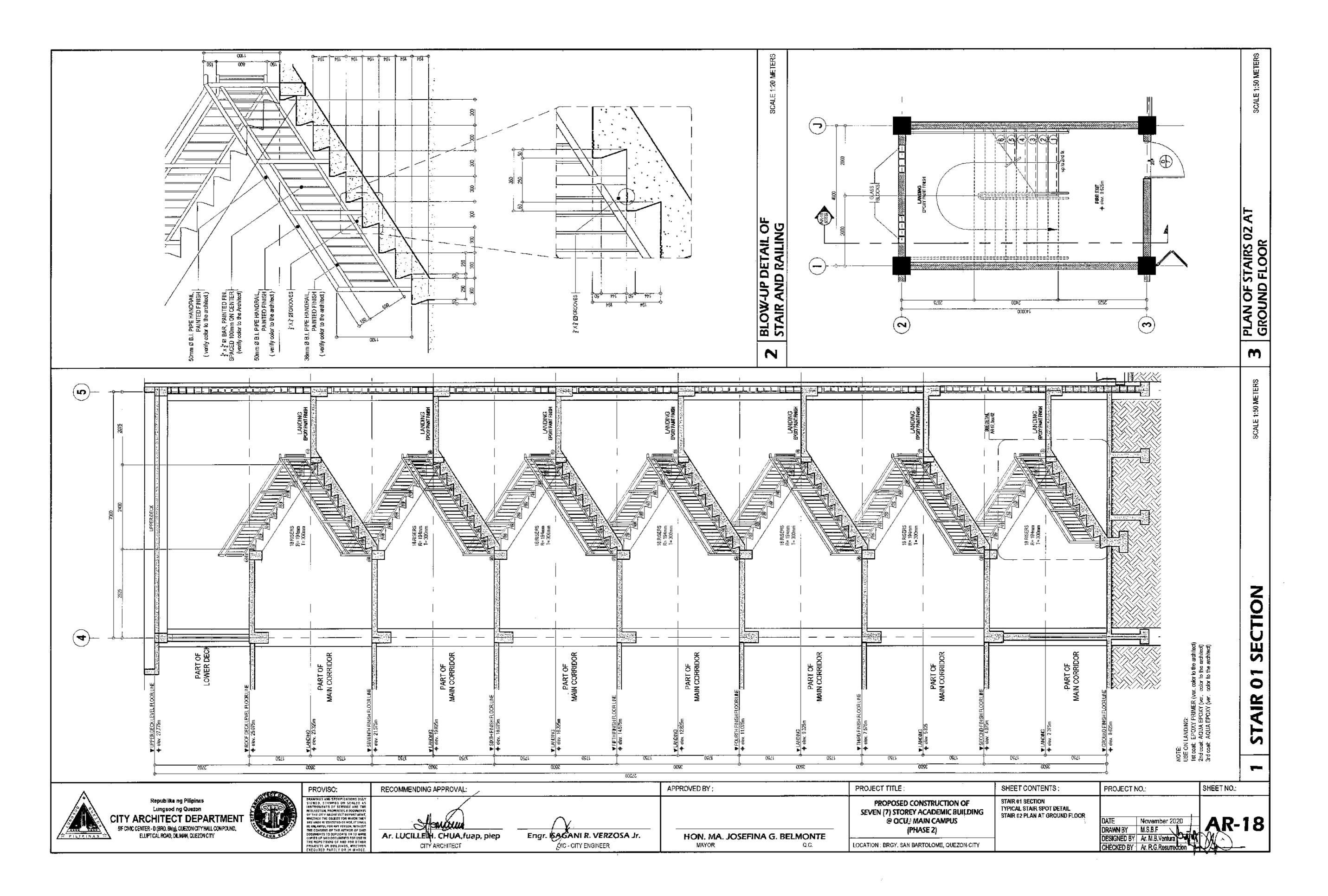


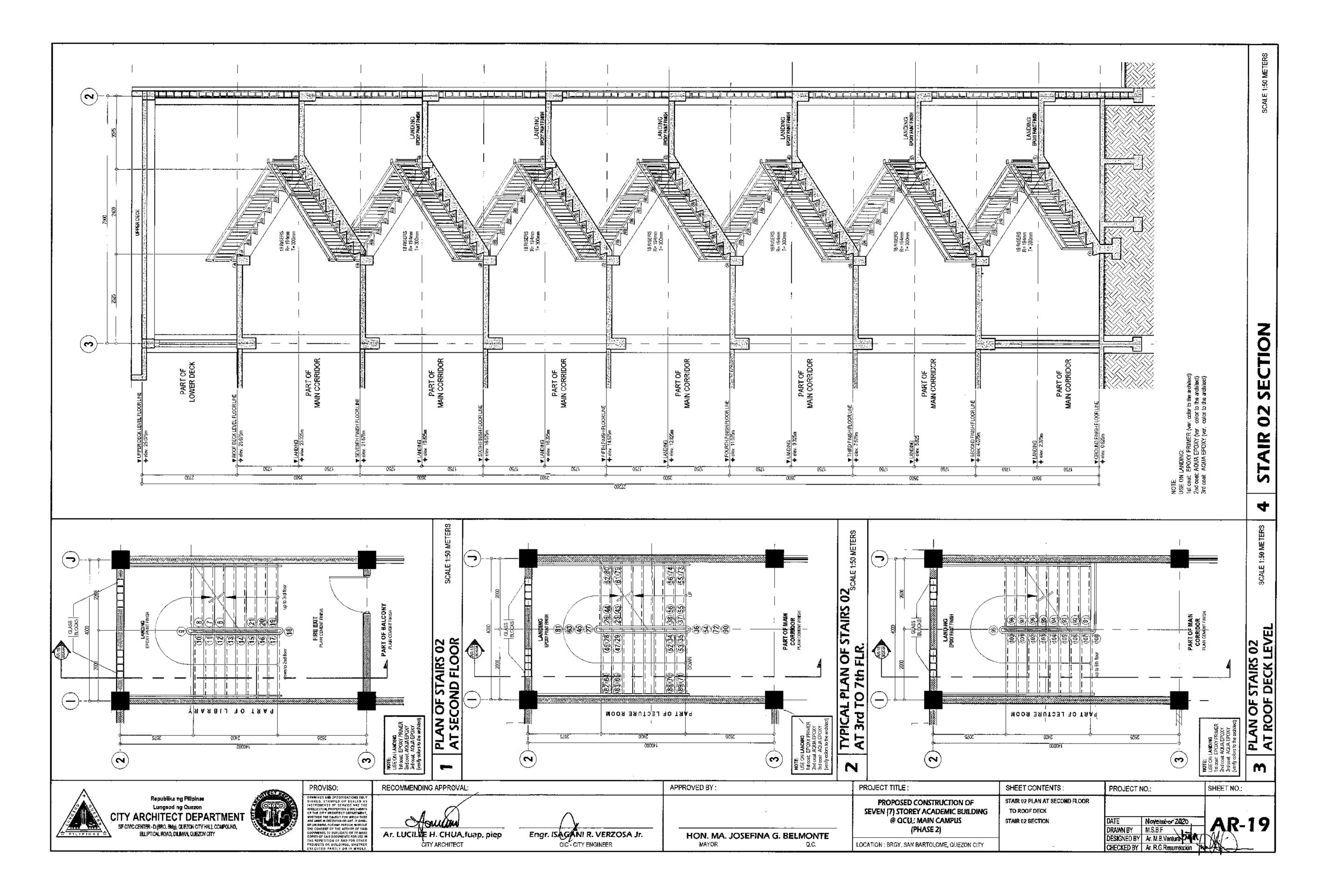
- · · · ·	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRC
^		PROPOSED CONSTRUCTION OF SEVEN [7] STOREY ACADEMIC BUILDING	SCHEDULE OF WINDOWS	
		@ QC(L) MAIN CAMPUS (PHASE 2)		DATE
SAGANI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		DESIG CHEC

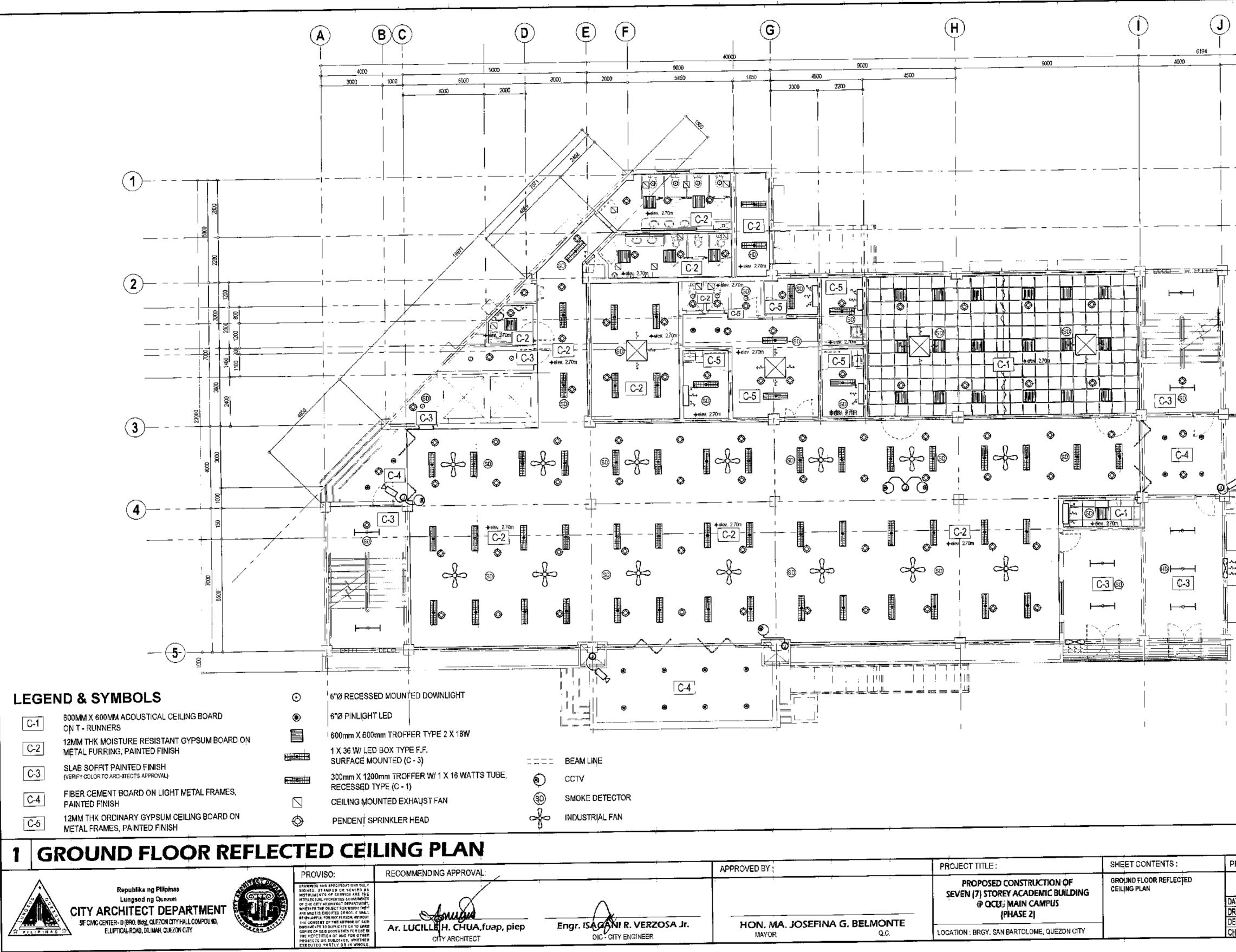




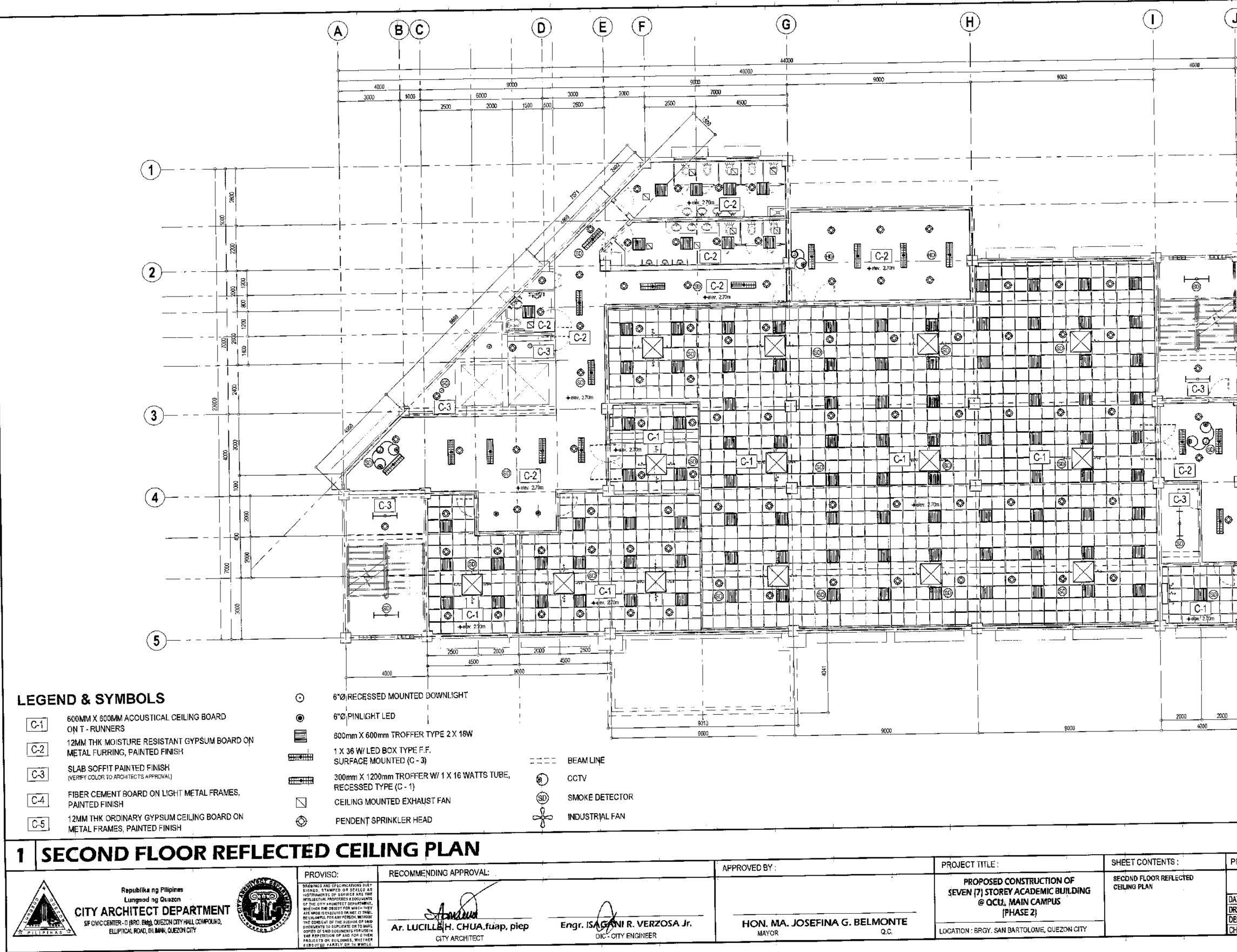






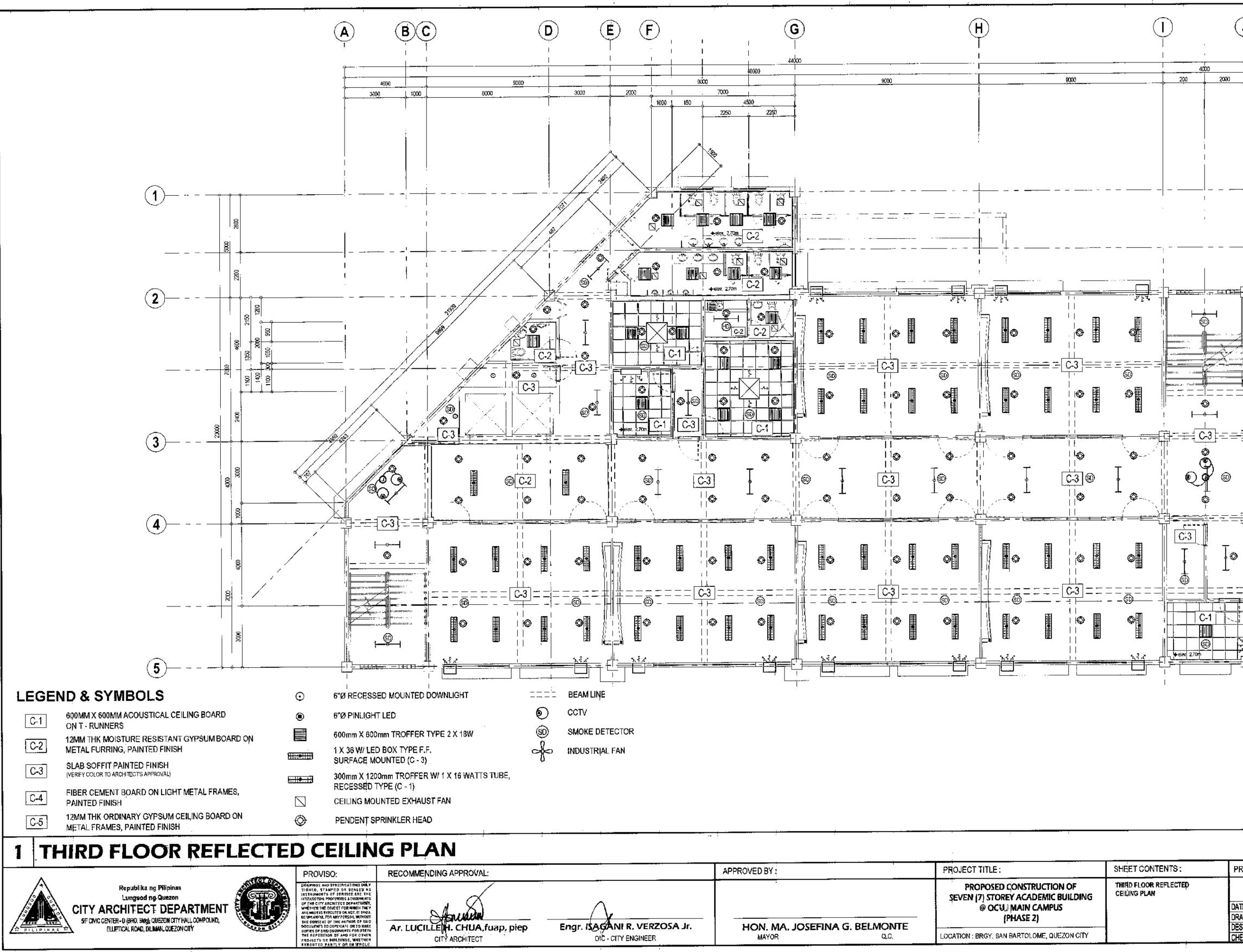


	APPROVED BY	PROJECT TITLE :	SHEET CONTENTS :	PRC
ISAGANI R. VERZOSA Jr. DIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU: MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	GROUND FLOOR REFLECTED CEILING PLAN	DATE DRAV DESIC CHEC
+				



· · · · · · · · · · · · · · · · · · ·	APPROVED BY	PROJECT TITLE :	SHEET CONTENTS :	PR
JSAGANI R. VERZOSA Jr. DIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU:, MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	SECOND FLOOR REFLECTED CEILING PLAN	DATE DRAY DESK CHEC

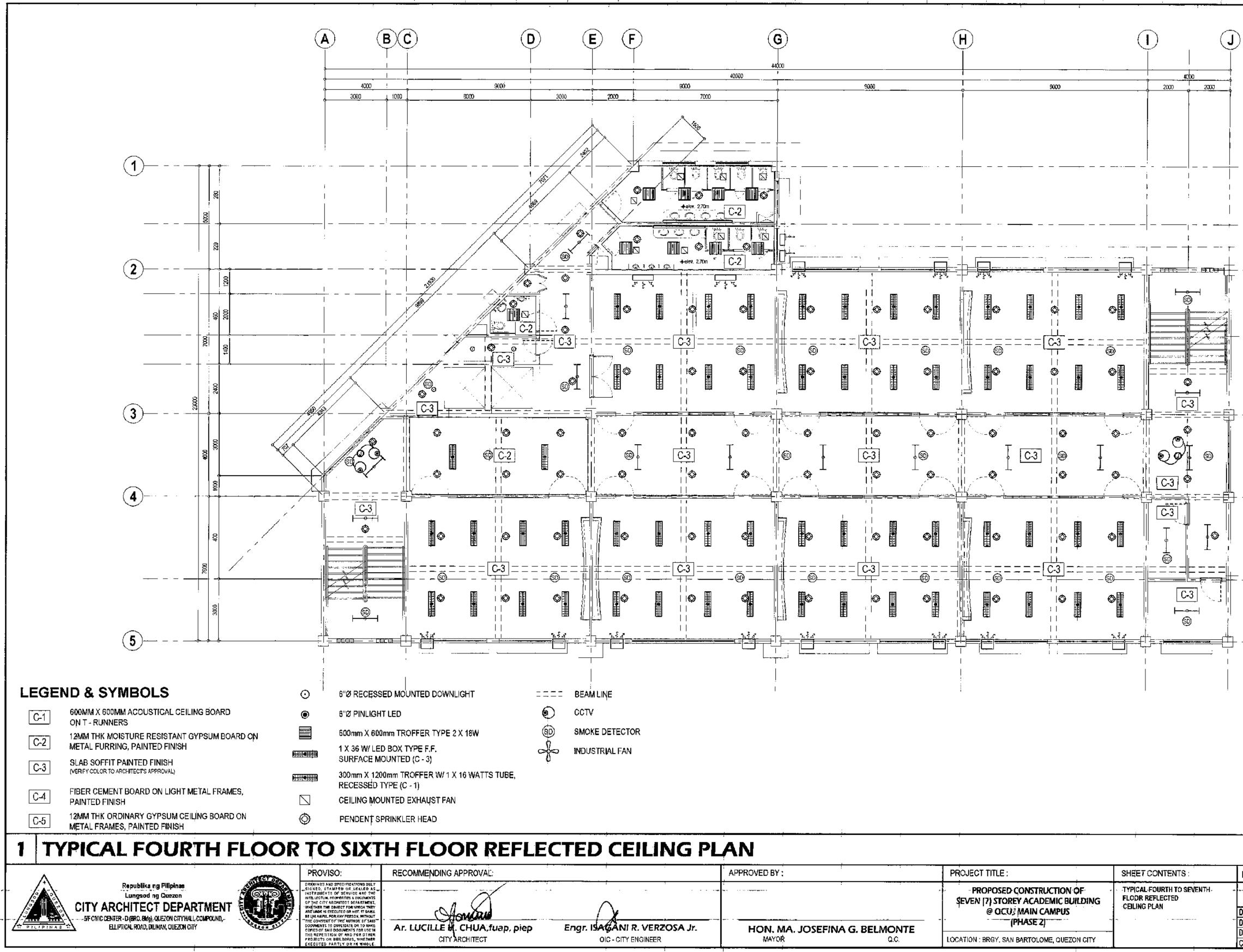
		· · · · · ·
~		
L) – – – – – – – – – – – – – – – – – – –		
)		
		1
5		
Ì		
1 1		i i i
•		
1		
···		
1		
I		
I		
1		
1		
<u></u>		
1		1
1 ₁		
<u> -</u>		
1: 1:		
1'		
'		
11 ⁴		
իլ		
<u>-</u>		
TT I		
F in		
1		
1		
<u>↓</u> ↓ ↓		
⁻ الل ⁻		
[1]		
11		
∰ — – –	·	
-[1]		
1		
-		i i
_		1
┏┹╟╌┐		
<u> </u>		
		ļ.
1		
)		
		ſ
6		
_j		
		1
		i
		1
		1
		1
	,	
		OCALE 1.400 LIETERO
		SCALE 1:100 METERS
ROJECTN	IO.:	SHEET NO.:
	· · · ·	<u> </u>
		l l
JE	November 2020	
AWN RY	November 2020	AR-21
RAWN BY SIGNED BY	Ar, M.B.Ventura	
JO USHORE	Ar. R.G.Resurrección	
ECKED BY		



PILIPINAS

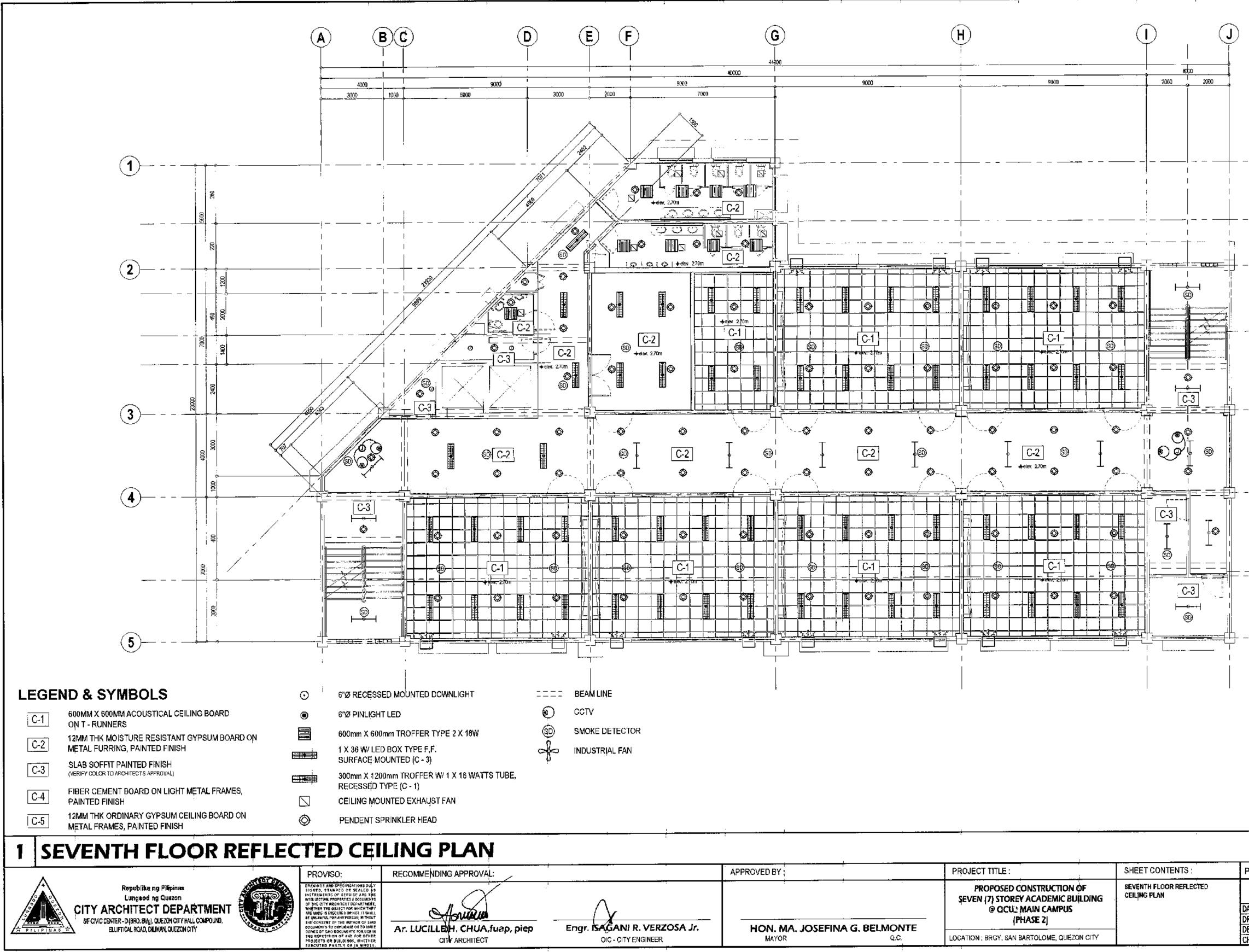
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU.; MAIN CAMPUS (PHASE 2)	THIRD FLOOR REFLECTED CEILING PLAN	DATE DRAW
DIC - CITY ENGINEER	HON. MA, JOSEFINA G. BELMONTE MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIG

J		
Ť		
1		
¶ -∲		
1 		
!		
		1
		1
+		-
:		
I		
<u> </u>		-
I		
\downarrow		
╺┝╾╶╴ ╓┬		-
ai 7 7 1		
ᡛ - -		
₩ 		
		-
		_
j.		
╣┝╾╶─╵		-
- <u>+</u> - − − - i	•	-
I		
		SCALE 1:100 METERS
	,	· · · · · · · · · · · · · · · · · · ·
OJECT I	NO.:	SHEET NO.:
		-
Ē	November 2020	AR-77
E IVIN BY INGNED BY	AAV./MSBR	AR-22



CEILING PL	AN			
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
\bigwedge	· · · · · · · · · · · · · · · · · · ·	PROPOSED CONSTRUCTION OF SEVEN [7] STOREY ACADEMIC BUILDING @ OCU? MAIN CAMPUS	TYPICAL FOURTH TO SEVENTH FLOOR REFLECTED CEILING PLAN	DATE
OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	(PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DRAWN Design Checke

_			
		SCALE 1:100 METERS	
JECT N	10.:	SHEET NO.:	
		. .	
	November 2020	AR-23	
NBY	AAV MSB		-
SNED BY	Ar. M.B.Ventura		
KED BY	Ar. R.G.Resurreccion		



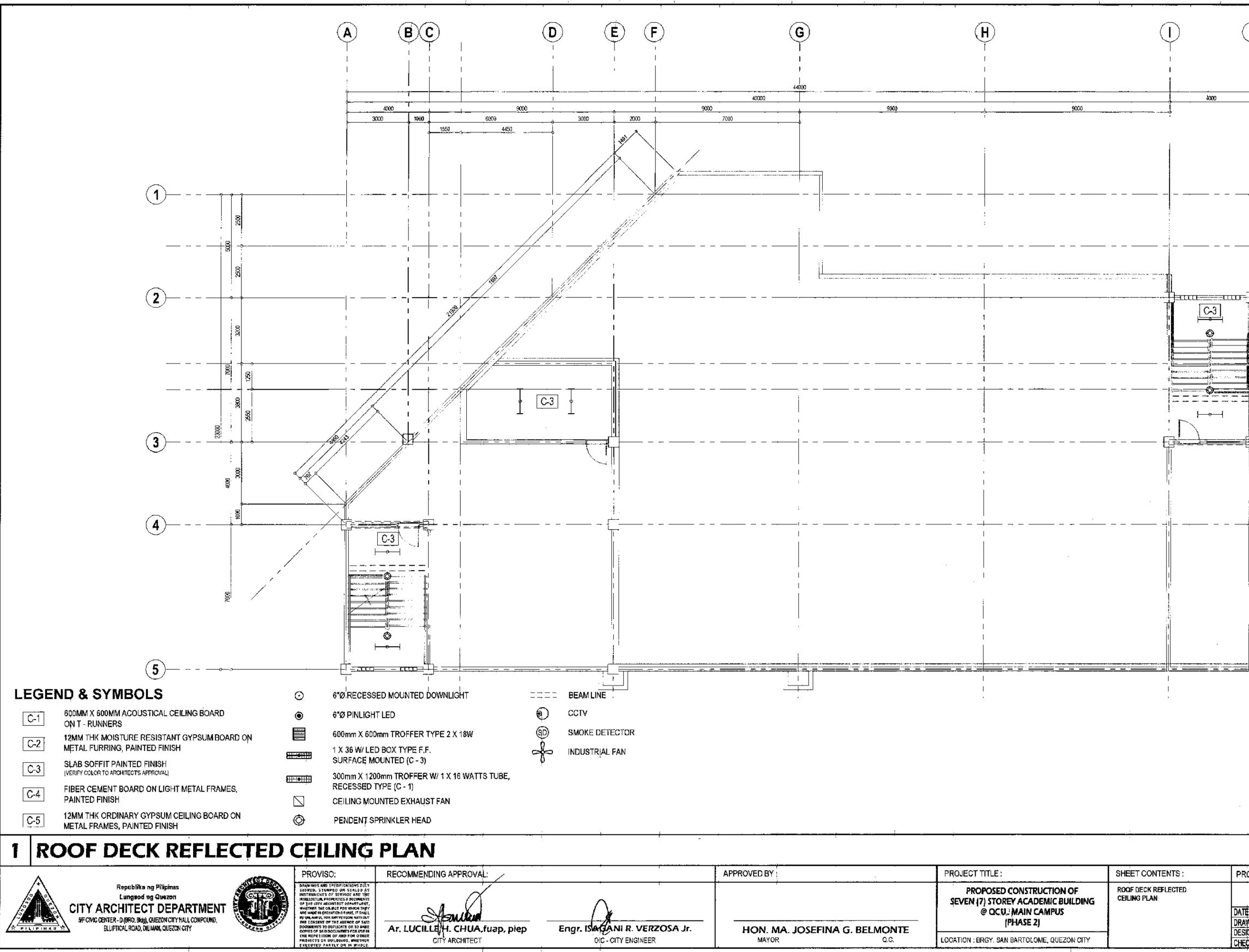
Ar. LUCILLENH. CHUA, fuap, piep

CITY ARCHITECT

ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

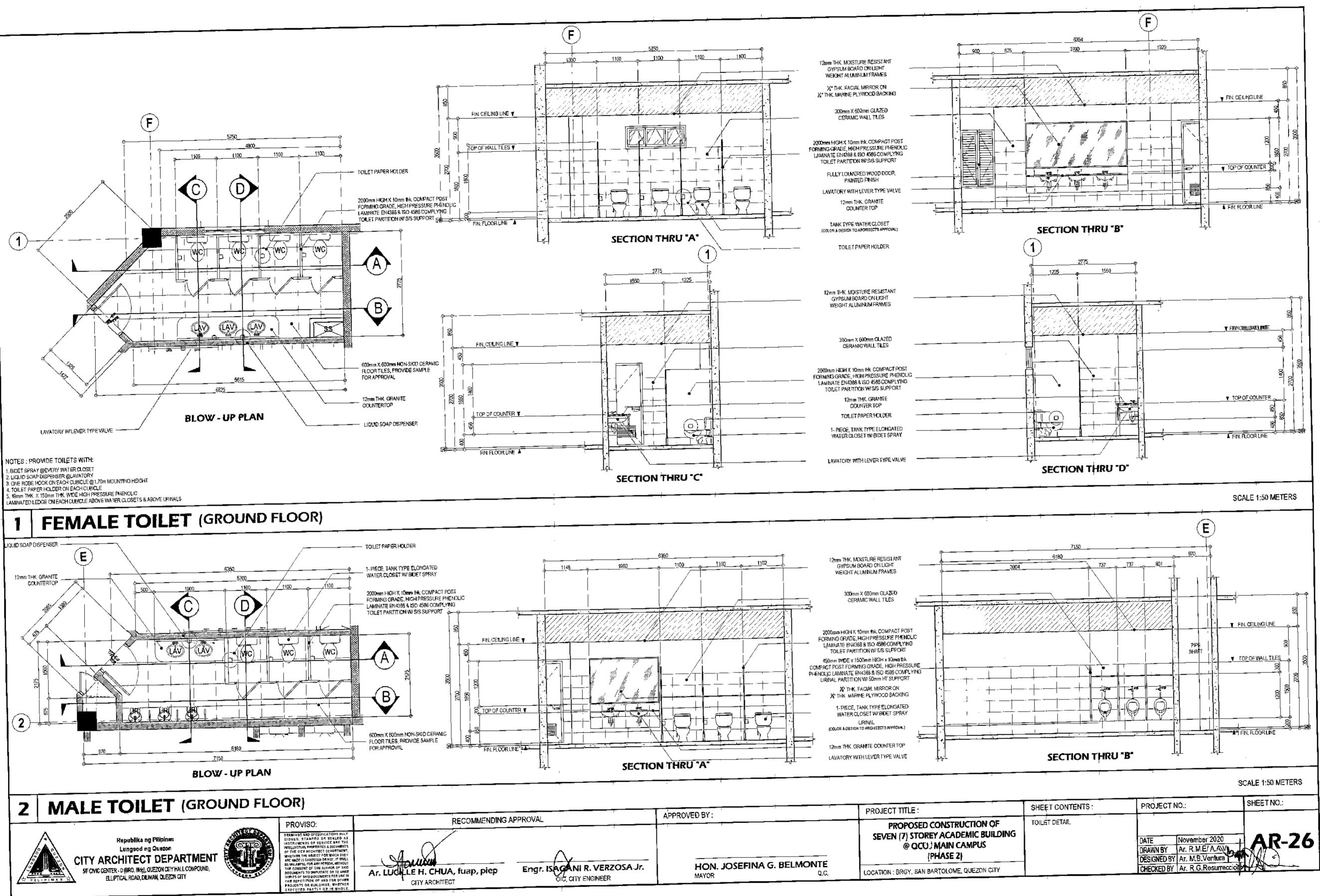
	APPROVED BY	PROJECT TITLE :	SHEET CONTENTS :	PRO
\wedge	· · · · · · · · · · · · · · · · · · ·	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU: MAIN CAMPUS	SEVENTH FLOOR REFLECTED CEILING PLAN	DATE
Engr. ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAW
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION ; BRGY, SAN BARTOLOME, QUEZON CITY		CHECK

November 2020 I BY A.A.V. / MSBF IED BY Ar. M.B.Ventura	AR-24
JECT NO.:	SHEET NO.:
	SCALE 1:100 METERS
_ .	
<u> </u>	
-	
<u>_</u>	



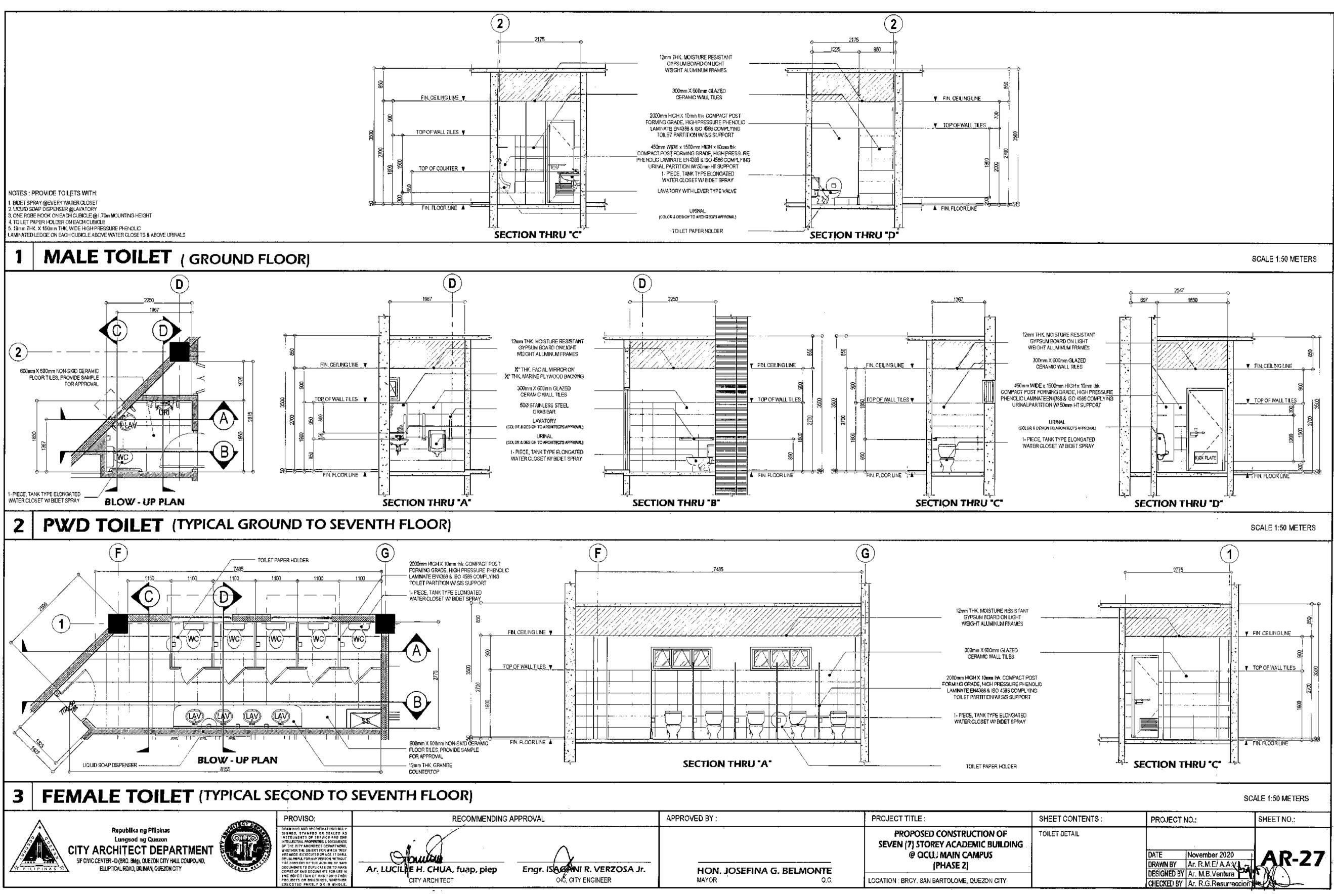
• I · · · · · · · · · · · · · · · · · ·	APPROVED BY	PROJECT TITLE :	SHEET CONTENTS :	PROJ
\bigwedge		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU.; MAIN CAMPUS	ROOF DECK REFLECTED CEILING PLAN	DATE
AGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		CHECK

	SCALE	1:100 M ETER	s

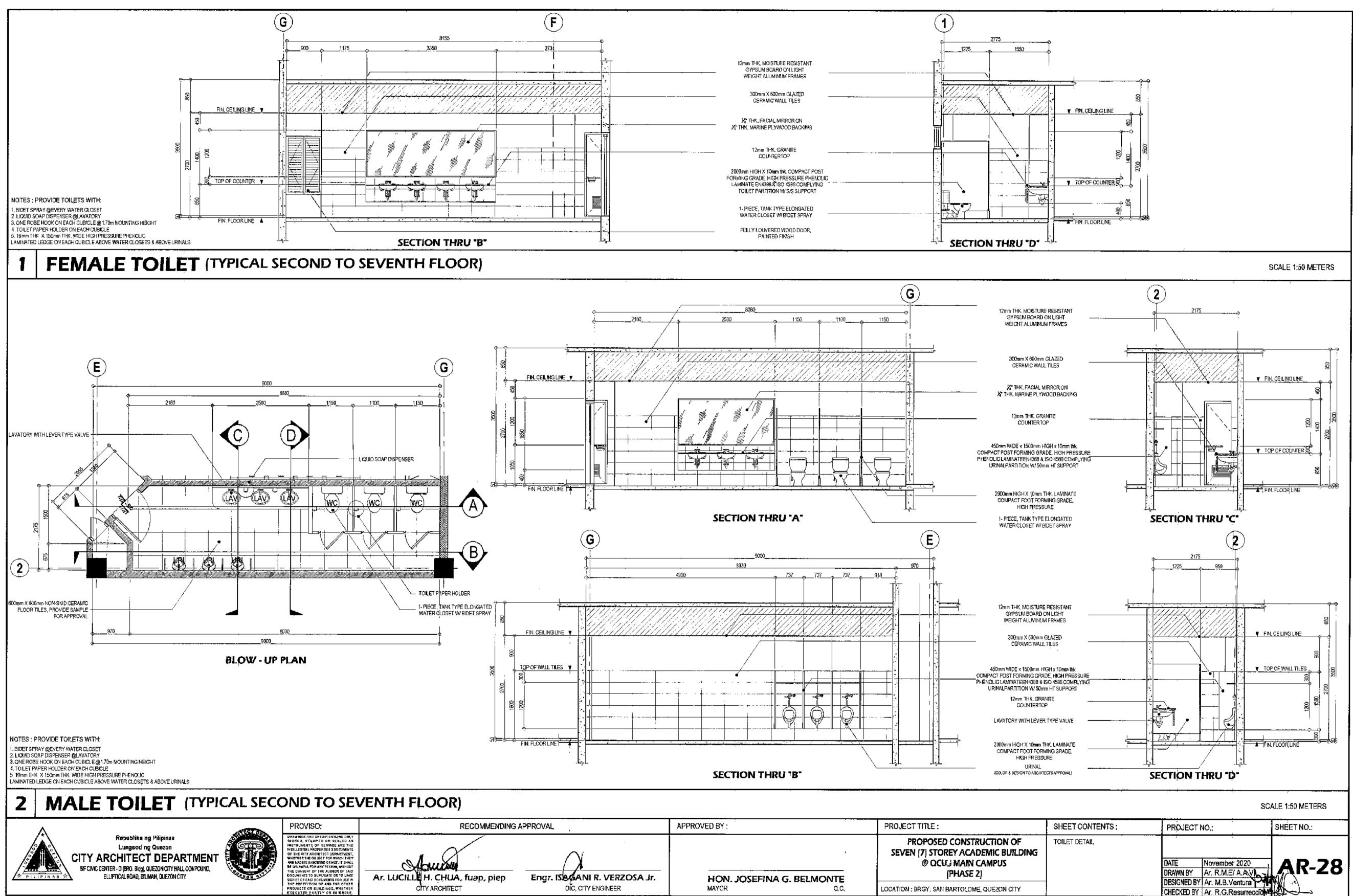


- 14

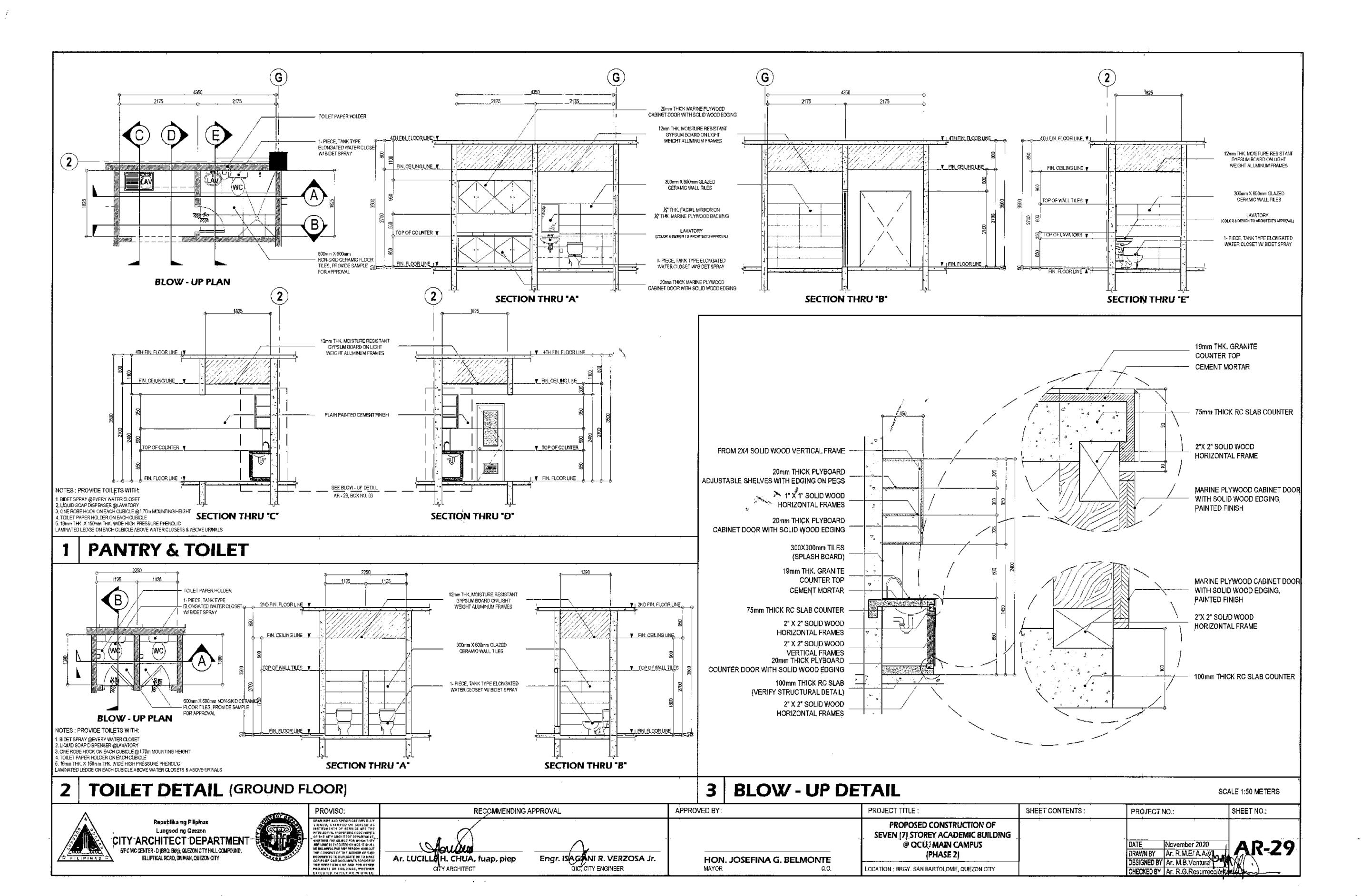
		PROJECT TITLE :	SHEET CONTENTS :	PF
ISAGANI R. VERZOSA Jr. OIC, CITY ENGINEER	APPROVED BY : HON. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU.) MAIN CAMPUS {PHASE 2} LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DAT DR/ DES

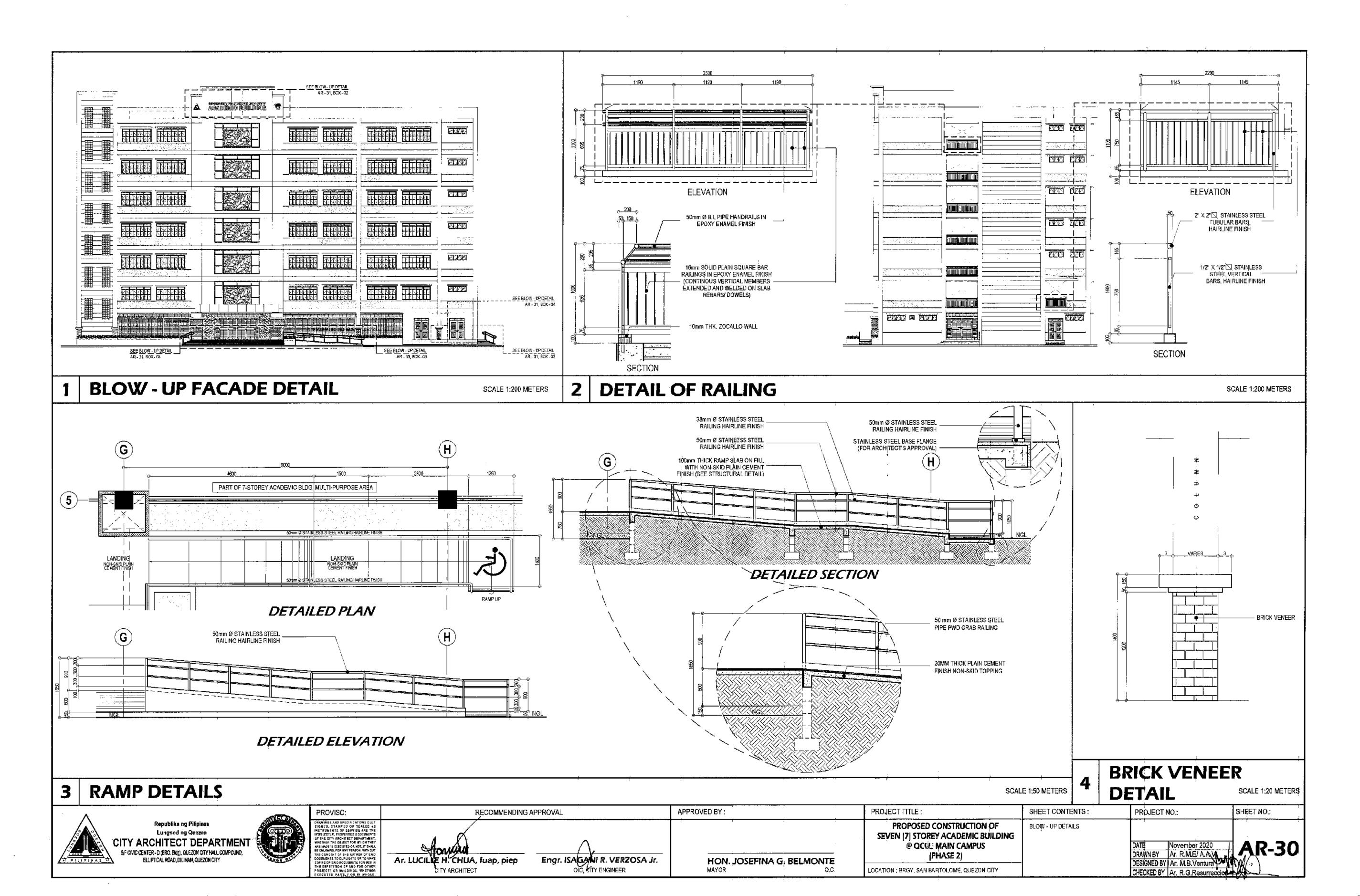


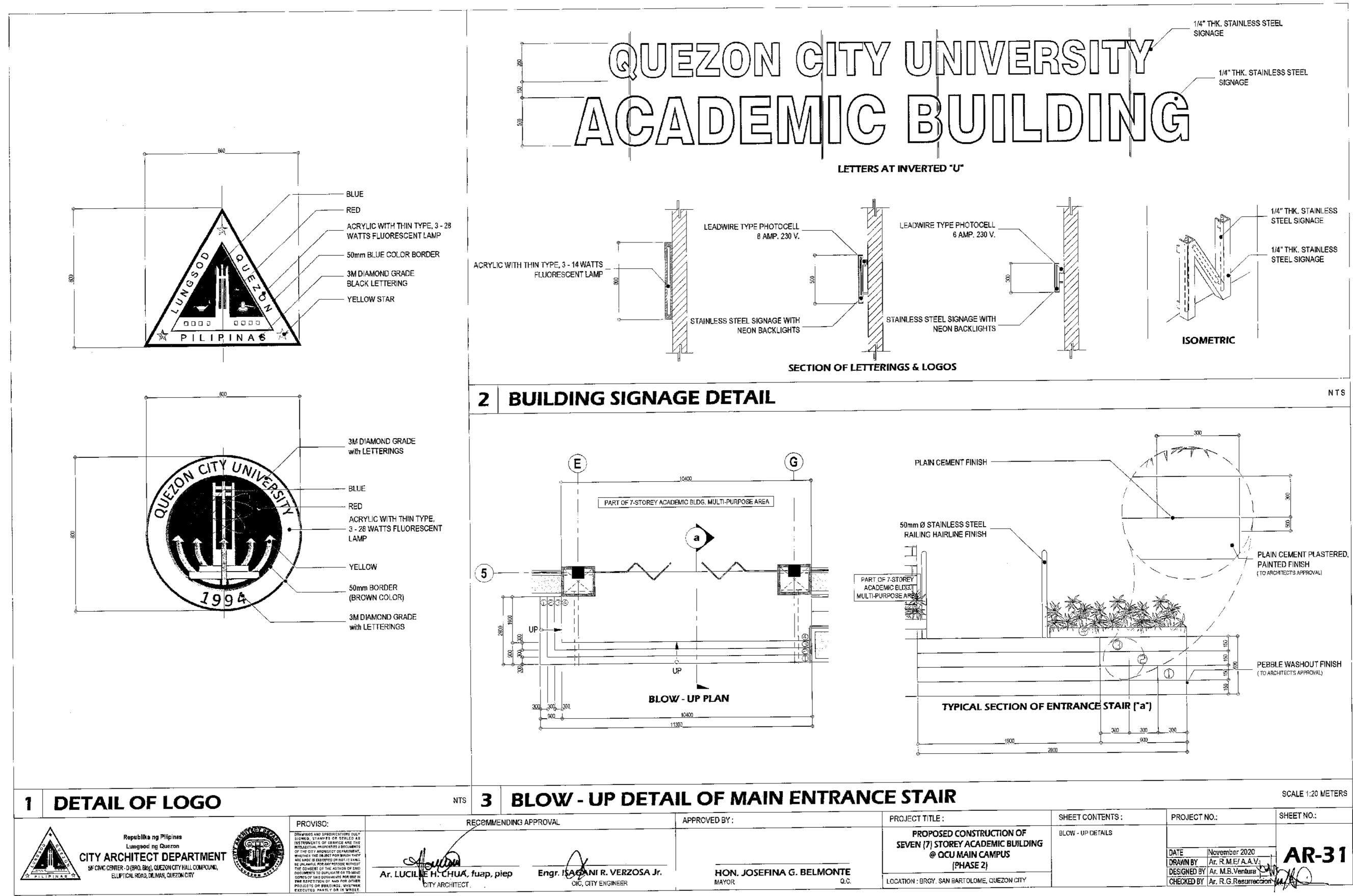
. '	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE
~		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	TOILET DETAIL	
\bigwedge				DATE
AGANI R. VERZOSA Jr.	HON. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
OIC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECKE



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJI
\sim i	r	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING		
AGANI R. VERZOSA Jr.	HON. JOSEFINA G. BELMONTE	@ OCU: MAIN CAMPUS (PHASE 2)		date Drawn
DIC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGNE







APPR	OVED BY :		PROJECT TITLE :	SHEET CONTENTS :	PRO
AGANI R. VERZOSA Jr. OIC, CITY ENGINEER	HON. JOSEFINA G. BELMO	NTE Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	BLOW - UP DETAILS	DATE DRAW DESIG

ALL STRUCTURAL MILL SECTIONS, BUILT UP PLATE SECTIONS SHALL BE DESIGNED. IN ACCORDANCE WITH AISC'S LATEST "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

- DESIGN LOADS FOR BUILDINGS SHALL MEET THE REQUIRED STRUCTURAL DESIGN CRITERIA.
- STEEL PLATES, SHAPES, BARS AND METAL FABRICATIONS: ASTM A-36. STRUCTURAL BOLTS AND NUTS: ASTM A-325, GALVANIZED, 78/0 AND BELOW.
- A-490 1" Ø AND ABOVE.
- ELECTRODES FOR WELDING: ASTM A233 E_TOXX SERIES; COMPLY WITH AWS D1.1 CODE REQUIREMENTS. FLAME CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH LATEST STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN
- WELDING SOCIETY. ALL BUTT WELDS SHALL BE FULL PENETRATION WELDS AND SHALL BE PROPERLY. BACK-CHIPPED OR GOUGED, BACK-UP PLATES SHALL BE PROVIDED AS REQUIRED.
- APPLY TT-P-645 SHOP PAINT FOR ALL FABRICATIONS. • SHOP PANTING FOR STRUCTURAL STEEL SHALL BE RUST INHIBITIVE PRIMER WITH MINIMUM D F.T. OF 2.0 MILS.
- TOUCH-UP PAINTING: APPLY PAINT TO EXPOSED AREAS IN MANNER SATISFACTORY.
- TO THE ENGINEER WITH SAME MATERIAL AS SHOP PAINT. COMPLY WITH AISC CODE AND SPECIFICATIONS FOR BEARING, ADEQUACY OF
- TEMPORARY CONNECTIONS AND ALIGNMENT. CONTRACTOR SHALL FURNISH COMPLETE ERECTION DRAWINGS FOR THE PROPER
- IDENTIFICATION AND ASSEMBLY OF ALL BUILDING COMPONENTS. THESE DRAWINGS
- WILL SHOW ANCHOR BOLT SETTING, PRIMARY SECONDARY, AND ROOF FRAMING. AND NECESSARY INSTALLATION DETAILS, SUBMIT SHOP DRAWINGS FOR APPROVAL BEFORE FABRICATION.
- APPLICATION OF FIRE PROOFING SYSTEM IS REQUIRED FOR ALL STRUCTURAL STEEL MEMBERS, PROVIDE 2 HOUR MINIMUM FIRE RATING, REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR ADDITIONAL FIRE PROOFING REQUIREMENTS.

STRUCTURAL STEEL

SCHEDULE OF REINFORCING BARS (PNS - 49)

DIAMETER OF BARS	GRADE (fy)
Ø12 AND SMALLER	275 (275mpa)
Ø16 TO Ø25	415)(415mpe)

- BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIALS LIKELY TO
- IMPAIR BOND. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. ALL GRADE 60 REINFORCING STEEL SHALL BECLEARLY MARKED TO DIFFERENTIATE THEM FROM GRADE 40 REINF; STEEL IF CONCURRENTLY ON SITE.
- IN GENERAL, BAR SPLICES SHALL BE MADE AT POINTS OF MINIMUM STRESS. SPLICES SHALL BE SECURELY WIRED, TOGETHER, STAGGER SPLICES AT LEAST 600mm, WHENEVER POSSIBLE IN BEAM BEAMS AND SLABS SPLICE TOP BARS. AT MIDSPAN AND BOTTOM BAR NEAR SUPPORT; SPLICE OF REINFORCEMENT SHALL BE MADE ONLY AS REQUIRED OR PERMITTED ON DESIGN DRAWINGS OR AS
- ALLOWED BY THE ACTOODE OR AS AUTHORIZED BY THE ENGINEER. · BARS NOTED AS "CONT." SHALL HAVE A MINIMUM SPUCE LENGTH OF 42 BAR DIA, BUT BAR DIAMETERS BUT NOT LESS THAN 600 mm*, UNLESS OTHERWISE
- · REINFORCING SHALL BE SPLICED ONLY AS INDICATED ON THE DRAWINGS.
- MINIMUM CONCRETE COVER FOR REINFÖRCING BARS SHALL BE

ITEM	COVER
CONCRETE CAST AGAINST EARTH	75 mm,
EXPOSED TO EXTERIOR OF WEATHER	38 mm
FORMED SURFACE BELOW GRADE	50 mm
SLAB ON GRADE	50 mm
COLUMINS & BEAMS	38 mm
STRUCTURAL SLABS TOP & BOT, (INTERIOR)	25 mm

ANY WELDING TO BE PERFORMED MUST HAVE PRIOR WRITTEN APPROVAL. OF THE ENGR.

- WELDING OF REINFORCING STEEL IS NOT PERMITTED UNLESS OTHERWISE SHOWN ON THE DRAWINGS, WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D1.4-79 "AWS STRUCTURAL WELDING CODE - REINFORCING STEEL" OF THE AMERICAN WELDING SOCIETY REINFORCING STEEL WHICH IS WELDED SHALL CONFORM TO AST MA 706, REINFORCING STEEL NOT CONFORMING TO AST MA 706 MAY BE USED IF MATERIAL PROPERTIES OF THE REINFORCING STEEL CONFORM TO AWS D1.4-79.
- WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A-185, WELDE WIRE FABRIC IN SUSPENDED SLABS SHALL HAVE FY = 60 KSI, LAP 152 MM, MINIMUM OR ONE FULL MESS, WHICHEVER IS GREATER FOR SLABS ON GRADE.
- SHOP DRAWINGS ; THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REINFORCING STEEL PREPARED IN ACCORDANCE WITH ACI 315. INDICATE BENDING DIAGRAM, ASSEMBLY DIAGRAM, SPLICING AND LAPS OF RODS AND SHAPES DIMENSIONS AND DETAILS FOR FOR REINFORCING BARS.
- ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS ARE TO BE SECURELY. TIED IN PLACE BEFORE CONCRETE IS POURED.

- FORMS SHALL BE PROVIDED FOR ALL CONCRETE INDICATED UNLESS. SPECIFIED OTHERWISE, FORMS SHALL BE SET TRUE TO LINE AND GRADE AND MAIN TAINED SO AS TO INSURE COMPLETED WORK WITHIN THE ALLOWABLE TOLERANCES SPECIFIED AND SHALL BE MORTAR TIGHT. FORMS AND THEIR SUPPORTS SHALL BE DESIGNED SO AS NOT TO ...
- DAMAGE PREVIOUSLY PLACED STRUCTURE.
- NO CONSTRUCTION LOAD SHALL BE SUPPORTED ON, NOR ANY SHORING REMOVED FROM ANY PART OF STRUCTURE UNDER CONSTRUCTION EXCEPT WHEN THAT PORTION OF THE STRUCTURE IN COMBINATION WITH THE REMAINING FORMING AND SHORING SYSTEM HAS STRENGTH TO SUPPORT SAFELY ITS WEIGHT AND THE ADDITIONAL IMPOSED LOADS.
- FORMS SHALL BE REMOVED IN SUCH MANNER AS NOT TO IMPAIR SAFETY. AND SERVICE ABILITY OF THE STRUCTURE.

SCHEDULE OF STRIPPING OF FORMS AND SHORES

ITEMS	TIME
FOUNDATION	24 HRS
SUSPENDED SLAB EXCEPT WHEN ADDITIONAL LOADS ARE IMPOSED	14 DAYS
COLUMN /WALLS	t2 DAYS
BEAMS	f4 DAYS

FORMWORKS 31

SCHEDULE OF STRUCTURAL CONCRETE 28-DAY COMPRESSIVE STRENGTH AND TYPES

LOCATION	STRUCTURAL ELEMENTS	28-DAY COMPRESSIVE STRENGTH	DENSITY	MAX SLUM
ALL FLOORS	SUSPENDED SLABS SHEAR W ALL ELEVATOR	4000 pai (UNLESS NOTED OTHERWISE)	150 PCF	4"(10ርሰነጠ)
GROUND	SLAB ON GRADE/ STAIRS	3000 psi	150 PCF	4"(100mm)

 INFORM ARCHITECT/ENGINEERS OF OTHER MISCELLANEOUS CONCRETS STRUCTURAL ELEMENTS NOT SHOWN ABOVE TO DETERMINE THEIR RESPECTIVE COMPRESSIVE STRENGTHS

SCHEDULE OF CONCRETE AGGREGATES

ITEMS	AGGREGATE SIZE
SLABS, BEAMS, COLUMNS	3/4" (19mm)
CURES & MASS CONCRETE	l' (25mm)

 ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION CODE OF THE AMERICAN CONCRETE INSTITUTE (ACI 318-91).

- LOCATION OF ALL CONTRUCTION OR COLD JOINTS MUST BE APPROVED BY THE ENGINNEER / ARCHITECT
- PIPE OR DUCTS EXCEEDING ONE THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONGRETE UNLESS SPECIFICALLY. DETAILED. PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES. BUT SHALL NOT BE EMBEDDED THEREIN.
- REINFORCING BARS, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE SECURED IN PLACED BEFORE POURING CONCRETE BAR PLACEMENT AND SUPPORTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDED. ACI PRACTICE.

ALL INSERTS, ANCHOR BOLTS, PLATES, ETC. TO BE EMBEDDED IN CONCRETE SHALL BE HOT DIP GALVANIZED UNLESS NOTED OTHERWISE.

- IN GENERAL, THE'LATEST EDITION OF (MANUAL OF STANDARD PRACTICE. FOR DETAILING CONCRETE STRUCTURES) ACI 315, SHALL BE ADHERED
- TO, UNLESS SHOWN OTHERWISE. USE OF ADMIXTURES IS PERMITTED TO PRODUCE PROPER SLUMP AND WORKABILITY BUT SUBJECT TO THE ENGINEER'S APPROVAL ADDITION OF WATER TO CONCRETE AT JOBSITE IS NOT ALLOWED.

REINFORCED CONC. NOTES

- MASONRY WALLS 1. ALL MATERIALS & WORKMANSHIP SHALL BE IN ACCORDANCE WITH EAPPLICABLE STANDARD
- A SPECIFICATIONS OF THE STRUCTURAL CODE OF THE PHILIPPINES & UNFORM BUILDING CODE 2 MORTAR & GROUT FOR ALL CONCRETE MASONRY SHALL CONFORM TO ASTM 270- TYPE N &
- SHALL HAVE A MINIMUM OF 28 DAYS STANDARD CYLINDER COMPRESSIVE STRENGTH OF 17 5 MPs (2500 PS).
- 3. ALL CHB SHALL BE LAID OUT WITH THE GELLS IN UNCOSTRUCTED VERTICAL CONTINUITY. ALL CELLS ESPECIALLY THOSE WITH REINFORCEMENT SHALL BE FILLED WITH WORTAR 4. REINFORCEMENT, AS TABULATED BELOW SHALL BE PROVIDED UNLESS OTHERWISE SPECIFIED IN THE PLAN.
- 5. ALL MASCARY WALLS SHALL BE PROVIDED IN STIFFENED BRANCH OVA STREPENED AS DECIDED. 5 A. FOR HIGH WALLS & EVERY 3000 mm & COLUMN (SOLT) AT 3000 mm ON CENTER. 5.5. FOR DOORS & WINDOWS OPENING PROVIDE LINTEL BEAM SAME AS STIFFENER BEAMBLOCK





MASONRY WALL

PROVISO:

DRAWINGS AND SPECIFICATIONS DUI

SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DOCUMENTS OF THE CITY ARCHITECT DEPARTMENT,

TETHER THE OBJECT FOR WHICH THE SMADE IS EXECUTED OR NOT. IT SHAL

EUNLAWFUL FOR ANY PERSON WITHOUT HE CONSENT OF THE AUTHOR OF SAID

THE COMBENT OF THE AUTHOR OF SAID OLOCUMENTS TO DUPLICATE OR TO MARK COPMED OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE

- RECOMMENDING APPROVAL:
- Ar. LUCIULE H. CHUA, fuap, piep

CITY ARCHITECT

SIZE

25 16

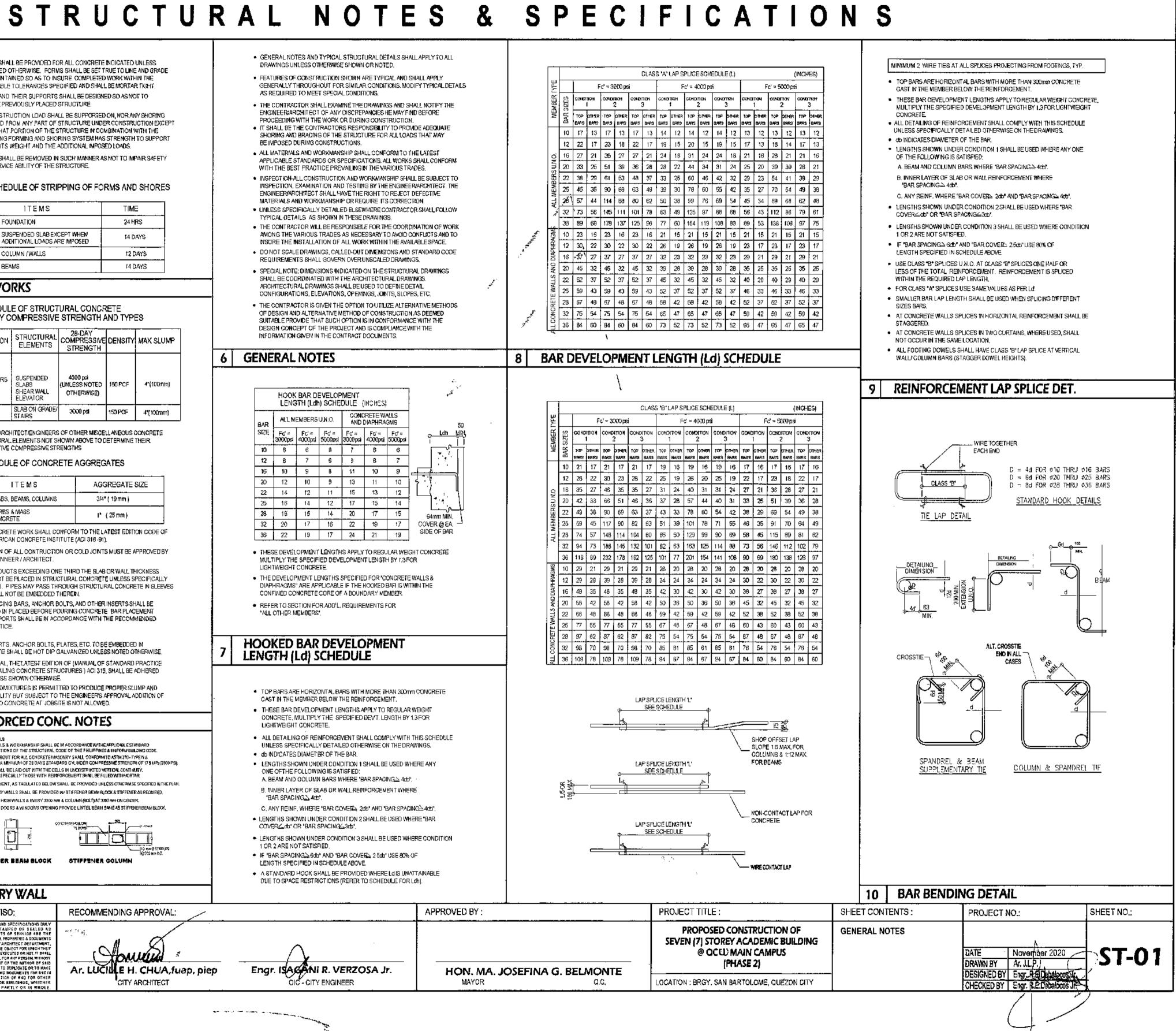
REINFORCING STEEL Republike ng Pilipinas Lungsoding Quezon

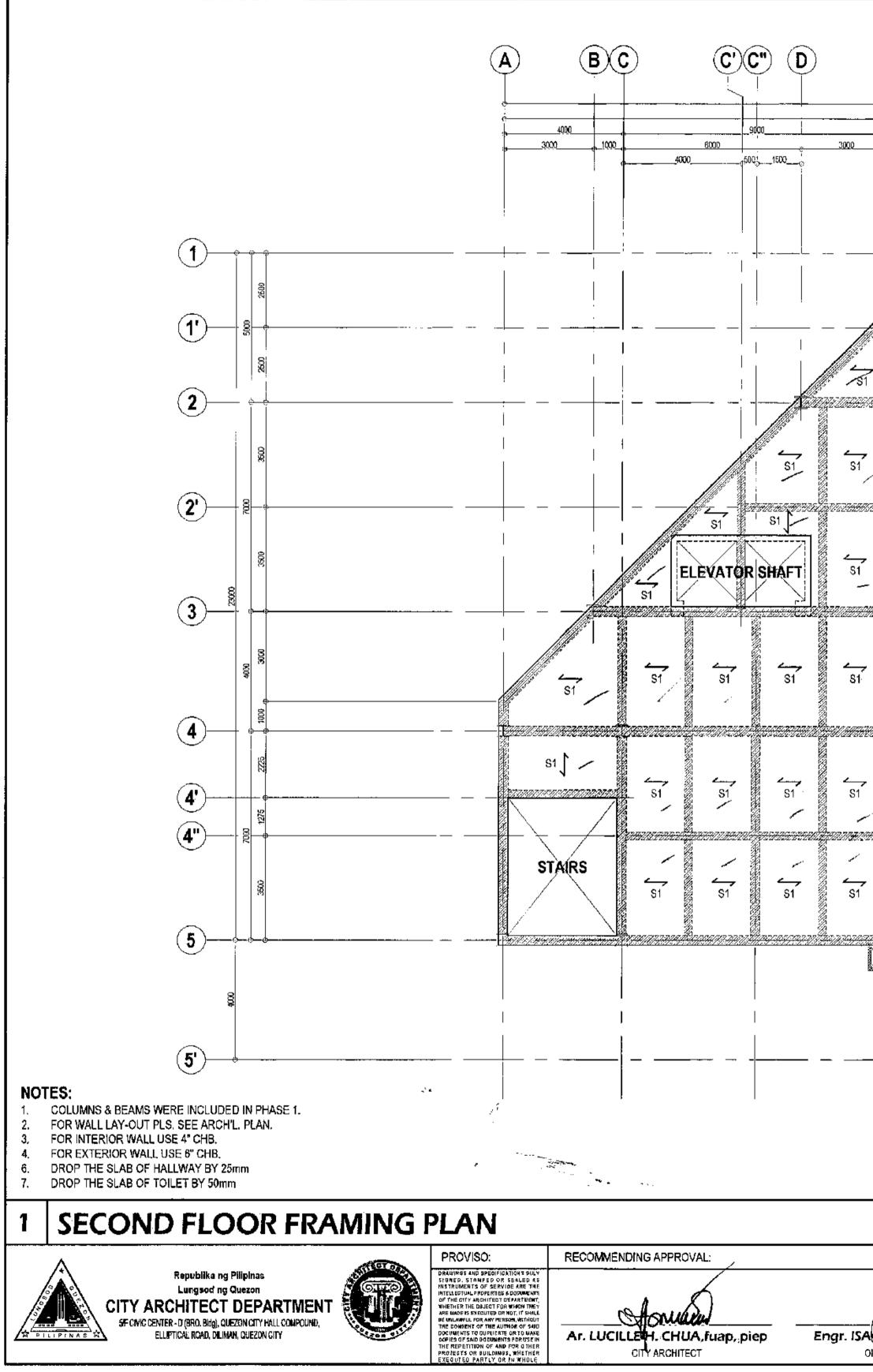
(PILIPINAS)

CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D'(BRO, Bido), QUEZON CITY HALL COMPOUND. ELLIPTICAL ROAD, DILIMAN, QUEZON CITY



51

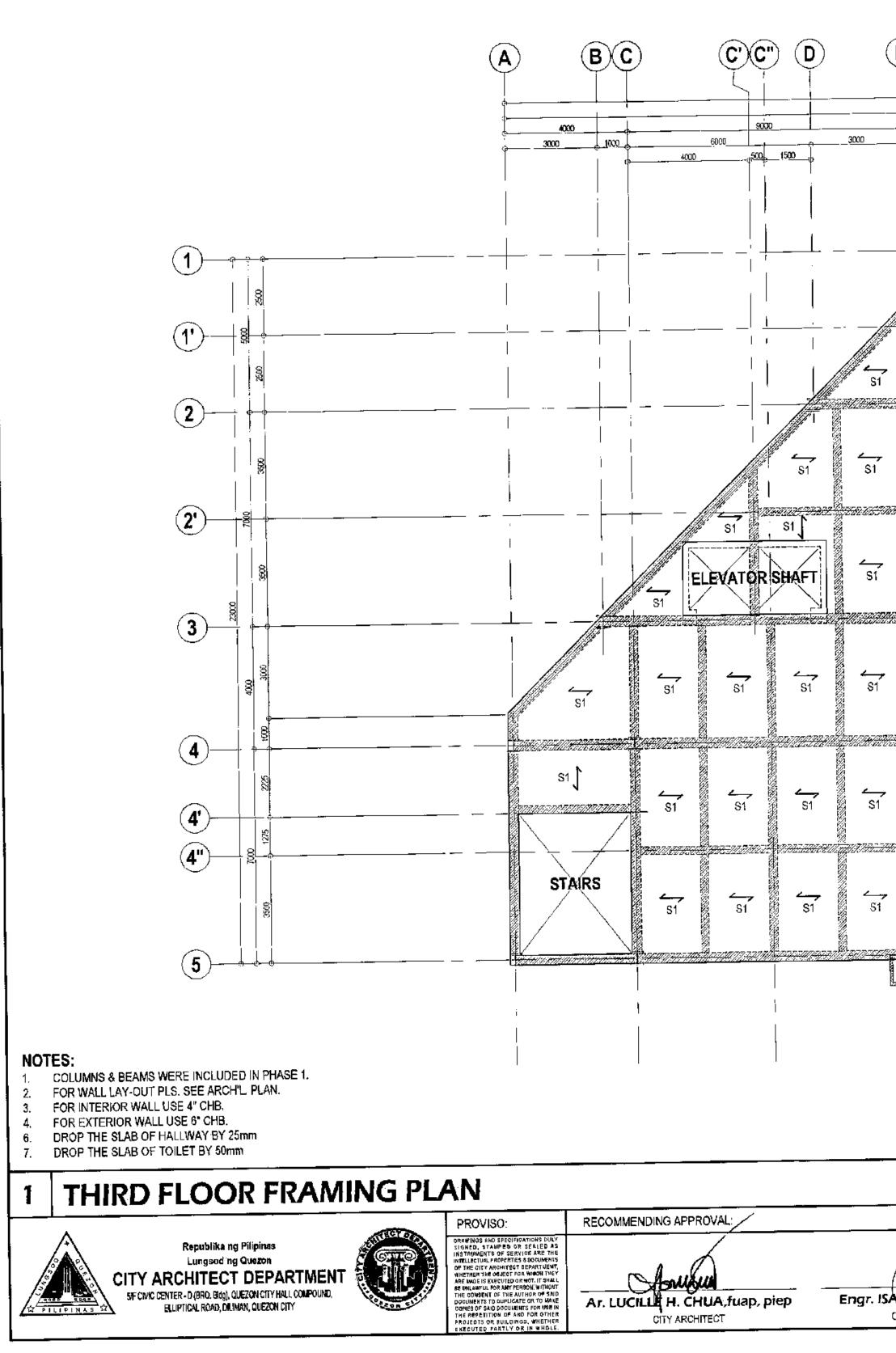




	E) (F		F')(F'')		G	Q	3		H)	ŀ	I	(j (j
				40000 	4 	500 	1'	50D 500		94	1 500 30	500	e4(
		<u></u> S1 \		81	- -	 			 		 !	<u>_</u>	 	 !
- 51		∕s1∫		s1 j	51 J	S1	51	l sıl			METAL 80,000 t = 125	. DECK SLAB psi ,0.80mm thk. mm		
					51 51		S1		S1	ST ST	S1	\ 5\	STA	IRS
	S1	S1	S1	S1	S1	S1	S1	1 81	S1	si	S1	S1	51	1
7	S1	si	< S1	S1	S1	S1	5777577777777777777777777777777777777	sı	S1	51	S1	S1	S1	S1
	51	S1	<u>ج</u> 1	S1	S1	S1	S	S1	Constant S1	52 36 70 220 51	S1	S1	51	S1
<u>~</u> 		577 37 77 77 77 5 	51		S1	<u></u> S1	<u>-2022327775</u> - S1	<u></u> 27 38 726	S1	S1	- 	S1	- - S1	S1
	P.	ART OF	PHAS	EÌ			7 33////2//2//20	<u>1979</u> 111487777			<u></u>	<u>9997779777777777777777777777777777777</u>	V77 8777777774	
ینین مدین ایرین مدین														

	APPROVED BY ;	PROJECT TITLE :	SHEET CONTENTS :	PROJ
<u>^</u>		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING		
		@ QCU) MAIN CAMPUS (PHASE 2)	SECOND FLOOR FRAMING PLAN	DATE DRAWN
AGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	(1163E 2)		DESIGN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECKE

						, ;
					~	
				SCALE 1:10	0 METER	रऽ
DJECT N	NO.;			SHEET NO	:	
VN BY SNED BY KED BY	Noven A. JLI Engr.R.	hber 2020 P E.Dtbalocos E.Debalocos		ST-	02	2
$\left(\right)$	J		/			



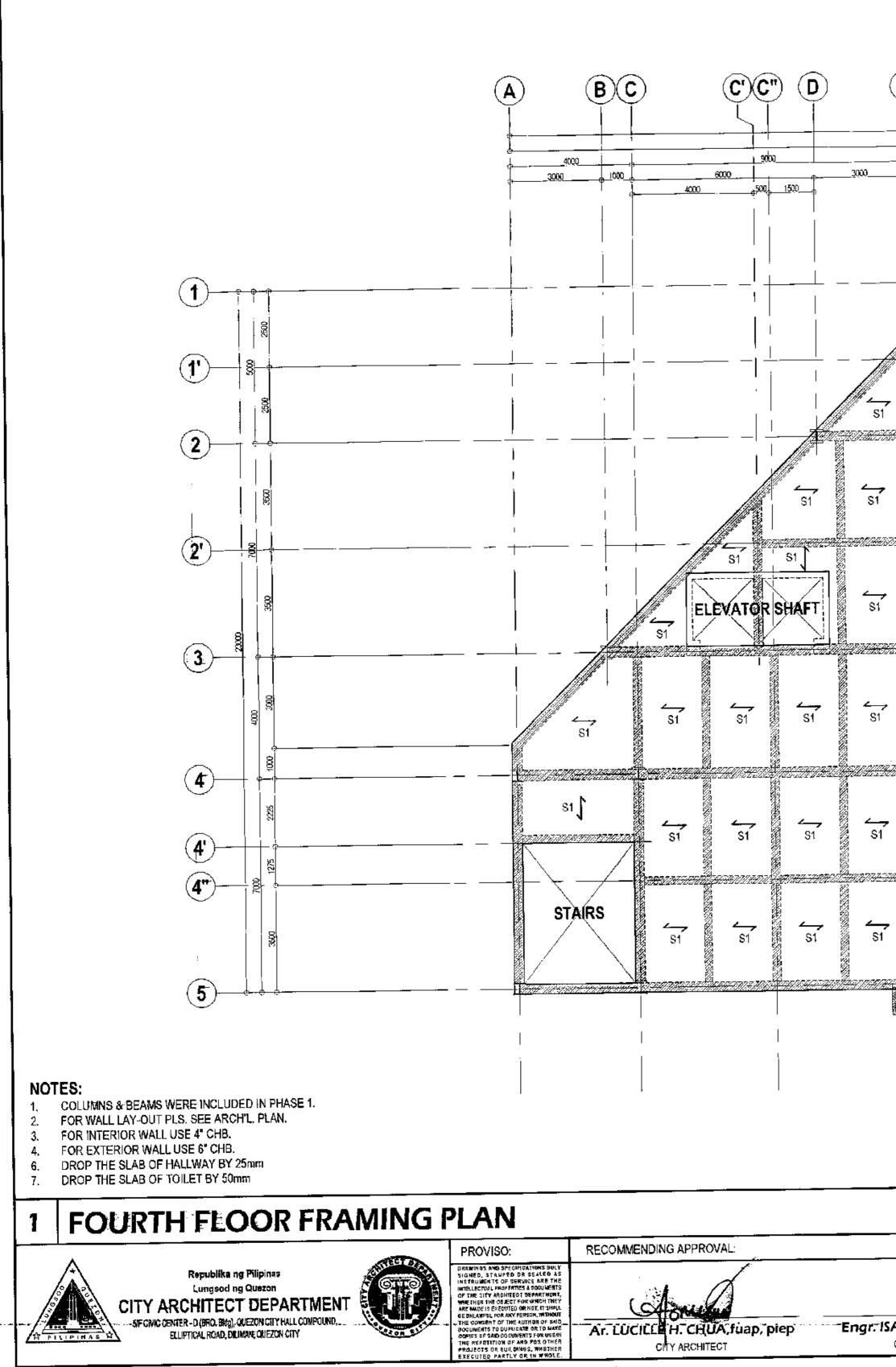
 \sim

3

E	E) (F) (F ') (F'')	G		G)	H)	(H))	Ĺ
	2000)	000		2250)450(450(4500	rdre	94500			\$
71		s1 , s1 , s1 ,		51 \ 51 \		PART	DF PHA	SE 1			METAL (80,000ps t = 125m			
7	<u></u>	S1	sı	S1	S1	S1	S1	s1					STA	
7	<u></u>	S1	<u>ج</u> 15	51	SI	<u></u>	51	s1	S1	S1	<u>د</u> S1	S1	S1	1
<u>₩₩</u>	< S1	S1	S1	sı		S1	S1	S1	S1	S1	S1	5 1	4 51	کے 15
		S1	S1	<u>حــــــــــــــــــــــــــــــــــــ</u>	S1	S1	si	S1	S1	4 S1	 S1	S1	<	S 1
	S1	sı	5 1	5 1		51 51	S1	S1	S1	S1	S1	S1	S1	S1
		<u> </u>	 			<u></u>				<u>9: 7/17: 6 3277 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 </u>	 			

 APPROVED BY:	PROJECT TITLE :	SHEET CONTENTS :	PR
HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU3 MAIN CAMPUS [PHASE 2] LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	THIRD FLOOR FRAMING PLAN	DAT DRA DES CHE

SCALE 1:100 METERS ROJECT NO: SCALE 1:100 METERS ROJECT NO: SHEET NO: SHEET NO: STE-O3			
SCALE 1:100 METERS ROJECT NO.: SHEET NO.: TE November 2020 AWN BY Ar. ALP. SKINED BY Engl. P.E. Laskaloon Nur ECKED BY Engl. P.E. Laskaloon Nur ECKED BY Engl. R.E. Laskaloon Nur)		
SCALE 1:100 METERS ROJECT NO.: SHEET NO.: TE November 2020 AWN BY Ar. ALP. SKINED BY Engl. P.E. Laskaloon Nur ECKED BY Engl. P.E. Laskaloon Nur ECKED BY Engl. R.E. Laskaloon Nur	 		
SCALE 1:100 METERS ROJECT NO.: SHEET NO.: TE November 2020 AWN BY Ar. ALP. SKINED BY Engl. P.E. Laskaloon Nur ECKED BY Engl. P.E. Laskaloon Nur ECKED BY Engl. R.E. Laskaloon Nur			
ROJECT NO.: TE November 2020 AWN BY Ar. JL.P. SIGNED BY Engl. R.E. Debalocos Jr. ECKED BY Engl. R.E. Debalocos Jr.			
ROJECT NO.: TE November 2020 AWN BY Ar. JL.P. SIGNED BY Engl. R.E. Debalocos Jr. ECKED BY Engl. R.E. Debalocos Jr.			
SKGNED BY Engl R E Debalocos Jr	ROJECT NO.:		 ETERS
	TE No AWN BY Ar SIGNED BY En IECKED BY En	ovember 2020 .ILP. of RE Debalacos J.)3



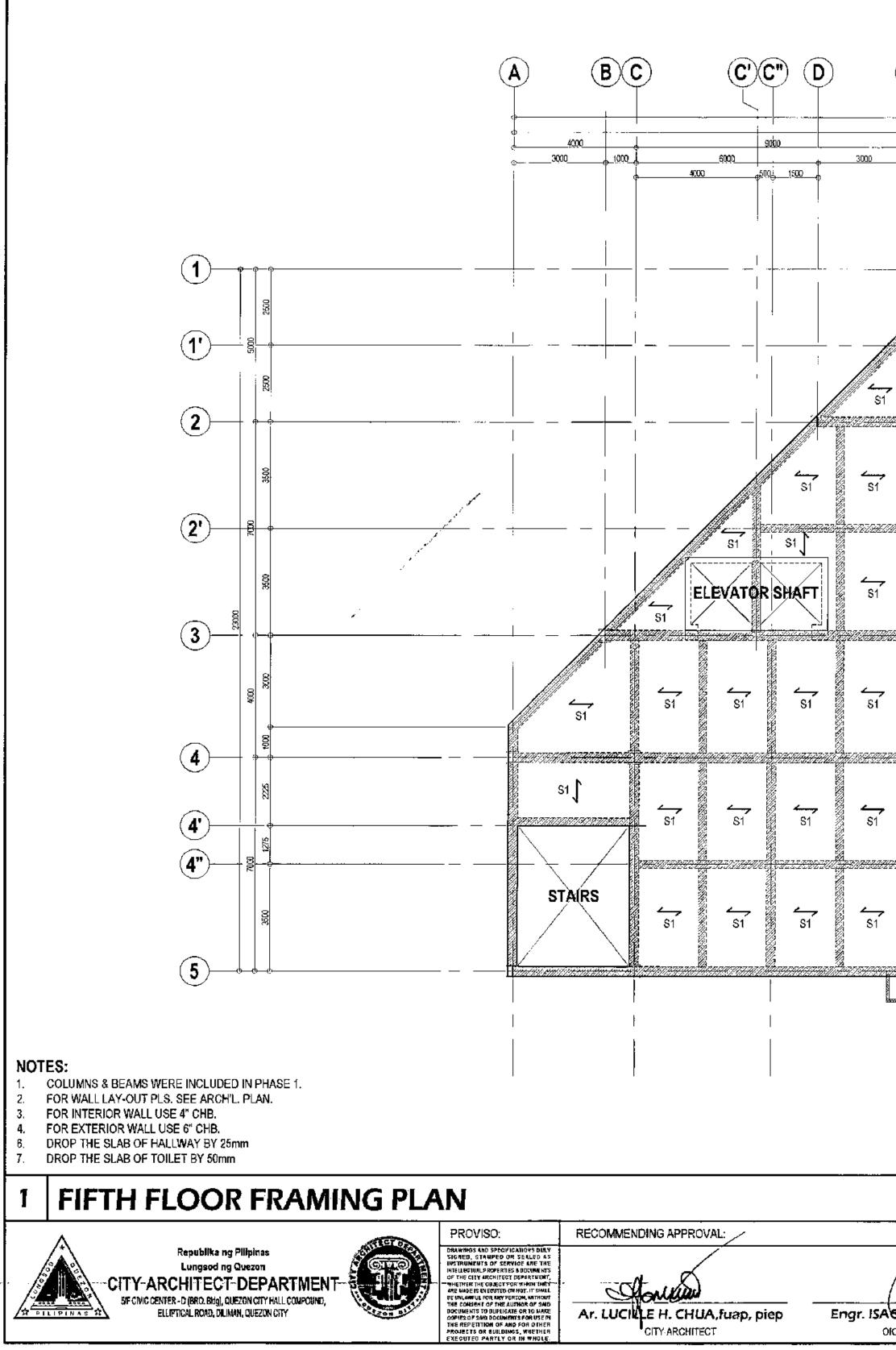
2

E) (F) (F) (F'')	G	/	G)	H		(H')			L)
					0450 450 450		0450	Y.	450	io <u>fe</u>)		400	
-		s1	2200	51 ∫ 51 ∫ 51 ∫	- 						80,000p t = 125m			
	51	5 1	<u>51</u>		S1			S1	 S1	si	∠ S1	 S1	STA	IRS
7	∠	5 1	S1	S1	S1	S1	S1	S1	<u>ج</u> 1	S 1	S1	オントックリアニュニ	si	1
	<i>477742755</i>	Æ S1	S1	S1		S1	51		S1	S1	S1	S1	S1	S1
- 1		S1	S1	sı	د ر	<u></u>	S1	51	S1	S1	جے 51	S1	S1	S1
 	~	si	51	51	5732 2232 51	S1	Card Contract of Card Contract of Contra	(222 6)/(7/6/3 //	00222222222	<u>د</u>	51	S1	S1	S1
		<u></u>	 			17 75/76/17/77 777777777777777777777777777777	r 	<u>4776-</u> 2117- 37 70-2	<u>*************************************</u>	<u></u>				

· · · · · · · · · · · · · · · · · · ·	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRC
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU: MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	FOURTH FLOOR FRAMING PLAN	DATE DRAW DESK CHEC

~	
J)	
Ĭ	
- >	
-ବ -	
!	
<u> </u>	
1	
<u> </u>	
	1
ļ	
	SCALE 1:100 METERS
PROJECT NO.:	SHEET NO .:
ATE November 2020	ST-04
ESIGNED BY Engr RA Debalocos In	
CHECKED BY Engli R.E.Debaldcos JI	<u>+</u>
X)
(J	

- ····.....

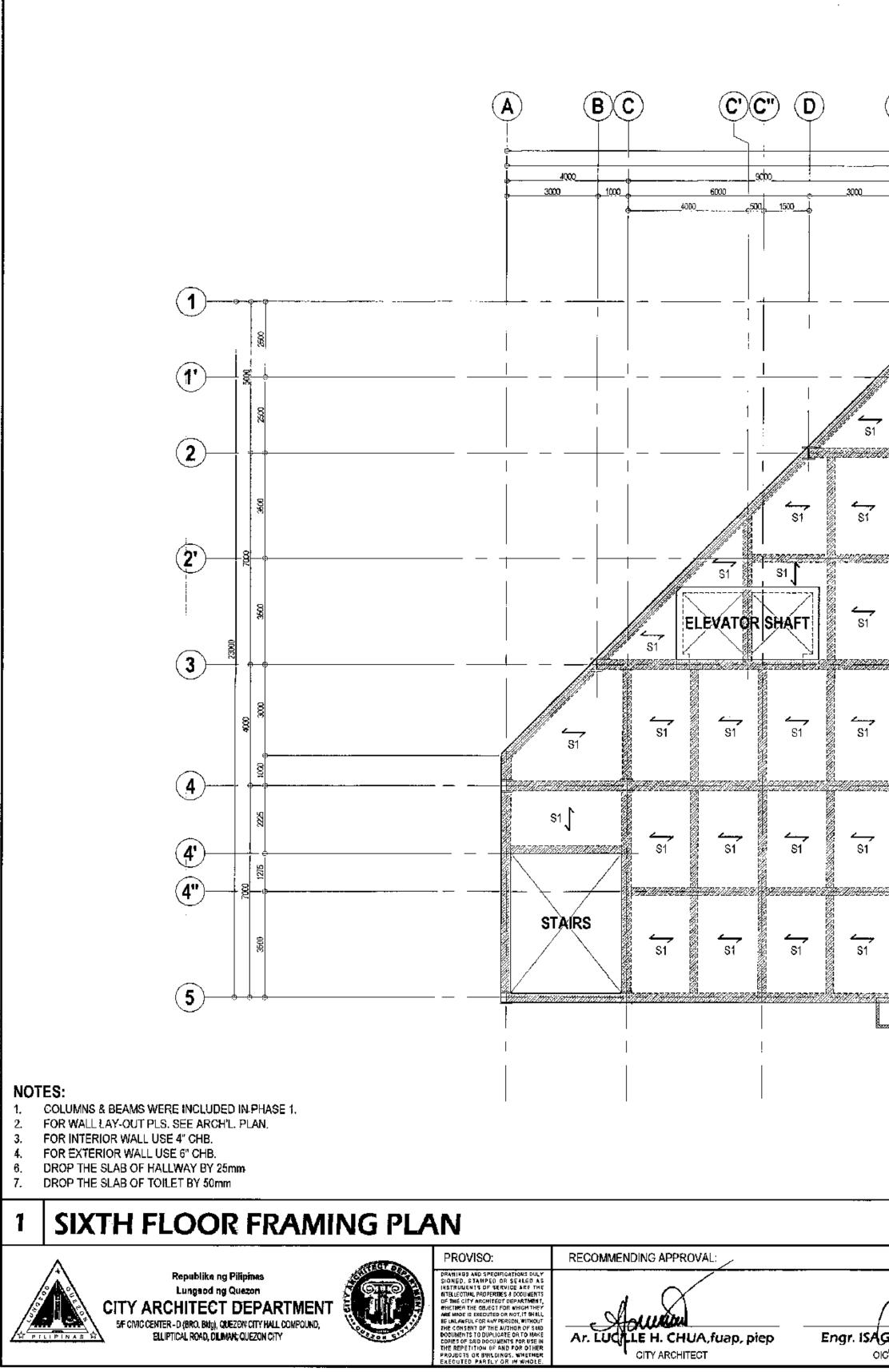


	E) (F		F) (F ")	44	G 	(3')		H	()	I)			
	2000 ÷	90 	200 ZCP0		↓ ←	9 500 2250	Ý	500	φ4	900 <u>.</u> 9	9004	500	<u>4</u> ද <u>2000</u> 	000{ 2000
		511/11/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/		s1			 							
1		s1 🕽		S1 ∫							80,000 t = 125			
*	← 51	S1	S1		5 1		∽ S1		sı	G / K	R .	S1		IRS
7	S1	S1	← S1	S1	<u>حب</u> 1	S1	<u>ج</u> 1	s1	51 51	51	51	S1	s'	1
7	S1	S1	<u>ج</u> 51	S1	S1	S1) (* 11/11/11/11/11/11/11/11/11/11/11/11/11/	S1	<u>- </u> 51	S1	∽ S1	S1	S1	S1
	S1	S1	S1	S1	S1	≺ S1	- S1	S1	ter and the second s	, MARCONT	S1		2 333-2004-2 	51
7	د	S1	S1	S1	51	sı	s1	2.23 	S1	S1	51	S1	S1	S1
	<u>₽</u>	2777,7777 7,877	2 <i>00-07-07-07-07-07-07-07-07-07-0</i> 			* 77_77777777777777777777777777777	0 <u>19777-913999</u>		<u></u>	**************************************	<i>1001/1507</i> 77777777777777777777777777777777777	- <u>72-75667772</u> 4	<u>Terrenan</u> i	ite <i>n na 2003 polit</i> e
										İ				

	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
\wedge		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING		
ISAGANI R. VERZOSA Jr.		@ QCU) MAIN CAMPUS (PHASE 2)	FIFTH FLOOR FRAMING PLAN	DATE DRAWN
OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGNE

. .

					····
2					
J)					Í
ł					
ŧ					
Þ					
					1
1					
:					
					i,
!					
1					j
		<u> </u>			
-					
10 A A A A A A A A A A A A A A A A A A A					
		<u> </u>			
					1
····					
b					
			·		
			SCALF	1:100 MET	ERS
JECT N	0.:		SHE	ET NO.:	
	-				
	ħ				
	Novàm	ber 2020/		T-0	
IN BY	Ari J.L.F	ber 2020 (<u> </u>	01-0	J
NED BY	Engr-R	Debaloms () E.Debalocos Jr	st.		
NEU BY	Engr. R.	t∡D803K0COS JT			
	X)		
	(/	/		
	¥—				



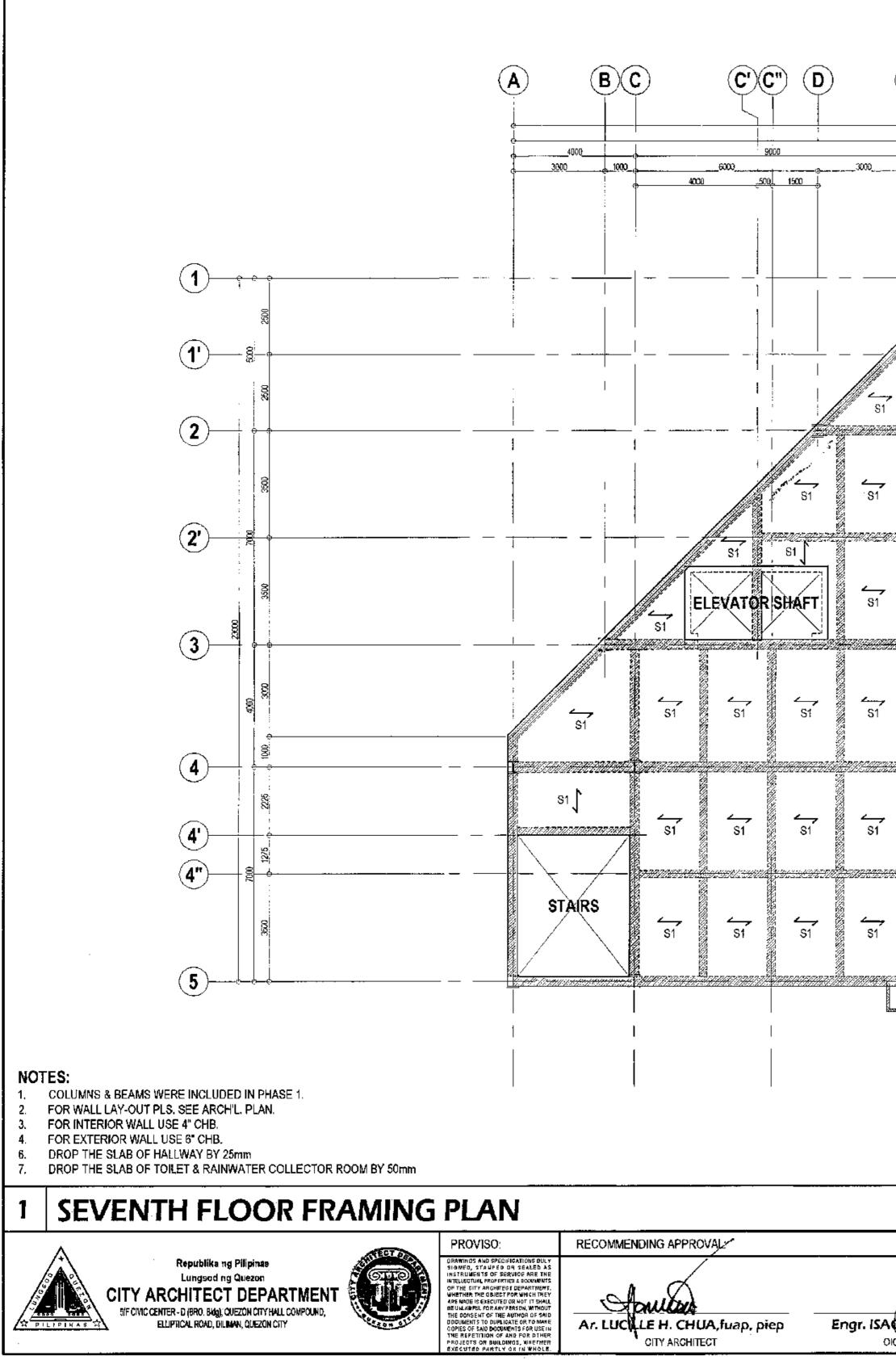
201 5

GITY ARCHITECT

(E) (F) (F		44	3	(3')		H	(ł ')	(
	2000 <u>6</u> 0		<u>bo</u> 7000	40000 500 3500	φ <u>4</u> φ <u>2250</u>	90 500 (p 2250	Υ	500		9		500	,4 ,,2000, ⊜	0¢0
		S1 🕽		S1 \			· 		 		 			
	SI	CANTER LON		s1			' 		- 		80,000 t = 125	psi ,0.80mm thk.		
7	s1			<u>←</u> \$1	جــــ 15	د 51	≤ 51	sı	51	sı	کر 1	sı	STA	IRS
7	S1	S1	sı	∠ S1	<u>د ج</u> 1	د 18	si	sı	51	<	S1	S1	- 	
7	S1	S1	S1	si si	S1	S1	S1	S1	S1	<u>-</u> S1	<u>51</u>	S1	S1	S1
7	51	S1		<u></u> S1	S1	S1		S1		4	∽ S1	<u>-</u> S1		S1
		S1	si	5 1	S1	S1	st	51	- S1	522222 51		<u>د</u> 1	sı	<u>S1</u>
		<u>99967777777777777777777777777777777777</u>	<u>"</u>			<u></u>	<u>:::::::::::::::::::::::::::::::::::::</u>	<u></u>		<u>+5:////////////////////////////////////</u>		<u>0000000000000000000000000000000000000</u>		

	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
Engr. ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU3 MAIN CAMPUS (PHASE 2)	SIXTH FLOOR FRAMING PLAN	DATE DRAWN
OIC CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGNI CHECKE

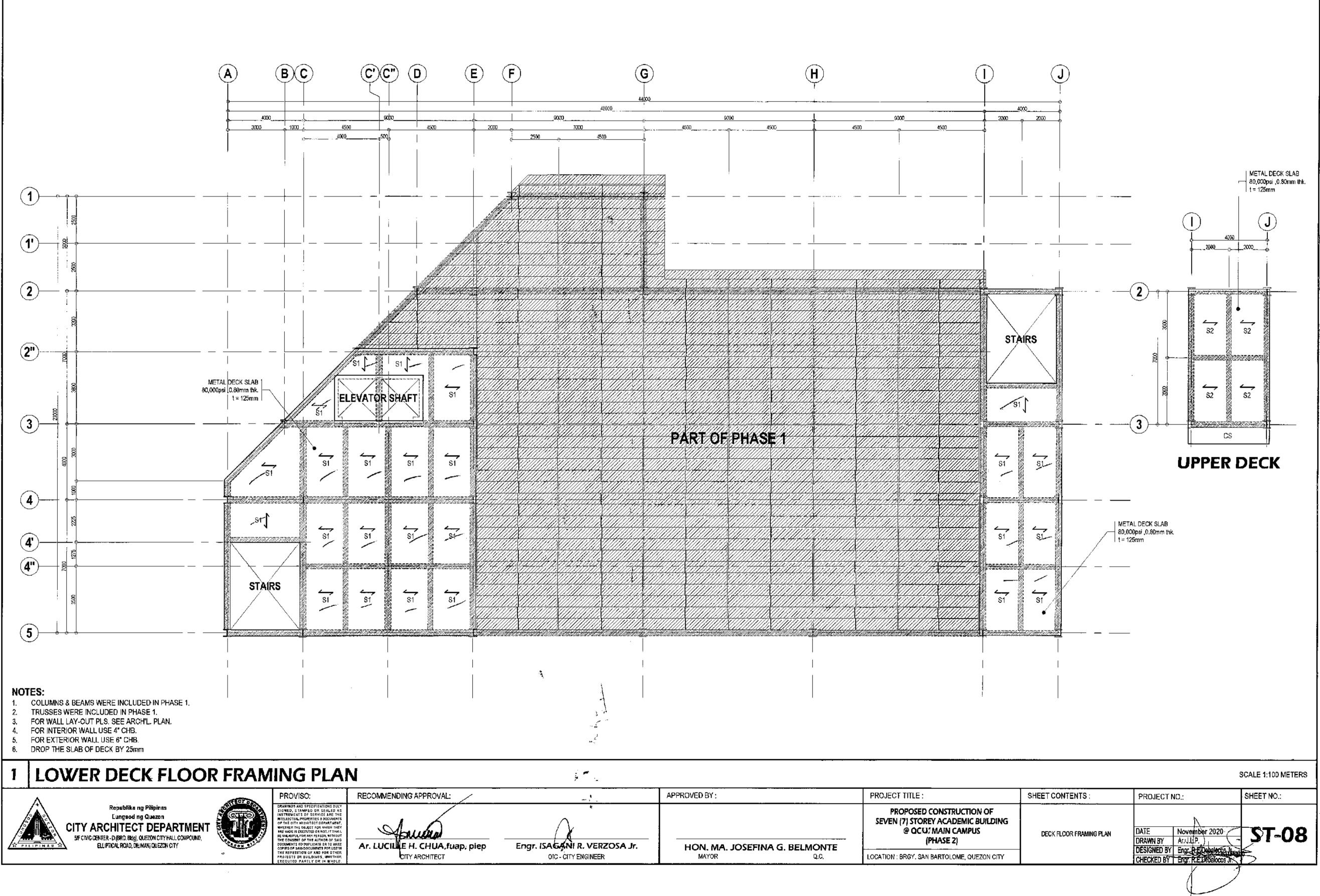
	
<u></u>	
·	
·	
_	
	SCALE 1:100 METERS
JECT NO.:	SHEET NO.:
November 2020	- ST-06
NBY AT, U.L.P. VED BY English Electrological	
ED BY TEngr. R.E.Debalocos Jr	<u></u>
1 /	/



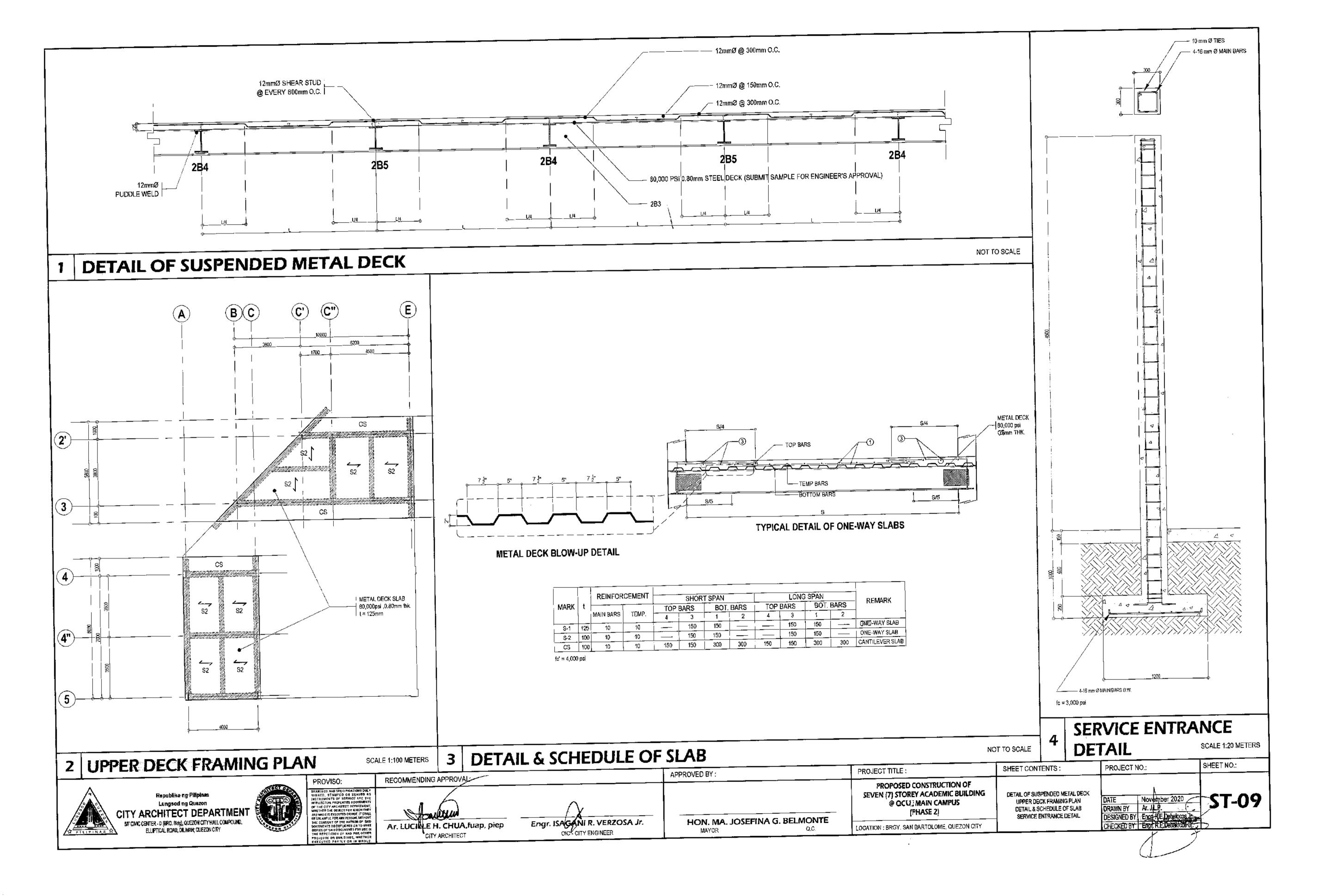
	E) (F		P) F "		3		3) 	(H	ŀ	i)	(J
	2000	2500 , 3500	200 	500 <u>-</u> 500 <u>3500</u>		300	Ϋ́Ε	500	45 45 	90	bo4	5 <u>00</u>	• • • •	
		s1 \		S1							 		 	
1		s1 🕻	7275	S1							80,000 t = 125			
7	S1	S1				∠ S1	2		<u>د ج</u> 51	a / 8		S1	STA	
7	<u>ج</u> 51	sī	S1	S1	S1	S1	S1	S1	 S1	S1	S1	S1	s.	1
7		S1				51	S1	S1	<u></u>	744422222 22422			<u>-</u> S1	51
7	دے S1	S1	<u>ج</u> ے 1	51 81	S1	S1	51	S1			<u>ح</u> ے 51	<u></u> S1		<u>د جو</u>
→ 2000 2000 2000 2000 2000 2000 2000 200	S1		51 51	S1	51	51 S1	51	S1	S1	5 1	S1	S1	S1	S1
									<u> </u>					

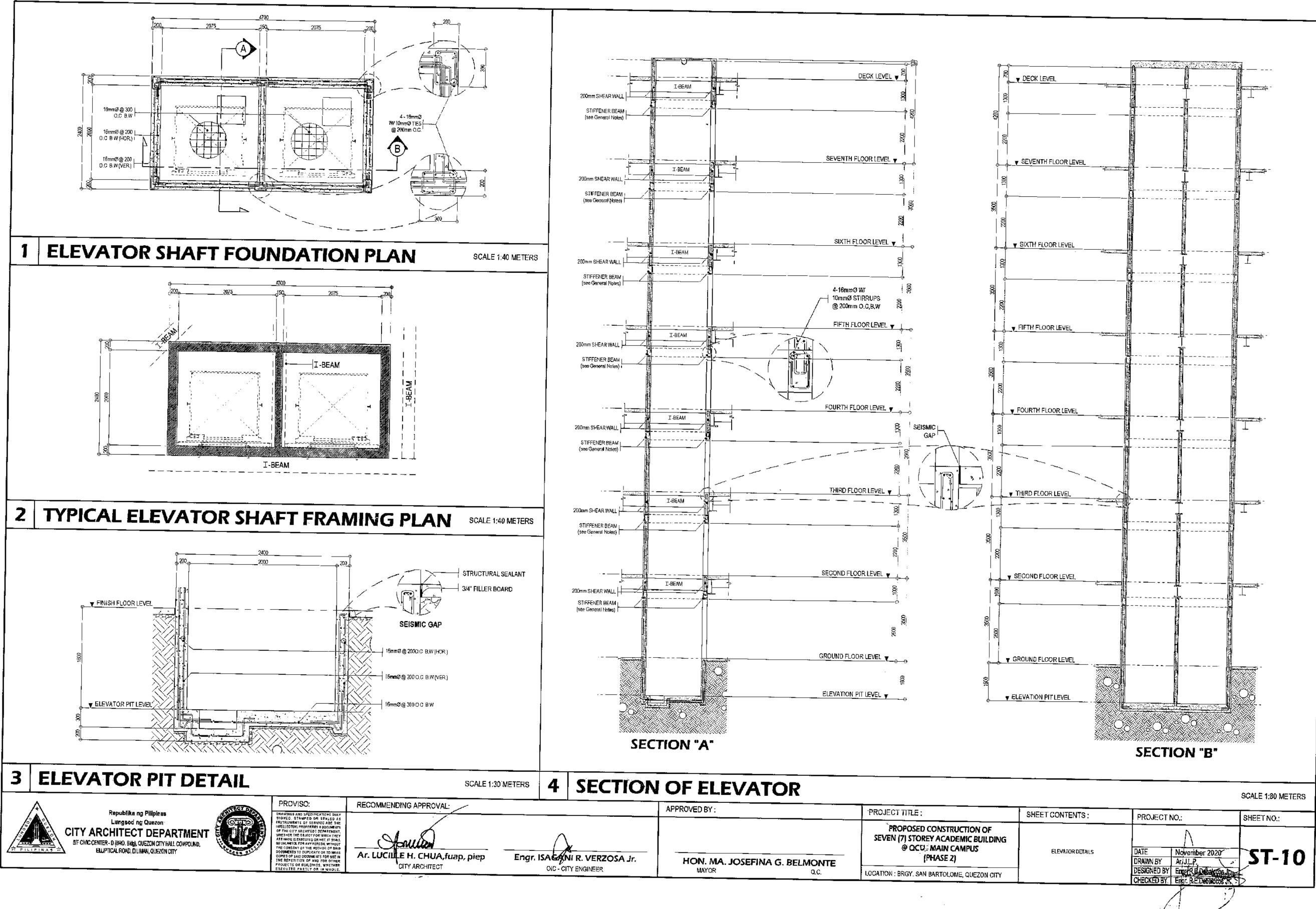
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU: MAIN CAMPUS (PHASE 2)	SEVENTH FLOOR FRAMING PLAN	DATE
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGN

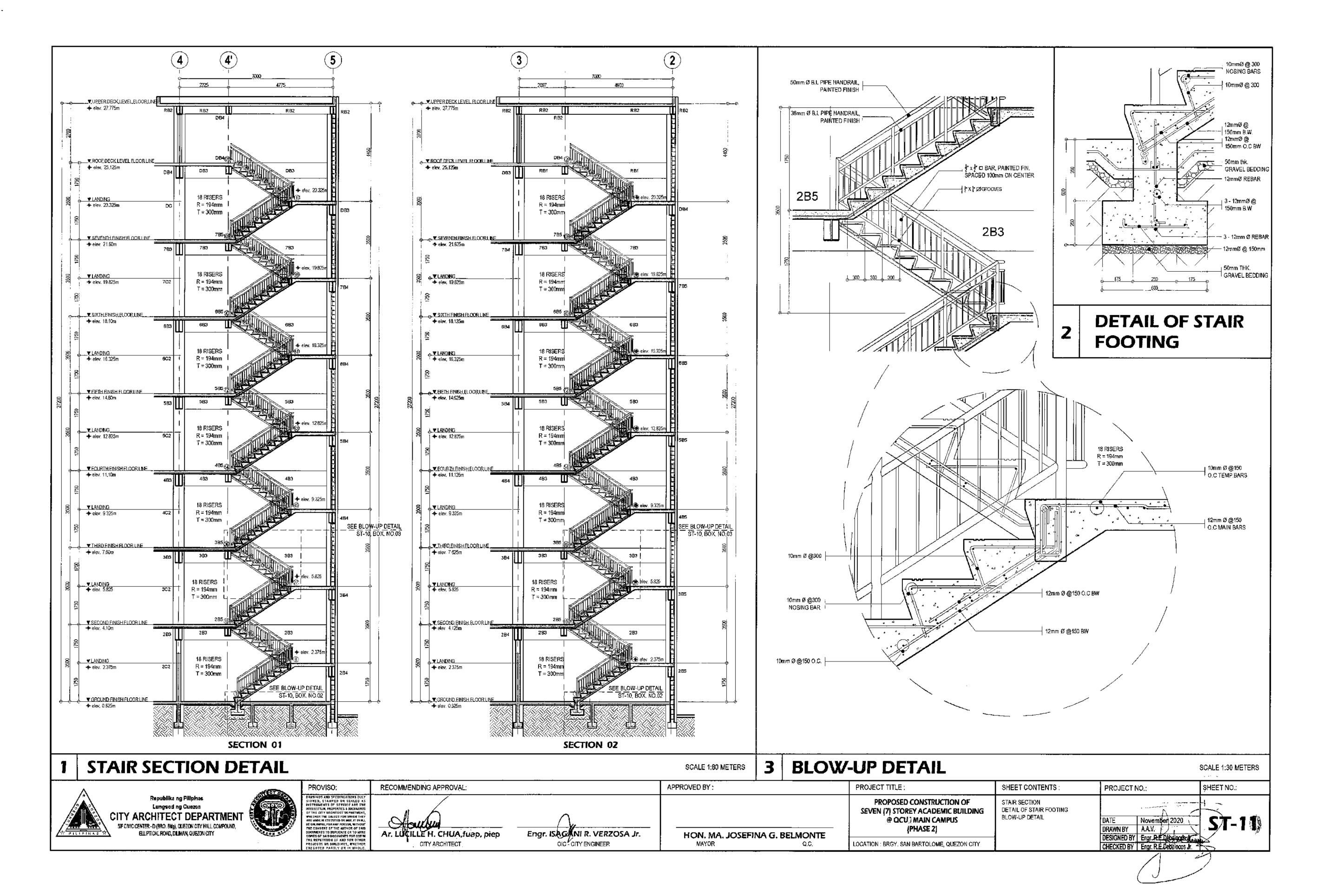
J	
- 	
1	
	SCALE 1:100 METERS
OJECT NO.:	SHEET NO.;
November 2020 AN BY Ar.J.L.P. GNED BY Edgr. R.E. Debalocos A CKED BY Engr. R.E. Debalocos A	ST-07

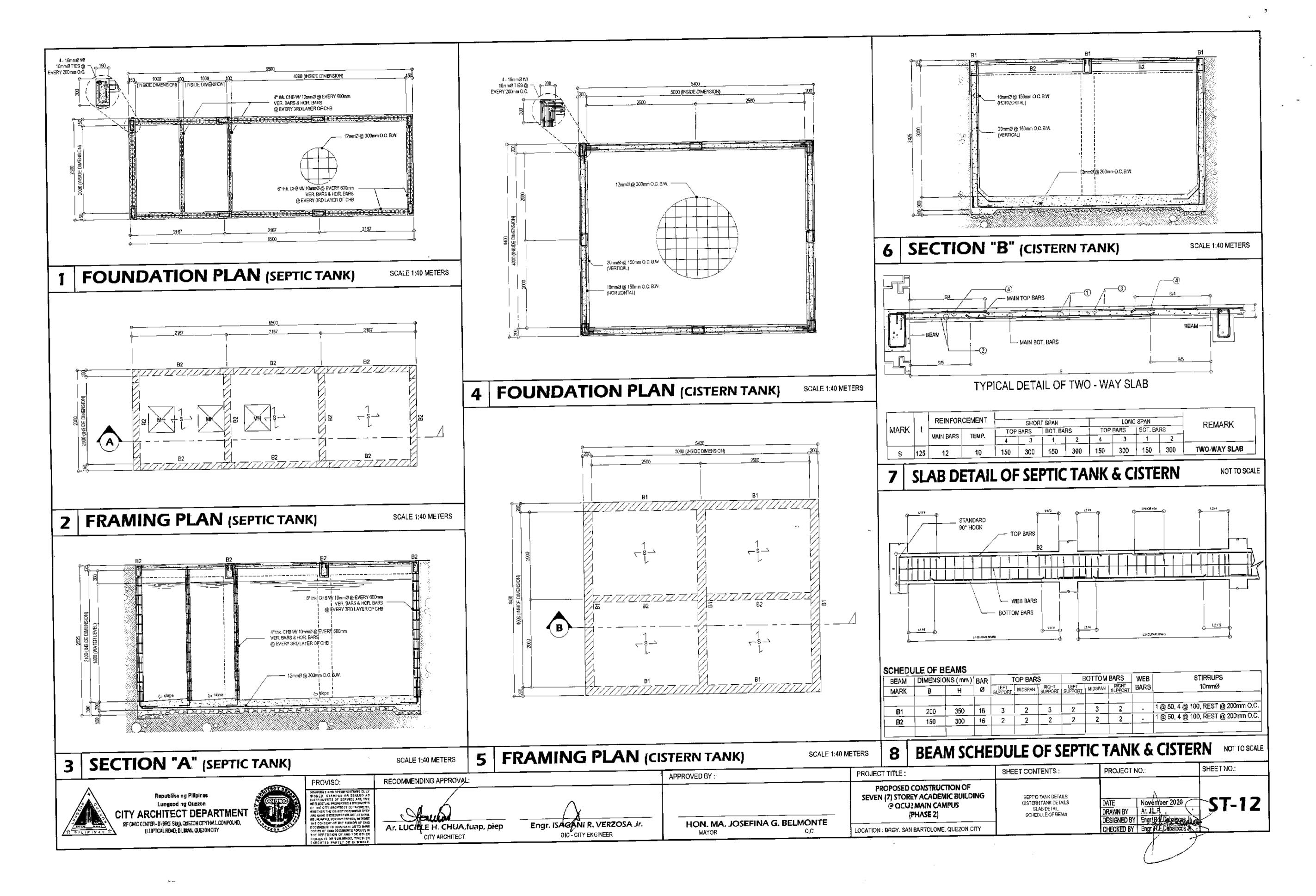


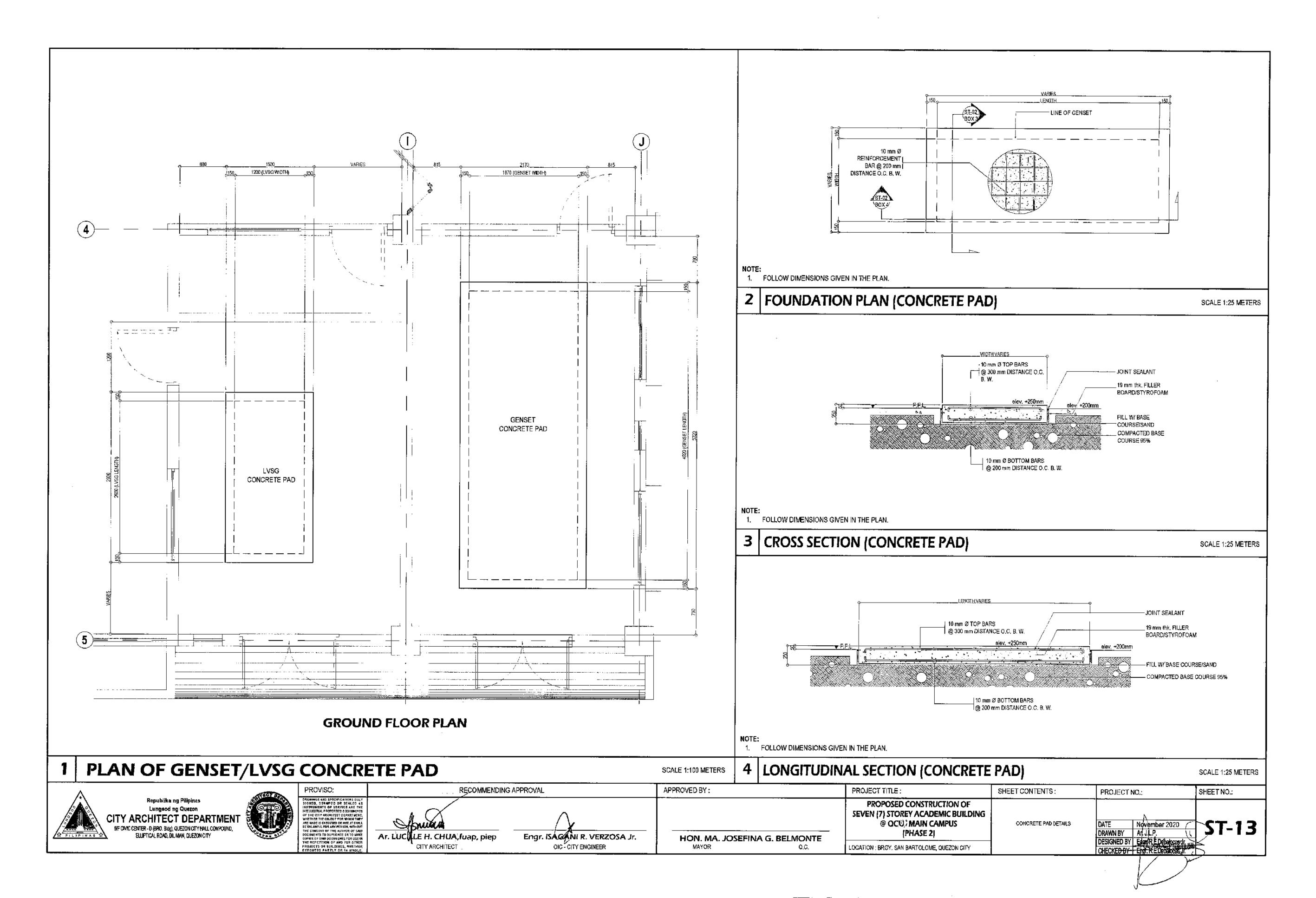
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
AGANI R. VERZOSA Jr.	HON, MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU! MAIN CAMPUS (PHASE 2)	DECK FLOOR FRAMING PLAN	DATE DRAWN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		DESIGN CHECK











1.	ALL ELECTRICAL INSTALLATION WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH	9.	ALL CIRCUIT BREAKERS SHALL BE BOLT-ON
••	THESE PLANS AND SPECIFICATIONS, THE APPLICABLE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE RULES AND REGULATIONS OF THE		PANELBOARDS SHALL BE GALVANIZED SHE BE SIEMENS BRAND OR APPROVED EQUIVA
	LOCAL ENFORCING AUTHORITY, AND THE REQUIREMENTS OF THE LOCAL POWER AND	10.	ANY DISCRIPANCY IN LOCATION AND RATIN
	TELEPHONE COMPANIES. THE ELECTRICAL WORKS SHALL BE UNDER THE IMMEDIATE	10.	VERIFIED WITH THE OWNER OR ANY OF HIS
	SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER.	11.	ALL MATERIALS TO BE USED AND THE EQUI
2.	THE ELECTRIC SERVICE ENTRANCE VOLTAGE SHALL BE 3-PHASE, 4 WIRES, 220VOLTS, 60Hz.	c).	AND MUST BE OF THE APPROVED TYPE FO SUBMIT SAMPLES FOR ARCHITECT APPROV
3.	THE ELECTRICAL WIRING INSTALLATION SHALL BE DONE IN INTERMIDIATE METAL CONDUIT (IM ELECTRICAL METALIC TUBING (EMT), FLEXIBLE CONDUIT SHALL BE USED WHERE REQUIRED.	- " 12.	FOR EACH SPARE BRANCH CIRCUIT IN PAN
	MINIMUM SIZE FOR ALL CONDUIT SHALL BE 15mm NOMINAL INSIDE DIAMETER ELECTRICAL	, <u></u>	CONDULT TERMINATED TO 100mm OCTAGE
	TRADE SIZE, WHERE PVC CONDUITS IS TO BE USED, IT SHALL BE SCHEDULE 40.		SHALL BE 150 X 150 X 100.
4.	ALL WIRES SHALL BE COPPER. TYPE 'THW', 'THHN' OR 'THWN' SHALL BE USED. THE MINIMUM SIZE OF WIRE FOR POWER AND LIGHTING SHALL BE 3.5mm².	13.	PROVIDE PULL WIRES IN ALL SPARE DUCT
	THE CONTRACTOR SHALL VERIFY AND ORIENT THE ACTUAL LOCATION OF SERVICE SUPPLY	14.	FEEDER AND BRANCH CIRCUIT CONDUCTO TAGGED TO INDICATE CLEARLY THE ELECT
5.	THE CONTRACTOR SHALL VERIFY AND ORIENT THE ACTUAL LOOATION OF OLIVING OUT OF THE POWER SUPPLY.		AND PANEL DESIGNATION.
6.	ALL PIPE SLEEVES SHALL BE PROVIDED WITH PROPER SUPPORT OR ANCHORAGE NECESSARY	, 15.	FOR EXACT LOCATION AND RATINGS OF MI
	FOR PERMANENT CONNECTION WITH CONCRETE WALLING OR BEAM.	16.	SUBMIT TEST RESULTS / REPORT.
7.	ALL EQUIPMENTS, SWITCHES, PANEL BOARDS, LIGHTING FIXTURES AND ALL NON-CURRENT CARRYING METAL PARTS SHALL BE PROPERLY GROUNDED	17.	PROVIDE SLEEVE PIPES FOR STRUCTURAL
	IN ACCORDANCE WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE.		
8.	ALL 20- AMPERE CIRCUIT HOMERUNS TO PANELBOARDS MORE THAN 30 METERS IN LENGTH		
••	SHALL BE 5.5mm ² UNLESS OTHERWISE SPECIFIED.		
		· · · · · · · · · · · · · · · · · · ·	
1	GENERAL NOTES		
		Ф	- DUPLEX CONVENIENCE OUTLE
	LIGHTING AND POWER PANEL		
		۲	SPECIAL PURPOSE OUTLET/AC
	 SWITCH LOCATION 	i,	SINGLE CONVENIENCE OUTLET
1	S - SINGLE POLE SWITCH	EL	(SHADE INDICATES EXIT DIREC
1	S2,Sab - TWO-GANG SWITCH(2 SINGLE IN 1 SWITCH PLATE)	$\Phi_{\mu\nu}$	- SPECIAL PURPOSED OUTLET W
ļ		H HD	
	S3,Sabc - THREE-GANG SWITCH(3 SINGLE IN 1 SWITCH PLATE)		- RISER UP / RISER DOWN
	S3W - THREE WAY SWITCH	_	- JUNCTION BOX
		Φ	-
	2S3W - 2-GANG THREE-WAY SWITCH		 POWER CIRCUIT RUN
	Ss - SELECTOR SWITCH		 LIGHTING CIRCUIT RUN
		PPA -	- CIRCUIT HOMERUN TO PANELE
	1 x 36W FLOURESCENT FIXTURE, DUST PROOF	\bigcirc	- ECB (ENCLOSED CIRCUIT BRE/
	TROFFER TYPE FIXTURE (1200mm x 300mm)		3 x 16 CHANNEL HD DIGITAL VI
	SINGLE CONVENIENCE OUTLET W/	 	IN LOW PROFILE LOCK BOX
	T x EMERGENCY LIGHT, TWIN HEAD		- PAGING/PUBLIC ADDRESS EQ
	- CEILING MOUNTED EXHAUST FAN		- FIRE ALARM CONTROL PANEL
		FA	
	🖌 - CEILING FAN	r	- PARKING MANAGEMENT PANE
		LP	
2	LEGENDS & SYMBOLS		
	PROVISO:		RECOMMENDING APPROVAL
	Republike na Plipings	1 A 5	
1	Lungsocting Quezon	THE ENTS ENT.	X r
	CITY ARCHITECT DEPARTMENT SF CMC CENTER -D (BRO, Bug), CLEZON CITY HALL COMPOUND,		THICKIN EDGE ISA
<u> </u>	ELLIPTICAL ROAD, DILIMAN, QUEZON CITY		LE H. CHUA, <i>turap</i> , plep Engr. ISA
	PROJECTS OR BUILDINGS, WHET EXECUTED PARTLY OR IN UNC	HER 🗸 🗸	

-

T-ON TYPE WITH INTERRUPTING CAPACITY AS INDICATED IN THE PLANS IS SHEET POWDER COATED GAUGE 16 MINIMUM. ALL CIRCUIT BREAKER SHALL NUVALENT. RATINGS OF EQUIPMENT AND APPARATUS SHALL BE POF HIS REPRESENTATIVES AND CHANGES SHALL BE MADE ACCORDINGLY. EQUIPMENT TO BE INSTALLED SHALL BE BRAND NEW & FOR THE PARTICULAR LOCATION AND PURPOSE INTENDED. PROVAL. IN PANEL BOARD, PROVIDE ONE 20mm DIAMETER EMPTY TAGONAL BOX ABOVE CEILING. MINIMUM SIZE OF PULLBOX PUCT AND EMPTY CONDUITS. DICTORS IN CABLE TRAYS SHALL BE GROUPED, BONDED AND ELECTRICAL CHARACTERISTICS, SUCH AS CIRCUIT NUMBER OF MECANICAL EQUIPMENTS, REFER TO MECHANICAL DRAWINGS.

NOT TO SCALE

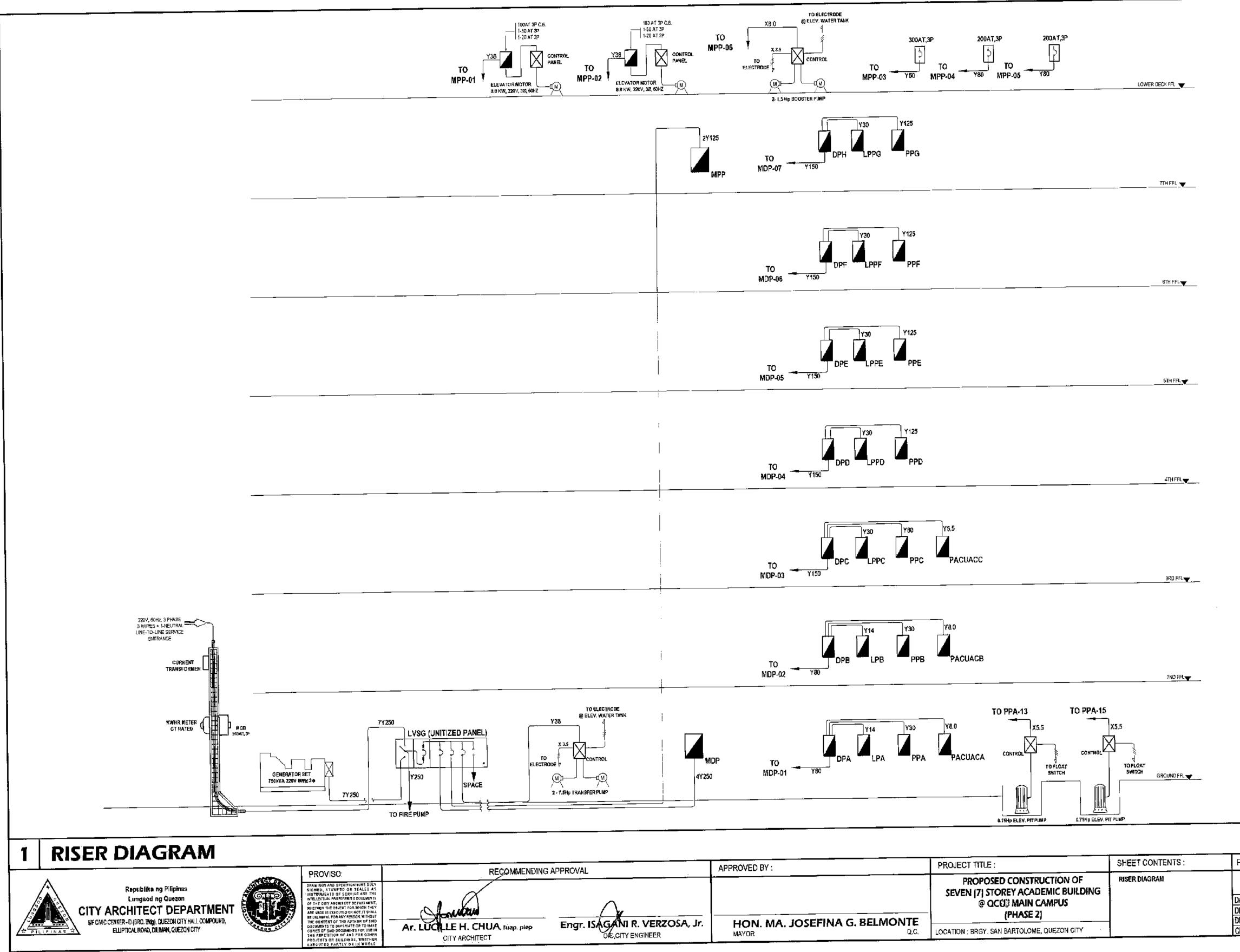


						VOLUN
TLET W/ GROUND (UNIVERSAL TYPE)	ТТС	c -	TELEPHONE TERMINAL CABINET	vc	-	(WALL
ACU OUTLET	lups	-	UNINTERUPTABLE POWER SUPPLY	T	-	SIMPL
LET W/ 1 x EXIT LIGHT SLIM TYPE RECTION)		-	PULL BOX	(R/Ĝ)	-	LAMP (RED =
T W/ HAND DRYER	SD	-	SMOKE DETECTOR	\odot	-	OCCU
	⊕	-	HEAT DETECTOR	h	_	
	SP)	-	CEILING MOUNTED SPEAKER, 8 WATTS	LCD		HOUS
	B	-	FIRE ALARM MANUAL PULL STATION & ELECTRONIC SIREN W/ STROBE LIGHT		-	3 x 32'
ELBOARD	4		HORN SPEAKER, 30 WATTS (WALL/COLUMN MOUNTED)			
REAKER)	\bowtie	-	HORN SPEAKER, SUMATIO (WILL OULD WITH DE THE ET			
VIDEO RECORDER (DVR)	0-⊷<	-	HORN SPEAKER, 30 WATTS (POST MOUNTED)			
EQQUIPMENT			HD BULLET CCTV CAMERA (OUTDOOR WALL MOUNTED)			
NEL	0-=		- HD BULLET CCTV CAMERA (OUTDOOR POST MOUNTED)			
ANEL	()•		- HD DOME CCTV CAMERA	_		

3 VICINITY MAP

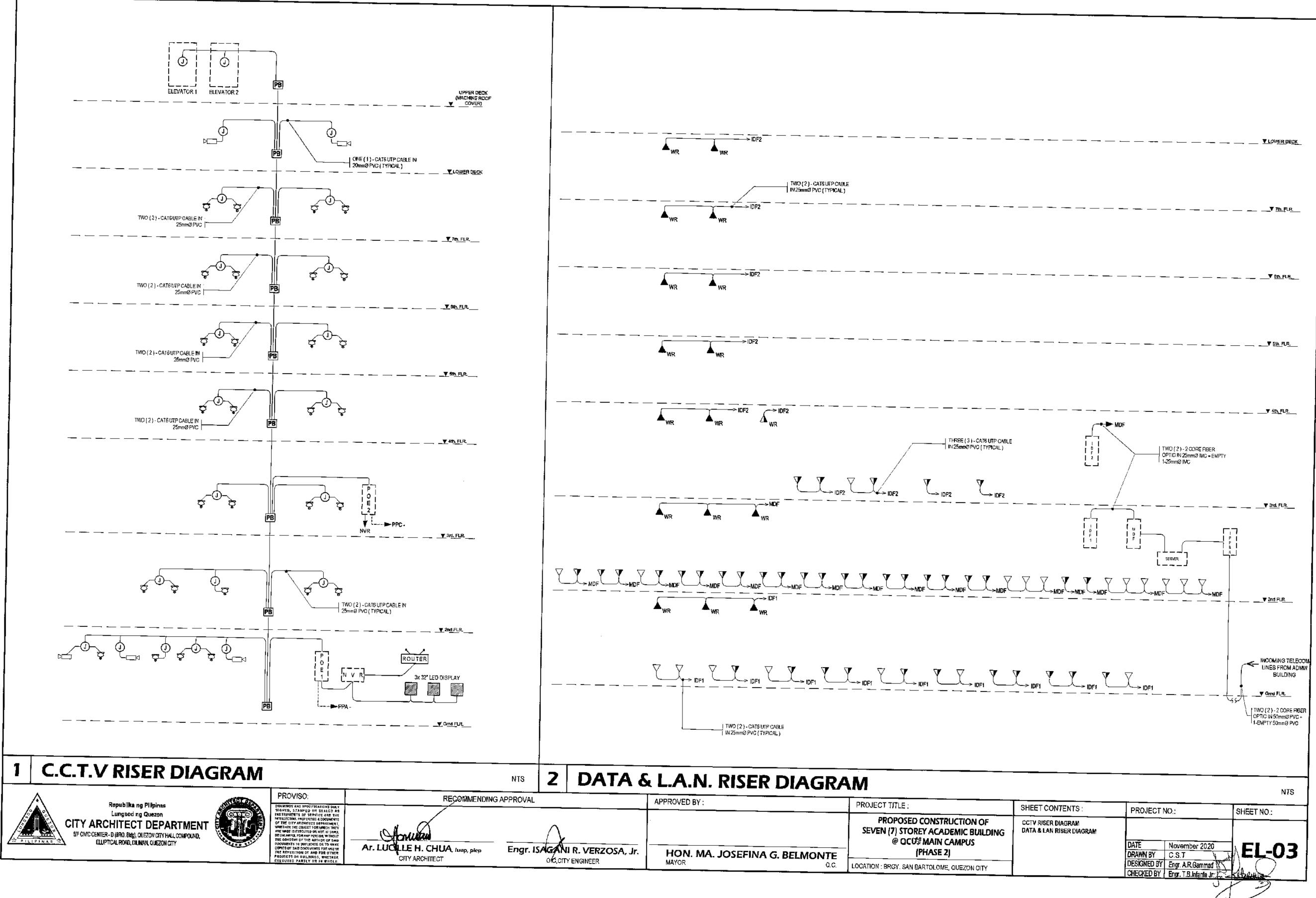
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
ISACANI R. VERZOSA, Jr. DIC,CITY ENGINEER	HON MA JOSEEINA G BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU: MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	GENERAL-NOTES LEGENDS AND SYMBOLS VICINITY MAP	DATE DRAV DESK CHEC

UME CONTROL, 16 WATTS
LL MPUNTED)
PLEX TELEPHONE OUTLET, 1-DEVICE
IP INDICATOR (LED) D = VACANT; GREEN = OCCUPIED)
CUPANCY SENSOR/DETECTOR
UID CRYSTAL DISPLAY WITH OUTDOOR JSING, WALL/COLUMN MOUNTED
32" LED DISPLAY/MONITOR
NOT TO SCALE
ROJECT NO .: SHEET NO .:
TE November 2020 RAWN BY C.S.T SIGNED BY Engr. A.R.Gammad Marked HECKED BY Engr. T.B.Infante Jr.
(

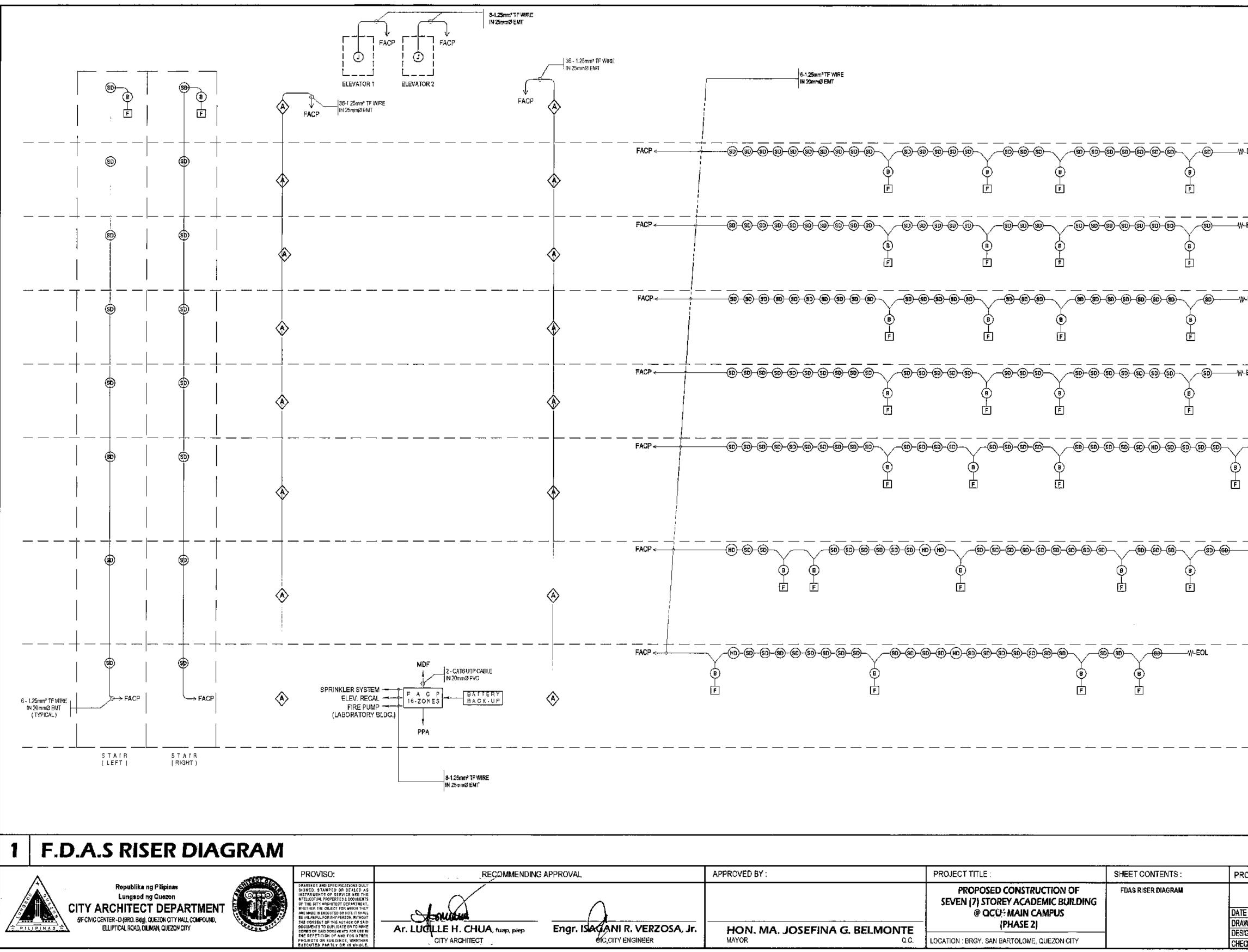


	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PR(
ISAGANI R. VERZOSA, Jr. OFC, CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	RISER DIAGRAM	DATE DRAN DESI CHEC

SCA	LE 1:100 METERSSTS
ROJECT NO :	SHEET NO .:
TE November 2020 AWN BY C.S.T SIGNED BY Engr. A.R.Gammad W	EL-02



·							
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE			
GANI R. VERZOSA, Jr. OK, CITY ENGINEER	MAYOR	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU' MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	CCTV RISER DIAGRAM DATA & LAN RISER DIAGRAM	DATE DRAWN B DESIGNEE			
				CHECKED			



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
AGANI R. VERZOSA, Jr.	HON, MA, JOSEFINA G, BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU: MAIN CAMPUS (PHASE 2)	FDAS RISER DIAGRAM	DATE DRAWN
CIC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		design Checki

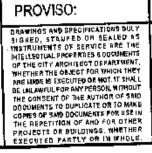
 EOL				v	LQWERDE(<u>x</u> _
EOL	<u> </u>				_▼ 7 <u>th. F</u> LR	<u>. </u>
 EOL					▼ 6 <u>th. F</u> LR	<u>. </u>
					▼ 5 <u>th. F</u> LR	
 ®	 ₩-E0[₩ 4 <u>th. F</u> LR	<u></u>
 \-E0	 L				¥ 3 <u>rd. F</u> LR	
					¥ 2 <u>nd F</u> LR	<u> </u>
					Y O <u>md F</u> LR	<u>. </u>
						NTS
DJECTN	10.:			SHEET	NO.:	
YN BY Sned by Ked by	Novemb C.S.T Engr. A.R. Engr. T.B.	Gammad		E	L-0	94
		~	L		/	



Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO, Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

Republika ng Pilipinas





Hour Ar. LUCILLE H. CHUA, fuap, picp Engr. IS CITY ARCHITECT

SCHEDULE OF LOADS

Feeder Line: Use: 3 - 14mm² THHN + 1 - 5.5mm² TW (G) in 25mmØ IMC / Y14

l, = 31,82 * √3 = 55,11 Amperes

PANEL:	LPA (GRO	OUND FL	DOR)								
MAIN:	70AT, 100	AF, 3P									
	18KAIC, 2				AME	ERE LOA			VOLT	CIRCUIT BREAKER	SIZE OF WRE
CKT	VOLTS	ουτ	LET	OTHER LOAD SERVICE		BC	CA	3Ø	AMPERE	CIRCUIT DREAKEN	
NO.	VULIA	LO	ÇO		AB		<u> </u>		2,000	20AT, 2P, Bolt-On	2-3.5mm ² THHN + 1-2.0mm ² TW in 20mm@ PVC
	220	20			9.09				1,750	20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20mm@ PVC
2	220	15		5 - Exhaust Fan	7.95	ŀ			2,300	20AT, 2P, Bolt-On	2 - 3.5mm ² T HHN + 1 - 2.0mm ² T W in 20mm@ PVC
3	220			6 - Exhaust Fan			10.45		1,500	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mmØ PVC
	220	15					6.82		1	20AT, 2P, Bolt-On	2-3.5mm* THHN + 1-2.0mm* TW in 20mm@ PVC
5	220	15				6.82			1,500	20AT, 2P, Boil-On	2-3.5mm= THHN + 1-2.0mm= TW in 20mm@ PVC
	220	15				6.82			1,500		2 - 3.5mm ² T HHN + 1 - 2.0mm ² T W in 20mm Ø PVC
6		10	· _ · ·	· · · · · · · · · · · · · · · · · · ·	4.55				1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mm@ PVC
	220			_	4.55				1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TWin 20mmØ PVC
8	220	10	┝───	+	- - _¦		4.55		1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mmØ PVC
9	220	10	 	· 			9.09		2,000	20AT, 2P, Bolt-On	2-3.5mm² (HHN + 1 - 2.5mm² (Win 20mm2) EV(2
10	220	20	-			11,36			2,500	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TWIn 20mmØ PVC
11	220	25				6.82		- -	1,500	30AT, 2P, Bolt-On	
12	220			Spare		0.02	├ ─ ───	<u> </u>			
						24.62	30,91	<u> </u>	19,550		
			TOT	AL	26,14	31.82					

Use: 3 - 80mm* THHN + 1 - 22mm* TW (G) in 50mmØ IMC / Y80

Feeder Line:

l_t = 96.35 * √3 + (6.90 x 0.25) = 168.61 Amperes

	35KAIC,	40V, MC			AM	PERELOA		3Ø	VOLT	CIRCUIT BREAKER	SIZE OF WIRE
CKT	VOLTS	10		OTHER LOAD SERVICE	AB	BC	CA		AMPERE		3 - 14mm ² THHN + 1 - 5.5mm ² TW (G) in 25mmØ IMC / Y14
NO.	220		_ ~~		26,14	31.82	30,91		19,550	70AT, 3P, BULT-ON	3 - 30mm* THHN + 1 - 8.0mm* TW (G) in 32mmØ IMC / Y30
	220			PPA	50.54	43.64	47.26		31,254	TOUAL, SP, NICCH	3 - 8.0mm² THHN + 1 - 3.5mm² TW (G) in 25mmØ IMC / Y8.0
3	220			LPPACA (MSFCU GF)	18.18	18.18	18.18	<u>-</u>	12,000	JOURT, 3F, BOET CON	
4	220			SPACE			Ļ		·		
				······································		93.64	96,35	<u> </u>	62,804		
	<u> </u>		TOTA	λL	94.85		30,00				

MAIN: 200AT, 200AF, 3P

PANEL: DPA (GROUND FLOOR)

Main Feeder Line:

 $l_t = 883.26 * \sqrt{3} + (17.00 * 0.25) = 1,534.10$ Amperes

		OUTLET			AN	PERELOA	,D	3Ø	VOLT	CIRCUIT BREAKER	SIZE OF WIKE		
CKT	VOLTS	LO		OTHER LOAD SERVICE	AB	BC	CA		AMPERE		3-80mm ² THHN +1-22mm ² TW (G) in 50mmØ IMC / Y80		
NO.				DPA	94.85	93.64	96.35	-	62,804	400AT, 3P, MCCB	3 - 80mm ^a T HHN + 1 - 22mm ^a TW (G) in 50mmø 1MC / Y80		
1	220	⊢	 	DPB	101.27	76.95	95.00	-	60,110	300AT, 3P, MCCB			
2	220		-	DPC	125.86	111.55	119.32		80,520	300AT, 3P, MCCB	3 - 150mm* THHN + 1 - 38mm* TW (G) in 80mmØ IMC / Y150		
3	220				136.91	105.18	106.05	•	78,970	300AT, 3P, MCCB	\sim		
4	220	L	<u> </u>	DPE	136.91	105.18	106.05		78,970	300AT, 3P, MCCB	$\sim \sim $		
5	220		<u> </u>	DPE	136.91	105.18	106,05		78,970	300AT, 3P, MCCB			
6	220				150.55		104.05		81,470	300AT, 3P, MCCB	3 - 150mm ² THHN + 1 - 38mm ² TW (G) in 80mmØ IMC / Y150		
7	220		<u> </u>	DPG				 					
8	220			SPACE				·					
			i		883.26	702.59	732.85	<u>}-</u>	521,814				
	TOTAL			<u>AL</u>	000.20	792.00		<u> </u>					
 													

ANPERE LOAD

MAIN: 1600AT, 2000AF, 3P

PANEL: MDP (GROUND FLOOR)

PANEL: LVSG (UNITIZED PANEL)

100KAIC, 600V, MCCB

GENERATOR SET Use: 1 – 750kVA, 3P, 220V, 60Hz, 1800 rpm with 0.8 pf, Diesel Engine Driven Stand-By Generator Set

ATS: 2500AT, 2500AF, 3P, 220V, 60 Hz

Feeder Line: Use: 7 Sets 3 - 250mm² THHN + 1 - 60mm² THW (G) in 90mmØ IMC / 7Y250

MAIN: 2500AT, 2500AF, 3P 100KAIC, 600V, MCCB VOLT CIRCUIT BREAKER SIZE OF WIRE AMPERE LOAD CKT VOLTS OUTLET _____ 3Ø OTHER LOAD SERVICE - 521,814 1500AT, 3P, MCCB 4 Sets of 3 - 250mm* THHN + 1 - 60mm* THW (G) in 90mmØ IMC / 4Y250 AB BC CA NO. 883.26 702.59 732.85 348.00 143.069 500AT , 3P, MCCB 2 Sets of 3 - 125mm² T HHN + 1 - 30mm² T W (G) in 65mmØ IMC / 2Y125 MDP 220 44.06 17,508 125AT, 3P, MCCB 3 - 38mm² THHN +1 - 8.0mm² TW (G) in 32mmØ IMC / Y38 20.00 -MPP 2 220 2 - 7.5Hp TRANSFER PUMP 3 220 SPACE 4 220 883.26 722.59 732.85 392.00 682,391 TOTAL l₁ = 883.26 * √3 + 392.00 + (104.00 * 0.25) = 1,947.85 Amperes

VOLT

CIRCUIT BREAKER

			PROJECT TITLE :	SHEET CONTENTS :	<u>ا</u>
RECOMMENDING AF		APPROVED BY :	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCUT MAIN CAMPUS IPHASE 2)	SCHEDULE OF LOADS	واوا
IUA, fuap, picp	Engr. ISAGANI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		ļ

 098. U	- 0011111		 <u> </u>	<u> </u>		

Feeder Line: Use: 3 - 90mm² T HHN + 1 - 22mm² TW (G) in 50mmØ IMC / Y80

l_t= 101.27 *√ 3 = 175.40 Amperes

	35KAIC,2	OUT			AMPERE LOAD			3Ø	VOLT	CIRCUIT	SIZEO
CKT	VOLTS			OTHER LOAD SERVICE	AB	BC	CA		AMPERE	BREAKER	
NO.		_L0_	co		30.91	18.41	34.09	-	18,350		3 - 14mm² THHN + 1 - 5.5mm
1	220				43.09	40.36	38,18		26,760		3 - 30mm² THHN + 1 - 8.0mm
2	220		·	PPB LPPACB (MSFCU 2F)	27,27	18.18	22.73	-	15,000	50AT, 3P, BOLT-ON	3 - B.0mm ² THHN + 1 - 3.5m
3	220		┟╾──╄	SPACE							
- 	220		╎┈╸╉						60,110	· · · · · · · · · · · · · · · · · · ·	
			TOTA		101.27	76.95	95.00		60,110		

AAIN 200AT. 200AF. 3P

PANEL: DPB (SECOND FLOOR)

Use: 3 - 8.0mm² T HHN + 1 - 3.5mm² T W (G) in 25mmØ IMC / Y8.0

Feeder Line:

]_t= 18.18 * √3 = 31.49 Amperes

	18KAIC, 2	OUT			AMP	ERELOA	D	3Ø	VOLT	CIRCUIT BREAKER	SIZE OF WRE
KT	VOLTS		co	OTHER LOAD SERVICE	AB	BC	CA		AMPERE		2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mmØ F
).		10		MSFCU 02	4,55				1,000	20AT, 2P, Bolt-On	2-3.5mm*THEN + 1-2.0mm TV in 20mm/
	220		<u> </u>		4.55				1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mm@
2	220			MSFCU 02	4,00	·	4,55		1,000	20AT, 2P, Bolt-On	2 - 3.5mm ² T HHN + 1 - 2.0mm ² T W in 20mmØ
3	220			MSFCU 02	┥──┤-		4.55		1,000	20AT, 2P, Bolt-On	2 - 3.5mm ² T HHN + 1 - 2.0mm ² TW in 20mmØ
1	220			MSFCU 02			4.00		1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TWin 20mm2
5	220	·	├── Ì	MSFCU 03		4.55				20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mm2
5	220		-	MSFCU 04		4,55			1,000		2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mm2
		_	-	MSFCU 04	4.55		_		1,000	20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ³ TW in 20mm ⁶
í	220			MSFCU 06	4,55				1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mm0
8	220		<u> </u>	MSFCU 06			4,55		1,000	20AT, 2P, Bolt-On	2-3.5mm² (HHN + 1-2.0mm² (Win 20mm²
9	220	L	·		╺┼───┤	; <u></u>	4.55		1,000	20AT; 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20mm ²
10	220			MSFCU 06	_ {}	4,55			1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mm
11	220			MSFCU 07					1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mm
12	220			MSFCU 07		4.55	<u>├</u>				
_		· · · · ·			18.18	18,18	18.18		12,000		

PANEL: LPPACA (MSFCU GF)

SIZE OF WIRE

Feedar Line: Use: 3 - 30mm² T HHN + 1 - 8.0mm² TW (G) in 32mmØ IMC / Y30

l_t = 50.54 * √3 + (6.90 x 0.25) = 89.26 Amperes

L	PPA (GRO	UND FL	DOR)								
N:	100AT, 10	DAF, 3P									·····
	25KAIC, 2			······································	AMP		0		VOLT	CIRCUIT BREAKER	SIZE OF WIRE
KT	VOLTS	OUT		OTHER LOAD SERVICE	AB	BC	CA	3Ø	AMPERE	GIRCOTI DICENSE	
NO.		10	CO		8,18				1,800	20AT, 2P, Bolt-On	2 - 3.5mm ² T HHN + 1 - 2.0mm ² T W in 20mmØ PVC
1	220		10		8,18	<u>+</u>	h		1,600	20AT, 2P, Bolt-On	2 - 3.5mm ² T HHN + 1 - 2.0mm ² T W in 20mmØ PVC
2	220		10		0,10		6,55		1,440	20AT, 2P, Bolt-On	2 - 3.5mm 2 THHN + 1 - 2.0mm2 TW in 20mm @ PVC
3	220		8			<u></u>	6,55		1,440	20AT, 2P, Bolt-On	2-3.5mm ² THHN +1-2.0mm ² TW in 20mmØ PVC
4	220		8			8.18			1,800	20AT, 2P, Bolt-On	2 - 3.5mm2 THHN + 1 - 2.0mm2 TW in 20mm@ PVC
5	220			5 - Emergency Light / 2 - Exit Light	+	B.18			1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20mmØ PVC
6	220			6 - Emergency Light					3,000	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² TW in 20mm@ PVC
7	220			FACP Power Provision	13.64				3,000	30AT, 2P, Bolt-On	2 - 5.5mm* THHN + 1 - 3.5mm* TW in 20mm@ PVC
β	2 20			CCTVPower Provision	13,64		13.64		3,000	30AT 2P Bolt-On	2 - 5.5mm ² THHN + 1 - 3.5mm ² TW in 20mmØ PVC
 9	220			Audio Visual Power Provision					3,000	30AT, 2P, Bolt-On	2 - 5.5mm ² T HHN +1 - 3.5mm ² T W in 20mmØ PVC
10	220		•••••	Audio Visual Power Provision			13.64		3,000	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² TW in 20mmØ PVC
11	220		┼━──━	Exhaust Power Provision		13.64			3,000	30AT, 2P, Bolt-On	2 - 5.5mm 2 THHN + 1 - 3.5mm2 TW in 20mm@ PVC
12	220			Exhaust Power Provision		13.64				30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² TW in 20mmØ PVC
13	220		┼──	0.75Hp Elevator Pit Pump	6.90			<u> </u>	<u>1,587</u>		
14	220	l		Space	-				4 507	30AT, 2P, Bolt-On	2 - 5.5mm² T HHN + 1 - 3.5mm² T W in 20mmØ PVC
15	220			0.75Hp Elevator Pit Pump			6.90		1,587	JUAT, ZE, BOILOIT	
16	- 220		┪	Space							
	-			TAL	50.54	43.64	47.26	<u> </u>	31,254		

m² TW in 20mm Ø PVC	l
m² TW in 20mmØ PVC	
m ^a TW in 20mmØ PVC	
m² TW in 20mm@ PVC	
m ² TWin 20mmØ PVC	
m² TW in 20mmØ PVC	
m ^a TWin 20mmØ PVC	
OFWIRE	
CONTRACTOR OF THE CALL	
nm ^a TW(G) in 25mmØ IMC / Y14	
mm² TW (G) in 32mmØ IMC / Y30	
mm² TW (G) in 25mmØ MIC / Y8.0	
	l
	1
l l	
	1
	NTS
PROJECT NO.:	SHEET NO .:
Alexandres 2020	
ATE November 2020	AEL-05
DRAWN BY C.S.T	 .(× ∕ −
CHECKED BY Engr. T.B.Infante-Jr.+2-	
(

CKT	VOLTS	40V, BO		OTHER LOAD SERVICE	AM	PERE LOAI		3Ø	VOLT	CIRCUIT	SIZE OF WIRE
NO.	WULIS -	LÔ	co		AB	BC			AMPERE 1,500	BREAKER 20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20m
1	220	15			6.82 9.09	n			2,000		2 - 3.5mm² T HHN + 1 - 2.0mm² T W in 20mr
2	220	20					11.36		2,500		2 - 3,5mm² THHN + 1 - 2.0mm² TW in 20mi
3	220	25	│				9,09		2,000		2 - 3.5mm² THHN + 1 - 2.0mm* TW in 20mi
4	220	20 				9.09			2,000	20AT, 2P, Bolt-On	2 - 3.5mm2 THHN + 1 - 2.0mm2 TW in 20m
	220 220	20		1 - Exhaust Fan	<u> </u>	9.32		<u> </u>	2,050	20AT, 2P, Bolt-On	2 - 3,5mm² THHN + 1 - 2.0mm² TW in 20mi
6 7	220	15	 	6 - Exhaust Fan	8.18		·		1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20m
	220	14		Spare	6.82				1,500	30AT, 2P, Bolt-On	
9	220		· · · ·	Spare		·	6.82		1,500	30AT, 2P, Bolt-On	
10	220			Spare			6.82		1,500	30AT, 2P, Bolt-On	
_ ~		<u></u>	· ·		_						
Feeder l	ine:		TOTA 5 Amperes + 1 - 5.5mr	n [≠] TW (G) in 25mmØ IMC / Y14	30.91	18,41	34.09		18,350		
PANEL: MAIN:	PPB (SEC 100AT, 1 25KAIC,	00AF, 3F 240V, MG	ссв						VOLT	CIRCUIT	
CKT	VOLTS		TLET	OTHER LOAD SERVICE				3Ø	AMPERE	BREAKER	SIZE OF WIRE
NO.		LO	CO		AB	BC	CA		1,440	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20n
1	220		8	· · · · · · · · · · · · · · · · · · ·	6.55	┟──╌╍─┠			1,440	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20m
2	220		8	+	6.55	 	8.18		1,800		2 - 3.5mm² T HHN + 1 - 2.0mm² T W in 20r
3	220		10	 		╡┈╋	8.18		1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 201
4	220		10		ļ	6.55	0.10		1,440	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm* TW in 201
5	220		8			6,55			1,440	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 201
6	220		<u> </u>		8.18		I		1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 200
7 	220		.	6 - EmergencyLight / 1 - ExitLight		I			1,800	20AT, 2P. Bolt-On	2 - 3.5mm² T HHN + 1 - 2.0mm² T Win 20
9	220			5 - EmergencyLight / 1 - ExitLight	<u> </u>		8.18		1,800	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20
10	220	<u>├</u> ─		IDF Power Provision			13.64		3,000	30AT, 2P, Bolt-On	2 - 5.5mm² THHN + 1 - 3.5mm² TW in 20
11	220	 _	-	MDF Power Provision		13.64			3,000	30AT, 2P, Bolt-On	2 - 5.5mm ² THHN + 1 - 3.5mm ² TW in 20
12	220	<u> </u>		Server Power Provision		13.64			3,000	30AT, 2P, Bolt-On	2 - 5.5mm* THHN + 1 - 3.5mm² TW in 20
				· · · · · · · · · · · · · · · · · · ·		- <u> </u>			1,500	30AT, 2P, Boll-On	
1 13	220			Spare	6.82						· ·
13 14	220			Spare Spare	6.82			-	1,500	30AT, 2P, Bolt-On	
14	220 = 43.09 * Line:		TOT	Spare ALs			38.18				
14 It Feeder Us	220 = 43.09 * Line:	n² T HHN 3 (MSFC	53 Ampere: + 1 - 8.0m 1 2F)	AL	6.82		38.18		1,500		
14 It Feeder Us PANEL	220 = 43.09 * Line: e:3 - 30mr LPPACI 50AT, 1	n° T HHN B (MSFC 00 A F , 3F , 240 V, B	53 Ampere I + 1 - 8.0m IU 2F) OLT-ON	Spare ALs	6.82 43.09	40.36			1,500 26,760	30AT, 2P, Bolt-On	
14 It Feeder Us PANEL:	220 = 43.09 * Line: e:3 - 30mr LPPACI 50AT, 1 18KAIC	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare ALs	6.82 43.09	40.36	AD	30	1,500 26,760	30AT, 2P, Bolt-On	SIZE OF WIRE
14 Feeder Us PANEL: MAIN: CKT NO.	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC VOLTS	n ² T HHN 3 (MSFC 00AF, 3F , 240V, B	53 Ampere I + 1 - 8.0m IU 2F) OLT-ON	Spare AL s Im ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE	6.82 43.09 43.09	MPERE LO		30	1,500 26,760 VOLT AMPERE	30AT, 2P, Bolt-On	
PANEL: MAIN: CKT NO.	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC VOLTS 220	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s Im ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01	6.82 43.09 43.09 43.09	40.36	AD	30	1,500 26,760 VOLT AMPERE 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20
TA Feeder Us PANEL: MAIN: CKT NO. 1	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC VOLTS 220 220	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s Im ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01	6.82 43.09 43.09	40.36	AD CA	30	1,500 26,760 VOLT AMPERE 1,000 1,000	30AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20 2 - 3.5mm² THHN + 1 - 2.0mm² TW in 20
14 Feeder Us PANEL: MAIN: CKT NO. 1 2 3	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC VOLTS 220 220 220	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL S M S M C S M S M C S M S S M S S M S S M S S M S S M S S M S S S M S S S S M S	6.82 43.09 43.09 43.09	40.36	AD	30	1,500 26,760 VOLT AMPERE 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20
14 Feeder Us PANEL MAIN: CKT NC. 1 2 3 4	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC VOLTS 220 220 220 220 220	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s m ² TW(G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01	6.82 43.09 43.09 43.09	40.36	AD CA 4.55 4.55	30	1,500 26,760 26,760 VOLT AMPERE 1,000 1,000	CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20
14 Feeder Us PANEL MAIN: CKT NO. 1 2 3 4 5	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC VOLTS 220 220 220 220 220 220	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL S OTHER LOAD SERVICE MSFCU 01	6.82 43.09 43.09 43.09	40.36 MPERE LO BC	AD CA 4.55 4.55	30	1,500 26,760 26,760 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20
14 Feeder Us PANEL MAIN: CKT NO. 1 2 3 4	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL S S S S S S S S S S S S S S S S S S	6.82 43.09 43.09 43.09	MPERE LO BC 5 40.36	AD CA 4.55 4.55	30	1,500 26,760 26,760 26,760 26,760 200 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2
14 Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7	220 = 43.09 * Line: e: 3 - 30mr 50AT, 1 18KAIC 220 220 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s m ² TW(G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01	6.82 43.09 43.09 43.09	MPERE LO BC 5 40.36	AD CA 4.55 4.55	30	1,500 26,760 26,760 26,760 26,760 200 200 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm
14 It Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL S S S S S S S S S S S S S S S S S S	6.82 43.09 43.09 43.09 43.09 43.09 43.09	MPERE LO BC 5 40.36	AD CA 4.55 4.55	312	1,500 26,760 26,760 26,760 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20
14 Feeder Us PANEL MAIN: CKT NO. 1 2 3 4 5 6 7 8 9	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL S S S S S S S S S S S S S S S S S S	6.82 43.09 43.09 43.09 43.09 43.09 43.09	MPERE LO BC 5 40.36	AD CA 4.55 4.55	312	1,500 26,760 26,760 26,760 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 3.5mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 3.5mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 3.5mm
14 Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s Im ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01 MSFCU 01	6.82 43.09 43.09 43.09 43.09 43.09 43.09	MPERE LO BC 5 40.36	AD CA 4.55 4.55 4.55 4.55	30	1,500 26,760 26,760 26,760 26,760 200 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 20 2 - 3.5mm ² THN + 1 - 2.
14 It Feeder Us PANEL MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11	220 = 43.09 * Line: e: 3 - 30mr EPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01	6.82 43.09 43.09 43.09 43.09 43.09 43.09	MPERE LO BC 5 5 5 5 5 5	AD CA 4.55 4.55 4.55 4.55 4.55	30	1,500 26,760 26,760 26,760 26,760 26,760 20,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 3.5mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 3.5mm
14 Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01	6.82 43.09 43.09 43.09 43.09 43.09 43.09	MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55 4.55 4.55	32	1,500 26,760 26,760 26,760 26,760 26,760 200 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 2 - 3.5mm ² THHN + 1 - 2.0mm ² TW in 2 3 - 3.5mm ² THHN + 1 - 2.0mm
14 It Feeder Us PANEL MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s Im ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01	6.82 43.09 43.09 43.09 43.09 43.09 43.09 43.09 43.09 43.09 43.09	40.36 40.36 MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55		1,500 26,760 26,760 26,760 26,760 26,760 20,760 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	$\begin{array}{c} 2-3.5 mm^2 T HHN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2$
14 It Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13	220 = 43.09 * Line: e: 3 - 30mr EPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	Spare AL s Im ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 01	6.82 43.09 43.09 AB 4.5 4.5 4.5 4.5	40.36 40.36 MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55 4.55 4.55		1,500 26,760 26,760 26,760 26,760 26,760 200 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	$\begin{array}{c} 2-3.5 mm^2 T HHN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2$
14 It Feeder Us PANEL MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	53 Ampere I + 1 - 8.0m IU 2F) OCLT-ON UTLET	AL Spare AL S S M ² TW(G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 02 MSFCU 02 MSFCU 02 MSFCU 02	6.82 43.09 43.09 AB 4.5 4.5 4.5 4.5	40.36 40.36 MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55		1,500 26,760 26,760 26,760 26,760 26,760 20,760 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	$\begin{array}{c} 2-3.5 mm^2 T HHN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2$
14 It Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	33 Ampere: 1 + 1 - 8.0m 10 2F) 00LT-ON UTLET CO 0 0 0 0 0 0 0 0 0 0 0 0 0	Spare AL s m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 02 MSFCU 02 MSFCU 02 MSFCU 05 Space	6.82 43.09 43.09 43.09 43.09 43.09 43.09 43.09 4.50 4.50 4.50 4.50 4.50 4.50 4.50 4.50	MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55 4.55 4.55 4.55 4.55		1,500 26,760 26,760 26,760 26,760 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	$\begin{array}{c} 2-3.5 mm^2 T HHN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2$
14 It Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	n ² T HHN 3 (MSFC 09AF, 3F , 240V, B 01	33 Ampere: 1 + 1 - 8.0m 10 2F) 00LT-ON UTLET CO 0 0 0 0 0 0 0 0 0 0 0 0 0	Spare AL s m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 02 MSFCU 02 MSFCU 05	6.82 43.09 43.09 AB 4.5 4.5 4.5 4.5	MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55 4.55 4.55 4.55 4.55		1,500 26,760 26,760 26,760 26,760 26,760 20,760 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	$\begin{array}{c} 2-3.5 mm^2 THHN + 1 - 2.0 mm^2 TW in 2 \\ 3-3.5 mm^2 THHN + 1 - 2.0 mm^2 TW in 2 \\ 3-3.5 mm^2 THHN + 1 - 2.0 mm^2$
14 It Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Feeder L Feeder Us	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	nº T HHN 3 (M SFC 00AF, 3F , 240V, B 01 LO 	53 Ampere: I + 1 - 8.0m U 2F) OLT-ON UTLET CO CO CO CO CO CO CO CO CO CO	Spare AL s Im² T W (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 02 MSFCU 02 MSFCU 02 MSFCU 03 MSFCU 04 MSFCU 05 Space TAL	6.82 43.09 43.09 43.09 43.09 43.09 43.09 43.09 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55 4.55 4.55 4.55 4.55		1,500 26,760 26,760 26,760 26,760 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	$\begin{array}{c} 2-3.5 mm^2 T HHN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2$
14 It Feeder Us PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Feeder L Feeder Us	220 = 43.09 * Line: e: 3 - 30mr LPPACI 50AT, 1 18KAIC 220 220 220 220 220 220 220 22	nº T HHN 3 (M SFC 00AF, 3F , 240V, B 01 LO 	53 Ampere: I + 1 - 8.0m U 2F) OLT-ON UTLET CO CO CO CO CO CO CO CO CO CO	Spare AL s Im² T W (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE MSFCU 01 MSFCU 02 MSFCU 02 MSFCU 02 MSFCU 02 MSFCU 03 MSFCU 04 MSFCU 05 Space TAL	6.82 43.09 43.09 43.09 43.09 43.09 43.09 43.09 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	MPERE LO BC 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	AD CA 4.55 4.55 4.55 4.55 4.55 4.55 4.55		1,500 26,760 26,760 26,760 26,760 1,000	30AT, 2P, Bolt-On CIRCUIT BREAKER 20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	$\begin{array}{c} 2-3.5 mm^2 T HHN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2 T H HN + 1 - 2.0 mm^2 T W in 20 \\ 2-3.5 mm^2$

CKT		49V, MCC OUTI			AM	PERE LOAI		3Ø	VOLT	CIRCUIT	SIZE OF W
NO.	VOLTS -	LO	co	OTHER LOAD SERVICE	AB	BC	CA		AMPERE	BREAKER	
1	220			LPPC	48.77	34.45	42.23		27,600		3 - 30mm ² THHN + 1 - 8.0mm ² 3 - 80mm ² THHN + 1 - 22mm ² T
2	220			PPC	68.00	68.00	68,00		46,920		3 - 5.5mm² THHN + 1 - 3.5mm²
3	220		İ	LPPACC (MSFCU 3F)	9.09	9.09	9.09	-	6,000	SUAT, SP, BOUT-ON	
4	220			SPACE		<u> </u>					
			TOTA		125.86	111.55	119.32		80,520		
Feeder L	ine:	-	0 * 0.25) =	- 222.25 Amperes nº TW (G) in 80mmØ IMC / Y150		,, I					
PANEL: MAIN:	LPPC (TH 100AT, 10 25KAIC, 2	IRD FLO IOAF, 3P	OR)								
СКТ		001		OTHER LOAD SERVICE	AM	PERELOA		 3Ø	VOLT	CIRCUIT	SIZE OF
NO.	VOLTS -	LO	Ċ0	OTHER LOAD SERVICE	AB	BC	CA		AMPERE	BREAKER	2 - 3.5mm² THHN + 1 - 2.0mm
1	220	10			4.55				1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² 2 - 3.5mm² THHN + 1 - 2.0mm²
2	220	10			4.55			_	1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm² 2 - 3.5mm² THHN + 1 - 2.0mm²
3	220	10					4.55		1,000	20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm 2 - 3.5mm² THHN + 1 - 2.0mm
4	220	10					4,55	<u>.</u>	1,000	20AL, 2P, Bolt-On 20AL, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm
5	220	10				4,55			1,000	20AT, 2P, Bolt-On 20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm
6	220	10			8.18	4.55			1,800	20AT, 2P, Bolt-On	2-3.5mm² THHN + 1 - 2.0mm
7	220	15		6 - Exhaust Fan 1 - Ceiling Fan	4.77		<u> </u>	<u></u>	1,050	20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm
8	220	10		1 - Geiling Fan 1 - Exhaust Fan			10.23		2,250	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm
9 10	220 220	20	8				6.55		1,440	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm
10	220		8			6.55			1,440	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm
12	220		6			6.55			1,440	20AT, 2P, Bolt-On	2 - 3,5mm² THHN + 1 - 2.0mm
13	220		B	· · · · · · · · · · · · · · · · · · ·	6.55				1,440	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm
14	220		8		6.55				1,440	20AT, 2P, Bolt-On	2 - 3.5mmz THHN + 1 - 2.0mm
15	220		8				6,55		1,440	20AT, 2P, Boll-On	2 - 3.5mm - THHN + 1 - 2.0mm
16	220		12				9.82		2,160	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm
17	220		5			4.09			900	20AT, 2P, Bolt-On	2 - 3.5mm ² THHN + 1 - 2.0mm
- 18	220		·	7 - Emergency Light / 2 - Exit Light		B.18			1,800	20AT, 2P, Bolt-On	2 - 3.5mm* THHN + 1 - 2.0mm 2 - 5.5mm* THHN + 1 - 3.5mm
19	220			IDF Power Provision	13.64	_		⊦	3,000	30AT, 2P, Bolt-On	
20	220		ļ	Space	-						
		-	•					1			
	= 4877* 1	(3 = 84 4	TOT.	<u> </u>	48.77	34.45	42.23	-	27,600		
Feeder Use	a: 3 - 30mm PPC (TH 200AT, 2	PTHHN IRD FLO	7 Amperes + 1 - 8.0m OR)	<u> </u>	48.77	34.45	42.23	-	27,600		
Feeder Use PANEL: MAIN:	Line: a: 3 - 30mm PPC (TH	* THHN IRD FLO 200AF, 31 240V, M	7 Amperes + 1 - 8.0m OR) CCB							CIRCUIT	
Feeder Use PANEL: MAIN: CKT	Line: a: 3 - 30mm PPC (TH 200AT, 2	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET		A	MPERE LO		- 342	VOLT AMPERE		SIZE OF
Feeder Use PANEL: MAIN: CKT NO.	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS	* THHN IRD FLO 200AF, 31 240V, M	7 Amperes + 1 - 8.0m OR) CCB	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE		MPERELO	AD	- 342	VOLT		2 - 8.0mm* THHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO.	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01)	A	MPERE LO BC	AD	3.0	VOLT	BREAKER	2 - 8.0mm*THHN + 1 - 5.5mm 2 - 8.0mm*THHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01)	AB 17.00	MPERE LO BC	AD	342	VOLT AMPERE 3,910	BREAKER 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01)	AB 17.00	MPERE LO BC	AD CA		VOLT AMPERE 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* T HHN + 1 - 5.5mm 2 - 8.0mm* T HHN + 1 - 5.5mm 2 - 8.0mm* T HHN + 1 - 5.5mm 2 - 8.0mm* T HHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02)	AB 17.00	MPERE LO BC	AD CA 17.00		VOLT AMPERE 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02)	AB 17.00	MPERE LO	AD CA 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* T HHN + 1 - 5.5mr 2 - 8.0mm* T HHN + 1 - 5.5mr
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03)	AB 17.00	MPERE LO BC 17.00	AD CA 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03)	AB 17.00 17.00	MPERE LO BC 17.00	AD CA 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* T HHN + 1 - 5.5mm 2 - 8.0mm* T HHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	M ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 05)	AB 17.00 17.00	MPERE LO BC 17.00	AD CA 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 05) 3Hp Aircon (Room 05)	AB 17.00 17.00	MPERE LO BC 17.00 17.00	AD CA 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* T HHN + 1 - 5.5mm 2 - 8.0mm* T HHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	M ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 05) 3Hp Aircon (Room 05) 3Hp Aircon (Room 05) 3Hp Aircon (Room 05) 3Hp Aircon (Room 05)	AB 17.00 17.00	MPERE LO BC 17.00 17.00	AD CA 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 05) 3Hp Aircon (Room 06)	AB 17.00 17.00	MPERE LO BC 17.00 17.00	AD CA 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5m 2 - 8.0mm* THHN + 1 - 5.5m
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	M ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 05) 3Hp Aircon (Room 05)	AB 17.00 17.00	MPERE LO BC 17.00 17.00	AD CA 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5m 2 - 8.0mm* THHN + 1 - 5.5m
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	m² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 05) 3Hp Aircon (Room 06)	AB 17.00 17.00	MPERE LO BC 17.00 17.00	AD CA 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm 3 - 8.0mm* THNN
Feeder Use PANEL: MAIN: CKT NO. 1 2 3 4 5 6 7 8 9 10 11 12 13	Line: a: 3 - 30mm PPC (TH 200AT, 2 35KAIC, VOLTS 220 220 220 220 220 220 220 22	PTHHN IRD FLO 200AF, 31 240V, M OU	7 Amperes + 1 - 8.0m OR) CCB TLET	M ² TW (G) in 32mmØ IMC / Y30 OTHER LOAD SERVICE 3Hp Aircon (Room 01) 3Hp Aircon (Room 01) 3Hp Aircon (Room 02) 3Hp Aircon (Room 02) 3Hp Aircon (Room 03) 3Hp Aircon (Room 03) 3Hp Aircon (Room 04) 3Hp Aircon (Room 04) 3Hp Aircon (Room 05) 3Hp Aircon (Room 06) 3Hp Aircon (Room 06) 3Hp Aircon (Room 06) 3Hp Aircon (Room 06)	AB 17.00 17.00	MPERE LO BC 17.00 17.00 17.00 17.00	AD CA 17.00 17.00 17.00 17.00		VOLT AMPERE 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910 3,910	BREAKER 40AT, 2P, Bolt-On 40AT, 2P, Bolt-On	2 - 8.0mm* THHN + 1 - 5.5mm 2 - 8.0mm* THHN + 1 - 5.5mm 3 - 8.0mm* THNN

	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRÔ
Engr. ISAGANI R. VERZOSA, Jr.	HON, MA, JOSEFINA G, BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCUTMAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	SCHEDULE OF LOADS	DATE DRAW DESIG CHEC

32mmØ IMC / Y3	
0mm@1MC/Y80	
25mmØ IMC / Y5	1
	1
mmØ PVC	
mmØ PVC	
mmØ PVC	
mmø PVC mmø PVC	
mmø PVC	
mmØ PVC	
mmø PVC mmø PVC	İ
mm@P\C	
mmø PVC	
mmø PVC mmø PVC	
0mmØ PVC	
DmmØ PVC	
)mmØ PVC	
0mmØ PVC	
·	
0mmØ PVC 0mmØ PVC	
0mmØ PVC	
0mmØ PVC	
10mmØ PVC	
· · · · · · · · · · · · · · · · · · ·	
_ <u></u>	
	NTS
ROJECT NO.:	SHEET NO.:
TE November 2020	EL-06
AWN BY C.S.T	Ŋ⊑ <u>⊢</u> =ŲO
SIGNED BY Engr. A.R.Gammad	Rel com
/	
(`



Lungsod ng Quezon CITY ARCHITECT DEPARTMENT 5/F CIVIC CENTER - D (BRO, Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

Republika ng Pilipinas



PROVISO: PRAVINGS AND SPECIFICATIONS DULY SIGNED. STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTIVE, ARCENTES & DOCUMENTS OF THE CITY ARCHITECT OF PARTMENT. METHER THE COLECT FOR WHICH THEY ARE WORE 19 EXECUTED OR NOT. IT EVAL BE UK ANFOLF FOR MY PERSON, WITHOUT THE CONSENT OF THE AUTHOR OF SAD DODUMENTS TO DUPLICATE OR TO MAKE COMES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR DTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

RECOMMENDING APPROVAL South Engr. IS Ar. LUCILLE H. CHUA, fuap, piep CITY ARCHITECT

.

SCHEDULE OF LOADS 1

Feeder Line: Use: 3 - 125mm*THHN + 1 - 30mm* TW (G) in 65mmØ IMC / Y125

l_t = 102.00 √ 3 + {17.00 * 0.25} = 180.92 Amperes

	35KAIC, 2	40V, MC		· · · · · · · · · · · · · · · · · · ·	AMPERELOAD				VOLT	VOLT CIRCUIT	SIZE OF WIRE
KT No.	VOLTS	LO	CO	OTHER LOAD SERVICE	AB	BC	CA	30	AMPERE	BREAKER	
1	220			3Hp Aircon (Room 01)	17.00				3,910	40AT, 2P, Bolt-On	2 - 8.0mm ² T HHN + 1 - 5.5mm ² TW in 20mmØ PVC
2	220	<u> </u>	┝───┡	3Hp Aircon (Reom 01)	17.00		—		3,910	40AT, 2P, Bolt-On	2 - 8.0mm = THHN + 1 - 5.5mm = TW in 20mm@ PVC
3	220			3Hp Aircon (Reom 02)			17.00		3,910	40AT, 2P, Bolt-On	2-8.0mm2THHN +1-5.5mm2TW in 20mm@PVC
4	220		i—¦	3Hp Aircon (Room 02)			17.00		3,910	40AT, 2P, Bolt-On	2-8.0mm2THHN+1-5.5mm°TW in 20mm@PV0
5	220		┞━───┦	3Hp Aircon (Room 03)	- 	17,00			3,910	40AT, 2P, Bolt-On	2 - 8.0mm * T HHN + 1 - 5.5mm * T W in 20mm Ø PV
6	220			3Hp Aircon (Room 03)		17.00			3,910	40AT, 2P, Boll-On	2 - 8.0mm ² THHN + 1 - 5.5mm ² TW in 20mmØ PW
7	220			3Hp Aircon (Room 04)	17.00				3,910	40AT, 2P, Bolt-On	2-8.0mm ² T HHN + 1-5.5mm ² T W in 20mmØ PV
8	220		┞━┤	3Hp Arcon (Room 04)	17,00				3,910	40AT, 2P, Bolt-On	2 - 8.0mm = THHN + 1 - 5.5mm = TW in 20mm@ PW
9	220		<u> </u>	3Hp Arcon (Room 05)			17.00		3,910	40AT, 2P, Bolt-On	2 - 8.0mm² THHN + 1 - 5.5mm² TW in 20mm@ PW
10	220		 +	3Hp Aircon (Room 05)			17.00		3,910	40AT, 2P, Bolt-On	2-8.0mm² THHN +1-5.5mm² TW in 20mm@ PW
11	220			3Hp Aircon (Room 06)		17.00			3,910	40AT, 2P, Bolt-On	2 - 8.0mm ² THHN + 1 - 5.5mm ² TW in 20mmØ PV 2 - 8.0mm ² THHN + 1 - 5.5mm ² TW in 20mmØ PV
12	220		·	3Hp Aircon (Room 06)		17.00			3,910	40AT, 2P, Bolt-On	
13	220			3Hp Aircon (Room 07)	17.00				3,910	40AT, 2P, Bolt-On	2 - 8.0mm² THHN + 1 - 5.5mm² TW in 20mmØ PV 1 2 - 8.0mm² THHN + 1 - 5.5mm² TW in 20mmØ PV
14	220			3Hp Aircon (Room 07)	17.00				3,910	40AT, 2P, Bolt-On	
15	220		· · ·	Space							
16	220			Space					_		

Use: 3 - 30mm² THHN + 1 - 8.0mm² TW (G) in 32mmØ IMC / Y30

l_t = 38.05 * √3 = 65.90 Amperes eeder Line:

SIZEOF	CIRCUIT	VOLT	3Ø)	ERELOA	AMF			OUT	25KAIC, 2	
	BREAKER	AMPERE	20	CA	BC	AB	OTHER LOAD SERVICE	co		VOLTS	CKT
2 - 3.5mm ≥ THHN + 1 - 2.0mm	20AT, 2P, Bolt-On	1,000				4.55			10	-	NO.
2 - 3.5mm2 THHN + 1 - 2.0mm	20AT, 2P, Bolt-On	1,000		——-h	·	4.55	· · · · · · ·		10	220	1
2 - 3.5mm² THHN + 1 - 2.0mc	20AT, 2P, Bolt-On	1,000		4,55					10	220	2
2 - 3.5mm - THHN + 1 - 2.0mm	20AT, 2P, Boll-On	1,000	_	4.55	<u> </u>	<u> </u>			10	220	3
2-3.5mm* THHN +1-2.0mr	20AT, 2P, Bolt-On	1,000		4.00	4,55				10	220	4
2 - 3.5mm² THHN + 1 - 2.0mm	20AT, 2P, Bolt-On	1,000		[4.55				10	220	5
2-3.5mm² THHN +1-2.0mr	20AT, 2P, Bolt-On	1,000				4,55			10	220	6
2 - 3.5mm² THHN + 1 - 2.0mr	20AT, 2P, Bolt-On	1,800			<u> </u>	8,18	6 - Exhaust Fan		10	220	7
2 - 3.5mm² THHN + 1 - 2.0m	20AT, 2P, Bolt-On	2,050		9.32					15	220	8
2 - 3.5mm² THHN + 1 - 2.0mr	20AT, 2P, Bolt-On	1,440		6,55		ŀ	1 - Exhaust Fan		20	220	9
2 - 3.5mm ² THHN + 1 - 2.0m	20AT, 2P, Bolt-On	1,440			6,55			8		220	10
2 - 3.5mm² THHN + 1 - 2.0ml	20AT, 2P, Bolt-On	1,440			6.55			B		220	11
2 - 3.5mm² T HHN + 1 - 2.0m	20AT, 2P, Boll-On	1,440			0.35	6.55	·	В		220	12
2-3.5mm2 THHN + 1-2.0m	20AT, 2P, Boll-On	1,440	·		_ 			8		220	13
2-3.5mm= THHN +1-2.0m	20AT, 2P, Bolt-On	1,440	<u> </u>	6.55	ŀ	6,55		8		220	_14
2 - 3.5mm² T HHN + 1 - 2.0m	20AT, 2P, Bolt-On	1,440		6.55			· · · · · · · · · · · · · · · · · · ·	8		220	15
2 - 3.5mm = THHN + 1 - 2.0m	20AT, 2P, Bolt-On	1,800		6.6	8.18			8		220	16
	30AT, 2P, Bolt-On	1,500	├──				7 - Emergency Light / 2 - Exit Light	<u> </u>		220	17
					6,82		Spare			220	18
_		24,230	<u> </u>	38.05	37,18	34.91		TOT			

MAIN: 100AT, 100AF, 3P 25KAIC, 240V, MCCB

PANEL: LPPD (FOURTH FLOOR) TYPICAL UP TO LPPF (SIXTH FLOOR)

Feeder Line: (Jset 3 - 150mm* THHN + 1 - 38mm* TW (G) in 80mm@ IMC / Y150

l,= 136.91 *√ 3 + (17.00 * 0.25) = 241.39 Amperes

MAIN: 300AT, 300AF, 3P 65KAIC, 240V, MCCB AMPERELOAD 30 VOLT CIRCUIT CKT VOLTS OUTLET SIZE OF OTHER LOAD SERVICE BREAKER AB BC CA AMPERE 34.91 37.18 38.05 - 24,230 100AT, 3P, MCCB 3 - 30mm² THEN + 1 - 8.0mm 1 220 LPPO 102.00 68.00 68.00 - 54,740 250AT, 3P. MCCB 3 - 125mm* THHN + 1 - 30mm PPD 2 220 SPACE 3 220 SPACE 4 220 136.91 105.18 106.05 - 78,970 TOTAL ____

Feeder Line: Use: 3 - 5.5mm² THHN + 1 - 3.5mm² TW (G) in 25mmØ IMC / Y5.5

PANEL: DPD (FOURTH FLOOR) TYPICAL UP TO DPF (SIXTH FLOOR)

 $l_{\rm f}$ = 9.09 * $\sqrt{3}$ = 15.74 Amperes

MAIN:	30AT, 10	JAF, 3P									
СКТ	18KAIC,		LT-ON	AM	IPERE LOA	.0	30	VOLT	CIRCUIT	SIZE OF WI	
NO.	VOLTS	LO	co	OTHER LOAD SERVICE	AB	80	CA	312	AMPERE	OREAKER	
10,	220		<u> </u>	MSFCU 02	4.55				1,000	20AT, 2P, Boll-On	2 - 3.5mm² T HHN + 1 - 2.0mm² T
<u> </u>	220		┝━━─┼	MSFCU 04	4.55				1,000	20AT, 2P, Bolt-On	
	220		┞━━━╌╺┡	MSFCU 04			4,55		1,000	20AT, 2P, Bolt-On	
3		i	┟────┝	MSFCU 05			4,55		1,000	20AT, 2P, Bolt-On	
- <u>+</u>	220	<u> </u>		MSFCU 05	┉	4,55			1,000	20AT, 2P, Boll-On	
5	220		┡	MSFCU 06	- } ·	4.55			1,000	20AT, 2P, Bolt-On	2 - 3.5mm² THHN + 1 - 2.0mm²
6	220		<u></u>		-}						
			<u>ι</u> τοτα	L	9,09	9,09	9.09		6,000		

PANEL: LPPACC (MSFCU 3F)

WIRE
² TW in 20mm Ø PVC
r ² TW in 20mmØ PVC
TWin 20mmØPVC
* TW in 20mmØ PVC
n [±] TW in 20mmØ PVC
1° TW in 20mmØ PVC
WIRE
m² TŴ (G) in 32mmØ IMC / Y.
m² TW (G) in 65mmØ (MC /).
<u> </u>
FWIRE
mm [±] TW In 20mmØ PVC
mm ^a TW in 20mmØ PVC
mm² TW in 20mmØ PVC
mm ² TW in 20mmØ PVC
mm ^a TW in 20mmØ PVC
mm² TW in 20mmØ PVC
mm ^e TW in 20mmØ PVC
mm ^a TW in 20mm@ PVC mm ^a TW in 20mm@ PVC
mm ² TW in 20mmØ PVC
mm [±] TW in 20mmØ PVC
mm ² TW in 20mm@ PVC
mm ^a TW in 20mmØ PVC
mm [*] TW in 20mmØ PVC
mm ² TW in 20mmØ PVG
mm* TW in 20mmØ PVC
Imm ² TW in 20mmØ PVC
. <u> </u>

FANEL: DPG (SEVENTH FLOOR)

CKT	65KAIC, 240V, MCCB				AMPERE LOAD			30	VOLT	CIRCUIT	SIZE OF WIRE
NO, VO	VOLTS	10	C0	OTHER LOAD SERVICE	AB	BC	ĊA		AMPERE	BREAKER	3 - 30mm² THHN + 1 - 8.0mm² TW(G) in 32mm@ IMC/
1	220			LPPG	48.55	36.91	36.05	-	25,730	100AT, 3P, MCCB	3-30mm² (HHN + 1 - 8.0mm² (HHN - 1 - 8.0mm²)
2	220			PPG	102.00	68 00	68,00	-	54,740	250AT, 3P, MCCB	3 - 125mm² T HHN + 1 - 30mm² T W (G) in 65mmØ IN
3	220			SPACE							
4	220			SPACE					i		
					1			_	I		

1_t= 150.55 ° √ 3 + (17.00 ° 0.25) = 265.01 Amperes

Feeder Line: Use: 3 • 150mm² T HHN + 1 • 38mm² T W (G) in 80mmØ IMC / Y150

PANEL	LPPG (SEVENTH FLOOR)
MAINE	100AT, 100AF, 3P
	25KAIC, 240V, MCCB

	25KAIC, 2	240V, MC	СВ			2000 D					
CKT	VOLTS	001	LET	OTHER LOAD SERVICE		PERELOA		39	VOLT		SIZE OF MIRE
NO.	VOLIS	LO	CO		AB	BC	CA		AMPERE	BREAKER	6 6 C
1	220	10			4,55				1,000	20AT, 2P, 801-On	2-3.5mm? THHN + 1 - 2.0mm? TW in 20mm@ PVC
2	220	10			4.55		— 1		1,000	20AT, 2P, Boll-On	2 - 3.5mm 2 THHN + 1 - 2.0mm ² TW in 20mm/2 PVC
2	220	10		· · · · · · · · · · · · · · · · · · ·		[4,55		1,000	20AT, 2P, Boll-Dri	2 - 3.5mm 2 THHN + 1 - 2.0mm ² TW in 20mm@ PVG
	1	10	-				4.55		1,000	20AT, 2P, Bolt-On	2-3.5mm2 THHN +1-2.0mm2 TW in 20mm@ PVC
4	220			· · · · · · · · · · · · · · · · · · ·		4,55			1,000	20AT 2P Bolt On	2 - 3,5mm = THHN + 1 - 2,0mm* TW in 20mm@ PVC
5	220	10		├	·	4,55	I		1,000	20AT 2P Bolt On	2-3.5mm2 THHN + 1 - 2.0mm2 TW in 20mm@ PVC
5	220	10	ļ		4.55		<u> </u>		1,000	20AT, 2P, Bolt On	2-3.5mm* THHN + 1 - 2.0mm* TW in 20mm@ PVC
7	220	10			8.18				1,900	20AT, 2P, Bolt-On	2-3.5mm* THHN + 1-2.0mm* TW in 20mm@ PVC
В	220	15	<u>i </u>	6 - Exhaust Fan	<u>a. 10</u>		932		2,050	20AT, 2P, Boll-On	2-3.5mm+ THHN + 1-2.0mm ² TW in 20mm/2 PVC
9	220	20		1 - Exhaust Pan			4,55		1,000	20AT, 2P Boll-On	2-3.5mm2 THHN + 1-2.0mm2 TW in 20mm2 PVC
10	220	10	1				4,35		1,440	20AT, 2P, Bott-On	
11	220			Spare		6.55				20AT, 2P, Bolt-On	2 - 3.5mm - T HHN + 1 - 2.0mm² T W in 20mm/2 PVC
12	220		8			5.55			1,440		2-3.5mm² T HHN + 1 - 2.0mm² T W in 20mm@ PVC
13	220		8		6,55				1,440	20AT, 2P, Boll-On	2-3.5mm * THHN + 1 - 2.0mm * TW in 20mm @ PVC
14	220		8		6.55				1,440	20AT, 2P, Boll-On	2-3.5mm² THHN + 1-2.0mm² TW in 20mmØ PVC
15	220		8				6.55		1,440	20AT, 2P, Boll On	2-3.5mm² (HHN + 1-2.0mm² (WHI 20mm² (V)
16	220	-	8	- <u> </u>			6,55		1,440	20AT, 2P, Boll-On	2-3.5mm² THHN + 1- 2.0mm² TW in 20mmØ PVC
17	220	<u>}</u>	8			6.55			1,440	20AT, 2P, Bolt-On	
18	220			8 - Emergency Light /2 - Exit Light		8.18			1,800	20AT, 2P, Bolt On	2-3.5mm² THHN + 1-2.0mm² TW in 20mm Ø PVC
19	220	<u> </u>		Signage Power Provision	6.82				1,500	30AT, 2P, Boll-On	2 - 5.5mm² THHN + 1 - 3.5mm² TW in 20mm@ PVC
20	220	<u> </u>	- 	Spare	682		·		1,500	30AL 2P Bolt On	
20	<u> -</u> 22	·	- -						- <u> </u>	-	
			TOT		48,55	36.91	36.05		25,730	<u> </u>	

1,= 48.55 ° √3 = 84.09 Amperes

Feeder Line: Use:3 - 30mm* THHN:+ 1 - 8.0mm* TW(G) in 32mm@ IMC / Y30

KT	35KAIG, 2	0UT			AM	PERELOA	D	3Ø	VOLT	CIRCUIT	SIZE OF WIRE
10.	VOLTS	LO	CO	OTHER LOAD SERVICE	AB	BC	CĂ	510	AMPERE	BREAKER	
1	220			3Hp Aircon (Room 01)	17.00				3,910	40AT, 2P, Boll-On	2-8.0mm* THHN + 1 - 5.5mm* TW in 20mm@
2	220	-		3Ho Arcon (Room 01)	17.00				3,910	40AT, 2P, 801-On	2-8.0mm* THHN + 1 - 5.5mm* TW in 20mmØ
3	220			3Hp Aircon (Room 02)			17.00		3,910	40AT, 2P, Boll-On	2 - B.0mm* THHN + 1 - 5.5mm* TW in 20mm@
4	220		<u> </u>	3Hp Alreon (Room 02)			17.00		3,910	40AT, 2P, Boll-On	2-8.0mm* THHN + 1 - 5.5mm* TW in 20mm@
5			├─ ─	3Hp Arcon (Room 03)		17.00			3,910	40AT, 2P, Bolt-On	2-8.0mm*THHN +1-5.5mm*TW In 20mm@
6	220		├ !	3Hp Aircon (Room 03)	+	17,00	(3,910	40AT, 2P, Bolt-On	2 - 9.0mm² THHN + 1 - 5.5mm² TW in 20mmR
7	220	-		3Hp Arcon (Room 04)	17.00				3,910	40AT, 2P, Bolt-On	2 - 8.0mm ³ THHN + 1 - 5.5mm ² TW in 20mm0
<u>h</u>	220			3Hp Aircon (Room 04)	17.00				3,910	404T, 2P, Bolt-On	2 - 8.0mm2 THHN + 1 - 5.5mm2 TW in 20mm2
9	220			3Hp Aircon (Room 05)	-		17.00		3,910	404T, 2P, Bolt-On	2 - 8.0mm = THHN + 1 - 5.5mm ² TW in 20mm@
10	220	<u> </u>	<u> </u>	3Ho Aircon (Room 05)			17.00		3,910	40AT, 2P, Bolt-On	2-8.0mm THHN + 1-5.5mm ² TW in 20mm
11	220			3Hb Arcan (Room 06)		17.00			3,910	40AT, 2P, Bolt-On	2 - 8.0mm² THHN + 1 - 5.5mm² TW in 20mm4
12	220	— —	 	3Hp Alroon (Room 08)	-	17.00			3,910	40AT, 2P, Bott-On	2 - 3.0mm* THHN + 1 - 5.5mm* TW in 20mm2
13	220	<u> </u>	 	Scare	17.00				3,910	40AT, 2P, Bolt-On	
14	220	┦────			17.00				3,910	40AT . 2P, Bolt-On	
15	220		·	Space				-			
10	220	 _		Space	+	·					

I,= 102.00 🏹 3 + (17.00 * 0.25) = 180.92 Amperes

eeder Line:

Use: 3 - 125mm* THHN + 1 - 30mm* TW (G) In 65mmØ IMC / Y125

PANEL:	MPP	_
		20

CUIT BREAKER SIZE OF WIRE
25AT, 3P, MCCB 3-38mm² THHN +1 - 8.0mm² TW (G) in 32mm2/IMC
25AT, 3P, MCCB 3- 38mm ³ THHN + 1 - 8.0mm ⁸ TW (G) in 32mmØ IMC
004T, 3P, MCCB 3 - 150mm2 THHN + 1 - 38mm2 TW (G) in 60mm/2 IMC
DOAT, 3P, MCCB 3 - 80mm² THHN + 1 - 22mm² TW (G) In 50mm@ IMC
204T, 3P, MCCB 3- 80mm* THHN + 1 - 22mm* TW (G) in 50mm@ IMC
AT, 2P, BOLT-ON 2- \$ Cram* THHN + 1 - 5.5mm* TW (G) in 25mm@ IMC
AL, 2F, BOLT-ON 24 SMAIN FIRMAN COMMIN FIRMAN
25 00 00

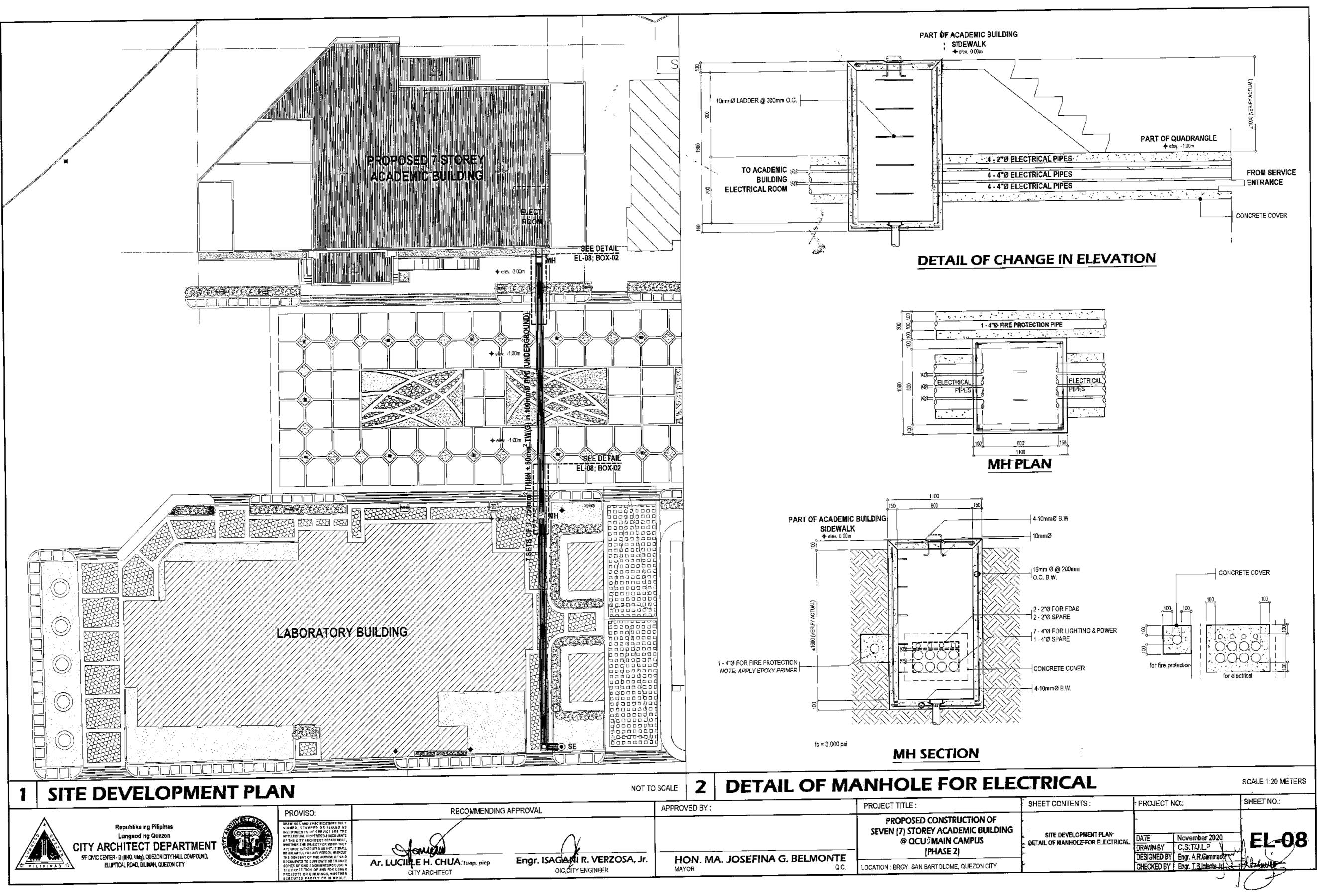
I = 20.00 * 📣 + 348 00 + (104 * 0.25) = 408.64 Amperes

Feeder Lîne:

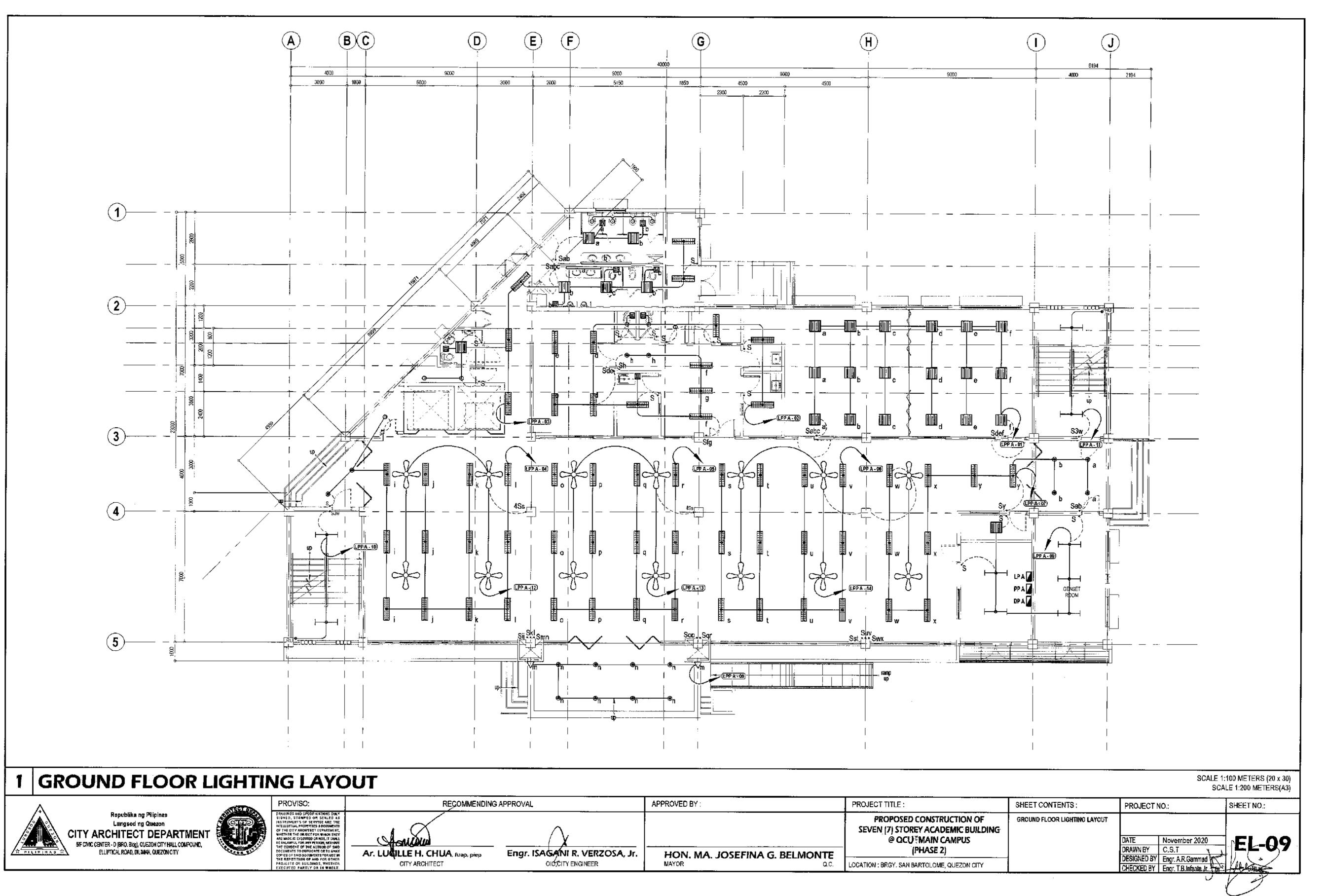
Use: 2 Sels of 3 - 125mm² T HHN + 1 - 30mm² TYI (G) in 65mmØ IMG / 2Y125

·······	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PR
ISAGANI R. VERZOSA, Jr.	HON MA JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU? MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	SCHEDULE OF LOADS	DATI DRA DES CHE
		@ QCUS MAIN CAMPUS (PHASE 2)		

	NTS	_
TE November 2020 RAWN BY C.S.T SIGNED BY Engr. A.R.Gammad IV HECKED BY Engr. T.B.Infante Jr.	SHEET NO.: EL-O7	
<u>, Perce di l'Engli a sum di la compa</u>	E	



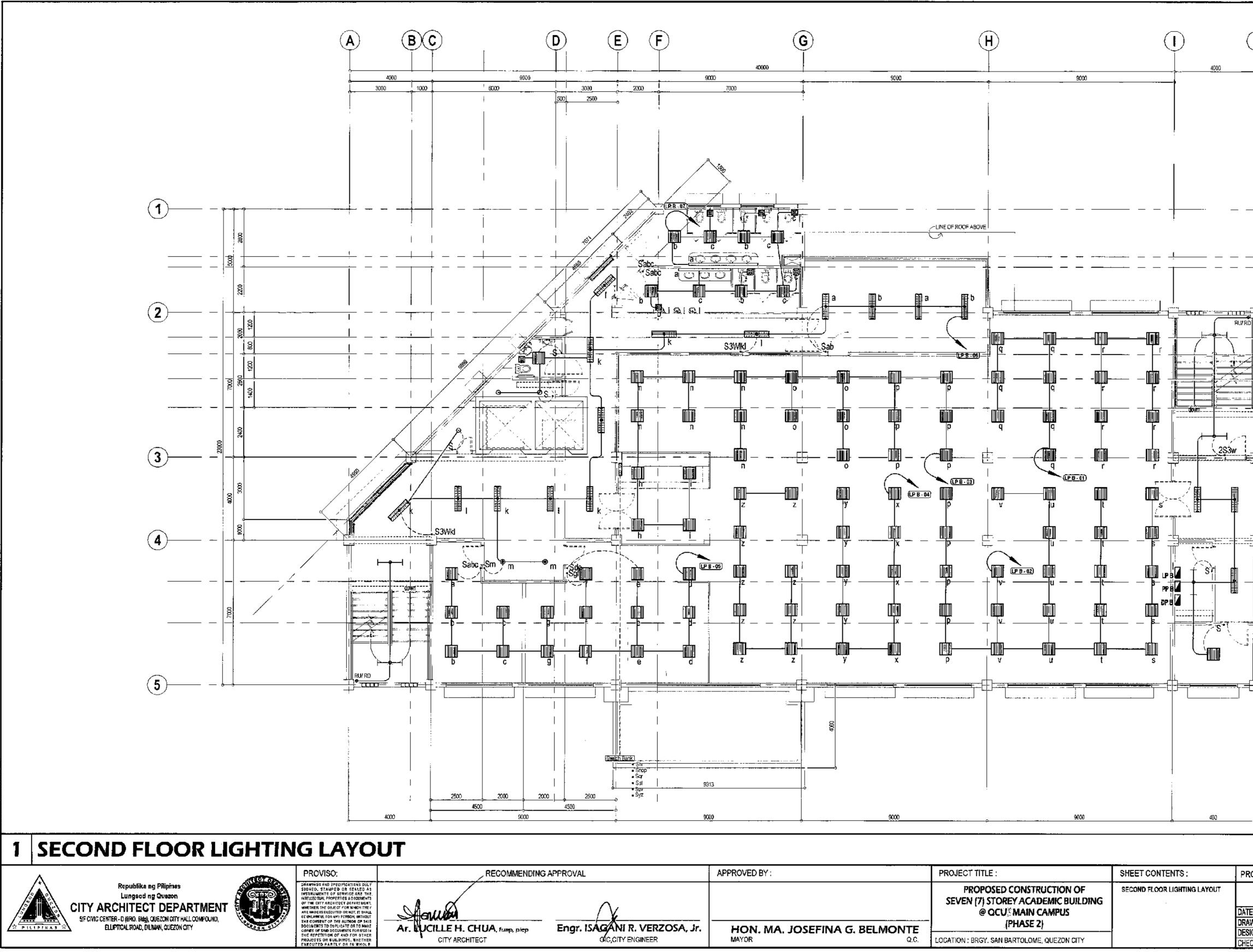








	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
\wedge		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	GROUND FLOOR LIGHTING LAYOUT	
AGANI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE	@ QCU (MAIN CAMPUS (PHASE 2)		DATE DRAWN DESIGN
OIC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		CHECKE



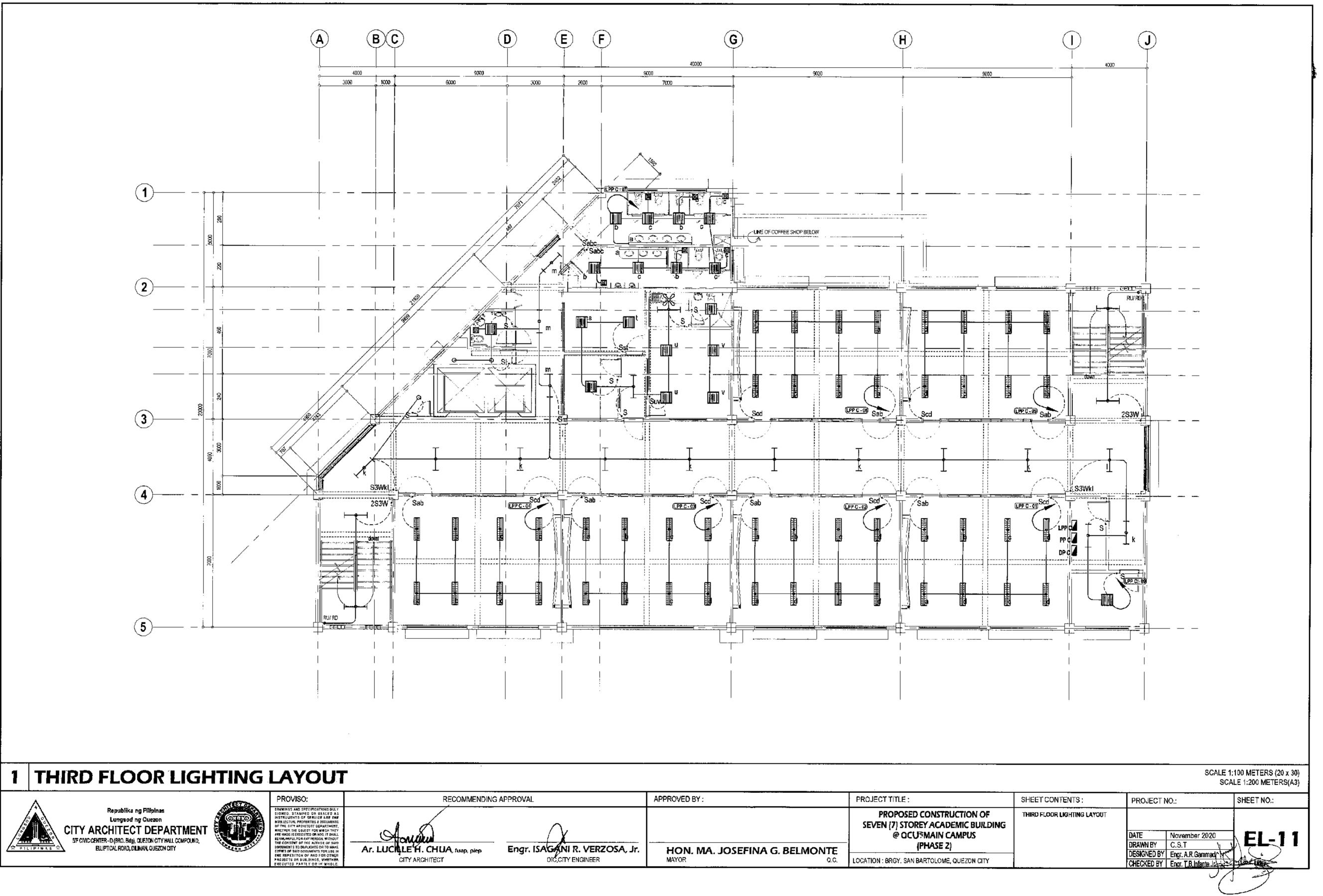
Ar. UCILLE H. CHUA, fump, piep

CITY ARCHITECT

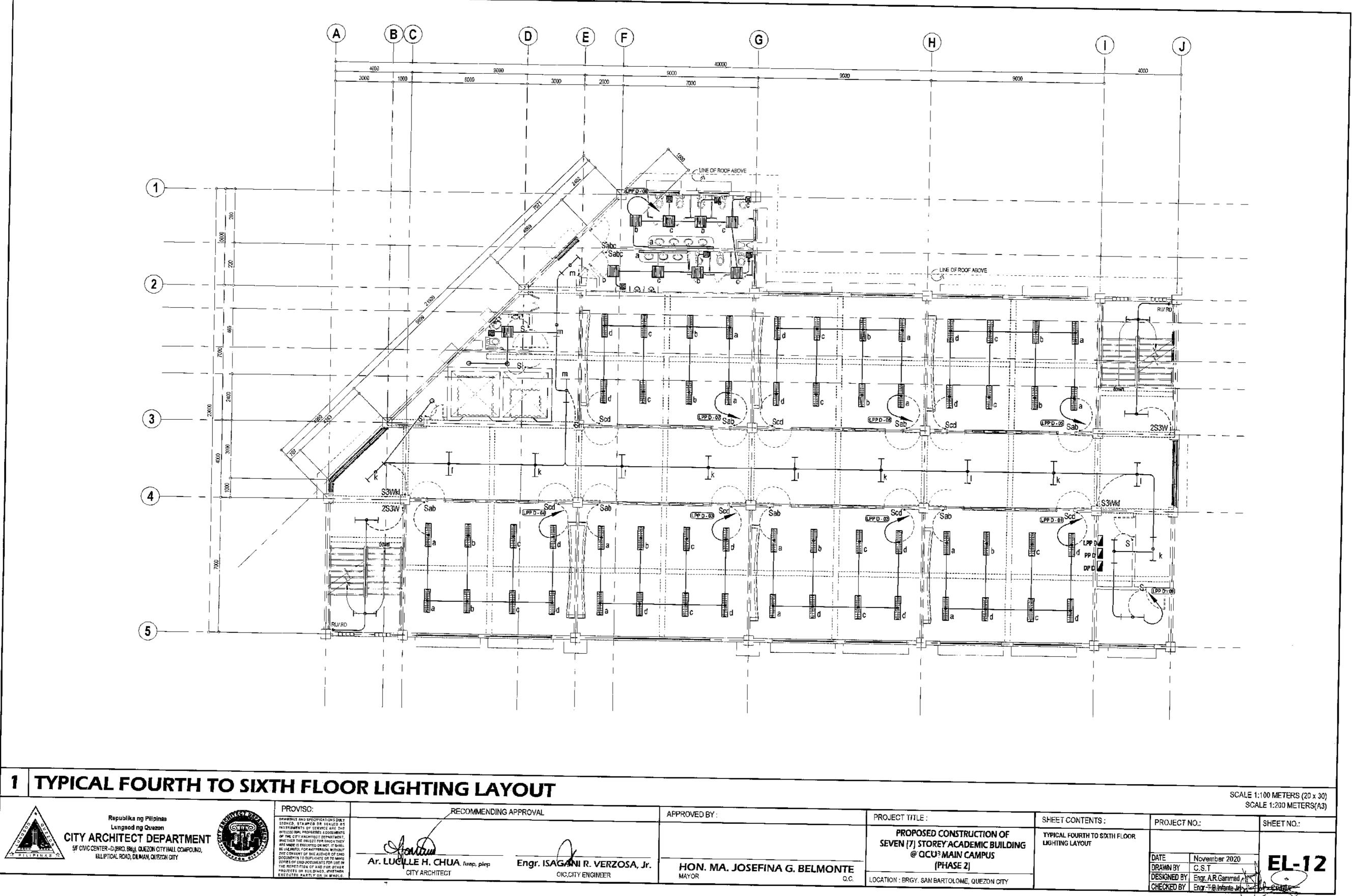
PILIPINAS

APPROVAL	APPROVED BY:	PROJECT TITLE :	SHEET CONTENTS :	PROJ
\sim		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCUS MAIN CAMPUS	SECOND FLOOR LIGHTING LAYOUT	DATE
Engr. ISAGANI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
			ſ	DESIGN
OIC,CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		CHECKE

			· •	
J)				
J				
-0				
[
ļ				
- 				
				ĺ
		<u> </u>		
╫ <u></u>				
-				
1				
l.				
				ľ
-1				
Щ				
-				
				Í
-6				
			1:100 METER	
			DALE 1:200 MI	
OJECT	10.:		SHEET NO	D.:
			—— —	
-		F - -	_ <u>_</u>	
E WN BY	Novemi C.S.T	ber 2020	- EL	-10
GNED BY	Engr. A.F Engr. T.B	Gammad		771
CKED BY	Engr. T.B	i.Inf ante di C	THEF	<u></u>
			A _	/



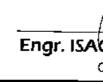
		· · · ·		
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
\wedge		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU®MAIN CAMPUS	THIRD FLOOR LIGHTING LAYOUT	DATE
AGANI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
DIC.CITY ENGINEER			1	DESIGN
OIO,OTT ENDINEER		LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		CHECKE





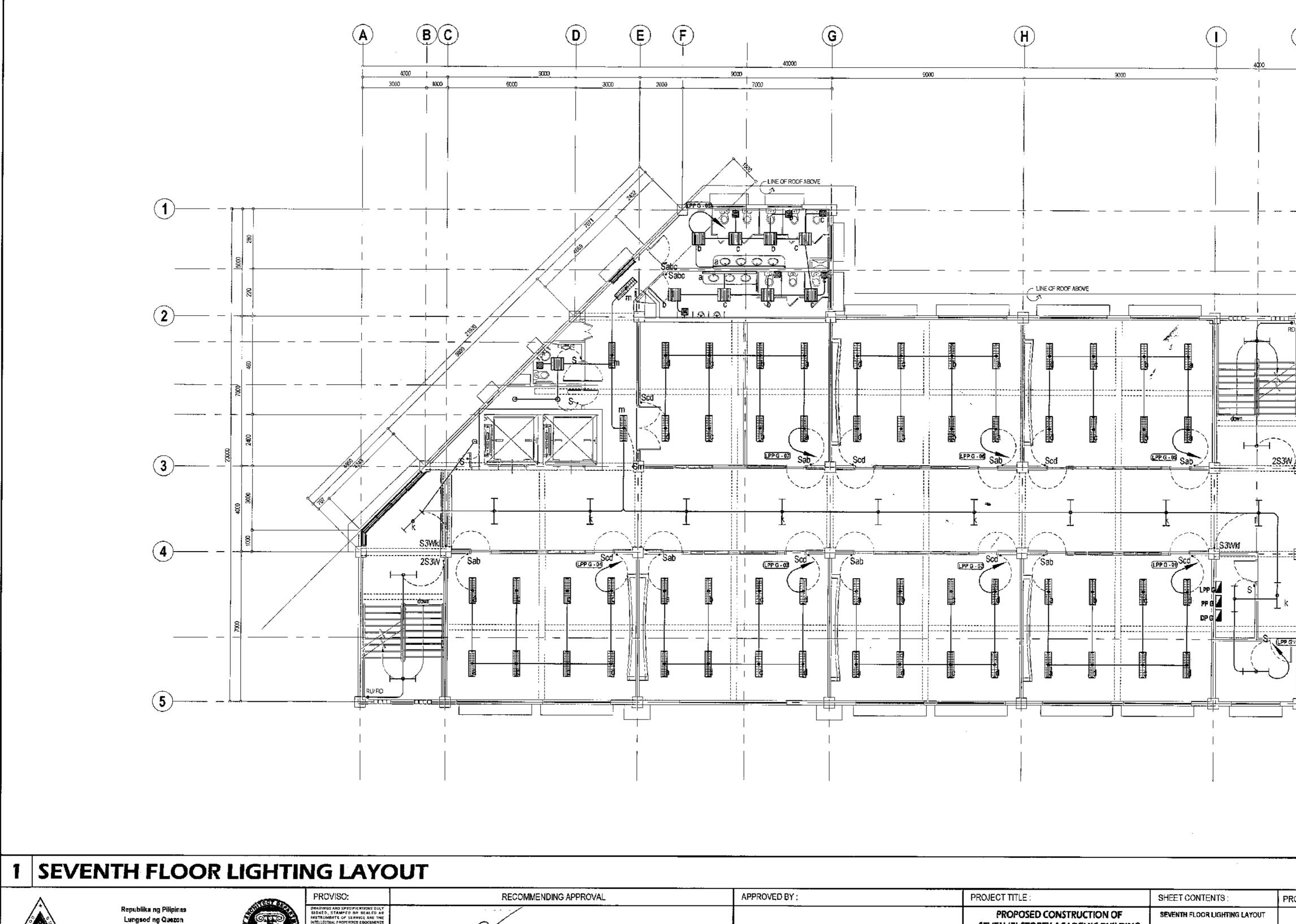






	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE
GANI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU? MAIN CAMPUS (PHASE 2)	TYPICAL FOURTH TO SIXTH FLOOR LIGHTING LAYOUT	DATE DRAWN BY
DIC,CITY ENGINEER		LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGNED

J. J. J.



Republika ng Pilipinas Lungsod ng Quezon CITY ARCHITECT DEPARTMENT SF CIVIC CENTER - D (BRO. Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILINAN, QUEZON CITY



PROVISO: ORAWINGS AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INFELLECTUAL PROPERTIES SOCCUMENTS OF THE GYY ARCHITECT DEPARTMENT, WHETHER THE COLLECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. IT SIML, BE WILMFUL ROT ANY PERSON, WITHOUT THE CONFENT OF THE AUTHOR OF SAID DOCUMENTS TO DUPUCATE OR TO MAKE COMES OF SAID DOCUMENTS FOR USE MM THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

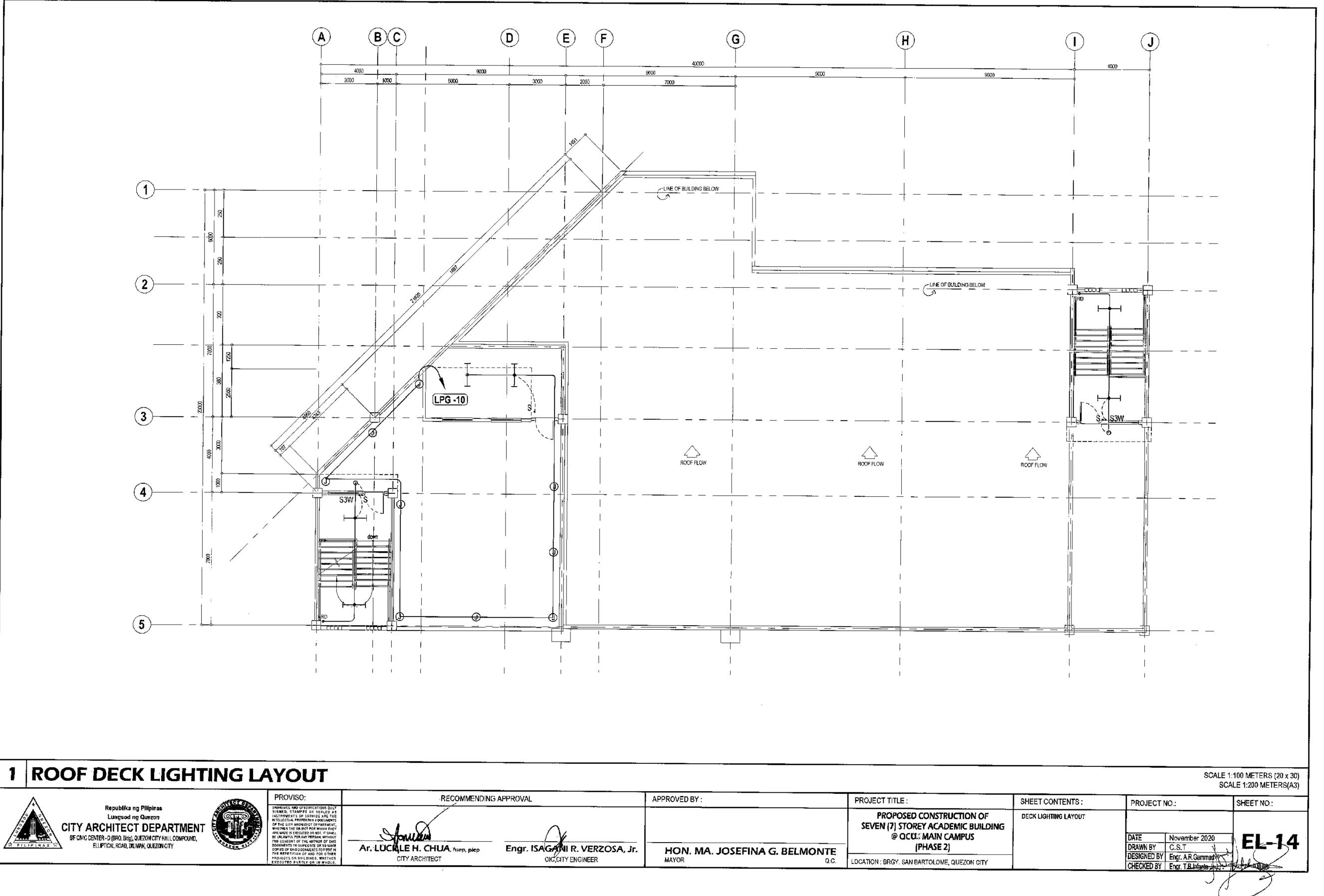


Engr. ISA

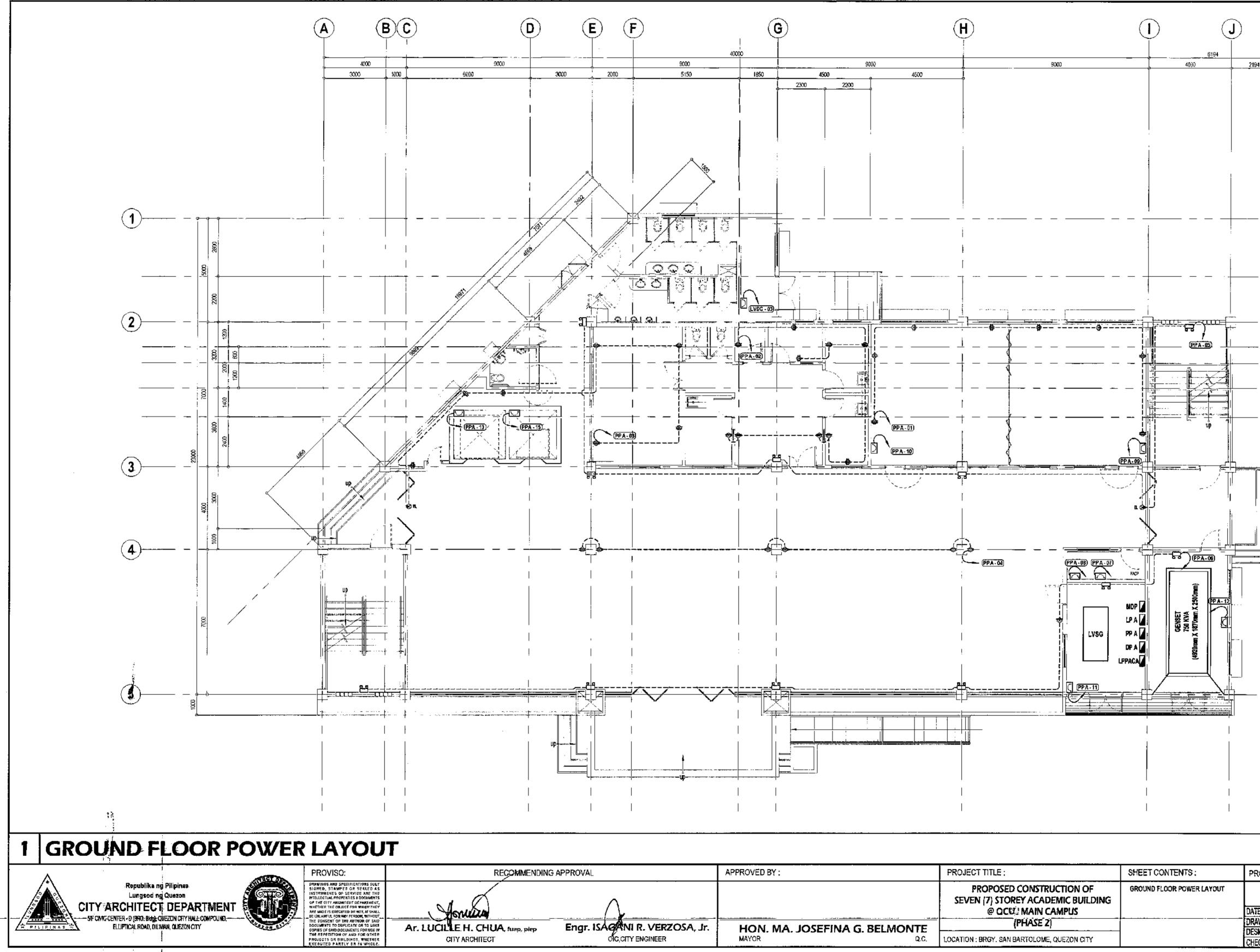
a the second of the

_	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	SEVENTH FLOOR LIGHTING LAYOUT	
Δ		@ QCU TMAIN CAMPUS		DATE
AGĂNI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
OFC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECKE

L	
	_
	-
SCALE 1:	100 METERS (20 x 30)
SCA	LE 1:200 METERS(A3)
OJECT NO.: November 2020 MN BY C.S.T GNED BY Engr. A.R.Gammad KED BY Engr. T.B.Infante Jr. 1	SHEET NO.: EL-13

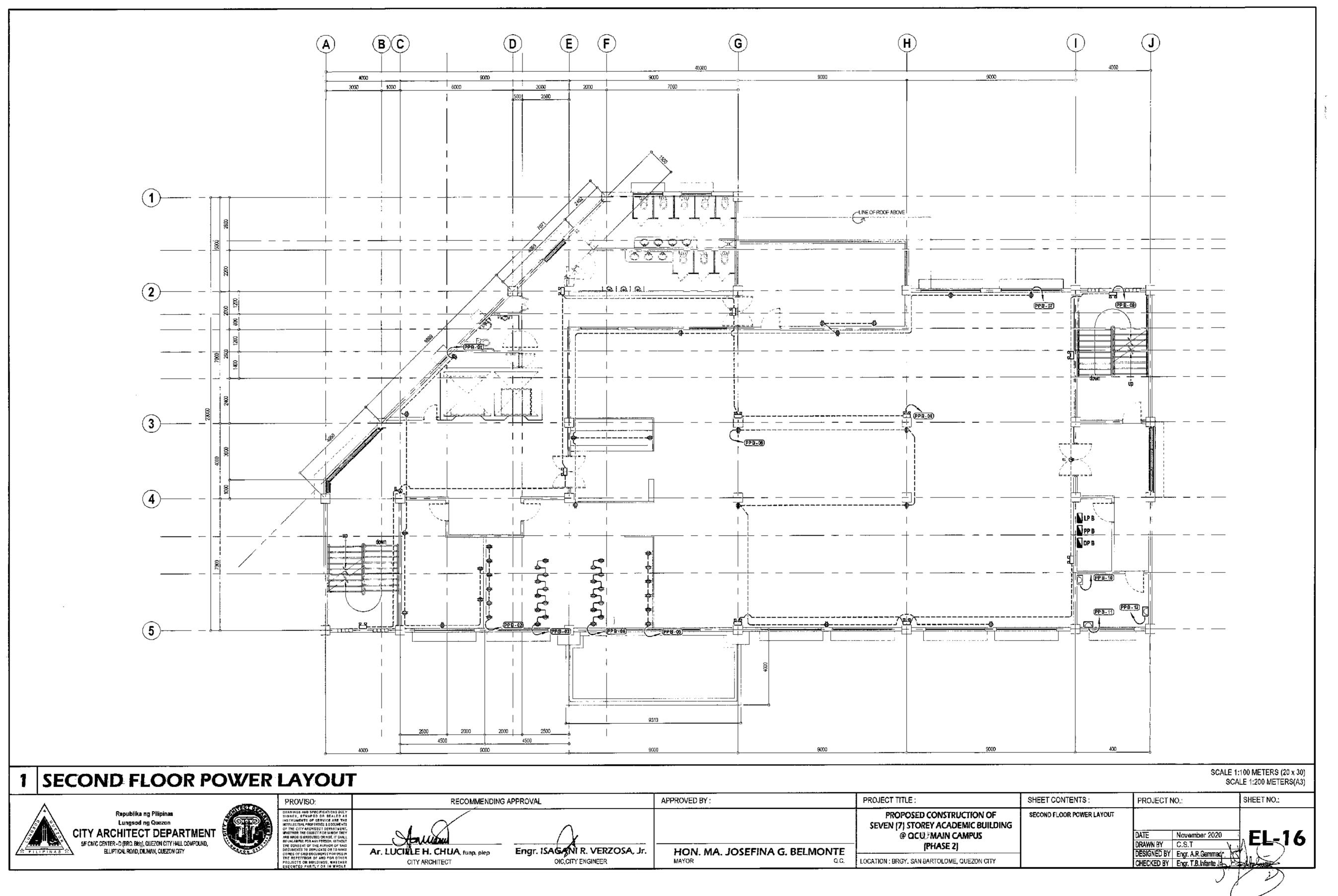


	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE
<u> </u>		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	DECK LIGHTING LAYOUT	
_ <u>Y</u>		@ QCUI; MAIN CAMPUS		DATE
AGAMI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
OIC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGNE
				CHECKE



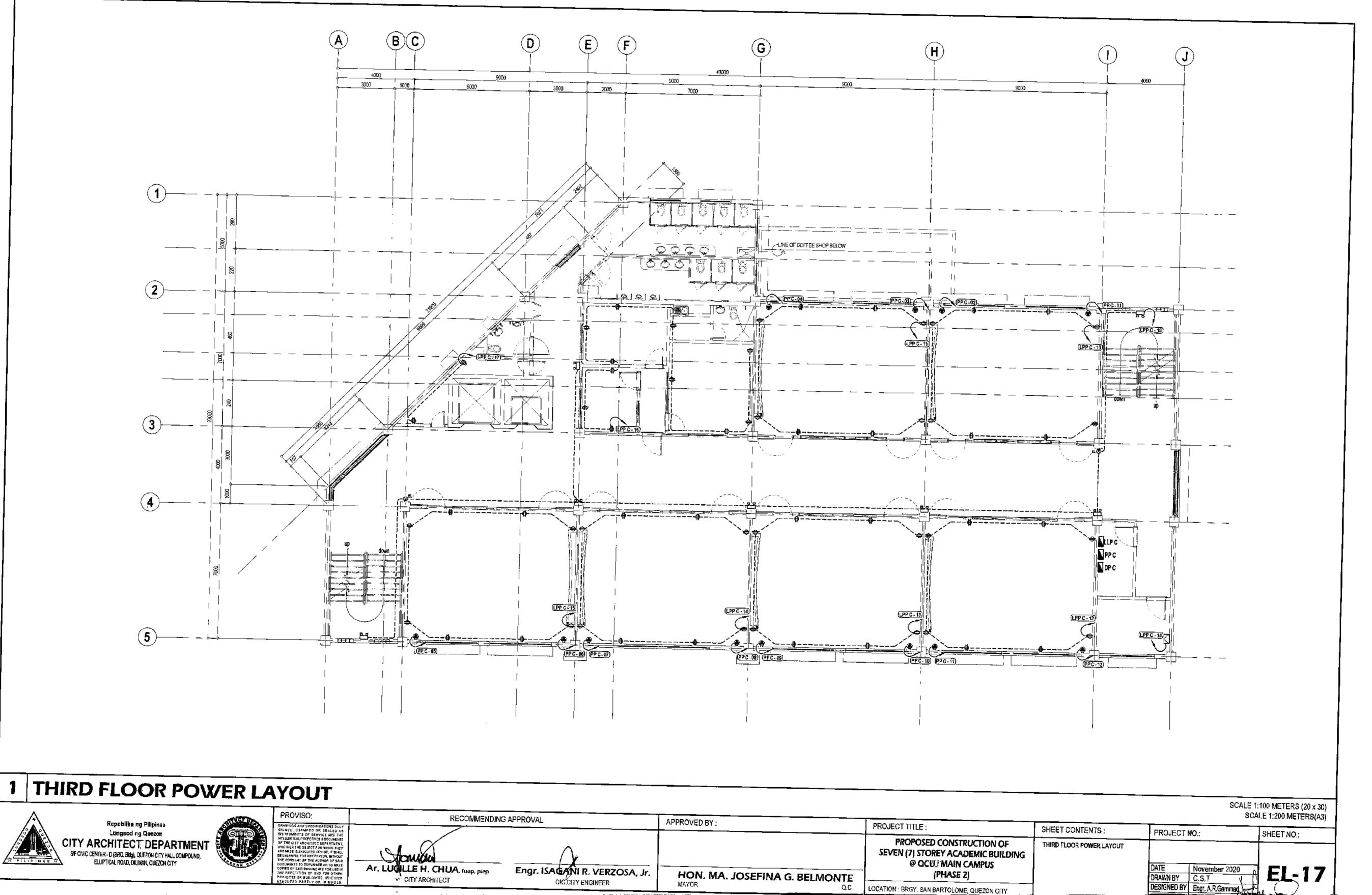
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
\wedge		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	GROUND FLOOR POWER LAYOUT	
		@ QCU! MAIN CAMPUS	<u> </u>	DATE
AGANI R. VERZOSA, Jr.	HON, MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
OIC, CITY ENGINEER	MAYOR Q.C.			DESIGN
	MATOR QU,	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		CHECK

					,
	Į	SCALE 1:1	100 METERS .E 1:200 ME	S (20 x 30) TERS(A3)	
			SHEET NO.	: : ·	
TE AWN BY SIGNED BY ECKED BY	November 2 C.S.T Engr. A.R.Gam Engr. T.B.Iafan		ALCONT -	.1-5-	





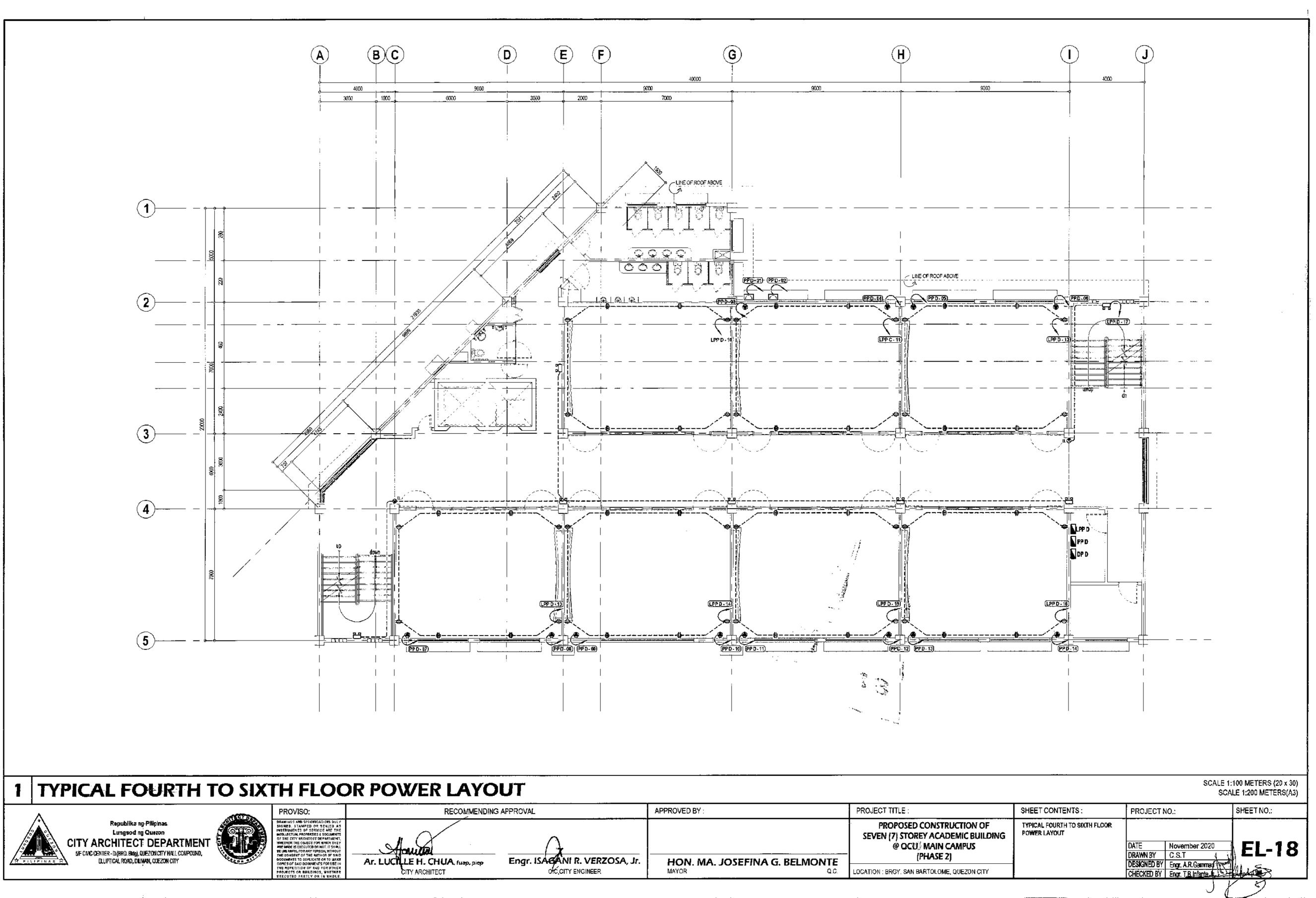
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
AGAINI R. VERZOSA, Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU/MAIN CAMPUS (PHASE 2)	SECOND FLOOR POWER LAYOUT	DATE DRAWN DESIGN
OIC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		CHECK







	APPROVED BY :	PROJECT TITLE ;		
			SHEET CONTENTS :	PROJE
GANI R. VERZOSA, Jr. DIC, CITY ENGINEER	MAYOR	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU!! MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	THIRD FLOOR POWER LAYOUT	DATE DRAWN BY DESIGNED

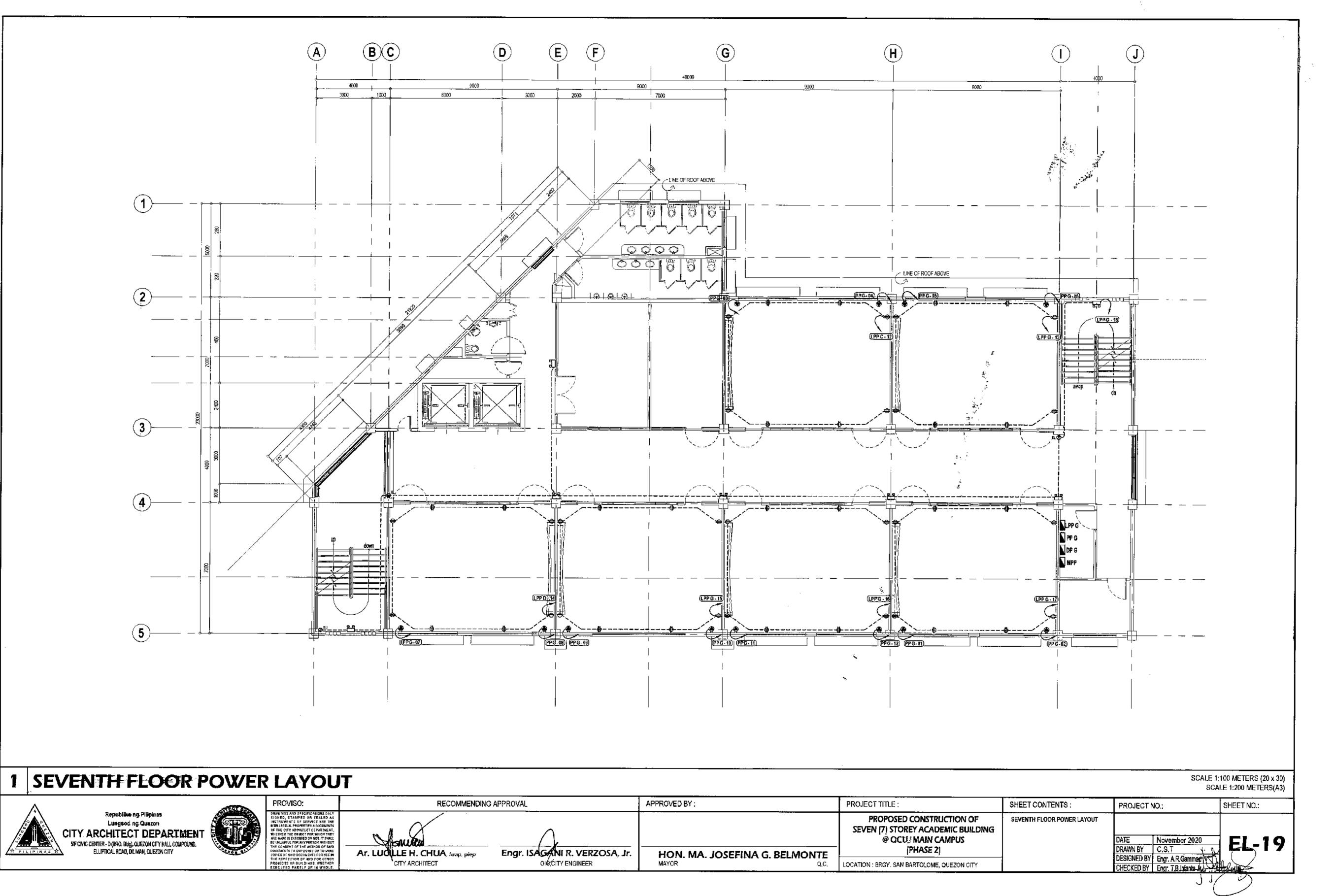




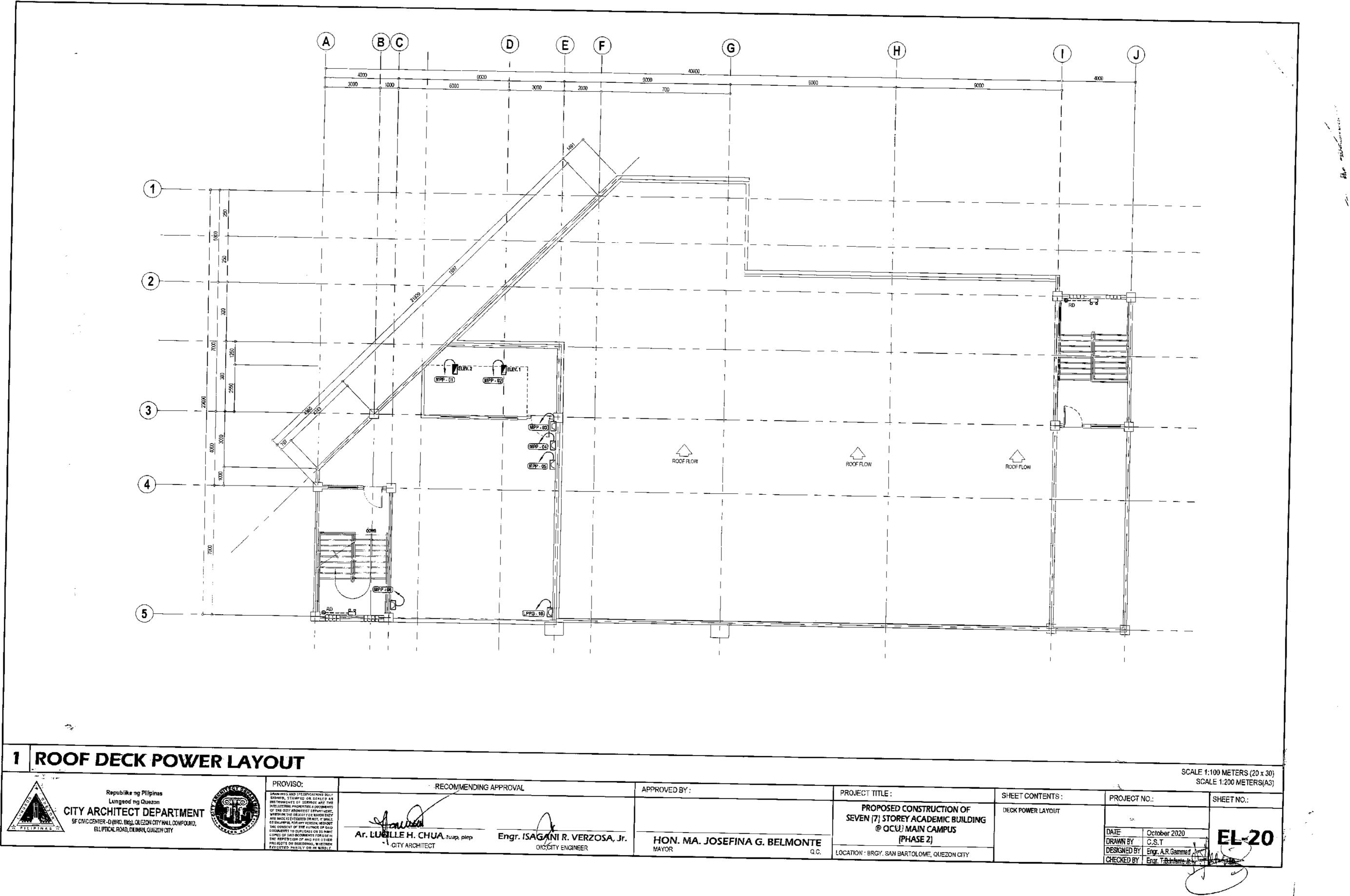


RECOMMENDING	G APPRO
IUA, fuap, piep	En

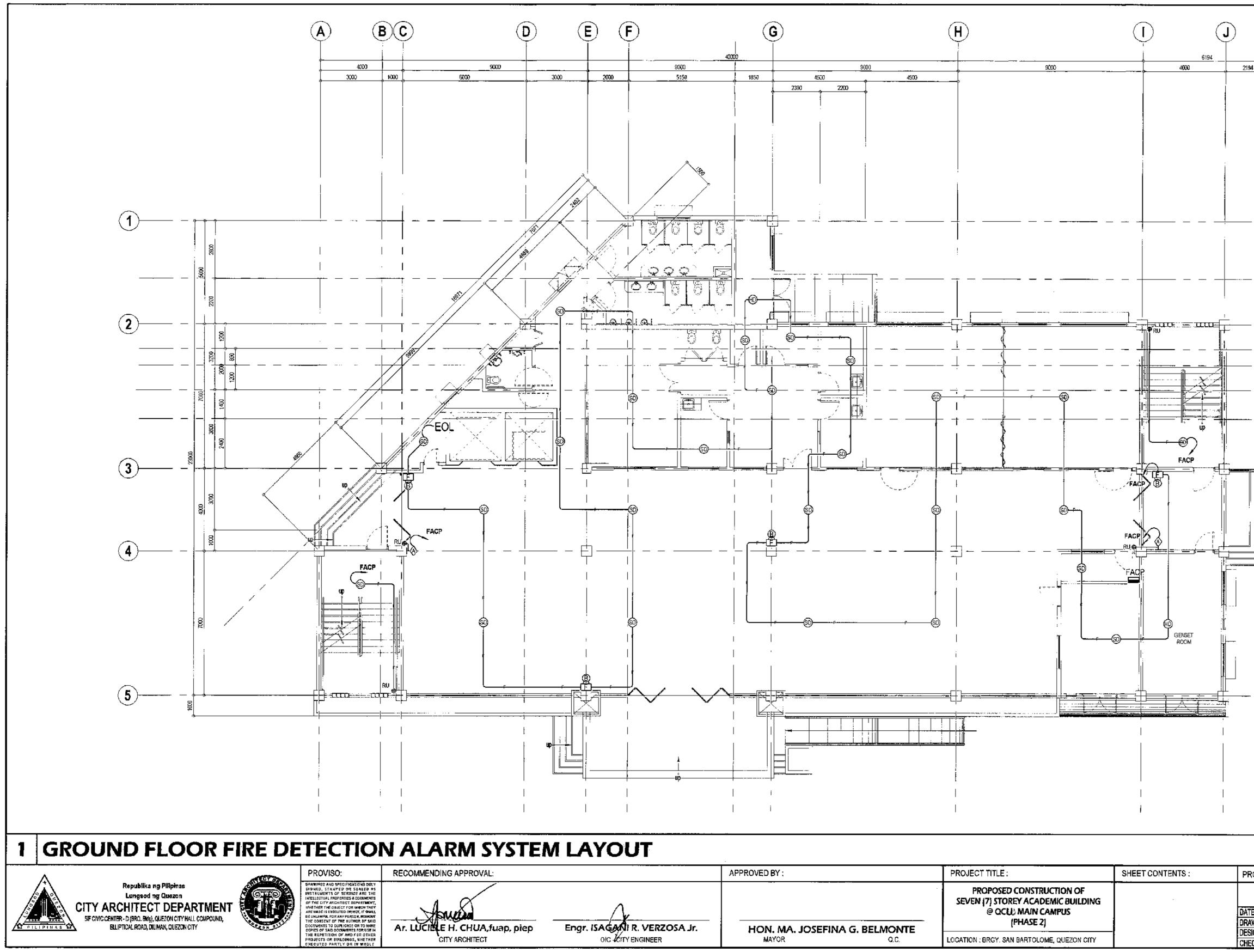
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
AGANI R. VERZOSA, Jr. OIC, CITY ENGINEER MAYOR Q.C.		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU: MAIN CAMPUS	TYPICAL FOURTH TO SIXTH FLOOR POWER LAYOUT	DATE
	(PHASE 2)		DRAW	
	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECK	



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
AGANI R. VERZOSA, Jr. OIG CITY ENGINEER MAYOR Q.C.		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU.! MAIN CAMPUS (PHASE 2)	SEVENTH FLOOR POWER LAYOUT	DATE
	HON. MA. JOSEFINA G. BELMONTE		4	DRAWN
	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		CHECK	

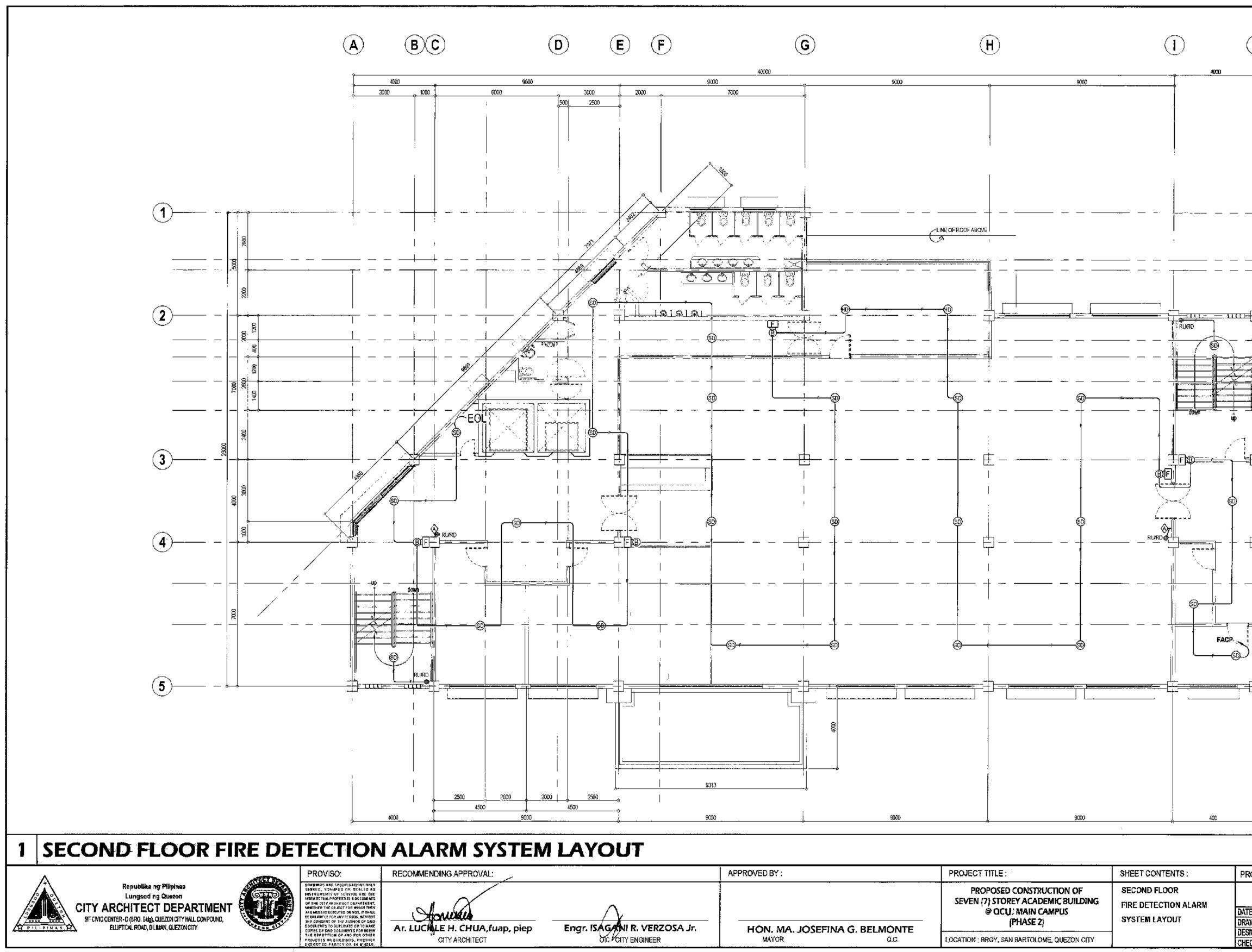


	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE
GANI R. VERZOSA, Jr. OIC, CITY ENGINEER	MAYOD	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU) MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	DECK POWER LAYOUT	DATE DRAWN B DESIGNEL CHECKED



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU) MAIN CAMPUS (PHASE 2)		DATE
SAGANI R. VERZOSA Jr.	HON, MA, JOSEFINA G, BELMONTE	,	-	DESIGN
OIC CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECK

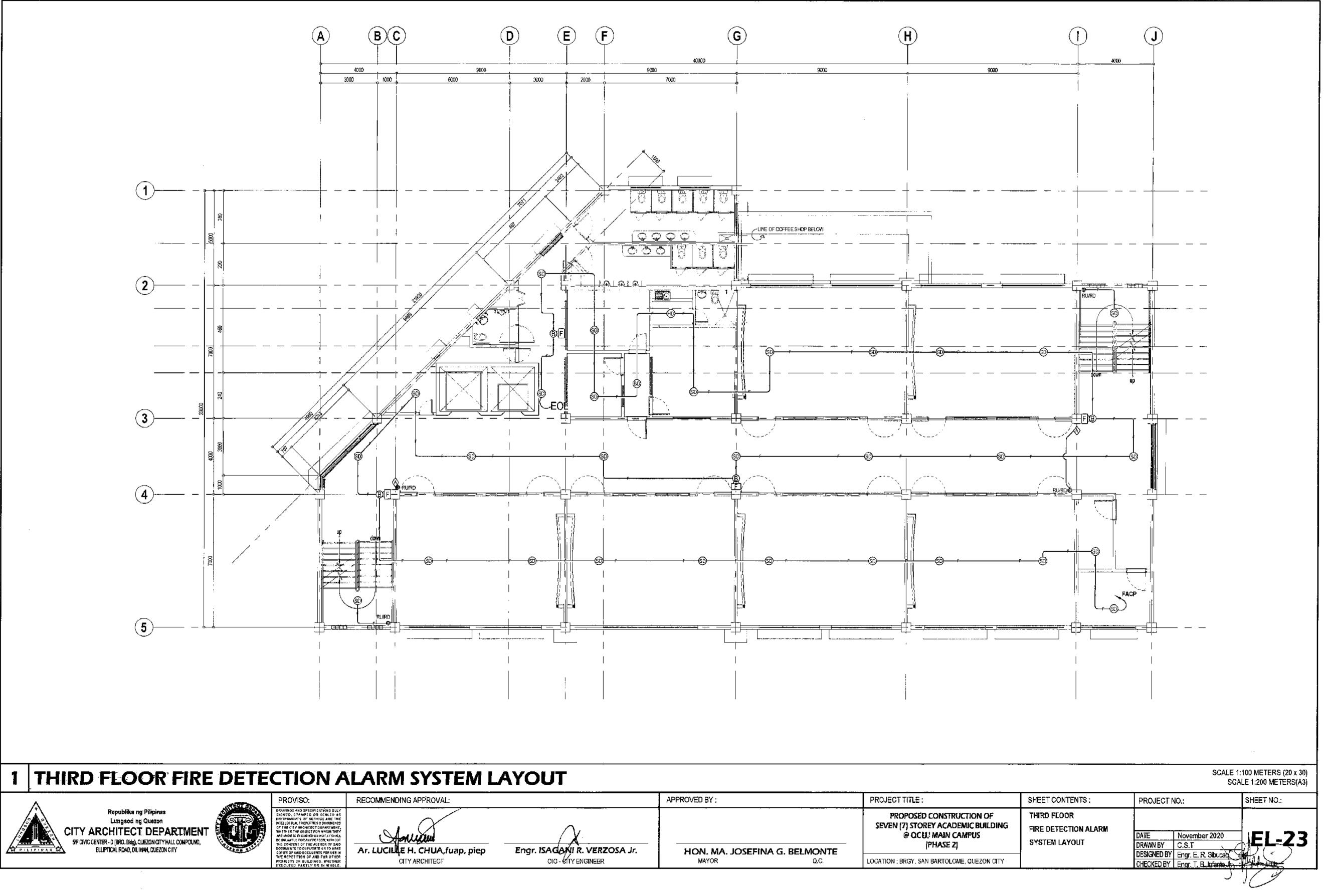
	SCALE 1:100 METERS (20 SCALE 1:200 METER	0 x 30) (S(A3)
ROJECT NO.: TE November AWN BY C.S.T SIGNED BY Engr. E. R. ECKED BY Engr. T. B.	──、 ─∕	21
	C	



₽-1...

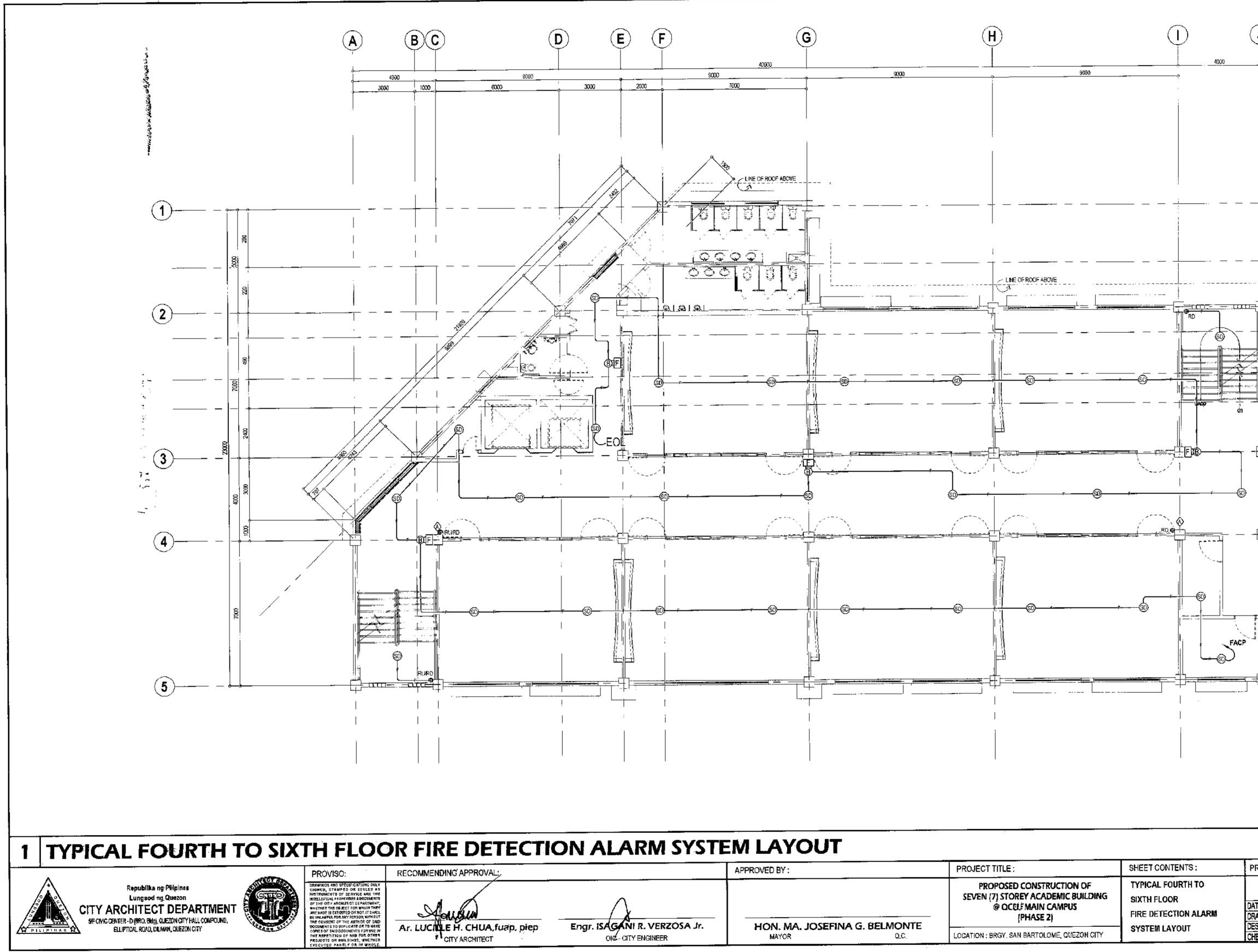
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PR0.
SAGAINI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU.; MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	SECOND FLOOR FIRE DETECTION ALARM SYSTEM LAYOUT	DATE DRAWN DESIGN CHECK

J						
		<u> </u>	<u> </u>			-
		S	CALE 1: SCA	100 METE LE 1:200 N	METERS(/	30) 43)
OJECT	NO.:			SHEETI	10.:	
e WN BY Igned By Cked By	CST	iber 20. . R. Sibi		EL	22	2
<u></u>	<u>,</u>		J	C	\mathcal{D}	-



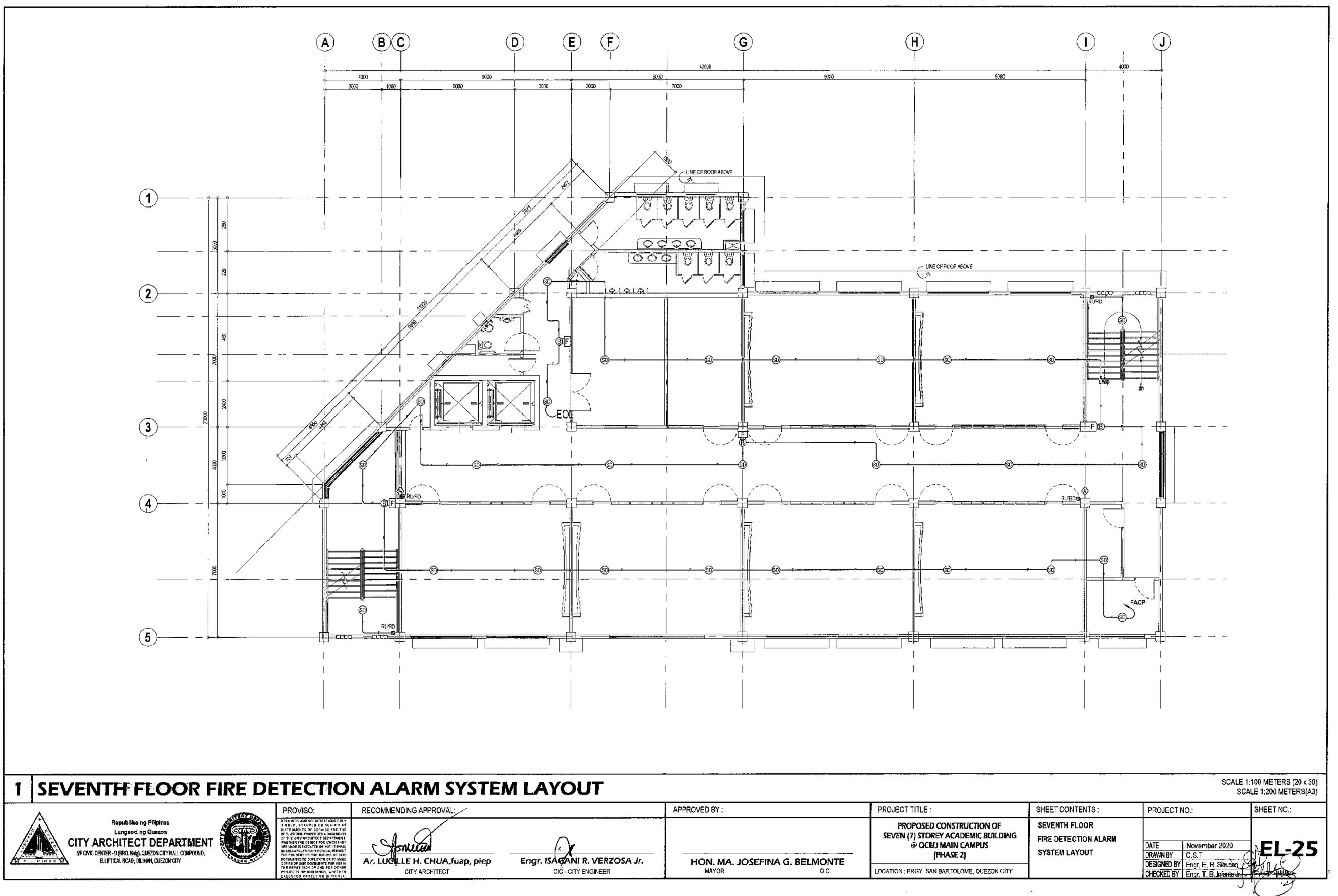


APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
HON, MA, JOSEFINA G, BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU.! MAIN CAMPUS (PHASE 2)	THIRD FLOOR FIRE DETECTION ALARM SYSTEM LAYOUT	DATE DRAWN DESIGN
MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECKE
•	HON. MA. JOSEFINA G. BELMONTE	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF THIRD FLOOR SEVEN (7) STOREY ACADEMIC BUILDING FIRE DETECTION ALARM @ QCU.! MAIN CAMPUS SYSTEM LAYOUT HON. MA. JOSEFINA G. BELMONTE (PHASE 2)



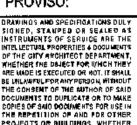
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
ISAGANI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCELF MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	TYPICAL FOURTH TO SIXTH FLOOR FIRE DETECTION ALARM SYSTEM LAYOUT	DATE DRAW DESIG CHEC

·] ·]			-			1
			_			
			_			
			_			
┷╫╴ ╾┲╢ ┇			_			
			_			
						A IC AN A STATE OF A STATE
; _1			_			
ļ						
		5	CALE 1:	100 METE	RS (20 x 3 METERS(A	30)
	10.:		JUAI	SHEET		~/
ſE		nber 20)20		.	"
AWN BY Signed by Ecked by	C.S.T				2 '	•
	<u>e crigr, l</u>	. 0. 118		C	<u>À</u>	



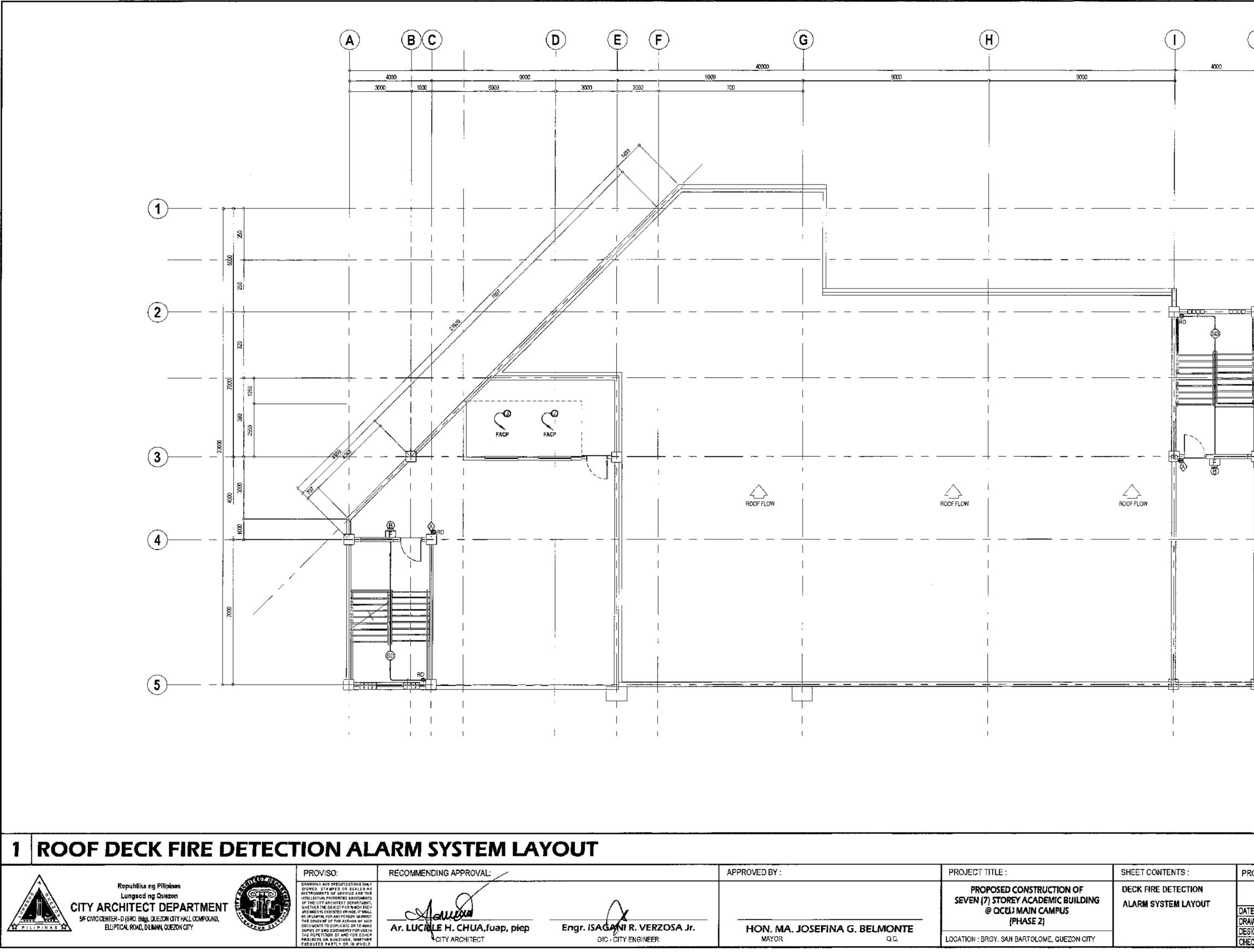






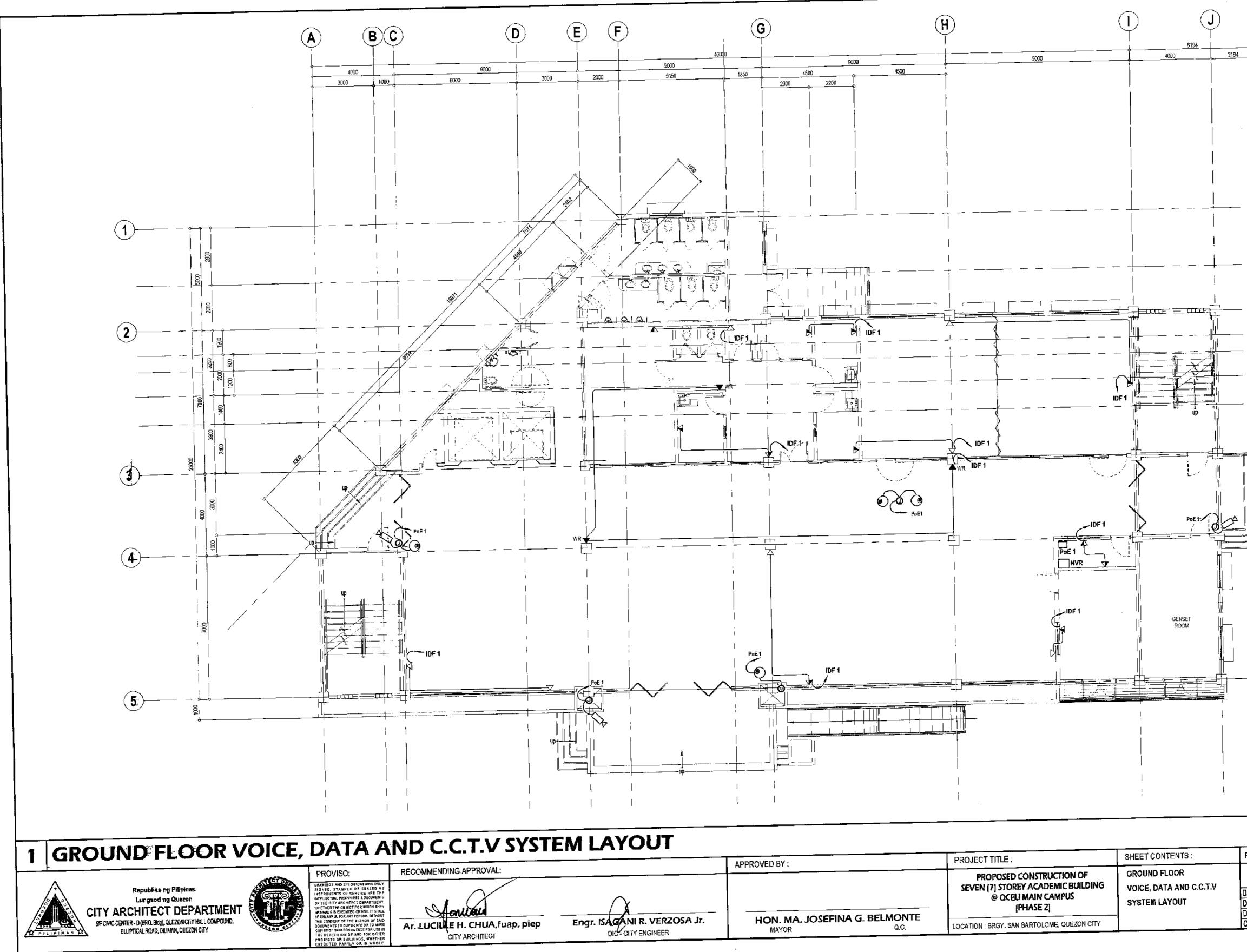


YOUT				
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
SAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCUJ MAIN CAMPUS (PHASE 2)	SEVENTH FLOOR FIRE DETECTION ALARM SYSTEM LAYOUT	DATE DRAWN DESIGN
OIĆ - CITY ENGINEER	MAYOR Q.C.	LOCATION ; BRGY, SAN BARTOLOME, QUEZON CITY		CHECK



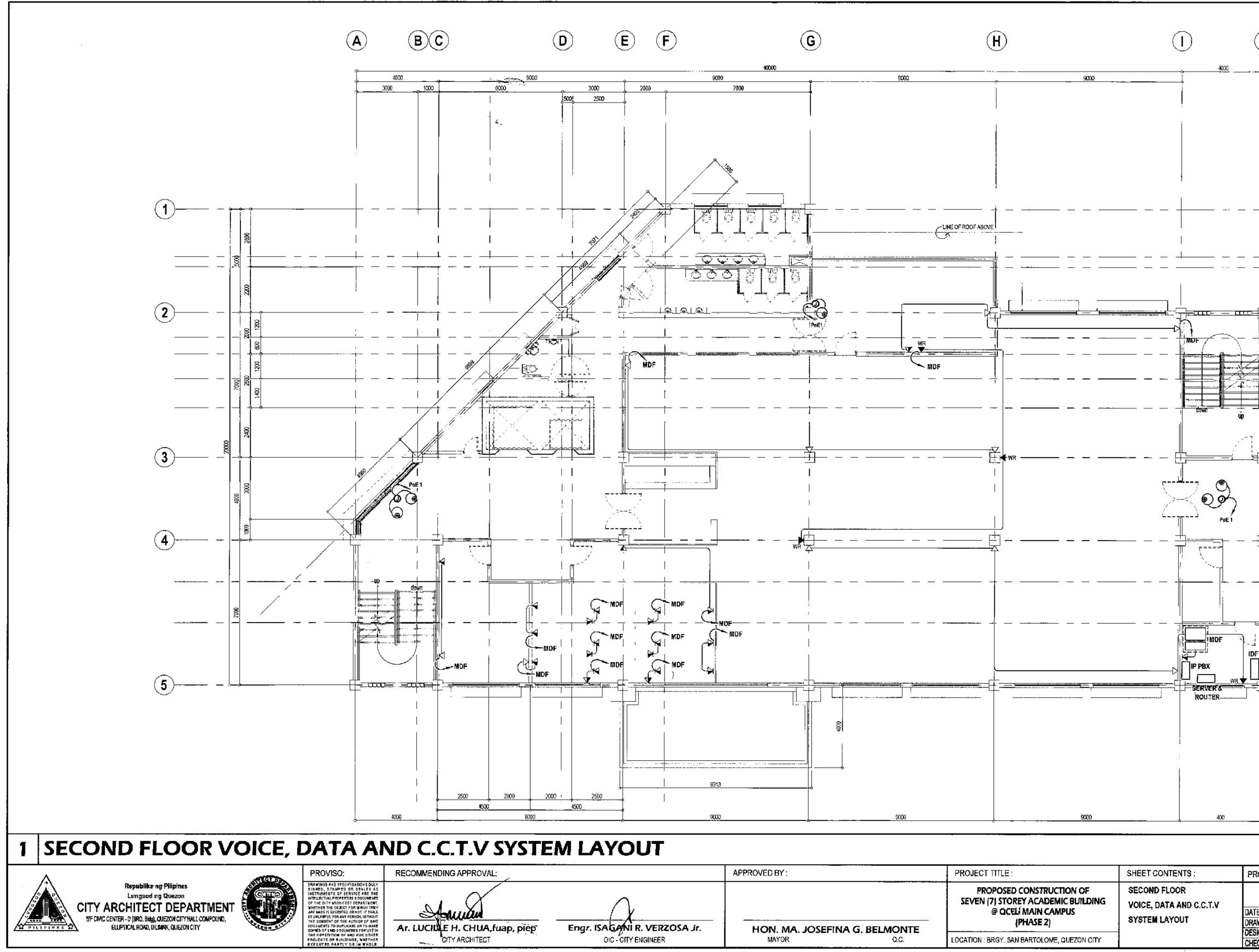
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCCLJ MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	DECK FIRE DETECTION Alarm system layout	DATE DRAWN DESIGN CHECKI

(L					
-		_			
<u> </u>		_			
		_			
		_			
<mark>╪╪<u></u>┤ </mark>		_			
I					
					-
		SCALE 1 SCA	100 METER	ETERS(A3)	
OJECT			SHEET NO		
E An By Gned By Cked By	November C.S.T Engr. E. R. Engr. T. B.	2020 Sibucata Infante Ja-	EL	-26	
)`		2	



				T
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PR
ISAGANI R. VERZOSA Jr. OIC- CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCEU MAIN CAMPUS [PHASE 2] LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	GROUND FLOOR VOICE, DATA AND C.C.T.V SYSTEM LAYOUT	DAT DRA DES CHE

SCALE 1:100 METERS (20 x 30)
SCALE 1:100 METERS (20 X 30) SCALE 1:200 METERS(A3)
ROJECT NO.: SHEET NO.:
ATE November 2020 RAWN BY C.S.T ESIGNED BY Engr. E. R. Sibucao O HECKED BY Engr. T. B. Infante J



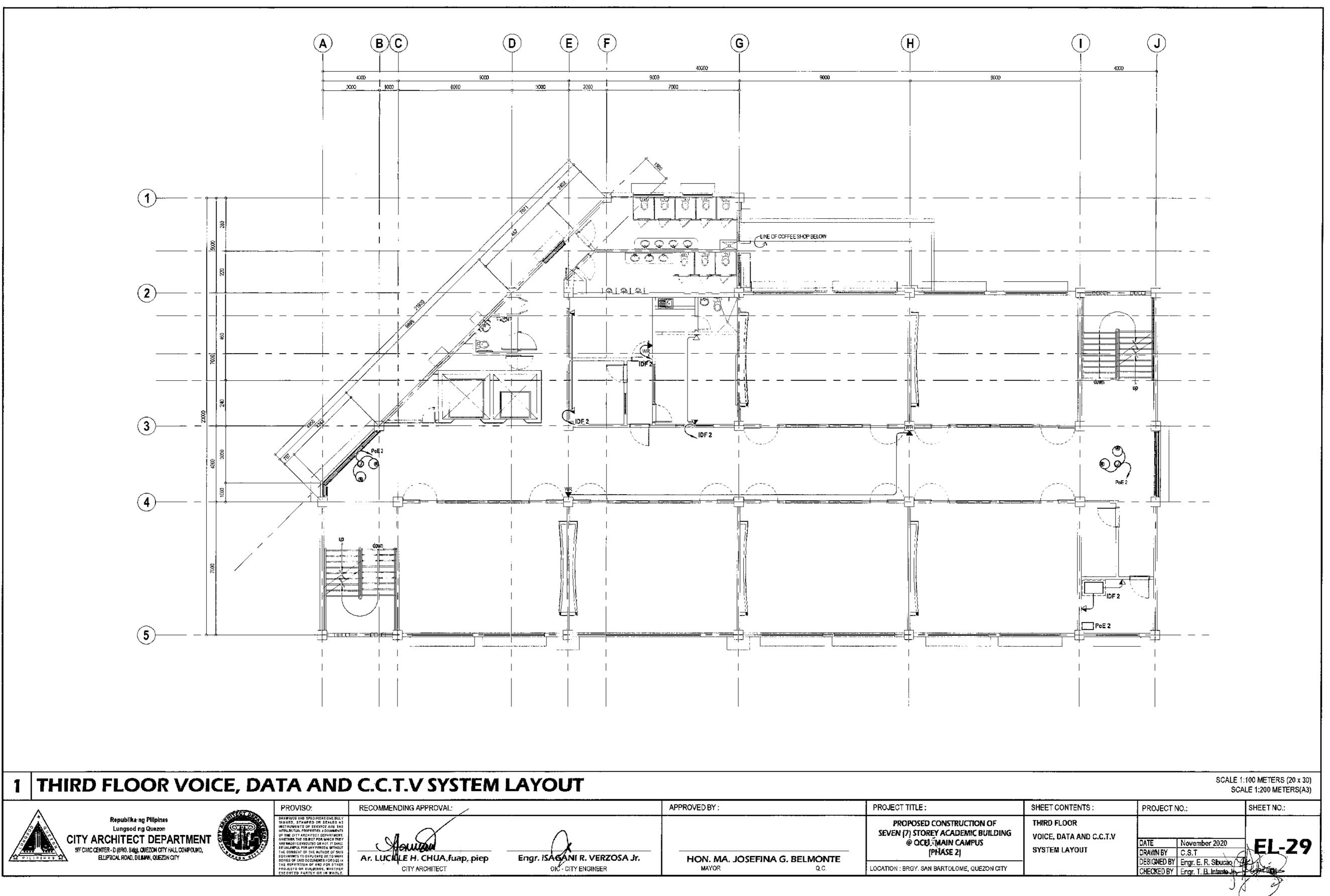
1999 - Sec. 1

· ..

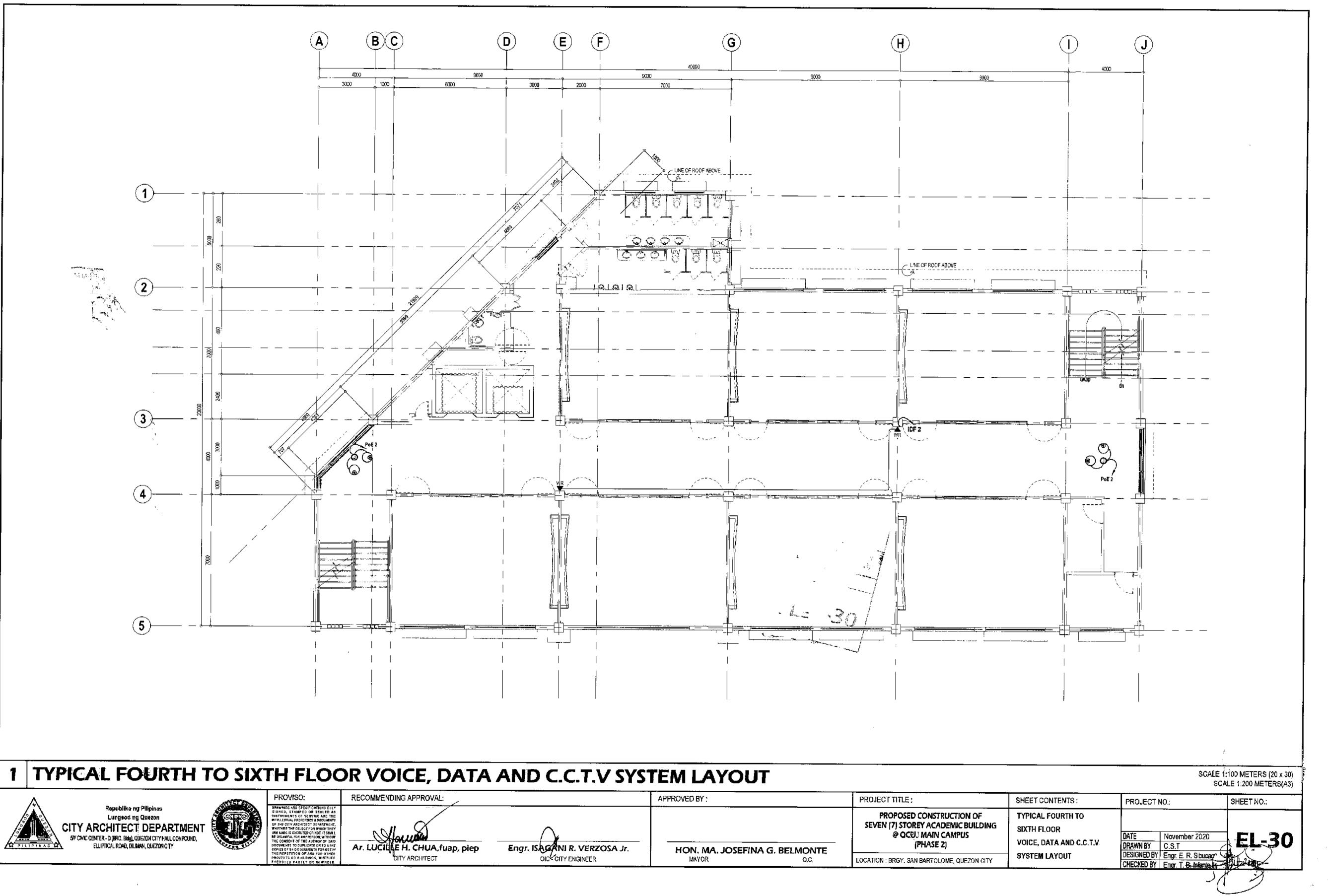
. .

	APPROVED BY :		PROJECT TITLE :	SHEET CONTENTS ;	PRO.
SAGANI R. VERZOSA Jr.	HON, MA, JOSEFINA G. E	BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCEL! MAIN CAMPUS {PHASE 2}	SECOND FLOOR VOICE, DATA AND C.C.T.V SYSTEM LAYOUT	DATE DRAWN DESIGN
OIC - CITY ENGINEER	MAYOR	Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECK

	<u> </u>		-		
J					:
[
		_			
 <u>=</u> <u> -</u>					
					ŗ
		SCALE 1 SCA	:100 METER LE 1:200 ME	TERS(A3)	
OJECT NO.			SHEET NO).: 	
e F				~ #	
E N WIN BY C IGNED BY E: CKED BY E:	lovember 2 .S.T ngr. E. R. S ngr. T . B. k	ibuicao	EL	-28	
) (1	

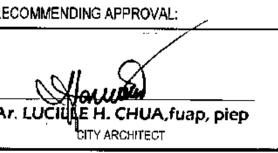


	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
AGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU_MAIN CAMPUS (PHASE 2)	THIRD FLOOR VOICE, DATA AND C.C.T.V SYSTEM LAYOUT	DATE DRAWN DERICAL
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY		DESIGNE

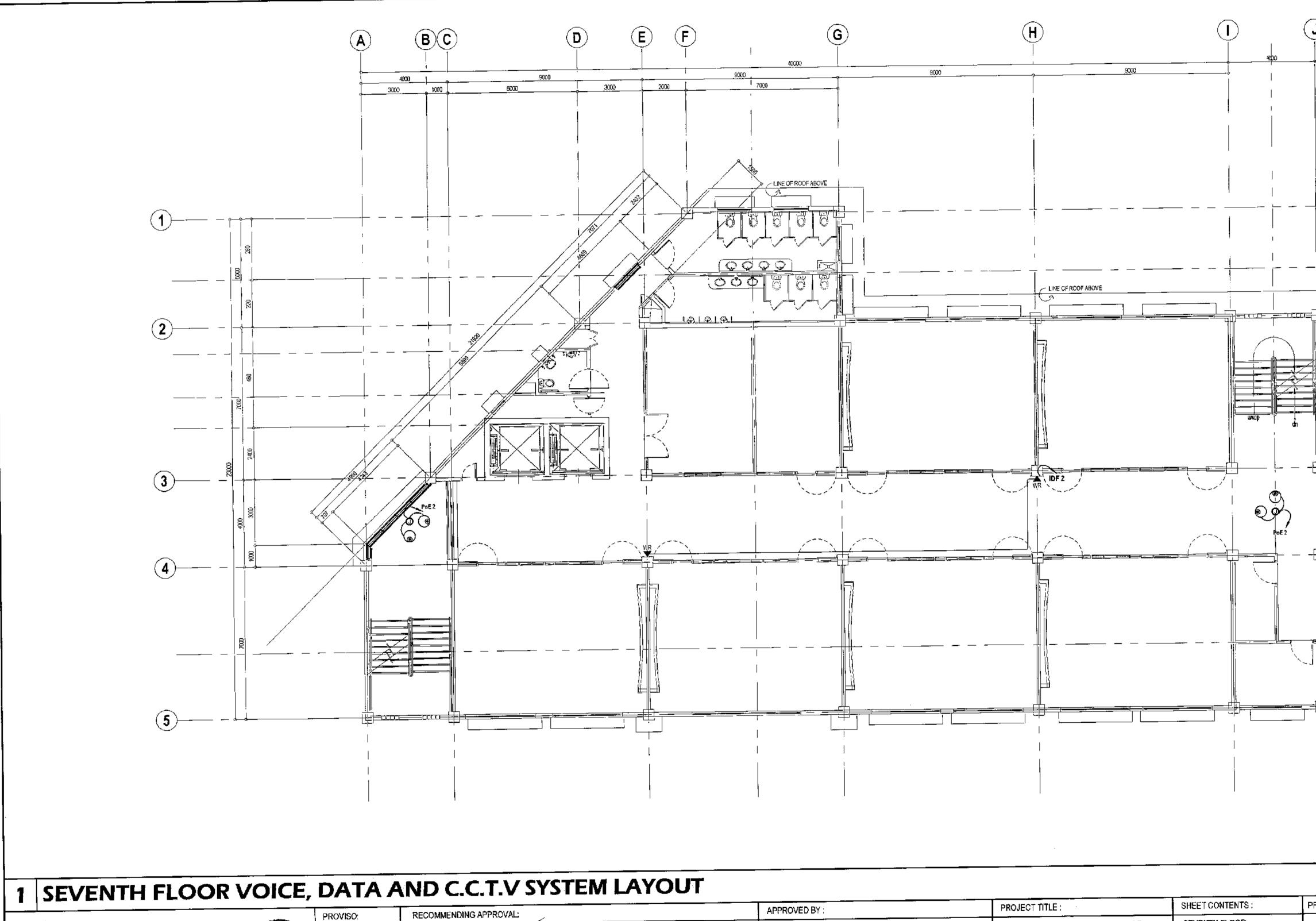




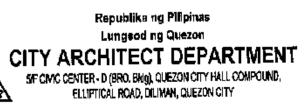




···· · ··· ··· ··· ··· ··· ··· ··· ···	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE
AGANI R. VERZOSA Jr. OIC- CITY ENGINEER	HON, MA, JOSEFINA G, BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCEUS MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	TYPICAL FOURTH TO SIXTH FLOOR VOICE, DATA AND C.C.T.V SYSTEM LAYOUT	DATE DRAWN I DESIGNE CHECKEI









PROVISO: DRAWINGS AND SPECIFICATIONS DULY SIGKED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INSTRUMENTS OF SERVICE ARE THE INSTRUMENTS OF SECTOR SACOUMENTS OF THE GIT Y ARCHITECT DEPARTMENT, WHETHER THE OBJECT FOR WHICH THEY ARE MORE IS EXECUTED OR NOT. IT SALL BE UNLAUFUL FOR ANY PERSON, WITHOUT THE CONSENT OF THE ALTHOR OF SAID DOCUMENTS TO DUPLICATE UR TO MAKE QODIES OF SAID DOCUMENTS FOR WSE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

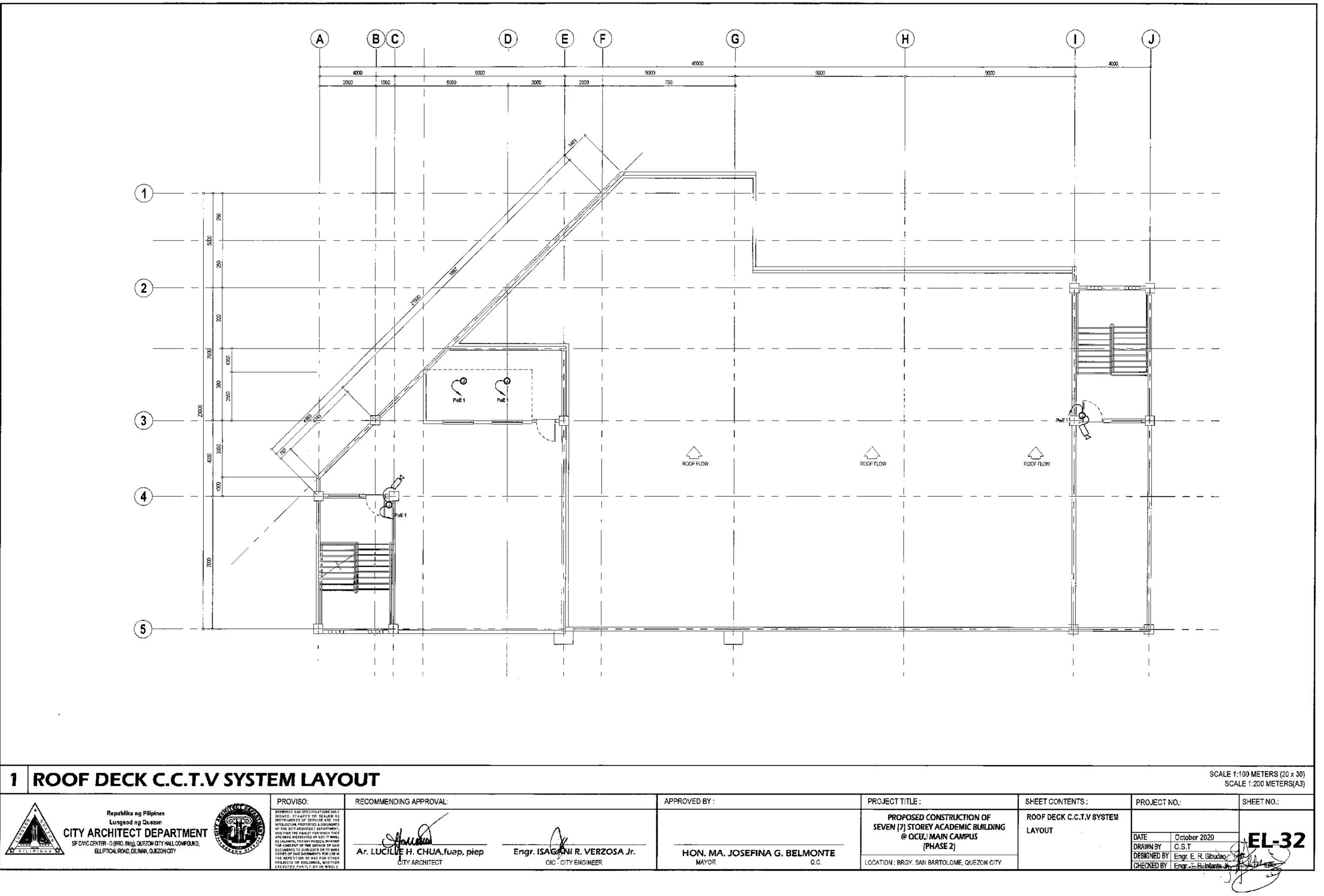
.

Ar. LUCILLE H. CHUA, fuap, piep

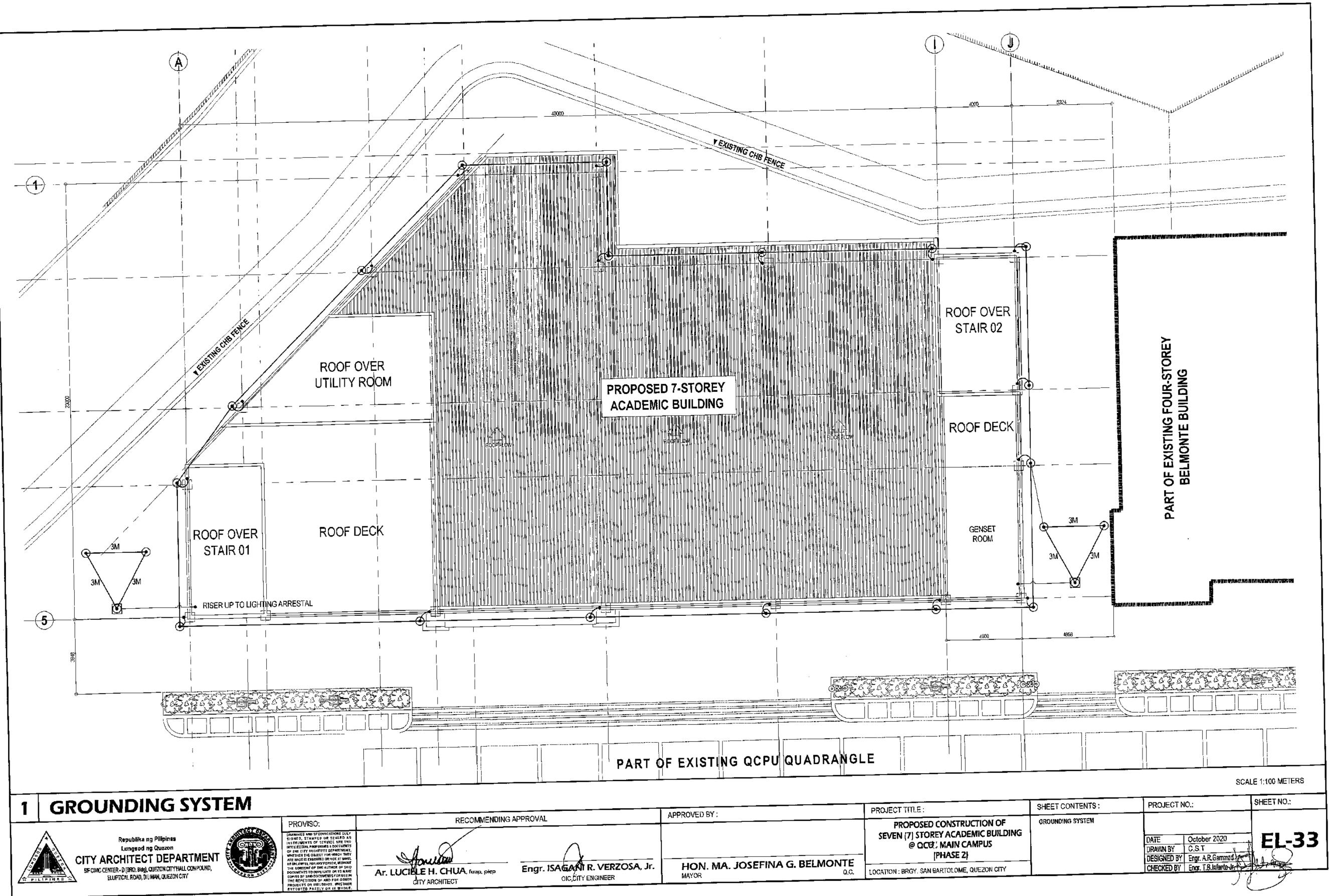
Engr. IS/

MOOI				
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRÓ
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCEL: MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	SEVENTH FLOOR VOICE, DATA AND C.C.T.V SYSTEM LAYOUT	DATE DRAW DESIG CHEC

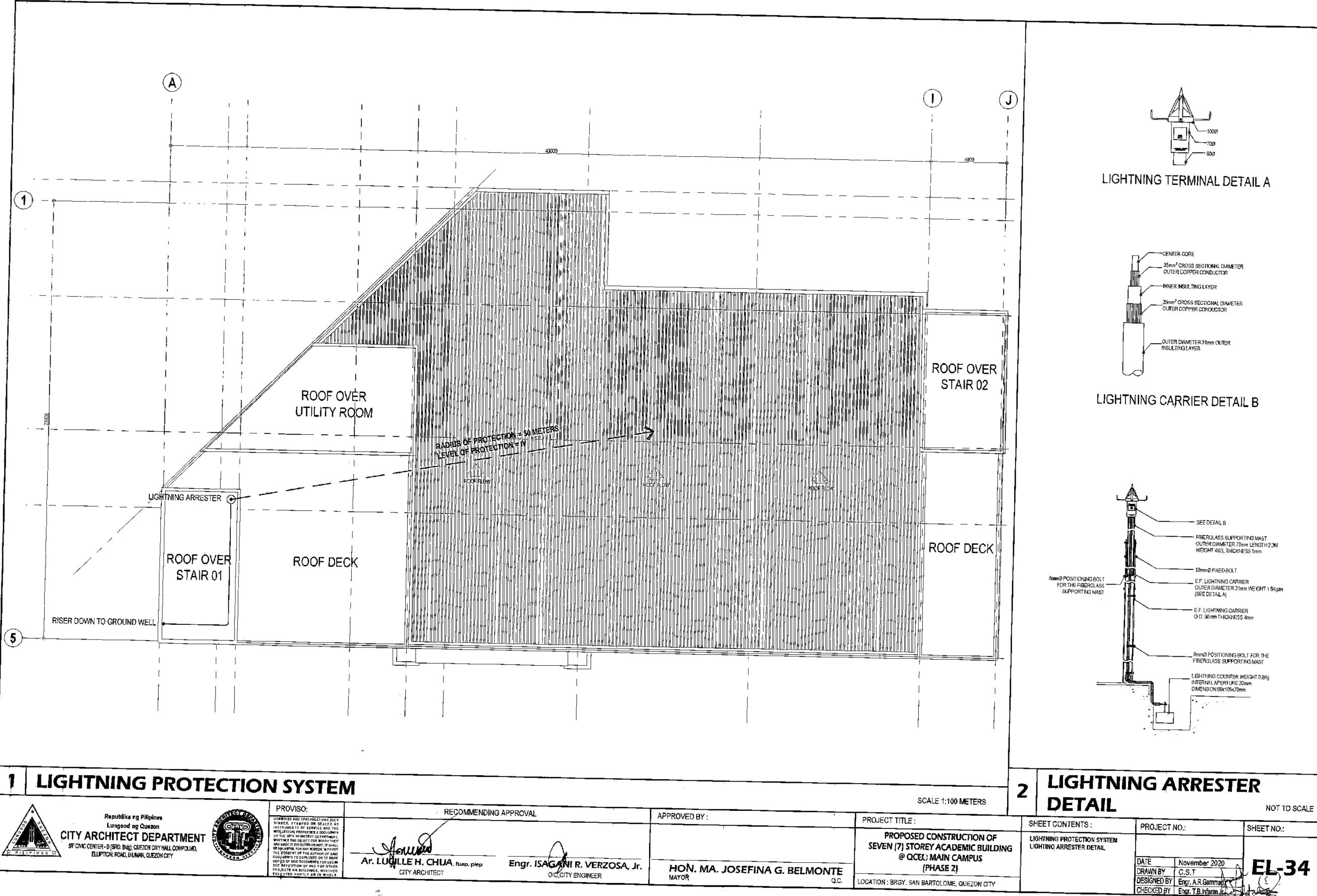
~		
1)		
l		
ł		
ł		
	1	
Í		
1	1	
}		
<u> </u>		
+ 1		
1		
<u>'</u>		
[4]		
¥₽!		
<u>1</u>		
1		
11		
h		
ЩL		
1111		1
┈┲┲╾┙		
'		
	··	I
[]		I
		I
		I
		I
		ĺ
- HL		ĺ
ц <u>л </u>		I
I		
I		
		1
1		
	SCALE 1:100 METERS (20 x 30)	
 	SCALE 1:100 METERS (20 x 30) SCALE 1:200 METERS(A3)	
 	SCALE 1:100 METERS (20 x 30) SCALE 1:200 METERS(A3)	
	SCALE 1:200 METERS(A3)	
	SCALE 1:200 METERS(A3)	
	SCALE 1:200 METERS(A3)	
	SCALE 1:200 METERS(A3)	
	SCALE 1:200 METERS(A3)	
TE	SCALE 1:200 METERS(A3)	
TE	SCALE 1:200 METERS(A3) IO.; SHEET NO.: November 2020 C.S.T	
TE	SCALE 1:200 METERS(A3) IO.; SHEET NO.: November 2020 C.S.T	
TE	SCALE 1:200 METERS(A3) IO.; SHEET NO.: November 2020 C.S.T	
TE	SCALE 1:200 METERS(A3)	



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
AGANI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCEL: MAIN CAMPUS (PHASE 2) LOCATION ; BRGY. SAN BARTOLOME, QUEZON CITY	ROOF DECK C.C.T.V SYSTEM LAYOUT	DATE DRAWN DESIGN



		PROJECT TITLE :	SHEET CONTENTS :	F
	APPROVED BY : HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU: MAIN CAMPUS [PHASE 2]	GROUNDING SYSTEM	
SAGAÑI R. VERZOSA, Jr. OIC, CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		

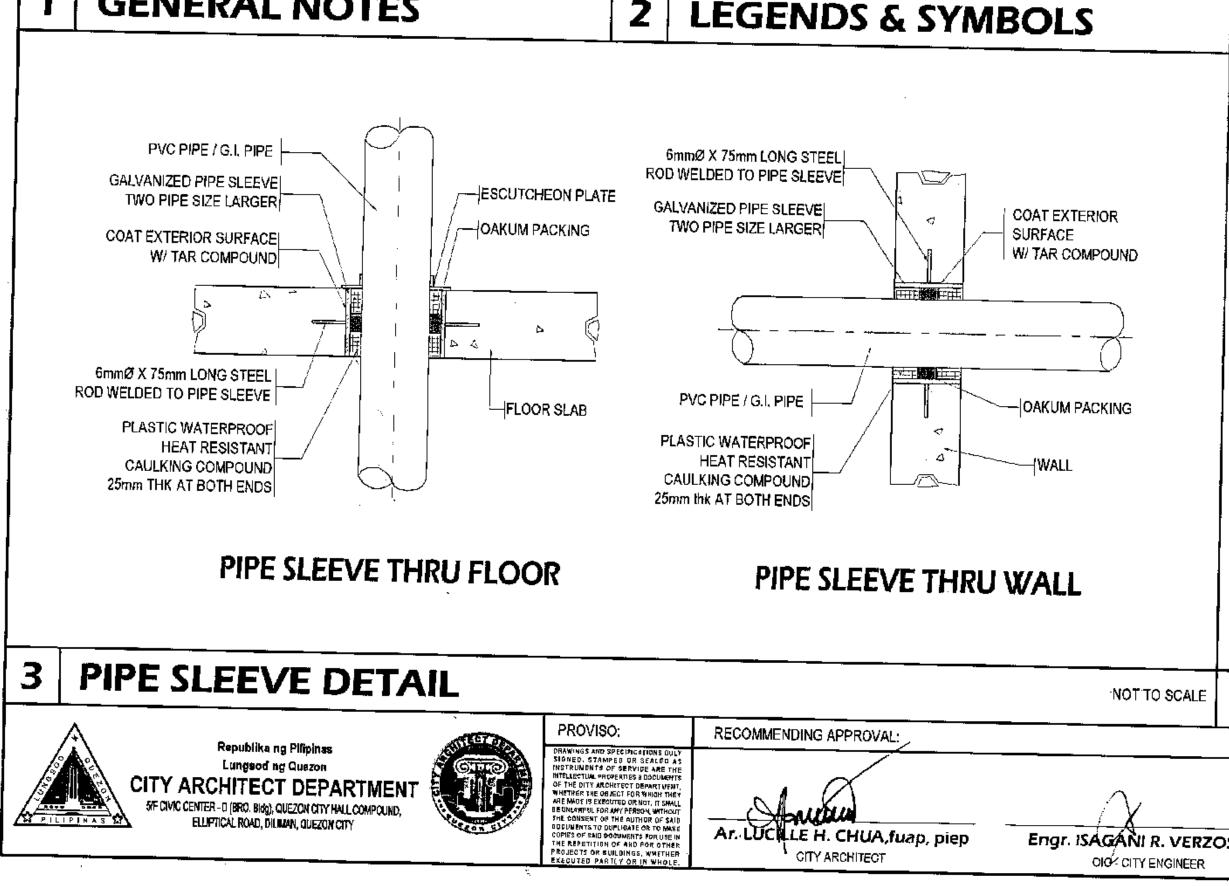




GITS ARCHITECT DEPARTMENT,
I THE OBJECT FOR WHICH THEY
E IS EXECUTED OR NOT, IT SHALL
FUL FOR ANY PERSON, WITHOUT
SENT OF THE AUTHOR OF SAID
NTS TO DUPLICATE OR TO MAKE
F SAID DOCUMENTS FOR USE M
ETFTION OF AND FOR OTHER
IS OR BUILDINGS, WHETHER
ED PARTLY OR IN WHOLE.

	ENDING APPROVAL
Honuna	
r. LUCULLE H. CHUA, fuap. p CITY ARCHITECT	Engr. ISA

مىكە .



--

.

.

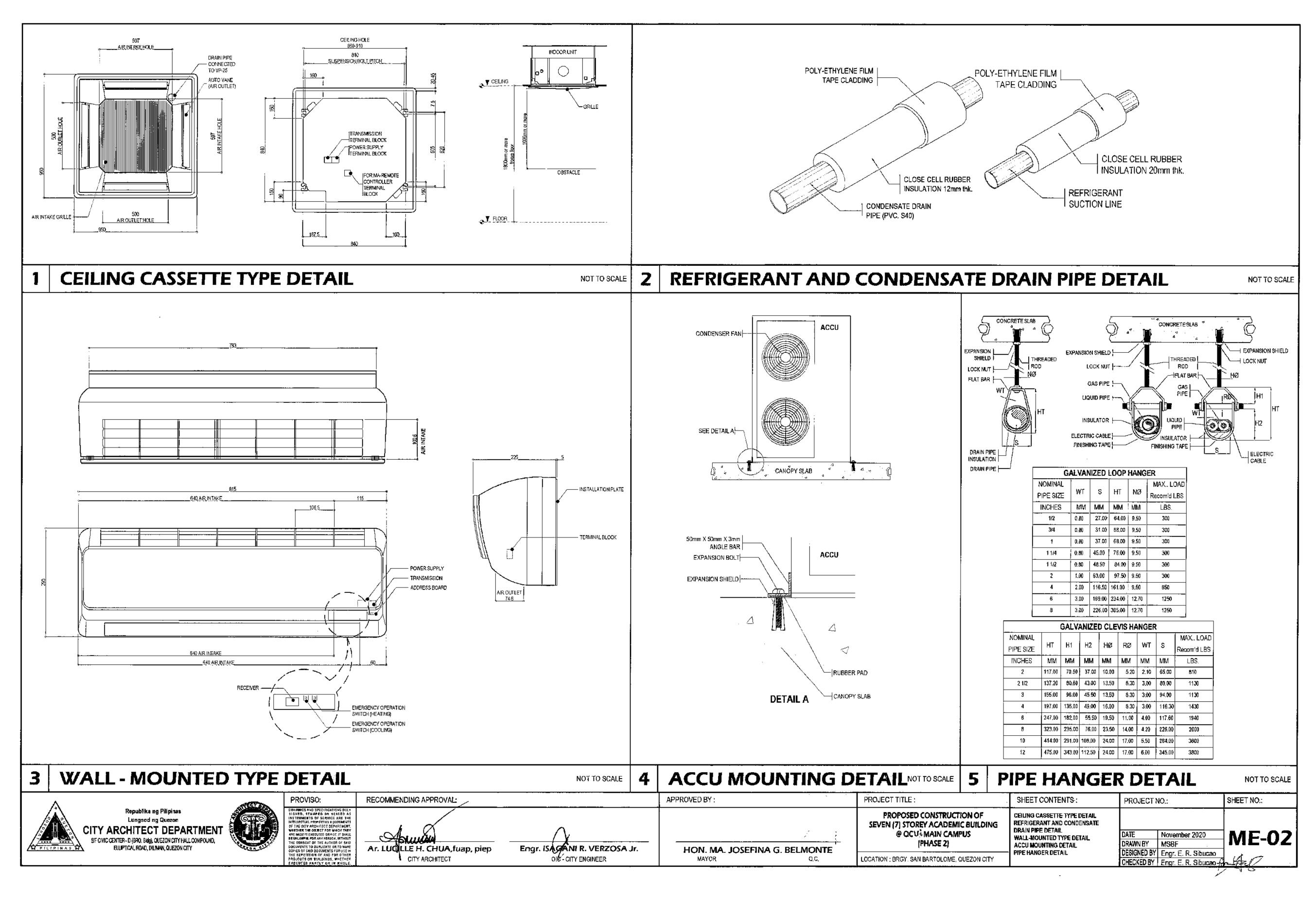
•.

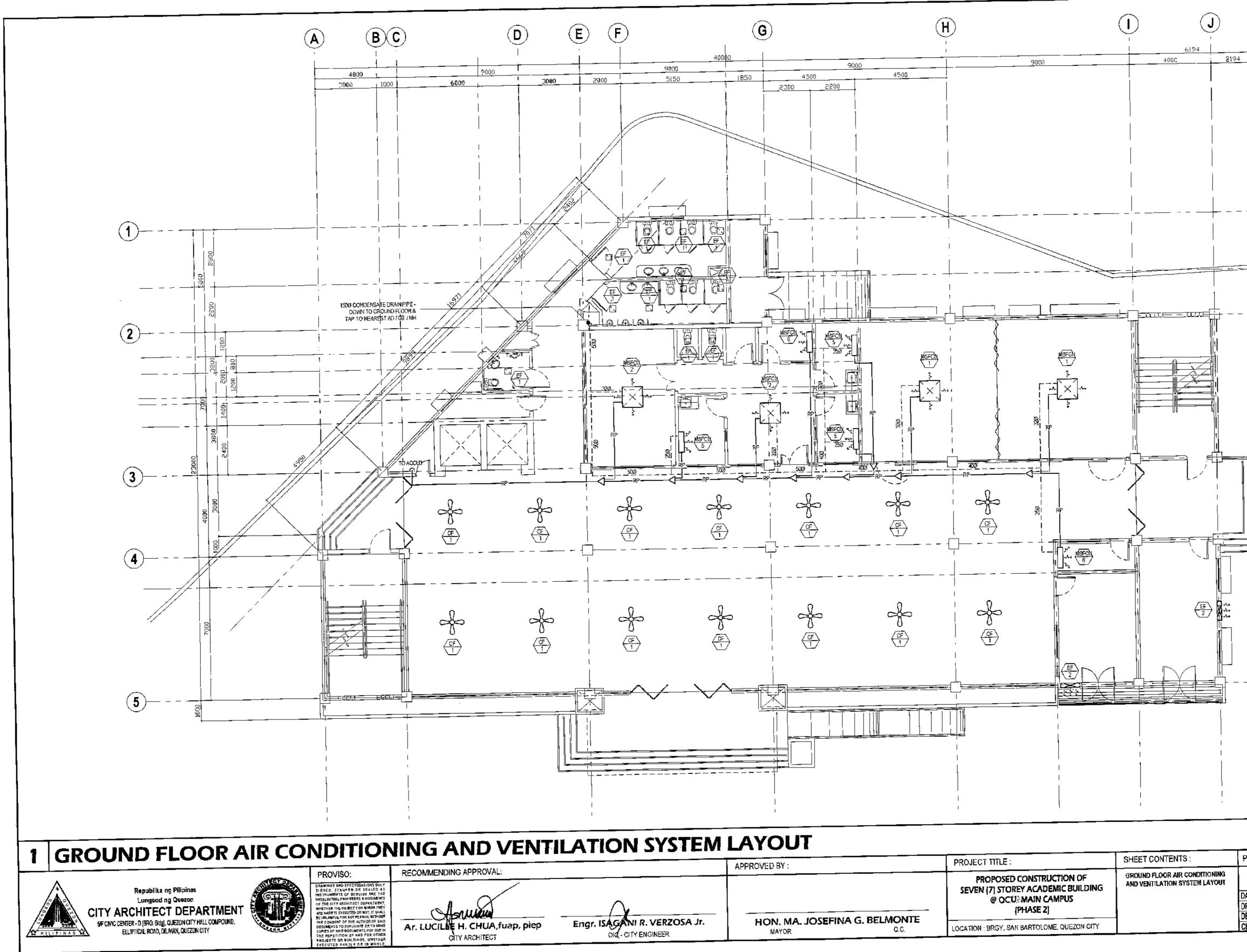
4

Server - Andrews

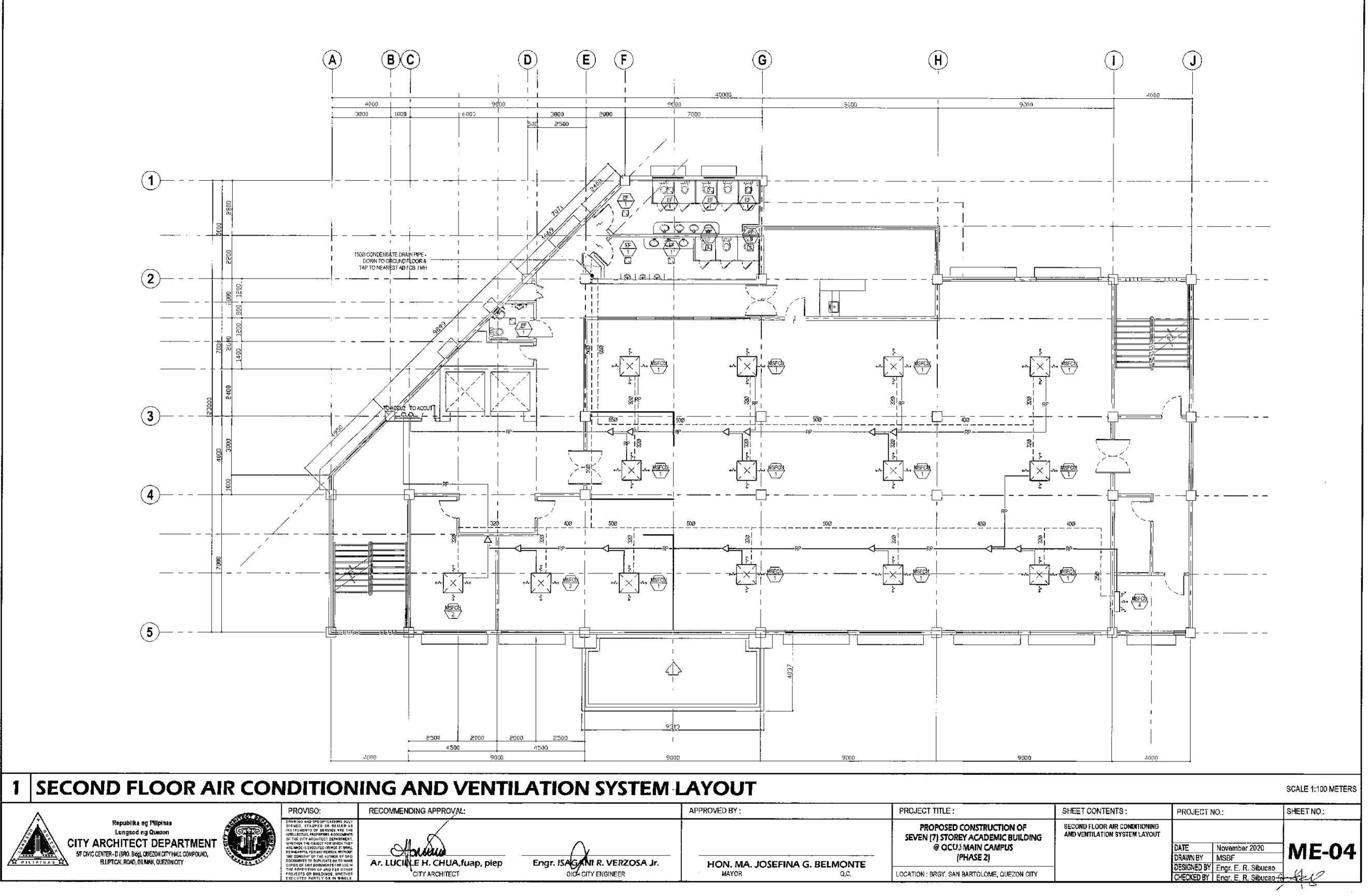
_ 	G	SENERAL NOTES	2	LEGE	NI	DS & SYMBOLS
				RPM		
	16.	ALL PIPE DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE NOTED.		KCal/HR	-	KILO CALORIE PER HOUR
	4.0	BUILDING STRUCTURE.		mm	-	MILLIMETER
	15.	SUPPORT FOR ALL PIPING, DUCTING AND EQUIPMENTS, PROVIDE PIPE SLEEVES FOR ALL PIPING PASSING THRU		Oc III		
	14.	PROVIDE GUIDES, HANGERS, AND SUPPLEMENTAL STEEL		CFm	-	CUBIC FEET PER MINUTE
		CONNECTED TO THE NEAREST FLOOR DRAIN / AD /CB.		w	-	WATTS
	13.	ON ELECTRICAL PLANS. ALL PIPE EQUIPMENT CONDENSATE DRAIN SHALL BE		Н	-	HERTZ
	12.	VERIFY LOCATION OF CONTROLLERS AND SWITCHES ON ELECTRICAL PLANS.				
		UNITS.		НР	_	HORSEPOWER
	11.	PROVIDE THERMOSTAT FOR ALL INDOOR UNITS / FAN COIL		v	-	VOLTS
	10.	PROVIDE CONTROL WIRING FOR AIRCONDITIONING EQUIPMENT.		Ø	-	PHASE
		TO EQUIPMENT SHALL BE MECHANICAL		~		
	9.	ALL POWER WIRING SHALL BE ELECTRICAL AND TERMINATION		EF	-	EXHAUST FAN
		AND COMMISSIONING OF THE WHOLE VENTILATION AND AIRCONDITIONING SYSTEM AND INSTALLATION.		MSFCU	-	MULTI-SPLIT FAN COIL UNIT
1	8.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING		ACCU	-	AIR-COOLED CONDENSING UNIT
1		CONNECTIONS TO DISCHARGE DUCT.		100U		
	7.	VIBRATIONS AND NOISE TRANSMISSION. EXHAUST FAN SHALL BE PROVIDED WITH SUITABLE FLEXIBLE	ļ	m²	-	SQUARE METER
ľ		BE PROVIDED WITH VIBRATION ISOLATORS TO PREVENT)	-	ELBOW DOWN
	6.	ALL FLOOR SLAB MOUNTED VIBRATING EQUIPMENT SHALL		_		E DOM DOMA
[EXECUTION OF WORK.		——-c	-	ELBOW UP
		MANUFACTURERS CATALOGUE, SPECIFICATIONS, SAMPLES, INCLUDING VIBRATION ISOLATORS BEFORE			-	EXHAUST FAN
	5.	CONTRACTOR SHALL SUBMIT SHOP DRAWINGS,			_	
	_	24°C DB AND 50% RH.				REFRIGERANT PIPING
	4,	ALL AIRCONDITIONED SPACES SHALL BE MAINTAINED AT		Ş		
	3.	THE WORKS SHALL BE EXECUTED IN CLOSE COORDINATION WITH ALL OTHER TRADES.		~~LXI~	- -	FAN COIL UNIT
	~	DESCRIBED IN PLANS.				
	2.	THE SCOPE OF WORK SHALL INCLUDE ALL WORKS		· L.:		
		BUILDING CODE, PSME CODE AND THE RULES AND REGULATIONS OF QUEZON CITY.		$\leftarrow \sqrt{4}$	•	AIR COOLED CONDENSING UNIT
		WITH THE LATEST REQUIREMENTS OF THE NATIONAL BUILDING CODE, RSME CODE, AND THE DUILTO AND		·/		
	1.	THE TO THE REMOVED ON ALL DE DONE IN ACCORDANCE	1	\leftrightarrow	-	EQUIPMENT DESIGNATION
1	_					

[SIGNATION	L0	CATION	QUANTITY		INPUT	CURRENT	FAN MOTOR		LQW ¦		GERANT I					DRAIN PIPE	PENADIZO
				<u> </u>		WATTS	AMP	WAITS	M1M		LIQUID,	MM GA	S, MM	VOLTS	PHASE	HERTZ		REMARKS
		GROUNI SECON	D FLOOR) FLOOR	2 UNITS 12 UNITS	38, 200.0	i 150,0	1.0 1.0	120.0	21-24-	27-29 	9.520	ا ۱	5.86Ø	220] 1ø	60.0	32Ø	
 	MSFCU 2	GROUNI SECOND		2 UNITS 2 UNITS	24,200.0	1 1 50.0	0,36	50.0	14 - 15 - 1	 6 - 18	9.52Ø		.88Ø	220	1Ø	60,0	32Ø	CEILING CASSET TYPE 4-WAY, CONTRACTOR SUPPLY AND
-	MSFCN 3	THIRD FI	.00R	2 UNITS	15,400.0	40.0	0.29	50.0	12 - 13 - 1	- 	6.35Ø	12	.70		10	60,0	32Ø i	INSTALL
	MSFCU 4	SECOND THIRD FL		1 UNIT 1 UNIT	9,600.0	40.0	0.20	17.0	4.9 - 5.2 - 3	5.6 - 5.9j	6,35Ø	 12	.7Ø	220	1Ø	60.0	160	
	MSFCU 5	GRDUND	FLOOR	3 UNITS	7,500.0	40.0	0.20	17.0	4.9 - 5.2 - 5	5.6 - 5.9	6.35Ø	12	7Ø	220	1107 1107 1	60.0	i 16Ø ,	Wall Mounted Type Contracto Supply and
4	KISFCU 6	GROUND	FLOOR	2 UNITS	5,800.0	40.0	0.20	17 .0	4.9 - 5.0 - 5,	.2-5.3	6,35Ø	12.	nø	220	10	60.0	 ! 16Ø	INSTALL
OUT	DOOR UNITS	(MULTI-	SPLIT AIR C	DOLED CON	ENSING UNIT	S)						- ,		<u> </u>				
DESIG	SNATION LO	CATION	QUANTITY	COOLING				ERANT PIPE FI RST_JOINT MM Gas, MM		ECTRIC SUPPLY PHASE		COMPRES MOTOR OU	SOR TPUT	FAN MOT OUTPU WATTS		IDENSER FAN AIR FLOW RATE	REMARKS	3
		OF DECK	1 ASSEMBLY	278,100.D	24.47	41.3 - 39.2 - 37,8	19.05Ø	34.93Ø	230	30	60.0	8,1 - 12.	4	920 - 920		MYMIN. 175 - 175	STARTING METH	
	2	OF DECK	1 ASSEMBLY	259,300.0	22.47	37.9 - 36.0 - 34.7	19.05Ø	34,93Ø	230	3127	60.0	6.9 - †2.	4	920 - 9 20	!) 1	75 - 175	STARTING METH	
	CCU 3 RO	OF DECK	1 ASSEMBLY	212,90 0.0	15.84	33.2 - 31.5 - 30.4	15.88Ø	28.58Ø	230	3Ø	60.0	4.6 - 4.8 - 4	.8	- 660 - 440) 19	- 95 - 155	STARTING METH SHALL BE INVERT	OD .
SPLI	TYPE AIR	-CONDI		IR-COOLEI		ис лите					<u></u>		<u> </u>			•		
1	SIGNATIO			COOL		R CIRCULATIO				1					— <u>—</u> ,			
ŀ		LOCA	TION QUAN	ΙΠΤΥ CAPAC	×πγ			INPUT ^{¦ C}	URRENT	E		L SUPPLY	╞───╸	IGERAN				
				BTU		cum OUTDOC	DR, cum	KW 	A	VOL	TS PHAS		GAS,		QUID,	PIPE mm	REMARKS	
				TS 28,00	0 20-2	8 9	5,0	2.94	13,2	220.0	0 30	60.0	19.05	"		32 1 11	AN COIL UNIT SHALL VALL MOUNTED TYP CONTRACTOR SUPP	ΡE
WIND				—_⊥ •€		<u> </u>			<u> </u>				Ĺ			[AND INSTALL	
	GNATION	LOCATIO					WER CONSUMPT					<u> </u>						
				ЛТҮ НР 	KJ/I		WATTS		AMPS		AIR CIRCU cmr	· · · ·		TRICAL SU			R	EMARKS
	<u>1</u> / SE	THIRD TO EVENTH FLO		VITS 2.5		0.0	2,660.0		8.4		14.5	2	20.0	1Ø	60.0	 IT SF		ED W/ WASHABLE
	UST FAN	ihird Floc	DR 1 UN	IIT 0.75	7,42	0.0	645.0		4.2		7.2	2	20.0	1Ø			FF PROG. TIMER	AND W/ REMOTE
DESIGN				TYPE	A	IR VOLUME cmah	HEAD Pa	MOTOR	- F			PLY		REM/	ARKS			
EF		ND TO H FLOOR	6 UNITS	AXIAL FAN DUC	TLESS	120-180		22		220.0			EASY TO	CLEAN ANI	D INSTALL.	PE OPENING TOP OR SID		
λ 1		FLOOR 2	2 UNITS	WALL MOUN AXIAL EXHAL FAN		1260	50.0	46 - 5	i2 2	220,0	_ <u>_ </u>	6.0 E	FL	ED DUCT O DW PREVE HIGH STATIC	NTION SHU C PRESSUR		35E	
EF 2			·		L			I	/			f						
2				TYPE	CAPA m³/s		HEAD Pa		R INPUT			SUPPLY	1	 F	REMARK	(S		
2 EILING							350.00	10	0.00	220.0		60.0	<u> </u>			AND INSTAL		
2 EILING DESIGI		DCATION	R 14 UNITS	CEILING MOUNTED	0.8						1						+4=1	
	NATION LO	DUND FLOOF		MOUNTED		 .E	<u> </u>	! <u></u>										
				MOUNTED							SHEET OF							NOT TO
		DUND FLOOP	NTS	MOUNTED	DUL	PROJE	ROPOSED CC N (7) STOREY @ QCU ? N	DNSTRUCTION ACADEMIC E MAIN CAMPUS IASE 2)	ULDING	Gi LE PI	ENERAL NO Egends & s IPE sleeve	SYMBOLS			PROJEC ATE RAWN BY	Noven	mber 2020	NOT TO SHEET NO.: ME-

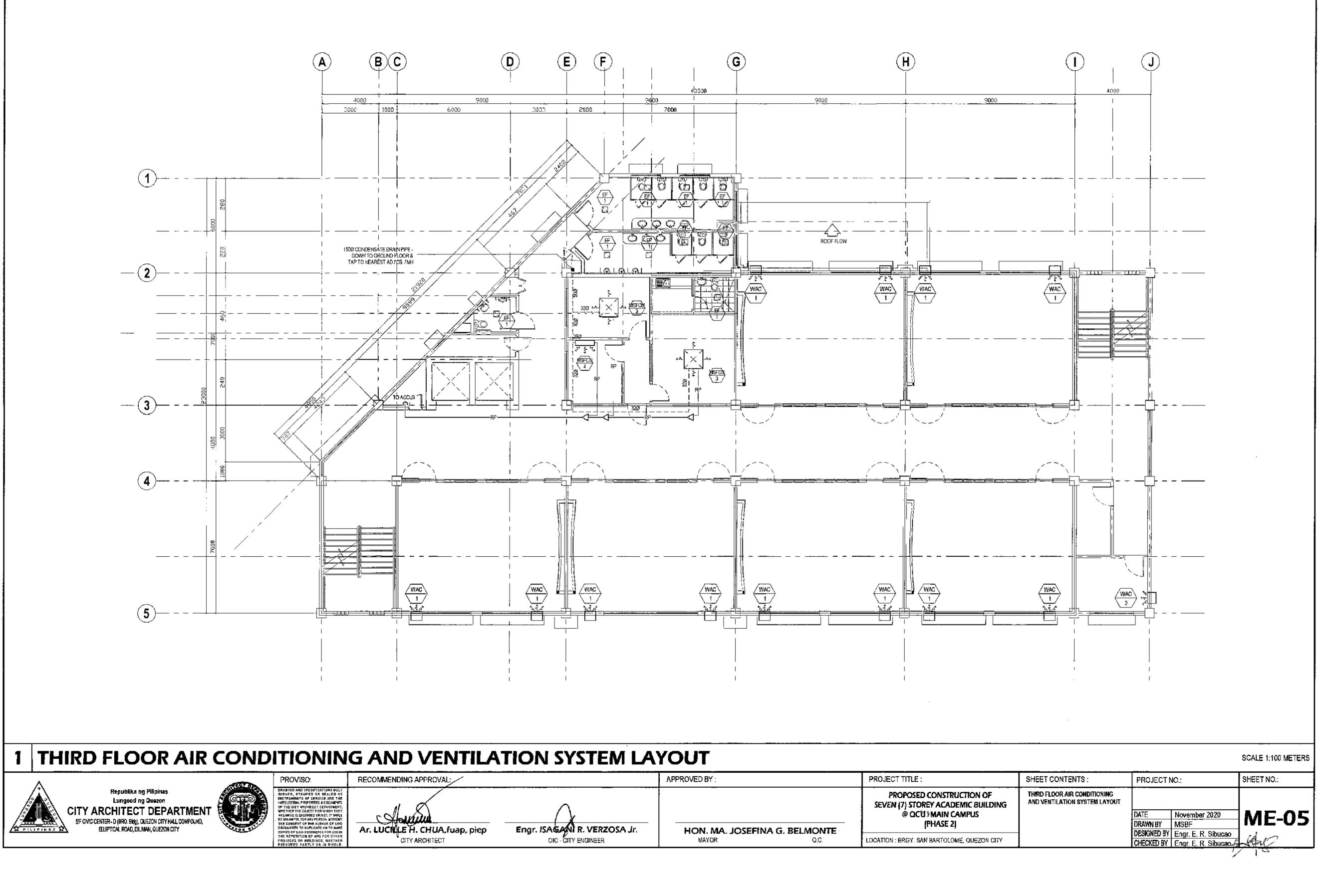




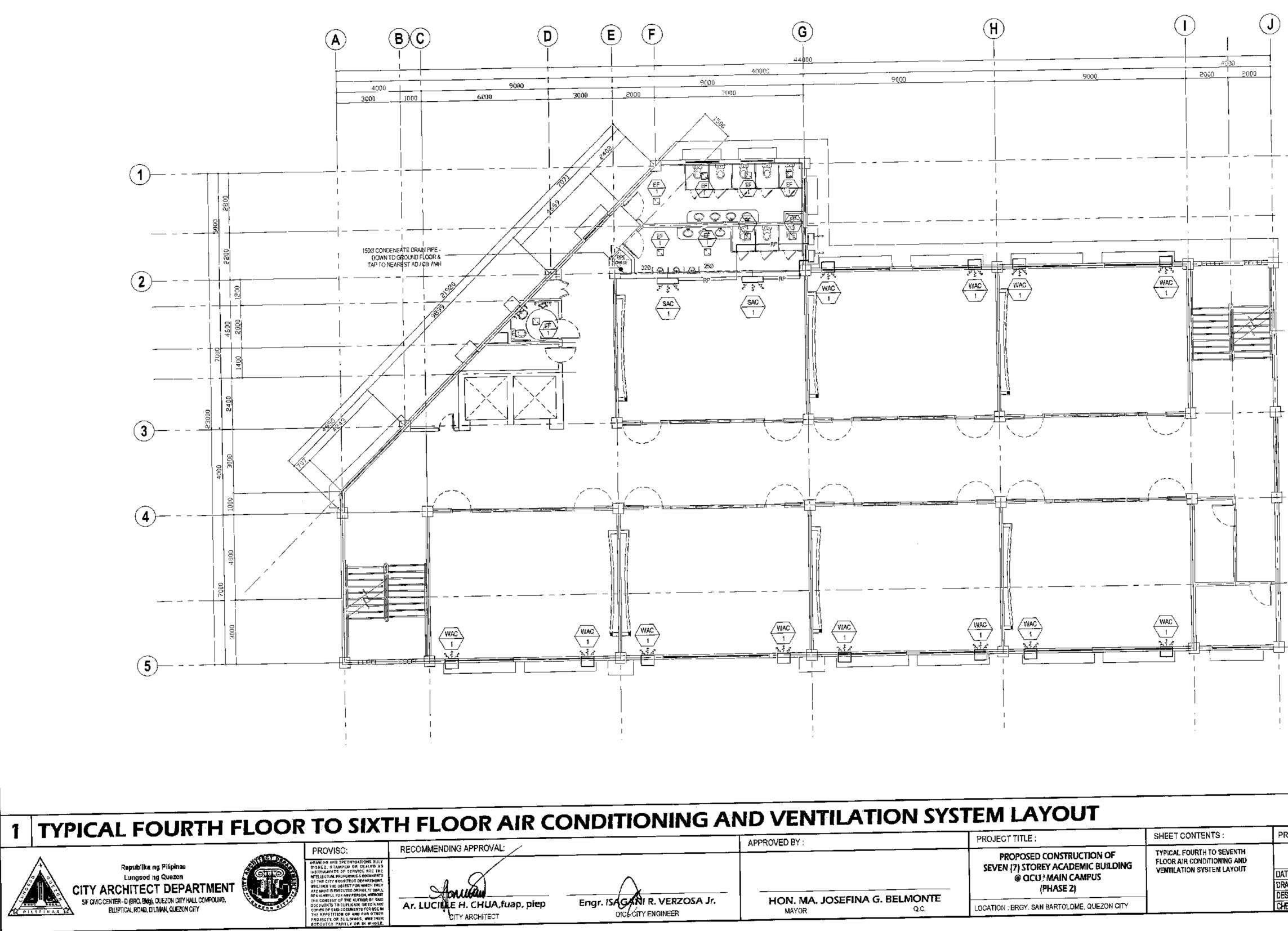
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
ISAGANI R. VERZOSA Jr.		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU: MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	GROUND FLOOR AIR CONDITIONING AND VENTILATION SYSTEM LAYOUT	DATE DRAV DESI CHEC
ISAGANI R. VERZOSA Jr.	i ^^	@ QCU MAIN CAMPUS (PHASE 2)		



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
SAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU3MAIN CAMPUS (PHASE 2)	SECOND FLOOR AIR CONDITIONING AND VENTILATION SYSTEM LAYOUT	DATE DRAWN DESIGN
OIC CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECK

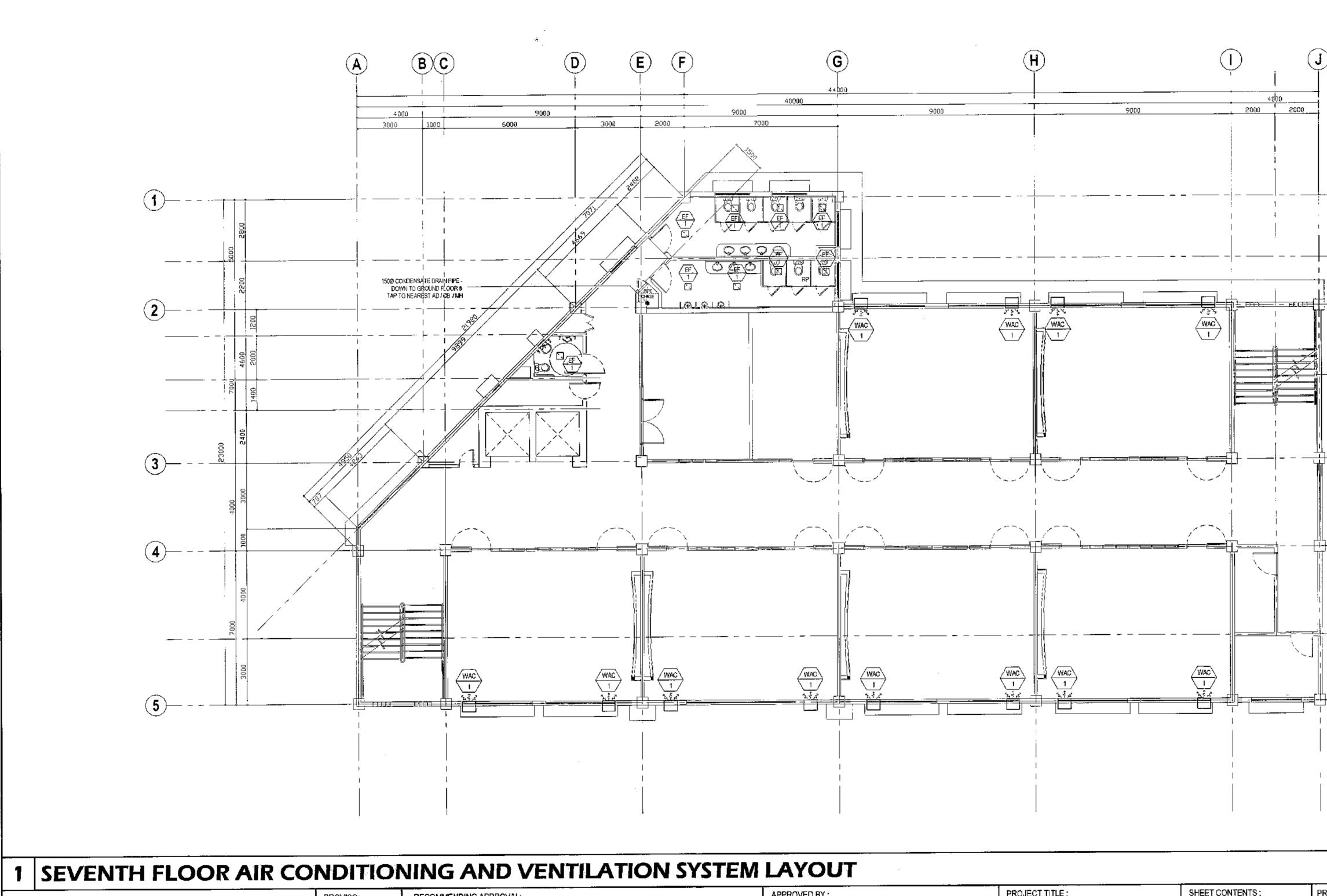


	APPROVED BY ;	PROJECT TITLE :	SHEET CONTENTS :	PROJ
<u> </u>		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	THIRD FLOOR AIR CONDITIONING AND VENTILATION SYSTEM LAYOUT	
		@ OCU3 MAIN CAMPUS		DATE
SAGANI R. VERZOSA Jr.	HON, MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		
		ECONTION : BROT, ORN BARTOLONIE, QUEZON OFF		CHECK



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PR
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU.*MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	TYPICAL FOURTH TO SEVENTH FLOOR AIR CONDITIONING AND VENTILATION SYSTEM LAYOUT	DATE DRAI DESI CHE

_, _, _ _				
<u> </u>				
·				
- -	_			
<u> </u>				
}				
			SCALE 1:100	METERS
			SHEET NO .:	
ROJECT				
ATE	Novembe MSBF		ME	-06
SIGNED BY	Engr. E. F	R. Sibucao R. Sibucao a	\$P	
IEUNEU DI	<u> </u>	<u></u>	TK-	





Republika ng Pilipinas Lungsod ng Quezon CITY ARCHITECT DEPARTMENT SFF CIVIC CENTER - D (BRO, Blog), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DRIMAN, QUEZON CITY



PROVISO: DRAWING AND SPECIFICATIONS DULY 310 NEO, STALPED OR STALED AS INSTRUMENTS OF SERVICE ARE THE INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES A DOCUMENTS OF THE GITY ARCHITECT DEPARTMENT, WHETHER THE BLECT POR WICH THEY ARE AND ELSEXECUTED OR NOT. IT SHALL BE UNLAWFILL FOR ANY PERSON, WITHOUT THE CONSENT OF THE NATHOR OF SAID DOCUMENTS TO DUPLICATE OR TO MAKE COPIES OF SAID DODUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

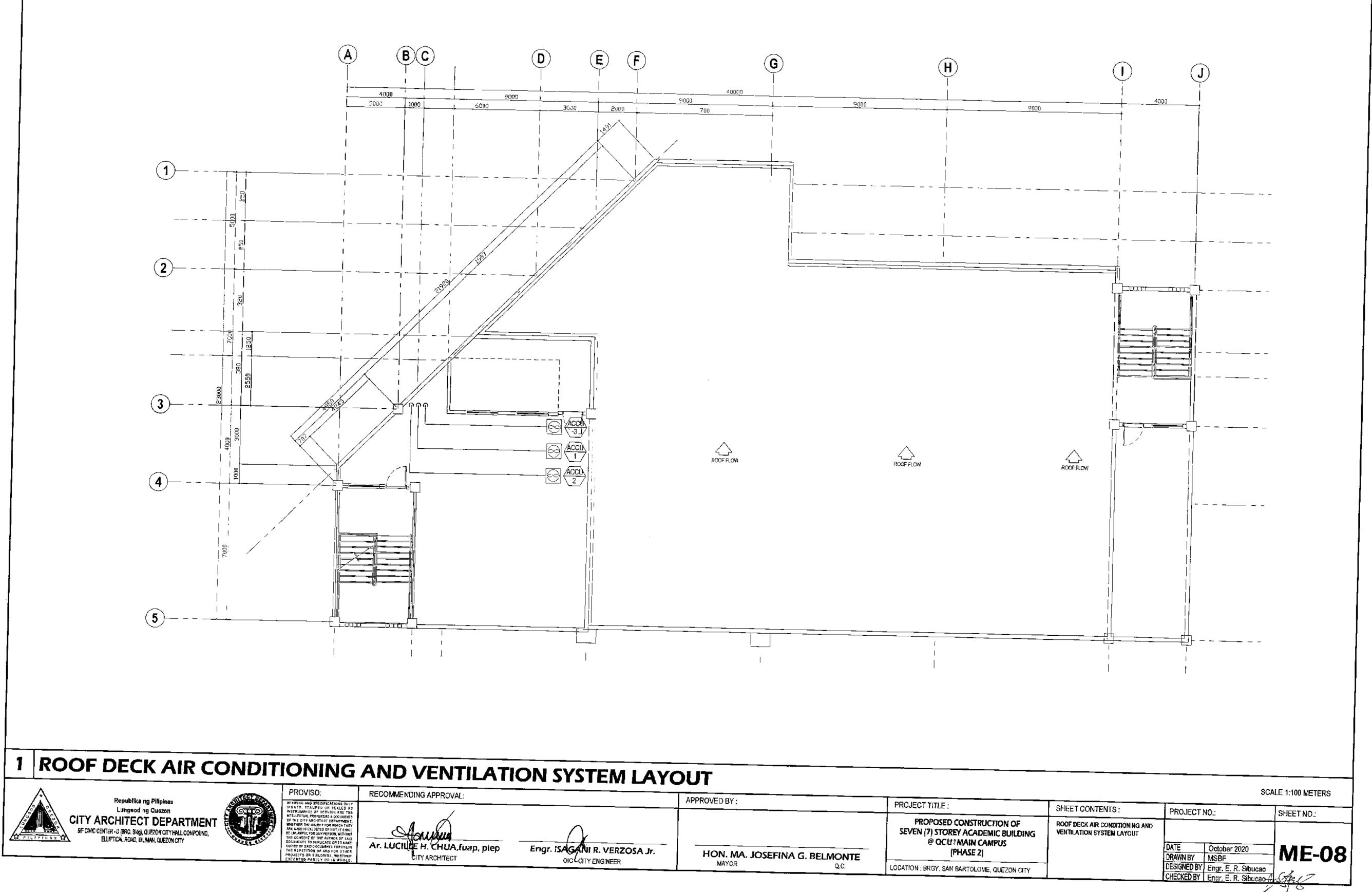
RECOMMENDING APPROVAL:

Horite Ar. LUCILUE H. CHUA, fuap, piep CITY ARCHITECT

Engr. IS/

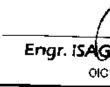
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS:	PRO.
		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	SEVENTH FLOOR AIR CONDITIONING AND VENTILATION SYSTEM LAYOUT	
		ି ଡି QCଏଥି MAIN CAMPUS (PHASE 2)		DATE
SÁGÁNI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	-	DESIG

November 2020 IN BY MSBF INED BY Engr. E. R. Sibuçao KED BY Engr. E. R. Sibuçao	ME-07
DJECT NO.:	SCALE 1:100 METERS SHEET NO.:
	. •**
	

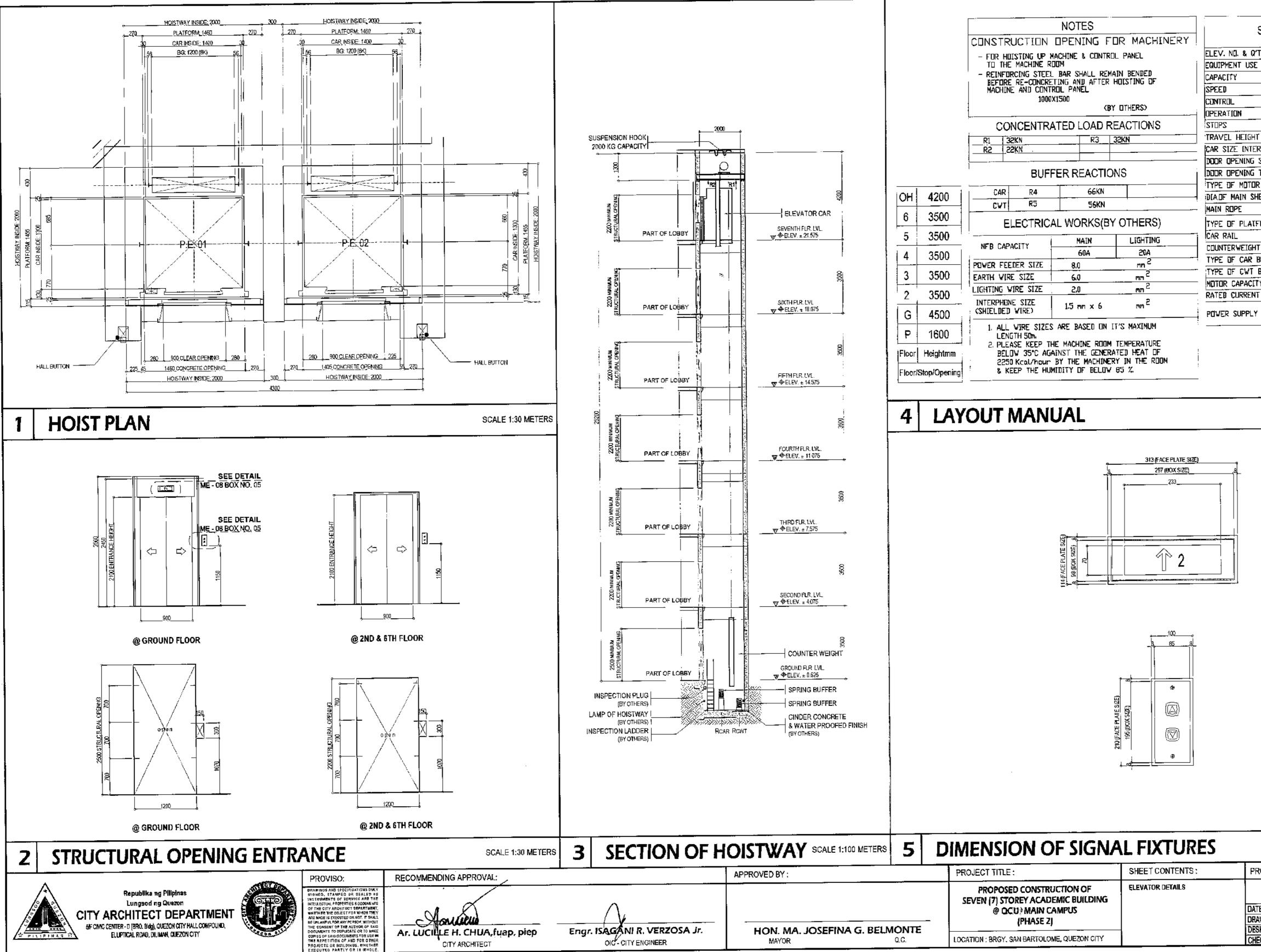








<u></u>	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJEC
GANI R. VERZOSA Jr. IGCCITY ENGINEER	HON, MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU!? MAIN CAMPUS [PHASE 2] LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	ROOF DECK AIR CONDITIONING AND VENTILATION SYSTEM LAYOUT	DATE DRAWN BY DESIGNED



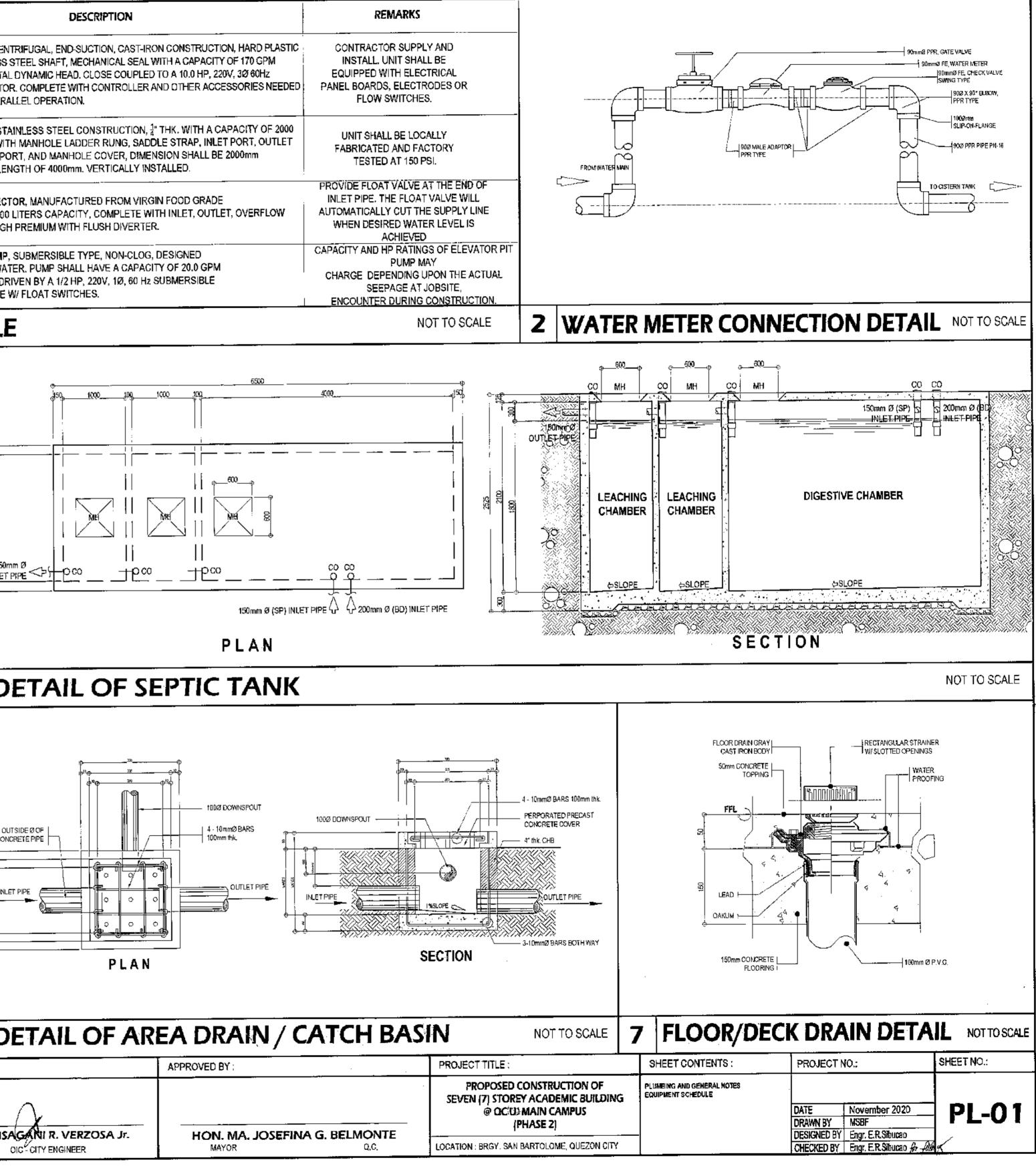
.

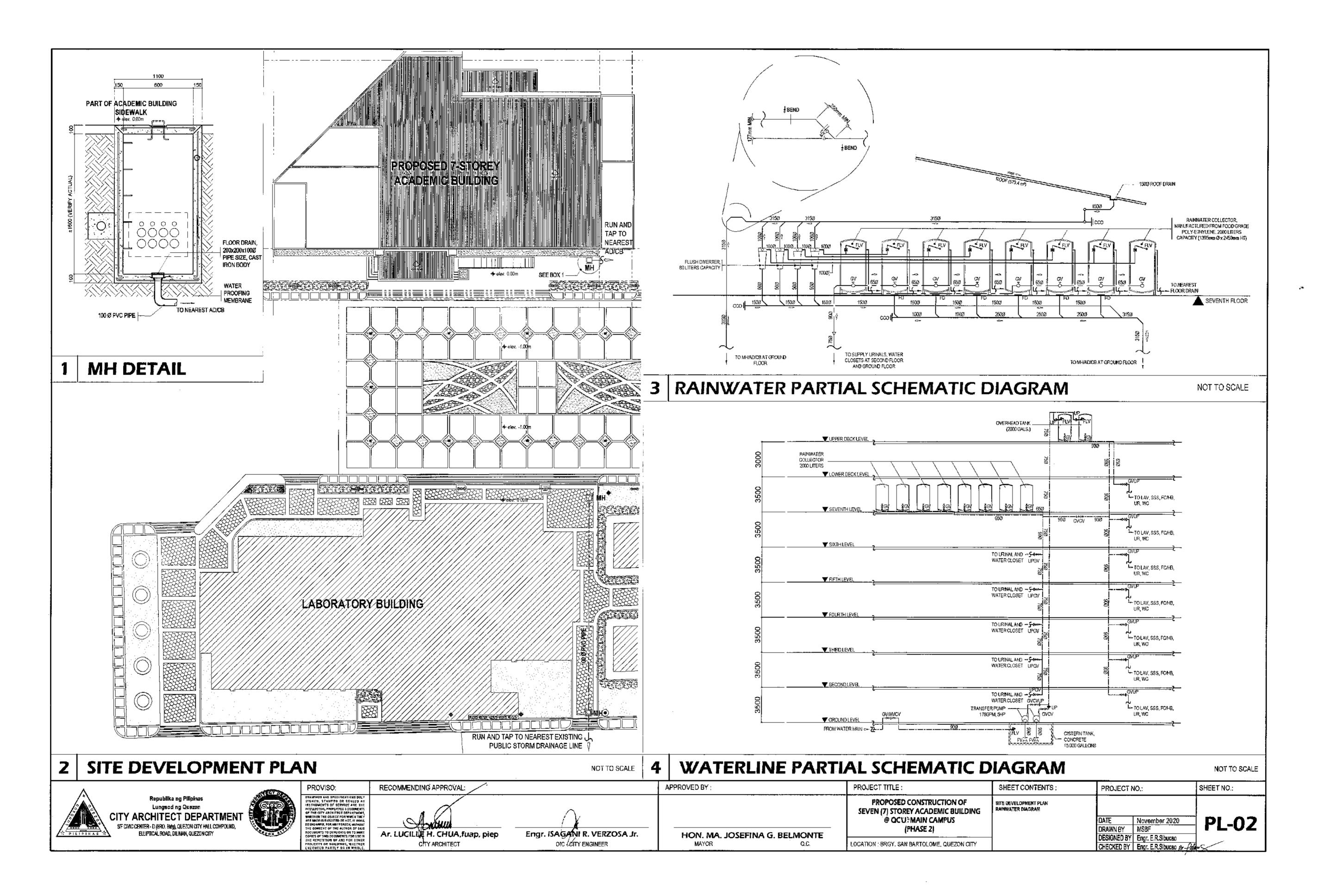
SPECI	FICA	FION AND DATA		
ΥΥ <u>.</u>		2 UNITS (P.E. 01 & P.E. 02)		
		PASSENGER ELEVATOR		
		800 KGS.		
		1.0 M/S		
		VVVF INVERTER		
		SIMPLEX COLLECTIVE SELECTIVE		
		7 / 7 / 7 - 0, 2, 3, 4, 5, 6, 7		
т Т		21000 MM		
RNAL		1400 (W) × 1300 (D)		
SIZE	i	800 (V) × 2100 (H)		
TYPE		2 PANELS CENTER OPENING		
R M/C		GEARLESS TRACTION MACHINE		
HEAVE		MM		
		MM		
FORM FL	OORING			
-		T-TYPE RAILINGS		
TRAIL		T-TYPE RAILINGS		
BUFFER		HYDRAULIC BUFFER		
BUFFER		HYDRAULIC BUFFER		
TY (KW)		4.6 (KW)		
T (A)		10.4 AMPS.		
,	MAIN	230V, 3Ph, 60Hz		
ť	LIGHT	220V, 1Ph. 60HZ		

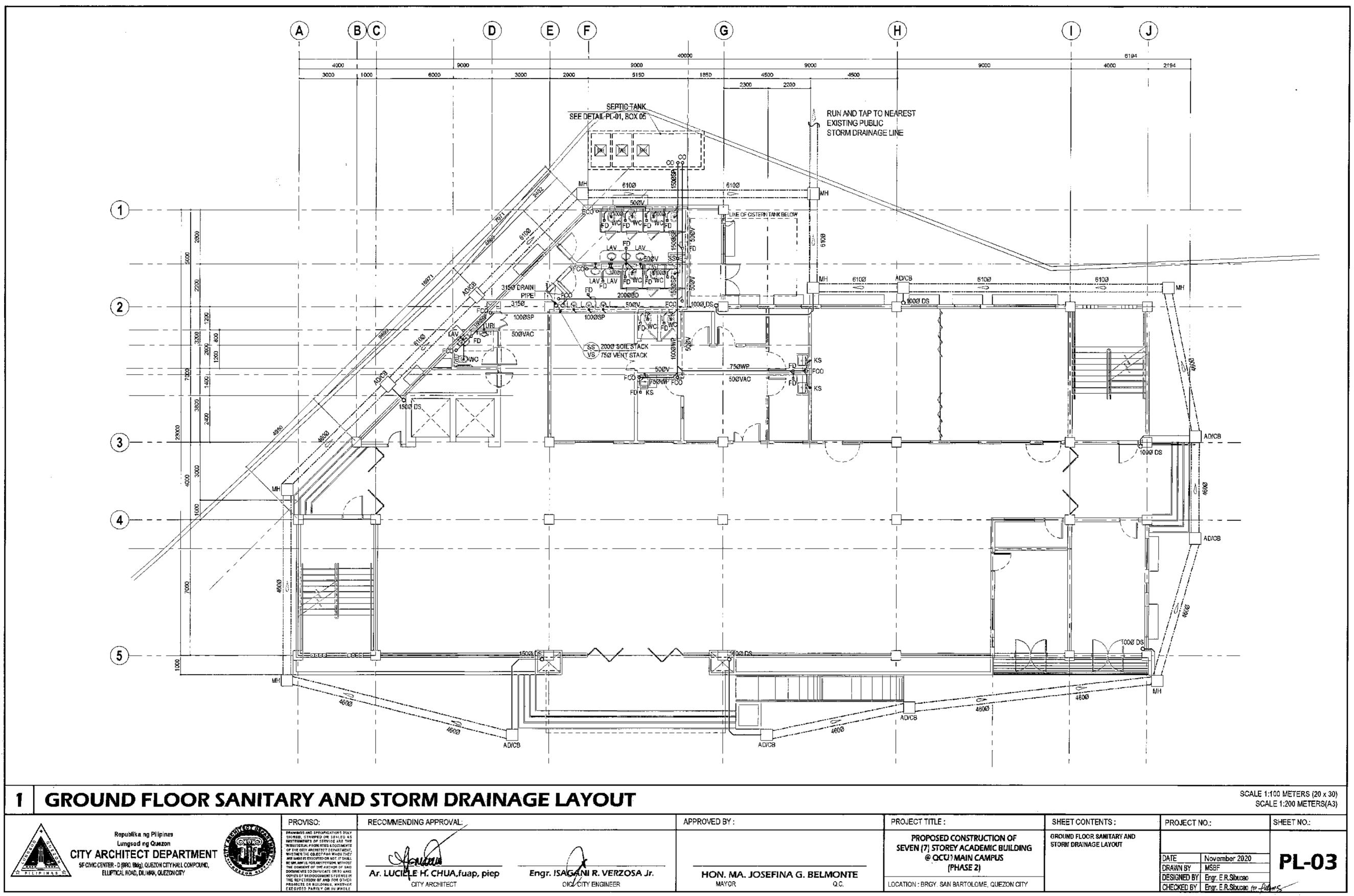
NOT TO SCALE

		SCALE 1:5 METERS
ROJECT	IO.:	SHEET NO .:
	November 2020 Engr. A.J.B. Engr. E.R.Sibucao	ME-09

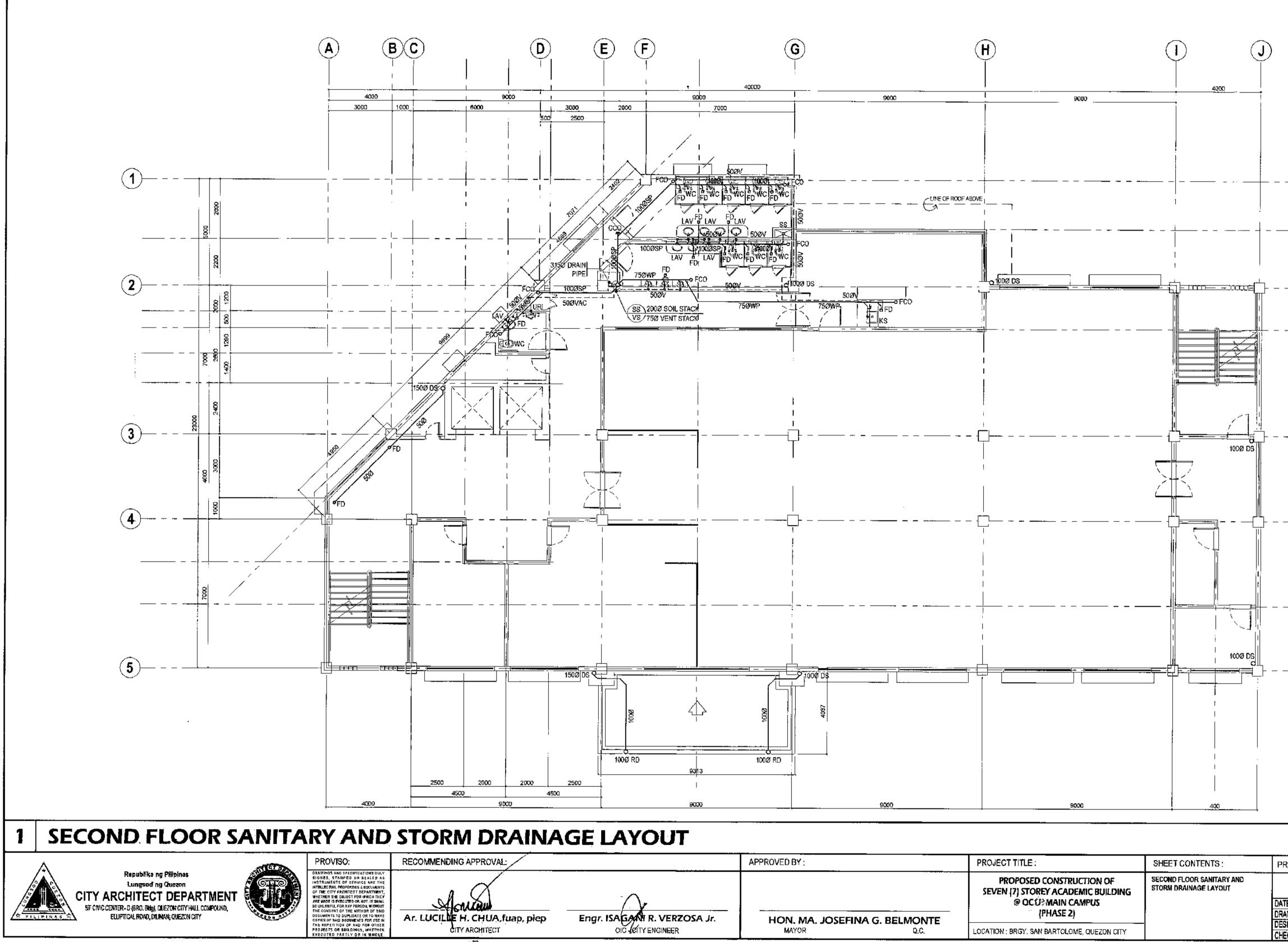
	DESIGNATION	LOCATION	QUANTITY	ļ	
LUMEING NOTES				1	FER PUMP, CEN
ALL PLUMBING WORKS SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST PROVISION OF PHLIPPINE PLUMBING CODE, THE UNFORM PLUMBING CODE, THE NATIONAL BUILDING CODE, AND THE RULES AND REGULATION OF THE QUEZONOTY. COORDINATE THE DRAWINGS WITH OTHER RELATED DRAWINGS AND SPECIFICATIONS THE ARCHTECT/ ENGINEER		GROUND FLOOR	2.0	AGAINS HIGH-EI	ER, STAINLESS ST 150 FT, TOTAI FFICIENT MOTO JTOMATIC, PARA
SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN. ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS, ANY RELOCATIONS REQUIRED FOR PROPER EXECUTION OF OTHER				: 1	
TRADES SHALL BE WITH PRIOR APPROVAL OF ARCHITECT / ENGINEER ALL SLOPES FOR SANITARY AND STORM DRAINAGE LINES SHALL MAINTAIN A ONE PERCENT (001) AND ONE-HALF (0.005) MIN RESPECTIVELY UNLESS OTHERMISE SPECIFIED.		ROOF OVER STAIR 01	2.0	GALS. (PORT,)	IEAD TANK, ST/ Complete Wit Vent drain Po
PROPOSED SANTARY UTILITIES SHALL CONFORM TO ACTUAL LOCATION, DEPTHANDIMERT ELEVATION OF ALL EXISTING		- STAIR U		DIAMET	TER WITH A LEP
APES AND STRUCTURES.), ALL WATER SUPPLY PIPES & DRAIN SIZES OF FIXTURES SHALL BEIN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.	RWG	SEVENTH	8.0		ATER COLLECT THYLENE, 2000
TESTING OF SANTARY AND WATERUNES SHALL CONFORM TO THE LATEST REQUREMENTS OF PHUPPINE PLUMBING CODE AND UNIFORM PLUMBING CODE		FLOOR	0.0	1	ANHOLES, HIGH
ALL PIPES SIZES AND DIMENSIONS ARE IN MILLIMETER UNLESS OTHERWISE SPECIFIED.	(577)			1	TOR PIT PUMP, MP WASTE WA
WATERLINE SHALL BEPPER TYPE PN-16, FUSION WELD TYPE		GROUND FLOOR	1.0	VS 40 I	FT TOH AND DR
10, SOIL PIPE, WASTE & VENT SHALL BE PVC SCH 40/S - \$000.			 	MOTOR	R - COMPLETE
11. STORM/DRAINAGE UNE 315mm/Ø AND BELOW SHALL BE POLYVINYL CHLORIDE, 460mm/Ø AND ABOVE SHALL BE REINFORCED CONCRETE PIPE.	2 EC		INT S	CH	EDULI
2. GATEVALVESHALLBEPPRTYPE		UNION PATENT			
3. WATERMETER SHALL BE ANY ANY BRAND APPROVE BY MASS.	_N_	- CHECK VALVE			
14. ROOF DRAIN OR SANITARY BASKET STRAINER SHALL BE?" Ø STAINLESS WITH RES CONSTRUCTED ON SLOTTED HOLES ON BRASS DR STAINLESS STEEL GA #12 RING WITH SECONDARY STRAINER TO INSURE CONTINUOUS FLOW OF WATER	BS	- BUILDING SEW			
5. WATER CLOSET SHALL BE VITREOUS CHINA, FREESTANDING TOLET COMBINATION	BD AD/CB	- BUILDING DRAI			
6. ROUND FRONT BOTTOMOUTLET SIPHON VORTEX OR WASH-DOWN BOWL WITH EXTENDED REAR SELF AND CLOSED COUPLED. TANK WITH COVER COMPLETE WITH FIFTING AND MOUNTING ACCESSORIES.		WASTE LINE			
17 LAVATORY SHALL HE VITREDUS CHINA WALL HUNG WITH REAR OVERFLOW AND CAST INSOAP DISHES, POCKET HANGER		- WATER LINE			<u> </u>
MTH INTEGRAL CHINA BRACKET, COMPLETE WITH TRUNK AUCETS, SUPPLY PIPES, P-TRAP AND MOUNTING ACCESSORIES.	M	- GATE VALVE			
8. WHERE INDICATED ON PLANS, THE COUNTER (GP MODEL MAKE AND COLOR SHALL BE APPROVED BY THE DESIGNING ARCHITECT.		- PIPE DOWN			
19. GRAB BARS SHALL BE NADE OF TUBULAR STAINLESS STEEL PIPE PROMDED WITH SAFETY GRIP AND MOUNTING FLANGE		- PIPE UP			230
20. FLOOR DRAINS SHALL BE MADE OF STAINLESS STEEL BEEHVE TYPE, MEASURING 10 JULY 1000 AND PROVIDED WITH DETACHABLE STAINLESS STRAINER, EXPANDED WILL ALL ATH TYPE.]	- END CAP			
21. SOAP HOLDER SHALL BE VITREOUS CHINA WALL MOUNTED COLOR SHALL RECONCLEV MIT THE ADJACENT TILE WORKS.	C> HB	 DIRECTION OF HOSE BIBB 	FLOW / SLOPI	E	150n
22. TOILET PAPER HOLDER SHALL BE VITRE OUS CHINA WALL MOUNTED. COLOR SHALL RECONCILE WITH THE ADJACENT	=====	- STORM DRAIN	LINE		
FIXTURE AND FACING TILES.		- VENT LINE			9
23. FAUCETS SHALL BE MADE OF STAINLESS STEEL FOR INTERIORUSE. 24. HOSE BIBB SHALL BE MADE OF BRONZE CASTENSH.	SSK FS	 SLOP SINK FLOW SWITCH 			
GENERAL NOTES	mm	- MILLIMETER			
1. THESE DESIGN DOCUMENTS DESCRIBE THE PLUMBING WORKS OF THE PROPOSED CONSTRUCTION OF QUEZON CITY UNVERSITY ACADEMIC BUILDING (PHASE 2).	UR GV	- URINAL - GATE VALVE		ļ	
2. THE DESIGN DOCUMENTS CONSIST OF THIS COMPLETE SET OF DRAWINGS, SPECIFICATIONS, AND NOTES, ASWELL AS ALL RELATED DOCUMENTS REFERRED TO WITHIN THESE DRAWINGS AND NOTES.	FLV BV	- FLOAT VALVE - BALL VALVE			5 D
3. THE VARIOUS DESIGN DOCUMENTS ARE INTERRELATED AS FOLLOWS:	GIP	- GALVANIZED I		·	
3.1 THE GENERAL NOTES AND GENERAL CONDITIONS DEFINE THE RULES AND CONDITIONS	PVC WC	 POLYVINYL CH WATER CLOSE 			
	LAV	- LAVATORY			
3.2 THE SPECIFICATIONS, WHERE INCLUDED AS PART OF THE DESIGN DOCUMENTS, PROVIDE MORE DETAILED REQUIREMENTS ON THE RULES AND CONDITIONS GOVERNING THE WORK AS WELL AS PROVIDING BOTH	SP WM	 SOIL PIPE WATER METER 	ર		
GENERAL AND SPECIFIC INFORMATION RECARDING THE TYPES AND QUALITIES OF MATERIALS AND WORKMANSHIP TO BE USED IN THE WORK.	МН	- MANHOLE			
3.3 THE DRAWINGS SHOW BOTH GRAPHICALLY ANY BY ROTATION THE PHYSICAL CHARACTERISTICS AND	GPM GCO	 GALLONS PER GROUND CLE/ 			
REQUIREMENTS OF THE WORK INCLUDING DESCRIPTION OF MATERIALS, COLORS, FINSHES, SYSTEMS AND EQUIPMENT TO BEUSED IN THE EXECUTION OF THE WORK.	HP FCO	- HORSE POWE - FLOOR CLEAN			
3.4 IN GENERAL THE DRAWINGS TAKE PRECEDENCE OVER GENERAL SPECIFICATIONS LARGER SCALE	FD	- FLOOR DRAIN			₽ ₽ ₽ ₽ ₽ ₽
DRAWINGS TAKE PRECEDENCE OVER SMALL-SCALE DRAWINGS, WRITTEN DRAWINGS KEYNOTES TAKE PRECEDENCE OVER PICTORIAL PRESENTATIONS IN THE DRAWINGS, AND WRITTEN DIMENSIONS TAKE	FT Ø	- FEET - Diameter			E SE NU
PRECEDENCE OVER SCALED DRAWINGS.	TP \$\$	 TRANSFER PU SOIL STACK 	MP		Driate Science Protection Difficience Construction
4. IN ALL CASES WHERE THE DESIGN DRAWINGS MAY DISAGREE WITH THEMSELVES, THE CONTRACTOR IS TO PRICE THE MOST COST-EFFECTIVE COMBINATION OF QUALITY WITH CLARIFICATION REQUESTED FROM THE PLUMBING DESIGNER AFTER THE CONTRACT HAS BEEN AMARDED.	VS VTR CWR	 VENT STACK VENT THRU R COLD WATER 			
5. DO NOT SCALE DRAWINGS USE FIGURED DIMENSIONSOULY. IN THE EVENT OF DISCREPANCY BETWEEN ANY FIELD CONDITIONS AND THE FIGURED DIMENSIONS OF THE DRAWINGS OR DISCREPANCES BETWEEN DRAWINGS THEMSELVES.	HDEP DS	 HIGH DENSITY DEBRIS SEPAI 	POLYETHYLE	ENE	e
THE CONTRACTOR IS TO NOTIFY THE PLUMBING DESIGNER BEFORE PROCEEDING, DUE TO THE REPRODUCTION PROCESS, ALL COPES OF ORIGINAL DRAWINGS MUST BE CONSIDERED NOT TO SCALE	WP SP	- WASTE PIPE - SOIL PIPE			
	6 LE	GENDS	&		
PLUMBING AND GENERAL NOTES	° S1	(MBOLS			7 D
PROVISO:		OMMENDING APPR	ROVAL:		
		_	/		
Lungsod ng Quezon	RVICE ARE THE RESIDOCUMENTS	$ \mathbf{A} $			
Lungsod ng Quezon	ERVICE ARE THE RES & DOCUMENTS Of Department, For Which They Jor No3.11 Small Person, Without	Jour	· · ·		Engr. IS





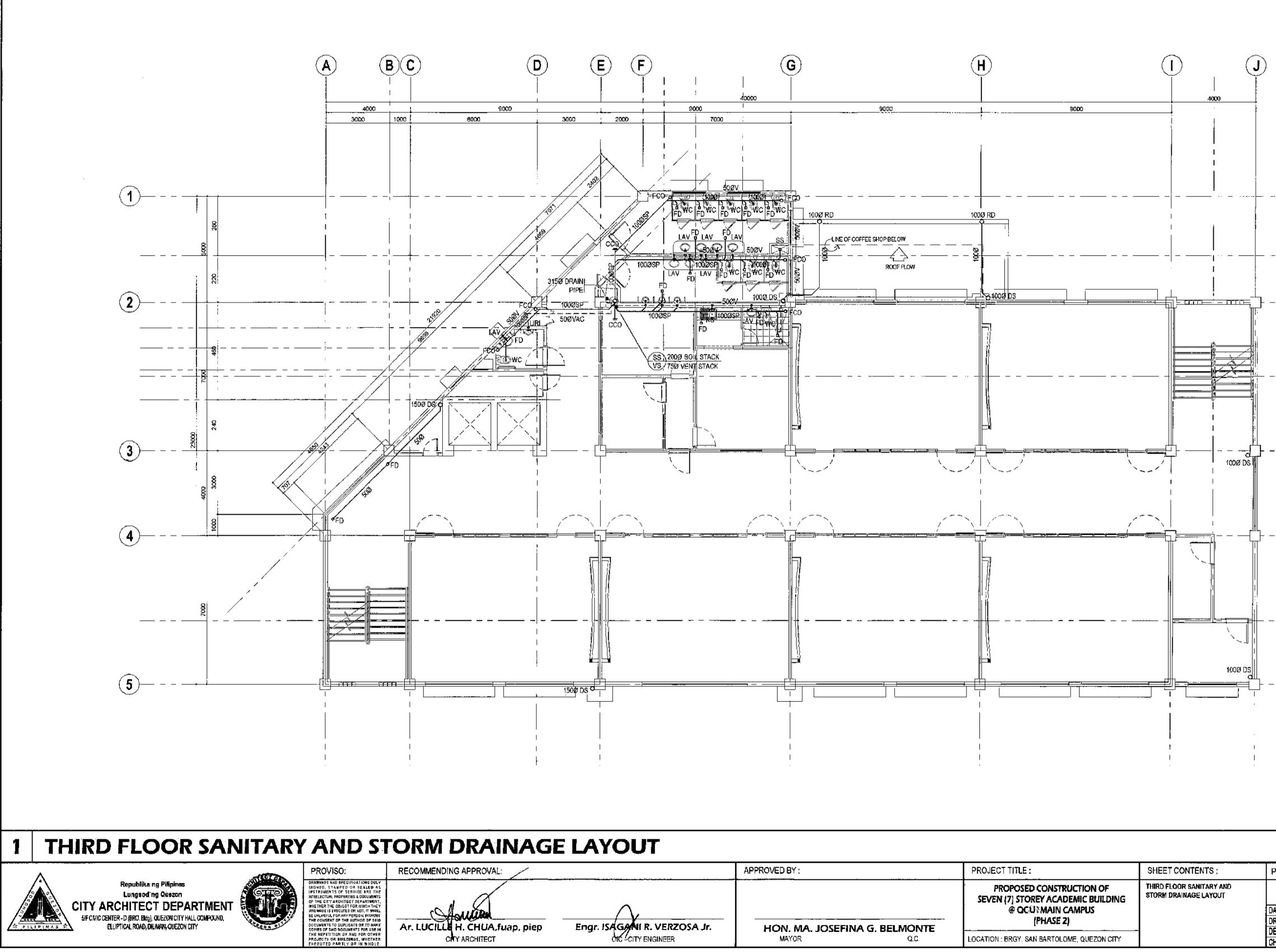


	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
Δ		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU? MAIN CAMPUS	GROUND FLOOR SANITARY AND STORM DRAINAGE LAYOUT	DATE
SAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DESIG
	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECK



	APPROVED BY :		PROJECT TITLE:	SHEET CONTENTS :	PROJ
- ^			PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	SECOND FLOOR SANITARY AND STORM DRAINAGE LAYOUT	
					DATE
SAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BE	MONTE	(PHASE 2)	Í .	DRAWN
	MAYOR				DESIGN
	MATOR	Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECK

~ _	
·	
• •	
	
·	
SCA	100 METERS (20 x 30) LE 1:200 METERS(A3)
OJECT NO.:	SHEET NO .:
E November 2020 WN BY MSBF GNED BY Engr. E.R.Sibucao CKED BY Engr. E.R.Sibucao for Ada	PL-04
,	



Ar. LUCILLE H. CHUA, fuap, piep

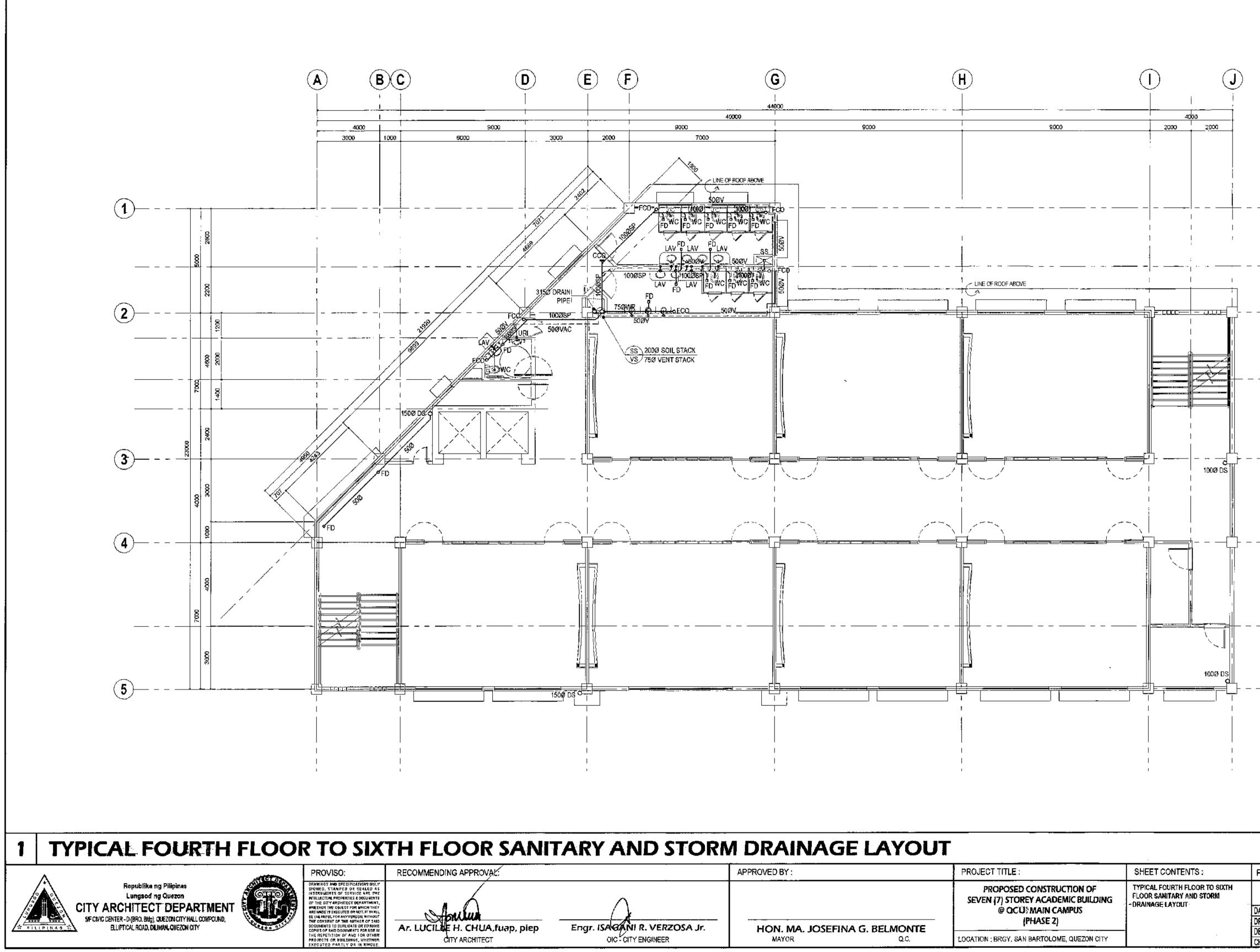
CITY ARCHITECT

201

PILIPINAS

LATOUT				
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS ;	PROJ
		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	THIRD FLOOR SANITARY AND STORM DRAINAGE LAYOUT	
\wedge		é QCU∛MAIN CAMPUS		DATE
Engr. ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAWN
OIC CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECKE

-		
		100 METERS (20 x 30) LE 1:200 METERS(A3)
OJECTN	10.:	SHEET NO.:
	November 2020	PL-05
AN 8Y	MSBF	
GNED BY	Engr. E.R.Sibucao	
CKED BY	Engr. E.R.Sibucao for Pe	loves
	/	



PILIPINAS

Lungsod ng Quezon CITY ARCHITECT DEPARTMENT SIF CIVIC CENTER - D (BRO, Bhig), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QVIEZON CITY

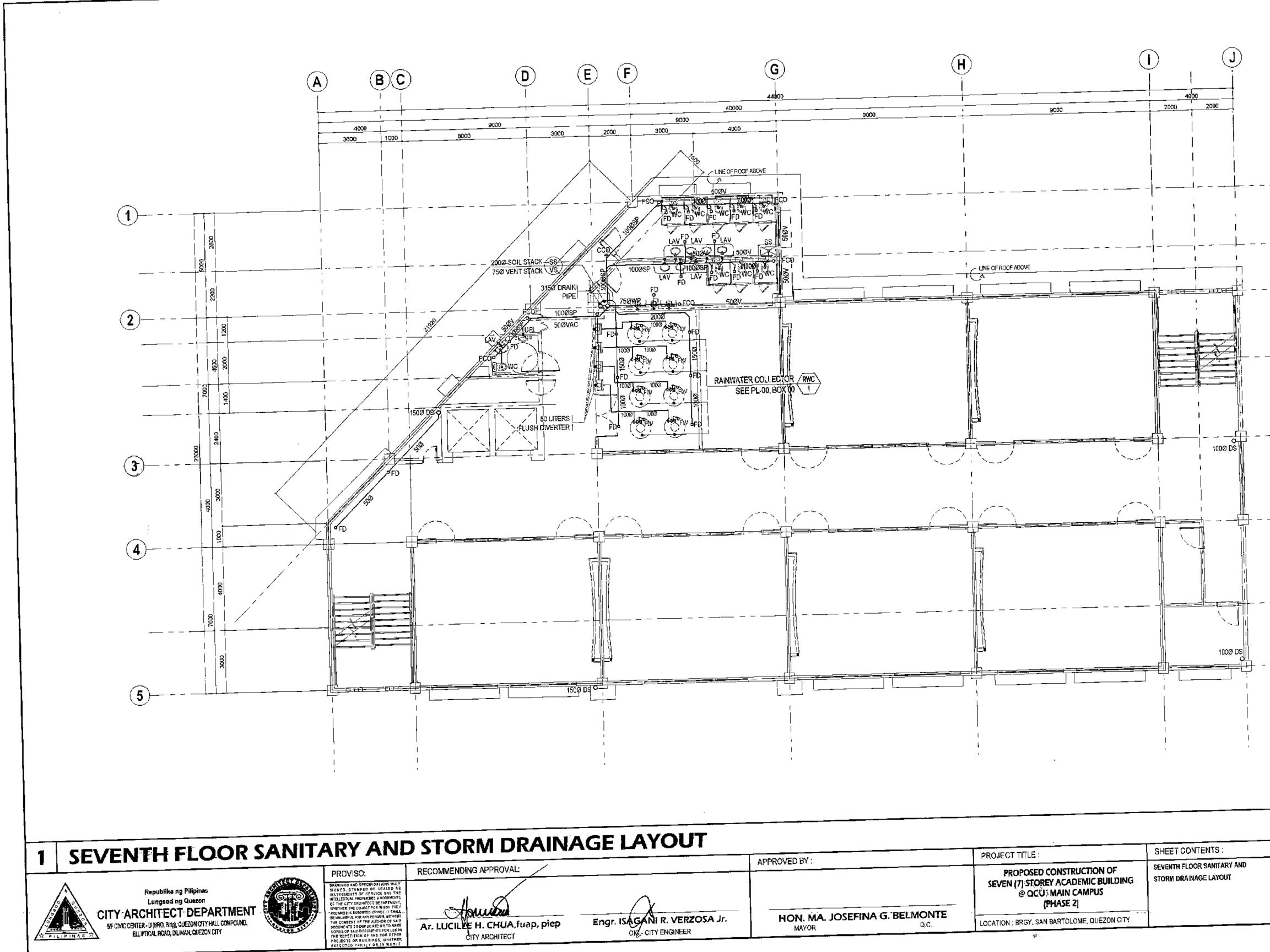


South

Ar. LUCIL H. CHUA, fuap, piep

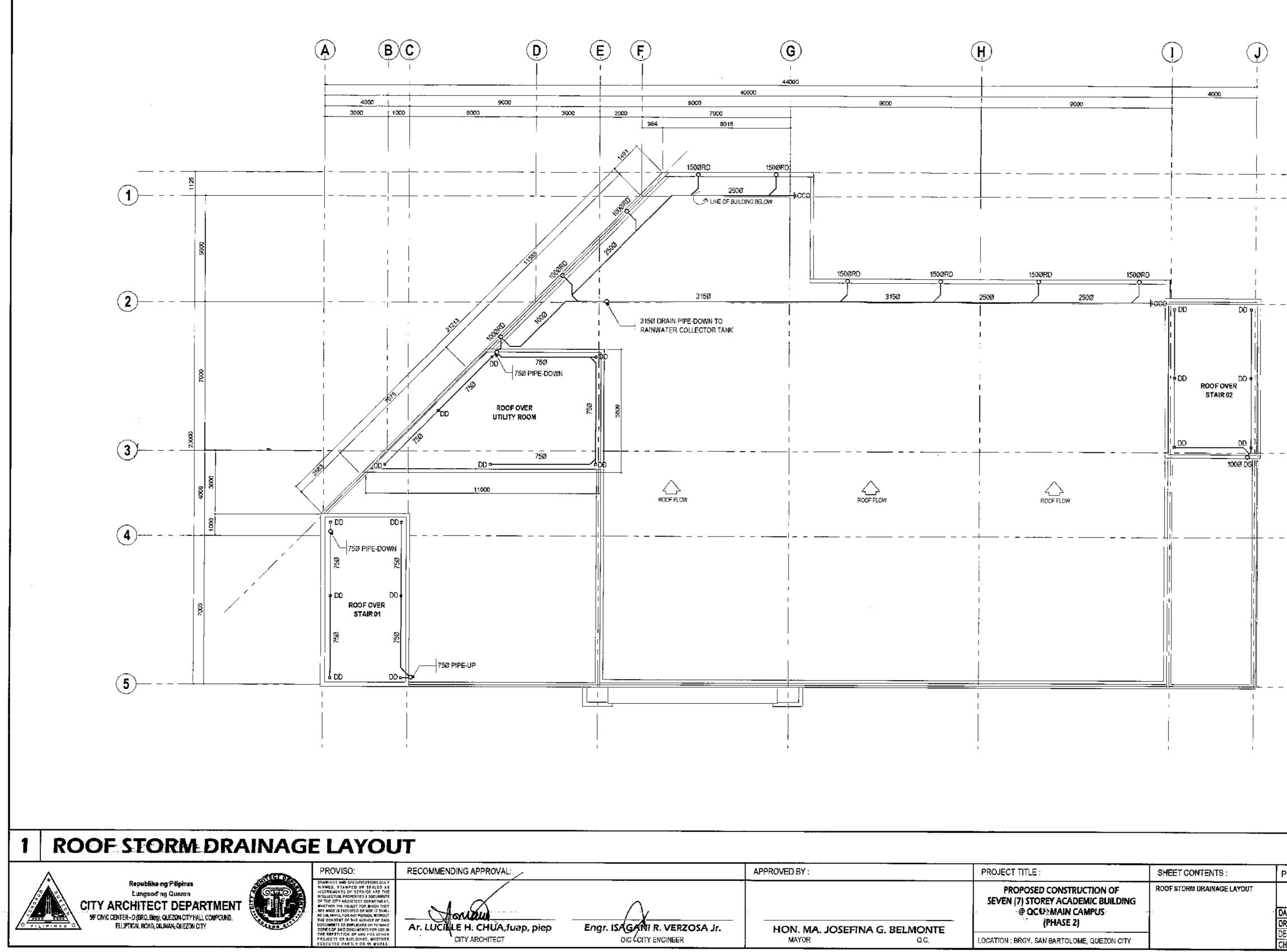
· · ·			•	
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
Engr. ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU MAIN CAMPUS (PHASE 2)	TYPICAL FOURTH FLOOR TO SIXTH FLOOR SANITARY AND STORM +DRAINAGE LAYOUT	DATE DRAWN DESIGN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	· · · · ·	CHECK

		1:100 METERS (20 x 30) ALE 1:200 METERS(A3)
OJECTN	10.:	SHEET NO.:
AN BY Gned by Cked by	November 2020 MS8F Engr. E.R.Sibucao Engr. E.R.Sibucao	PL-06
	1	



LAYOUT				<u></u>
		PROJECT TITLE :	SHEET CONTENTS :	PF
<u>A</u>		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU3 MAIN CAMPUS (PHASE 2)	SEVENTH FLOOR SANITARY AND STORM DRAINAGE LAYOUT	DAT DR DE
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CH

RAWN BY MSBF DESIGNED BY Engr. E.R.Sibucao					
ATE November 2020 PL-07		SCAI	.E 1:100 M SCALE 1:2	ETERS (20)	(30) (A3)
	PROJECT N	D.:	SHE	ETNO.:	
7	DATE DRAWN BY DESIGNED BY CHECKED BY	MSBF		PL-0	7



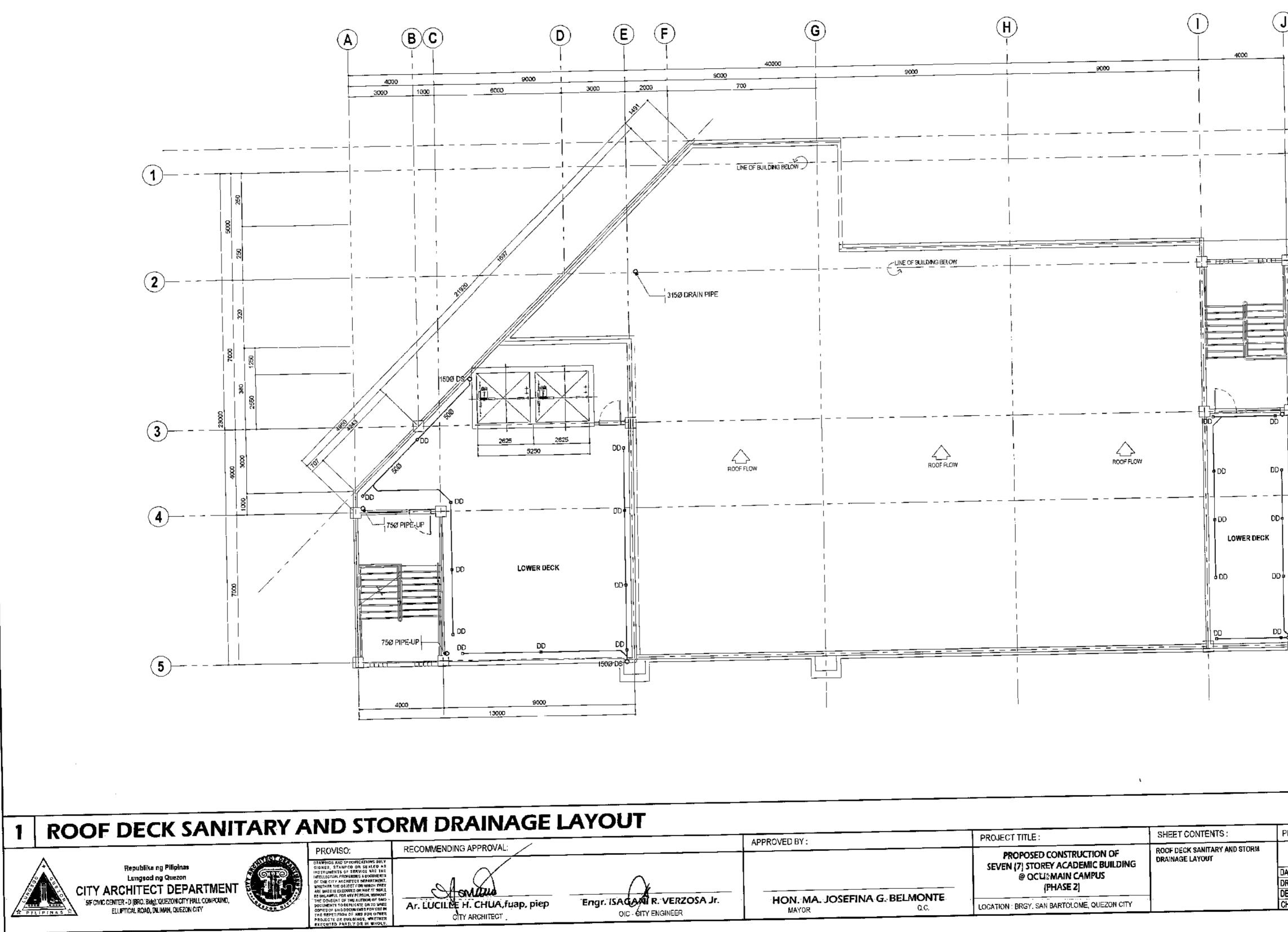
CITY ARCHITECT

• •

	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
AGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCUMMAIN CAMPUS (PHASE 2)	ROOF STORM DRAINAGE LAYOUT	DATE
	MAYOR Q.C.	LOCATION ; BRGY, SAN BARTOLOME, QUEZON CITY		DESIGN CHECKE

.

	:100 METERS (20 x 30) ALE 1:200 METERS(A3)
NO.:	SHEET NO .:
"November 2020	
MSEF	PL-09
Engr. E.R.Sibucao	1 .
Engr. E.R.Sibucao for -fa	hegen
	SC/ IO.: November 2020 MSBF Engr. E.R.Sibucao



_____ Anited

Ar. LUCILLE H. CHUA, fuap, piep

CITY ARCHITECT

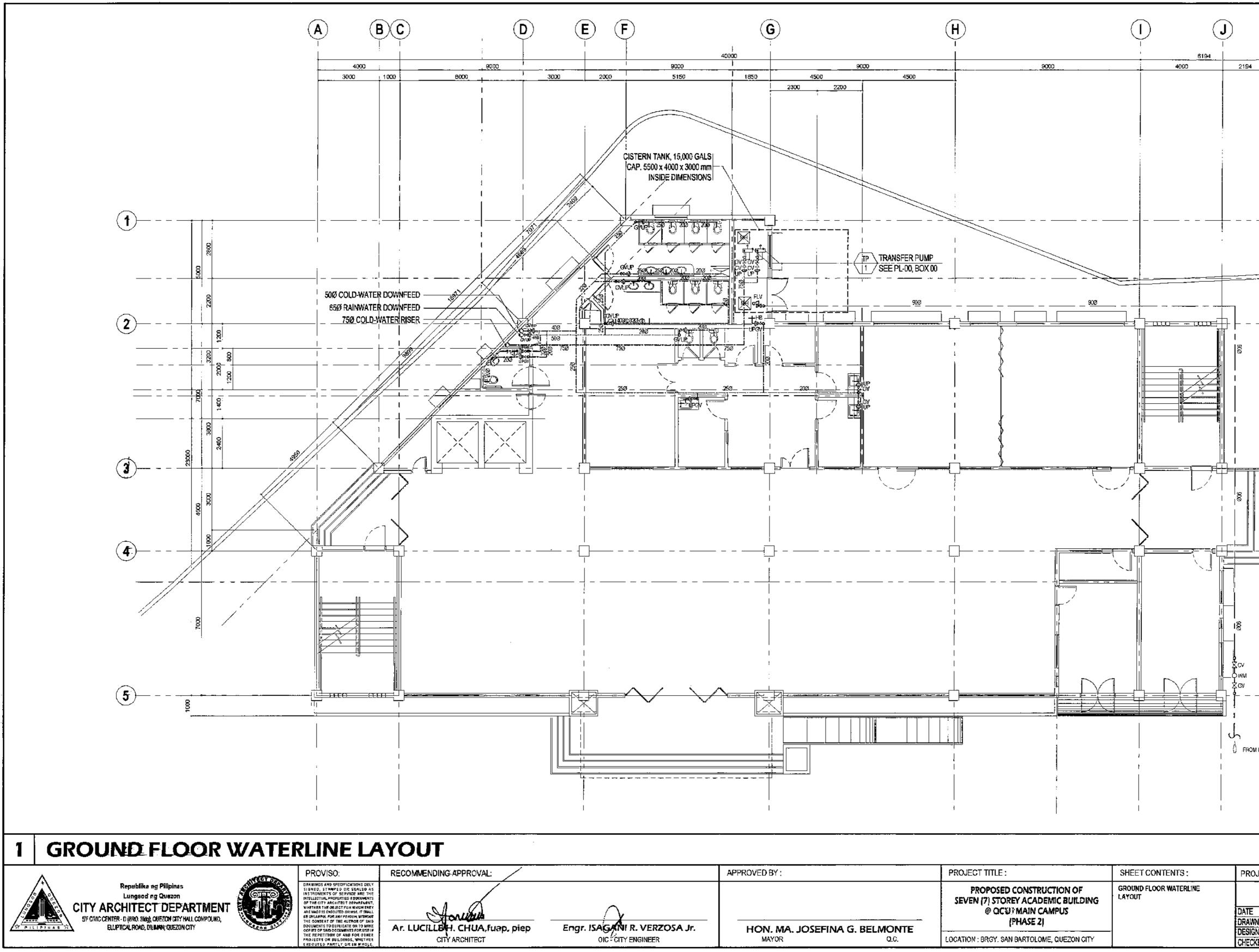
CITY ARCHITECT DEPARTMENT SIF CIVIC CENTER -D (BRO.: Bide); QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

A PILIPINAS

AYOUT				
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PR
Engr. ISAGAAII R. VERZOSA Jr. OIC - OITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCUS MAIN CAMPUS (PHASE 2) LOGATION : BRGY, SAN BARTOLOME, QUEZON CITY	ROOF DECK SANITARY AND STORM DRAINAGE LAYOUT	DATE DRAV DESI CHE

.

SCALE 1:1	100 METERS (20 × 30) LE 1:200 METERS(A3)
	LE 1:200 METERS(A3)
ROJECT NO.:	
ATE November 2020 RAWN BY MSBF ESIGNED BY Engr. E.R.Sibucao HECKED BY Engr. E.R.Sibucao	PL-08
,	



Ar. LUCILLEH. CHUA,fuap, piep

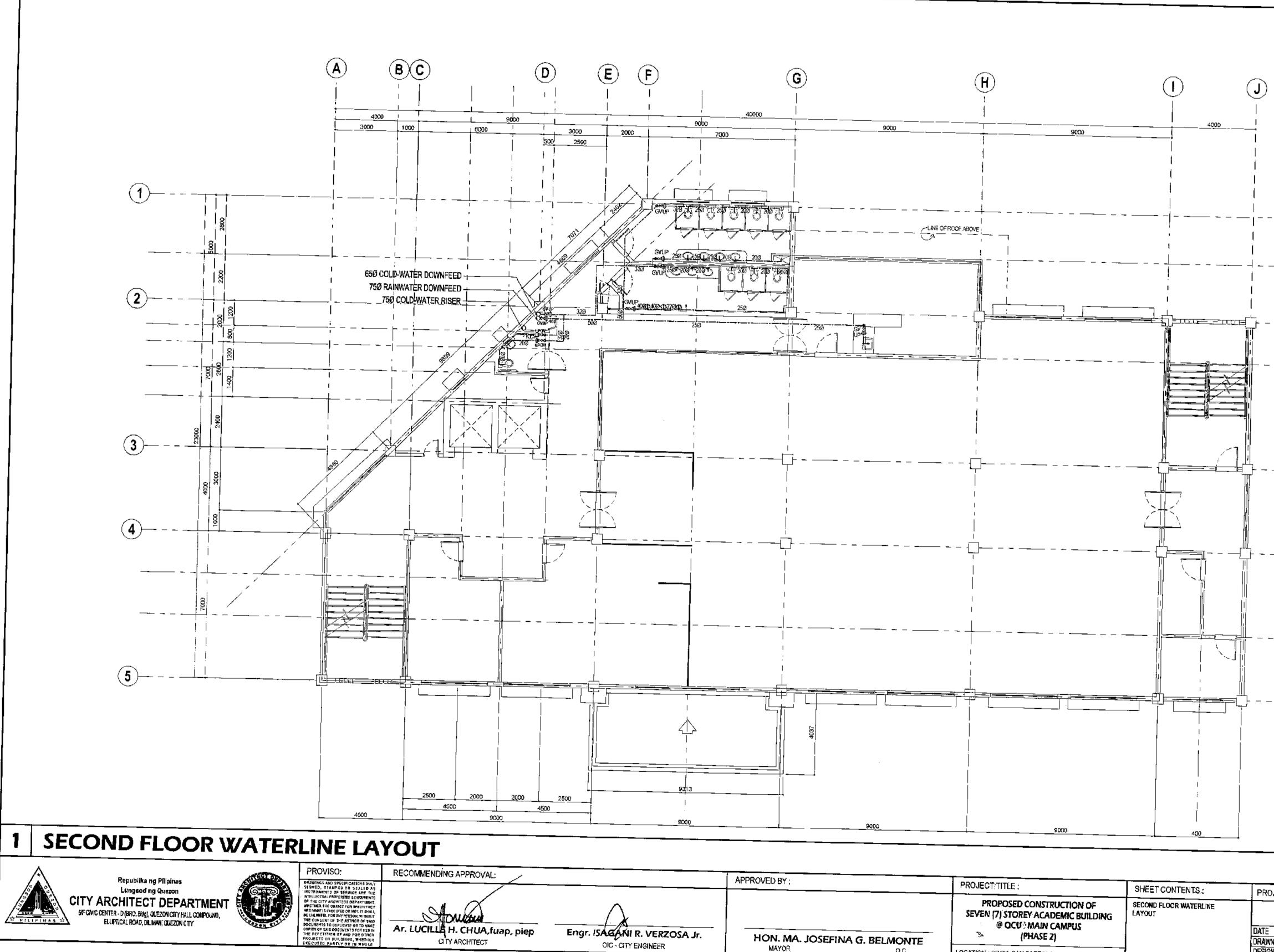
CITY ARCHITECT

SIF CIVIC CENTER - D (BRO: Blug), OVEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILINAN, OVEZON CITY

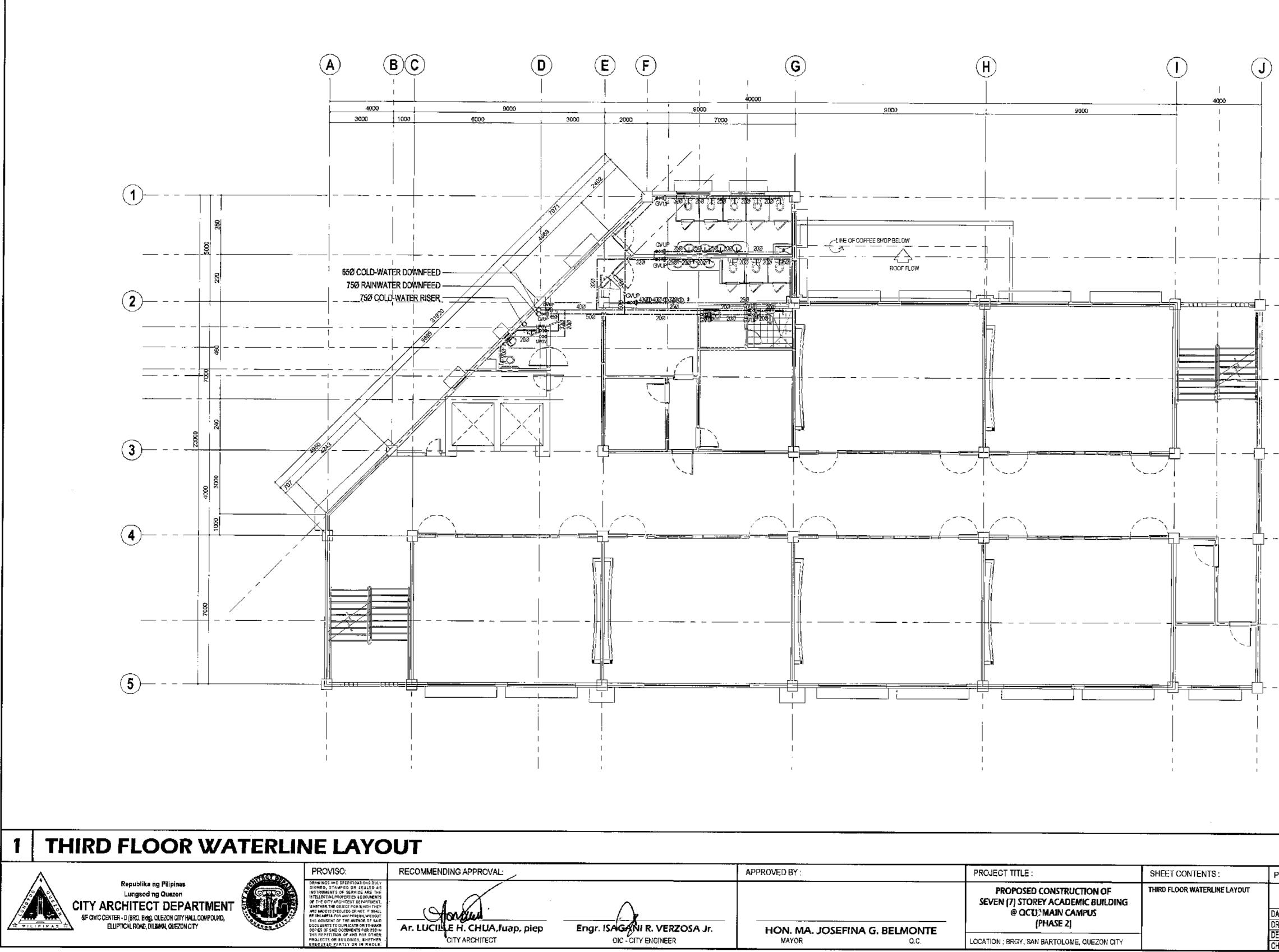
PILIPINAS

	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	GROUND FLOOR WATERLINE	
		@ QCW? MAIN CAMPUS (PHASE 2)		DATE
Engr. ISAGANI R. VERZOSA Jr. OIC CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	-	DESIGN

		T
DM IVA TËR MA	SCALE 1: SCA	100 METERS (20 x 30) LE 1:200 METERS(A3)
AIN BY	November 2020 MSBF Engr. E.R.Sibucao	SHEET NO.: PL-10

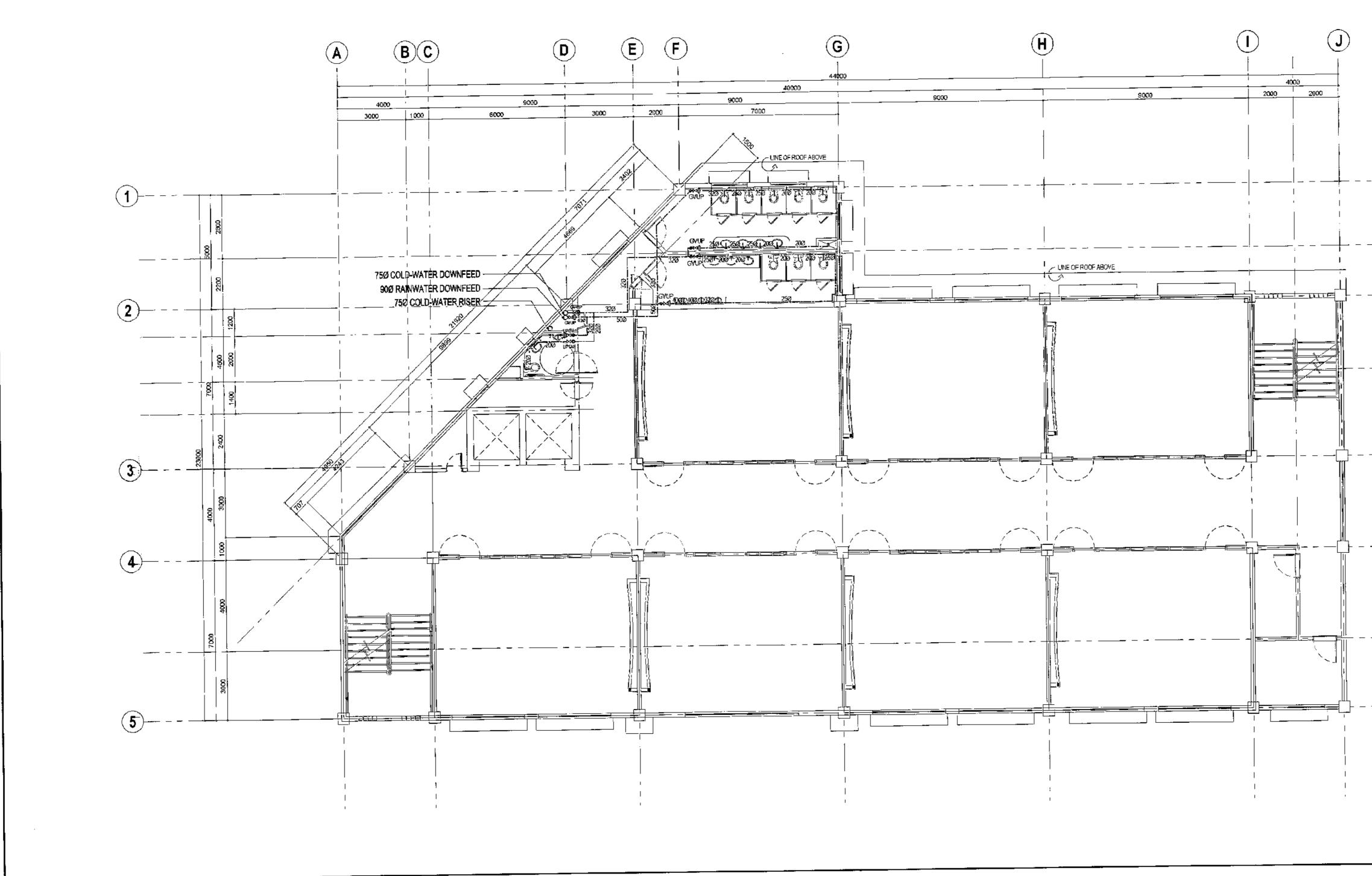


· · · · · · · · · · · · · · · · · · ·	APPROVED BY :	PROJECT:TITLE :	SHEET CONTENTS :	
ISAGAŃI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU > MAIN CAMPUS >> (PHASE Z) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	SECOND FLOOR WATERLINE LAYOUT	DATE DATE DRAWN BY DESIGNED E CHECKED B



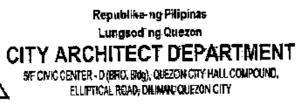
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJE
Engr. ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU2MAIN CAMPUS (PHASE 2)	THIRD FLOOR WATERLINE LAYOUT	DATE DRAWN E
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION ; BRGY, SAN BARTOLOME, QUEZON CITY	-	DESIGNE CHECKEI

	 SCALE 1: SCAL	100 METER: LE 1:200 ME	S (20 x 30) TERS(A3)	
-2,				



1 TYPICAL FOURTH FLOOR TO FIFTH FLOOR WATERLINE LAYOUT







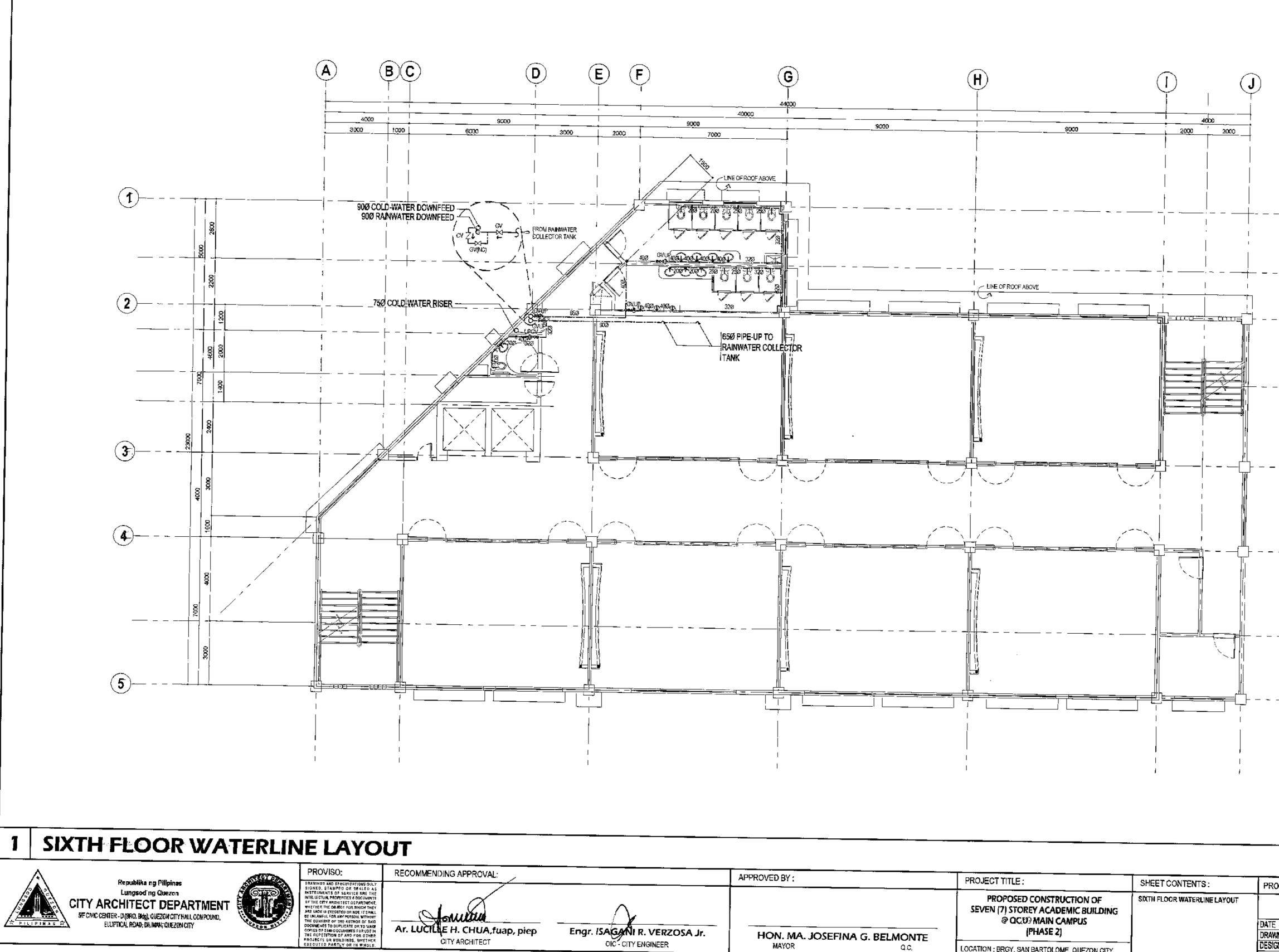
PROVISO: DRAWINGS AND SPECIFICATIONS DULY SIGNED, STAMPED OR SEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTUAL PROPERTIES & DISCUMENTS OF THE CITY ANGINEET DEPARTMENT, WHETHER THE OBJECT FOR DINGH THEY ARE BANGERS DISCUMENTS OF THE SEALED INFO DETS OF OF THE AUTHOR OF SAID DOCUMENTS TO DUP/CATE OR TO MARE GODIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR GUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE. RECOMMENDING APPROVAL:

Ar. LUCILLE H. CHUA, fuap; piep CITY ARCHITECT

Engr. IS

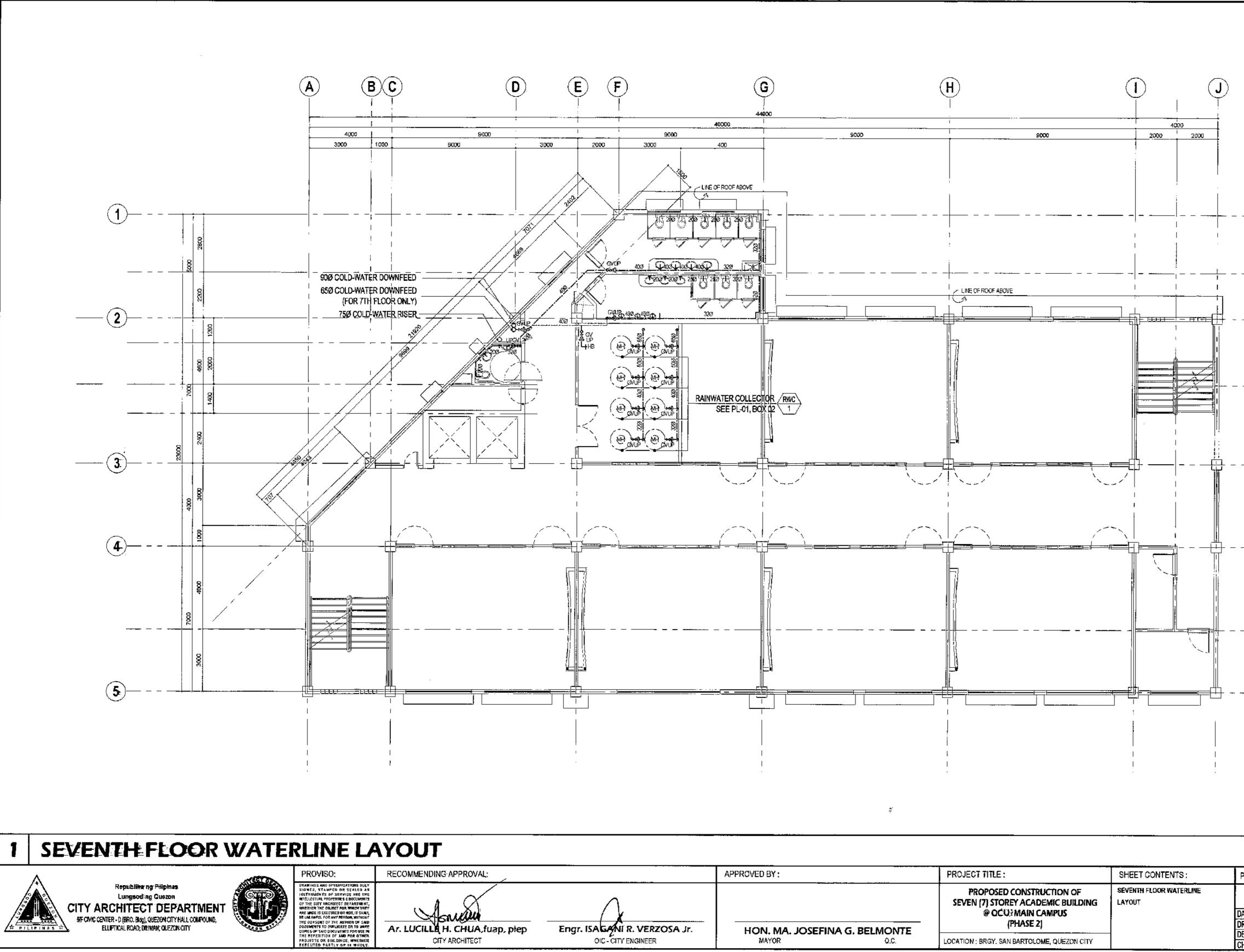
· · · · · · · · · · · · · · · · · · ·	APPROVED BY :		PROJECT TITLE :	SHEET CONTENTS :	PRC
ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA C	J. BELMONTE Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU3 MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	TYPICAL FOURTH FLOOR TO FIFTH FLOOR WATERLINE LAYOUT	DATE DRAM DESIC CHEC

	
SCALE 1: SCAL ROJECT NO.:	100 METERS (20 x 30) LE 1:200 METERS(A3) SHEET NO.:
ATE November 2020 AWN BY MSBF SIGNED BY Engr. E.R.Sibucao IECKED BY Engr. E.R.Sibucao for -fau	PL-13



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJEC
Engr. ISAGANI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU? MAIN CAMPUS (PHASE 2) LOCATION : BRGY, SAN BARTOLOME, QUEZON GITY	SIXTH FLOOR WATERLINE LAYOUT	DATE DRAWN BY DESIGNED CHECKED

——— — —		
SCA	:100 METERS (20 x 30) LE 1:200 METERS(A3)	
JECT NO.: November 2020 VBY MSBF NED BY Engr. E.R.Sibucao	SHEET NO.: PL-14	
ED BY Engr. E.R.Sibucae & fatte	ne <u>ç</u>	1



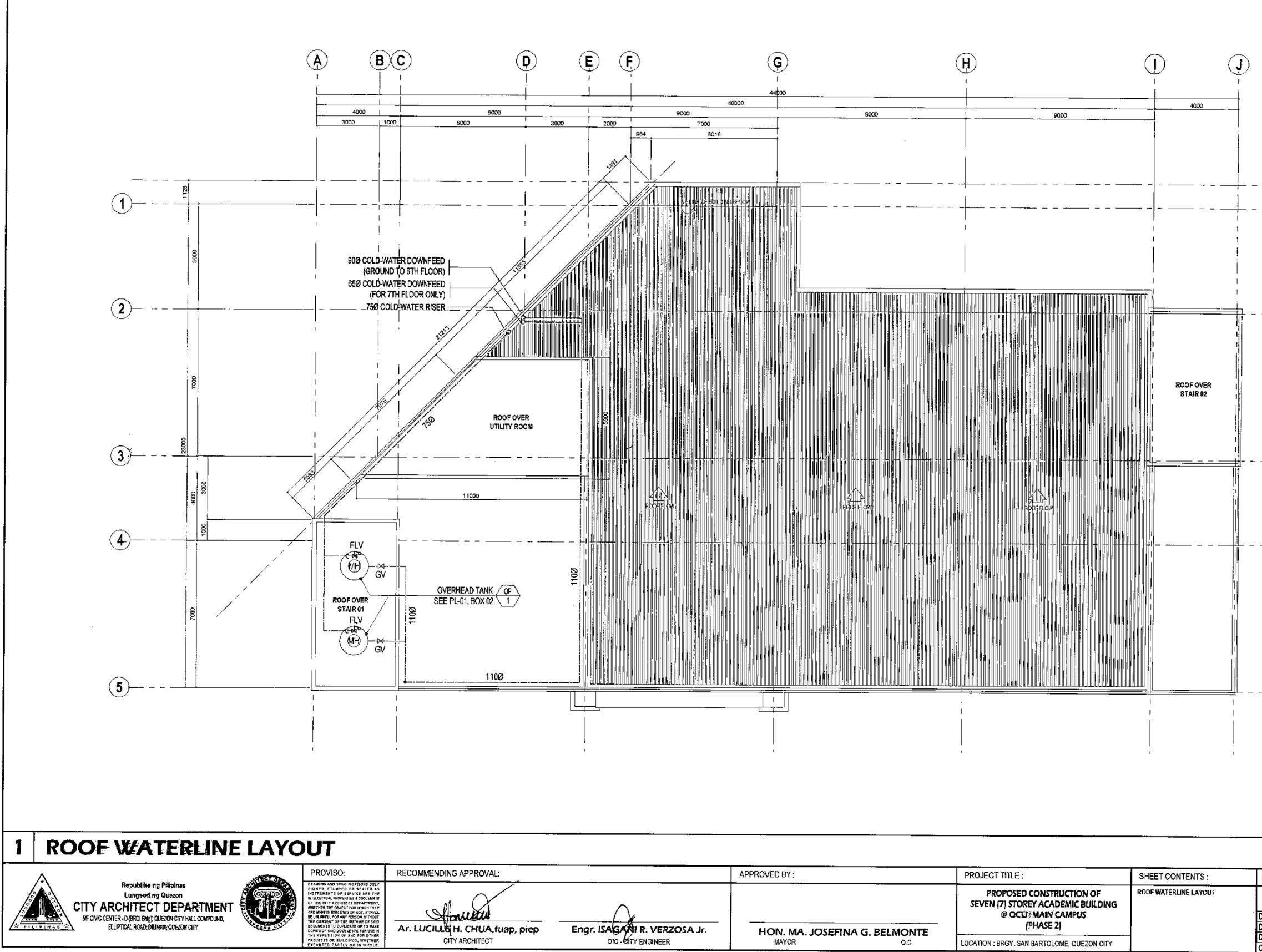
ARMA Ar. LUCILLE H. CHUA, fuap, piep

CITY ARCHITECT

A PILIPINAS

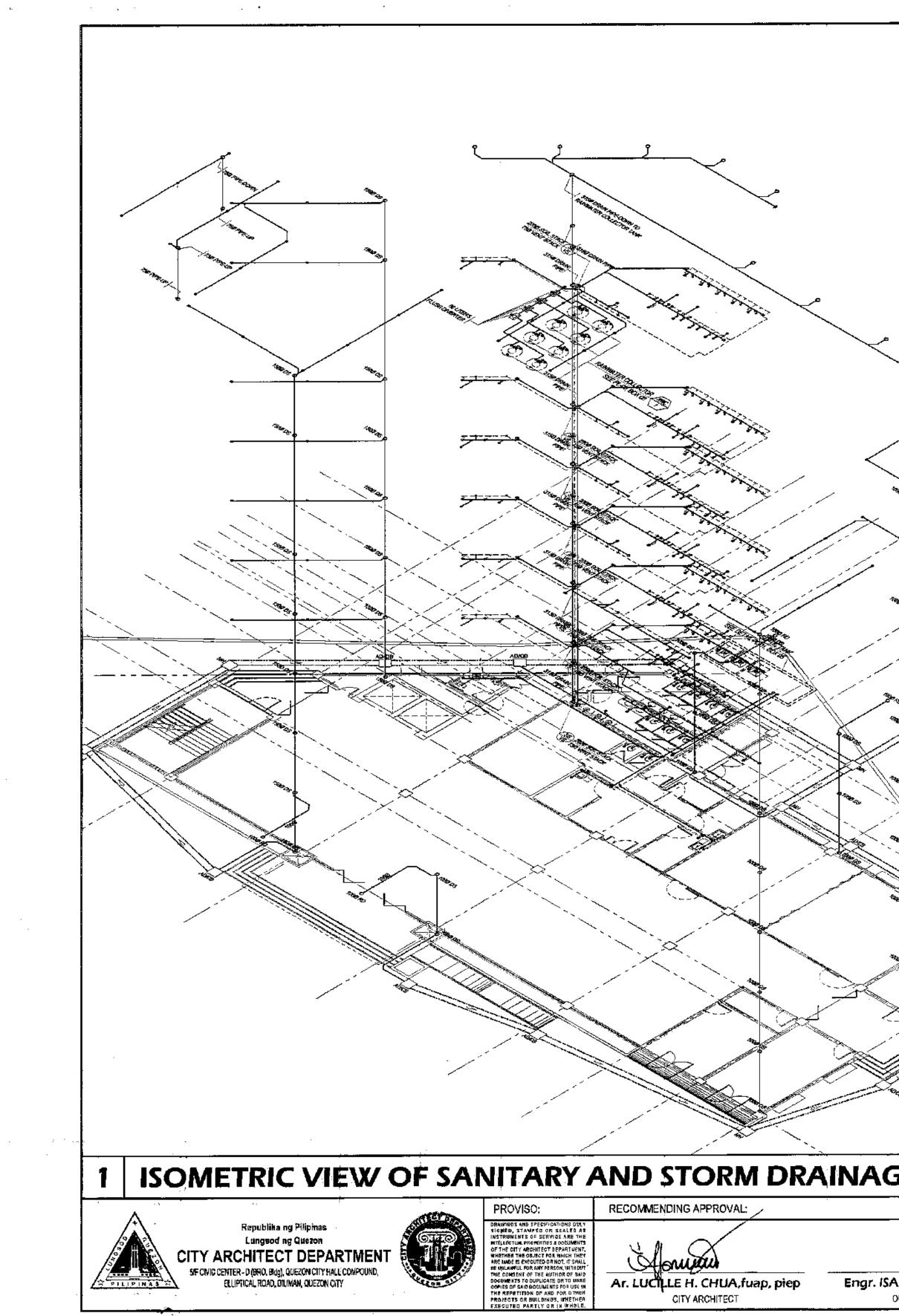
	APPROVED BY:	PROJECT TITLE :	SHEET CONTENTS :	PROJ
\wedge		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	SEVENTH FLOOR WATERLINE	
Engr. ISAGANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	@ OC'U} MAIN CAMPUS (PHASE 2)		DATE DRAWN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGNE

				1
	_			
	-			
	_			
	_		:	
	_			
	_			
			-	N A
	_			
	_			
				-
	SCALE 1	I:100 METERS ALE 1:200 MET	(20 x 30)	
		SHEET NO.:	· · · · · · · · · · · · · · · · · · ·	
		· · · ·	,	
MN BY	November 2020 MSBF Engr. E.R.Sibucao Engr. E.R.Sibucao	PL-	15	
GNED BY	Engr. E.R.Sibucao			



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
\wedge		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCD3 MAIN CAMPUS	ROOF WATERLINE LAYOUT	DATE
GANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	(PHASE 2)		DRAW
NC - VITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY]	CHEC

		1:100 METERS (20 x 30)
_		ALE 1:200 METERS(A3)
DJECTN	10.:	SHEET NO .:
	November 2020	
VN BY	MSBF	PL-16
GNED BY	Engr. E.R.Sibucao	
KED BY	Engr. E.R.Sibucao	<u></u>
	1	



· ja

•

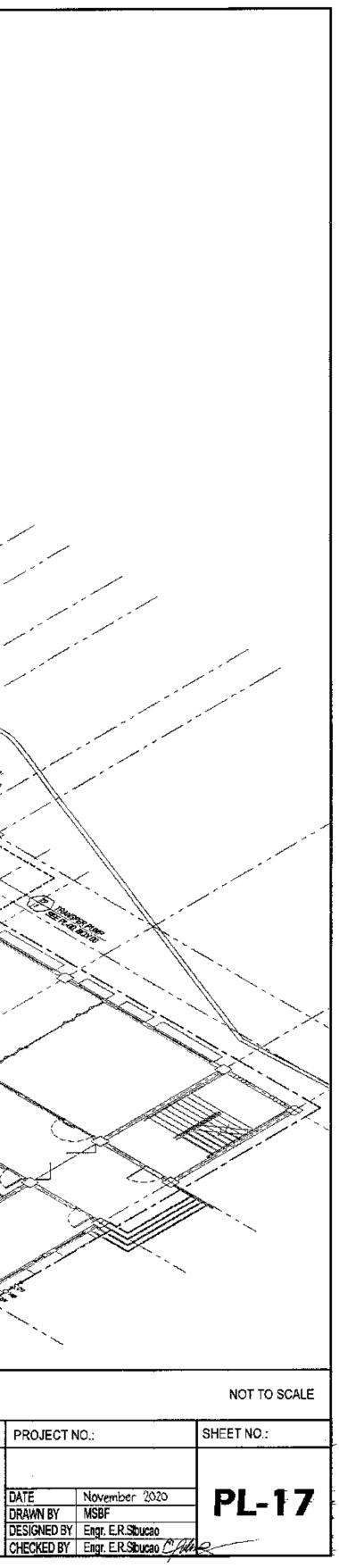
.

and the strength of the

• __. *-

				· · · · · ·		
	[
				7		
	ł		$\rightarrow h$	/		
			 1			
		, et al.				
				7		
				/		
				L		
				\rightarrow		
			A CHAN	e e sa		
<					\sim \sim $>$	
					$A \setminus \mathbb{A}$	
\sim				ZENT		
~			AN COLOMA COLOR OF CO			
			Sector and the sector	\sim		
			A Can I I I I I I I I I I I I I I I I I I I	\sim		
			ASS CALLAR TRACTOR			/
				\checkmark \sim		-
The contract of the contract o			A A A A A A A A A A A A A A A A A A A	~		/
	-					
\succ				$\times \frown$	\langle	1
					~ ``````	-
						/
****				\sim		
	<u> </u>					_
				\sum		M.
	I —					. //
						5
						,
₽ _₩						<u>ج</u> ``
					XXXXX/	
A BR.			, second s		NANG AN	
A A A A A A A A A A A A A A A A A A A						\searrow
State of the state			, i Aliana 🔪	× 5`	NA XXX	\sim
18 - SA	/				VX.X	
	- 1					CHARTER CO.
and the second sec				\sim		
			×			
	,		<i>ک</i> ے \	<u>````</u>		
and the second se						- Concerned
						No. of Concession, Name
						CAR BE
	2		\sim			
X X X	2					
			\sim			
						T
			/ ·			
	1					
				1		Set as
•						-
					1 mar	·
GE NOT TO SCALE	2	ISOMETRIC VIEW	OF WATE	KLINE		
· · · · · · · · · · · · · · · · · · ·	APPRO	DVED BY :	PROJECT TITLE :		SHEET CONTENTS :	PR
	1	· · · · · · · · · · · · · · · · · · ·	PROPOSED CONSTRU	ICTION OF	ISOMETRIC VIEW OF SANITARY AND	
<u>^</u>			SEVEN (7) STOREY ACADE	EMIC BUILDING	STORM DRAINAGE	
$\langle \rangle$			@ QCU) MAIN CA	AMPUS	SOMETHO HEN OF MATERLINE	DATE DRAV DESI CHEC
AGANI R. VERZOSA Jr.		HON, MA, JOSEFINA G. BELMONTE	(PHASE 2)			DRA
OIC - CITY ENGINEER	[1	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLON	IE, QUEZON CITY		CHE

.=



۰ ...

ALL FIRE PROTECTION WORKS SHALL CONFORM WITH THE LATEST EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODES NO. 13 & 20. READ THE DRAWINGS IN CONNECTION WITH OTHER RELATED DRAWINGS & SPECIFICATIONS. THE ARCHITECT & ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES FOUND THEREIN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF THE SPRINKLER HEADS IN COORDINATION WITH THE ARCHITECTURAL CEILING LAYOUT, ANY RELOCATION SHALL BE SUBJECT TO ARCHITECT'S & ENGINEER'S APPROVAL. ALL DRAIN PIPES FOR INSPECTORS TEST CONNECTION DRAIN VALVES SHALL BE PIPED TO THE NEAREST AREA DRAIN PROVIDED BY THE PLUMBING CONTRACTOR. PIPE SLEEVES SHALL BE PROVIDED FOR ALL PIPES PASSING THRU SLABS, WALLS, GIRDERS & BEAMS. MINIMUM PIPE SIZE FOR ALL SPRINKLER HEADS SHALL BE 25mm Ø UNLESS OTHERWISE NOTED. ALL PIPES ARE IN MILLIMETER UNLESS OTHERWISE NOTED. WORKMANSHIP: THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST & MOST THOROUGH MANNER KNOWN TO TRADE & TO THE SATISFACTION OF THE ARCHITECT & THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL GOVERNMENT / LOCAL CONSTRUCTION & OPERATION PERMITS & PAY ALL THE REQUIRED FEES. REFER TO TECHNICAL SPECIFICATIONS FOR PUMPS & MATERIALS SPECIFICATIONS. MAINTAIN MINIMUM DISTANCE OF 300mm BETWEEN SPRINKLER HEAD & LIGHTING FIXTURE, NOTES

SENSORS (FLOW SWITCHES, LOW WATER LEVEL SENSOR, SUPERVISORY SWITCHES, FOR ZONE ACTIVATION SHALL BE INCLUDED IN THE CONTRACT, WIRING FROM THESE DEVICES TO THE SPRINGKLER ANNUNCIATOR PANEL SHALL BE DONE BY ELECTRICAL CONTRACTOR. COORDINATE INSTALLATION WITH THE AFFECTIVE TRADE CONTRACTOR. OPENING OF THE SPRINGKLER HEAD OR INSPECTOR'S TEST VALVE SHALL CAUSE THE OPERATION OF THE FLOW SWITCH, WHICH SHALL ACTIVATE THE ANNUNCIATOR LIGHT FOR

THE SPRINGKLER ZONE INVOLVE AND SHALL CAUSE THE OPERATION OF THE BUILDING FIRE ALARM. (FIRE ALARM CONDITION) CLOSING OF THE NORMALLY OPEN SUPERVISED VALVE OF THE SPRINGKLER SYSTEM SHAL

CAUSE THE SUPERVISORY SWITCH TO OPERATE A TROUBLE ALARM IN THE BUILDING FIRE ALARM SYSTEM (TROUBLE ALARM CONDITITON)

FIRE PUMP RUNNING CONDITION OF THE FIRE PUMP CONTROL PANEL SHALL CAUSE THE OPERATION OF THE BUILDING FIRE ALARM SYSTEM (FIRE ALARM CONDITION) ACTIVATION OF THE LOW WATER LEVEL SWITCH IN THE STORAGE TANK SHALL CAUSE A TROUBLE ALARM CONDITION IN THE FIRE ALARM SYSTEM.

INSTALLATION OF THE SPRINGKLER SYSTEM SHALL BE IN ACCORDANCE WITH THE NFPA [13] STANDARD FOR THE INSTALLATION OF SPRINGKLER SYSTEM.

INSTALLATION OF FIRE PUMP SHALL BE IN ACCORDANCE WITH NEPA 20 STANDARD FOR THE INSTALLATION OF FIRE PUMPS.

INSTALLATION FIRE PUMPS SHALL BE IN ACCORDANCE WITH THE NFPA 20 400 HOSE VALVES SHALL BE PRESSURE REDUCING TYPE OR SHALL BE PROVIDED WITH PRESSURE RESTRITING DISC. NON COMBUSTIBLE CEILINGS SHALL BE USED THIS CEILINGS WILL BE USED IN THIS PROJECT, NOTIFY THE CONSULTANT IF SOME TENANTS WILL USE COMBUSTIBLE CEILING. COMBUSTIBLE CEILINGS WILL BE ALLOWED.

NOTES

1. FLOOR CONTROL VALVE AT EACH FLOOR SHALL BE PROVIDED WITH A TAMPER SWITCH. THE TAMPER SWITCH SHALL BE INTERLOCK WITH THE FULLY ADDRESSABLE FIRE ALARM CONTROL PANEL (FACP) FOR GATE VALVE SUPERVISORY MONITORING, SUPERVISORY MONI-TORING MEANS THAT CLOSING ANY ONE OF THE CONTROL & DISTRICT ALARM SIGNAL TO ONE THE SPECIFIED LOCATED ON THE FACP.

2. WATER FLOW DEVICE OF EACH FLOOR SHALL BE LIKEWISE INTERLOCK WITH THE FACH IN SUCH A MANNER THAT OPERATION OF ONE SPRINKLER WILL ACTIVATE THE ALARM SYSTEM, AND THE LOCATION OF THE OPERATED FLOW DEVICE SHALL BE INDICATED ON THE FACP.

3. ALL CONTROL, DRAIN AND TEST CONNECTION VALVES BE PROVIDED WITH PERMANENTLY MARKED WEATHER PROOF METAL OR RIGID PLASTIC IDENTIFICATION SIGNS. THE SIGNS SHALL BE SECURED WITH CORROSION-RESISTANT WIRE CHAIN OR OTHER APPROVED MEANS.

4. FIRE DEPARMENT CONNECTION SHALL BE DESIGNATED, BY A SIGN HAVING A RAISED LETTERS. AT LEASE 25.4mm IN HEIGHT, CAST ON PLATE OR FITTING READING SERVICE DESIGN, e.g. "AUTOSPKR", OPEN SPKR AND STANDPIPE", & "DRY STANDPIPE".

SEQUENCE OF OPERATION

WHEN THE SYSTEM PRESSURE AT THE MAIN DISCHARGE OF LINE DECREASES DUE TO LEAKAGES IN THE PPING SYSYTEM, THE JOCKEY PUMP(JP-1) WILL AUTOMATICALLY START TO MAINTAIN THE PRESSURE IN THE SYSTEM IN ACCORDANCE WITH THE FOLLOWING SET POINTS.

CUT - IN 90 PSI CUT - OUT 100 PSI

A FURTHER DECREASE IN THE SYSTEM PRESSURE DUE TO THE ACTIVATION OF ONE OR MORE SPRINGKLER HEADS, FIRE HOSE CABINETS WILL CAUSE THE FIRE PUMP (FP-1) TO START AUTOMATICALLY IN ACCORDANCE WITH THE FOLLOWING SET POINTS

CUT - IN 80 PSI CUT - OUT MANUAL

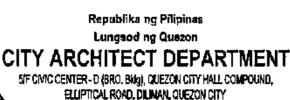
AN ELECTRICALLY OPERATED AUDIBLE ALARM SHALL BE ACTIVATED WHEN ANY OF THE FOLLOWING CONDITIONS EXIST. AUTOMATICALLY IN ACCORDANCE WITH THE FOLLOWING SET POINTS FIRE PUMP IS RUNNING

- 5. FIRE PUMP CONTROLLER MAIN SWITCH IS DE-ACTIVATED OR IN MANUAL POSITION c. POWER FAILURE
- d. LOW WATER LEVEL IN THE STORAGE TANK

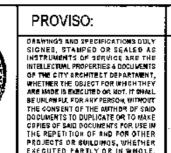
GENERAL NOTES



.

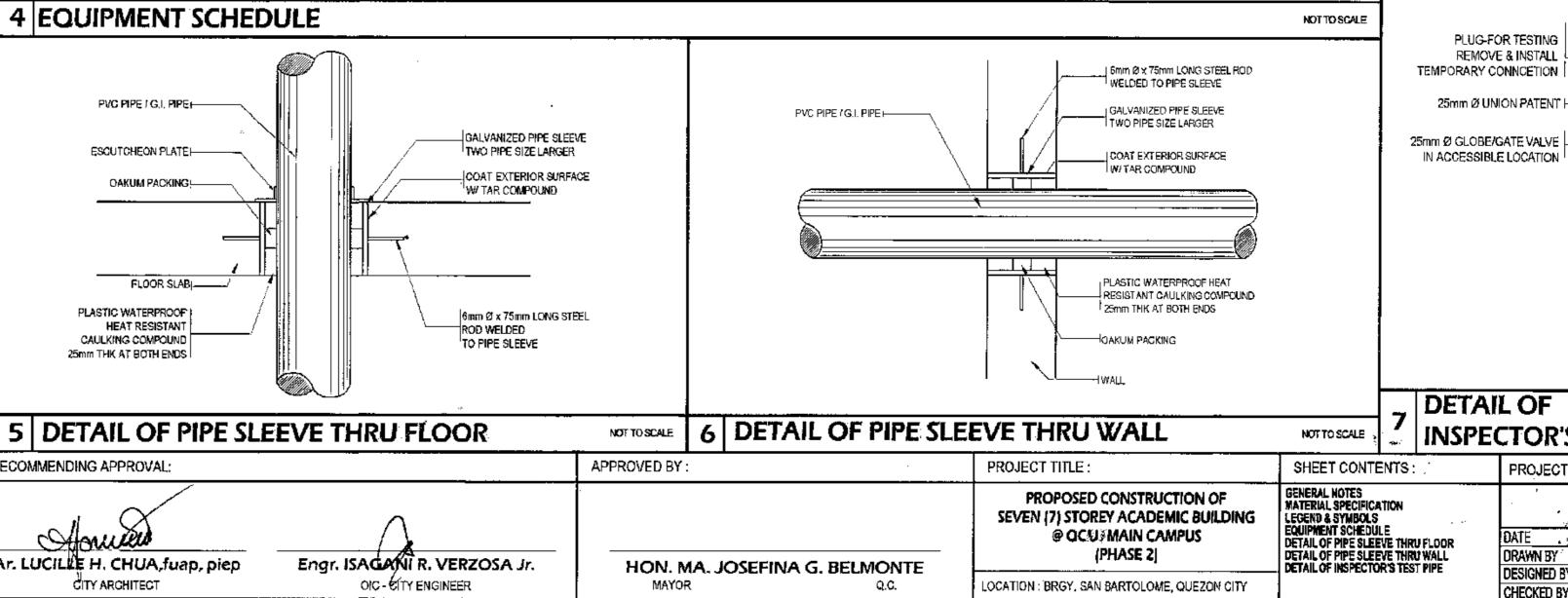






EGUTED PARTLY OR IN WHO

	DESTINATION	
		57°C to 77°
	GROUND FLOOR	8
	SECOND FLOOR	5
	THIRD FLOOR	73
i	FOURTH FLOOR	79
	FIFTH FLOOR	79
	SIXTH FLOOR	79
	SEVENTH FLOOR	5
	LOWER DECK	6
	UPPER DECK	
	TOTAL	334
4	EQUIPMEN	IT SCH



RECOMMENDING APPROVAL:

Amilian	
Ar. LUCILLE H. CHUA, fuap, piep	Engr.

-		
	ALL	SHALL BE MALLEABLE IRON, 300 LBS. C
	FLA	NGED
		SHALL BE STEEL, SHORT BODY, 150
	WEI	
		SHALL BE STEEL, STANDARD WEIGHT
		ANSIB16.5 / B16.11.
3.	VAL	VES
	3.1	BUTTERFLY VALVE
		SHALL BE FLANGED, IRON BODY, 175
		APPROVED.
		APPROVED MANUFACTURER - GEM, (
	3.2	CHECK VALVE
		SHALL BE FLANGED, SWING TYPE, IR
		UL LISTED FM APPROVED.
	3.3	GATE VALVE
		GLOBE TYPE, BRONZE BODY, SCREW
		CENTRAL CEM

MATERIALS SPECIFICATION

2. FITTING SCREWED

1. PIPING SYSTEM

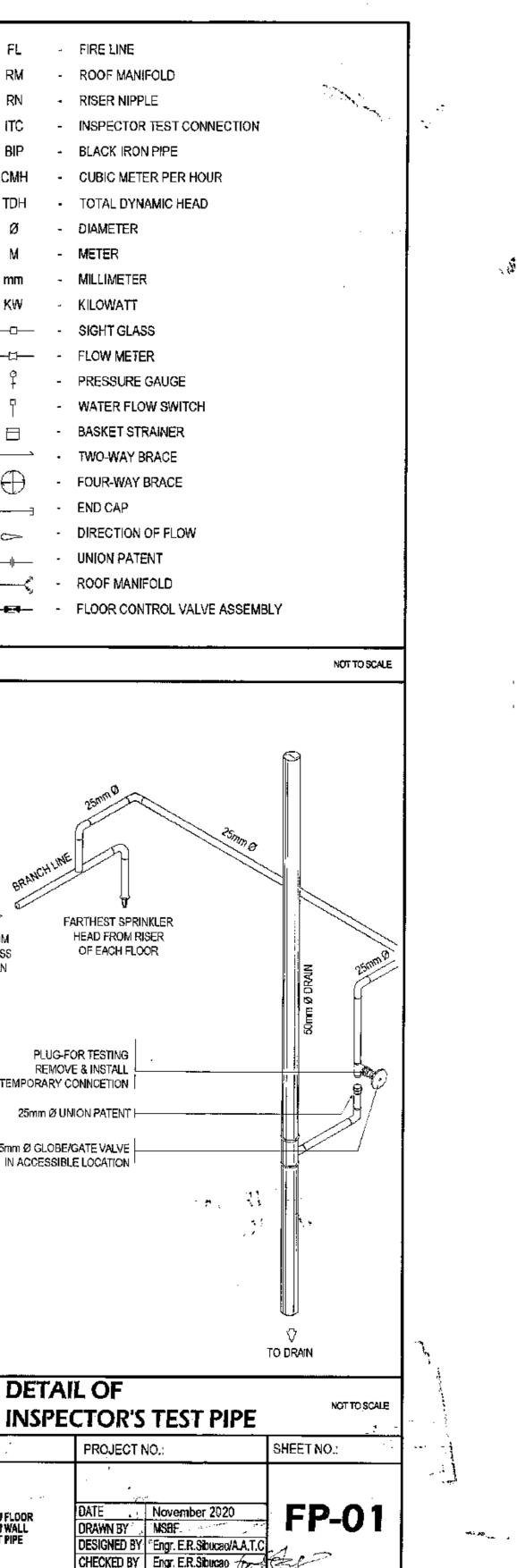
CENTRAL, GEM. 4. FIRE DEPARTMENT CONNECTION SHALL BE 1000 x 650 x 650 SIAMESE SHALL BE NATIONAL STANDARD, SAM 5. FIRE HOSE CABINET WALL MOUNTED, 16 GAUGE STEEL B 27" x 7" AND WIT THE FOLLOWING AC

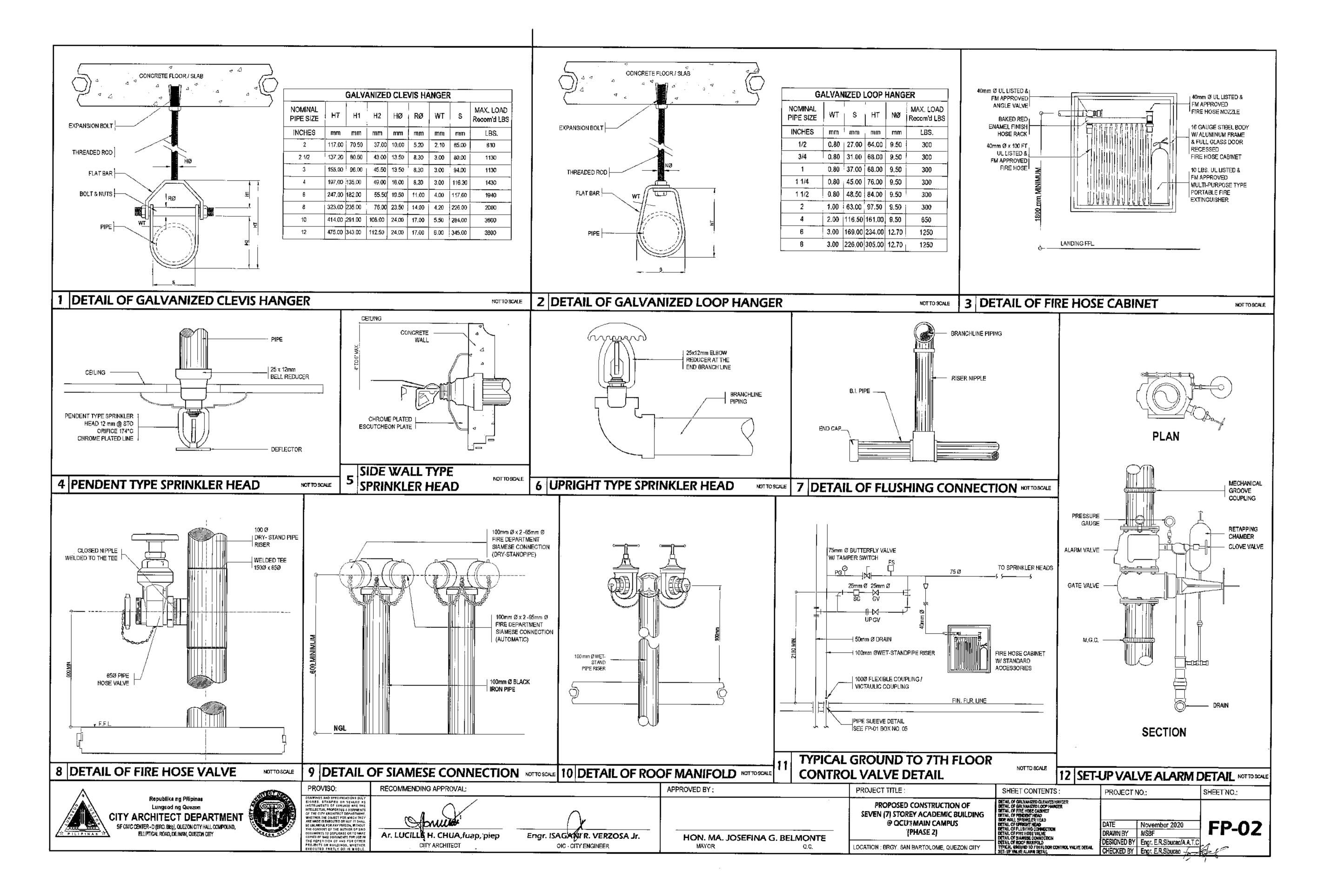
- 5.1 40Ø ADJUSTABLE FOG NOZZLE ULIL 5.2 400 HOSE VALVE UL LISTED & FM AP 5.3 HOSE RACK FOR 100 FT, FIRE HOSE /
- 5.4 FIRE HOSE, 1 }" x 100 FT. SINGLE JAC
- FM APPROVED GEM, CENTRAL 5.5 FIRE EXTINGUISHER, ABC DRY POWC FM APPROVED GEM, CENTRAL.
- 6. SPRINKLER HEADS SHALL BE PENDENT TYPE, UPRIGHT AND UL LISTED & FM APPROVED, APP
- 7. ALARM CHECK VALVE SHALL BE BUTTERFLY WAFER STYLE SHALL BE TESTED AND LISTED BY UL & FM /

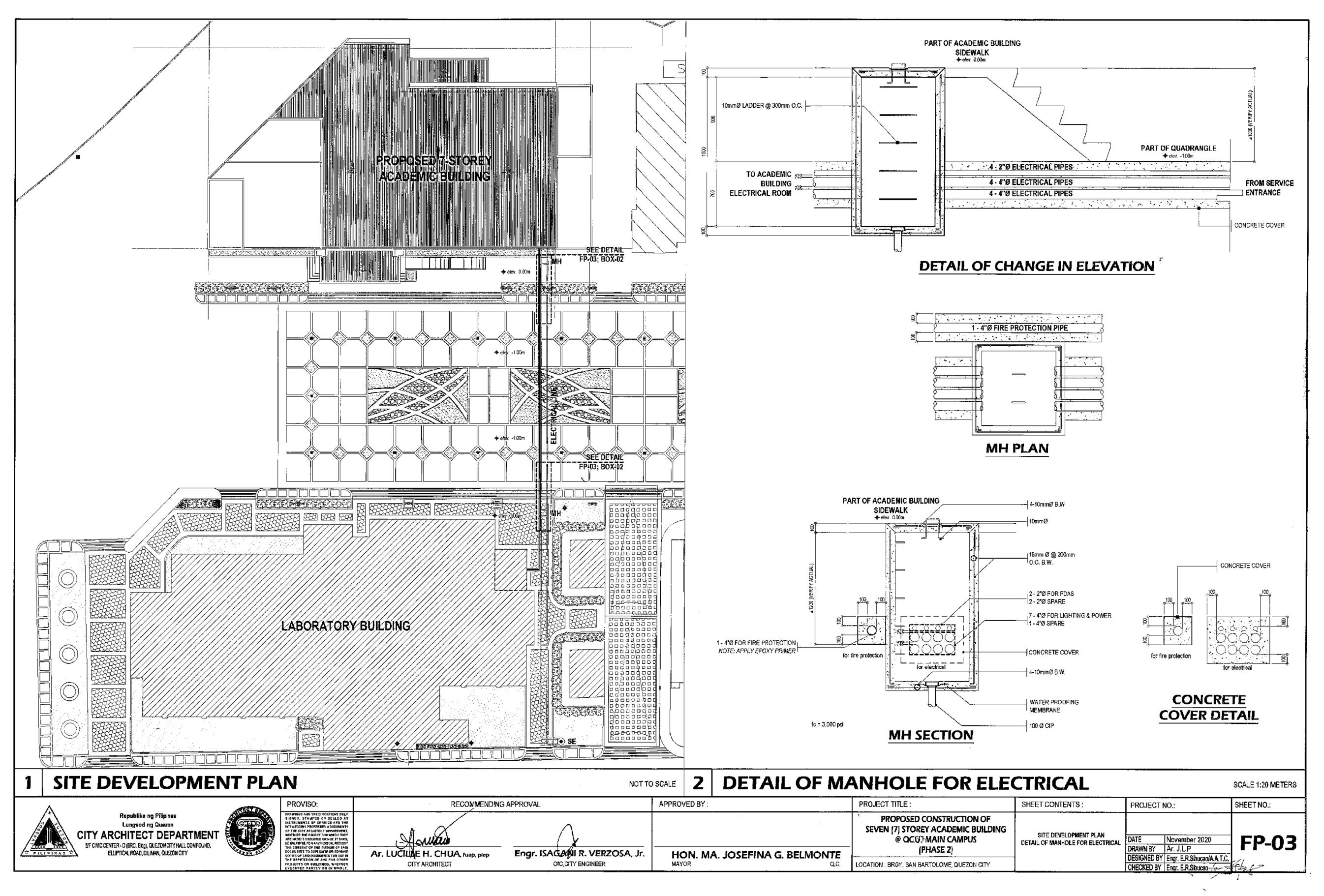
2 MATERIAL SPECIFICATION

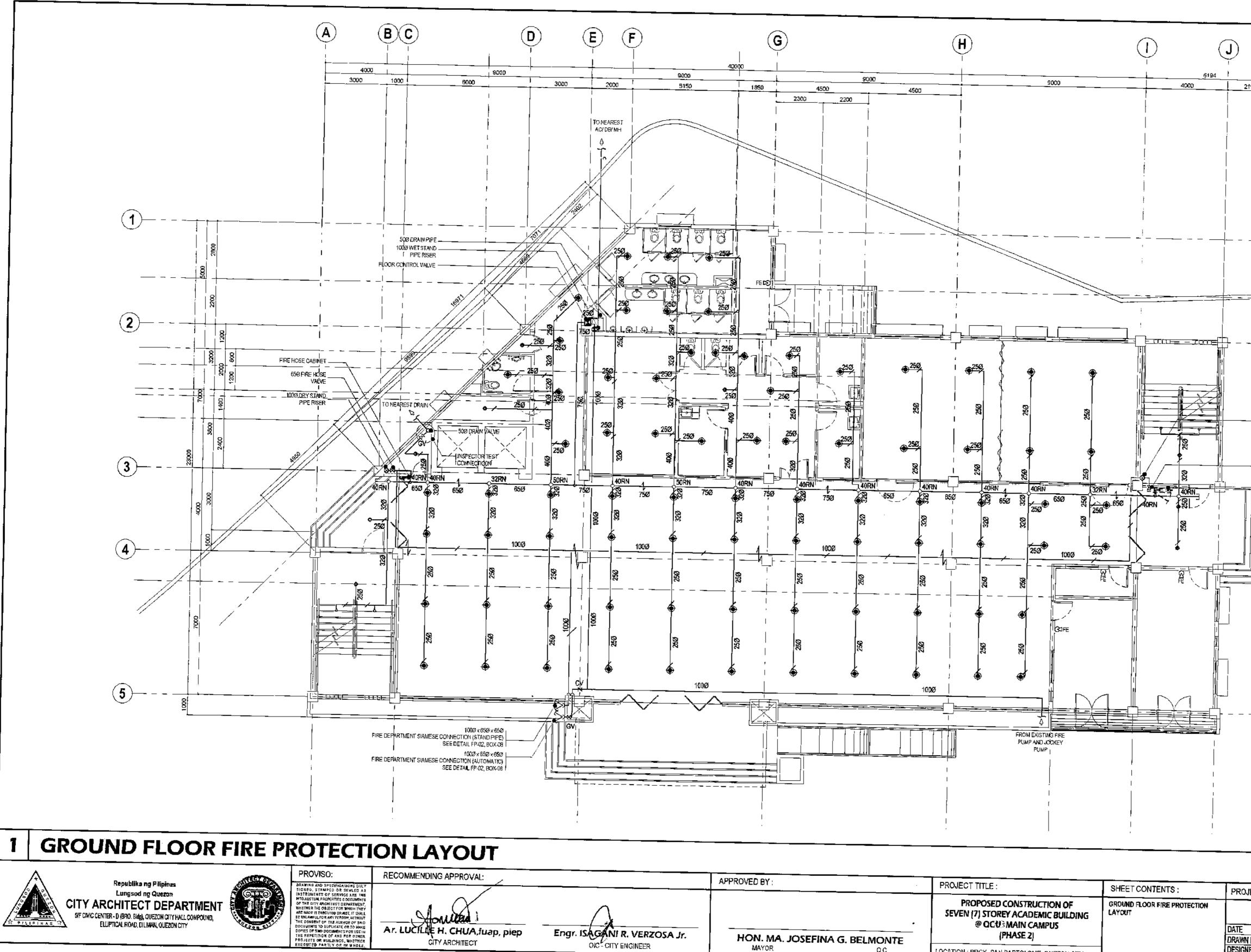
	Ì		SPRINKL	ER HEAD	•				FIRE DEPARTMENT	ROOF		
FLOOR	UPRIGHT TYPE PENDENT TYPE SIDE WALL TYPE FIRE HOSE FIRE HOSE CONNECTION MANIFOLD	PENDENT TYPE S		CONNECTION	:							
DESTINATION	ORDINARY	INTERMIDIATE	ORDINARY	INTERMIDIATE	ORDINARY	INTERMIDIATE	CABINET	VALVE		100mm Ø x 65mm Ø	REMARKS	
	57°C to 77°C	79°C to 107°C	to 107°C 57°C to 77°C 79°C to 107°C 57°C to 77°C 79°C to 107°C (SET) (65mm Ø) x 65mm Ø x 65mm Ø									
ROUND FLOOR	. 8		80		4		2	2	2	l	A SUPPLY OF SPARE SPRINKLERS	[
ECOND FLOOR	5		88		4		2	2			OF NOT LESS THAN 6 PCS, SHALL BE	
HIRD FLOOR	73]	17		4		2	2			MAINTAINED ON THE PREMISES SO	
OURTH FLOOR	1 79		7		4	,	2	2			THAT ANY SPRINKLER THAT HAVE	BRAN
IFTH FLOOR	79		7	!	4		2	2			OPERATED OR DAMAGED IN ANY	GRAN
IXTH FLOOR	79		7		4	E.	2	2				
EVENTH FLOOR	5		82		4		2	2			ACCOMPANIED WITH ESCUTCHEON	
OWER DECK	6					i				1	PLATES. SPRINKLER HEADS SHALL	FROM
PPER DECK		 								1 1 1	HAVE A ½" Ø NPT TYPE OF THREAD,	CROSS
OTAL	334		288		28		14	14	2	1	SEE SPECS FOR TYPE OF FE.	MAIN

ERIALS SPECIFICATION	- EQUIPMENT DESIGNATION	FL - FIRE L
PIPING SYSTEM		
PIPE SHALL BE STEEL, SCHEDULE 40, BLACK AND IN ACCORDANCE WITH THE SPECIFICATIONS ASTM A - 120 ORA53,	FIRE LINE	RM - ROOF
FITTING SCREWED		RN - RISER
ALL SHALL BE MALLEABLE IRON, 300 LBS. CLASS BLACK IN ACCORDANCE WITH ANSI B16.3.		
FLANGED	FIRE HOSE CABINET	ITC - INSPE
SHALL BE STEEL, SHORT BODY, 150 LBS. CLASS BLACK IN ACCORDANCE B16.1. WELD		BIP - BLACK
SHALL BE STEEL, STANDARD WEIGHT, BLACK AND IN ACCORDANCE WITH ANSI B. 16.9 ASTM A 234 AND ANSIB 16.5 / B16.11.	PENDENT SPRINKLER HEAD	CMH - CUBIC
VALVES	OPRIGHT SPRINKLER HEAD	TDH - TOTAL
3,1 BUTTERFLY VALVE		
SHALL BE FLANGED, IRON BODY, 175 PSI WORKING PRESSURE, VALVES SHALL BE UL LISTED AND FM	SIDEWALL SPRINKLER HEAD	Ø - Diame
APPROVED. APPROVED MANUFACTURER - GEM, CENTRAL, KENNEDY & CRANE.	FIRE EXTINGUISHER	M - METER
3.2 CHECK VALVE		
SHALL BE FLANGED, SWING TYPE, IRON BODY, BRONZES EAT AND DISC RING, 175PSI WORKING PRESSURE,		mm - Milli <i>M</i>
UL LISTED FM APPROVED.	——————————————————————————————————————	KW - KILOW
3.3 GATE VALVE GLOBE TYPE, BRONZE BODY, SCREWED, 175 PSI PRESSURE APPROVED MANUFACTURER - CRANE,	GATE VALVE / GLOBE VALVE	——————————————————————————————————————
GLODE TTTE, BRONZE BODT, GOREWED, TIGTSTEREGOORE AFEROVED MANOFACTORER - GRAINE, CENTRAL, GEM.		
FIRE DEPARTMENT CONNECTION		—t⊐— - FLOW
SHALL BE 1000 x 650 x 650 SIAMESE CONNECTION BRASS BODY, BRASS CHAIN & PLUGS, INLET THREADING		f - Press
SHALL BE NATIONAL STANDARD, SAME AS MUNICIPAL FIRE DEPARTMENT CONN. UL LISTED & FM APPROVED.		-
FIRE HOSE CABINET		T - WATER
WALL MOUNTED, 16 GAUGE STEEL BODY ALUMINUM DOOR TRIM WITH LOCK AND KEY, STANDARD SIZE 32" x 27" x 7" AND WIT THE FOLLOWING ACCESSORIES.	😝 - WET-STANDPIPE RISER	🗄 - BASKE
5.1 400 ADJUSTABLE FOG NOZZLE UL LISTED & FM APPROVED POWHATTAN, GEM, CENTRAL.	⊗ - DRY-STANDPIPE RISER	TWO-W
 5.2 400 HOSE VALVE UL LISTED & FM APPROVED POWHATTAN, GEM, CENTRAL. 5.3 HOSE RACK FOR 100 FT, FIRE HOSE AND RACK NIPPLE LOCAL MANUFACTURED. 		FOUR-
5.4 FIRE HOSE, 1 2 x 100 FT. SINGLE JACKET, RUBBER LINED HOSE WITH WAX AND GUM TREATMENT UL LISTED &		
FM APPROVED GEM, CENTRAL		
5.5 FIRE EXTINGUISHER, ABC DRY POWDER CHEMICAL, 10 LBS, HOSE WITH WAX & GUM TREATMENT UL LISTED & FM APPROVED GEM, CENTRAL.		🥿 - Direc'
SPRINKLER HEADS		UNION
SHALL BE PENDENT TYPE, UPRIGHT & SIDEWALL POLISH BRASS X WALE NST THREADS CHROMIUM PLATED	1	
AND UL LISTED & FM APPROVED, APPROVED MANUFACTURER - GEM, CENTRAL.		ROOF i
ALARM CHECK VALVE	a - ALARM CHECK VALVE	-E FLOOR
SHALL BE BUTTERFLY WAFER STYLE, IRON BODY, RUBBER SEAL AND 175 PSI PRESSURE RATING , VALVES SHALL BE TESTED AND LISTED BY UL & FM APPROVED MANUFACTURER - GEM, CENTRAL, KENNEDY.		
IAL SPECIFICATION	3 LEGEND & SYMBOLS	<u> </u>









PILIPINAS

Lungsod ng Quezon CITY ARCHITECT DEPARTMENT SIF CIVIC CENTER - D (BRO. Bidg), QUEZON CITY HALL COMPOUND, ELLIPTICAL ROAD, DILIMAN, QUEZON CITY

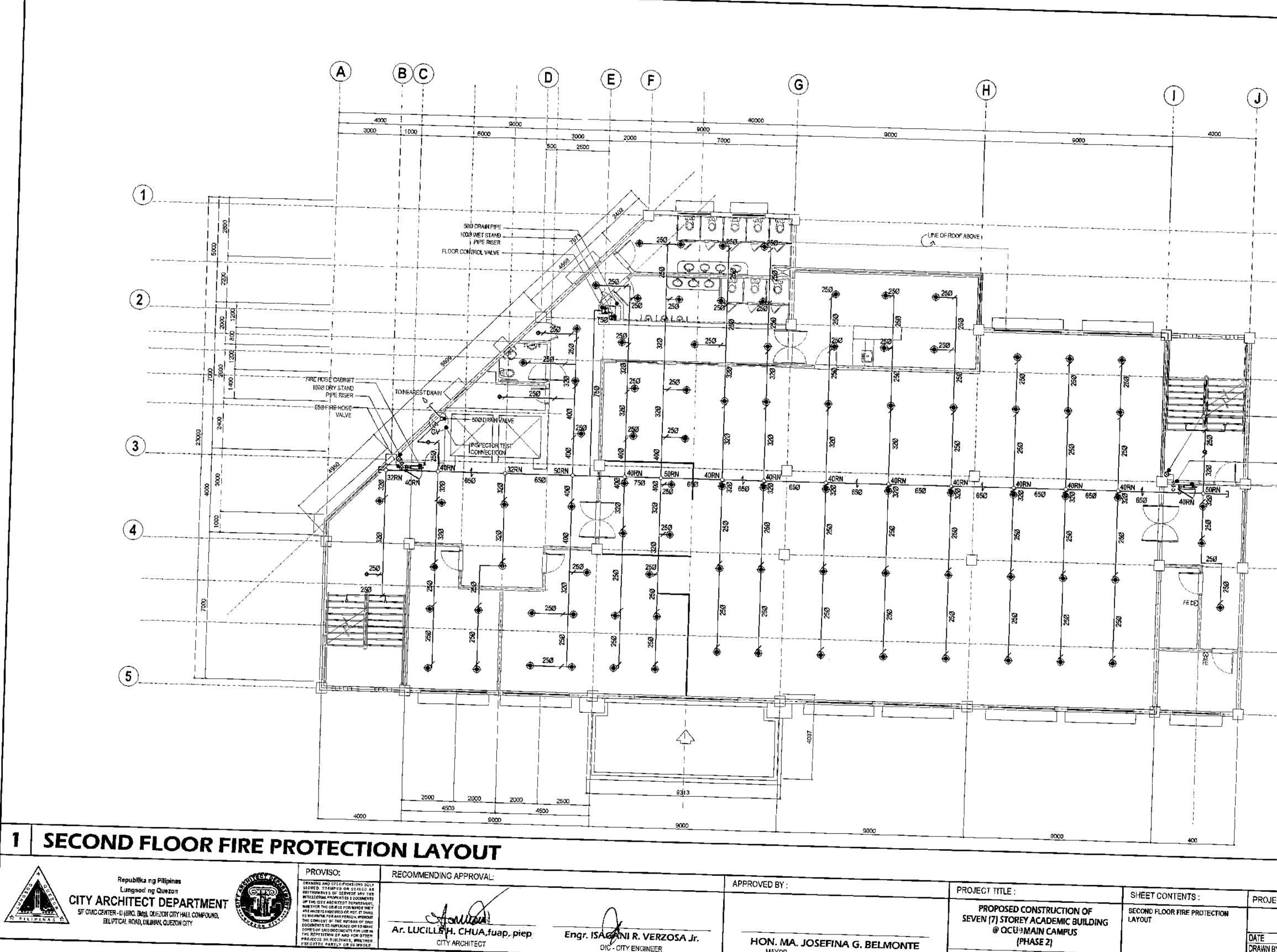


Howitted

Ar. LUCILUE H. CHUA, fuap, piep

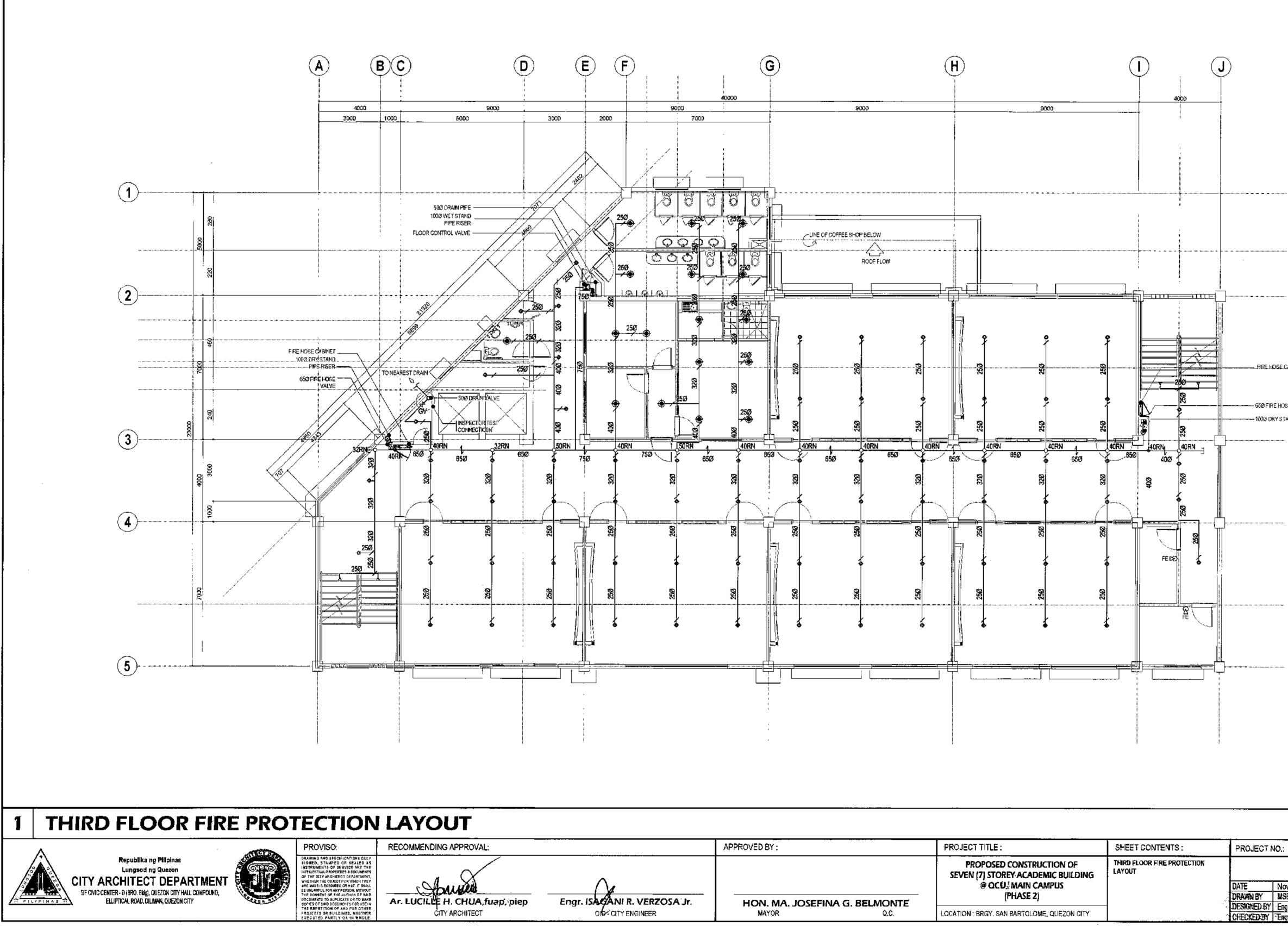
	APPROVED BY:			
		PROJECT TITLE :	SHEET CONTENTS :	PROJEC
Engr. ISAGANI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU 3 MAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	GROUND FLOOR FIRE PROTECTION LAYOUT	DATE DRAWN BY DESIGNED 8 CHECKED B

1005 DRY STAND PIPE RISER 650 FIRE HOSE VALVE THRE HOSE CABINET		
SCA	100 METERS (20 x 30) LE 1:200 METERS(A3) SHEET NO.:	
· · · · · · · · · · · · · · · · · · ·	FP-04	



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	
Engr. ISAGANI R. VERZOSA Jr. OIC - CITY ENGINEER	HON. MA. JOSEFINA G. BELMONTE MAYOR Q.C.	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCUMMAIN CAMPUS (PHASE 2) LOCATION : BRGY. SAN BARTOLOME, QUEZON CITY	SECOND FLOOR FIRE PROTECTION	DATE DRAWN BY DESIGNED BY CHECKED BY

SC/	1:100 METERS (20 x 30) ALE 1:200 METERS(A3)		
CT NO.:	SHEET NO .:	-	
November 2020 Y MSBF) BY Engr. E.R.Sibucao/A.A.T.C BY Engr. E.R.Sibucao	FP-05		



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
•		PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING	THIRD FLOOR FIRE PROTECTION LAYOUT	
Δt				DATE
AGANI R. VERZOSA Jr.	HON, MA, JOSEFINA G, BELMONTE	(PHASE 2)		DRAWN
OIS CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY	1 '	DESIGN
		LOCATION : BRGT. SAN BAR (OLOME, QUEZON CIT)		CHECKE

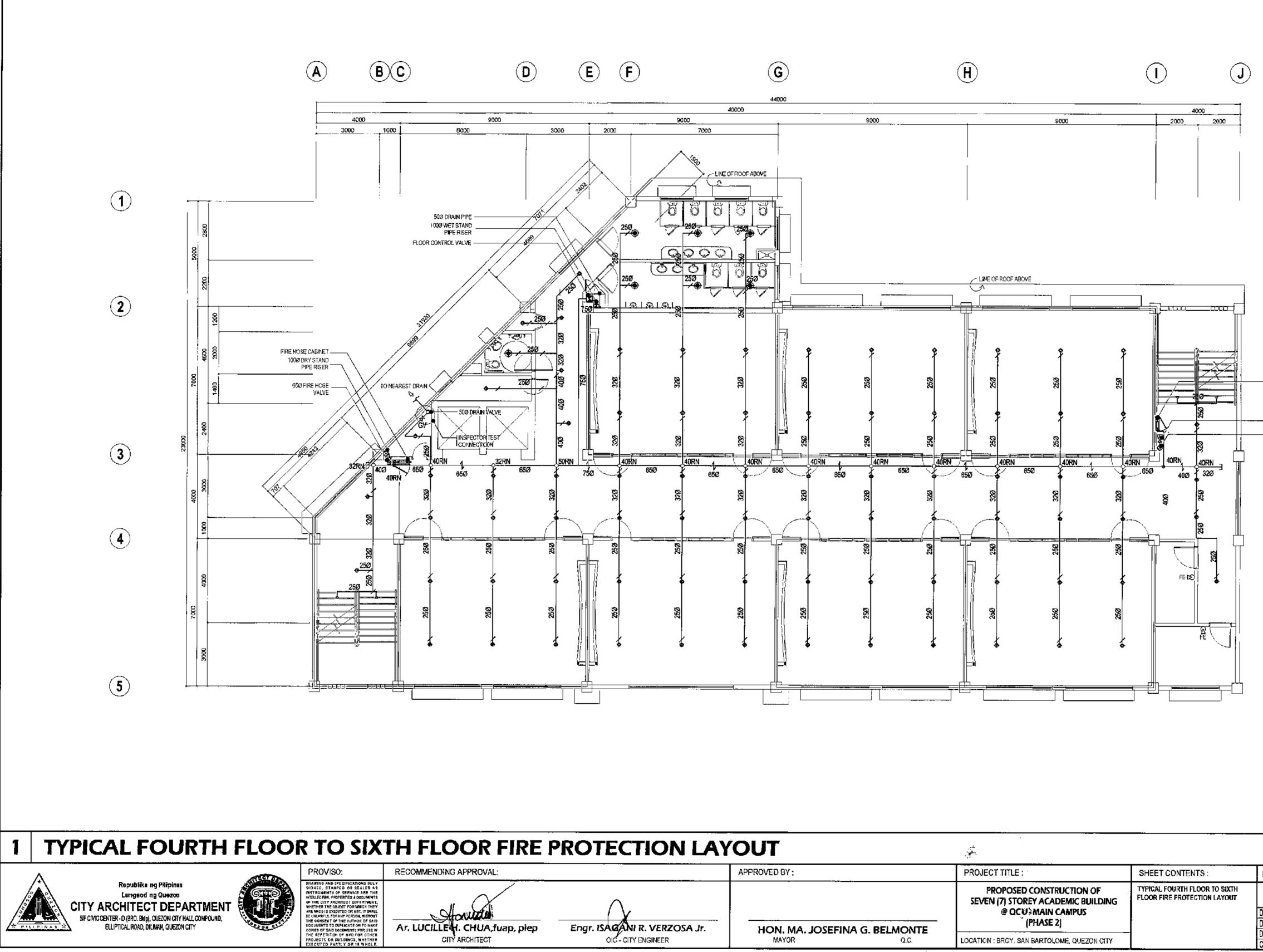
3.4

- FIRE HOSE CABINET

- 650 FIRE HOSE VALVE ----- 1000 DRY STAND PIPE RISER

....

SCALE 1:100 METERS (20 x 30) SCALE 1:200 METERS(A3) SHEET NO .: OJECT NO .: E November 2020 WIN BY MSBF WINED BY Engr. E.R.Sibucao/A.A.T.C CKEDBY Engr. E.R.Sibucao **FP-06** e_____

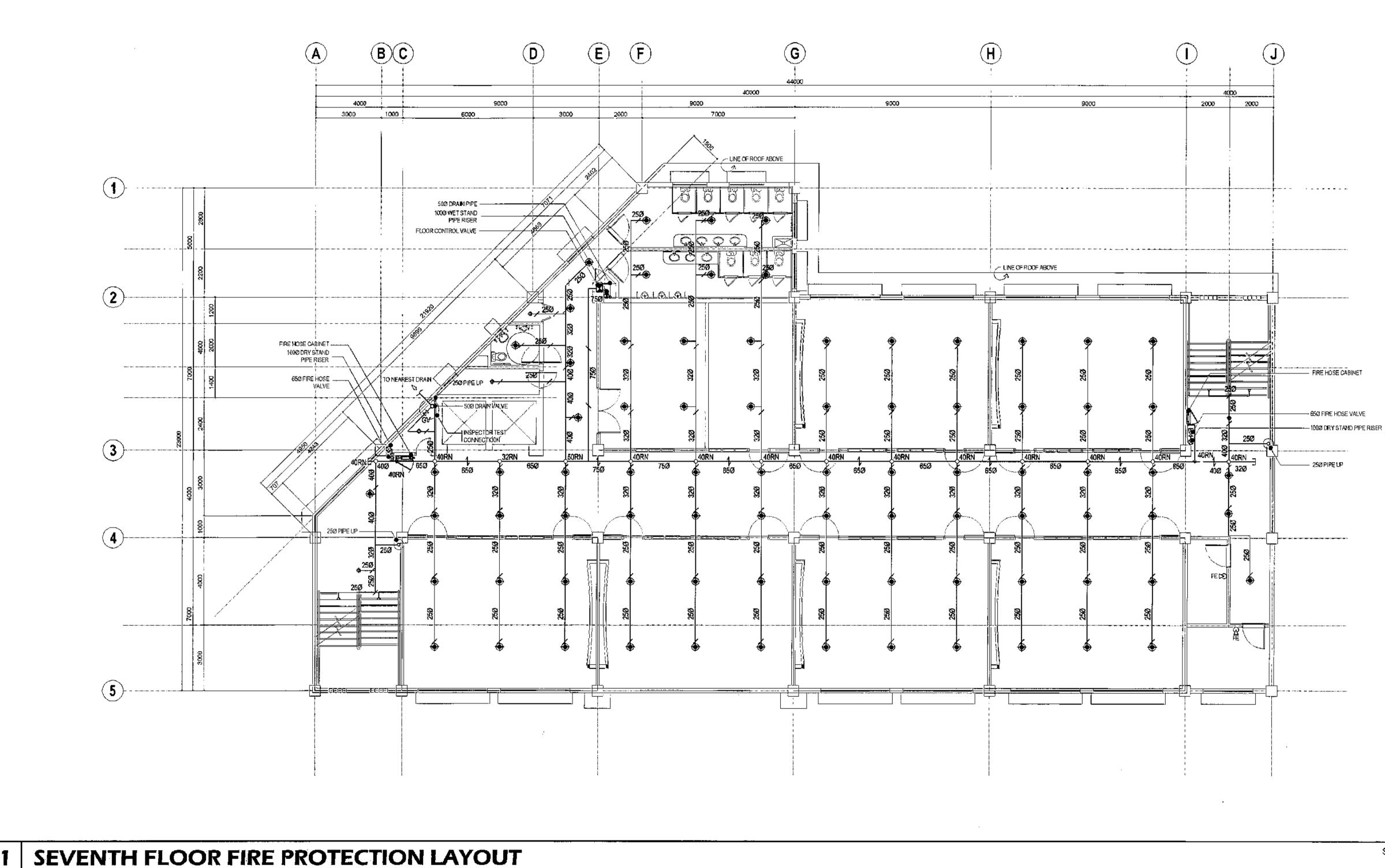


ECTION LAY	YOUT			
	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
SAGANI R. VERZOSA Jr.	HON, MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU3MAIN CAMPUS (PHASE 2)	TYPICAL FOURTH FLOOR TO SIXTH FLOOR FIRE PROTECTION LAYOUT	DATE DRAWN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGN

		100 METERS (20 x 30)
DJECTN	JO.:	SHEET NO .:
VN BY Sned by Ked by	November 2020 MSBF Engr. E.R.Sibucao/A.A.T.C Engr. E.R.Sibucao	FP-07
	1	7 8.

---- 550 FIRE HOSE VALVE - 100Ø DRY STAND PIPE RISER

FIRE HOSE CABINET



× PILIPINAS



PROVISO: DRAWING AND SPECIFICATIONS DULY SIGNED, STAMPED OR BEALED AS INSTRUMENTS OF SERVICE ARE THE INTELLECTIME PROPERTIES & DOCUMENTS OF THE OTY ARCHITECT DEPARTMENT, WHETHER THE DERECT FOR WHEN'T HEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFELFOR ANY PERSON, WITHOUT THE CONSENT OF THE MITHOR OF SAID DOCUMENTS TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPETITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE.

RECOMMENDING APPROVAL:

Anited Ar. LUCILLE H. CHUA, fuap, piep CITY ARCHITECT

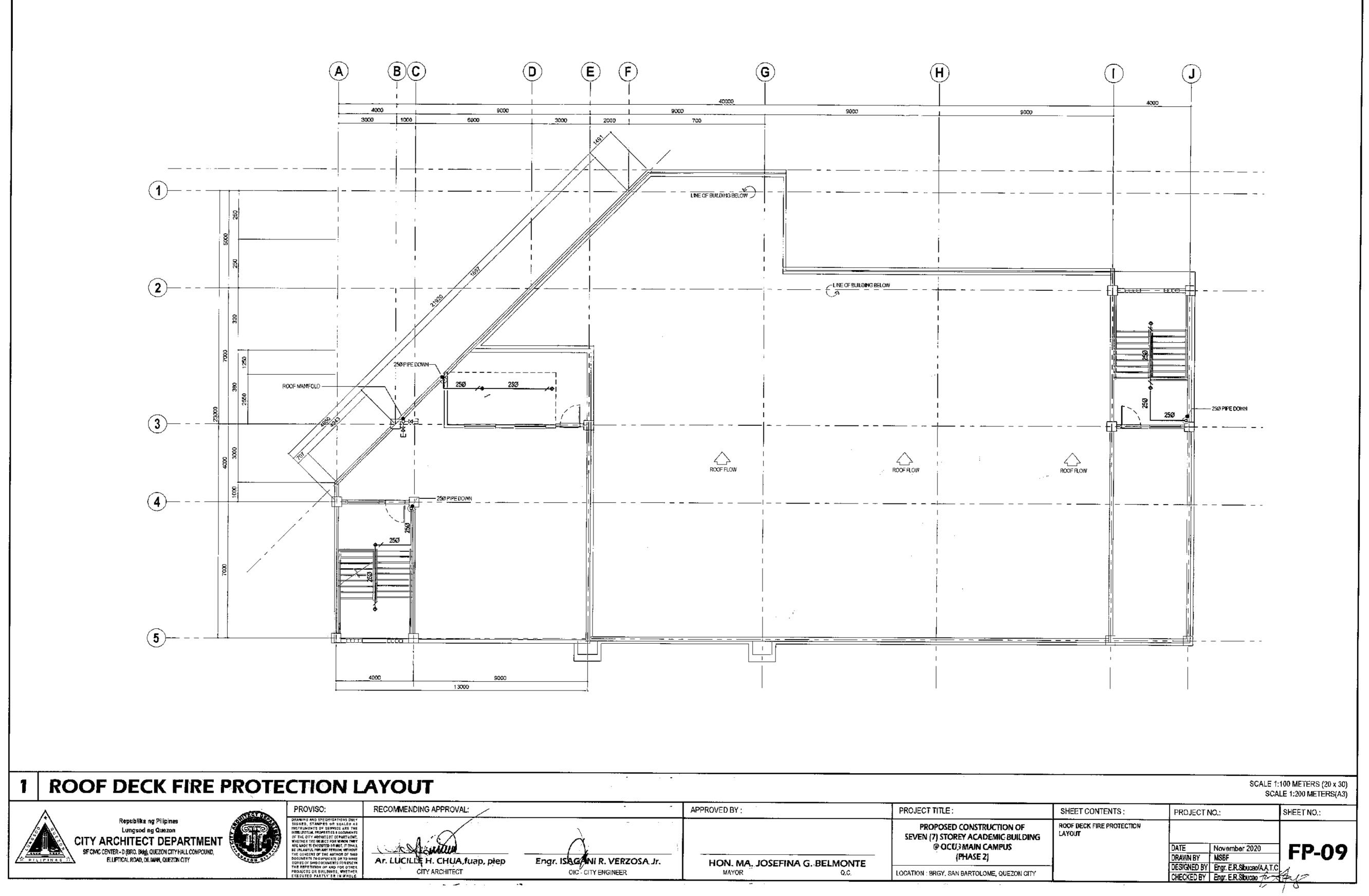
Engr. ISA

	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PROJ
		PROPOSED CONSTRUCTION OF	SEVENTH FLOOR FIRE PROTECTION	
\wedge		SEVEN (7) STOREY ACADEMIC BUILDING	LAYOUT	
		@ QCU3 MAIN CAMPUS		DATE
. ISAGANI R. VERZOSA' Jr.	HON, MA. JOSEFINA G. BELMONTE	(PHASE Z)		DRAWN
OIC CITY ENGINEER			1	DESIGN
OIU - OITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHECKE

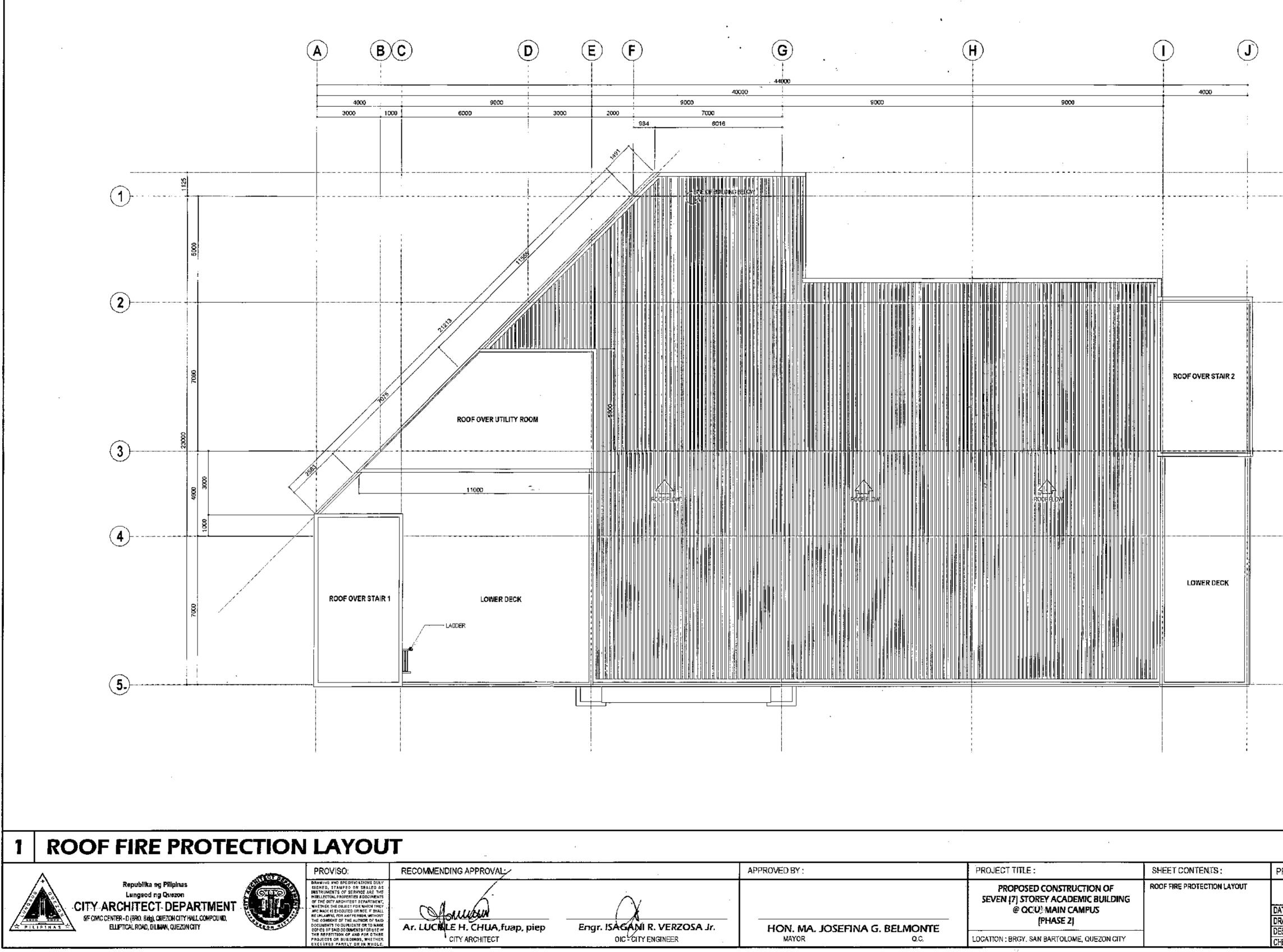
.

		100 METERS (20 x 30) LE 1:200 METERS(A3)
DJECT N	10.:	SHEET NO .:
IN BY SNED BY KED BY	November 2020 MSBF Engr. E.R.Sibucao/A.A.T.C Engr. E.R.Sibucao	FP-08
	12	

FIRE HOSE CABINET



	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO.
AGANI R. VERZOSA Jr.	HON, MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ OCU 3 MAIN CAMPUS (PHASE 2)	ROOF DECK FIRE PROTECTION LAYOUT	DATE DRAWN
OIC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		DESIGN



-.

	APPROVED BY :	PROJECT TITLE :	SHEET CONTENTS :	PRO
GANI R. VERZOSA Jr.	HON. MA. JOSEFINA G. BELMONTE	PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING @ QCU) MAIN CAMPUS (PHASE 2)	ROOF FIRE PROTECTION LAYOUT	DATE DRAM DESK
IC - CITY ENGINEER	MAYOR Q.C.	LOCATION : BRGY, SAN BARTOLOME, QUEZON CITY		CHEC
		in the second second second second second second second second second second second second second second second		

• .-

	S	CALE 1: SCA	100 METER LE 1:200 ME	S (20 x 30) ETERS(A3)	
JECTN	D.:		SHEETIN		
IN BY I	November 20 MSBF Engr. E.R.Sibuca Engr. E.R.Sibuca	·.	PP	-10	1

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

- a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and
- b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Daywork Schedule

A Daywork Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Entity of the realism of rates quoted by the Bidders, the Daywork Schedule should normally comprise the following:

- a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.
- b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Procuring Entity's Representative's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Procuring Entity to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

Signature Box

A signature box shall be added at the bottom of each page of the Bill of Quantities where the authorized representative of the Bidder shall affix his signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of his bid.

These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final documents.

PROJECT TITLE: PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING AT QCU MAIN CAMPUS (PHASE 2)

LOCATION : BARANGAY SAN BARTOLOME, DISTRICT 5, QUEZON CITY

PROJECT NO. : 21 - 00047

DURATION : Four Hundred Twenty (420) Calendar Days

BREAKDOWN OF COST

ITEM NO.	Item of Work (Description)	MATERIALS COST	LABOR COST	INDIRECT COST	AGGREGATE COST
Ι	GENERAL REQUIREMENTS				
П	SITE WORKS				
III	CIVIL / STRUCTURAL WORKS				
IV	ARCHITECTURAL WORKS				
V	SANITARY / PLUMBING WORKS				
VI	ELECTRICAL WORKS				
VII	AUXILIARY SYSTEM WORKS				
VIII	MECHANICAL WORKS				
IX	FIRE PROTECTION WORKS				
Х	UTILITY AND ANCILLARY WORKS				

TOTAL COST P

LUMP SUM BID IN WORDS : _____

Contractor : _____

Bid Form Page 3 of 3

BILL OF QUANTITIES

(Building Construction/Rehabilitation Project)

PROJECT TITLE : PROPOSED CONSTRUCTION OF SEVEN (7) STOREY ACADEMIC BUILDING AT QCU MAIN CAMPUS (PHASE 2)

LOCATION : BARANGAY SAN BARTOLOME, DISTRICT 5, QUEZON CITY

PROJECT NO. : 21 - 00047

DURATION : Four Hundred Twenty (420) Calendar Days

SCOPE OF WORKS:

- General Requirements include temporary facilities and utilities, billboard, scaffolding, construction safety and health, and clearing, hauling and disposal of construction materials and debris
- 2. Site Works include layout and staking, site clearing and preparation, removal of trees, and earthworks.
- 3. Civil and Structural Works include concrete works, masonry works, metal works, and roofing works. (foundation, beams and column are excluded)
- 4. Provision for thermal and moisture protection for the entire structure.
- 5. Architectural Works include floor finishes, wall finishes and partitions, ceiling works, and painting works.
- 6. Installation of gates, doors, door jambs and windows.
- 7. Installation of sanitary/plumbing roughing-Ins, equipment, fixtures and accessories.
- 8. Installation of electrial roughing-Ins, wirings, devices and fixtures.
- 9. Installation of panelboard and accessories.
- 10 Installation of fire protection roughing-Ins and accessories.
- 11 Installation of fire detection and alarm system (FDAS) including roughing-ins and accessories.
- 12 Installation of closed-circuit television (CCTV) system including roughing-ins and accessories.
- 13 Installation of telephone and data system including roughing-ins and accessories.
- 14 Installation of mechanical equipment including roughing-ins and accessories.
- 15 All necessary testing and commissioning shall be performed in accordance to standards.

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS				
	Billboard	1	рс	₽	₽
	Clearing, Hauling and Disposal of Construction Materials and Debris	142	t.l.		
	Construction Safety and Health	1	unit		
	Scaffolding (Rental)	1,743	sq.m.		
	Temporary Electrical and Water Facilities	420	days		
	Temporary Enclosure Around the Construction Area (h= 2.4m)	132	l.m.		
				Direct Cost I	₽
П	SITE WORKS				
	Layout and Staking	792	sq.m.	₽	₽
	Site Clearing and Preparation	792	sq.m.		
	Excavation for Structures	122	cu.m.		
				Subtotal	₽
	Gravel Bedding	6	cu.m.	₽	₽
				Materials Cost	₽
				Labor Cost	

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Subtotal	₽
	Backfill and Compaction	2	cu.m.	₽	₽
				Subtotal	₽
				Material Cost II	₽
				Labor Cost II	
				Direct Cost II	₽

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
III	CIVIL / STRUCTURAL WORKS				
	Concrete Works				
	Ready Mix Concrete, 21MPa, 3/4" Gravel, 28 days				
	Column Footing (Service Entrance)	1	cu.m.	₽	₽
	Column (Service Entrance)	1	cu.m.		
	Slab on Fill (Concrete Pad)	5	cu.m.		
	Concrete Encasement for Electrical	39	cu.m.		
	Ready Mix Concrete, 28MPa, 3/4" Gravel, 28 days				
	Stiffener Beam and Column (Shear Wall)	17	cu.m.		
	Suspended Slab	671	cu.m.		
	Stairs	60	cu.m.		
	Shear Wall	93	cu.m.		
	Reinforcing Steel Bars				
	Grade 40 Reinforcing Steel Bar including G.I. Tie Wire # 1	6			
	10mm Ø Column (Service Entrance)	25	kg	₽	₽
	10mm Ø Stiffener Beam and Column	906	kg		
	10mm Ø Suspended Slab	42,179	kg		
	10mm Ø Slab on Fill (Concrete Pad)	149	kg		
	10mm Ø Stair	1,384	kg		
	10mm Ø Manhole for Electrical	91	kg		
	10mm Ø Concrete Encasement for Electrical	978	kg		
	12mm Ø Stair	1,213	kg		
	Grade 60 Reinforcing Steel Bar including G.I. Tie Wire # 1	6			
	16mm Ø Column Footing (Service Entrance)	19	kg		
	16mm Ø Column (Service Entrance)	38	kg		
	16mm Ø Shear Wall	14,234	kg		
	16mm Ø Stiffener Beam and Column	10,501	kg		
	16mm Ø Concrete Encasement for Electrical	3,145	kg		
	Formworks				
	Column	8	sq.m.		
	Stiffener Beam and Column	331	sq.m.		
	Stairs	256	sq.m.		
	Shear Wall	451	sq.m.		
	Concrete Encasement for Electrical	243	sq.m.		
	Scaffolding and Shoring				
	Column	6	l.m.		
	Stiffener Beam and Column	276	l.m.		
	Stairs	256	sq.m.		
	Suspended Slab	5370	sq.m.		
	Shear Wall	451	sq.m.		
	Concrete Encasement for Electrical	243	sq.m.		
	Thermal and Moisture Protection				
	Waterproofing Works				
	Flexible Type	270	sq.m.		
	Capillary Type	436	sq.m.		
	Masonry Works				

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Floor Topping For Preparation of Tiles	5,118	sq.m.		
	Floor Topping and Finishing Preparation	4,038	sq.m.		
	100mm CHB Wall Laying, including Mortar, Reinforcing and Two-Face Plastering	3,119	sq.m.		
	150mm CHB Wall Laying, including Mortar, Reinforcing and Two-Face Plastering	3,752	sq.m.		
	Plastering of Door and Window Openings	1,852	sq.m.		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Metal Works				
	Steel Metal Deck, 0.80mm thk, 80,000psi	5,370	sqm		
	BI Pipe Stair Railings				
	Stair 1 Railings				
	50mm Sch.40 BI Pipe	1,501	kgs		
	38mm Sch.40 BI Pipe	751	kgs		
	12mm Ø Square Bar	485	kgs		
	Stair 2 Railings				
	50mm Sch.40 BI Pipe	1,501	kgs		
	38mm Sch.40 BI Pipe	751	kgs		
	12mm Ø Square Bar	485	kgs		
	Left-End Corridor Railings		<u>J</u> -		
	50mm Sch.40 BI Pipe	867	kgs		
	16mm Ø Square Bar	392	kgs		
	Right-End Corridor Railings		ngo		
	50mm Sch.40 BI Pipe	600	kgs		
	16mm Ø Square Bar	275	kgs		
	Service Corridor Railings		Rg5		
	50mm Sch.40 BI Pipe	212	kgs		
	16mm Ø Square Bar	126	kgs		
	Stainless Steel Railings		Ng3		
	Main Entrance Ramp				
	50mm Stainless Steel Railings w/ Hairline Finish	41	l.m.		
	Main Entrance Railings				
	50mm Stainless Steel Railings w/ Hairline Finish	8	I.m.		
	Right Entrance Railings				
	50mm Stainless Steel Railings w/ Hairline Finish	8	I.m.		
	Coffee Shop	0	1.111.		
	50mm x 50mm Stainless Tubular Bars w/ Hairline Finish	46	l.m.		
	13mm x 13mm Stainless Steel w/ Hairline Finish	64	l.m.		
	PWD Toilet 50mmØ Grab Bar	8	l.m.		
	Acetylene Tank (Refill)	11	tanks		
	Assorted Metal Drill Bit	16	pcs		
	Cut Off Blade	10	pcs		
	Grinding Disc for Metal	24			
	Oxygen Tank (Refill)	24	pcs tanks		
	Welding Rod	9	boxes		
	Roofing Works	3	00762		
	Pre-painted G.I. Rib Type Roofing	718	sq.m.	₽	₽
	Pre-painted G.I. End Flashing	32	-		'
	12mm x 300mm Fiber Cement Fascia Board	32	sq.m. I.m.		
	6mm Thk Thermal Insulation with One-sided Aluminum Foil	718	I.m.		
	Tekscrew	5,960	l.m.		
	Blind Rivets	7,180	sq.m.		
	All Purpose Sealant	8	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Material Cost III	₽
				Labor Cost III	
				Direct Cost III	₽
IV	ARCHITECTURAL WORKS				
	Floor Finishes				
	600mm x 600mm Non-Skid Ceramic Floor Tiles	1,164	sq.m.	₽	₽
	13mm x 6mm Stair Step Grooves	1,428	l.m.		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Wall Finishes				
	300mm x 600mm Ceramic Wall Tiles	37	sq.m.		
	Granite Slab Elevator Façade	78	sq.m.		
	Decorative Stone Finish	18	sq.m.		
	Plaster Guide / Groove	1,144	l.m.		
	6mm thk Fiber Cement Board with Complete Framing and	44	sq.m.		
	10mm Thk Phenolic Board incl. Supports				
	Toilet Partition	231	sq.m.		
	Urinal Partition	18	sq.m.		
	Ceiling Finishes				
	Rubbed Concrete (Slab Soffit)	3,315	sq.m.		
	600mm x 600mm Acoustic Board incl T-Runners	1,090	sq.m.		
	12mm Thk Moisture Resistant Gypsum Board with	4 40 4	sq.m.		
	Complete Framing and Accessories	1,404			
	12mm Thk Gypsum Board with Complete Framing and				
	Accessories	62	sq.m.		
	6mm Thk Fiber Cement Board with Complete Framing	76			
	and Accessories		sq.m.	Matariala Cast	Ð
				Materials Cost	
				Labor Cost	
	lastellation of Decars and Windows			Subtotal	₽
	Installation of Doors and Windows				
	D1 - (1.20m x 2.10m) Wooden Panel Door with 6mm thk. Tempered Glass	2	sets	₽	₽
	D2 - (0.9m x 2.4m) 6mm thk. Tempered Glass Door	4	sets		
	on Powder Coated Aluminum Frames				
	D3 - (0.9m x 2.10m) Wood Panel Door with 6mm thk. Louv	11	sets		
	D4 - (0.9m x 2.1m) Flush Door with Louver	1	set		
	D4 - (0.9m x 2.1m) Flush Door with Louver	15	sets		
	D5 - (0.9m x 2.1m) Metal Door with Louver	13	sets		
	D6 - (0.80m x 2.15m) Metal Door with Louver	2	sets		
	D7 - (1.0m x 2.1m) Metal Door with Panic Hardware	2	sets		
	D8 - (1.6m x 2.15m) Metal Door with Louvers	14	sets		
	D9 - (0.8m x 2.1m) Metal Door with Louvers	7	sets		
	D10 - (0.9m x 2.1m) Metal Door with Kick Plate	7	sets		
	D11 - (0.8m x 2.1m) Metal Door with Louvers	3	sets		
	D12 - (0.7m x 2.1m) 19mm thk. FCHD Plywood, Painted Finish with Mosaic Glass and Louvers	3	sets		
	D13 - (0.55m x 1.257m) Metal Door with Louvers	2	sets		
	D14 -(1.7m x 2.5m) 6mm thk. Clear Tempered Glass Door w/ Glass Transom on Aluminum Frame	70	sets		
	D15 - (1.0m x 2.1m) Metal Door with Transom and Fixed Glass	70	sets		
	D16 - (2.0m x 2.15m) Metal Door with Louvers and Transom	1	set		
	D17 (3.4m x 3.0m) Metal Door with Louvers	1	set		
	RT1 - Varifold Retractable Wall	1	set		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Door Jambs				
	Wooden Jambs				
	D1 - (1.20m x 2.10m) Wooden Panel Door with 6mm thk.	2	sets		
	type Door Handle & Provide Automatic Door Closer wit	th			
	D3 - (0.9m x 2.10m) Wood Panel Door with 6mm thk. Louver	11	sets		
	D4 - (0.9m x 2.1m) Flush Door with Louver	1	set		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	D12 - (0.7m x 2.1m) 19mm thk. FCHD Plywood, Painted Finish with Mosaic Glass and Louvers	3	sets		
	Glass, louvers and complete Lockset				
	Metal Jambs				
	D5 - (0.9m x 2.1m) Metal Door with Louver	13	sets		
	D6 - (0.80m x 2.15m) Metal Door with Louver	2	sets		
	D7 - (1.0m x 2.1m) Metal Door with Panic Hardware	2	sets		
	D8 - (1.6m x 2.15m) Metal Door with Louvers	14	sets		
	D9 - (0.8m x 2.1m) Metal Door with Louvers	7	sets		
	D10 - (0.9m x 2.1m) Metal Door with Kick Plate	7	sets		
	D11 - (0.8m x 2.1m) Metal Door with Louvers	3	sets		
	D13 - (0.55m x 1.257m) Metal Door with Louvers	2	sets		
	D15 - (1.0m x 2.1m) Metal Door with Transom and Fixed Glass	70	sets		
	D16 - (2.0m x 2.15m) Metal Door with Louvers and Transom	1	set		
	D17 (3.4m x 3.0m) Metal Door with Louvers	1	set		
	Door Knob	18	sets		
	Door Hinge (Ordinary)	57	sets		
	Door Hinge (Metal Doors)	450	sets		
	16mmØ Barrel Bolt	130	sets		
	16mmØ Foot Bolt	11	sets		
	Door Closer (Wood)	45	sets		
	Panic Hardware	2	sets		
	Kick Plate				
	Stainless Steel Screw Mounted Push Plate				
	D10 - Metal type Door with Kick Plate and complete Lockset, Painted Finish	1	set		
	Installation of Windows				
	W1 - Steel Casement Window with Transom and Security Grilles	60	sets		
	W2 - Steel Casement Window with Transom and Security Grilles	3	sets		
	W3 - Steel Casement Window with Transom and Security Grilles	1	set		
	W4 - Steel Casement Window with Security Grilles	7	sets		
	W5 - Awning Window on Steel frames and Security Grilles	32	sets		
	W6 - Awning Window on Powder Coated Aluminum Frame	14	sets		
	W7 - Awning Window on Steel Frames with Security Grilles	7	sets		
	W8 - Fixed Window on Powder Coated Aluminum Frame	3	sets		
	W9 - Fixed Window on Powder Coated aluminum Frame	1	set		
	W10 - Fixed Window on Powder Coated Aluminum Frame	1	set		
	W11 - Jalousie Window on Powder Coated Aluminum Frame	68	sets		
	W12 - Metal Louvered Window	6	sets		
	CW1 - Curtain Wall and Casement Window with Fixed Glass	6	sets		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Gate Including Accessories				
	GD1 - 5m x 3m Folding Steel Gate	1	set		
	Including Accessories, Painted Finish				
	GD2 - 3.5m X 3m Folding Steel Gate	1	set		
	Including Accessories, Painted Finish				
	GD3 - 3.5m X 3.1m Folding Steel Gate	1	set		
	Including Accessories, Painted Finish				
	GD4 - 1.675m x 3.1m Folding Steel Gate	1	set		
	Including Accessories, Painted Finish				

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	G1 - 1.3 m x 2.954 m Leaf-Themed Flat Bar Design on	2	sets		
	2" x 4" Tubular Steel Frame including accessories, Paint	ed Finish			
	G2 - 8.15 m x 2.8 m Fixed Grills	2	sets		
	G3 - 4.65 m x 2.8 m Fixed Grills	1	set		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
	Carpentry Works				
	Faculty Pantry Wall Hung Cabinet, including accessories, Painted Finish	1	set	₽	₽
	Faculty Pantry Undercounter Cabinet, including concreting, finishes and accessories	1	set		
	Black and White Board with Complete Framing and Accessories	33	sets		
	Painting Works				
	Epoxy Enamel Finish (Steel Surfaces)	243	sq.m.		
	Elastomeric Paint Finish (Exterior Walls)	3,028	sq.m.		
	Latex Paint Finish				
	Interior Walls	7,290	sq.m.		
	Ceiling	4,856	sq.m.		
				Materials Cost	P
				Labor Cost	
				Subtotal	₽
	Logos and Letterings				
	QC Logo	1	set	₽	₱
	QCU Logo	1	set		
	Satinless Steel Signage with Neon Backlights				
	"ACADEMIC BUILDING" (500mm x 375mm)	20	pcs		
	"QUEZON CITY UNIVERSITY" (350mm x 260mm)	16	pcs		
				Materials Cost	₽
				Labor Cost	
				Subtotal	₽
				Material Cost IV	₽
				Labor Cost IV	
				Direct Cost IV	P
v	SANITARY / PLUMBING WORKS				
	Sewer Line System				
	50mmØ PVC Pipe with Hub	170	pcs	₽	₽
	75mmØ PVC Pipe with Hub	73	pcs		
	100mmØ PVC Pipe with Hub	125	pcs		
	150mmØ PVC Pipe with Hub	5	pcs		
	200mmØ PVC Pipe with Hub	8	pcs		
	250mmØ PVC Pipe with Hub	11	pcs		
	300mmØ PVC Pipe with Hub	17	pcs		
	50mmØ x 50mmØ Wye	23	pcs		
	75mmØ x 50mmØ Wye	28	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	75mmØ x 75mmØ Wye	11	pcs		
	100mmØ x 50mmØ Wye	223	pcs		
	100mmØ x 75mmØ Wye	73	pcs		
	100mmØ x 100mmØ Wye	47	pcs		
	150mmØ x 50mmØ Wye	12	pcs		
	150mmØ x 100mmØ Wye	12	pcs		
	250mmØ x 100mmØ Wye	8	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	300mmØ x 100mmØ Wye	3	pcs		
	300mmØ x 200mmØ Wye	6	pcs		
	300mmØ x 250mmØ Wye	2	pcs		
	300mmØ x 300mmØ Wye	2	pcs		
	50mmØ x 50mmØ Tee	402	pcs		
	75mmØ x 50mmØ Tee	21	pcs		
	100mmØ x 50mmØ Tee	55	pcs		
	250mmØ x 250mmØ Tee	4	pcs		
	50mmØ 1/4 Bend	199	pcs		
	75mmØ 1/4 Bend	78	pcs		
	150mmØ 1/4 Bend	15	pcs		
	300mmØ 1/4 Bend	6	pcs		
	50mmØ 1/8 Bend	785	pcs		
	75mmØ 1/8 Bend	395	pcs		
	100mmØ 1/8 Bend	216	pcs		
	150mmØ 1/8 Bend	19	pcs		
	250mmØ 1/8 Bend	8	pcs		
	300mmØ 1/8 Bend	3	pcs		
	100mmØ x 50Ø Reducer	7	pcs		
	150mmØ x 100 Ø Reducer	4	pcs		
	200mmØ x 150 Ø Reducer	5	pcs		
	250mmØ x 200 Ø Reducer	5	pcs		
	315mmØ x 250 Ø Reducer	5	pcs		
	75mmØ Cleanout	10	pcs		
	100mmØ Cleanout	45	pcs		
	200mmØ Cleanout	2	pcs		
	250mmØ Cleanout	1	рс		
	50mmØ P-Trap	217	pcs		
	Sump Pit Assembly				
	50mmØ B.I. Pipe	7	pcs		
	50mmØ 90° Elbow	6	pcs		
	50mmØ Union Patent	1	рс		
	Other Items				
	Lifting Cables (Stainless Steel Wire Rope - 4mm dia.)	1	roll		
	Water Level Indicator (4-20MA Level Sensor-Beam Digital Display)	1	рс		
	Guide Rails (SBR12-800mm with 2 pcs Block Bearing)	3	sets		
	Flow Switch (Automatic Pump Control)	1	рс		
	0.30m x 0.30m x 50mm thk. Base Plate	1	рс		
	19mm Anchor Bolt with Nut and Washer	4	pcs		
	Waterline System		-		
	20mmØ PPR Pipe	105	pcs		
	25mmØ PPR Pipe	42	pcs		
	32mmØ PPR Pipe	42	pcs		
	40mmØ PPR Pipe	14	pcs		
	50mmØ PPR Pipe	8	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	65mmØ PPR Pipe	6	pcs		
	75mmØ PPR Pipe	24	pcs		
	90mmØ PPR Pipe	22	pcs		
	100mmØ PPR Pipe	11	pcs		
	20mmØ x 20mmØ Tee Equal	45	pcs		
	25mmØ x 25mmØ Tee Equal	12	pcs		
	32mmØ x 32mmØ Tee Equal	5	pcs		
	40mmØ x 40mmØ Tee Equal	2	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mmØ x 50mmØ Tee Equal	4	pcs		
	75mmØ x 75mmØ Tee Equal	8	pcs		
	90mmØ x 90mmØ Tee Equal	4	pcs		
	100mmØ x 100mmØ Tee Equal	3	pcs		
	25mmØ x 20mmØ Unequal Tee	45	pcs		
	32mmØ x 20mmØ Unequal Tee	5	pcs		
	40mmØ x 20mmØ Unequal Tee	5	pcs		
	40mmØ x 25mmØ Unequal Tee	15	pcs		
	40mmØ x 32mmØ Unequal Tee	4	pcs		
	50mmØ x 32mmØ Unequal Tee	8	pcs		
	50mmØ x 25mmØ Unequal Tee	3	pcs		
	50mmØ x 40mmØ Unequal Tee	8	pcs		
	65mmØ x 40mmØ Unequal Tee	10	pcs		
	90mmØ x 75mmØ Unequal Tee	5	pcs		
	110mmØ x 90mmØ Unequal Tee	5	pcs		
	75mmØ x 50mmØ Unequal Tee	3	pcs		
	25mmØ x 20mmØ Reducer	27	pcs		
	32mmØ x 20mmØ Reducer	4	pcs		
	32mmØ x 25mmØ Reducer	19	pcs		
	40mmØ x 25mmØ Reducer	15	pcs		
	40mmØ x 32mmØ Reducer	12	pcs		
	50mmØ x 25mmØ Reducer	8	pcs		
	50mmØ x 32mmØ Reducer	5	pcs		
	50mmØ x 40mmØ Reducer	5	pcs		
	65mmØ x 40mmØ Reducer	6	pcs		
	65mmØ x 50mmØ Reducer	6	pcs		
	75mmØ x 65mmØ Reducer	9	pcs		
	90mmØ x 75mmØ Reducer	5	pcs		
	110mmØ x 90mmØ Reducer	3			
	20mmØ 90° Elbow	199	pcs		
	25mmØ 90° Elbow	123	pcs pcs		
	32mmØ 90° Elbow	88			
	40mmØ 90° Elbow	60	pcs		
	50mmØ 90° Elbow		pcs		
		3	pcs		
	65mmØ 90° Elbow	75	pcs		
	75mmØ 90° Elbow	25	pcs		
	90mmØ 90° Elbow	25	pcs		
	110mmØ 90° Elbow	15	pcs		
	25mmØ x 18mm Ø Female Threaded Tee	134	pcs		
	20mmØ End Cap	134	pcs		
	20mmØ Union Patent	9	pcs		
	25mmØ Union Patent	10	pcs		
	32mmØ Union Patent	19	pcs		
	40mmØ Union Patent	8	pcs		
	50mmØ Union Patent	2	pcs		
	65mmØ Union Patent	12	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	75mmØ Union Patent	2	pcs		
	90mmØ Union Patent	2	pcs		
	20mmØ Coupling	97	pcs		
	25mmØ Coupling	54	pcs		
	32mmØ Coupling	53	pcs		
	40mmØ Coupling	17	pcs		
	50mmØ Coupling	10	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	65mmØ Coupling	7	pcs		
	75mmØ Coupling	31	pcs		
	90mmØ Coupling	28	pcs		
	110mmØ Coupling	13	pcs		
	20mmØ Male Adaptor	42	pcs		
	25mmØ Male Adaptor	40	pcs		
	32mmØ Male Adaptor	76	pcs		
	40mmØ Male Adaptor	32	pcs		
	50mmØ Male Adaptor	8	pcs		
	65mmØ Male Adaptor	56	pcs		
	75mmØ Male Adaptor	54	pcs		
	90mmØ Male Adaptor	15	pcs		
	100mmØ Male Adaptor	4	pcs		
	Valve and Appurtenances				
	20mmØ Gate Valve PPR	12	pcs		
	25mmØ Gate Valve PPR	10	pcs		
	32mmØ Gate Valve PPR	19	pcs		
	40mmØ Gate Valve PPR	8	pcs		
	50mmØ Gate Valve PPR	2	pcs		
	65mmØ Gate Valve PPR	12	pcs		
	75mmØ Gate Valve PPR	2	pcs		
	90mmØ Gate Valve PPR	2	pcs		
	100mmØ Gate Valve PPR	2	pcs		
	75mmØ Check Valve	2	pcs		
	90mmØ Check Valve	2	pcs		
	65mmØ Float Valve	8	pcs		
	75mmØ Float Valve	3	pcs		
	90mmØ Water Meter	1	pc		
	Fixtures (Water Efficient)				
	Water Closet, Tank Type	65	pcs		
	Urinal, Flush Valve	28	pcs		
	Lavatory, Wall Hung	55	pcs		
	Kitchen Sink, Single	5	pcs		
	Lavatory Faucet	55	pcs		
	Hose Bibb, Heavy Duty	1	pcs		
	Slop Sink	7	pcs		
	Slop Sink Faucet	7	pcs		
	Kitchen Sink Faucet	5	pcs		
	Accessories		Pee		
	6mm thk Facial Mirror on 6mm thk Plywood Backing	58	sq.m		
	Bathroom Accessories including Bidet, Tissue Holder,				
	Soap Holder and Towel Hook	65	pcs		
	Metal Door Hook	65	pcs		
	Flexible Hose	153	pcs		
	Single-Way Angle Valve	65	pcs		
	Two-Way Angle Valve	88	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hardwares and Accessories				
	100mm x 100mm Floor Drain	122	pcs		
	50mmØ Deck Drain	21	pcs		
	75mmØ Deck Drain	18	pcs		
	100mmØ Roof Drain	7	pcs		
	150mmØ Roof Drain	6	pcs		
	100mmØ Roof Drain	7	pcs		
	150mmØ Roof Drain	6	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	No-Hub Coupling	10	pcs		
	5GPM Heavy Duty Grease Trap with Accessories	5	sets		
	Equipment				
	Transfer Pumps	2	sets		
	Centrifugal end-suction, cast-iron casing, hard plastic im	peller			
	stainless steel shaft, mechanical seal,				
	hard plastic impeller, with a capacity of				
	170 GPM against 150 FT. TDH, close coupled				
	to a 10 HP, 220V, 3Ø, 60Hz high efficient				
	motor complete with electrodes for cistern and				
	overhead tank, alternator and other				
	accessories needed for automatic operation				
	Sump Pumps	1	sets		
	Submersible type, cast iron casing, stainless steel shaft,	hard			
	plastic impeller, double mechanical seal w/ a capacity				
	of 20GPM against 40 ft to dynamic head, close- coupled	to a			
	0.5 HP, 220V, 1Ø, 60Hz submersible motor. Complete				
	w/ float switch for automatic operation				
	Overhead Tank	2	sets		
	Stainless steel construction,CA #11, 6.35mm thk with a				
	capacity of 7.75 m ³ , complete with manhole				
	ladder rung, saddle strap, inlet port, outlet port,				
	vent, drain port and Ladder Rung Physical Dimension				
	shall be 1.75mmø and 35 Length				
	Vertically installed.				
	Rainwater Tanks	8	sets		
	Polyethylene Construction, capacity of 2 m ³ , 1250mm Ma	I	0010		
	Diameter, 260mm Complete w/ Inlet & Outlet Ports Drain				
	Manhole, Ladder, and Level Indications				
	Pipe Hangers and Supports				
	For horizontal pipes less than 50mmø (2m interval)	102	I.m.		
	For horizontal pipes greater than 50mmø (1m interval)	1,034	I.m.		
	Downspout Brackets	207	l.m.		
	Miscellaneous	201			
	All Around Sealant	10	cans		
	15mmØ Concrete Drill Bit	10	pcs		
	15mmØ Metal Drill Bit	10	pcs		
	400cc Solvent Cement	30	cans		
	Hacksaw Blade	20	pcs		
	Teflon Tape	350	rolls		
	Waste Cloth	5	kg		
		5	му	Material Cost V	₽
				Labor Cost V	•
				Direct Cost V	₽
VI	ELECTRICAL WORKS				•
A	Lighting and Power System				

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Roughing-ins				
	20mmØ PVC Pipe	3,757	pcs	₽	₽
	25mmØ PVC Pipe	965	pcs		
	25mmØ IMC Pipe	32	pcs		
	32mmØ IMC Pipe	87	pcs		
	50mmØ IMC Pipe	50	pcs		
	65mmØ IMC Pipe	38	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	80mmØ IMC Pipe	71	pcs		
	100mmØ IMC Pipe	18	pcs		
	110mmØ PVC Pipe	262	pcs		
	20mmØ Flex Metal Conduit	1,100	Im		
	Fittings & Accessories				
	20mmØ PVC Adaptor	3,022	pcs		
	20mmØ PVC Elbow	1,010	pcs		
	20mmØ PVC Locknut & Bushing	3,022	pairs		
	25mmØ PVC Adaptor	241	pcs		
	25mmØ PVC Elbow	160	pcs		
	25mmØ PVC Locknut & Bushing	241	pairs		
	25mmØ IMC Coupling	18	pcs		
	25mmØ IMC Elbow	14	pcs		
	25mmØ IMC Locknut & Bushing	134	pcs		
	32mmØ IMC Coupling	31	pcs		
	32mmØ IMC Elbow	20	pcs		
	32mmØ IMC Locknut & Bushing	32	pcs		
	50mmØ IMC Coupling	34	pcs		
	50mmØ IMC Elbow	10	pcs		
	50mmØ IMC Locknut & Bushing	8			
	65mmØ IMC Coupling	42	pcs		
	65mmØ IMC Elbow		pcs		
		8	pcs		
	65mmØ IMC Locknut & Bushing	6	pcs		
	80mmØ IMC Coupling	62	pcs		
	80mmØ IMC Elbow	6	pcs		
	80mmØ IMC Locknut & Bushing	12	pcs		
	100mmØ IMC Coupling	40	pcs		
	100mmØ IMC Elbow	8	pcs		
	100mmØ IMC Locknut & Bushing	56	pcs		
	100mmØ Weatherproof Entrance Cap, Diecast type	7	pcs		
	110mmØ PVC Adaptor	6	pcs		
	110mmØ PVC Elbow, 90° R	2	pcs		
	110mmØ PVC Elbow, 110° R	2	pcs		
	110mmØ PVC Locknut & Bushing	8	pairs		
	20mmØ Straight Connector with Locknut	1,608	pcs		
	50mm x 100mm Metal Utility Box	707	pcs		
	100mm x 100mm Metal Junction Box with cover	804	pcs		
	120mm Square Box with cover	60	box		
В	Wires and Cables				
	3.5mm ² THHN Wire	151	rolls		
	5.5mm ² THHN Wire	7	rolls		
	8.0mm ² THHN Wire	34	rolls		
	14mm ² THHN Wire	38	Im		
	30mm ² THHN Wire	139	Im		
	38mm ² THHN Wire	655	Im		
	80mm ² THHN Wire	596	Im		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	125mm ² THHN Wire	312	lm		
	150mm ² THHN Wire	583	lm		
	250mm ² THHN Wire	2,691	lm		
	2.0mm ² TW Wire	76	rolls		
	3.5mm ² TW Wire	4	rolls		
	5.5mm ² TW Wire	17	rolls		
	8.0mm ² TW Wire	1	roll		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	22mm ² TW Wire	199	lm		
	30mm ² TW Wire	105	lm		
	38mm ² TW Wire	195	lm		
	60mm ² TW Wire	897	lm		
С	Lighting fixtures (Energy Efficient)				
	1 x 20W LED, Flourescent Light, Box Type	118	pcs		
	1 x 20W LED, Flourescent Light, Troffer Type	352	pcs		
	2 x 20W LED, Flourescent Light, Troffer Type	184	pcs		
	150mmØ Pinlight LED	27	pcs		
	Triangular Façade Lighting (Big)	2	pcs		
	Emergency Light	56	pcs		
	Exit Light	63	pcs		
D	Wiring Devices				
	Outlet with Gounding , One-gang	56	pcs		
	Outlet with Gounding , Two-gang	362	pcs		
	Outlet with Gounding , One-gang for ACU	60	pcs		
	Switch w/ plate & cover, One pole	59	pcs		
	Switch w/ plate & cover, Two pole	85	pcs		
	Switch w/ plate & cover, Three pole	18	pcs		
	Switch w/ plate & cover, Three way, One-gang	50	pcs		
Е	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	188	lm		
	Vertical Layout of Pipe	30	lm		
F	Miscellaneous & Consumables				
	All around Sealant	50	qrt		
	400cc PVC Solvent Cement	100	cans		
	Electrical Tape	300	rolls		
	Epoxy Primer	1	lit		
	Eyebolt	1	pc.		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	60	kgs		
	Hacksaw Blade	100	pcs		
	Masking Tape	50	pcs		
	Paint Thinner	1	lit		
	Pulling Lubricant	10	can		
	Quick Dry Enamel Silver	2	sqm		
	Rubber Tape	200	rolls		
				Material Cost	₽
				Labor Cost	
				Direct Cost	₽
G	Panelboard				
1	MCB	1	Assy	₽	₽
	Main: 2500 AT 3P 100 KAIC @ 600V w/ Ground Terminal				
	Enclosure: NEMA 4X Floor Mounted				
2	Low Voltage Switch Gear (LVSG, Unitized Panel)	1	Assy		
	Main: 2500 AT 3P 100 KAIC @ 600V				
	Branches:				

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	1 - 1600 AT 3P MCCB				
	1 - 500 AT 3P MCCB				
	1 - 125 AT 3P MCCB				
	1 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 1				
3	MDP	1	Assy		
	Main: 1600 AT 3P 100 KAIC @ 600V				
	Branches:				
	1 - 400AT 3P MCCB				

NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	6 - 300AT 3P MCCB				
	1 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 3R				
4	DPA	1	Assy		
	Main: 200 AT 3P 35 KAIC @ 240V				
	Branches:				
	1 - 100 AT 3P MCCB				
	1 -70 AT 3P BOLT ON				
	1 - 50 AT 3P BOLT ON				
	1 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 1				
5	DPB	1	Assy		
	Main: 200 AT 3P 35 KAIC @ 240V				
	Branches:				
	1 - 100 AT 3P MCCB				
	1 -70 AT 3P BOLT ON				
	1 - 50 AT 3P BOLT ON				
	1 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 1				
6	DPC	1	Assy		
	Main: 300 AT 3P 45 KAIC @ 240V				
	Branches:				
	1 - 200 AT 3P MCCB				
	1 - 100 AT 3P MCCB				
	1 - 30 AT 3P BOLT ON				
	1 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 1	1	A		
7	DPD TYPICAL TO DPE, DPF, & DPG Main: 300 AT 3P 45 KAIC @ 240V	4	Assy		
	Branches: 1 - 250 AT 3P MCCB				
	1 - 250 AT 3P MCCB 1 - 100 AT 3P MCCB				
	2 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 1				
8	MPP	1	Assy		
J	Main: 500 AT 3P 65 KAIC @ 240V		7133y		
	Branches:				
	1 - 300 AT 3P MCCB				
	2 - 200 AT 3P MCCB				
	2 - 125 AT 3P MCCB				
	1 - 50 AT 3P BOLT ON				
	1 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 3R				
9	Elevator Power Panel	2	Assy		
		<u> </u>	, 100y		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Branches:				
	1 - 70 AT 3P MCCB				
	2 - 20 AT 2P BOLT ON				
	Enclosure: NEMA 1				
10	LPA	1	Assy		
	Main: 70 AT 3P 18 KAIC @ 240V				
	Branches:				
	1 - 30 AT 2P BOLT ON				
	12 - 20 AT 2P BOLT ON w/ Ground Terminal				

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Enclosure: NEMA 1				
11	PPA	1	Assy		
	Main: 100 AT 3P 25 KAIC @ 240V				
	Branches:				
	8 - 30 AT 2P BOLT ON				
	6 - 20 AT 2P BOLT ON				
	2 - Space Busbar Terminal w/ Ground Terminal				
	Enclosure: NEMA 1				
12	LPB	1	Assy		
	Main: 70 AT 3P 18 KAIC @ 240V				
	Branches:				
	3 - 30 AT 2P BOLT ON				
	7 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
13	PPB	1	Assy		
	Main: 100 AT 3P 25 KAIC @ 240V				
	Branches:				
	5 - 30 AT 2P BOLT ON				
	9 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
14	LPC	1	Assy		
	Main: 100 AT 3P 25 KAIC @ 240V				
	Branches:				
	2 - 30 AT 2P BOLT ON				
	18 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
15	PPC	1	Assy		
	Main: 200 AT 3P 35 KAIC @ 240V				
	Branches:				
	12 - 40 AT 2P BOLT ON				
	2 - Space w/ Ground Terminal				
	Enclosure: NEMA 1				
10			A		
16	LPPD TYPICAL TO LPPE, & LPPF Main: 100 AT 3P 25 KAIC MCCB @ 240V	3	Assy		
	Main: 100 AT 3P 25 KAIC MCCB @ 240V Branches:				
	Branches: 1 - 30 AT 3P MCCB				
	1 - 30 AT 3P MCCB 17 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
17	PPD TYPICAL TO PPE & PPF	3	Assy		
''	Main: 250 AT 3P 35 KAIC @ 240V	5	,133y		
	Branches:				
	14 - 40 AT 2P BOLT ON				
	2 - Space w/ Ground Terminal Enclosure: NEMA 1				
		1	Assy		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Main: 100 AT 3P 25 KAIC @ 240V				
	Branches:				
	2 - 30 AT 2P BOLT ON				
	18 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
19	PPG	1	Assy		
	Main: 250 AT 3P 35 KAIC @ 240V				
	Branches:				
	14 - 40 AT 2P BOLT ON				
	2 - Space w/ Ground Terminal				
	Enclosure: NEMA 1				
20	LPPACA	1	Assy		
	Main: 50 AT 3P 18 KAIC @ 240V				
	Branches:				
	12 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
21	LPPACB	1	Assy		
	Main: 50 AT 3P 18 KAIC @ 240V				
	Branches:				
	16 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
22	LPPACC	1	Assy		
	Main: 30 AT 3P 18 KAIC @ 240V				
	Branches:				
	6 - 20 AT 2P BOLT ON w/ Ground Terminal				
	Enclosure: NEMA 1				
16	Enclosed Circuit Breaker				
	400 AT, 3P, NEMA 3R	1	Assy		
	300 AT, 3P, NEMA 3R	1	Assy		
	200 AT, 3P, NEMA 3R	2	Assy		
	125 AT, 3P, NEMA 3R	1	Assy		
	50 AT, 2P, NEMA 3R	1	Assy		
	30 AT, 2P, NEMA 3R	26	Assy		
	20 AT, 2P, NEMA 3R	20	Assy	Motorial Ossi	8
				Material Cost Labor Cost	₽
				Direct Cost	₽
F	Grounding and Lighting Protection System				Г
	Lighting Arrester Dynasphere	1	D C		
	Terminal Lug Coupling Connector	2	pc		
	100 mm ² Terminal Lug One Hole Long Barrel	1	pcs		
	Lightning Event Counter	1	pc pc		
	Event Counter Enclosure	1	pc		
	50mmØ x 6m, Steel Mast	1	pc pc		
	Base Plate for Steel Mast	1	pc pc		
	Inline Coupling	1	pc pc		
			ρc		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fiberglass Mast 3m	1	рс		
	Lower Termination Kit	1	рс		
	Ground Well/Pit 200mm Depth with S/S Cover	2	pcs		
	20mmØ x 3m, Copper Bonded Ground Rod	23	pcs		
	100 mm ² Cable to 20mm Rod, Cadweld Mold for GT	23	pcs		
	Connection				
	Powder for GT Connection	23	tubes		
	Handle Clamp Mold	2	pcs		
	Flint Igniter	2	pcs		
	100mm ² Bare Copper Wire (uncut)	181	lm		
				Material Cost	₽
				Labor Cost	-
_				Direct Cost	₽
G	Stand By Generator Set				
	750 KVA Three Phase 230 / 220V 60Hz	1	Assy	₽	Ð
	Electronic Governor-Diesel Engine Driven				
	Silent Type (5650mm x 2020mm x 2550mm)				-
				Direct Cost	₽
				Material Cost VI	₽
				Labor Cost VI	_
				Direct Cost VI	₽
	AUXILIARY SYSTEM WORKS				
A	Fire Detection and Alarm System (FDAS)				
1	Roughing-ins 20mmØ PVC Pipe	6	200	₽	₽
	20mmø EMT Pipe	6 618	pcs		r
	25mmØ EMT Pipe	43	pcs		
	20mmØ Flexible Metallic Tube	125	pcs Im		
	Fittings and Accessories	125			
	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	4	pcs		
	20mmØ PVC Adaptor 20mmØ PVC Elbow	2	pcs		
	20mmø PVC Eibow 20mmø PVC Locknut & Bushing	4	pos		
	20mmø EMT Connector, Set screw type	502	pairs		
	20mmø EMT Coupling, Set screw type	492	pcs		
	20mmØ EMT Elbow	350	pcs		
	25mmØ EMT Connector, Set screw type	40	pcs		
	25mmØ EMT Coupling, Set screw type	30	pcs		
	25mmØ EMT Elbow	20	pcs		
	20mmØ Straight Connector with locknut	246	pos		
	Pullbox, 200mm x 200mm x 150mm	7	assy		
				l	
		60	DC		
	50mm x 100mm Metallic Utility Box	60 186	pc pcs		
	50mm x 100mm Metallic Utility Box 100mm x 100mm Metallic Junction Box with cover	186	pcs		
2	50mm x 100mm Metallic Utility Box 100mm x 100mm Metallic Junction Box with cover 120mm Square Box with cover		· ·		
2	50mm x 100mm Metallic Utility Box 100mm x 100mm Metallic Junction Box with cover	186	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
3	Fixtures, Devices & Equipment				
	Anunciator	16	pcs		
	Bell 6"Ø / Horn with Strobe Light	30	sets		
	Combination Smoke & Carbon Monoxide Detector	194	pcs		
	Fire Alarm Manual Pull Station	30	pcs		
	Fire Alarm Control (and Ventillation) Panel (FACP),	1	unit		
	16-Zones Addressable				
	Heat Detector	5	рс		
	Power Supply and Back-up Battery Pack w/ Charger & Ind	1	set		
4	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	412	lm		
	Vertical Layout of Pipe	40	lm		
5	Miscellaneous & Consumables				
	All around Sealant	1	qrt		
	Electrical Tape	35	rolls		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	6	kgs		
	Hacksaw Blade	15	рс		
	Masking Tape	20	рс		
	Pulling Lubricant	4	can		
	Rugs	15	pcs		
В	Telephone (Voice) System				
1	Roughing-ins				
	25mmØ PVC Pipe	400	pcs		
	50mmØ PVC Pipe	70	pcs		
	40mmØ IMC Pipe	18	pcs		

TEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Fittings and Accessories				
	25mmØ PVC Adaptor	287	pcs		
	25mmØ PVC Locknut & bushing	287	pairs		
	50mmØ PVC Adaptor	4	pcs		
	50mmØ PVC Elbow	6	pcs		
	50mmØ PVC Locknut & bushing	4	pairs		
	50mmØ Weatherproof Cap, Diecast	2	pcs		
	40mmØ IMC Coupling	14	pcs		
	40mmØ IMC Elbow	8	pcs		
	40mmØ IMC Locknut & Bushing	8	pcs		
	50mm x 100mm Metal Utility Box	75	pcs		
	25mmØ Mica Tube	30	lm		
	120mm Square Box with cover	6	pcs		
	50mm x 100mm x 2400mm Wireway with cover, powder- coated	12	pcs		
	200mm x 200mm x150mm, Pullbox	7	assy		
	20mm Ø x 3000mm Grounding Rod (Copper Clad) with Ground Clamp	1	рс		
	RJ 45 Connector, 8-pins	226	pcs		
	SC, ST, LC Fiber Optic Connectors	2	box		
	Fiber Adapter Cable Kits	1	sets		
	Cable Trays and Terminal Cabinets Grouns Strap, 3m	6	pcs		
	Telecom Backboard, Flame retardant	3	pcs		
2	Wires and Cables				
	8.0mm ² THW Wire	15	lm		
	UTP Cable Cat 6, 4-pairs	28	rolls		
	UTP Patch Cord,Cat 6, 550MHz, 3 ft.	113	pcs		
	Fiber Optic (2-Core) Riser Cable	12	lm		
	Fiber Optic (2-Core) Plenum Cable	46	lm		
	Fiber Optic Patch Cord, 3 ft.	212	lm		
3	Fixtures, Devices & Equipment				
	Universal LAN Outlet, Simplex (1-Device)	36	pcs		
	Universal LAN Outlet, Duplex (2-Device)	39	pcs		
	IP PBX with 20-line and 120 IP-extensions	1	unit		
	Server Equipment with UPS	1	set		
	Main Distribution Frame (MDF)	1	assy		
	48U Data Rack (19") with Standard Framing & Panelling		,		
	and Vent Fans				
	1 - Router, 8-port Rackmounted (1U)				
	1 - Fiber Patch Panel, Rackmount Preloaded, 12-port (2U)			
	1 - Managed Fast Fiber Switch, 12-port (20)	,			
	1 - CAT6 Standard Density Feed-Thru Patch Panel, 24-pc	ort (3U)			
	1 - 20-port UTP + 4-port FTP Network Switch (2U)				
	1 - CAT6 Standard Density Feed-Thru Patch Panel, 48-pc	ort (3U)			
	1 - 48-port UTP Network Switch (3U)				
	1 - Rackmounted UPS, 1000VA ≥ 5 mins "on-line"				

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	1 - Rackmounted Surge Suppressor				
	2 - Small Form-Factor Pluggable (SFP) Optical Tranceive	r			
	* with Cable managers and UTP/FTP Converter				
	* UTP Cross-Connect Cables				
	* FTP Cross-Connect Cables				

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Immediate Distribution Frame (IDF1)	1	assy		
	20U Data Rack(19") with Standard Framing & Panelling				
	and Vent Fans				
	1 - CAT6 Standard Density Feed-Thru Patch Panel, 48-pc	ort (3U)			
	1 - 44-port UTP + 4-port FTP Network Switch (3U)				
	1 - Rackmounted UPS, 650VA ≥ 5 mins "on-line"				
	2 - Small Form-Factor Pluggable (SFP) Optical Tranceive	r			
	* with Cable managers and UTP/FTP Converter				
	* UTP Cross-Connect Cables				
	Immediate Distribution Frame (IDF2)	1	assy		
	28U Data Rack(19") with Standard Framing & Panelling				
	and Vent Fans				
	1 - CAT6 Standard Density Feed-Thru Patch Panel, 48-pc	ort (3U)			
	1 - 12-port UTP Network Switch (1U)				
	1 - CAT6 Standard Density Feed-Thru Patch Panel, 24-pc	ort (2U)			
	1 - Rackmounted UPS, 650VA ≥ 5 mins "on-line"				
	2 - Small Form-Factor Pluggable (SFP) Optical Tranceive	r			
	* with Cable managers and UTP/FTP Converter				
	* UTP Cross-Connect Cables				
4	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	50	lm		
	Vertical Layout of Pipe	35	lm		
5	Miscellaneous & Consumables				
	400cc PVC Solvent Cement	7	can		
	Electrical Tape	10	roll		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	4	kgs		
	Hacksaw Blade	5	рс		
	Masking Tape	7	roll		
	Pulling Lubricant	4	can		
	Rubber Tape	4	roll		
	Rugs	6	рс		
С	Closed Circuit Television (CCTV) and Security System				
1	Roughing-ins				
	20mmØ PVC Pipe	81	pcs		
	25mmØ PVC Pipe	229	pcs		
	25mmØ Flex Metal Conduit	40	lm		
	Fittings & Accessories				
	20mmØ PVC Adaptor	22	pcs		
	20mmØ PVC Elbow	10	pcs		
	20mmØ PVC Locknut & Bushing	22	pairs		
	25mmØ PVC Adaptor	66	pcs		
	25mmØ PVC Elbow	55	pcs		
	25mmØ PVC Locknut & Bushing	66	pairs		
	25mmØ Straight Connector with Locknut	72	pcs		
	100mm x 100mm Metal Junction Box with cover	22	pcs		
	100mm x 100mm Metal Junction Box with cover		pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	120mm Square Box with cover	3	pcs		
	Pullbox, 325mm x 275mm x 275mm	9	assy		
	RJ 45 Connector, 8-pins	72	pcs		
2	Wires and Cables				
	8.0mm ² THW Wire	15	lm		
	A/V (VGA and HDMI) Cable	40	lm		
	UTP Cable Cat 6, 4-pairs	12	rolls		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
3	Fixtures, Devices & Equipment				
	IP Bullet Camera (Vandal resistant), Outdoor Type	5	pcs		
	IP Dome Camera (Day/nightt), Indoor Type	29	pcs		
	26-port Utp Managed PoE Switch (2U)	2	units		
	Network Video Recorder (NVR), 1-Channel with 2 SATA	3	units		
	Multi-Function Keyboard Controller	1	unit		
	32" LED Display Monitor	3	units		
	UPS, 650VA ≥ 5 mins "on-line"	1	unit		
	UPS, 1000VA ≥ 5 mins "on-line"	1	unit		
4	Pipe Hangers & Supports				
	Horizontal Layout of Pipe	451	lm		
	Vertical Layout of Pipe	34	lm		
5	Miscellaneous & Consumables				
	Electrical Tape	10	rolls		
	GI Tie Wire, Ga. 16 (for wire/cable pulling)	3	kgs		
	Hacksaw Blade	7	pcs		
	Masking Tape	5	rolls		
	Pulling Lubricant	2	cans		
	Rubber Tape	4	roll		
	Rugs	7	рс		
				Material Cost VII	₽
				Labor Cost VII	2
				Direct Cost VII	P
VIII					
A	Refrigerant Pipe System				
	6mm Ø Copper Coil Tubing	108	lm	P	P
	10mm Ø Copper Coil Tubing	300	lm		
	12mm Ø Copper Coil Tubing	108	lm		
	16mm Ø Copper Coil Tubing	287	Im		
	20mm Ø Copper Coil Tubing 29mm Ø Copper Coil Tubing	176	lm		
		E0	Im		
· 1		59 104	lm Im		
	35mm Ø Copper Coil Tubing	104	lm		
	35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation	104 108	lm Im		
	35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation	104 108 300	lm Im Im		
	35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation	104 108 300 108	lm Im Im Im		
	 35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation 16mm Ø x 20mm thick Rubber Foam Insulation 	104 108 300 108 287	Im Im Im Im Im		
	35mm Ø Copper Coil Tubing6mm Ø x 20mm thick Rubber Foam Insulation10mm Ø x 20mm thick Rubber Foam Insulation12mm Ø x 20mm thick Rubber Foam Insulation16mm Ø x 20mm thick Rubber Foam Insulation20mm Ø x 20mm thick Rubber Foam Insulation	104 108 300 108 287 176	Im Im Im Im Im		
	 35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation 16mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 29mm Ø x 20mm thick Rubber Foam Insulation 	104 108 300 108 287 176 59	Im Im Im Im Im Im		
	35mm Ø Copper Coil Tubing6mm Ø x 20mm thick Rubber Foam Insulation10mm Ø x 20mm thick Rubber Foam Insulation12mm Ø x 20mm thick Rubber Foam Insulation16mm Ø x 20mm thick Rubber Foam Insulation20mm Ø x 20mm thick Rubber Foam Insulation	104 108 300 108 287 176	Im Im Im Im Im Im Im		
	35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation 16mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 35mm Ø x 20mm thick Rubber Foam Insulation 35mm Ø x 20mm thick Rubber Foam Insulation	104 108 300 108 287 176 59 104	Im Im Im Im Im Im Im Im pc		
	 35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation 16mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 29mm Ø x 20mm thick Rubber Foam Insulation 35mm Ø x 20mm thick Rubber Foam Insulation Indoor Y Branch 	104 108 300 108 287 176 59 104 25	Im Im Im Im Im Im Im		
B	35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation 16mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 29mm Ø x 20mm thick Rubber Foam Insulation 35mm Ø x 20mm thick Rubber Foam Insulation Indoor Y Branch Outdoor Y Branch Wireless Remote	104 108 300 108 287 176 59 104 25 6	Im Im Im Im Im Im Im pc pc		
	35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation 16mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 29mm Ø x 20mm thick Rubber Foam Insulation 35mm Ø x 20mm thick Rubber Foam Insulation Indoor Y Branch Outdoor Y Branch	104 108 300 108 287 176 59 104 25 6	Im Im Im Im Im Im Im pc pc		
	35mm Ø Copper Coil Tubing 6mm Ø x 20mm thick Rubber Foam Insulation 10mm Ø x 20mm thick Rubber Foam Insulation 12mm Ø x 20mm thick Rubber Foam Insulation 16mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 20mm Ø x 20mm thick Rubber Foam Insulation 29mm Ø x 20mm thick Rubber Foam Insulation 35mm Ø x 20mm thick Rubber Foam Insulation 35mm Ø x 20mm thick Rubber Foam Insulation Outdoor Y Branch Wireless Remote Condensate Water Drainage System	104 108 300 108 287 176 59 104 25 6 27	Im Im Im Im Im Im Im pc pc pc		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	50mm Ø x 3m uPVC Pipe	24	рс		
	65mm Ø x 3m uPVC Pipe	4	рс		
	25mm Ø x 12mm thick Rubber Foam Insulation	12	lm		
	32mm Ø x 12mm thick Rubber Foam Insulation	108	lm		
	40mm Ø x 12mm thick Rubber Foam Insulation	30	lm		
	50mm Ø x 12mm thick Rubber Foam Insulation	72	lm		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST							
	65mm Ø x 12mm thick Rubber Foam Insulation	12	lm									
				Materials Cost	P							
				Labor Cost								
				Subtotal	₽							
С	Equipment and Accessories											
	EF 1 - Ceiling Mounted Ductless Exhaust Fan, 180cmh,	66	unit	₽	₽							
	22W, 230V / 1φ / 60Hz											
	EF 2 - Wall Mounted Axial Exhaust Fan, 1260cmh,	2	unit									
	52W, 230V / 1φ / 60Hz											
	CF 1 - Ceiling Fan, 0.50cms, 100W, 230V / 1ϕ / 60Hz	14	unit									
	WAC 1 - 2.5hp, 550cmm, 2.61kW, 230V / 1¢ / 60Hz	66	unit									
	WAC 2 - 0.75hp, 466cmm, 1.89kW, 230V / 1ø / 60Hz	1	unit									
				Equipment Cost	P							
				Labor Cost								
				Subtotal	P							
	ACCU 1 - Air-Cooled Condensing Unit, 23.2TR (278,100BT	1	unit	₽	₽							
	19.05mm Ø Liquid & 34.93mm Ø Gas Pipes											
	6960cfm, 24.47kW, 230V / 3¢ / 60Hz											
	ACCU 2 - Air-Cooled Condensing Unit, 21.6TR (259,300BT	1	unit									
	19.05mm Ø Liquid & 34.93mm Ø Gas Pipes											
	6480cfm, 24.47kW, 230V / 3ø / 60Hz											
	ACCU 3 - Air-Cooled Condensing Unit, 17.75TR (212,900B	1	unit									
	15.88mm Ø Liquid & 28.58mm Ø Gas Pipes											
	5325cfm, 24.47kW, 230V / 3¢ / 60Hz											
	MSFCU 1 - Ceiling Cassette Fan Coil Unit, 3.0TR	15	unit									
	9.52mm Ø Liquid, 19.05mm Ø Gas & 32mm Ø Drain Pipe	3	S	S	3	3	3	S	S			
	900cfm, 150W, 230V / 1ϕ / 60Hz											
	MSFCU 2 - Ceiling Cassette Fan Coil Unit, 2.0TR	4	unit									
	6.35mm Ø Liquid, 12.7mm Ø Gas & 32mm Ø Drain Pipes											
	600cfm, 50W, 230V / 1ϕ / 60Hz											
	MSFCU 3 - Ceiling Cassette Fan Coil Unit, 1.5TR	2	unit									
	6.35mm Ø Liquid, 12.7mm Ø Gas & 32mm Ø Drain Pipes											
	600cfm, 50W, 230V / 1ϕ / 60Hz											
	MSFCU 4 - Wall-Mounted Fan Coil Unit, 0.8TR	2	unit									
	6.35mm Ø Liquid, 12.7mm Ø Gas & 32mm Ø Drain Pipes											
	600cfm, 50W, 230V / 1¢ / 60Hz											
	MSFCU 5 - Wall-Mounted Fan Coil Unit, 0.6TR	3	unit									
	6.35mm Ø Liquid, 12.7mm Ø Gas & 32mm Ø Drain Pipes											
	600cfm, 50W, 230V / 1ϕ / 60Hz											
	MSFCU 6 - Wall-Mounted Fan Coil Unit, 0.5TR	2	unit									
	6.35mm Ø Liquid, 12.7mm Ø Gas & 32mm Ø Drain Pipes											
	600cfm, 50W, 230V / 1¢ / 60Hz											
	SAC 1 - Wall Mounted Split-type Air Conditioning Unit, 2.0TR	6	unit									
	6.35mm Ø Liquid, 15.88mm Ø Gas & 32mm Ø Drain Pipes											
	600cfm, 2200W, 230V / 1ϕ / 60Hz											

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
				Equipment Cost	₽
		Labor Cos	t with Te	chnical Supervision	
				Subtotal	₽
	Supply and Installation of Passenger and Freight Elevator	2	unit	Р	P
	800kgs, 7 Stops, 7 Openings				
				Equipment Cost	₽

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
D	Pipe Hangers and Supports				
	Condensate Water Drainage System Support	150	lm	₽	P
	for 40mm Ø Pipe and below				
	Condensate Water Drainage System Support	84	lm		
	for 50mm Ø and 65mm Pipe				
	Refrigerant Pipe System Support (150mm Ø Clevis Hanger)	487	Im		
	Refrigerant Pipe System Support (150mm Ø U-Bolt)	84	Im		
	Window Type Aircon Wall Mounted Support	67	unit		
	ACCU Support	9	unit		
	Vibration Isolator	36	рс		
Е	Miscellaneous & Consumables				
	400cc Pipe Solvent Cement	5	can		
	25mm wide x 50m long Polyethylene Tape	50	roll		
	Brazing Rod (10pcs/box)	10	box		
	Waste Cloth	10	kg		
				Materials Cost	P
				Labor Cost	
				Subtotal	P
				Materials Cost VIII	₽
				Labor Cost VIII	
				Direct Cost VIII	P
	FIRE PROTECTION WORKS				
A	Roughing-ins, Pipes and Fittings				
	25mm Ø B.I. Pipe, Schedule 40	276	pcs	P	P
	32mm Ø B.I. Pipe, Schedule 40	76	pcs		
	40mm Ø B.I. Pipe, Schedule 40	23	pcs		
	50mm Ø B.I. Pipe, Schedule 40	15	pcs		
	65mm Ø B.I. Pipe, Schedule 40	47	pcs		
	75mm Ø B.I. Pipe, Schedule 40	17	pcs		
	100mm Ø B.I. Pipe, Schedule 40	41	pcs		
	100mm Ø x 65mm Ø B.I. Tee, Weldable	11	pcs		
	100mm Ø x 75mm Ø B.I. Tee, Weldable	6	pcs		
	100mm Ø x 100mm Ø B.I. Tee, Weldable	2	pcs		
	65mm Ø B.I. 90° Elbow, Weldable	25	pcs		
	75mm Ø B.I. 90° Elbow, Weldable	21	pcs		
	100mm Ø B.I. 90° Elbow, Weldable	16	pcs		
	65mm Ø x 40mm Ø B.I. Reducer, Weldable	6	pcs		
	75mm Ø x 65mm Ø B.I. Reducer, Weldable	9	pcs		
	100mm Ø x 65mm Ø B.I. Reducer, Weldable	5	pcs		
	65mm Ø B.I. Slip-on-Flange	84	pcs		
	75mm Ø B.I. Slip-on-Flange	147	pcs		
	100mm Ø B.I. Slip-on-Flange	206	pcs		
	OF THE AVERAGE AND A THE ADDRESS AND A THE ADDRE	201	pcs	1	
	25mm Ø x 25mm Ø B.I. Tee, Threaded	201	P00		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	32mm Ø x 32mm Ø B.I. Tee, Threaded	77	pcs		
	40mm Ø x 25mm Ø B.I. Tee, Threaded	37	pcs		
	40mm Ø x 40mm Ø B.I. Tee, Threaded	16	pcs		
	50mm Ø x 25mm Ø B.I. Tee, Threaded	7	pcs		
	50mm Ø x 50mm Ø B.I. Tee, Threaded	10	pcs		
	25mm Ø 90° B.I. Elbow, Threaded	450	pcs		
	32mm Ø 90° B.I. Elbow, Threaded	16	pcs		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	40mm Ø 90° B.I. Elbow, Threaded	23	pcs		
	50mm Ø 90° B.I. Elbow, Threaded	14	pcs		
	32mm Ø x 25mm Ø B.I. Reducer, Threaded	210	pcs		
	40mm Ø x 32mm Ø B.I. Reducer, Threaded	107	pcs		
	50mm Ø x 25mm Ø B.I. Reducer, Threaded	2	pcs		
	50mm Ø x 40mm Ø B.I. Reducer, Threaded	12	pcs		
	32mm Ø B.I. Threadolet, Threaded	13	pcs		
	40mm Ø B.I. Threadolet, Threaded	89	pcs		
	50mm Ø B.I. Threadolet, Threaded	11	pcs		
	25mm Ø B.I. Union Patent, Threaded	14	pcs		
	40mm Ø B.I. End Cap, Threaded	14	pcs		
	13mm Ø B.I. Plug, Threaded	650	pcs		
В	Valves and Appurtenances				
	65mm Ø Fire Hose Valve	14	pcs		
	25mm Ø Sight Glass	7	pcs		
	25mm Ø Inspector Test Connection	7	pcs		
	25mm Ø Globe Valve	21	pcs		
	50mm Ø Globe Valve	1	рс		
	50mm Ø Check Valve	1	рс		
	100mm Ø Check Valve	1	рс		
	100mm Ø Alarm Check Valve	1	рс		
	75mm Ø Relief Valve	1	рс		
	75mm Ø Butterfly Valve with Tamper Switch	7	pcs		
	100mm Ø Flow Switch	7	pcs		
	300psi Pressure Gauge	9	pcs		
	750gpm Flow Meter	1	рс		
	100mm Ø Victaulic Coupling	21	pcs		
	100mm Ø OS & Y	2	pcs		
С	Fixtures				
	Fire Sprinkler Head				
	13mm Ø Upright-type Fire Sprinkler Head, 68°C	334	pcs		
	13mm Ø Pendent-type Fire Sprinkler Head, 68°C	288	pcs		
	13mm Ø Sidewall-type Fire Sprinkler Head, 68°C	28	pcs		
	Fire Department Connection	1	set		
	Fire Extinguisher	15	pcs		
	Fire Hose Cabinet	14	sets		
	Roof Manifold	1	рс		
				Materials Cost	P
				Labor Cost	
				Subtotal	₽
D	Pipe Hangers and Supports				
	Hangers for 25mm Ø B.I. Pipe	1,656	lm	₽	₽
	Hangers for 40mm Ø B.I. Pipe	594	lm		
	Hangers for 50mm Ø B.I. Pipe	90	lm		
	Hangers for 65mm Ø B.I. Pipe	282	lm		
	Hangers for 75mm Ø B.I. Pipe	102	lm		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Hangers for 100mm Ø B.I. Pipe	246	lm		
	Support for Vetical Pipes	348	lm		
Е	Miscellaneous & Consumables				
	20mm Ø Masonry Drill Bit	10	pcs		
	20mm Ø Metal Drill Bit	40	pcs		
	Hacksaw Blade	25	pcs		
	Rubber Gasket	4	lm		
	Special Purpose Sealant	80	tubes		

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	Teflon Tape	2,304	rolls		
	Threading Oil	15	gals		
	Waste Cloth	20	kg		
	Welding Rod	15	boxes		
				Materials Cost	P
				Labor Cost	
				Subtotal	P
				Materials Cost IX	P
				Labor Cost IX	
				Direct Cost IX	P
Х	UTILITY AND ANCILLARY WORKS				
	Septic Tank (6.50m L x 2.30m W x 2.525m D)	34	cu.m.		
	Cistern Tank (5.40m L x 4.40m W x 3.425m D)	66	cu.m.		
	460mmØ Reinforced Concrete Pipe	63	l.m.		
	610mmØ Reinforced Concrete Pipe	136	l.m.		
	Area Drain (0.39mx0.92mx1m)	8	sets		
	Manhole (1.1mx1.7mx1.1m)	21	cu.m.		
				Direct Cost X	₽

SUMMARY

ITEM NO	WORK DESCRIPTION and SCOPE OF WORKS	TOTAL COST
 V V V X X	GENERAL REQUIREMENTS SITE WORKS CIVIL / STRUCTURAL WORKS ARCHITECTURAL WORKS SANITARY / PLUMBING WORKS ELECTRICAL WORKS AUXILIARY SYSTEM WORKS MECHANICAL WORKS FIRE PROTECTION WORKS UTILITY AND ANCILLARY WORKS	P
	TOTAL DIRECT COST Overhead, Contingencies and Miscellaneous Expenses (OCM) PROFIT VAT TOTAL ESTIMATED COST	P

ITEM NO.	WORK DESCRIPTION and SCOPE OF WORKS	QTY	UNIT	UNIT COST	TOTAL COST
	-			-	

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary "pass/fail" criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

- □ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages); and
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;

and

- (c) Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;
 and
- \Box (e) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

- □ (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid (*please see attached prescribed forms required by the QC BAC for Infrastructure and Consultancy*); and
- □ (g) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules with an attached Notice of Award, Notice to Proceed, Contract and Certificate of Acceptance (please see attached prescribed form required by the QC BAC for Infrastructure and Consultancy); and
- (h) Philippine Contractors Accreditation Board (PCAB) License;
 <u>or</u> Special PCAB License in case of Joint Ventures;

and registration for the type and cost of the contract to be bid; and

(i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
 or

Original copy of Notarized Bid Securing Declaration; and

- (j) Project Requirements, which shall include the following:

- a. Organizational chart for the contract to be bid;
- b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data (*please see attached prescribed form required by the QC BAC for Infrastructure and Consultancy*);
- c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment

lessor/vendor for the duration of the project, as the case may be (*please* see attached prescribed form required by the QC - BAC for Infrastructure and Consultancy); and

 \Box (k) Original duly signed Omnibus Sworn Statement (OSS);

and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Additional Technical Requirements:

- Certificate of Site Inspection or Affidavit of Site Inspection as part of Omnibus Sworn Statement
- ☐ Affidavit of Undertaking for Key Personnel and Equipment (please see attached prescribed form required by the QC BAC for Infrastructure and Consultancy)
- Equipment Utilization Schedule
- Manpower Schedule
- Construction Schedule and S-Curve
- PERT-CMP
- Construction Methods

Financial Documents

- □ (1) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; and
- (m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC) (please see attached prescribed form required by the QC − BAC for Infrastructure and Consultancy).

Class "B" Documents

□ (n) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;

<u>or</u>

duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

 \Box (o) Original of duly signed and accomplished Financial Bid Form; <u>and</u>

Other documentary requirements under RA No. 9184

- \Box (p) Original of duly signed Bid Prices in the Bill of Quantities; <u>and</u>
- □ (q) Duly accomplished Detailed Estimates Form, including a summary shee indicating the unit prices of construction materials, labor rates, and equipmen rentals used in coming up with the Bid; and
- \Box (r) Cash Flow by Quarter.

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 guidelines¹ for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other 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.

¹ currently based on GPPB Resolution No. 09-2020

- 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].
- I. 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.
- 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;
 - 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

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

Contract Agreement Form for the Procurement of Infrastructure Projects (Revised)

[not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT, made this [insert date] day of [insert month], [insert year] between [name and address of PROCURING ENTITY] (hereinafter called the "Entity") and [name and address of Contractor] (hereinafter called the "Contractor").

WHEREAS, the Entity is desirous that the Contractor execute [name and identification number of contract] (hereinafter called "the Works") and the Entity has accepted the Bid for [contract price in words and figures in specified currency] by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
- 2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, *viz*.:
 - a. Philippine Bidding Documents (PBDs);
 - i. Drawings/Plans;
 - ii. Specifications;
 - iii. Bill of Quantities;
 - iv. General and Special Conditions of Contract;
 - v. Supplemental or Bid Bulletins, if any;
 - Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- c. Performance Security;
- d. Notice of Award of Contract and the Bidder's conforme thereto; and
- e. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. <u>Winning bidder agrees that</u> additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.
- 3. In consideration for the sum of *[total contract price in words and figures]* or such other sums as may be ascertained, *[Named of the bidder]* agrees to *[state the object of the contract]* in accordance with his/her/its Bid.

4. The [Name of the procuring entity] agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

[Insert Name and Signature] [Insert Name and Signature]

[Insert Signatory's Legal Capacity] [Insert Signatory's Legal Capacity]

for: for:

[Insert Procuring Entity] [Insert Name of Supplier]

Acknowledgment

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

Omnibus Sworn Statement (Revised) [shall be submitted with the Bid]

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

AFFIDAVIT

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, <u>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;</u>
- 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]

Performance Securing Declaration (Revised)

[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]

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

PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents] To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
- I/We accept that: I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of one (1) year for the first offense, or two (2) years <u>for the second offense</u>, upon receipt of your Blacklisting Order if I/We have violated my/our obligations under the Contract;
- 3. I/We understand that this Performance Securing Declaration shall cease to be valid upon:
 - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
 - i. Procuring Entity has no claims filed against the contract awardee;
 - ii. It has no claims for labor and materials filed against the contractor; and
 - iii. Other terms of the contract; or
 - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

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]

LIST OF ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS

NAME OF CONTRACTOR:

PROJECT TITLE			PROJECT OWNER & POSTAL ADDRESS		CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR,	TOTAL	DATE OF	TOTAL	PERCE	NTAGE	
(Name of the Contract) & EXACT PROJECT LOCATION	DATE OF CONTRACT	CONTRACT DURATION		NATURE OF WORK	PARTHNER IN A JV) and PERCENTAGE OF PARTICIPATION	CONTRACT VALUE AT AWARD	COMPLETION or ESTIMATED COMPLETION TIME	VALUE AT COMPLETION IF APPLICABLE	ACTUAL ACCOMPLISHMENT	PLANNED ACCOMPLISHMENT	VALUE OF OUTSTANDING WORKS (IN PHP)
									TOTAL AMOUNT OUTSTANDING V		

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page____of ____

LIST OF ALL AWARDED BUT NOT YET STARTED GOVERNMENT AND PRIVATE CONTRACTS OF THE BIDDER

NAME OF CONTRACTOR: _____

PROJECT TITLE: _____

PROJECT TITLE & EXACT LOCATION	MAJOR SCOPE OF WORKS & DATE STARTED	NAME AND ADDRESS OF PROJECT OWNER	CONTRACT PRICE (PHP) AS AWARDED	DATE OF SCHEDULED COMPLETION	ROLE OF BIDDER <u>IN THE</u> <u>CONTRACT SOLE</u> <u>CONTRACTOR / SUB-</u> CONTRACTOR/PARTNER IN A
		÷			
		TOTAL AMOUNT			1
		OF CONTRACT (Php)			

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page____of____

SINGLE LARGEST COMPLETED CONTRACT SIMILAR TO THE CONTRACT TO BE BID

NAME OF CONTRACTOR:

PROJECT TITLE:

PROJECT TITLE (Name of the Contract) & EXACT PROJECT LOCATION	DATE OF CONTRACT	CONTRACT	PROJECT OWNER & POSTAL ADDRESS	NATURE OF WORK	CONTRACTOR'S ROLE (SOLE CONTRACTOR, SUBCONTRACTOR, PARTHNER IN A JV) and PERCENTAGE OF PARTICIPATION	TOTAL CONTRACT VALUE AT AWARD	DATE OF COMPLETION or ESTIMATED COMPLETIONTIME	TOTAL CONTRACT VALUE AT COMPLETION IF APPLICABLE

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page____of ____

LIST OF MAJOR EQUIPMENT TO BE USED FOR THE PROJECT

NAME OF CONTRACTOR:

PROJECT TITLE:

ТҮРЕ	DESCRIPTION / CAPACITY	SERIAL NO.	YEAR ACQUIRED	PRESENT LOCATION (SPECIFIC ADDRESS)	STATUS OF AVAILABILITY (OWNED/LEASED)

Page____of____

A. LIST OF KEY CONSTRUCTION PERSONNEL TO BE ASSIGNED TO THE PROJECT

NAME OF CONTRACTOR:

PROJECT TITLE: _____

NAME	POSITION	AGE	EDUCATIONAL ATTAINMENT	TYPE OF CONSTRUCTION EXPERIENCE	NO.OF YEARS WITH THE CONTRACTOR	PROFESSION	PRC NO.

PHOTOCOPY ADDITIONAL FORMS, IF NECESSARY

Page____of ____

COMPUTATION OF NET FINANCIAL CONTRACTING CAPACITY (NFCC)

NAME OF BIDDER:

CURRENT ASSETS*		РНР	
(LESS) CURRENT LIABILITIES*	(LESS)	PHP	
NETWORTH		PHP	
NETWORTH x 15	x 15	PHP	
(LESS) VALUE OF ALL OUTSTANDING ON-GOING CONTRACTS**	(LESS)	РНР	
(LESS) VALUE OF ALL AWARDED BUT NOT YET STARTED CONTRACTS AS OF DATE**	(LESS)	РНР	
NET FINANCIAL CONTRACTING CAPACITY		РНР	

- NOTES: * CURRENT ASSETS AND LIABILITIES BASED ON AUDITED FINANCIAL STATEMENT FOR THE PRECEDING CALENDAR YEAR SUBMITTED TO B.I.R.
 - ** BASED ON LIST OF ON-GOING AND AWRDED BUT NOT YEY STARTED CONTRACTS SUBMITTED

REPUBLIC OF THE PHILIPPINES)

_____) S. S.

AFFIDAVIT OF UNDERTAKING

I, _____, of legal age, Filipino, _____[OFFICER_OR <u>REPRESENTATIVE</u>]

with office address at ____

having been duly sworn to in accordance with law, hereby voluntary depose and state:

That I am duly authorized representative of the <u>IName of Bidder</u> to execute this undertaking as evidenced by Secretary's Certificate and Board Resolution.

That _____IName of Bidder] _____bidding for the (Name of Project)

That relative to the aforementioned Project, the <u>[Name of Bidder]</u> hereby undertake that the equipment to be use and the key personnel to be assign shall exclusively be used and will only perform to the said project until its completion.

That I am executing this affidavit to attest to the truth of the foregoing and in compliance with the submission of the technical requirements for the public bidding of the said project.

	IN	WITNESS	HEREOF,	I	have	hereunto	signed	my	name	below	this	day
of		1	at									2

AFFIANT FURTHER SAYETH NAUGHT.

Affiant

_____after

	SUBSCRIB	ORE ME this day of					
affiant	exhibiting	to	me on			issued	at
Doc. No.	;						
Page No.	;						
Book No.	. ;						
Series of	2020					-	

Notary Public

