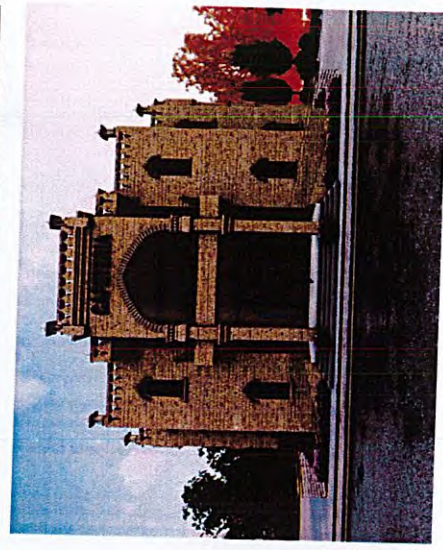
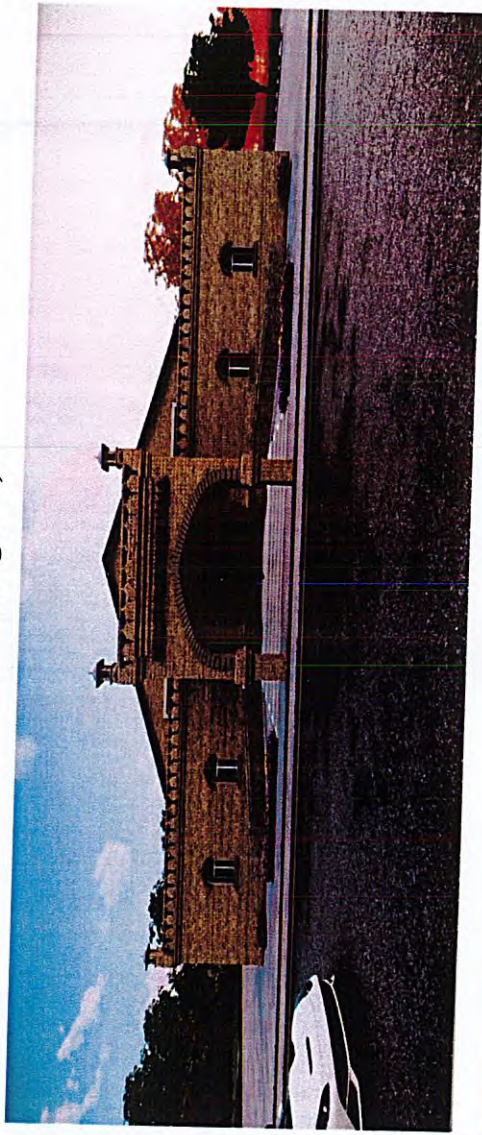


GOVT OF KHYBER PAKHTUNKHWA

WOMEN UNIVERSITY SWABI

**STRENGTHENING OF WOMEN UNIVERSITY SWABI
(NEW CAMPUS)**

**CONSTRUCTION OF MULTI-PURPOSE HALL, LIBRARY,
CAFETERIA AND EXTERNAL INFRASTRUCTURE WORKS
(Package -3)**



March, 2026

CONDITIONS OF CONTRACT

VOLUME-I

2026

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 Project Director
 WOMEN UNIVERSITY SWABI



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[Signature]
Project Director
WOMEN UNIVERSITY SWABI



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Project Director
WOMEN UNIVERSITY SWABI



WOMEN UNIVERSITY SWABI

RE-TENDER NOTICE

ADV NO: WUS/HEC/PSDP/2026-3

E-bids are invited from eligible, reputed and experienced Civil Work contractor/firms/companies, on the basis of Single Stage Two Envelopes bidding procedure for the work "Construction of New Blocks, External Development Works" under the PSDP funded project sponsored by HEC titled "Strengthening of Women University Swabi (New Campus)" at new campus site, having adequate experience of carrying out the projects of similar nature in Government/Autonomous Organizations, registered with Pakistan Engineering Council (PEC) in relevant category and specialization code as mentioned against each, having valid Income Tax and valid KPRA registration. Details of the works are as under:

S#	Name of Work	Engineer Estimate of EC/relevant Codes (Rs. Million)	Required category	Schedule
1	Construction of Academic Block-III (Science Block) at Women University Swabi (New Campus) Package-1	484.875	C-3 or Above/ CE10, EE04 & EE-11 (vi)	Pre-bid meeting date 11-06-2026 (11:00 am)
2	Construction of Examination Block at Women University Swabi (New Campus) Package-2	307.936	C-3 or Above/ CE10, EE04 & EE-11 (vi)	Last date for submission of bids 22-06-2026 (02:00 pm)
3	Construction of Multi-Purpose Hall, Library, Cafeteria and External Infrastructure Works at Women University Swabi (New Campus) Package-3	590.537	C-2 or above/ CE10, EE04 & EE-11 (vi)	Opening of Technical Bids - 22-06-2026 (02:30 pm)
4	External Electrification Works at Women University Swabi (New Campus) Package-4	88.626	C-4 or Above/ EE04, EE05, EE06 & EE-11 (vi), ME03 (ii) & Dep1)	Date of opening of Financial Bid will be announced after the approval of technical bid from competent authority.

Terms & Conditions:

The bidders are instructed to submit their Bids through E-PAD System via <https://kp.epprocure.gov.pk> obtained from the office of the undersigned upon submission of a written application along with photocopies of valid KPRA registration, FBR Registration and PEC Registration, prior to closing date/time. The tender will be proceeded on KP-PPRA website through E-PADS System with Rs. 8,000/- (non-refundable) per package, as printing/processing charges. The tender processing fee already submitted by the firms at the rate of Rs. 8,000/- per package against tender no. WUS/HEC/PSDP/2026-1 shall be adjusted against the re-tender packages accordingly.

The fee shall be paid in the form of bank draft in favour of the Treasurer, Women University Swabi or deposit in University Account No.238739974 (UBL Main Branch Swabi - Code#0323).

Complete detail of Bid Security in shape of CDR i.e. Bank Name, CDR Number and Date must be submitted electronically along-with E-Bid on E-Pak Acquisition & Disposal System (E-PADS)

The original bid security and additional security instruments of all bidders shall be retained until signing of the contract with the best evaluated bidder or till the bid validity period, whichever is earlier as per KP-PPRA notification No. S.R.O (29)/Vol.1-40/2025-26; dated 19.10.2025.



Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi



Project Director
WOMEN UNIVERSITY SWABI

PROJECT DIRECTOR
Women University Swabi (Main Campus)
Khyber Pakhtunkhwa
www.wus.edu.pk
Ph: 0938281890, Email: pd.psd@wus.edu.pk

Note: This tender Notice is also available at university website (www.wus.edu.pk)

- The Earnest money/Bid security @ 2% of Engineer Estimate in favor of the Treasurer, Women University Swabi, in shape of Call Deposit/Bank Guarantee (in original) from any scheduled bank of Pakistan.
- The bidders who quote more than 10% below up to 20% below on Engineer Estimate are required to submit 8% additional Earnest Money/Bid Security in addition to 2% bid security with the Financial Bid in shape of Call Deposit Receipt (CDR) (KPRA Notification No.6058-71, dated May 10, 2022) otherwise his bid will be considered as non-responsive and 2% bid security will be forfeited, and the 2nd lowest bidder and so on will be considered accordingly.
- In case of equal bid 1st, 2nd and 3rd etc. the lowest bidder would be decided through toss/draw by the committee.
- All Taxes etc. shall be deducted from the bill of the contractors/firms/companies at prescribed rates notified by the Government from time to time.
- Bidding shall be carried out on "a above/below/At Par on BOQ cost".
- Incomplete/disfiguring/over-writing/by-hand/delayed bids will be considered non-responsive.
- Those firms which are Black listed or are involved in litigation with any Government department/organizations are not allowed to participate in tendering process.
- Tender Entry Fee @ Rs.0.03% of the total Tender Cost shall be submitted in separate envelop in the shape of original CDR at the name of the Treasurer, Women University Swabi before opening of Tender. Failing which the bidder shall be considered as non-responsive.
- Original CDR of the Earnest money/2% Bid Security with original E-stamp paper to the effect thereof, along with original CDR of the Tender Entry fee and original CDR/Bank receipt (in case of online payment) of the printing cost, must be submitted to Women University, Swabi on or before the closing date and time mentioned above. Photo Copy of CDRs OR Bank receipt will not be accepted and shall be rejected.
- Bidders will be Technically Qualified on the basis of information provided with the Bids, as per the Criteria prescribed in the Bidding Documents. General experience, Personal Capabilities, Equipment Capabilities, Financial Soundness as well as Registration with PEC, KPRA, FBR, etc. shall be strictly calculated in the Technical Bids.
- All the information and documents provided by the bidder must be based on facts beyond any doubt. During analysis / Scrutiny or evaluation of the proposals any misrepresentation, false statement or fake document would make a ground for rejection of the bid and will also be liable for debarment / blacklisting. Any fake document or misrepresentation detected during the currency of the contract, will render the firm to be blacklisted and would be reported to the PEC for cancellation of their registration/license.
- The bidders are at liberty to seek any clarification or further information from the office of the Project Director, Women University Swabi, if desire on any working day during office hours.
- The competent authority reserves the right to reject any or all the tenders by assigning the cogent reasons as per the provision contained in rule 47 of KPRA Rules 2014.

INSTRUCTIONSTO BIDDERS



Project Director
Project Director
WOMEN UNIVERSITY SWABI

INSTRUCTIONS TO BIDDERS

(Note: These Instructions to Bidders along with Bidding Data will not be part of the Contract and will cease to have effect once the contract is signed.)

A. GENERAL

IB.1 Scope of Bid

- 1.1 The Procuring Entity as defined in the Bidding Data hereinafter called "the Procuring Entity" invites bids for the construction and completion of works as described in these Bid Solicitation Documents, and summarized in the Bidding Data hereinafter referred to as the "Works".
- 1.2 The successful bidder will be expected to complete the Works within the time specified in Appendix-A to Bid.
- 1.3 Throughout these Bid Solicitation Documents, the terms 'bid' and 'tender' and their derivatives (bidder / tenderer, bid / tender, bidding / tendering etc.) are synonymous.

IB.2 Source of Funds

- 2.1 The expenditure on this project/scheme will be met from the Public Funds of the Provincial Government of Khyber Pakhtunkhwa (GoKP), as defined in Rule-2(I)(I) of the KP Public Procurement Rules, 2014, or through a loan/credit from the source (s) as indicated in the Bidding Data in various currencies towards the cost of the Project/Scheme specified in the Bidding Data, and it is intended that part of these Public Funds or proceeds of this loan/credit will be applied to eligible payments under the Contract, for which these Bid Solicitation Documents are issued.

IB.3 Eligible Bidders

- 3.1 This Invitation for Bids is opened to all bidders meeting the following requirements:
 - a. Duly licensed by the Pakistan Engineering Council (PEC) in the category relevant to the value of the Works.
 - b. Is neither associated, nor has been associated, directly or indirectly, with the Consultants or any other entity that has prepared the design, specifications, and other documents for the Project/Scheme or being proposed for any position in the Project Management.
 - c. duly registered with the Khyber Pakhtunkhwa Revenue Authority for the purpose of Sales Tax on Services.

- 3.2 A bidder having a conflict of interest will be declared as non-responsive if the bidder has a close business relationship with the Procuring Entity's professional personnel, who directly or indirectly involved in any part of: (i) the preparation of the bidding documents for the Works, (ii) the Bid evaluation or (iii) the supervision of such Works.

IB.4 One Bid per Bidder

- 4.1 Each bidder shall submit only one bid either by himself, or as a partner in a joint venture. A bidder who submits or participates in more than one bid (other than alternatives pursuant to Clause IB.16) will be disqualified.

IB.5 Cost of Bidding

- 5.1 The bidders shall bear all costs associated with the preparation and submission of their respective bids and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

IB.6 Site Visit

- 6.1 The bidders are advised to visit and examine the site of Works and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. All cost in this respect shall be at the bidder's own expense.
- 6.2 The bidders and any of their personnel or representatives will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and representatives, will release and indemnify the Procuring Entity, its personnel and representatives from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of such inspection.

B. BIDDING DOCUMENTS

IB.7 Contents of Bidding Documents

- 7.1 The Bid Solicitation Documents, in addition to Invitation for Bids, are those stated below, and should be read in conjunction with any Addenda/Corrigenda issued in accordance with Clause IB.9.

1. Instructions to Bidders.
2. Bidding Data.
3. General Conditions of Contract, Part-I (GCC).
4. Special Conditions of Contract, Part-II (SCC).
5. Specifications – Special Provisions.
6. Specifications – Technical Provisions.
7. Form of Bid & Appendices to Bid.
8. Bill of Quantities (Appendix-D to Bid).
9. Form of Bid Security.
10. Form of Additional Security (if required)
11. Form of Contract Agreement.
12. Forms of Performance Security and Mobilization Advance Guarantee/Bond.
13. Drawings.

- 7.2 The bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of bid submission will be at the Bidders own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the Bid Solicitation Documents will be rejected.

IB.8 Clarification of Bidding Documents

- 8.1 Any prospective bidder requiring any clarification (s) in respect of the Bid Solicitation Documents may notify the Procuring Entity in writing at the Procuring Entity's address indicated in the Invitation for Bids. The Procuring Entity will respond to any request for clarification, which it receives earlier than 07 days prior to the deadline for submission of bids.
- Copies of the Procuring Entities response will be forwarded to all buyers of the Bid Solicitation Documents, including a description of the enquiry but without identifying its source.

IB.9 Amendment of Bidding Documents

- 9.1 At any time prior to the deadline for submission of bids, the Procuring Entity may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder(s), modify the Bid Solicitation Documents by issuing addendum/corrigendum.
- 9.2 Any addendum/corrigendum thus issued/published shall be part of the Bid Solicitation Documents pursuant to Sub-Clause 7.1 hereof, and shall be communicated in writing to all buyers of the Bid Solicitation Documents.
- 9.3 To afford prospective bidders reasonable time in which to take an addendum/corrigendum into account in preparing their bids, the Procuring Entity may extend the deadline for submission of bids in accordance with Clause IB.20 (10).

C. PREPARATION OF BIDS

IB.10 Language of Bid

- 10 The bid, all correspondence, and documents related to the bid exchanged by a bidder and the Procuring Entity shall be in the bid language stipulated in the Bidding Data and Special Conditions of Contract.

IB.11 Documents Accompanying the Bid

11.1 Each bidder shall:

- (a) submit a written power of attorney authorizing the signatory of the bid to act for and on behalf of the bidder;
- (b) update the information indicated and listed in the Bidding Data and previously submitted with the application for prequalification, and continue to meet the minimum criteria set out in the prequalification documents which as a minimum, would include the following:
- (i) Evidence of access to financial resources along with average annual construction turnover;
 - (ii) Financial predictions for the current year and the two following years including the effect of known commitments;
 - (iii) Work commitments since prequalification;
 - (iv) Current litigation information; and
 - (v) Availability of critical equipment.
- and
- (c) furnish a technical proposal taking into account the various Appendices to Bid specially the following:
- Appendix-E to Bid Proposed Construction Schedule Appendix-F to Bid Method of Performing the Work Appendix-G to Bid List of Major Equipment Appendix-K to Bid Organization Chart for Supervisory Staff
- and other pertinent information such as mobilization program etc;
- 11.2 Bids submitted by a joint venture of two (2) or more firms shall comply with the following requirements:
- (a) the bid and in case of a successful bid, the Form of Contract Agreement shall be signed so as to be legally binding on all partners;

- (b) one of the joint venture partners shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture partners;
- (c) the partner-in-charge shall always be duly authorized to deal with the Procuring Entity regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
- (d) all partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the Contract in accordance with the Contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para(b) above as well as in the Form of Bid and in the Form of Contract Agreement (in case of a successful bid); and
- (e) a copy of the agreement entered into by the joint venture partners shall be submitted with the bid stating the conditions under which it will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the Contract and can give valid receipts on behalf of the joint venture, the proportionate participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. No amendments / modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partner without prior written consent of the Procuring Entity.

11.3 Bidders shall also submit proposals of work methods and schedule, in sufficient detail to demonstrate the adequacy of the Bidders' proposals to meet the technical specifications and the completion time referred to in Sub-Clause 1.2 hereof.

IB.12 Bid Prices

- 12.1 Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in Sub-Clause 1.1 hereof, based on the unit rates and / or prices submitted by the bidder.
- 12.2 The bidders shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Unit rate offered for an item shall be considered upto two significant decimals places for evaluation purposes. Items against which no rate or price is entered by a bidder will not be paid for by the Procuring Entity when executed and shall be deemed covered by rates and prices for other items in the Bill of Quantities. Corrections in rates and prices, if any, shall be made by crossing out, initialing, dating and re-writing.
- 12.3 All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to the deadline for submission of bids shall be included in the rates and prices and the total Bid Price submitted by a bidder.
Additional / reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed / deducted as per Sub-Clause 70.2 of the General Conditions of Contract Part-I.
- 12.4 The rates and prices quoted by the bidders are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 70 of the Conditions of Contract. The Procuring Entity shall furnish the prescribed information for the price adjustment formulae in Appendix-C to Bid, and shall submit with their bids such other supporting information as required under the said Clause.

IB.13 Currencies of Bid and Payment

- 13.1 The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. A bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Procuring Entity's country (referred to as the "Foreign Currency Requirements") shall indicate the same in Appendix-B to Bid. The proportion of the Bid Price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements either (i) entirely in the currency of the Bidder's home country or, (ii) at the bidder's option, entirely in Pak rupees provided always that a bidder expecting to incur expenditures in a currency or currencies other than those stated in (i) and (ii) above for a portion of the foreign currency requirements, and wishing to be paid accordingly, shall indicate the respective portions in his bid.
- 13.2 The rates of exchange to be used by the bidder for currency conversion shall be the TT&OD Selling Rates published or authorized by the State Bank of Pakistan prevailing on the date 28 days prior to the deadline for submission of bids.

For the purpose of payments, the exchange rates used in bid preparation shall apply for the duration of the Contract.

IB.14 Bid Validity

- 14.1 Bids shall remain valid for the period stipulated in the Bidding Data after the Date of Bid Opening specified in Clause IB.23.
- 14.2 In exceptional circumstances, prior to expiry of the original bid validity period, the Procuring Entity may request that the bidders extend the period of validity for a specified additional period which shall in no case be more than the original bid validity period. The request and the responses thereto shall be made in writing. A bidder may refuse the request without forfeiting his Bid Security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his Bid Security for the period of the extension, and in compliance with Clause IB.15 in all respects. The bidder shall bear all costs to be incurred on such extensions.

IB.15 Bid Security

- 15.1 Each bidder shall furnish, as part of his bid, a Bid Security in the amount stipulated in the Bidding Data in Pak Rupees or an equivalent amount in a freely convertible currency. [The bid security shall be submitted from the account of the firm/bidder/contractor who submits the bid]²
- 15.2 The Bid Security shall be, at the option of the bidder, in the form of Deposit at Call or a Bank Guarantee issued by a Scheduled Bank in Pakistan or from a foreign bank duly counter guaranteed by a Scheduled Bank in Pakistan in favour of the Procuring Entity valid for a period 28 days beyond the Bid Validity date.
- 15.3 Any bid not accompanied by an acceptable Bid Security shall be rejected by the Procuring Entity as non-responsive.
- 15.4 The bid securities of unsuccessful bidders will be returned as promptly as possible, but not later than 28 days after the expiration of the period of Bid Validity.
- 15.5 ["The bid security of the successful bidder be retained with the Procuring Entity till completion of the defect liability period and the amount of guarantee will be reduced by an equivalent amount"]³
- 15.6 The Bid Security may be forfeited:

ALLIED ENGINEERING CONSULTANTS

- (a) if the bidder withdraws his bid except as provided in Sub-Clause 22.1;
- (b) if the bidder does not accept the correction of his Bid Price pursuant to Sub-Clause 27.2 hereof; or
- (c) In the case of successful bidder, if he fails within the specified time limit to:
 - (i) furnish the required Performance Security; or
 - (ii) sign the Contract Agreement.

² Inserted by KPPRA Notification No. KPPRA/M&E/Estt:/1-12/2017-18 dated April 05 2018.

³ Substituted by KPPRA Notification No. KPPRA/M&E/Estt:/1-4/2016 dated May 24, 201


Project Director
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IB.16 Alternate Proposals by Bidder

- 16.1 Should any bidder consider that he can offer any advantages to the Procuring Entity by a modification to the designs, specifications or other conditions, he may, in addition to his bid to be submitted in strict compliance with the Bid Solicitation Documents, submit any Alternate Proposal(s) containing (a) relevant design calculations; (b) technical specifications; (c) proposed construction methodology; and (d) any other relevant details / conditions, provided always that the total sum entered on the Form of Bid shall be that which represents complete compliance with the Bid Solicitation Documents.
- 16.2 Alternate Proposal(s), if any, of the lowest evaluated responsive bidder only may be considered by the Procuring Entity as the basis for the award of Contract to such bidder.

IB.17 Pre-Bid Meeting

- 17.1 The Procuring Entity may, on its own motion or at the request of any prospective bidder(s), hold a pre-bid meeting to clarify issues, and to answer any questions on matters related to the Bid Solicitation Documents or any other matter that may be raised at that stage. The date, time, and venue of pre-bid meeting, if convened, is as stipulated in the Bidding Data. All prospective bidders or their authorized representatives shall be invited to attend such a pre-bid meeting.
- 17.2 The bidders are requested to submit questions, if any, in writing so as to reach the Procuring Entity not later than seven (07) days before the proposed pre-bid meeting.
- 17.3 Minutes of the pre-bid meeting, including the text of the questions raised and the replies given, will be transmitted without delay to all buyers of the Bid Solicitation Documents. Any modification of the Bid Solicitation Documents listed in Sub-Clause 7.1 hereof, which may become necessary as a result of the pre-bid meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum/Corrigendum pursuant to Clause IB.9, and not through the minutes of the pre-bid meeting.
- 17.4 Absence at the pre-bid meeting will not be a cause for disqualification of a bidder.

IB.18 Format and Signing of Bid

- 18.1 Bidders are particularly directed that the amount entered on the Form of Bid shall be for performing the Contract strictly in accordance with the Bid Solicitation Documents.
- 18.2 All appendices to Bid are to be properly completed and signed.
- 18.3 No alteration is to be made in the Form of Bid nor in the Appendices thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the bid may be rejected.
- 18.4 Each bidder shall prepare by filling out the forms completely and without alterations one (1) original and number of copies, specified in the Bidding Data, of the documents comprising the bid as described in Clause IB.7 and clearly mark them "ORIGINAL" and "COPY" as appropriate. In the event of discrepancy between them, the original shall prevail.
- 18.5 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies, Photostats are also acceptable) and shall be signed by a person or persons duly authorized to sign on behalf of the bidder pursuant to Sub-Clause 11.1(a) hereof. All pages of the bid shall be initialed and stamped by the person or persons signing the bid.

- 18.6 The bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the Procuring Entity, or as are necessary to correct errors made by the bidder, in which case such corrections shall be initiated by the person or persons signing the bid.
- 18.7 Bidders shall indicate in the space provided in the Form of Bid their full and proper addresses at which notices may be legally served on them and to which all correspondence in connection with their bids and the Contract is to be sent.
- 18.8 Bidders should retain a copy of the Bidding Documents as their file copy.

D. SUBMISSION OF BIDS

IB.19 Sealing and Marking of Bids

- 19.1 Each bidder shall submit his bid as under:
- (a) ORIGINAL and each copy of the Bid shall be separately sealed and put in separate envelopes and marked as such.
 - (b) The envelopes containing the ORIGINAL and copies will be put in one sealed envelope and addressed / identified as given in Sub- Clause 19.2 hereof.
- 19.2 The inner and outer envelopes shall:
- (a) be addressed to the Procuring Entity at the address provided in the Bidding data;
 - (b) bear the name and identification number of the contract as defined in the Bidding Data; and
 - (c) provide a warning not to open before the time and date for bid opening, as specified in the Bidding Data.
- 19.3 In addition to the identification required in Sub- Clause 19.2 hereof, the inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared "late" pursuant to Clause IB.21.
- 19.4 If the outer envelope is not sealed and marked as above, the Procuring Entity will assume no responsibility for the misplacement or premature opening of the Bid.

IB.20 Deadline for Submission of Bids

- 20.1 (a) Complete Bids must be received by the Procuring Entity at the address specified no later than the time and date stipulated in the Bidding Data
- In the event of the specified date for the submission of bids declared a holiday for the Procuring Entity, the Bids will be received up to the appointed time on the next working day.
- (b) Bids with charges payable will not be accepted, nor will arrangements be undertaken to collect the bids from any delivery point other than that specified above. Bidders shall bear all expenses incurred in the preparation and delivery of bids. No claims will be entertained for refund of such expenses.
- (c) Where delivery of a bid is by mail and the bidder wishes to receive an acknowledgment of receipt of such bid, he shall make a request for such acknowledgment in a separate letter attached to but not included in the sealed bid package.
- (d) Upon request, acknowledgment of receipt of bids will be provided to those making delivery in person or by messenger.
- 20.2 The Procuring Entity may, at his discretion, extend the deadline for submission of bids by issuing an amendment in accordance with Clause IB.9, in which case

all rights and obligations of the Procuring Entity and the bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

IB.21 Late Bids

- 21.1 (a) Any bid received by the Procuring Entity after the deadline for submission of bids prescribed in Clause IB.20 will be returned unopened to such bidder.
- (b) Delays in the mail, delays of person in transit, or delivery of a bid to the wrong office or due to any other reason, shall not be accepted as an excuse for failure to deliver a bid at the proper place and time. It shall be the bidder's responsibility to determine the manner in which timely delivery of his bid will be accomplished either in person, by messenger or by mail.

IB.22 Modification, Substitution and Withdrawal of Bids

- 22.1 Any bidder may modify, substitute or withdraw his bid after bid submission provided that the modification, substitution or written notice of withdrawal is received by the Procuring Entity prior to the deadline or the extended deadline pursuant to clause IB.20.2, for submission of bids.
- 22.2 The modification, substitution or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" as appropriate.
- 22.3 No bid may be modified by a bidder after the deadline for submission of bids except in accordance with Sub-Clauses 22.1 and 27.2.
- 22.4 Withdrawal of a bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in the Form of Bid may result in forfeiture of the Bid Security in pursuance to Clause IB.15.

E. BID OPENING AND EVALUATION

IB.23 Bid Opening

- 23.1 The Procuring Entity will open all the bids received (except those received late), including withdrawals, substitution and modifications made pursuant to Clause IB.22, in the presence of bidders' or their representatives who choose to attend, at the time, date and location stipulated in the Bidding Data. In the event of the specified date for the opening of bids being declared a holiday for the Procuring Entity, the Bids will be opened at the appointed time and location on the next working day. The bidders' representatives who are present shall sign a register evidencing their attendance.
- 23.2 Envelopes marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" shall be opened and read out first. Bid for which an acceptable notice of withdrawal has been submitted pursuant to Clause IB.22 shall not be opened.
- 23.3 The bidder's name, total Bid Price and price of any Alternate Proposal(s), any discounts, bid modifications, substitution and withdrawals, the presence or absence of Bid Security and such other details as the Procuring Entity may consider appropriate, will be announced by the Procuring Entity at the opening of bids.
- 23.4 Procuring Entity shall prepare minutes of the bid opening including the information disclosed to those present in accordance with the Sub-Clause 23.3.

IB.24 Process to be Confidential

- 24.1 Information relating to the examination, clarification, evaluation, and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of the final result of the bid evaluation, which shall be done at least ten (10) days prior to the award of Contract, and place the same on its and Authority's Website (under Rule 45 of the KP Public Procurement Rules, 2014). The announcement to all Bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the bids evaluated. Any effort by a bidder to influence the Procuring Entity's processing of bids or award decisions may result in the rejection of such bidder's bid. Whereas any bidder feeling aggrieved may follow Section 35 of the KPPRA Act, 2012, read with the Khyber Pakhtunkhwa Public Procurement Grievance Redressal Rules, 2017.

IB.25 Clarification of Bids

- 25.1 To assist in the examination, evaluation and comparison of bids, the Procuring Entity may, at his discretion, ask any bidder for clarification of his bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the bids in accordance with Clause IB.28.

IB.26 Examination of Bids and Determination of Responsiveness

- 26.1 Prior to the detailed evaluation of bids, the Procuring Entity will determine whether each bid is substantially responsive to the requirements of the Bid Solicitation Documents.
- 26.2 A substantially responsive bid is one which (i) meets the eligibility criteria; (ii) has been properly signed; (iii) is accompanied by the required Bid Security and Additional Security (if any), and (iv) conforms to all the terms, conditions, and specifications of the Bid Solicitation Documents, without material deviation or reservation.
- 26.3 If a bid is not substantially responsive, it will be rejected by the Procuring Entity and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

IB.27 Correction of Errors

- 27.1 Bids determined to be substantially responsive will be checked by the Procuring Entity for any arithmetic errors. Errors will be corrected by the Procuring Entity as follows:
- (a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern and

- (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Procuring Entity there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.
- 27.2 The amount stated in the Form of Bid will be adjusted by the Procuring Entity in accordance with the above procedure for the correction of errors and with the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder does not accept the corrected bid price, his bid will be rejected and the Bid Security shall be forfeited in accordance with Sub-Clause 15.6(b) hereof.

IB-28 Evaluation and Comparison of Bids

- 28.1 The Procuring Entity will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause IB.26.
- 28.2 In evaluating the bids, the Procuring Entity will determine for each bid the evaluated Bid Price by adjusting the Bid Price as follows:
- (a) making any correction for errors pursuant to Clause IB.27;
 - (b) excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including competitively priced Day work; and
 - (c) making an appropriate adjustment for any other acceptable variation or deviation, including discounts or other price modifications in the bids.
- 28.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
- 28.4 If the Bid of the successful bidder is seriously unbalanced in relation to the Procuring Entity's estimate of the cost of work to be performed under the Contract, the Procuring Entity may require the bidder to produce detailed price analysis for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Procuring Entity may require that the amount of the Performance Security set forth in Clause IB.32 be increased at the expense of the successful bidder to a level sufficient to protect the Procuring Entity against financial loss in the event of default of the successful bidder under the Contract.

IB-29 Award of the Contract

- 29.1 Subject to Clauses IB.30 and IB.34, the Procuring Entity will award the Contract to the bidder, whose bid has been determined to be substantially responsive to the Bid Solicitation Documents, and who has offered the lowest evaluated Bid Price, provided that such bidder has been determined to be eligible in accordance with the provisions of Clause IB.3, and qualify pursuant to Sub-Clause IB 29.2.
- 29.2 The Procuring Entity, at any stage of the bid evaluation, having credible reasons for or *prima facie* evidence of any defect in supplier's or contractor's capacities, may require the suppliers or contractors to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not:

Provided that such qualification shall only be laid down after recording reasons therefore in writing. They shall form part of the records of that bid evaluation report.

IB.30 Procuring Entity's Right to Accept any Bid and to Reject any or all Bids

- 30.1 Notwithstanding Clause IB.29, the Procuring Entity reserves the right to accept or reject any Bid, and to annul the bidding process, and reject all bids, at any time prior to acceptance of a bid or proposal, without thereby incurring any liability to the affected bidders or any obligation except that the grounds for rejection of all bids shall upon request be communicated to any bidder who submitted a bid, without justification of grounds. Rejection of all bids shall be notified to all bidders promptly.

IB.31 Notification of Award

- 31.1 Prior to expiration of the period of bid validity prescribed by the Procuring Entity, the Procuring Entity will notify the successful bidder in writing ("Letter of Acceptance") that his Bid has been accepted. This letter shall name the sum which the Procuring Entity will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the "Contract Price").
- 31.2 No Negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted, however, Procuring Entity may have clarification meetings to get clarify any item in the bid evaluation report.
- 31.3 The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the Procuring Entity and the bidder till signing of the formal Contract Agreement.
- 31.4 Upon furnishing by the successful bidder of a Performance Security, the Procuring Entity will promptly notify the other bidders that their Bids have been unsuccessful and return their bid securities.

IB.32 Performance Security

- 32.1 The successful bidder shall furnish to the Procuring Entity a Performance Security in the form and the amount stipulated in the Bidding Data and the Conditions of Contract.
- 32.2 Failure of the successful bidder to comply with the requirements of Sub-Clause IB.32.1 or Clauses IB.33 or IB.35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. and Additional Security (if any).

IB.33 Signing of Contract Agreement

- 33.1 Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the Procuring Entity will send the successful bidder the Contract Agreement in the form provided in the Bid Solicitation Documents, incorporating all agreements between the parties.

- 33.2 The formal Agreement between the Procuring Entity and the successful bidder shall be executed within 15 days of the receipt of the Contract Agreement by the successful bidder from the Procuring Entity.

IB.34 General Performance of the Bidders

The Procuring Entity reserves the right to obtain information regarding performance of the bidders on their previously awarded contracts/works. The Procuring Entity may in case of consistent poor performance of any Bidder as reported by the Procuring Entity's of the previously awarded contracts, inter alia, reject his bid and/or refer the case to the Pakistan Engineering Council (PEC) and KPPRA. Upon such reference, PEC / KPPRA in accordance with its rules, procedures and relevant laws of the land take such action as may be deemed appropriate under the circumstances of the case including black listing of such Bidder and debarring him from participation in future bidding for similar works.

IB.35 Integrity Pact

The Bidder shall sign and stamp the Integrity Pact provided at Appendix-L to Bid in the Bidding Documents for all procurement contracts exceeding Rupees ten million. Failure to provide such Integrity Pact shall make the bidder non- responsive.

IB.36 Instructions not Part of Contract

Bids shall be prepared and submitted in accordance with these Instructions which are provided to assist bidders in preparing their bids, and do not constitute part of the Bid or the Contract Documents.

BIDDING DATA

Bidding Data**Bidding Data Sheet**

The following specific data for the Works to be bided shall complement, amend or supplement the provisions in the instructions to Bidders. Wherever there is a conflict, the provisions herein shall prevail over those in the instructions to Bidders.

Instruction to Bidders**Clause Reference****1.1 Name and Address of the Procuring Entity**

The Employer is:

Women University Swabi

Main Campus, Tehsil Topi, District Swabi

Postal Code: 23460

(Hereinafter called "The Employer" Which expression shall include the successors, Legal Representative and Permitted Assignees).

The Employer Representative is:

Project Director

Women University Swabi

Main Campus, Tehsil Topi, District Swabi

Postal Code: 23460

Tel:- +92 938 281890

Email: pd.psd@wus.edu.pk

Name of the Project & Summary of Works

The name of the Project is:- **Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi**

The Summary of Works:

Women University, Swabi intends to construct the new **Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works** within its premises under PSDP project. Works under this Package-3 includes **Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi** and other ancillary works as per approved design and drawings.

The scope of works mainly comprises construction of civil, electrical, communication, water supply, sewerage, drainage works, etc. and related ancillary works lying within the boundaries and limits shown on the Drawings and any such additional areas adjacent

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thereto as may be designated by the Engineer from time to time for the construction to be performed under the Contract, and all such areas and additional areas shall be comprised in the Site.

IB.2 Source of Funds

2.1 Source of Funds

The project is being funded by HEC.

IB.7 Contents of Bidding Documents

7.1

Delete the text of Sub-Clause 7.1 and substitute it with the following:

The Bidding Documents are those stated below, and should be read in conjunction with any Addenda issued in accordance with the Clause IB.9.

Technical Bid

7.1.1 Volume – I

- Instruction to Bidders
- Bidding Data
- Form of Bid & Appendices to Bid (excluding Appendix-D)
- Forms of Bid Security Performance Security, Contract Agreement, Mobilization Advance Bank Guarantee
- Part-I- General Conditions of Contract
- Part-II- Particular Conditions of Contract
- Specifications – Special Provisions

7.1.2 Volume-II

- Specifications- Technical Provisions

7.1.3 Volume-III

- Bid Drawings

Price Bid

7.1.5 Volume-IV

- Letter Of Price Bid
- Preamble to Bill of Quantities
- Appendix- D to Bid (Bill of Quantities)
- Bid Security

IB.8

Time limit for clarification

8.1

Delete the word “07 days” and replace with “10 days”

IB.10 Language of Bid

Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi



Project Director
WOMEN UNIVERSITY SWABI



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10.1 English

IB.11 Documents Accompanying the Bid

11.1(a) The Bidder shall submit with its Technical Bid the following documents:

Volume-I

- I. Letter of Technical Bid
- II. Written power of attorney authorizing the signatory of the Bid
- III. Original Bidding Documents (Volume-I)
- IV. Dully filled in Schedules to Bid (Except Appendix-D to Bid)
- V. Qualifications Documents establishing bidder's eligibility as per Appendix M.

Volume-II

- i. Specifications – Technical

Volume – III

- i. Bid Drawings

11.1(b) The Bidder shall submit with its **Price Bid** the following documents:

Volume – IV

- (i) Letter of Price Bid
- (ii) Preamble to Bill of Quantities
- (iii) Appendix – D to Bid (Bill of Quantities)
- (iv) Bid Security

IB.12 Bid Prices

12.1 Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in Sub-Clause 1.1 hereof, based on the Priced Bill of Quantities with premium/rebate submitted by the bidder.

12.2 The Quantities Set Out in the Bill of Quantities are estimated only. The actual sum to be paid to the Contractor whose tender is accepted will be determined by measuring the work actually done in accordance with the contract and valuing it at the rates or prices given in the Govt. of Khyber Pakhtunkhwa Schedule of Rates MRS-2025 (1st Bi-Annual) and Premium/rebate quoted by the Contractor in the Bill of Quantities.

12.3 All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to the


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deadline for submission of bids shall be included in the rates and prices and the total Bid Price submitted by a bidder.

Additional / reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed / deducted as per Sub-Clause 70.2 of the General Conditions of Contract Part-I.

- 12.4 The rates and prices quoted by the bidders are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 70 of the Conditions of Contract. The Procuring Entity shall furnish the prescribed information for the price adjustment formulae in Appendix-C to Bid, and shall submit with their bids such other supporting information as required under the said Clause.

IB. 13 Currencies of Bid and payment.

- 13.1 Delete the text of sub-clause 13.1 and substitute with the following.
The payments to the contractor for the works done shall be made in Pakistani Rupees

- 13.2 The sub-clause is deleted in its entirety.

IB. 14 Bid validity

- 14.1 **Period of Bid validity:**
One hundred twenty (120) days

IB. 15 Amount of Bid security

- 15.1 2% of Estimated Cost in Shape of Call Deposit/ Bank Guarantee

IB 16. Alternate proposals by Bidder

The clause is deleted in its entirety

Clause IB 17.

Sub-clause 17.1

Pre-Bid Meeting

Venue, time, and date of the pre-Bid meeting:

The Bidder or his official representative are invited to attend a pre-Bid meeting which will take place on the date, time and place as stated in invitation for Bids.

Sub-clause 17.2.

Delete the text of sub-clause 17.2 and substitute with the following

The Bidders are requested to submit any questions in writing or by email to reach the Employer two (2) days before the date given for pre-bid meeting in the Invitation for Bids.

Clause IB. 18 Format and signing of Bid


PROJECT DIRECTOR
Women University Swabi



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Sub-Clause 18.4

Number of copies of Bid:

The Bidder shall prepare and submit the original and one copy documents comprising the Bid as described in clause 7 of these instructions to Bidders and clearly marked “ORIGINAL” and “COPY”.

Sub-clause 18.5

Delete the text of Sub-clause 18.5 and substitute with the following.

The bidder shall follow the Bids procedure through e-PADS duly adopted by the Government of Khyber Pakhtunkhwa (as per KPPRA rules) and/or as mentioned in the Notice Inviting Tenders. All instructions regarding uploading, labeling of files as “ORIGINAL” and “COPY”, and submission deadlines shall be followed as provided in the Bidding Data.

Clause IB 19

Sub-Clause 19.1

Sealing and Marking of Bids

Delete the text of sub-clause 19.1 (a) and (b) and substitute with the following:

“The contractor will submit bid security and additional bid security (if required) in original to the employer on or before the closing date & time of submission of technical bid.”

Sub-Clause 19.2

(a) Employer’s address for the purpose of Bid submission is as follows:

Project Director

Women University Swabi

Main Campus, Tehsil Topi, District Swabi

Postal Code: 23460

Tel:- +92 938 281890

Email: pd.psd@wus.edu.pk

(b) Name & identification number of the contract is as follows:

Name of Project:

Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi

Identification Number: Not Applicable

Clause IB 20

Sub clause 20.1(a)

Deadline for submission of Bids

Time and date of bid submission and bid opening shall be as per the data provided in the invitation for Bids.

Clause-IB.23

Sub-Clause 23.1

Bid Opening

Venue, time, and date of Bid opening.

As provided in invitation for Bid.

Evaluation and comparison of Bids

Delete the sub-clause IB 28.2 (c) in its entirety

The bidder who quote more than 10% below on the BOQ Cost is required to submit 8% Additional Earnest Money/ Bid Security with Financial bid in

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shape of Call Deposit Receipt (CDR) otherwise his Bid will be considered as non-Responsive and the 2nd lowest bidder and so on will be considered accordingly.

Clause IB. 32

Sub-clause 32.1

Performance Security

Delete the text of sub-clause 32.1 and substitute with the following:

The Successful bidder shall provide a Performance Security in the prescribed Form annexed to these Documents. The said Security shall be furnished by the successful bidder within fourteen (14) days after the receipt of Letter of Acceptance. The Performance Security shall be of an amount equal to ten percent (10%) of the Contract Price in the currency (i.e) of the Contract at the option of the bidder, in the form of Bank Guarantee from any Scheduled Bank in Pakistan or from a Bank located outside Pakistan duly counter-guaranteed by a Scheduled Bank in Pakistan.

Clause IB. 33

Sub Clause. 33.1

Signing of Contract Agreement

Delete the text of Sub-Clause 33.1 and substitute with the following:

The successful bidder shall submit along with the Performance Security a draft copy of Agreement as per the form of Agreement within the time period stipulated in clause IB-32.1 provided in the Bidding Documents, incorporating all agreements between the parties

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LETTER OF TECHNICAL BID AND APPENDICES TO BID

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FORM OF BID

To:

Project Director
Women University Swabi
Main Campus, Tehsil Topi, District Swabi
Postal Code: 23460
Tel:- +92 938 281890

Gentleman,

1. Having examined the Bidding Documents including Instructions to Bidders, Bidding Data, Conditions of Contract. Specifications, Drawings and Bill of Quantities and Addenda Nos. _____ for the execution of the above-named Works, we, the undersigned, offer to execute and complete such Works and remedy any defects therein in conformity with the Conditions of Contract. Specifications, Drawings, Bill of Quantities and Addenda for the sum of Rs. (Rupees _____) Or such other sum as may be ascertained in accordance with the said conditions.
2. We understand that all the Appendices attached hereto form part of this Bid.
3. As security for due performance of the undertakings and obligations of this Bid, we submit herewith a Bid Security in the amount of Rupees _____ (Rs. _____) drawn in your favor or made payable to you and valid for a period of _____ days beginning from the date Bids are opened.
4. We undertake, if our Bid is accepted, to commence the Works and to complete the whole of the Works comprised in the Contract within the time stated in Appendix-A to Bid.
5. We agree to abide by this Bid for the period of _____ days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.

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FB-2

8. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this _____ day of _____ 20____

Signature: _____

in the capacity of _____ duly authorized to sign Bids for and on behalf of

(Name of Bidder in Block Capitals)
(Seal)

Address: _____

Witness:

Signature: _____

Name: _____

Address: _____

Occupation _____

Name.....
In Capacity Of.....
Signed.....
Duly authorized to sign the Bid for and on behalf of.....
Date.....
Address.....


PROJECT DIRECTOR
Women University Swabi



SPECIAL STIPULATIONS

Clause

Conditions of Contract

1.	Engineer's Authority to issue Variation in Emergency	2.1	02% of the Contract Price stated in the Letter of Acceptance.
2.	Amount of Performance Security	10.1	10% of Contract Price stated in the Letter of Acceptance.
3.	Time for Furnishing Program	14.1	Within 42 days from the date of receipt of Letter of Acceptance.
4.	Minimum amount of Third-Party Insurance	23.2	Up to Rs.500,000/- per occurrence with number of occurrences unlimited.
5.	Time for Commencement	41.1	Within 14 days from the date of receipt of Engineer's Notice to Commence which shall be issued within fourteen (14) days after signing of Contract Agreement.
6.	Time for Completion	43.1, 48.2	548 Calendar Days from the date of Engineer's Notice to Commence the Work
7.	a) Amount of Liquidated Damages	47.1	One Tenth of One Percent (0.10%) for each day of delay in completion of the Works subject to a maximum of ten percent (10%) of Contract Price Stated in Letter of Acceptance
	b) Amount of Bonus	47.3	NOT APPLICABLE
8.	Defects Liability Period	49.1	365 days from the effective date of Taking Over Certificate.
9.	Percentage of Retention Money	60.2	10 % of the amount of Interim Payment Certificate.
10.	Limit of Retention Money	60.2	8 % of Contract Price stated in the Letter of Acceptance.
11.	Minimum amount of Interim Payment Certificates (Running Bills)	60.2	Rs. 32 (Million)
12.	Time of Payment from delivery of Engineer's Interim Payment Certificate to the Procuring.	60.10	28 days in case of local currency or 42 days in case of foreign funded projects.
13.	Mobilization Advance * (Interest Free)	60.12	15 % of contract price

Authorized Signature and Official Stamp

Name

Date.....



Yasir
PROJECT DIRECTOR
Women University Swabi

FOREIGN CURRENCY REQUIREMENTS

NOT USED

Authorized Signature and Official Stamp
Name
Date.....


PROJECT DIRECTOR
Women University Swabi



**PRICE ADJUSTMENT UNDER CLAUSE 70
OF CONDITION OF CONTRACT**

The source of prices and the weightages or coefficients for use in the adjustment formula under Clause 70 shall be as follows:

Cost Element	Description	Weightages	Applicable index
1	2		4
(i)	Fixed Portion	0.42	
(ii)	Local Labour	0.10	Government of Pakistan (GP) Federal Bureau of Statistics (FBS) Monthly Statistical Bulletin.
(iii)	Cement – in bags	0.08	“ “ “ “
(iv)	Reinforcing Steel	0.25	“ “ “ “
(v)	High Speed Diesel (HSD)	0.15	“ “ “ “
(vi)	Bricks	0.00	“ “ “ “
	Total	1.000	

Notes:

- Indices for “(ii)” to “(vii)” are taken from the Government of Pakistan Federal Bureau of Statistics, Monthly Statistical Bulletin. The base cost indices or prices shall be those applying 28 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to start of the execution month to which a particular monthly statement is related. The unit of time shall be a calendar month.
- Any fluctuation in the indices or prices of materials other than those given above shall not be subject to adjustment of the Contract Price.
- Fixed portion shown here is for typical road/Building project, Procuring Entity to determine the weightage of Fixed Portion considering only those cost elements having cost impact of seven (7) percent or more on his specific project.
- Any fluctuation in the prices of materials other than those given above shall not be subject to adjustment of the Contract Price and shall be deemed to be included in the rates and prices quoted by the Bidders.

Authorized Signature and Official Stamp

Name

Date.....


PROJECT DIRECTOR
Women University Swabi



BILL OF QUANTITIES

A. Preamble

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract.
3. The rates and prices entered in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labor, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore, all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
4. The Quantities Set Out in the Bill of Quantities are estimated only. The actual sum to be paid to the Contractor whose tender is accepted will be determined by measuring the work actually done in accordance with the contract and valuing it at the rates or prices given in the Govt of Khyber Pakhtunkhwa Schedule of Rates 2025 (1st Bi-Annual) and Premium/rebate quoted by the Contractor in the Bill of Quantities.
5. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Works.
6. Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with Sub-Clause 58.2 of Part I, General Conditions of Contract.
7. Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with Sub-Clause 58.2 of Part I, General Conditions of Contract.

Authorized Signature and Official Stamp

Name

Date.....



BILL OF QUANTITIES**C. Daywork Schedule****General**

1. Reference is made to Sub-Clause 52.4 of the General Conditions of Contract Part-I. Work shall not be executed on a day work basis except by written order of the Engineer. Bidders shall enter basic rates for Daywork items in the Schedules, which rates shall apply to any quantity of Daywork ordered by the Engineer. Nominal quantities have been indicated against each item of Daywork, and the extended total for Daywork shall be carried forward to the Bid Price.

Daywork Labour

2. In calculating payments due to the Contractor for the execution of Daywork, the actual time of classes of labour directly doing the Daywork ordered by the Engineer and for which they are competent to perform will be measured excluding meal breaks and rest periods. The time of gangers (charge hands) actually doing work with the gang will also be measured but not the time of foreman or other supervisory personnel.
3. The Contractor shall be entitled to payment in respect of the total time that labour is employed on Daywork, calculated at the basic rates entered by him in the Schedule of Daywork Rates for labour together with an additional percentage, payment on basic rates representing the Contractor's profit, overheads, etc., as described below:
 - a) the basic rates for labour shall cover all direct costs to the Contractor, including (but not limited to) the amount of wages paid to such labour, transportation time, overtime, subsistence allowances and any sums paid to or on behalf of such labour for social benefits in accordance with Pakistan law. The basic rates will be payable in local currency only; and
 - b) the additional percentage payment to be quoted by the Bidder and applied to costs incurred under (a) above shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities and insurances and allowances to labour timekeeping and clerical and office work; the use of consumable stores, water, lighting and power; the use and repair of stagings, scaffolding, workshops and stores, portable power tools, manual plant and tools; supervision by the Contractor's staff, foremen and other supervisory personnel; and charges incidental to the foregoing.



[Signature]
PROJECT DIRECTOR
 Women University Swabi

Appendix-D to Bid
BD-3

Daywork Material

4. The Contractor shall be entitled to payment in respect of materials used for Daywork (except for materials for which the cost is included in the percentage addition to labour costs as detailed heretofore), at the basic rates entered by him in the Schedule of Daywork Rates for materials together with an additional percentage payment on the basic rates to cover overhead charges and profit, as follows:
- a) the basic rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the site. The basic rates shall be stated in local currency but payment will be made in the currency or currencies expended upon presentation of supporting documentation;
 - b) the additional percentage payment shall be quoted by the Bidder and applied to the equivalent local currency payments made under Sub-Para(a) above; and
 - c) the cost of hauling materials used on work ordered to be carried out as Daywork from the store or stockpile on the site to the place where it is to be used will be paid in accordance with the terms for Labour and Constructional Plant in this Schedule.



Appendix-D to Bid
BD-4

Daywork Constructional Plant

5. The Contractor shall be entitled to payments in respect of constructional plant already on Site and employed on Daywork at the basic rental rates entered by him in the Schedule of Daywork Rates for constructional plant. The said rates shall be deemed to include complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overhead, profit and administrative costs related to the use of such equipment. The cost of drivers, operators and assistants will be paid for separately as described under the section on Daywork Labour.
6. In calculating the payment due to the Contractor for constructional plant employed on Daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the travelling time from the part of the Site where the constructional plant was located when ordered by the Engineer to be employed on Daywork and the time for return journey thereto shall be included for payment.
7. The basic rental rates for constructional plant employed on Daywork shall be stated in Pakistani Rupees.



PROPOSED CONSTRUCTION SCHEDULE

Pursuant to Sub-Clause 43.1 of the General Conditions of Contract, the Works shall be completed on or before the date stated in Appendix-A to Bid. The Bidder shall provide as Appendix-E to Bid, the Construction Schedule in the bar chart (CPM, PERT or any other to be specified herein) showing the sequence of work items and the period of time during which he proposes to complete each work item in such a manner that his proposed program for completion of the whole of the Works and parts of the Works may meet Procuring Entity's completion targets in days noted below and counted from the date of receipt of Engineer's Notice to Commence (Attach sheets as required for the specified form of Construction Schedule):

<u>Description</u>	<u>Time for Completion</u>
a) Whole Works	_____ days
b) Part-A	_____ days
c) Part-B	_____ days
d) _____	_____ days
e) _____	_____ days

Authorized Signature and Official Stamp
 Name
 Date.....


PROJECT DIRECTOR
 Women University Swabi



METHOD OF PERFORMING THE WORK

[The Bidder is required to submit a narrative outlining the method of performing the Work. The narrative should indicate in detail and include but not be limited to:

1. Organization Chart indicating head office and field office personnel involved in management and supervision, engineering, equipment maintenance and purchasing.
2. Mobilization in Pakistan, the type of facilities including personnel accommodation, office accommodation, provision for maintenance and for storage, communications, security and other services to be used.
3. The method of executing the Works, the procedures for installation of equipment and machinery and transportation of equipment and materials to the site and providing all services including but not limited to supply of power, water, maintenance of facilities, safety and security and all which is required for completion of works in accordance with the contract.
4. Quality Control/ Quality Assurance measures to be adopted including procedures to be followed for carrying out all tests required under specifications.
5. **The Bidder while preparing his methodology for performing and executing the works shall also consider the following:**
 - a) The timely completion of the project as per time provided in Appendix-A to this Bid.
 - b) The Contractor while filling out the list of major equipment required at site, shall ensure that the equipment requirement is in consonance with the Construction Requirement.
 - c) The Contractor is not restricted to carry out work in Single Shift. The Contractor should note that if he plans to execute the work in more than single shift than all costs related to the additional superintendence to be provided by the Engineer will be borne by the contractor. Procedure for such additional costs will be worked out and finalized between the Contractor and Engineer with the Consent of the Employer.
 - d) The portions of the Site Shall be made available to the Contractor in coordination with other Contractors working at Site. The Contractor Shall prepare the work program accordingly]

Authorized Signature and Official Stamp
Name
Date.....



[Signature]
PROJECT DIRECTOR
Women University Swabi

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Appendix-G to Bid BG-1

LIST OF MAJOR EQUIPMENT – RELATED ITEMS

[The Bidder will provide on Sheet 2 of this Appendix a list of all major equipment and related items, under separate heading for items owned, to be purchased or to be arranged on lease by him to carry out the Works. The information shall include make, type, capacity, and anticipated period of utilization for all equipment which shall be in sufficient detail to demonstrate fully that the equipment will meet all requirements of the Specifications.]

Minimum Mandatory Equipment Requirement to be brought/installed/erected at Site prior to release of the 2nd Part of

Sr. No.	Description	Minimum no of Equipment Required	Maximum Marks
1	Batching Plant	01	02
2	Concrete Site mixers	02	01
3	Excavator	01	01
4	Dumper Trucks / Water Bouser	02	01
5	Steel cutting & Bending Machine	01	01
6	Compactor	02	01
7	Vibrators	04	0.5
8	Form Work (Sq. ft)	60,000	02
9	Scaffolding Pipe (Rft)	80,000	01
10	Total Station and Level Machine	01	0.5
11	Transit Mixers	02	02
12	Diesel Generator	01	01
13	Concrete Pump	01	01
Total Marks Allocated			15

Note: The Bidder while preparing his methodology for performance and executing the works and listing out Major Equipment (Required to Complete the Works in the Specified Time Schedule) in this Appendix shall consider the above-mentioned minimum requirement of Construction Equipment to be brought/installed/erected at Site.

Authorized Signature and Official Stamp
 Name
 Date.....


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Appendix-G to Bid
BG-2

LIST OF MAJOR EQUIPMENT

Owned Purchased or Leased	Description of Unit (Make, Model, Year)	Capacity HP Rating	Condition	Present Location or Source	Date of Delivery at Site	Period of Work on Project
1	2	3	4	5	6	7
a. Owned						
b. To be Purchased						
c. To be arranged on Lease						

Authorized Signature and Official Stamp

Name

Date.....

[Signature]
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CONSTRUCTION CAMP AND HOUSING FACILITIES

The Contractor in accordance with Clause 34 of the Conditions of Contract shall provide description of his construction camp's facilities and staff housing requirements.

The Contractor shall be responsible for pumps, electrical power, water and electrical distribution systems, and sewerage system including all fittings, pipes and other items necessary for servicing the Contractor's construction camp.

The Bidder shall list or explain his plans for providing these facilities for the service of the Contract as follows:

1. Site Preparation (clearing, land preparation, etc.).
2. Provision of Services.
 - a) Power (expected power load, etc.).
 - b) Water (required amount and system proposed).
 - c) Sanitation (sewage disposal system, etc.).
3. Construction of Facilities
 - a) Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).
 - b) Warehouses and Storage Areas (area required, type of construction and layout).
 - c) Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).
4. Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).
5. Other Items Proposed (Security services, etc.).

Authorized Signature and Official Stamp
 Name
 Date.....



LIST OF SUB CONTRACTORS

I/We intend to subcontract the following parts of the Work to subcontractors. In my/our opinion, the subcontractors named hereunder are reliable and competent to perform that part of the work for which each is listed.

Enclosed are documentation outlining experience of subcontractors, the curriculum vitae and experience of their key personnel who will be assigned to the Contract, equipment to be supplied by them, size, location and type of contracts carried out in the past.

Part of Works	Subcontractor (With Complete Address)
1	2

Authorized Signature and Official Stamp

Name

Date.....

Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi


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Women University Swabi



ESTIMATED PROGRESS PAYMENTS

Bidder' estimate of the value of work which would be executed by him during each of the periods stated below, based on his Program of the Works and the Rates in the Bill of Quantities, expressed in thousands of Pakistani Rupees:

Quarter/ Year/ Period	Amounts (1,000 Rs.)
1	2
1st Quarter	
2 nd Quarter	
3 rd Quarter	
4 th Quarter	
5 th Quarter	
6 th Quarter till Completion of Project	
Total	100%

Authorized Signature and Official Stamp
 Name
 Date.....


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ORGANIZATION CHART FOR THE SUPERVISORY STAFF AND LABOUR**Minimum Mandatory Staff Requirement:**

The Contractor Should Arrange the following Staff at Site immediately upon commencement of Work:

Designation	Nos	Minimum Qualification	Minimum Relevant Working Experience
Project Manager	01	BSc Civil Engineer (with valid PEC Registration)	10 Years or above
Site Engineer(Civil)	01	BSc Civil Engineer / DAE Civil	05 Years or above
Site Supervisor (Civil)	01	DAE Civil Engineer	05 Years
Site Supervisor (Electrical)	01	DAE Electrical Engineer	05 Years
Quantity Surveyor	01	DAE Civil Engineer	05 Years
Surveyor	01	DAE Civil Engineer	05 Years

The Contractor shall arrange following staff at site as per requirement on need basis

Designation	Nos	Minimum Qualification	Minimum Relevant Working Experience
Planning Engineers/ Site Engineer	01	BSc Civil Engineer (with valid PEC Registration)/ B-Tech Hon's	06 Years or above
Site Supervisor (Civil)	01	DAE Civil Engineer	05 Years
Quantity Surveyor	01	DAE Civil Engineer	05 Years
Site Supervisor (Electrical)	01	DAE Civil Engineer	05 Years
Foremen Civil 02nos Electrical 01nos	03	Matriculate	05 Years
Asst Surveyor	01	Matriculate	5 Years

Authorized Signature and Official Stamp

Name

Date.....



[Signature]
PROJECT DIRECTOR
Women University Swabi

(INTEGRITY PACT)
DECLARATION OF FEES, COMMISSION AND BROKERAGE
ETC. PAID BY THE SUPPLIERS OF GOODS, SERVICES &
WORKS IN CONTRACTS WORTH RS. 10.00 MILLION OR MORE

Contract No. _____ Dated _____
 Contract Value: _____
 Contract Title: _____

..... [name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GoP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoP through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or

subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [name of Supplier] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from Government of Pakistan.

Name of Buyer:
 Signature:
 [Seal]

Name of Seller/Supplier:
 Signature:
 [Seal]



Appendix-M TO BID
BM-1

QUALIFICATION CRITERIA

Qualification of bidders shall be evaluated on the basis of mentioned criteria. Bidders must secure at least 50% score in each category regarding the work experience, personnel capabilities, equipment capabilities and financial soundness with overall passing marks of 70%, in addition to fulfilment of mandatory requirements. The call deposit shall be forfeited if the bidder submits any false or fabricated document, information or Statement etc.

The Employer reserves the right to waive minor deviations, if they do not materially affect the capability of the bidder to perform the Contract.

A. Mandatory Requirements:

- i. Valid registration with PEC in C-2 or above, having specialization code CE10, EE04 & EE-11(vi) General Electrical Works.
- ii. Registration with income tax department (Valid NTN)
- iii. Registration with Khyber Pakhtunkhwa Revenue Authority (KPRA)
- iv. Partnership deed in Association of Persons/Firms (If any) as per guidelines of PEC
- v. Annual Turnover, supported by Audited financial statements for the last three years duly verified and bearing a valid UDIN (Unique Document Identification Number).
- vi. A valid affidavit in original for the current month issued in the name of client attested by Oath Commissioner on Stamp paper of Rs. 100/- that the firm has not been blacklisted or debarred by any Government/Autonomous/International body and not involved in any litigation.
- vii. A valid bid security equal to 2% of the estimated cost in the form of call deposit/Bank Guarantee from Schedule Bank must be submitted in original in sealed envelope on or before the tender closing date and time. An E-Stamp paper in original must also be submitted on or before the closing date and time, wherein it is clearly mentioned that 2% CDR in original has been submitted. Bids received without the requisite bid security, E-Stamp Paper or after the prescribed deadline shall not be entertained.
- viii. Availability of Batching Plant and Transit Mixers are mandatory. (Proper documentation must be attached as proof)

Note: No further evaluation will be carried out if the firm failed to fulfil the above mandatory requirements.

B. Detailed Criteria:

The detailed qualification evaluation shall be carried out on the basis of the criteria for the different categories and minimum passing marks prescribed hereunder:

Sr. No	Category	Weightage/Marks	Passing Marks
1	Experience Record	40	20
2	Personnel Capabilities	20	10
3	Equipment Capabilities	15	7.5
4	Financial Soundness	25	12.5

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- Note: Bidders must secure at least 50% score in each category and overall 70% marks to qualify in technical evaluation.

Appendix-M TO BID BM-2

The detailed qualification evaluation shall be carried out as per following sub-criteria:

1. Experience:

Sr. No.	Sub-category	Maximum Marks	Marks allocation
(a)	Experience as Prime Constructor in execution of building works of similar nature and quantum either executed or in-hand in Government / Autonomous Organizations during last ten (10) years.	40	7.5 Marks will be awarded for each completed similar nature project having cost of Rs. 400 M and above or having covered area of more than 53000 Sft up to maximum of 15 Marks. 5 Marks will be awarded for each completed similar nature project having cost of Rs. 300M-400M up to maximum of 10 Marks. - Maximum 7.5 Marks will be awarded for currently in-hand Similar Nature project having cost of Rs: 550 M or above up to maximum 15 marks.

- The applicants must provide Letter of Award(s)/Work Order(s) and Taking Over(s)/Completion Certificate(s) of **completed project(s)**.
- The applicants must provide Letter of Award(s)/Work Order(s) and Performance Certificate(s) of the **currently in-hand project(s)**.
- No marks will be given to the projects for which above award letter/completion certificates/performance certificates are not provided.

2. Personnel Capabilities:

Sr. No.	Sub-category	Maximum Marks	Marks allocation
a)	B.Sc. Engineers (Civil) registered with Pakistan Engineering Council (PEC)	12	6 marks will be awarded for each B.Sc. Engineer (Civil) having at least 10 years relevant experience. 4 marks will be awarded for each B.Sc. Engineer (Civil) having at least 5 years relevant experience.
b)	Diploma Associate Engineers (DAE)	08	4 marks will be awarded for each Associate Engineer (Civil) having at least 05 years relevant experience 2 Marks will be awarded for each Associate Engineer (Civil) having at least 3 years relevant experience.
Total Marks Allocated		20	

- Only those candidates would be considered for whom CVs duly signed by the applicant.




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- Applicant's Degree, Valid PEC Registration Certificates, Diploma (issued by BTE), and appointment letters must be attached in the profile.

Appendix-M TO BID BM-3

3. Equipment Capabilities

Sr. No.	Description	Minimum no of Equipment Required	Maximum Marks
1	Batching Plant	01	02
2	Concrete Site mixers	02	01
3	Excavator	01	01
4	Dumper Trucks / Water Bouser	02	01
5	Steel cutting & Bending Machine	01	01
6	Compactor / Dynapac Roller	02	01
7	Vibrators	04	0.5
8	Form Work (Sq. ft)	60,000	02
9	Scaffolding Pipe (Rft)	80,000	01
10	Total Station and Level Machine	01	0.5
11	Transit Mixers	02	02
12	Diesel Generator	01	01
13	Concrete Pump	01	01
	Total Marks Allocated		15

Note: Bidders shall submit a valid Affidavit on an stamp paper to the effect that the above items are available with the contractor and can be inspected by the committee at any stage.

4. Financial Capabilities

The Applicant firms shall submit copies of annual account/audited reports for the last three (03) years (FY 2024-25, 2023-24, and 2022-23) on the Auditor's Letter Head duly certified and verified by the Chartered Accountant and bearing a valid UDIN (Unique Document Identification Number). The submission shall clearly indicate the **Average Annual Turnover, Liquid Assets, and available line(s) of credit from reputed banks**, evidencing the financial soundness of the applicant's financial position.


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Appendix-M TO BID
BM-4

- a. The minimum annual volume of Construction Work (Annual Turn-Over) shall be at least **Rs. 200 Million** during any of the last three years.

S.no	Average Annual Turn Over	Marks
a.	Working capital in last three 03 years	• 08 marks are given if the available work worn capital for last three years is equal to 200 Million. • For the capital less than 200 million use following weightage $08 \times (A/200)$ • For the capital more than 150 million but less than 200 million use following weightage $08 + (200/A) \times 2$ - A=average working capital in last three years. • Full marks are given in case of limit is 300 million or more.
Maximum Marks		15

- b. The minimum amount of liquid assets, net of total other construction commitments, shall be **Rs. 50 million**. The firms shall submit copies of latest bank statements along with audited financial statements for the last three (03) years, duly certified by a Chartered Accountant, as evidence of compliance.

Liquid Assets	Marks
Liquid assets in last three 03 years	• 05 marks are given if the available of Liquid assets for last three years is equal to 50 million. • For the capital less than 50 million use following weightage $5 \times (A/50)$ • For the capital more than 40 million but less than 60 million use following weightage $5 + (50/A) \times 2$ A = average Liquid assets in last three years. • Full marks are given in case of limit is 60 million or more.
Maximum Marks	10

Note: Bidders shall provide verifiable documentary evidence to demonstrate their experience, personnel, equipment and financial capabilities as per above mentioned requirements. No marks will be given to the information for which documentary evidence is not provided.

**Appendix-N TO BID
BN-5**

LIST OF RECOMMENDED MANUFACTURERS
(To be signed by the Bidder)

Equipment and materials specified with brand names have been provided in order to establish a standard of performance and do not necessarily indicate a preference for a particular manufacturer or material.

The names of manufacturers given below are to indicate the level of quality and performance anticipated by the Engineer/Employer. Other makes may be accepted provided the quality and performance of such equipment in the sole opinion of the Engineer are at least equal to or better than the equipment offered by the recommended manufacturer listed hereunder.

The acceptance of equipment/material offered by these manufacturers will be subject to compliance of offered models with specifications and capacity requirements.

Onus lies with the Contractor for establishing the genuineness of any material/product/item for its make and origin

GENERAL

Sr.No	Item	Manufacturer(s) / Supplier(s)
1	Paints & Varnish	ICI Deluxe, Berger
2	Hardware Stays and Handles	HMC Sitara Mila's
3	Glass for Doors and Windows	Guardian float glass (America / Saudi) from Gunj Glass or Alfatah Glass, Ghani Glass
4	Porcelain Tiles	Master Tile Shabbir Tiles and approved imported tiles
5	Vitrified Tiles	Master Tile Shabbir Tiles and approved imported tiles
6	Termite Proofing chemical	Agenda, Biflix
7	Water Proofing	Pak Hy Oils Waterproof Membrane,
8	Construction Chemicals	Ultra-chemicals Happilac
9	Building Insulation	Diamond Jumbolon
10	Crushed Stone Aggregate	Approved source by Engineer Incharge
11	Reinforcement Steel	FF Steel, Ittehad Steel, Mughal Steel, Nomee Steel
12	Sand	Lawrencepur / Nizampur for Concrete and Other Works/ approved source by Engineer Incharge.
13	G.I Pipes	III, Jamal
14	G.I Pipes (Specials)	Chinese (Imported)

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15	Cast Iron Pipe & Fitting	Alpine, CME
16	Anti-Termite	Termidor, Dursbin, Biflex, Protect
17	R.C.C Pipes	Shalimar, Grand
18	Water Proofing Agent & Admixture	FEB, SIKA, Vandex, Frostock
19	Aluminum	Pak Cable, Chawala aluminum, Prime Aluminum, Sana Aluminium
20	1 st Class Bricks with standard Size	Approved By the Procuring Entity
21	Cement	Cherat, Kohat, Lucky, Askari, Best way

PLUMBING WORKS

1.	G.I PIPES	i. ii.	III Karachi Jamal
2.	Pipes and Fitting in Polypropylene Random (PPRC)	i. ii. iii.	Dadex (Polydex) Plasco Alpha
3.	G.I Pipes (Specials)	i. ii.	HE China TG China
4.	Gate Valves and Sluice Valves	i. ii.	Anwar Mughal
5.	Cast Iron (Spun) Pipes & Fittings and Fixtures	i. ii.	Alpine Teepu
6.	Asbestos Pipe	i.	Dadex
7.	UPVC Pipes and Fittings (Duct Plain and Slotted, Electrical Conduits, Drain Pipes, Fittings, Pressure Pipes and Flexible Pipes)	i. ii. iii.	Dadex (Polydex) Plasco Alpha
8.	RCC Pipes		As per Technical Specifications and as approved by the Engineer.
9.	Fire Extinguishers/Fire Fighting	i. ii. iii.	Neffco Safico Haseen Habib
10.	Sanitary Fixtures	i. ii. iii.	Porta Durr Master
11.	Sanitary Fitting	i. ii. iii.	Porta Master Faisal
12.	Pumps	i. ii. iii.	KSB HMA Grundfos
13	Pipes, Valves for HVAC & Public Health		Star Corporations Saeed Steel Corporations

ELECTRICAL WORKS

ALLIED ENGINEERING CONSULTANTS

SR.No	Equipment / Material	Make	Country of Origin	Manufacturer / Supplier
1	11kV H. T Panels for WAPDA.	PEL Siemens Schneider Electric Transfopower Tariq Electric	- Pakistan - Pakistan - Pakistan - Pakistan	PEL, Lahore Siemens, Lahore Schneider Electric Lahore. Transfopower Pvt Ltd Tariq Electric Lahore.
2.	11 kV Sub-Station Equipment	PEL Siemens Schneider Electric Transfopower Tariq Electric	- Pakistan - Pakistan - Pakistan - Pakistan - Pakistan	PEL, Lahore Siemens, Lahore Schneider Electric Lahore. Transfopower Pvt Ltd Tariq Electric Lahore.
3.	Transformers	PEL Siemens Mega Transfopower	- Pakistan - Pakistan - Pakistan	PEL, Lahore Siemens, Lahore Mega, Lahore Transfopower
4.	L.T. Main Panel Boards, Sub Main Panel Boards, Motor Control Centers, Power factor Improvement Plant, Distribution Boards & Cable Trays, Floor Boxes, Under Ground Floor Trunking	PEL Siemens Schneider Electric Humprotech	- Pakistan - Pakistan - Pakistan - Pakistan - Pakistan	PEL, Lahore Siemens, Lahore Schneider Electric Lhr
5.	ACB Moulded Case Circuit Breakers (MCCB) TP 500 V-AC, Residual Current Interrupter (RCCI) & MCB	Schneider Electric ABB CHNT LS	- Japan - Italy -EU	Jubilee Corp., Karachi Prince Electric Co., Lahore Tariq Electric Lahore Sh. Wilayat & Sons M/s Technique Switchgear Lahore
6.	Current Transformers	Fico Elemetec Frer Siba Nitech INNOMAX	- Pakistan - Pakistan -Italy -Germany	Sh. Wilayat & Sons, Karachi Shahid International, Lahore Rachena Corporation, Lahore INPRO Pakistan Lahore Creative Electronics Automation Technology Care
7.	Ammeters (Digital) Voltmeters (Digital)	Autonics EMZED F & G Entes Lumel Frer Kael INNOMAX	- Korea -Australia -Turkey -Poland -Italy	Jubilee Corp., Karachi EMZED Engg., Karachi Shahid International, Lahore INPRO Pakistan Lahore, Rachena Corporation, Lahore Creative Electronics Automation Technology Care
8.	Ammeters (Dial Type) Voltmeters (Dial Type)	Hager Saci DEIF Lumel Frer Kael INNOMAX	- France - Spain - Denmark -Poland -Italy	Jubilee Corp., Karachi Sh. Wilayat & Sons, Karachi Shahid International, Lahore INPRO Pakistan Lahore, Rachena Corporation, Lahore Creative Electronics Automation Technology Care



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9.	Selector Switches (Ammeter Selector) ASS (Voltmeter Selector) VSS	Kelvin & Breter Kraus & Niamer BREMAS MERZ INNOMAX	- Italy - NZ land - Italy - Germany	Sh. Wilayat & Sons, Karachi Jubilee Corp., Karachi EMZED Engg., Karachi INPRO Pakistan Lahore, Creative Electronics Automation Technology Care
10.	Instrument Protection Fuses	Legrand SOCOMEK Kaleporselen Siba	- France - France - Turkey - Germany	Shahid International, Lahore Sh. Wilayat & Sons, Karachi Jubilee Corp., Karachi INPRO Pakistan Lahore Creative Electronics Automation Technology Care
11.	Indication Lamps	Fuji Legrand Maruyasu Schneider Electric INNOMAX	- Japan - France - Japan - Europe	Sh. Wilayat & Sons, Karachi Shahid International, Lahore Jubilee Corp., Karachi INPRO Pakistan Lahore, Creative Electronics Automation
12.	Wiring Terminals	CIAMA ONKA INNOMAX	- Spain - Europe - Legrand	Sh. Wilayat & Sons, Karachi Shahid International, Lahore Creative Electronics Automation INPRO Pakistan Lahore, Technology Care
13.	Low tension Cables, Single Core & Multi Core	Pakistan Cables Fast Cable Coppergate	- Pakistan - Pakistan - Pakistan	Pakistan Cables Fast Cable Coppergate
14.	Wiring Accessories (Switches, Sockets, Telephone & Computer Socket)	Orange Srilanka Clipsal, Australia Legrand, France MK - UK Opal	- Imported	Shahid International, Lahore Creative Electronics Automation
15.	ON / OFF Push Buttons	Fuji Legrand Maruyasu Schneider Electric Clipsal	- Japan - France - Japan	Sh. Wilayat & Sons, Karachi Shahid International, Lahore Jubilee Corp., Karachi Creative Electronics Automation INPRO Pakistan Lahore
16.	PVC Conduits & accessories	Dadex (Polydex) Alpha Plasco	- Pakistan - Pakistan - Pakistan	Dadex (Polydex) Alpha Plasco
17.	Fans (Ceiling, Bracket, Exhaust)	Pak Fans Millat Fans GFC Fans Royal Fans Taimor Fan	- Pakistan - Pakistan - Pakistan - Pakistan	Pak Fans Millat Fans GFC Fans Royal Fan Taimor Fan
18.	CCTV System	-SONY -Hikvision -DAHUA		C-Tech International Lahore Global Light & System, Karachi Creative Electronics Automation
19.	Public Address System/	- Optimus, Spain	- Spain	C-Tech International Lahore

Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi

Farid
PROJECT DIRECTOR
Women University Swabi



ALLIED ENGINEERING CONSULTANTS

	Sound System	- Digital AV - Bose SONY Samsung	- -	Digital Plus, Lahore Creative Electronics Automation
20.	Fire Alarm System	- Notifier by Honey Well - Siemens - Tyco -LIXIN Electronics - Boush -Econosto	- - - - -	Haseen Habib Corporations (Pvt.) Ltd. Siemens, Lahore TYCO Fire & Security Ltd, TEE (Technique Electric Engineering) Global Systems, Karachi Creative Electronics Automation Digital Plus, Lahore
21.	Telephone and Computer System	KRONE, 3M LEGRAND, MK Panasonic		
22.	Lighting (Indoor/Street Lighting) (Fluorescent/LED)	Philips Fastlight	- Pakistan - Pakistan	Philips. Fastlight
23	Lightning Arrestor, Surge Arrestors	CPT	Spain	INPRO Pakistan
24	Generator Automation	DATAKOM Technology Care	Turkey	INPRO Pakistan Technology Care
25	Industrial Fan	TECHNOLOGY CARE	LAHORE, PAKISTAN	TECHNOLOGY CARE
26	Street/Flood/ stadium lightning poles.	TECHNOLOGY CARE	LAHORE, PAKISTAN	TECHNOLOGY CARE
27	UPS systems, DATA Centers and associated Cooling Systems	APC by Schneider Electric		INPRO Pakistan
28	GEN SET	Cummins, CAT, FG Welson FPT	----	Cummins, Cat, FG Welson FPT
29	LED Light Fixture	PHILIPS Fastlight		Specified, Approved and Licensed Firms/Distributors/ Manufacturers.
30	Solar Charge Controller	EP SOLAR, PHOCOS, MORNING STAR, LUMIAX		Specified, Approved and Licensed Firms/Distributors from the following Manufacturers
31	Bus Tie Duct	TECHNIQUE SWITCHGEAR POWERDUCT PAGLINO EAE		M/s Technique Switchgear Lahore Specified, Approved and Licensed Firms/Distributors

Yusuf
PROJECT DIRECTOR
Women University Swabi



FORMS

BID SECURITY PERFORMANCE

SECURITY CONTRACT AGREEMENT

MOBILIZATION ADVANCE GUARANTEE/BON


PROJECT DIRECTOR
Women University Swabi



BID SECURITY
(Bank Guarantee)

BS-1

Security Executed on _____ (Date)

Name of Surety (Bank) with Address: _____

(Scheduled Bank in Pakistan)

Name of Principal (Bidder) with Address _____

Penal Sum of Security Rupees. _____ (Rs.)

Bid Reference No. _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto _____

(Hereinafter called the 'Procuring Entity') in the sum stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated _____ for Bid No. _____ for _____ (Particulars of Bid) to the said Procuring Entity; and

WHEREAS, the Procuring Entity has required as a condition for considering said Bid that the Bidder furnishes a Bid Security in the above said sum from a Scheduled Bank in Pakistan or from a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan, to the Procuring Entity, conditioned as under:

- (1) that the Bid Security shall remain in force up to and including the date 28 days after the deadline for validity of bids as stated in the Instructions to Bidders or as it may be extended by the Procuring Entity, notice of which extension(s) to the Surety is hereby waived;
- (2) that the Bid Security of unsuccessful Bidders will be returned by the Procuring Entity after expiry of its validity or upon signing of the Contract Agreement; and
- (3) that in the event of failure of the successful Bidder to execute the proposed Contract Agreement for such work and furnish the required Performance Security, the entire said sum be paid immediately to the said Procuring Entity pursuant to Clause 15.6 of the Instruction to Bidders for the successful Bidder's failure to perform.

NOW THEREFORE, if the successful Bidder shall, within the period specified therefor, on the prescribed form presented to him for signature enter into a formal Contract with the said Procuring Entity in accordance with his Bid as accepted and furnish within twenty eight (28) days of his being requested to do so, a Performance Security with good and sufficient surety, as may be required, upon the form prescribed by the said Procuring Entity for the faithful performance and proper fulfillment of the said Contract or in the event of non-withdrawal of the said Bid within the time specified for its validity then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.


PROJECT DIRECTOR
Women University Swabi



BS-2

PROVIDED THAT the Surety shall forthwith pay the Procuring Entity the said sum upon first written demand of the Procuring Entity (without cavil or argument) and without requiring the Procuring Entity to prove or to show grounds or reasons for such demand, notice of which shall be sent by the Procuring Entity by registered post duly addressed to the Surety at its address given above.

PROVIDED ALSO THAT the Procuring Entity shall be the sole and final judge for deciding whether the Principal (Bidder) has duly performed his obligations to sign the Contract Agreement and to furnish the requisite Performance Security within the time stated above, or has defaulted in fulfilling said requirements and the Surety shall pay without objection the said sum upon demand from the Procuring Entity forthwith and without any reference to the Principal (Bidder) or any other person.

IN WITNESS WHEREOF, the above bounden Surety has executed the instrument under its seal on the date indicated above, the name and seal of the Surety being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

SURETY (Bank)

WITNESS:

Signature _____

1. _____ Name _____

Title _____

Corporate Secretary (Seal)

Corporate Guarantor (Seal)

2. _____

Name, Title & Address


PROJECT DIRECTOR
Women University Swabi



FORM OF PERFORMANCE SECURITY
(Bank Guarantee)

Guarantee No. _____
 Executed on _____
 Expiry date _____

[Letter by the Guarantor to the Procuring Entity]

Name of Guarantor (Bank) with address: _____
 (Scheduled Bank in Pakistan)

Name of Principal (Contractor) with address: _____

Penal Sum of Security (express in words and figures) _____

Letter of Acceptance No. _____ Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the _____ (hereinafter called the Procuring Entity) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Procuring Entity, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the principal has accepted the Procuring Entity's above said Letter of Acceptance for _____
 _____ (Name of Contract) for the _____
 _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Procuring Entity, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 49, Defects Liability, of Conditions of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

[Signature]
PROJECT DIRECTOR
 Women University Swabi



PS-2

We, _____ (the Guarantor), waiving all objections and defenses under the Contract, do hereby irrevocably and independently guarantee to pay to the Procuring Entity without delay upon the Procuring Entity's first written demand without cavil or arguments and without requiring the Procuring Entity to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Procuring Entity's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Procuring Entity's designated Bank & Account Number.

PROVIDED ALSO THAT the Procuring Entity shall be the sole and final judge for deciding whether the principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Procuring Entity forthwith and without any reference to the principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Witness:

1.

Guarantor (Bank)

Signature

Name _____

Title _____

Corporate Secretary (Seal)

2.

Name, Title & Address

Corporate Guarantor (Seal)

[Signature]
PROJECT DIRECTOR
Women University Swabi



FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the "Agreement") made on the _____ day of (month) 20____ between

(hereafter called the "Procuring Entity") of the one part and (hereafter called the "Contractor") of the other part.

WHEREAS the Procuring Entity is desirous that certain Works, viz _____ should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnessed as follows:

1. 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 after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) The Contract Agreement;
 - (b) The Letter of Acceptance;
 - (c) The completed Form of Bid;
 - (d) Special Stipulations (Appendix-A to Bid);
 - (e) The Particular Conditions of Contract – Part II;
 - (f) The General Conditions – Part I;
 - (g) The priced Bill of Quantities (Appendix-D to Bid);
 - (h) The completed Appendices to Bid (B, C, E to L);
 - (i) The Drawings;
 - (j) The Specifications.
 - (k) _____ (any other)
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Procuring Entity to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.
4. The Procuring Entity hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.


PROJECT DIRECTOR
Women University Swabi



ALLIED ENGINEERING CONSULTANTS

CA-2

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed on the day, month and year first before written in accordance with their respective laws.

Signature of the Contactor

(Seal)

Signature of Procuring Entity

(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

(Name, Title and Address)

(Name, Title and Address)


PROJECT DIRECTOR
Women University Swabi



MG-1

MOBILIZATION ADVANCE GUARANTEE

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Procuring Entity') has entered into a Contract for _____
with _____ (Particulars of Contract)
(hereinafter called the "Contractor").

AND WHEREAS, the Procuring Entity has agreed to advance to the Contractor, at the Contractor's request, an amount of Rupees _____ (Rs _____) which amount shall be advanced to the Contractor as per provisions of the Contract.

AND WHEREAS, the Procuring Entity has asked the Contractor to furnish Guarantee to secure the mobilization advance for the performance of his obligations under the said Contract.

AND WHEREAS, _____
(Scheduled Bank in Pakistan acceptable to the Procuring Entity) (hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Procuring Entity agreeing to make the above advance to the Contractor, has agreed to furnish the said Guarantee.

NOW, THEREFORE, the Guarantor hereby guarantees that the Contractor shall use the advance for the purpose of above-mentioned Contract and if he fails and commits default in fulfillment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Procuring Entity for payment not exceeding the aforementioned amount.

Notice in writing of any default, of which the Procuring Entity shall be the sole and final judge, on the part of the Contractor, shall be given by the Procuring Entity to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection.

This Guarantee shall remain in force until the advance is fully adjusted against payments from the Interim Payment Certificates of the Contractor or until _____ whichever is earlier.
(Date)

The Guarantor's liability under this Guarantee shall not in any case exceed the sum of Rupees _____ (Rs _____).

This Guarantee shall remain valid up to the aforesaid date and shall be null and void after the aforesaid date or earlier if the advance made to the Contractor is fully adjusted against payments from Interim Payment Certificates of the Contractor provided that the Guarantor agrees that the aforesaid period of validity shall be deemed to be extended if on the above-mentioned date, the advance payment is not fully adjusted.

Yad
PROJECT DIRECTOR
Women University Swabi



GUARANTOR (BANK)

1. Signature _____
2. Name _____
3. Title _____

WITNESS

1. _____

Corporate Secretary (Seal)

2. _____
(Name Title & Address)

Corporate Guarantor(Seal)


PROJECT DIRECTOR
Women University Swabi



[Notes on the Conditions of Contract

The Conditions of Contract comprise two parts:

- (a) **Part I - General Conditions of Contract**
- (b) **Part II - Particular Conditions of Contract**

Over the years, a number of "model" General Conditions of Contract have evolved. The one used in these Standard Bidding Documents was prepared by the International Federation of Consulting Engineers (Federation Internationale des Ingenieurs-Conseils, or FIDIC), and is commonly known as the FIDIC Conditions of Contract. (The used version is the fourth edition, 1987, reprinted in 1992 with further amendments).

The FIDIC Conditions of Contract have been prepared for an ad measurement (unit price or unit rate) type of contract, and cannot be used without major modifications for other types of contracts, such as lump sum, turnkey, or target cost contracts.

The standard text of the General Conditions of Contract chosen must be retained intact to facilitate its reading and interpretation by bidders and its review by the Client. Any amendments and additions to the General Conditions, specific to the contract in hand, should be introduced in the Particular Conditions of Contract.

The use of standard conditions of contract for all civil Works will ensure comprehensiveness of coverage, better balance of rights or obligations between Procuring Entity and Contractor, general acceptability of its provisions, and savings in time and cost for bid preparation and review, leading to more economic prices.

The FIDIC Conditions of Contract are copyrighted and may not be copied, faxed, or reproduced. Without taking any responsibility of its being accurate, Pakistan Engineering Council with prior consent of FIDIC Secretariat, has reproduced herein the FIDIC General Conditions of Contract for reference purpose only which cannot be used by the users for preparing their bidding documents. The bidding document may include a purchased copy, the cost of which can be retrieved as part of the selling price of the bidding document. Alternatively, the FIDIC Conditions of Contract can be referred to in the bidding documents, and the bidders are advised to obtain copies directly from FIDIC. *

* Add the following text if the bidding documents, as issued, do not include a copy:

“Copies of the FIDIC Conditions of Contract can be obtained from:

FIDIC Secretariat

P.O. Box 86

1000 Lausanne 12

Switzerland

e-mail: fidic.pub@fidic.org – FIDIC.org/bookshop]





FEDERATION INTERNATIONALE DES INGENIEURS-
CONSEILS

CONDITIONS OF CONTRACT FOR WORKS OF
CIVIL ENGINEERING CONSTRUCTION
PART I GENERAL CONDITIONS
WITH FORMS OF TENDER AND AGREEMENT

FOURTH EDITION 1987
Reprinted 1988 with editorial amendments
Reprinted in 1992 with further amendments

Copies of the FIDIC Conditions of Contract 4th Edition, 1987 reprinted in 1992 with further amendments can be obtained from:

FIDIC SECRETARIAT P.O BOX NO. 86

1000 Lausanne 12

Switzerland

e-mail fidic.pub@fidic.org fidic.org/bookshop



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Yasir

PROJECT DIRECTOR
Women University Swabi



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ART II - PARTICULAR CONDITIONS OF CONTRACT (Mandatory Provisions not to be Amended / Substituted except as instructed by KPPRA)

These Particular Conditions of Contract - Part II are additions, deletions and amendments to General Conditions of Contract - Part I and shall be taken into consideration in interpreting or construing such clauses. Sub-Clause numbers, if similar as of Part-I, are amendments therein otherwise these are additional Clauses or Sub-Clauses thereto.

Definitions 1.1

- (a) (i) The “**Employer**” is “Women University, Swabi” the legal successors and any assignee of such person.
- (a) (iv) The “**Engineer**” is “The Project Manager, Allied Engineering Consultants (Pvt) Ltd” as nominated by the Employer or any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer. Provided always that except in cases of professional misconduct, the outgoing Engineer to formulate his certifications/recommendations in relation to all outstanding matters, disputes and claims relating to the execution of the Works during his tenure.

Add the following paragraphs:

- (a) (vi) “**Employer’s Representative**” is:

Project Director
Women University Swabi
Main Campus, Tehsil Topi, District Swabi
Postal Code: 23460

Tel:- +92 938 281890

Email: pd.psd@wus.edu.pk

or any other competent person appointed in writing by the Employer and shall take effect on delivery of such appointment to the Engineer and the Contractor. The Employer may from time-to-time delegate to the Employer’s Representative any of the duties and authorities vested in the Employer and may at any time revoke such delegation.

Any communication given by the Employer’s Representative to the Engineer and the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Employer.

- (a) (vi) “Bidder or Tenderer” means any person or persons, company, corporation, firm or joint venture submitting a Tender.
- (b) (v) Add the following at the end of the paragraph:

The word “Tender” is synonymous with “Bid” and the word “Tender Documents” with “Bidding Documents”.

(vi) Add the following at the end of the paragraph:

The word “Bill of Quantities” is synonymous with “Estimate including Premium”

Add the following paragraph:

(c) (ix) “**Programme**” means the programme to be submitted by the Contractor in accordance with Sub-Clause 14.1 and any approved revisions thereto.

(d) (i) Delete the text and substitute:

“**Contract Price**” means the sum stated in the Letter of Acceptance as payable to the Contractor for the execution and completion of the Works subject to such additions thereto or deductions there from as may be made and remedying of any defects therein in accordance with the provisions of the Contract.

2.1 Engineer's Duties and Authority

With reference to Sub-Clause 2.1(b), the following provisions shall also apply;

The Engineer shall obtain the specific approval of the Procuring Entity before carrying out his duties in accordance with the following Clauses:

- (i) Consenting to the sub-letting of any part of the Works under Sub-Clause 4.1 “Subcontracting”.
- (ii) Certifying additional cost determined under Sub-Clause 12.2 “Not Foreseeable Physical Obstructions or Conditions”.
- (iii) Any action under Clause 10 “Performance Security” and Clauses 21,23,24 & 25 “Insurance” of sorts.
- (iv) Any action under Clause 40 “Suspension”.
- (v) Any action under Clause 44 “Extension of Time for Completion”.
- (vi) Any action under Clause 47 “Liquidated Damages for Delay” or Payment of Bonus for Early Completion of Works (PCC Sub-Clause 47.3).
- (vii) Issuance of “Taking Over Certificate” under Clause 48.
- (viii) Issuing a Variation Order under Clause 51, except:
 - a) in an emergency* situation, as stated here below, or
 - b) if such variation would increase the Contract Price by less than the amount stated in the Appendix-A to Bid.
- (ix) Fixing rates or prices under Clause 52.

- (x) Extra payment as a result of Contractor's claims under Clause 53.
- (xi) Release of Retention Money to the Contractor under Sub-Clause 60.3 "Payment of Retention Money".
- (xii) Issuance of "Final Payment Certificate" under Sub-Clause 60.8.
- (xiii) Issuance of "Defect Liability Certificate" under Sub-Clause 62.1.
- (xiv) Any change in the ratios of Contract currency proportions and payments thereof under Clause 72 "Currency and Rate of Exchange".

(Note: Procuring Entity may further vary according to need of the project)

* (If in the opinion of the Engineer an emergency occurs affecting the safety of life or of the Works or of adjoining property, the Engineer may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer.)

2.2 Engineer's Representative

The following paragraph is added:

The Employer shall ensure that the Engineer's Representative is a professional engineer as defined in the Pakistan Engineering Council Act 1975 (V of 1976)

The following Sub-Clauses 2.7 and 2.8 are added:

2.7 Engineer Not Liable

Approval, reviews and inspection by the Engineer of any part of the Works does not relieve the Contractor from his sole responsibility and liability for the supply of materials, plant and equipment for construction of the Works and their parts in accordance with the Contract and neither the Engineer's authority to act nor any decision made by him in good faith as provided for under the Contract whether to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any of their representatives or employees or any other person performing any portion of the Works.

2.8 Replacement of the Engineer

"If the Procuring Entity intends to replace the Engineer, the Procuring Entity shall, not less than 14 days before the intended date of replacement, give notice to the Contractor, of the name, address and relevant experience of the intended replacement Engineer. The Procuring Entity shall not replace the Engineer with a person against whom the Contractor raises reasonable objection by notice to the Procuring Entity, with supporting particulars."

5.1 Language(s) and Law

- (a) The Contract Documents, shall be drawn up in the English language.
- (b) The Contract shall be subject to the Laws of Islamic Republic of Pakistan.

5.2 Priority of Contract Documents

Delete the documents listed at (1) to (6) of the Sub-Clause and Substitute with the following:

- (a) The Contract Agreement;
 - (b) The Letter of Acceptance;
 - (c) The Completed form of Bid;
 - (d) Addenda (if any)
 - (e) Special Stipulations (Appendix-A to Bid);
 - (f) The Particular Conditions of Contract – Part II;
 - (g) The General Conditions of Contract – Part I;
 - (h) Special Provisions
- (i) **For scheduled items:**
- 1). Priced Bill of Quantities (Appendix-D to Bid)
 - 2). Drawings (Volume III)
 - 3). Miscellaneous Details (Volume – IV)
 - 4). Appendices to Bid (Excluding Appendix A & D)
 - 5). Applicable West Pakistan Standing Rates Committee Specifications

For non-scheduled items:

- 1). Drawings (Volume III)
- 2). Miscellaneous Details
- 3). Technical Specifications (Volume-II), Technical Provisions.
- 4). Priced Bill of Quantities (Appendix-D to Bid)
- 5). Appendices to Bid (Excluding Appendix A & D)
- (j) Any other document forming Part of the Contract by Reference;

In case of discrepancies between drawings, those of larger scale shall govern unless they are superseded by a drawing of later date regardless of scale. All Drawings and Specifications shall be interpreted in conformity with the Contract and these Conditions. Addendum, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.

Add the following Sub-Clauses:

6.6 Shop Drawings



ALLIED ENGINEERING CONSULTANTS

The Contractor shall submit to the Engineer for review 3 copies of all shop and erection drawings applicable to this Contract as per provision of relevant Sub-Clause of the Contract.

Review and approval by the Engineer shall not be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and that the Engineer's review or approval shall not relieve the Contractor of any of his responsibilities under the Contract.

6.7 As-Built Drawings

At the completion of the Works under the Contract, the Contractor shall furnish to the Engineer 6 copies and one reproducible of all drawings amended to conform with the Works as built. The price of such Drawings shall be deemed to be included in the Contract Price.

9.1 Contract Agreement

The Contract Agreement, Performance Security, and other Bond/Guarantees/Sureties shall be prepared and completed at the cost of the Contractor. The Contractor shall prepare six (6) copies of the Contract Document (including all the volumes / documents listed in the Contract Agreement) along-with copies of all the bonds/Guarantees/Sureties, at his cost and shall submit the same to the Employer.

10.1 Performance Security

The text is deleted and substituted with the following:

The Contractor shall provide Performance Security to the Procuring Entity in the prescribed form. The said Security shall be furnished or caused to be furnished by the Contractor within 14 days after the receipt of the Letter of Acceptance. The Performance Security shall be of an amount equal to 10% of the Contract Price stated in the Letter of Acceptance. Such Security shall, at the option of the bidder, be in the form of either (a) bank guarantee from any Scheduled Bank in Pakistan or (b) bank guarantee from a bank located outside Pakistan duly counter-guaranteed by a Scheduled Bank in Pakistan.

The cost of complying with requirements of this Sub-Clause shall be borne by the Contractor.

The following Sub-Clause 10.4 is added:

10.4 Performance Security Binding on Variations and Changes


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The Performance Security shall be binding irrespective of changes in the quantities or variations in the Works or extensions in Time for Completion of the Works which are granted or agreed upon under the provisions of the Contract.

14.1 Program to be Submitted

Delete the text and substitute with the following:

The Contractor shall prepare and submit the programme of the work acceptable to the Engineers with in fourteen (14) days of the receipt of Letter of Acceptance for agreement of the Engineer and approval of the Employer. This programme shall identify and highlight those activities which are on the critical path.

The time schedule may be adjusted from time to time but the contractual completion date shall remain un-changed in accordance with the Bid documents unless extensions of time are approved in accordance with the contract.

The programme should be computerized and drawn-up on the critical path method. Progress reporting by the Contractor should be supported, on a monthly basis with an update analysis of the progress including a statement on items, which are or are to become critical to the progress of the Work, along with the proposal on how the Contractor intends to alleviate the situation. Programme should include complete sequence of activities. Programme to be Primavera based and updated with actual progress continually.

14.3 Cash Flow Estimate to be Submitted

The detailed Cash Flow Estimate shall be submitted within 21 days from the date of receipt of Letter of Acceptance

The following Sub-Clause 14.5 is added:

14.5 Detailed Program and Monthly Progress Report

- a) For purposes of Sub-Clause 14.1, the Contractor shall submit to the Engineer detailed program for the following:
- (1) Execution of Works;
 - (2) Labor Employment;
 - (3) Local Material Procurement;
 - (4) Material Imports, if any;
 - and
 - (5) Other details as required by the Engineer.
- (b) During the period of the Contract, the Contractor shall submit to the Engineer not later than the 5th day of the following month, 5 copies each of Monthly Progress Reports covering:
- (1) A Construction Schedule indicating the monthly progress in percentage;
 - (2) Description of all work carried out since the last report;

- (3) Description of the work planned for the next 56 days sufficiently detailed to enable the Engineer to determine his program of inspection and testing;
- (4) Monthly summary of daily job record;
- (5) Photographs to illustrate progress; and
- (6) Information about problems and difficulties encountered, if any, and proposals to overcome the same.

- (c) During the period of the Contract, the Contractor shall keep a daily record of the work progress, which shall be made available to the Engineer as and when requested. The daily record shall include particulars of weather conditions, number of men working, deliveries of materials, quantity, location and assignment of Contractor's equipment.

The following Sub-Clauses 15.2 and 15.3 are added:

15.2 Language Ability of Contractor's Representative

The Contractor's authorized representative shall be fluent in the English language. Alternately an interpreter with ability of English language shall be provided by the Contractor on full time basis. The Engineer / Procuring Entity, however, may relax conditions of the language from English to other local languages if deemed appropriate.

15.3 Contractor's Representative

The Contractor's authorized representative and his other professional engineers working at Site shall register themselves with the Pakistan Engineering Council. The Contractor's authorized representative at Site shall be authorized to exercise adequate administrative and financial powers on behalf of the Contractor so as to achieve completion of the Works as per the Contract.

The following Sub-Clauses 16.3 and 16.4 are added:

16.3 Language Ability of Superintending Staff of Contractor

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of the English language. If the Contractor's superintending staff are not fluent in English language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer. The Engineer / Procuring Entity, however, may relax conditions of the language from English to other local languages if deemed appropriate,

16.4 Employment of Local Personnel

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour from sources within Pakistan.

The following Sub-Clauses 19.3 and 19.4 are added:

19.3 Safety Precautions

In order to provide for the safety, health and welfare of persons, and for prevention of damage of any kind, all operations for the purposes of or in connection with the Contract shall be carried out in compliance with the Safety Requirements of the Government of Pakistan and KPK with such modifications thereto as the Engineer may authorize or direct and the Contractor shall take or cause to be taken such further measures and comply with such further requirements as the Engineer may determine to be reasonably necessary for such purpose.

The Contractor shall make, maintain and submit reports to the Engineer concerning safety, health and welfare of persons and damage to property, as the Engineer may from time to time prescribe.

19.4 Lighting Work at Night

In the event of work being carried out at night, the Contractor shall at his own cost, provide and maintain such good and sufficient light as will enable the work to proceed satisfactorily and without danger. The approaches to the Site and the Works where the night-work is being carried out shall be sufficiently lighted. All arrangement adopted for such lighting shall be to the satisfaction of the Engineer's Representative.

20.4 Procuring Entity's Risks

The Procuring Entity's risks are:

Delete the text and substitute with the following:

- (a) insofar as they directly affect the execution of the Works in Pakistan
 - (i) war and hostilities (whether war be declared or not), invasion, act of foreign enemies,
 - (ii) rebellion, revolution, insurrection, or military or usurped power, or civil war,
 - (iii) ionizing radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,
 - (iv) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
 - (v) riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the Works;
- (b) loss or damage due to the use or occupation by the Procuring Entity of any Section or part of the Permanent Works, except as may be provided for in the Contract;
- (c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible; and
- (d) any operation of the forces of nature (insofar as it occurs on the Site) which an experienced contractor:

- (i) could not have reasonably foreseen, or
- (ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - (a) Prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - (b) Insure against.

21.1 Insurance of Works and Contractor's Equipment

Contractor is bound to provide all the below mentioned insurance policies for the persons, works and equipment, etc. on the Contract.

(a) General Requirements

The Engineer/Engineer's Representative and their designate staff for supervision of work shall be included as an insured party against all risks and liabilities. The Contractor shall insure with any one of the Insurance Companies approved for this purpose by the Employer in the joint names of the Employer, the Engineer, and the Contractor against all loss or damages as stated in the General Conditions and as stated herein.

Notwithstanding the responsibilities of the Contractor for indemnities and insurance as described above, the Contractor before commencing work on Site, must discuss fully with the Engineer & Employer the Insurance coverage provided by each under any general policies which are to be applied to this Contract to ensure that there are no contingencies left uncovered and to reduce, as far as practicable, duplication of coverage. Should any areas of possible damage or loss be discovered that are not covered by definition of responsibilities set out in these conditions, the addition or reduction in premiums required to give such insurance coverage will be paid by the Contractor and the policies obtained by the mutual agreement of the Employer and the Contractor.

All payments will be in Pakistan Rupees required to replace the damaged items.

The Contractor shall be responsible for deductibles and losses not covered by insurance.

An insurance loss shall not affect the Employer's or Contractor's rights and obligations under the Contract.

All policies shall state that:

- i. the Employer shall receive at least twenty-eight (28) days written notice of intended cancellation or change affecting coverage.
- ii. the Contractor is fully protected so as to provide full indemnity to Employer in respect of liability against loss or damage assumed by the Contractor under the Contract.
- iii. the inclusion of more than one Insured shall not affect the rights of any other insured.

ALLIED ENGINEERING CONSULTANTS

The Contractor shall be responsible for observance by his Sub Contractor(s) of insurances noted herein. Before each Sub Contractor starts work the Contractor shall give the Employer proof that the Sub contractor(s) are covered by insurance equivalent to that specified herein for the Contractor.

(b) The Contractor shall include the following insurances:

- i. Third Party Liability Insurance
Risks insured: bodily injury, death and property damage.

Scope of coverage: contractual liability, tortious liability, premises and operations liability, Contractor's contingent liability with respect to Sub Contractor's operations.

Minimum limit: as indicated in Annexure 'A' to the Form of Bid inclusive, each occurrence.

- ii. All Risk Property Insurance:

All risks including fire, flood, storm and earthquake.

Scope of coverage: the Works, during the entire duration of the Contract including the Period of Maintenance, and all permanent, temporary and consumable materials related to the Works which are in storage, in transit or at site of the Works.

Minimum limit: the sum of the Contract Price plus fifteen percent (15%). This policy shall state that:

- (a) if a loss occurs the Contractor, the Employer and the Engineer shall be paid in relation of their share of the loss
- (b) (Waiver of subrogation) the Insurer has no subrogation rights against any person, corporation or organization (including directors, officers, employees, servants and agents thereof) which: is an Insured under the policy, or is controlled by, owned by, or associated with an Insured, or is a Sub Contractor on the Works, or has, before a loss occurs, been released from liability by an Insured.

"Hold harmless" provisions: The Employer and the Contractor shall be indemnified against all losses.

Employer use or occupancy: If the Employer uses or occupies all or part of the Works during the life of the Policy the Contractor shall ensure that the policy continues in full force and the Employer shall pay any resulting extra cost of insurance.

Loss Procedure: If a loss occurs the Contractor shall, on behalf of the Employer and himself negotiate the value of the loss with the insurer. Unless directed otherwise by the Engineer, when agreement is reached the Contractor shall repair all damage and the Employer shall pay him, in accordance with the Engineer's certificates, for that part of the repairs which is the Employer's responsibility.

If directed by the Engineer, instead of carrying out repairs, the Contractor shall pay to the party suffering the loss that part of the agreed value of the loss which is the Contractor's responsibility.

iii. All Risk Contractor's Plant Insurance

Scope of coverage: all construction machinery plant used by the Contractor for the Works.

iv. Automobile Liability Insurance.

Risks insured: Bodily injury, death, property damage and theft.

Scope of coverage: all licensed vehicles owned, hired operated or licensed by the Contractor.

Minimum limit: as indicated in Annexure 'A' to the form of Bid inclusive each occurrence.

Cost of compliance with the requirements of this sub-clause and providing all insurance policies shall be borne by the Contractor.

21.2 Scope of Cover

Para. (a) of Sub-clause 21.2 is amended by deletion of the words "from the start of work at the site." and by the substitution therefore of the words "from the first working day after the Commencement Date."

In Part I, the following is added as sub-para (c) under Sub-Clause 21.2,

c) It shall be the responsibility of the Contractor to notify the insurer of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the currency of the Contract.

21.4 Exclusions

The text is deleted and substituted with the following:

Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi


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There shall be no obligation for the insurances in Sub-Clause 21.1 to include loss or damage caused by the risks listed under Sub-Clause 20.4 Para (a) (i) to (iv).

The following Sub-Clause 25.5 is added:

25.1 Evidence and Terms of Early Completion

Sub-Clause 25.1 of the General Conditions of Contract Part-I, the first sentence "The Contractor shall Policies to the Employer" is deleted and substituted with the following sentence.

"The Contractor shall provide evidence to the Employer as soon as practical but in any case, prior to the start of the work at site that the insurances required under the Contract have been affected and shall provide the insurance policies to the Employer."

Following new paragraph is added at the end.

The Contractor shall also submit in original the receipts of all the premiums paid by the Contractor in connection with the above insurances.

Add the following Sub-Clause:

25.5 Insurance Company

The Contractor shall be obliged to place all insurances relating to the Contract (including, but not limited to, the insurances referred to in Clauses 21, 23 and 24) with either National Insurance Company of Pakistan or any other insurance company operating in Pakistan and acceptable to the Procuring Entity.

Costs of such insurances shall be borne by the Contractor.

The following Sub-Clause 31.3 is added:

31.3 Co-operation with other Contractors

During the execution of the Works, the Contractor shall co-operate fully with other contractors working for the Procuring Entity at and in the vicinity of the Site and also shall provide adequate precautionary facilities not to make himself a nuisance to local residents and other contractors.

The following Sub-Clauses 34.2 to 34.12 are added:

34.2 Rates of Wages and Conditions of Labor

The Contractor shall pay rates of wages and observe conditions of labor not less favorable than those established for the trade or industry where the work is carried out. In the absence of any rates of wages or conditions of labor so established, the Contractor shall pay rates of wages and observe conditions of labor which are not less favorable than the general level of wages and conditions observed by other Procuring Entities whose general circumstances in the trade or industry in which the Contractor is engaged are similar.

34.3 Employment of Persons in the Service of Others

The Contractor shall not recruit his staff and labor from amongst the persons in the services of the Procuring Entity or the Engineer; except with the prior written consent of the Procuring Entity or the Engineer, as the case may be.

34.4 Housing for Labor

Save insofar as the Contract otherwise provides, the Contractor shall provide and maintain such housing accommodation and amenities as he may consider necessary for all his supervisory staff and labor, employed for the purposes of or in connection with the Contract including all fencing, electricity supply, sanitation, cookhouses, fire prevention, water supply and other requirements in connection with such housing accommodation or amenities. On completion of the Contract the temporary camps or housing provided by the Contractor shall be removed and the Site reinstated to its original condition, all to the approval of the Engineer.

34.5 Health and Safety

Due precautions shall be taken by the Contractor, and at his own cost, to ensure the safety of his staff and labor at all times throughout the period of the Contract. The Contractor shall further ensure that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements.

34.6 Epidemics

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local medical or sanitary authorities, for purpose of dealing with and overcoming the same.

34.7 Supply of Water

The Contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site, to the satisfaction of the Engineer or his representative, adequate supply of drinking and other water for the use of his staff and labor.

34.8 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Statutes, Ordinances and Government Regulations or Orders for the time being in force, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his Subcontractors, agents, staff or labor.

34.9 Arms and Ammunition

The Contractor shall not give, or otherwise dispose of to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

34.10 Festivals and Religious Customs

The Contractor shall in all dealings with his staff and labor have due regard to all recognized festivals, days of rest and religious and other customs.

34.11 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst staff and labor and for the preservation of peace and protection of persons and property in the neighborhood of the Works against the same.

34.12 Compliance by Subcontractors

The Contractor shall be responsible for compliance by his Subcontractors of the provisions of this Clause.

The following Sub-Clauses 35.2 and 35.3 are added:

35.2 Records of Safety and Health

The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer may from time to time prescribe.

35.3 Reporting of Accidents

The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means.

The following Sub-Clause 36.6 is added:

36.6 Use of Pakistani Materials and Services

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The Contractor shall, so far as may be consistent with the Contract, make the maximum use of materials, supplies, plant and equipment indigenous to or produced or fabricated in Pakistan and services, available in Pakistan preferably in KPK provided such materials, supplies, plant, equipment and services shall be of required standard.

41.1 Commencement of Works

The text is deleted and substituted with the following:

The Contractor shall commence the Works on Site within the period named in Appendix-A to Bid from the date of receipt by him from the Engineer of a written Notice to Commence. Thereafter, the Contractor shall proceed with the Works with due expedition and without delay.

The following Sub-Clause 47.3 is added:

48.2 Taking Over of Sections or Parts

For the purposes of para (a) of this Sub-Clause, separate Times for Completion shall be provided in the Appendix-A to Bid "Special Stipulations".

51.2 Instructions for Variations

At the end of the first sentence, after the word "Engineer", the words "in writing" are added.

52.1 Valuation of Variations

Delete the words "after due consultation.....Engineer and the Contractor" in seventh to ninth line and replace with following:

"The valuation will be carried out on the basis of applicable item rates of KPK-MRS-2025 (1st Bi Annual), failing which the valuation will be carried out by the Engineer on the basis of current market rates with the resource input based on similar items of KPK-MRS-2025 (1st Bi Annual) deduced there from so far as it is practicable to do so. Failing all above, the valuation will be carried out by the Engineer on the basis of actual input with the application of current market rates for labour, material etc. after due consultation with the Employer and the Contractor. No escalation on account of material, labour, POL etc. shall be allowed on such items if the valuation is carried out on the basis of current market rates and the percentage of overheads, taxes & profit, etc. to be allowed in such cases shall be twenty one percent (21.5%)."

In the tenth line, after the words "Engineer shall" add the following: -

Within a period not exceeding one-eighth of the completion time subject to a minimum of 56 days from the date of disagreement whichever is later

Add the following Para at the end of sub-clause 52.1 of Part-I:

The approval / finalization of rates of all variations shall not relieve the Contractor of his obligations under the Contract. The Contractor shall neither stop the work nor slow down the progress of the Works in awaiting the approval of rates of all variations.

53.4 Failure to Comply

This Sub-Clause is deleted in its entirety.

54.3 Customs Clearance

(Procuring Entity may vary this Sub-Clause)

54.5 Conditions of Hire of Contractor's Equipment

The following paragraph is added:

The Contractor shall, upon request by the Engineer at any time in relation to any item of hired Contractor's Equipment, forthwith notify the Engineer in writing the name and address of the Owner of the equipment and shall certify that the agreement for the hire thereof contains a provision in accordance with the requirements set forth above.

The following Sub-Clauses 59.4 & 59.5 are added:

59.4 Payments to Nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with Clause 58 [Provisional Sums], except as stated in Sub-Clause 59.5 [Certification of Payments].

59.5 Certification of Payments & Nominated Subcontractors

Before issuing a Payment, Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- a) submits reasonable evidence to the Engineer, or
- b)
 - i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
 - ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement,

then the Procuring Entity may (at his sole discretion) pay direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or



(b) above. The Contractor shall then repay, to the Procuring Entity, the amount which the nominated Subcontractor was directly paid by the Procuring Entity.

60.1 Monthly Statements

In Para (c) delete the words “the Appendix to Tender” and substitute with the words “Sub-Cause 60.11 (a) (6) hereof”.

60.2 Monthly Payments

In the first line, “28” is substituted by “14”.

60.10 Time for Payment

Delete the text and substitute with the following:

The amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other terms of the Contract, shall, subject to Clause 47, be paid by the Employer to the Contractor within 28 days after such Interim Payment Certificate has been delivered to the Employer, or, in the case of the Final Certificate referred to in Sub Clause 60.8, within 56 days after such Final Payment Certificate has been delivered to the Employer. In the event of failure of the Employer to make payment within the times stated due to circumstances beyond his control, the Employer shall not pay to the Contractor any interest or compensation of any sort.

Add the following Sub-Clauses: The following Sub-Clause 60.11 is added:

60.11 Financial Assistance to Contractor

Financial assistance shall be made available to the Contractor by the Employer by adopting the following method.

Mobilization Advance

a) Mobilization Advance up to fifteen percent (15%) of the Contract Price stated in the Letter of Acceptance shall be paid by the Employer to the Contractor in two equal parts upon submission by the Contractor of a Mobilization Advance Guarantee for the full amount of the Advance in the specified form from a Scheduled Bank in Pakistan, as per prevailing Provincial Government Rules at the time of signing the agreement.

(1) First part within 14 days after signing of the Agreement or the date of receipt of Engineer’s Notice to Commence, whichever is earlier; and

(2) Second part within 42 days from the date of payment of the first part, subject to the satisfaction of the Engineer as to the state of mobilization of the Contractor, bringing/installing/erecting of equipment mentioned in Appendix-G to Bid to complete full requirement for the entire work, having fulfilled his obligation under the contract agreement for provision of facilities for the Engineer and after achievement of progress to the extent of two percent (2%) value of the Works.

b) This Advance shall be recovered in equal instalments; first instalment at the expiry of second month after the date of payment of first part of Advance and the last instalment two months before the date of completion of the Works as per Clause 43 hereof.

60.13 Recovery of Retention Money

An amount equal to ten percent (10%) of the contract price shall be retained from interim payments against work done as retention money. The maximum amount of retention money shall be Eight (8%) percent of the Contract price.

60.14 Withholding Of Payment

The Employer at his own or on the recommendations of the Engineer may withhold the whole or part of any payment requested by the Contractor if it is necessary in his opinion to protect himself against losses on account of the following reasons:

- i) Defective work not rectified.
- ii) Non-fulfilment of any due demand and guarantee or renewal of any guarantee or surety.
- iii) Claims if third parties raised against the Employer caused through the fault of the Contractor in connection with the works.
- iv) Damage caused by the Contractor or his personnel or any sub-contractor, to the Employer, or to a third party on the site.
- v) Non-fulfilment of the Contract by the Contractor.
- vi) Non-fulfilment of the Contractual Obligation towards submittal of Shop Drawings, Bar Bending Schedules, Samples, erection of Mock-Up samples, As-built drawings, etc.
- b) After the reasons of withholding of payments have been eliminated to the satisfaction of the Employer and the Engineer, payments to the Contractor will be undertaken by the Employer without delay.

63.1 Default of Contractor

The following Para is added at the end of the Sub-Clause:

Provided further that in addition to the action taken by the Procuring Entity against the Contractor under this Clause, the Procuring Entity may also refer the case of default of the Contractor to Pakistan Engineering Council for punitive action under the Construction and Operation of Engineering Works Bye-Laws 1987, as amended from time to time as well as under the prevailing rules of KPRA.

65.2 Special Risks

The text is deleted and substituted with the following:

The Special Risks are the risks defined under Sub-Clause 20.4 sub paragraphs (a) (i) to (a) (v).

65.6 Out Break of War

In sub-clause 65.6, delete "in any part of the World" from the second line of the paragraph.

67.3 Arbitration

In the sixth to eight lines, the words "shall be finally settled appointed under such Rules" are deleted and substituted with the following:

shall be finally settled under the provisions of the Arbitration Act, 1940 as amended or any statutory modification or re-enactment thereof for the time being in force.

The following paragraph is added:

The place of arbitration shall be **Peshawar, Pakistan.**

68.1 Notice to Contractor

The following paragraph is added:

For the purposes of this Sub-Clause, the Contractor shall, immediately after receipt of Letter of Acceptance, intimate in writing to the Procuring Entity and the Engineer by registered post, the address of his principal place of business or any change in such address during the period of the Contract.

68.2 Notice to Procuring Entity and Engineer

For the purposes of this Sub-Clause, the respective address are:

a) The Employer:

**Project Director
Women University Swabi
Main Campus, Tehsil Topi, District Swabi
Postal Code: 23460
Tel:- +92 938 281890
Email: pd.psd@wus.edu.pk**

b) The Engineer:

***Project Manager
Allied Engineering consultants
H.No.7, Usmania Street, Warsak Road, Peshawar
Contact No: 091-5200283***

69.1 Default of Employer

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In Sub-Clause 69.1 (a), substitute "56 days" for "28 days".

69.4 Contractor's Entitlement to Suspend Work

In 6th line of Sub-Clause 69.4, substitute "56 days" for "28 days".

70.1 Increase or Decrease of Cost

Delete Sub-Clause 70.1 in its entirety, and substitute with the following:

The amounts payable to the Contractor, pursuant to Sub-Clause 60.1, shall be adjusted in respect of the rise or fall in the cost of labor, materials, and other inputs to the Works, by applying to such amount the formula prescribed in this Sub-Clause.

(a) Other Changes in Cost

To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall of costs.

(b) Adjustment Formula

The adjustment to the monthly statements in respect of changes in cost shall be determined from the following formula:-

$$P_n = A + \frac{L_n}{b} L_o + \frac{M_n}{c} M_o + \frac{E_n}{d} E_o + \dots$$

P_n is a price adjustment factor to be applied to the amount for the payment of the work carried out in the subject month, determined in accordance with Paragraph 60.1 (a), and with Paragraphs 60.1 (b) and (e), where any variations and day work are not otherwise subject to adjustment;

A is a constant, specified in the Appendix-C to Bid, representing the nonadjustable portion in contractual payments;

b, c, d, etc., are weightages or coefficients representing the estimated proportion of each cost element (labor, cement and reinforcing steel etc.) in the Works or Sections thereof, net of Provisional Sums and Prime Cost; the sum of A, b, c, d, etc., shall be one;

L_n, M_n, E_n, etc., are the current cost indices or reference prices of the cost elements for month "n", determined pursuant to Sub-Clause 70.1(d), applicable to each cost element; and



Lo, Mo, Eo, etc., are the base cost indices or reference prices corresponding to the above cost elements at the date specified in Sub-Clause 70.1(d).

(c) Sources of Indices and Weightages

The sources of indices shall be those listed in the Appendix-C to Bid.

(d) Base, Current, and Provisional Indices

The base cost indices or prices shall be those prevailing on the day 28 days prior to the latest date for submission of bids.

The current date price (or base date index) of any element shall be the price of the element which was prevalent twenty-eight (28) days prior to the start of the execution month to which a particular monthly statement is related. The unit of time shall be a calendar month.

(e) Adjustment after Completion

If the Contractor fails to complete the Works within the time for completion prescribed under Clause 43, adjustment of prices thereafter until the date of completion of the Works shall be made using either the indices or prices relating to the prescribed time for completion, or the current indices or prices, whichever is more favorable to the Employer, provided that if an extension of time is granted pursuant to Clause 44, the above provision shall apply only to adjustments made after the expiry of such extension of time.

(f)

Weightages

The weightages for each of the factors of cost given in the Appendix-C to Bid shall be adjusted if, in the opinion of the Engineer, they have been rendered unreasonable, unbalanced, or inapplicable as a result of varied or additional work executed or instructed under Clause 51. Such adjustment(s) shall have to be agreed in the variation order.

71&72 Currency & Rates of Exchange

Delete the Clauses in their entirety.

73.1 Payment of Income Tax

The Contractor, Subcontractors and their employees shall be responsible for payment of all their income tax, super tax and other taxes on income arising out of the Contract and the rates and prices stated in the Contract shall be deemed to cover all such taxes.

73.2 Cost Inclusive of Duty & Taxes



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The rates and prices stated in the priced Bill of Quantities shall be deemed to include every element of duty or tax liveable on or in relation to the production, import, purchase, sale, delivery and transportation of materials and to the bringing thereof to the Site and no such duty or tax shall be separately reimbursable.

74.1 Integrity Pact

If the Contractor or any of his Subcontractors, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Contractor as Appendix-L to his Bid, then the Procuring Entity shall be entitled to:

- (a) recover from the Contractor an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Contractor or any of his Subcontractors, agents or servants;
- (b) Terminate the Contract; and
- (c) Recover from the Contractor any loss or damage to the Procuring Entity as a result of such termination or of any other corrupt business practices of the Contractor or any of his Subcontractors, agents or servants.

The termination under Sub-Para (b) of this Sub-Clause shall proceed in the manner prescribed under Sub-Clauses 63.1 to 63.4 and the payment under Sub-Clause 63.3 shall be made after having deducted the amounts due to the Procuring Entity under Sub-Para (a) and (c) of this Sub-Clause.

75.1 Termination of Contract for Procuring Entity's Convenience

The Procuring Entity shall be entitled to terminate the Contract at any time for the Procuring Entity's convenience after giving 56 days prior notice to the Contractor, with a copy to the Engineer. In the event of such termination, the Contractor:

- (a) shall proceed as provided in Sub-Clause 65.7 hereof; and
- (b) shall be paid by the Procuring Entity as provided in Sub-Clause 65.8 hereof.

76.1 Liability of Contractor

The Contractor or his Subcontractors or assigns shall follow strictly, all relevant labor laws including the Workmen's Compensation Act and the Procuring Entity shall be fully indemnified for all claims, damages etc. arising out of any dispute between the Contractor, his Subcontractors or assigns and the labor employed by them.

77.1 Joint and Several Liability

Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi



If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally bound to the Procuring Entity for the fulfillment of the terms of the Contract and shall designate one of such persons to act as leader with authority to bind the joint venture. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Procuring Entity.

78.1 Details to be Confidential

The Contractor shall treat the details of the Contract as private and confidential, save in so far as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the prior consent in writing of the Procuring Entity or the Engineer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract, the same shall be referred to the decision of the Engineer whose award shall be final.

79.1 Precaution for Pollution

Precautionary measures and facilities shall be provided by the Contractor at his own cost in carrying out the Works including dumping and disposal of spoils, in the manner approved by the Engineer to prevent environmental pollution.


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**SPECIFICATIONS-
SPECIAL PROVISIONS**


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SPECIFICATIONS – SPECIAL PROVISIONS

1. GENERAL

- 1.1 Specifications – Special Provisions shall form an integral part of Bid and the Contract documents.
- 1.2 The Contractor shall notify all sub-contractors of the provisions of these Special Provisions.

2. DESCRIPTION OF PROJECT, WORKS INVOLVED AND SITE

Women University Swabi intends to construct the new blocks within its premises. The construction works are divided into different Packages. Works under Package-3 includes Construction of Multipurpose Hall and other ancillary works, **Strengthening of Women University, Swabi (New Campus)** as per approved design and drawings.

The scope of works mainly comprises construction of civil, electrical, communication, water supply, sewerage, drainage works, etc. and related ancillary works lying within the boundaries and limits shown on the Drawings and any such additional areas adjacent thereto as may be designated by the Engineer from time to time for the construction to be performed under the Contract, and all such areas and additional areas shall be comprised in the Site.

3. CODES, STANDARDS AND CERTIFICATES

A. Applicable Standards Except as otherwise provided by these Specifications or the Drawings, all materials, equipment and fabrication and testing thereof shall conform to the latest applicable standards and codes referred in the Specifications by use of the abbreviations explained below:

ASCE American Society of Civil Engineers
ASA American Standard Association
ACI - American Concrete Institute (USA)
AISI - American Iron and Steel Institute (USA)
AISC - American Institute of Steel Construction (USA)
ANSI - American National Standard Institute (USA)
ASTM - American Society for Testing and Materials (USA)
AASHTO - American Association of State Highway & Transportation Officials.
AWS - American Welding Society (USA)
BS - British Standards (UK)
CP - Codes of Practice (UK)
ICAO International Civil Aviation Organization
BSICP British Standard Institute Code of Practice
PS - Pakistan Standards (Pak)
PCA Portland Cement Association PSI Pakistan Standard Institute
SSPC - Steel Structures Painting Council (USA)
UBC - Uniform Building Code (USA)

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USBR - United States Bureau of Reclamation (USA)

If the Contractor, at any time and for any reason, wishes to deviate from the above standards or desires to use material or equipment not covered by the above standards, he shall state the exact nature of the changes, the reason for making the change and shall submit complete specifications of the materials and equipment to the Engineer for approval.

B. Standards other than those Specified

Where requirements for materials or equipment are specified by reference to a standard which has its origin in one country, it is not the intention to restrict the requirements solely to that standard and that country. Other standards, including standards of other countries, will be accepted provided the requirements thereof, in the sole opinion of the Engineer, are at least equal to the requirements of the standard specified. The Contractor may propose to the Engineer an equivalent standard other than that specified, in which case he shall submit the proposed standard and all other information required and shall submit written proof that his proposed standard is equivalent in all significant respects to the standard specified. All submissions must be made in the English language.

C. Codes and Standards at Site

The Contractor shall supply and have at his site office: -

- a) Copies of all latest editions of codes and standards referred to in these Specifications or equivalent codes and standards as approved by the Engineer.
- b) Catalogues and published recommendations from manufacturers supplying products and materials for the project.
- c) The Contractor shall provide manufacturer's or supplier's materials which must meet the requirements of a specific code or standard as stated in these Specifications.

4. MANUFACTURER'S RECOMMENDATIONS

Installation of manufactured items shall be in accordance with the vendor list or as approved by the Engineer.

5. UNITS OF MEASUREMENTS

The FPS System of Units shall be used throughout the Project.

6. EXISTING CONDITION AT SITE

Drawings and information pertaining to existing project conditions are furnished for reference. Neither the Employer nor the Engineer warrants the adequacy or correctness of

these. The Contractors are encouraged to visit the project site to assess the existing site conditions.

7. PROTECTION AND PRECAUTIONS

The Contractor and his sub-contractors shall afford all necessary protection to existing structures and will be required to make good at his own expense any damage done to such structures through his own or his representatives or subcontractors' fault and negligence.

The Contractor and his sub-contractors shall afford all necessary protection to existing roads in the area. He will clear and make good at his own expense any damage to or debris on these roads through his own fault and negligence. He must at all-time ensure the free and normal flow of traffic and shall not cause obstruction to the traffic system. The Contractor and his sub-contractors shall provide and maintain necessary protection and precautionary measures such as warning signs, warning lamps and barricades etc. to prevent accidents.

The Contractor shall promptly correct all such damage to original condition at no additional expense to the Employer.

The Contractor shall cooperate with trades performing work under other Contracts as necessary for completion.

8. SEQUENCE OF CONSTRUCTION

The Contractor shall submit his proposal for approval of the Engineer the sequence of Construction, prior to starting the works. The works shall be executed as per approved sequence of construction

9. LINES AND LEVELS

Survey control points will be established by the Engineer. The Contractor shall be responsible for verifying these and shall be responsible for all requirements necessary for the execution of any work to the locations, lines, and levels specified or shown on the drawings, subject to such modifications as the Engineer may require as work progresses.

10. PLANT, EQUIPMENT AND TOOLS

The Contractor shall provide at his cost modern plant, equipment and tools, adequate and befitting to the nature, magnitude and size of this Contract, in strict compliance with the requirements of the General Conditions of Contract, Conditions of Particular Applications and Technical Specifications.

11. PARTIAL POSSESSION

Whenever, as determined by the Employer any portion of work performed by the Contractor is in a condition suitable for use, the Employer may take possession of or use such portion.

Such use by the Employer shall in no instance be construed as constituting final acceptance, and shall neither relieve the Contractor of any of his responsibilities under the Contract, nor acts a waiver by the Employer of any of the conditions thereof, provided that the Contractor shall not be liable for the cost of repairs, re-work, or renewals which may be required due to ordinary wear and tear resulting from such use. However, if such use increases the cost or delays to the completion of remaining portions of work, the Contractor will be entitled to an equitable adjustment.

If, as a result of the Contractor's failure to comply with the provision of the Contract, such use proves to be unsatisfactory, the Employer will have the right to continue such use until such portion of the work can, without injury to the Employer, be taken out of service for correction of defects, errors, omissions, or replacement of unsatisfactory materials or equipment, as necessary for such work to comply with the Contract; provided that the period of such operation or use pending completion of appropriate remedial action shall not exceed twelve months unless otherwise mutually agreed upon in writing between the parties.

12. EXISTING SERVICES

The Contractor shall search for, find, locate and protect any wiring, cable, duct, pipework, etc., within or immediately adjoining the site area.

The Contractor shall take full responsibility for safety of existing service lines, utilities and utility structures uncovered or encountered during excavation and construction operations.

The Contractor shall take full responsibility for damaging any such service lines, utility/utility structure and any cost and/or expense that arises or issues from any such damage shall be borne directly by himself. Should any damage to any such service occur the Contractor shall forthwith take remedial action, initiate safety precautions, install temporary services and carryout repair all at his own cost and expense and inform the Engineer and notify all relevant authorities.

Existing utilities which are to remain in service for or after the works are to be determined by the Contractor. If any existing service lines, utilities and utility structures which are to remain in service are uncovered or encountered during these operations, they shall be safeguarded, protected from damage, and supported. The Contractor shall preserve, maintain and keep perfect working conditions, any existing facilities required to be preserved by the Employer/the Engineer.


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13. CONSTRUCTION AREA AND ACCESS

The Employer will provide the Contractor possible space within or nearby the area of site of works for the storage of plant, equipment and materials and for Contractor's temporary office, during the currency of the Contract. In case the adjacent area as required by the Contractor is not available within the Project boundary for storage of plant, equipment and

machines then the Contractor shall arrange at his own expense possible space for storage of plant, equipment and machines at his own cost and expense. On no account shall such temporary installations conflict/interfere with any of the permanent installations, services and any operational function of Employer. The handling and storage of all plants, equipment and materials at site shall be the sole responsibility of the Contractor and at no risk and cost to the Employer.

The Contractor shall protect all material against corrosion, mechanical damage or deterioration during storage and erection on site. The protection methods shall be to the approval of the Engineer

14. CONSTRUCTION & CHECKING AT SITE

The Contractor shall submit to the Engineer in due time for approval and discussion, his proposals and plans as to the method and procedure to be adopted for the temporary and permanent works involved.

The submitting to these suggestions and arrangements, and the approval thereof by the Engineer shall not relieve the Contractor of his responsibilities and duties under the Contract.

The carrying out of all work included in the Contract is to be supervised by a sufficient number of qualified representatives of the Contractor and full facilities and assistance are to be afforded by the Contractor for the Engineer or his Representative to check & examine the execution of the work.

The Engineer reserves the right to inspect all parts of the works but may at his discretion waive inspection on certain items. This shall in no way absolve the Contractor from his responsibilities. This particularly applies to the checking of materials, the accurate setting out of foundations, and to the leveling, setting and aligning of the various parts, and to the proper fitting and adjustment of manufactured and finished materials and fixtures in position.

If the Engineer or his Representative find that the work progress is slow in such a way that the works or parts thereof will not be completed in the time specified, then he shall order the Contractor to work overtime or in shifts and the Contractor shall comply. These arrangements will be free of all financial encumbrances and at no additional costs to the Employer.

In the event of night work, the Contractor shall provide sufficient and adequate lighting to the satisfaction of the Engineer or his Representative and shall supply the necessary manpower for satisfactory continuation of the work after normal hours.

15. STORAGE & HANDLING FACILITIES

The Contractor shall make his own arrangements for providing the necessary space for the storage of plant, equipment and materials and for Contractor's temporary office, in and around the site of works, during the currency of the Contract.

16. PRODUCT DATA

Manufacturer's standard schematic drawings shall be modified or deleted to indicate only information which is applicable to the project. Such standard information shall be supplemented to provide all additional applicable information.

Manufacturer's catalogue sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive literature shall be clearly marked to identify pertinent materials products or models. Dimensions and required clearances shall be indicated. Shop performance characteristics and capacities shall be noted.

17. PRODUCT QUALITY AND HANDLING

Suppliers of local and foreign products and installations specified shall have been regularly engaged in the business of manufacturing, fabricating, installing and / or servicing work required for a period not less than 5 years. In addition, the Engineer may request as appropriate a:

- List of similar installations that describes project, scope and date of completion.
- Complete literature, performance data, and technical data.
- List of services record within Pakistan. - Location of service office from which this installation could be maintained.

For the actual fabrication, installation and testing of the specified work use only thoroughly trained and experienced workmen completely familiar with the items required and with the manufacturers recommended methods of installation. In acceptance or rejection, no allowance will be made for the lack of skill on the part of workmen.

Use all means necessary to protect materials before, during and after installation and to protect the installed work and materials of all other trades. In the event of damage, immediately make all repairs and replacement necessary for approval and at no additional cost to the Employer.

18. INSPECTION & TESTS REPORTS

All equipment and materials furnished under these specifications and all work performed in connection therewith will be subject to rigid inspection by the Engineer or the Engineer's

Representative. Acceptance of equipment and material or the waiving off inspection thereof shall in no way relieve the Contractor of his responsibility for meeting the requirements of the Contract.

The Contractor shall furnish the Engineer with certified true copies of test reports of all materials used in the manufacture and fabrication of all equipment and material including metal work, steel pipes, fire bricks etc. The result of these tests shall be in such form as to show compliance with the applicable Specifications, standards and codes for the material used.

19. FIELD LABORATORY AND TESTING

19.1 General

The Contractor shall provide and maintain a field laboratory equipped with approved equipment to perform all the tests required by the Engineer. The quality control testing shall be performed by the Contractor's competent personnel in accordance with a site testing and quality control program to be established by the Contractor and approved by the Engineer. The Engineer may however, require certain tests to be performed in any other laboratory designated by him.

The Contractor shall provide laboratory helpers to the Engineer for testing. The laboratory shall be run by a qualified material Engineer and Laboratory Technician to be employed by the Contractor.

The Field Laboratory, including all equipment and staff shall be placed at the disposal and direction of the Engineer during the Contract.

The Contractor shall keep a complete record of all quality tests performed on site

All quality control and tests shall be carried out in accordance with applicable standards and codes.

19.2. Field Laboratory Equipment Requirements

The Laboratory shall be equipped with new unused and latest Equipment to perform tests as per Technical Specifications and General Conditions of Contract. Additional equipment/materials shall be supplied by the Contractor as and when required by the Engineer to perform any specified test, at no additional cost to the Employer.

The laboratory shall also be equipped with new unused furniture, fittings and fixtures. If any equipment, furniture, fitting or fixture becomes unserviceable for any reason what so ever, the Contractor shall promptly replace the same as and when directed by the Engineer.

19.3. Testing Laboratory Certificates


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The Engineer may accept a certificate from a commercial testing laboratory, satisfactory to him, certifying that the product has been tested within a period acceptable to the Engineer and that it conforms to the requirements of these specifications.

19.4. Method of Payment

The cost of providing running and maintenance of the laboratory, equipment, materials and staff, testing charges for materials supplied by the Employer and all other tests to be performed in any other laboratory designated by the Engineer shall be deemed to be included in the price quoted by the Contractor and no separate claim for payment on this account shall be entertained by the Engineer. Furthermore, the cost of any additional

laboratory, field and shop tests required through the resubmission of samples because of failure of compliance with Specifications shall be borne by the Contractor.

In case the Contractor does not provide the specified equipment and testing facility, cost of testing plus 100 percent overheads shall be recovered from his bills.

20. SURVEYING INSTRUMENTS

20.1 General

The minimum quantity of survey equipment is stated below which shall be available with the Contractor at site of Works along with qualified Surveyors and Survey Helpers. The equipment shall be maintained throughout the Contract Period and replaced by the Contractor in case of damage or loss. The survey equipment shall be made available to the Engineer when requested. All surveying equipment shall be in good working condition.

20.2 Surveying Equipment Required

The Contractor shall provide and maintain the following surveying equipment at site.

- a) Total Station with staff 01 No. b) Automatic Levels with tripods & staff 02 Nos. d) All other miscellaneous tools, equipment and materials required in surveying.

21. APPROVAL OF MATERIALS AND PLANT

21.1 Quality of Materials

All materials, fixtures, fittings, supplies and plant furnished under the Contract shall be new and unused, standard first grade quality and of the best workmanship and design. No inferior or low-grade materials, supplies or articles will be either approved or accepted, and all work of assembly and construction shall be done in a first-class and workmanlike manner. In asking for prices for materials intended for delivery to the Site and incorporation in the Works under any portion of these Specifications, the Contractor shall provide the manufacturer or supplier with complete information as may be necessary to secure compliance to this Clause and, in every case, he shall quote this Clause in full to each such manufacturer or supplier.

21.2 Submission of Samples and Data

21.2.1 The Contractor shall furnish for approval of the Engineer with reasonable promptness all samples as directed by the Engineer or specifically called for in the Specifications and in accordance with the time schedule provided in the schedule of submittals. The Engineer shall check and approve such samples with reasonable promptness only for conformance with the design concept of the Works and for compliance with the information given in the Contract Documents. All work shall be in accordance with approved samples.

21.2.2 Samples shall be furnished so as not to delay fabrication, allowing the Engineer reasonable time for consideration of the sample submitted.

21.2.3 Each sample shall be properly labeled with the name and quality of the material, manufacturer's name, name of the project, the Contractor's name and the date of submission, and the Specifications Article number to which the sample refers.

21.2.4 The manufacturer's installation directions shall be provided with each sample. The Contractor shall pay all transportation costs and deliver samples to the Engineer's office, Site or testing laboratory as directed by the Engineer.

21.2.5 Samples shall be of adequate size to permit proper evaluation of the material by the Engineer. Where variations in color, texture, dimensions or other characteristics are to be expected, the Contractor shall submit samples showing the maximum range of variation. Materials exceeding the range of variation of the approved samples shall not be used on the Work.

21.2.6 In order to permit coordinated selection of colors and finishes, the Contractor shall deliver samples of all related items to the Engineer at one time. Samples of such materials will not be approved until all related samples have been submitted.

21.2.7 If both Shop Drawings and samples are required for the same item, the Engineer may require both to be submitted before approving either.

21.2.8 The Contractor shall erect Mock-up samples of finished items where specifically called for in the documents or as directed by the Engineer. The Mock-up samples shall be preserved/protected by the Contractor till the end of the project or as directed by the Engineer.

21.2.9 No acceptance or approval of any Shop Drawings or sample, or any indication or request by the Engineer on any Shop Drawings shall constitute an authorization for any increase in the Contract Sum.

21.3 Inspection All material and Plant furnished and all work performed under this Contract will be subject to inspection by the Engineer at all times and in all states of completion both off-Site and on-Site. The Contractor shall furnish promptly without additional charge, all facilities, labor and materials reasonably needed for performing such inspection and testing as may be required by the Engineer

21.4 Approved Sample At Site The Contractor shall, at all times, keep on the Site approved samples. All such samples shall be made available to the Engineer as and when required.

22. BAR BENDING SCHEDULE

Bar bending (reinforcement bars) schedule of all structural drawings shall be prepared by the Contractor and submitted in triplicate to the Engineer for approval.

23. DRAWINGS

23.1 Bid Drawings Bid Drawings issued with the Bid Documents, called the Bid Drawings, show scope of the work to be performed by the Contractor. The Drawings are generally in sufficient detail so as to be used as a basis for construction, fabrication and for placing orders for materials subject to corrections based on the future issue of supplementary Drawings as provided under Sub-Clause 12.2 hereof.

23.2 Construction Drawings, Supplementary Drawings Upon commencement of the works and furnishing by the Contractor stake out survey plan & natural ground levels, the Engineer shall issue Construction Drawings to the Contractor. The Construction drawings may be issued in stages, where necessary. The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall follow these drawings. When additional information regarding the geological formations or other conditions becomes available, the Engineer may find it desirable to change dimensions or design of one or more of the features of the Works to conform to the newly disclosed conditions. The Engineer reserves the right to make such reasonable changes, and the Contractor's operations shall be conducted so as to accommodate any such reasonable changes in the Works.

23.3 Definition of Term Drawings the Term Drawings as used in the Specifications means the Drawings referred in Clauses 12.1 and 12.2 above. 23.4 Checking of Drawings the Contractor shall check all Drawings carefully as soon as practicable after receipt thereof, and shall promptly notify the Engineer of any errors discovered. 23.5 Copies of Drawings will be issued to the Contractor as described below:

23.5.1 Construction Drawings Two (2) sets of the Construction Drawings will be issued to the Contractor as stated above, free of charge. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

23.5.2 Supplementary Drawings SP-9 strengthening of Women University, Swabi (New Campus) Two (2) prints of each supplementary Drawing will be issued to the Contractor free of charge. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

23.6 Drawings to Be Furnished by the Contractor the Contractor shall submit to the Engineer for review, such drawings as are required under the Contract, sufficiently in advance of the work intended to be executed.

23.6.1 Reinforcement Drawings Reinforcement placement drawings and bar bending schedules (to be provided by the Contractor as per clause 11 above) of all RCC work shall be prepared by the Contractor and submitted in triplicate to the Engineer for approval, sufficiently in advance of the works in which they are intended to be used.

23.6.2 Shop Drawings

(a) The Contractor shall submit to the Engineer for review three (3) copies of all drawings to be issued for setting out, fabrication, supply order and construction; based on data, requirements, dimensions, details, codes, standards and design provided in the drawings issued by the Engineer. Such drawings shall be submitted at least twenty-eight (28) days before they are required for use. If within a period of fourteen (14) days after submission, the Engineer notifies the Contractor that a drawing fails to comply with the relevant requirement of the Contract, it shall be rectified and resubmitted for approval at the Contractor's cost. Fabrication or construction shall not commence on any part of the Works until the shop drawings or construction drawings for that part of the Works have been approved by the Engineer.

The Works shall be executed in accordance with the drawings as approved by the Engineer. If the Contractor wishes to modify any approved drawings, he shall immediately notify the Engineer and submit revised drawings for approval. If the Engineer instructs those further drawings are necessary for executing the Works, the Contractor shall prepare such drawings and submit them for approval.

The Contractor at his cost shall rectify errors, omission, ambiguities, inadequacies and other defects.

Approval by the Engineer, in accordance with this paragraph, shall not relieve the Contractor of any of his responsibilities under the Contract.

(b) The shop drawings shall be properly identified indicating the part of the Works, the name of the contractor / supplier etc., the date of preparation and the dates of all revisions. The Shop Drawings shall be complete and shall show the design dimensions, proposed materials to be used, finishes, type of shop paint and all other details in connection thereto.

(c) Where adjoining work requires shop drawings, the Contractor shall prepare and submit composite shop drawings, which shall show and define the work under all affected trades. If the Contractor executes work before coordinating with other trades so as to cause interference with work of those trades, he shall make changes necessary to correct the conditions without extra cost to the Employer.

(d) No changes shall be made by the Contractor in the resubmitted shop drawings in excess of the corrections spelled out by the Engineer and in a separate note on the shop drawings.

(e) No work in the shop shall be started and no material or plant ordered until the Engineer has approved the shop drawings. It shall be the responsibility of the Contractor to submit the shop drawings on a schedule that allows reasonable time for checking and approval and subsequent fabrication. Failure to submit shop drawings in ample time for checking, correcting, and rechecking will not justify extension of time for completion of the Works.

(f) The Contractor shall also check and verify all site measurements whenever requested by other Specialist Contractors or by other Sub Contractors to enable them to prepare their own shop drawings and pass on the information with sufficient promptness, so as not to delay the work in any way. A copy of all such information passed on shall be given to the Engineer.

23.6.3 As-Built Drawings

The Contractor shall, at all times, keep on Site a separate set of prints of all drawings on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. The Subcontractor(s) for plumbing, mechanical and electrical shall, at all times, keep on Site, a separate set of prints of the drawings (showing their parts of the Works) on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. Such drawings shall show the exact physical location and configuration of the works as actually installed.

The Contractor shall, within fourteen (14) days of issuance of Taking-Over Certificate for whole of the Works, furnish to the Engineer for his approval two (2) copies of such marked up drawings. One (1) copy of each of the marked-up drawings approved by the Engineer shall be returned to the Contractor by the Engineer and these shall be used for the preparation of the As - Built Drawings.

The Contractor shall furnish to the Engineer six (6) complete sets and one reproducible copy of all As -Built Drawings within twenty-eight (28) days of receipt of drawings stated above, from the Engineer.

24. PROTECTION OF THE WORKS

The Contractor shall whenever necessary cover up and protect the works from weather and damage by his own or other workmen performing subsequent operation. The Contractor shall provide all necessary dustsheets, barriers and guard rails and clear away the same at completion.

25. RESTORATION AND CLEANING

Upon completion of the works the Contractor shall restore all items covered by the Contract to the satisfaction of the Engineer.

The Contractor shall do regular cleaning and clear away all rubbish and excess materials that may accumulate from time to time on completion and before handing over. Upon completion of the works, he shall obliterate all signs of temporary construction facilities such as work areas, structures, foundations of temporary structures, stock piles of excess or waste materials, or any other vestiges of construction, as directed by the Engineer. All buildings shall be cleaned; floors and paving scrubbed and the works and site shall be left in a clean and satisfactory state for immediate use and occupation. Care shall be taken not to use any cleaning materials, which may cause damage to the surface to be cleaned.

The Contractor shall also take all necessary precautions to keep the works and site free from vermin during construction and he shall leave the works vermin free on completion. Application of pest control agents shall not commence until the specific product, name, method and extent of application have been submitted to and approved of by the Engineer.

26. SITE OFFICE AND TEMPORARY FACILITIES TO BE PROVIDED BY THE CONTRACTOR

26.1 Contractor's Office, Facilities Etc.

The Contractor shall establish and maintain a Site office. The Contractor shall provide all facilities in connection with the execution, completion, of the Works, remedying defects therein and maintenance of the utility's services. The facilities shall not be limited to the Contractor's Site Office, labor camps, work yard and storage areas, temporary water supply, waste water disposal, temporary electricity, medical unit, temporary roads, fire protection and firefighting equipment etc. The Contractor shall be solely responsible for arranging all utilities and the Contractor shall setup, maintain and operate an architectural and engineering facility at site with adequate number of technical and support staff as well as equipment required for particular nature of job covered under the Contract to prepare drawings/shop drawings for approval of the Engineer. The Contractor shall arrange his labor camp, work yard, storage area and site office.

26.2 Temporary Roads

The Contractor shall prepare and maintain such temporary roads as may be necessary, from the site to the nearest road and also within the plot. Such roads shall be positioned strictly in accordance with the Engineer's instructions and the Contractor shall reduce or control any dust nuisance by regularly spraying water and compaction as directed.




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26.3 Temporary Services

26.3.1 Temporary Water Supply

The Contractor shall supply in sufficient quantity all necessary potable and other water for construction purposes for all trades at points within a reasonable distance of any building being constructed. The Contractor shall make arrangements and pay charges for water service installation, maintenance and removal thereof, and pay the costs of water for all trades. At completion of the work, the temporary water services equipment and piping shall be removed by the Contractor at his own expense.

26.3.2 Temporary Electricity

The Contractor shall make all the necessary arrangements for a temporary electricity service, pay all expense in connection with the installation, operation and removal thereof and pay the costs of electricity consumed by all trades. The Contractor shall arrange and furnish an Electric Power Generating set at site and maintain the generating set-in perfect working condition through-out the duration of Contract. The generating power of the set shall be sufficient to operate all plant and equipment as well as the camps and offices of the Contractor and the offices of the Engineer/Employer, during construction at site. Should the set fail to meet the required demand at site or fail to function or operate, the Contractor shall immediately replace the same with other generating set/sets to the satisfaction of the Employer as well as the Engineer.

A temporary lighting system shall be furnished, installed and maintained by the Contractor as required to satisfy the minimum requirements for safety and security and to the satisfaction of the Engineer.

When the permanent electrical power and lighting systems are in an operating condition, they may be used for temporary power and lighting for construction purposes provided that the Contractor obtains the written approval of the Engineer and the Employer and assumes full responsibility for the entire power and lighting system and pays all costs for operation and maintenance of the system. At completion of construction work, or at such time as the Contractor makes use of permanent electrical equipment and devices, temporary electricity services shall be removed by the Contractor at his own expense.

26.3.3 Waste Disposal


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The Contractor shall make such temporary provisions as may be required in order to dispose of any chemicals, fuels, oils, grease, bituminous materials, waste and soil waste and the like without causing pollution to either the site or the environment. Disposal of any materials, wastes, effluent, garbage, oil, grease, chemicals and the like shall be in areas specified by the concerned local authority proposed by the Contractor and subject to the approval of the Engineer. If any waste material is dumped in unauthorized areas the Contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, contaminated ground shall be excavated, disposed of as directed by the Engineer and replaced with suitable fill material compacted and finished with topsoil all at the expense of the Contractor.

26.3.4 Fire Protection

The Contractor shall provide and maintain adequate fire protection in the form of barrels of water with buckets, fire bucket tanks, fire extinguisher, or other effective means ready for instant use, distributed around the project and in and about temporary inflammable structures during construction of the works.

Gasoline and other flammable liquids shall be stored in and dispensed from safety containers approved by the Engineer and storage shall not be within building.

Torch-cutting and welding operations performed by the Contractor shall have the approval of the Engineer before such work is started and a chemical extinguisher is to be available at the location where such work is in progress.

The Contractor shall follow the instructions and specifications of the Civil Defense Department or any other local department concerned with such activities.

27 CONSTRUCTION SCHEDULE

A Construction schedule shall be maintained in accordance with the provisions of the General Conditions of Contract.

The schedule shall be accompanied with sufficient data and information including all necessary particulars of constructional plant, equipment machinery, temporary Works, arrival of plant, equipment at site and their installation, method of operation, work forces employed, etc., for an activity of the Works.

Should the Engineer consider any alteration or addition in the programmed and time schedule, the Contractor shall conform thereto without any cost to the Employer.

Whenever necessary and wherever the progress of the actual work shows departure, the programmed and time schedule shall be undated and submitted to the Engineer for his approval.

28 SUBMISSION REQUIREMENTS


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28.1 Schedule submission at least sixty days before the dates when reviewed submittals will be needed.

28.2 Submit Shop Drawings as per provision given in Sub-Clause 19.5 (a) and number of copies of Product Data which the Contractor requires for distribution plus four copies which will be retained by the Engineer.

28.3 Submit three samples unless otherwise specified.

28.4 Accompany submittals with transmittal letter, in duplicate, containing: - Date - Project title and number - Contractor's name and address - The number of each Shop Drawing, Product Data and the Sample submitted. - Notification of deviations from Contract Documents. - Other pertinent data.

29 RESUBMISSION REQUIREMENTS

Shop Drawings:

- Revise initial drawings as required and resubmit as specified for initial submittal.
- Indicate on drawings any changes which have been made by the Engineer.
- Product Data and Samples: Submit new data and samples as required for initial submittal.

30 WEEKLY PROGRESS REPORT AND PHOTOGRAPHS

30.1 During the continuance of the Contract, the Contractor shall submit weekly progress on forms as approved by the Engineer. Such weekly reports shall show the actual progress completed as of date of the report plotted against the schedule as given by the Contractor at the start of work and shall be broken down so as to indicate status of all activities associated with mobilization design, material procurement, manufacture, surveys works, tests with regard to the agreed contract program.

30.2 The Employer and the Engineer reserve the right to coordinate the schedules of this Contractor and other Contractors working at the Site, and to adjust and/or change any and all such schedules as required during the course of construction in order to achieve a coordinated project in harmony with the Employer's completion date.

30.3 Commencing after the first week of construction, and continuing every week until completion, the Contractor shall take and submit photographs to the Engineer's Representative, to show progress of his work and completion of each structure or major feature


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31 CONTRACTOR TO NOTIFY DELAYS ETC.

Any delay which will affect the completion of Works shall be detailed by the Contractor who shall state the action he is taking for effective completion of the Contract program.

The Contractor shall submit a report in respect of the various sections of the Works, the equipment in use or held in readiness, a return of labor and supervisory staff, and details of any matters arising which may generally affect the progress of the work.

The Contractor shall give a summary of the detailed progress report giving the position with regard to the agreed Contract program.

The progress reports shall be set out in a format to the approval of the Engineer, and forwarded promptly so that on receipt the information contained therein is not more than 21 days out of date.

If during execution of the Contract, the Employer considers the progress position of any section of the work to be unsatisfactory, or for any other reason relating to the Contract, he will be at liberty to convene a meeting and the Contractor's Representatives are to attend such meeting.

The Contractor's Site Office shall prepare and submit 6 copies of a weekly progress report to the Employer and Engineer's Site Office. This report shall summarize site activities and record and details where difficulties in maintaining the agreed program are being experienced or are likely to cause subsequent delay.

The Contractor's Site Office shall also prepare and submit to the Engineer's Site Office 2 copies of Daily Activity Report summarizing the main activities to be undertaken each day, noting special activities such as a test, alignment checks, etc. The Contractor shall be responsible for expediting the delivery of all material and equipment to be provided by him and his subcontractors.

32 PHOTOGRAPHS

As soon as work commences on Site, the Contractor shall provide at least 10 to 12 photographs (along with soft copy) of the works from positions to be selected by the Engineer. Each photographic print shall not be less than 297mm x 210mm and shall bear a printed description, a serial number and the date when taken. The negatives/soft copy of all photographs shall be held at the Contractor's Site Office, numbered and handed over to the Employer at the completion of the Contract.

33 SIGN BOARD


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The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer two (2) Sign Boards of dimensions approved by the Engineer. The Sign Boards shall be made of metal. It shall be mounted on steel posts securely anchored and braced. The Contractor shall paint on the Sign Boards, the name of the Works, and the names of the Employer, Engineer and the Contractor both in English and Urdu Language.

34. Site Facilities to Be Provided By the Contractor to the Consultant/Client

The following facilities must be provided by the contractor to the consultant/Client Staff at project site to include facilities so that the staff may work and reside in a satisfactory manner. These are but not limited to the following facilities. The cost impact of these facilities is deemed to be included in contractor's BOQ rate by contractor.

Contractor shall establish and maintain well-furnished site office with minimum 1000 sft covered area for Engineer including utility bills. The office plan to be approved by the Engineer.

Furniture and equipment for office and laboratory to be provided by contractor and its cost deemed to be included in the Contractor's rates: One photocopy machine with automatic document feed.

Personal Laptops at least core-i7 and above with HP LaserJet printer A4 size, one HP inkjet color printer A-3 size. One document HP scanner A-3 size. One AC for RE office and One AC for client office. One (10cft) refrigerator. One cold water geyser. Provision of broad band internet connection with Wi-Fi. UPS 3000 watts with liquid battery. Licensed software including Primavera, Microsoft Office, AutoCAD.

The contractor shall provide day to day office stationary for use of The Engineer, it shall include (i) Blank Pages – Double A (ii) Pen (iii) Color / Black Cartridges for Printer etc. (the ceiling limit for consumables is Rs. 30,000/Month)

The Contractor shall provide a telephone with connection with average billing not exceeding to Rs.5000/- per month, a fax machine, a laptop (latest model), stabilizer, internet connection and printer.

The Contractor shall ensure that the necessary safety precaution will be observed and interferences shall be avoided specially for the works executed side by side by different Contractors.

Due consideration must be given to permit access to sections of the work as required by other Contractors for the extension of their works. With a view to

Construction of Multi-purpose Hall, Library, Cafeteria and External Infrastructure Works (Package-3) at Women University Swabi


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coordinate the works, the Engineer may from time to time direct the order of the works to be carried out.

34. (a) Facilities for site staff to be provided at rented accommodation for which cost deemed to be included in contractor's rate.

Contractor will provide accommodation and food for consultant's staff including cook and all necessary furniture, etc at site or outside site on rental basis.

35. TRANSPORTS FOR THE ENGINEER

The Contractor shall provide transport facilities to the engineer for official meetings with client and other relevant departments, and also for site visits including monthly site expenses.

36 COORDINATION OF WORK AT SITE

The Contractor shall take cognizance that during the execution of the project, other Contractor will be working concurrently on this site.

All works of his responsibility shall be coordinated by the Contractor so as to give the necessary facilities to other Contractor or their workman or any other employ, who execute or supervise any work on the site.

The Contractor shall ensure that the necessary safety precaution will be observed and interferences shall be avoided specially for the works executed side by side by different Contractors.

Due consideration must be given to permit access to sections of the work as required by other Contractors for the extension of their works. With a view to coordinate the works, the Engineer may from time to time direct the order of the works to be carried out.

No payment shall be made to the Contractor for the works involved under this sub clause.

37 SITE FACILITIES TO BE PROVIDED BY THE CONTRACTOR

37.6.1 General

Without prejudice to the generality of the various clauses of the Contract, particular attention is drawn to the obligation of the Contractor to make his own arrangement at his own expense for the following.

37.6.2 Labor Camps and Staff Residences

The Contractor shall provide, operate and maintain labor camps and staff residences and are required for the proper and efficient progress of the work to house his own employees. For the purposes of operation and maintenance of the Camps and Residences, the Contractor shall comply with the rules of Pakistan Labor Camp Rules 1960 and all other applicable provisions of the Pakistan Labor Laws.

37.6.3 Administrative and Field Office

The Contractor shall provide, operate and maintain administrative and field offices required for his staff and would be responsible for Operation and Maintenance, furniture, equipment, appliances, janitor services and security of the same.

37.6.4 Work yards and Storage Areas

The Contractor shall provide, operate and maintain all sheds, fencing, foundations and all above ground structures required to store material or equipment brought on to the site by him. The Contractor shall be responsible for the security of his entire camps, residence, site and field offices work yard and storage area.

37.6.5 Water Supply, Sewerage System and Electricity

The Contractor shall make his own arrangement, at his own expense for provision, operation and maintenance of electric supply, reasonable supplies of raw and potable water and sewerage system at the site of works and his labor camps, staff residences and offices. The Contractor shall pay all fees, and charges (including bills) of whatsoever nature to the concerned departments (if any) in order to procure connections of the above facilities and thereafter using these facilities.

37.6.6 Medical Care

The Contractor shall arrange provision of adequate medical facilities for his employees.

Adequately equipped and properly staffed first aid stations or dispensaries shall be provided by the Contractor at camps and other strategic locations, to administer first


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aid treatment at all times free of charge to all persons on the Site, including personnel of the Engineer and the Employer. The nature, number and location of facilities furnished and the Contractor's staff for administering first-aid treatment shall meet the requirements of the Health Services of the Government of Pakistan and of Section III of the Manual "Safety Requirements for Construction by Contract", published by the Employer, and shall be subject to approval by the Engineer.

38. CONSTRUCTION PROCEDURES

The Contractor shall advise the Engineer of proposed construction procedures in accordance with the General Conditions of Contract. If the Engineer shall see that the work progress is slow in such a way that the work will not be completed in the time specified, then he shall order the Contractor to work overtime or in more shifts and the Contractor shall obey these orders without any additional payments and without any objections or request for compensation.

39. NOTIFICATION TO ENGINEER

The Engineer shall be notified daily in writing of the nature and location of the Works the Contractor intends to perform the next day so as to enable necessary inspection and measurement to be carried out. The Engineer may, if necessary, direct that longer notice be given of certain operations.

40. NIGHT WORK

When work is done at night the Contractor shall maintain from sunset to sunrise such lights on or about his work and plant as the Engineer may deem necessary for the proper observations of the work and the efficient execution thereof.

41. WEATHER

No work is to be undertaken when, in the opinion of the Engineer, the weather is so unsuitable that proper protection of the work cannot be ensured.

42. CO-ORDINATION WITH OTHER CONTRACTORS

It shall be the responsibility of the Contractor to keep-up good relations with other Contractors employed on site by the Employer. The Contractor shall cooperate and coordinate his work with that of the other Contractors working at the Site, to whatever extent may be necessary to complete the Project in accordance with the approved program of the Works and in accordance with the Engineer's instructions. Should a disagreement or dispute arise between the Contractor and other contractors, the same shall be referred without delay to the Engineer for his decision. Upon such decision, the Contractor shall proceed with the work in accordance therewith. In case the access



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to the works of other contractors is through the Site area of the Contractor, the Contractor shall coordinate with and permit all reasonable access to other Contractors.

43. ACCIDENT PREVENTION, SAFETY MEASURES AND PROTECTIVE EQUIPMENT

The Contractor shall comply and enforce compliance by all his sub- contractors with the highest standards of safety and accident prevention in accordance with international standards and in compliance with all applicable laws, ordinances and statutory provisions.

All requisite barriers, fences, warning signs, lights and other safety precautions as required for the protection of persons and property on or adjacent to the site shall be provided at the Contractor's cost.

All false work, scaffolding and handrails shall be well constructed and secured at all times. Where overhead work is being carried out, warning signs shall be installed at ground level clearly warning of the overhead work.

All warning signs shall be in two languages, English and Urdu, and shall at all times be maintained in a clean and legible condition, to the satisfaction of the Engineer.

Trash shall be removed at frequent intervals to the satisfaction of the Engineer.

Netting shall be provided at all levels where work is in progress, all around the building.

44. SETTING OUT OF WORK AND SURVEY

44.1 Reference Points, Lines

The Contractor shall establish benchmarks and / or reference line at the Site in accordance with the instructions of the Engineer. The Contractor shall set out its work from these benchmarks and lines. The Contractor shall supply plant, equipment, materials and labor for checking if required of the survey control by the Engineer. Slope stakes will be set by the Contractor before commencement of excavation and will be re-established as required during progress of work using established benchmarks and reference points.

44.2 Verification

The Engineer may make checks as the work progress to verify lines and grades established by the Contractor and to determine the conformance of the work as it progresses with the requirements of the Drawings and Specifications. Such checking by the Engineer shall not relieve the Contractor of his responsibility to perform all work in accordance with the Drawings and Specifications and the lines and grades given therein.

Based upon the basic control, the Contractor shall provide his own primary control points, as needed for the Works, and shall preserve and maintain them until otherwise authorized.

The Contractor shall be responsible for maintaining all survey markers/monuments, and property corners. If any markers/monuments are destroyed by the Contractor, the Contractor shall arrange, at his own cost, to retrace and replace them to the entire satisfaction of the Engineer. If a monument cannot be replaced in its original position, the Contractor shall install a witness corner. The Contractor shall complete and file monument reference cards on all monuments as per instructions of the Engineer.

The Contractor shall provide experienced construction surveyors with adequate experience in the construction surveys similar in nature as required by this Contract.

Based upon established basic control monuments the Contractor shall establish all lines and grades necessary to control the Works, and shall be responsible for all measurements that may be required for execution of the Works to the tolerance prescribed below.

The Contractor shall perform such surveys and computations as are necessary to determine quantities of work performed or placed during each progress payment period, and shall also perform all surveys necessary for the Engineer to determine final quantities of work in place. The Engineer will determine final quantities based on original ground levels determined by the Contractor and agreed by the Engineer.

The Contractor shall notify the Engineer at least 24 hours before performing a quantity survey and, unless specifically waived, quantity surveys shall be performed in the presence of an authorized representative of the Engineer. Degree of accuracy for the survey works shall satisfy the following specified tolerances:

- (a) Structure points shall be set within 0.01-foot accuracy from point to point, except where tighter tolerances are required.
- (b) Cross-section points shall be located within 0.10 foot, horizontally and 0.01 foot vertically.
- (b) Permissible closing error for a leveling line meant for establishing Temporary Bench Mark (TBM) shall not exceed $0.045 \times \sqrt{M}$ foot, where M is in miles. The permissible closing error shall be duly adjusted.


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The Contractor shall provide all materials, equipment and labor required for surveying work, including, but not limited to, instruments, stakes, spikes, steel pins, templates, platforms, and tools, and except as required to be incorporated in the work or left in place, all such materials and equipment, shall remain the property of the Contractor. Surveying instruments shall be in perfect working condition and shall be subject to rigid inspection for proper operation at least after every two weeks of use. Defective instruments shall be promptly replaced or repaired and adjusted to the satisfaction of the Engineer.

Survey data shall be recorded in accordance with recognized professional surveying standards. Original field notes, computations, and other surveying data shall be recorded in the Contractor furnished field books. Notes or data not in accordance with standard formats will be rejected. Illegible notes or data, or use of erasures on any page of a field book will be considered sufficient cause for rejection of part or the entire field book. Copied notes or data will not be permitted; therefore, rejection of part or all of a field book may necessitate re-surveying. Corrections by ruling or lining out errors will be satisfactory.

The cost of all materials, equipment, surveyors and labor required for surveys for the Works and quantity surveys required by this clause shall be deemed to be included in the rates and prices of the various items in the Bill of Quantities and no separate measurement and payment in their respect shall be made.

44.3 Survey Instruments

The Contractor shall maintain at the Site the requisite surveying instruments in perfect working conditions to enable the Engineer's Representative to check levels and lines of the work at all times.

45. PAYMENT OF WORK

No payment shall be made for the works involved within the scope of this section of specification unless otherwise specifically stated in the Bills of Quantities or herein. The cost thereof shall be deemed to have been included in the total price quoted by the Contractor.

46. ENVIRONMENTAL PROTECTION

The Contractor shall exercise care to protect the natural landscape and shall conduct his construction operations so as to prevent any unnecessary destruction, scarring or defacing of the natural surroundings in the vicinity of works. Except where clearing is required for the Permanent works, approved construction roads and the Temporary Works, and for excavation operations, all trees and native vegetation shall be preserved and shall be protected from damage which may be caused by the Contractor's construction operations

and equipment. On completion of the works, all work areas shall be smoothed and graded in a manner to confirm to the natural appearance of the landscape. Where unnecessary destruction, scarring, damage or defacing may occur as a result of the Contractor's operations, it shall be repaired, replanted, or otherwise corrected as directed by the Engineer at no additional cost to the Employer.

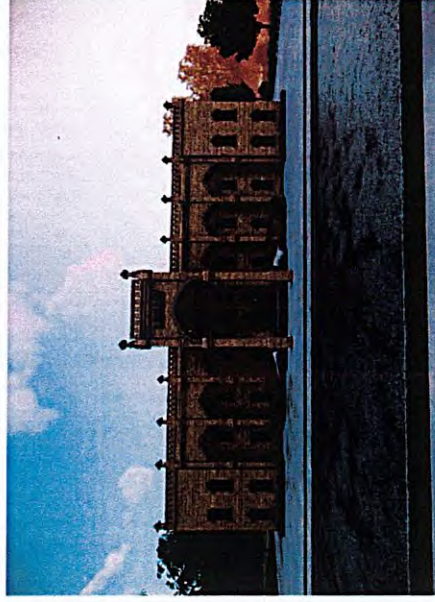
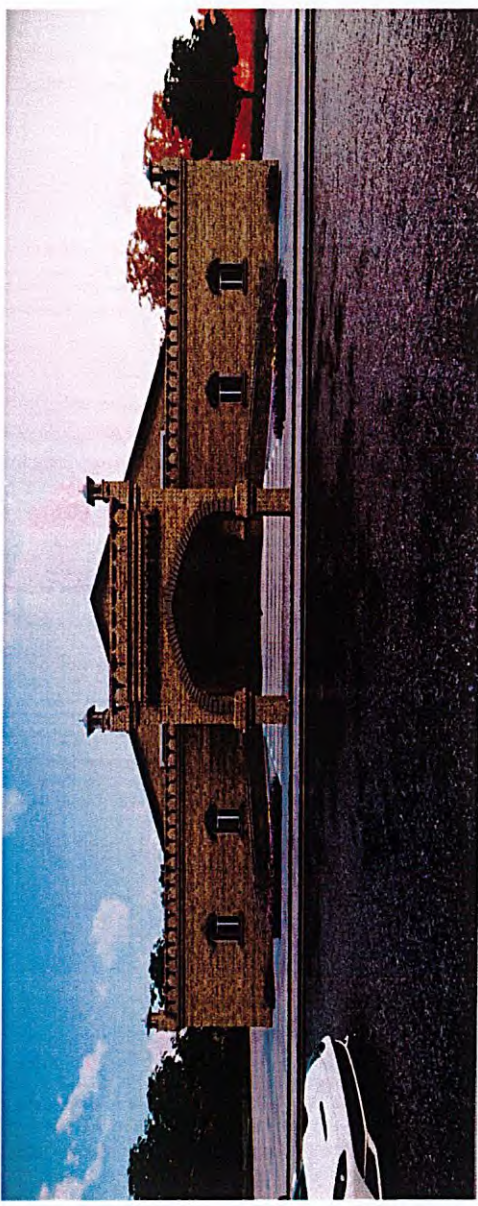

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WOMEN UNIVERSITY SWABI

STRENGTHENING OF WOMEN UNIVERSITY SWABI
(NEW CAMPUS)

CONSTRUCTION OF MULTI-PURPOSE HALL, LIBRARY,
CAFETERIA AND EXTERNAL INFRASTRUCTURE WORKS
(Package -3)



March, 2026

Bill of Quantity

Total Amount = 590.557 (M)



ALLIED ENGINEERING CONSULTANTS (PVT) LIMITED
CIVIL/POWER/MECHANICAL/INDUSTRIAL/HIGHWAYS/BRIDGES ENGINEERS-ARCHITECTS-PLANNERS-INTERIOR
DESIGNERS LANDSCAPE & ENVIRONMENT SPECIALISTS

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Client : WOMEN UNIVERSITY SWABI KHYBER PAKHTUNKHWA

Project : STRENGTHENING OF WOMEN UNIVERSITY, SWABI (NEW CAMPUS)

Sub Title : **Construction of Multi-Purpose Hall, Cafeteria, Library & External Development Works -III)**

Subject : Abstract of Cost

Based On MRS 2025

S-No	Description Of Items	Schedule Items Amount(Rs)	None Schedule Items Amount(Rs)	Total Amount(Rs)	Remarks
A Multi Purpose Hall					
1	Civil Work	277,744,954.69	1,535,595.48	279,280,550.17	
2	Electrical Work	5,247,964.55	1,702,137.24	6,950,101.79	
3	Plumbing	3,005,661.64	-	3,005,661.64	
4	Sui Gas Work	230,276.42	-	230,276.42	
5	CCTV SYSTEM	750,824.30	558,650.88	1,309,475.18	
6	TELEPHONE & Networking System	643,074.92	168,530.22	811,605.14	
7	FIRE ALARM	572,806.29	-	572,806.29	
8	PUBLIC ADDRESS	371,790.99	-	371,790.99	
Sub Total A Amount (Rs)		288,567,353.80	3,964,913.82	292,532,267.62	
B Cafeteria					
1	Civil Work	84,384,910.15	721,909.37	85,106,819.52	
2	Electrical Work	2,384,589.36	-	2,384,589.36	
3	Plumbing	2,799,691.64	-	2,799,691.64	
4	Sui Gas Work	434,572.97	-	434,572.97	
5	Fire Alarm	627,812.87	-	627,812.87	
6	TELEPHONE & NETWORKING SYSTEM	44,590.74	-	44,590.74	
Sub Total (B) Amount (Rs)		90,676,167.73	721,909.37	91,398,077.10	
C Library					
1	Civil Work	147,376,403.60	915,012.23	148,291,415.83	
2	Electrical Work	4,255,527.98	1,029,245.94	5,284,773.92	
3	Plumbing	1,622,133.08	-	1,622,133.08	
4	Sui Gas Work	264,358.86	-	264,358.86	
5	CCTV SYSTEM	750,824.30	558,650.88	1,309,475.18	
6	TELEPHONE & Networking System	793,117.56	168,530.22	961,647.78	
7	FIRE ALARM	815,161.41	-	815,161.41	
Sub Total C Amount (Rs)		155,877,526.79	2,671,439.27	158,548,966.06	

[Signature]
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Women University Swabi



D	External External Infrastructure Works			
1	Protection Wall	2,626,635.86	-	2,626,635.86
2	Walk Ways	1,309,541.07	-	1,309,541.07
3	RCC Culverts	1,030,369.62	-	1,030,369.62
4	External Sewerage System	5,591,801.86	-	5,591,801.86
5	Open Drains	9,574,898.94	-	9,574,898.94
6	U.G.W Tank 22000 Gallons	4,694,835.03	-	4,694,835.03
7	Tube Well with Pump	9,438,132.40	-	9,438,132.40
8	Test Bore	1,040,621.00	-	1,040,621.00
9	Pump Room	1,133,817.85	-	1,133,817.85
10	External Water Supply System	7,277,155.04	1,302,023.80	8,579,178.84
11	External Sui Gas	3,058,074.49	-	3,058,074.49
Sub Total D Amount (Rs)		46,775,883.17	1,302,023.80	48,077,906.97
Grand Total A-D Amount (Rs)		581,896,931.49	8,660,286.27	590,557,217.76
Above/At Par/Below:		%		
Amount in Figure				
Amount in Words				

Note:- Any item of work not reflected in the BOQ and necessarily required to be executed at site as per condition of contract (COC) will be paid as per MRS-2025 1st Bi Annual with above/below premium for Schedule item and only market rate for Non-Schedule item, subject to proper approval from competent authority.



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Building :		CONSTRUCTION OF MULTI PURPOSE HALL			
Estimate :		Main Building (Bill of Quantity)			
S.No	Description	Schedule Cost (Rs.)	Non-Schedule Cost (Rs.)	Schedule+Non Schedule Cost (Rs.)	
1	Civil Works	277,744,955	1,535,595	279,280,550	
2	Electrical Work	5,247,965	1,702,137	6,950,102	
3	Plumbing Work	3,005,662	-	3,005,662	
4	Sui Gas Work	230,276	-	230,276	
	Total = A	286,228,857	3,237,733	289,466,590	
5	CCTV SYSTEM	750,824	558,651	1,309,475	
6	TELEPHONE & Networking System	643,075	168,530	811,605	
7	FIRE ALARM	572,806	-	572,806	
8	PUBLIC ADDRESS	371,791	-	371,791	
	Total = B	2,338,497	727,181	3,065,678	
	Total Amount A+B	288,567,354	3,964,914	292,532,268	
	Grand Total Amount	288,567,354	3,964,914	292,532,268	

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CONSTRUCTION OF MULTIPURPOSE HALL						
Grand Summary Of Cost (Bill of Quantity)						
S-No	MRS-2025 (1st Bi Annual)	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)
Chapter #:03						
1	03-25-c	Excavation in foundation of building, bridges etc complete : in hard soil or soft murum	m3	442.42	1935.77	856,423.41
2	03-18-a	Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	133.66	1935.77	258,735.03
3	03-18-d	Filling, watering and ramming earth under floor with earth excavated from outside lead upto 30m	m3	527.17	3372.94	1,778,111.10
4	(03-19-a)+(03-20-a)+(03-20-b)+(03-20-c)	Transportation of earth upto 8 Km	m3	1515.79	3372.94	5,112,663.90
Chapter #:06						
5	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	17035.28	79.72	1,357,979.98
6	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	435.82	5,378,210.11
7	06-05-h	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:3:6)	m3	13983.72	158.32	2,213,964.95
8	06-49-a	Concrete Class A1	m3	20624.03	854.54	17,624,116.08
9	06-49-a	Concrete Class A1				
10	i	Ground Floor	m3	20624.03	513.37	10,587,716.81
11	iii	First Floor	m3	20624.03	116.00	2,392,474.34
12	06-07-e	Add extra labour for RCC in 2nd & subsequent storeys	m3	1340.19	116.00	155,467.68
13	06-08-b	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	Tonne	306713.5	167.62	51,411,010.16
14	06-08-c	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 40)	Tonne	303008.5	6.32	1,914,104.69
15	06-47-c	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shape - Position / Horizontal	m2	1166.35	2645.23	3,085,264.82
16	06-47-d	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1232.79	2509.37	3,093,520.95
17	06-47-b	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1010.2	980.67	990,671.97
18	06-47-e	Add extra to the item codes 06-46 and 06-47-a to d for Erection and removal of Form work for ornamental work in RCC or Plain cement concrete.	m2	190.56	580.00	110,524.80
19	06-30-b-02	V. Damp proof c/s plaster, 1 layer polythene 2 coats bitumen Ratio 1:4 (0.75" thick)	m2	1119.45	451.67	505,625.19
Chapter #:07						
20	07-04-a-05	1st class brick work in foundation and plinth in Cement, sand mortar 1:6	m3	16274.21	130.80	2,128,733.02
21	07-05-a-05	1st class brick work in ground floor Cement, sand mortar 1:6	m3	17340.09		
22	i	Ground Floor	m3	17340.09	588.74	10,208,849.12

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23	ii	First Floor	m3	17340.09	315.86	5,476,957.88
24	iii	2nd Floor	m3	17340.09	76.86	1,332,724.85
25	07-06-a	Add extra on item No.07-05 for brick work in First floor	m3	666.3	315.86	210,454.33
26	07-06-b	Add extra on item No.07-05 for brick work in in Second floor	m3	1515.08	76.86	116,446.04
27	07-15-a	Extra for dressing or chamfering bricks for Special architectural bricks	100 No.	7463.5	278.44	2,078,118.28
28	07-09	Extra labour for arch work in brick masonry, including labour for centring and decentring	m3	1734.65	230.00	398,969.50
29	07-10	Extra for 1st class brick work in steining of wells or any other circular masonry.	m3	1524.15	230.00	350,554.50
30	07-30	Supplying and filling sand under floor or plugging in wells	m3	2535.9	455.41	1,154,868.39
Chapter #:09						
31	09-35-c	Provide & lay roof insulation complete with Thermopore sheet 1" thick	m2	2869.1	733.14	2,103,450.27
32	09-16	Khuras on roof 2'x2'x6"	Each	1478.69	12.00	17,744.28
33	14-144-b	Supplying and Fixing UPVC soil waste and vent pipe class B : 4" dia	m	2399.56	168.29	403,828.39
Chapter #:10						
34	10-15-d	Provide & lay topping of concrete 1:2:4, including surface finishing & dividing in panels : 2" thick	m2	1431.12	1808.55	2,588,252.34
35	10-22-a	1.5" thick mosaic flooring, including rubbing & polishing complete : Using grey cement	m2	3010.08	158.25	476,339.57
36	10-41-a-01	Mosaic dado or skirting complete as per specs Using grey cement : 3/8" thick	m2	1852.86	40.15	74,389.92
37	10-26-c-ii	Provide & lay marble fine dressed stone flooring on surface in white cement complete: 3/4" thick 24 x 24 Sunny White Marble	m2	4911.01	926.64	4,550,745.65
38	10-45-a-ii	Provide & lay marble fine dressed stone dado or skirting in white cement complete: 0.5" thick 12 x 12 Sunny White Marble	m2	2845.97	62.35	177,452.58
39	10-26-c	Providing and Laying badal marble fine dressed stone 12"x48" wide 3/4" thick for stairs steps	m2	3431.42	177.32	608,471.13
40	10-60-a	Providing and laying 3/4"(19mm) thick Granite Black polished tiles of approved quality of any size on floor over 3/8" thick base cement sand mortar 1:3 including setting the tiles with portland cement slurry over cement sand jointing and washing the tiles with cement slurry of matching color including grinding, rubbing, polishing & mortar cost.	m2	11848.78	260.53	3,086,904.51
41	10-50-a	Providing and Fixing Ceramic Floor Tiles of approved quality of Size : 12" x 12"	m2	2568.72	120.59	309,765.57
42	10-55-j	Providing and Fixing of Bath Room Tiles 12"x18" of approved quality	m2	2562.82	441.08	1,130,403.69
43	10-58-c	Providing and Fixing of porcelain full body tiles 20" x 20" x 3/8" of approved colour of shade, joint using spacers in white cement with pigment laid on base of CM 1:2 etc complete in all respects	m2	3975.79	249.38	991,486.65
44	10-64	Chemical polishing of marble floor/Dado	m2	389.64	926.64	361,056.59
Chapter #:11						
45	11-09-b	Cement plaster 1:4 upto 20' height 1/2" thick	m2	519.49	4345.81	2,257,604.57
46	11-10-b	Cement plaster 3/8" thick under soffit of RCC roof slabs only upto 20' height : (1:3)	m2	512.84	268.53	137,711.36
47	11-26	Extra for lime, mud or cement plaster & pointing from 20' & above for each additional 10' height	m2	63.43	2447.07	155,217.81
48	11-18-a	Cement pointing struck joints, on walls, upto 20' height : Ratio 1:2	m2	561.34	2719.74	1,526,697.16

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49	11-29	Extra cost of labour & material for red oxide pigment in cement pointing to match bricks	m2	103.5	2719.74	281,492.78
50	11-20-b	Providing and applying wall putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	m2	89.32	4614.34	412,152.53
51	28-18	Providing and fixing with steel nails and washers, the chicken wire mesh of approved quality, at joint of concrete and masonry work (4" wide strip) before plastering etc complete.	m2	1000.06	220.00	220,013.20
52	11-21-a-02	Distemper New surface : Two coats	m2	205.04	4614.34	946,123.54
Chapter #:12						
53	12-08-c	First class deodar wood wrought joinery in doors and windows etc. complete : 1.5" thick	m2	30903.75	39.50	1,220,640.68
54	12-41-a-02	Providing and fixing partition including framework : Sheet on one side of frame : Ply wood 1/4" thick	m2	2110.19	192.38	405,956.63
55	12-64-e-03	Supply and Fixing aluminium door/window, Fixed Louver in frame Deluxe model (1.60 mm gauge) 2" section	m2	7925.47	14.50	114,919.32
56	12-64-b-06	Supply and Fixing aluminium door/window, Fixed Arch Premium model (2.00 mm gauge) 4" section	m2	16210.02	92.57	1,500,481.41
57	12-65-a-06	Supply and Fixing aluminium door/window, Sliding Window Premium model (2.00 mm gauge) 4" section	m2	16369.48	303.35	4,965,611.78
58	12-66	Supply and Fixing of double glazed aluminium (color as approved) Premium model (Gauge 2 mm) 4" sect. Sliding window, including all necessary fittings and fly screen shutters complete.	m2	19653.14	177.32	3,484,962.00
59	12-64-d-06	Supply and Fixing aluminium door/window, Fly Screen shutter with separate outer frame Premium model (2.00 mm gauge) 3" section	m2	7251.04	151.67	1,099,785.99
60	12-65-e-16	Supply and Fixing aluminium door/window, Swing Door Double Action Premium model (2.00 mm gauge) Bronz/Black 4" section	m2	16475.79	17.77	292,843.39
61	12-65-d-06	Supply and Fixing aluminium door/window, Sliding Door Premium model (2.00 mm gauge) 4" section	m2	16369.48	2.60	42,597.16
62	12-70-a	Supply and Fixing MS Sheet 16 gauge (10" x 2") box type chowkats including fixing in position with all charges for Hold fast, Hinges and Painting etc	m	2139.62	174.95	374,319.38
63	12-16	Providing and fixing of Duca engineered door 2" thick made of partial soft wood, MDF 3/4" thick UV Coated including chowkat, architrave, all required fittings i.e. hinges, handles, locks bolts complete in all respects.	m2	33109.46	612.01	20,263,272.08
64	12-84	Providing & fixing uPVC white color full body doors with UPVC frame and chowkat including, locks and all hardware fittings, etc. complete in all respects	m2	13402.06	35.46	475,175.27
65	12-22-c-02	Providing and fixing sliding bolt to doors Brass sliding bolts : 12" long	Each	2252.47	17.00	38,291.99
Chapter #:13						
66	13-03-c-01	Prepare & Paint new surface, doors & windows Priming coat	m2	339.85	149.91	50,945.92
67	13-03-c-02	Prepare & Paint new surface, doors & windows Each subsequent coat of paint	m2	243.31	149.91	36,473.89
68	13-25-a	Preparing surface & painting with snowcem / weathershield paint : First coat	m2	344.07	830.00	285,578.10
69	13-25-b	Preparing surface & painting with snowcem / weathershield paint : 2nd & subsequent coats	m2	189.64	830.00	157,401.20
70	13-03-d-01	Prepare & Paint new surfaces of guard bars, railing & similar open work : Priming coat	m2	200.88	301.12	60,488.03
71	13-03-d-02	Prepare & Paint new surfaces of guard bars, railing & similar work : Each subsequent coat	m2	140.04	301.12	42,168.18
72	14-128	Providing and Fixing of hydraulic Door Closer heavy (Best Quality).	Each	2944.38	6.00	17,666.28
73	12-47	Supply and Fixing acoustic mineral fibre tile ceiling fixed with aluminium tee hung by GI wire fixed in roof	m2	2520.09	249.38	628,462.67
74	25-45-a	Supplying and Fixing 18 SWG MS Sheet Door with angle iron frame (1.5"x1.5"x1/8"), bolt, hinges, paint etc complete	m2	11557.74	2.28	26,316.42

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75	25-47	Supply and fixing of fancy type stainless steel chromium plate 2" dia pipes stair railing 3/4" dia pipe fixed on specified space on steps in horizontal positions, complete in all respects	m	5151.13	98.75	508,676.05
76	28-15	Pre anti Termite Treatment in the building mixed with water of mixing ratio as per the manufacturer's certified manual	m2	98.63	6354.22	626,716.65
77	28-23	Providing and fixing of 1-1/2" thick Thermopore in cavity wall, including all necessary fittings complete in all respect .	m2	409.05	2335.86	955,483.40
78	24-40	Supplying and Fixing PVC Water Stopper 8" wide 3/8" thick. Providing and fixing PVC water stopper 8" wide 3/8" thick in verticle (Wall/Column) or horizontal (Floor/Slab) expansion joint including cutting and jointing complete in all respects.	m	736.9	9.29	6,848.51
79	25-32	Providing and fixing grating in opening including fixing at site with flat iron 2" x 3/8" and 3/4" round bars at 4" center to center.	m2	11495.27	111.52	1,282,000.37
80	25-10	Fabrication of heavy steel work with angle, tees, sheet iron etc for making trusses, girders etc	Tonne	288717.5	222.53	64,247,727.84
81	09-14-a	Supply & fix corrugated GI sheet with GI bolts, nuts, limpet etc. complete : 20 BWG	m2	4368.48	2585.13	11,293,089.19
82	09-14-c	Supply & fix corrugated GI sheet with GI bolts, nuts, limpet etc. complete : 24 BWG	m2	3148.58	2585.13	8,139,488.97
		Total SI. Items Amount (Rs)				277,744,955
1	NSI	Supply and Installation of MS Grill Including MS Solid bars (1/2" x 1/2") and MS angle iron frames (3/4" x 3/4" x 1/8"), executed in accordance with approved designs and drawings.	M2	4810.25	303.62	1,460,509.92
2	NSI	Extra for providing/fixing approved quality Door locks : Imported	Each	6115	12.00	73,380.00
3	NSI	Supply and Fixing of Iron Holdfasts to Joint Brick Wall & Concrete Column As per Specifaciton and Drawings.	Each	142.13	12.00	1,705.56
		Total NSI. Items Amount (Rs)				1,535,595
		Total Amount of SI. And NSI				12,828,685

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CONSTRUCTION OF MULTIPURPOSE HALL

PUBLIC HEALTH WORKS

Consultant:
Allied Engineering Consultant

Bill of Quantity

Sr #	MRS-2025 (1st Bi Annual)	Description	Unit	Rate (Rs.)	Qty.	Amount (Rs.)
		Schedule Items				
		Part-I: PLUMBING FIXTURES				
1	14-01-a	Providing and Fixing glazed earthen ware WC European type of approved size excluding cost of seat & cover, complete in all respects: White	Each	16874.87	6	101,249.22
2	14-02-b	Providing and Fixing double seat & cover only : Plastic	Each	947.76	6	5,686.56
3	14-03-a	Providing and fitting glazed earthenware water closet (WC), squatter type (orisa pattern) combined with foot rest. complete in all respects : White	Each	4106.76	10	41,067.60
4	14-10-a	Providing and Fixing glazed earthen ware low down flushing cistern 3 gallons (13.63 Liters) capacity including bracket set, copper connection, etc. complete in all respects: White	Each	9091.55	10	90,915.50
5	14-05-a-01	Providing and Fixing glazed earthen ware wash hand basin (WHB) complete size 56x40 cm (22"x16"), including bracket set, waste coupling, complete in all respects: White with pedestal (Best Quality)	Each	10673.63	12	128,083.56
6	14-06-a	Providing and Fixing stainless steel sink with drain board size (120 x 60 cm) 48"x24", including set of brackets, waste pipe etc - (Best Quality)	Each	14511.05	0	-
7	14-86	Providing & fixing chromium plated double bib-cock with Muslim	Each	3039.58	6	18,237.48
8	14-13	Shower of approved quality Complete is all respects.	Each	1052.08	12	12,624.96
		Providing and fixing choricum plated soap dish complete.				
9	14-15	Providing and Fixing CP (chromium plated) toilet paper holder complete	Each	1274.38	16	20,390.08
10	14-16-a	Providing and Fixing chromium plated (CP) towel rail complete: 60 cm (24") long and 2 cm (3/4") dia	Each	1347.25	12	16,167.00
11	14-18-a	Providing and fixing best quality 5mm glass shelf (60 x 13) cm 24"x5" complete: With chromium plated brackets & railing	Each	1349.98	12	16,199.76
12	14-25-a	Providing and fixing chromium plated (CP) tee stop cock 1.5 cm (1/2") of approved quality	Each	1817.78	40	72,711.20
13	14-21-c	Providing and fixing chromium plated (CP) double bib cock, heavy duty of approved quality : 1.5 cm (1/2")	Each	2645.24	2	5,290.48
14	14-26-a	Providing and fixing choricum plated (CP) shower rose complete : Size 1/2"x4" (15 mm x 100 mm) (Best Quality)	Each	1447.28	0	-
15	14-17-d	Providing and fixing 22" x 16" looking mirror of imported glass complete with Aluminium frame of standard size & c.p screws.	Each	2597.26	12	31,167.12
16	14-24-a	Providing and fixing chromium plated (CP) bib-cock heavy duty of approved quality : 2 cm 3/4"	Each	2003.04	10	20,030.40
		Part-2: WATER SUPPLY				
17	14-35-a	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 3/4" i/d	m	223.18	150	33,477.00
18	14-35-b	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1" i/d	m	267.43	130	34,765.90
19	14-35-a	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 3/4" i/d	m	223.18		-

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20	14-35-c	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1'-1/4" i/d	m	391.74	80	31,339.20
21	14-35-d	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1'-1/2" i/d	m	564.51	50	28,225.50
22		Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 2" i/d	m	825.77	50	41,288.50
23	24-16-a-06	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255 - 2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation.	m	3209.76	50	160,488.00
24		Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255 - 2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation.	m			
25	24-16-a-06	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255 - 2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation.	m	3209.76	50	160,488.00
26	24-16-a-05	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255 - 2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation.	m	2295.5	40	91,820.00
27		Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255 - 2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation.	m	15.64	40	625.60
28	24-16-a-03	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255 - 2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation.	m	1555.23	50	77,761.50
	14-72-c	Providing of plumbing tape insulation on G.I pipe complete 1" dia	m	14.41	50	720.50
29		Part-3: SEWERAGE & DRAINAGE uPVC Soil, Waste and vent pipes conforming to ISO:3633 type "B" or BS-4514/5255 class "A", including imported rubber ring/solvent cement fittings, jointing, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects. (for sanitary drainage) : 2" dia	m			
30	14-144-d	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc. manufactured by the respective manufacturer complete as per specifications	m	1104.9	50	55,245.00
31	24-18-c-05	uPVC Pressure Pipes Class D (12 Bar) except excavation. 3" Nominal Pipe Size (NPS)	m	1440.16	100	144,016.00
32	24-18-c-06	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc. manufactured by the respective manufacturer complete as per specifications	m			
33	24-18-c-08	uPVC Pressure Pipes Class D (12 Bar) except excavation. 4" Nominal Pipe Size (NPS)	m	2489.69	150	373,453.50
34	14-172-a	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc. manufactured by the respective manufacturer complete as per specifications	m			
35	14-33	uPVC Pressure Pipes Class D (12 Bar) except excavation. 6" Nominal Pipe Size (NPS)	m	5315.4	80	425,232.00
36		Supplying and fixing of Dry Chemical Powder Fire Extinguisher 6Kg Capacity complete in all respect	Each	12799.56	6	76,797.36
37		Providing and Fixing 4" gully trap of approved quality including cement concrete cost of PVC grating 6" x6" (150 x 150 mm) and masonry chamber 12"x12" (300 x 300 mm).	Each	2296.97	12	27,563.64

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35	14-164	uPVC Multi Floor Trap (110x75mm) including strainer; supports; making required number of connections; breaking concrete or masonry work & then making it good; etc.	Each	2100.65	20	42,013.00
36	14-157	P-Trap (uPVC) for squatting type WC 4"	Each	1364.37	10	13,643.70
37	14-27-b	Providing and fixing chorimum plated (CP) mixing valve for wash hand basin (WHB), sink or shower of approved (Normal) quality	Each	2867.53	12	34,410.36
		HDPE Pipe				
38	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	m	717.28	130	93,246.40
39	24-49-a	Providing and Fixing Brass peet / gate valve heavy 1" dia	Each	1418.19	20	28,363.80
40	24-49-b	Providing and Fixing Brass peet / gate valve heavy 1.25" dia	Each	2333.29	16	37,332.64
41	24-49-c	Providing and Fixing Brass peet / gate valve heavy 1.5" dia	Each	2765.54	14	38,717.56
42	24-49-d	Providing and Fixing Brass peet / gate valve heavy 2" dia	Each	4062.29	12	48,747.48
43	24-49-f	Providing and Fixing Brass peet / gate valve heavy 3" dia	Each	9434.54	1	9,434.54
44	15-220-a	Supply and fixxing of 40-50 Litres Electric Geyser including all accessories and fittings	no	35054.38	2	70,108.76
45	06-07-d-05	Providing manhole size 24" x 18" (inside dimensions) as per approved design and specifications complete for 4" to 12" dia pipes upto 4 ft. (1.2 m) depth with 16" dia. Concrete Cover fixed in 4" thick RCC 1:2:4 slab (with 5 lbs per Cu.ft. or 80 kg/Cu.m of steel), burnt brick masonry walls 9" (225 mm) thick set in 1:3 cement sand mortar, 6" thick 1:3:6 cement concrete in foundation, 4" av. thickness 1:2:4 cement concrete in benching and 1/2" (13mm) thick cement sand plaster in 1:3 to all inside wall surfaces, channels and benching including making requisite number of main and branch channels but excluding the cost of excavation, back filling and disposal of excavated stuff.	Each	20542.94	12	246,515.28
Total of Schedule item)						3,005,662


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Project : CONSTRUCTION OF MULTIPURPOSE HALL INTERNAL SUI-GAS WORKS					
Bill of Quantity					
Item Code	Description	Unit	Rate (Rs.)	QTY	Amount (Rs.)
14-55-f	Providing and Fixing GI pipe & including specials complete: 1/2" dia (light)	m	782.52	80.00	62601.60
14-72-a	Providing of plumbing tape insulation on G.I pipe complete 1/2" dia	m	11.93	80.00	954.40
14-55-e	Providing and Fixing GI pipe & including specials complete: 3/4" dia (light)	m	1065.36	60.00	63921.60
14-72-b	Providing of plumbing tape insulation on G.I pipe complete 3/4" dia	m	13.17	60.00	790.20
14-55-d	Providing and Fixing GI pipe & including specials complete 1" dia (light)	m	1408.12	30.00	42243.60
14-72-c	Providing of plumbing tape insulation on G.I pipe complete 1" dia	m	14.41	30.00	432.30
14-48-a	Providing and Fixing brass ball float valve of approved quality: 1/2" (13 mm) dia	Each	488.62	10.00	4886.20
14-48-b	Providing and Fixing brass ball float valve of approved quality: 3/4" dia	Each	528.75	12.00	6345.00
14-48-c	Providing and Fixing brass ball float valve of approved quality: 1" (25 mm) dia	Each	815.71	10.00	8157.10
14-48-f	Providing and Fixing brass ball float valve of approved quality: 2" (50 mm) dia	Each	2120.36	4.00	8481.44
14-57-a	Providing and fixing brass gas cock : 1/2" dia (13 mm)	Each	342.6	3.00	1027.80
14-57-b	Providing and Fixing brass gas cock : 3/4" (20 mm) dia	Each	367.3	3.00	1101.90
14-56-a	Providing and Fixing oxidized gas cock : 1" dia.	Each	702.14	2.00	1404.28
14-60-b	Providing and Fixing approved best quality gas room heaters complete in all respects: Double pannel	Each	13964.5	2.00	27929.00
Total Amount					230276


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NAME OF CLIENT: WOMEN UNIVERSITY OF SWABI	
NAME OF CONSULTANT: ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE	
NAME OF PROJECT: CONSTRUCTION OF WOMEN UNIVERSITY OF SWABI	
SUB-TITLE: MULTI PURPOSE HALL	

INTERNAL ELECTRICAL WORKS Bill of Quantity					
MRS 2025	DESCRIPTION	Unit	Unit Rate(Rs)	Qty	Total Amount (Rs)
PART-01	CONDUITS				
15-02-b-02	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 3/4" i/d	m	424.44	600	254664
15-02-b-03	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 1" i/d	m	435.15	1200	522180
15-02-b-06	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 2" i/d	m	699.34	50	34967
15-02-b-08	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 4" i/d	m	1069.38	100	106938
PART-02	WIRING				
15-05-a	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 3/0.029" 1/2" i/d	m	104.92	1800	188856
15-05-c	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.029"	m	191.88	800	153504
15-05-b	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 3/0.036"	m	119.59	400	47836
15-05-d	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.036"	m	240.74	800	192592
15-05-b	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 3/0.036"	m	119.59	400	47836
15-05-e	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.044"	m	384	600	230400
15-05-b	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 3/0.036"	m	119.59	300	35877
15-07-a	Supply and Erection single core PVC insulated & sheathed copper conductor, 660/1100V cable : 7/0.064"	m	860.72	100	86072
PART-03	SWITCHES & SOCKETS				
15-127-a	Supply at site, installation, testing and commissioning of the One gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	383.87	10	3838.7
15-127-b	Supply at site, installation, testing and commissioning of Two gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	632.1	20	12642

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15-127-c	Supply at site, installation, testing and commissioning of Three gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	842.56	12	10110.72
15-127-d	Supply at site, installation, testing and commissioning of Four gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1027.81	10	10278.1
15-127-f	Supply at site, installation, testing and commissioning of Six gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1444.52	16	23112.32
15-127-g	Supply at site, installation, testing and commissioning of the Eight gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1863.41	32	59629.12
15-127-h	Supply at site, installation, testing and commissioning of One gang light control switches 10 Amps, 250Volts two way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	611.11	4	2444.44
15-127-i	Supply at site, installation, testing and commissioning of 2 & 3 pin switched socket unit 5/10 Amps, 250Volts, round pin including appropriate size MS, powder coated back box, complete in all respects.	Each	858.11	40	34324.4
15-127-k	Supply at site, installation, testing and commissioning of 3 pin switched socket unit 20 Amps, 250Volts, round pin including appropriate size MS, powder coated back box, complete in all respects.	Each	774.7	30	23241
15-127-m	Supply at site, installation, testing and commissioning of Fan Dimmer with switch/ MS, powder coated back box with all associated accessories, complete in all respects.	Each	990.76	40	39630.4
15-82	Supply and Fixing porcelain power plug 30 Amp	Each	770.8	4	3083.2
PART-04	FAN & LIGHT FIXTURES				
15-50	Wiring of light/fan/call-bell point in 3/0.029" PVC insulated bare cable in PVC pipe recessed	Each	2406.52	236.00	567938.72
15-51	Wiring of 2/3-pin 5-Amp. plug point in 3/0.029" PVC insulated bare cable in PVC pipe recessed	Each	950.05	40	38002
26-01-I-01	Supply and Erection of AC ENERGY EFFICIENT CEILING FANS 56 inch, 30 W	No	13821.55	40	552862
15-25	Supply and Erection girder clamp hook, 5/8" dia. for hanging ceiling fans	Each	276.06	40	11042.4
15-36-j-12	Supply, installation, connecting, testing & commissioning of 10W LED Down Light Fixture suitable for 1300 lux, as per instruction of Engineer, surface mounted circular shape or equivalent.	No	1627.31	110	179004.1
15-36-i-8	Supply, installation, testing and commissioning of 2x20 Watt "LED" DC emergency spot light with 3hr backup, complete in all respects.	Each	10438.51	10	104385.1
15-36-i-10	Supply, installation, testing and commissioning of LED BULKHEAD light fixture, of best quality 20-30 watt	Each	1917.02	8	15336.16

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15-77-d	Supply, installation, testing & commissioning of Exhaust Fan 10" dia with plastic body, fan blades and louvers, complete in all respects	Each	4016.51	16	64264.16
15-68-f	Supply and Fixing of 24" dia Direct axial Wall Bracket fan, 1450Rpm, Max 50db sound level Fan shall be made with 99% purity Copper windings	Each	13595.91	18	244726.38



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PART-05	L.T POWER CABLES INPUT				
	Supply at site, installation, testing and commissioning of PVC insulated un-armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description) in prelaid conduits /trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects.				
	INCOMING CABLES SMDB TO DB.S				
	Supply at site, installation, testing and commissioning of PVC insulated un-armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description) in prelaid conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects.				
15-122-c		RMtr	3483.82	120	418058.4
	Ground Floor				
PART-06	L.T. Switchgear				
	Supply, Installation & Connecting up of floor or wall mounted Sub-main Distribution Board equipment SMDB comprising of Ammeter, Volt meter equipped with Ct's Pt's and selector switches.	No	372650.5	1	372650.5
15-163					
	Distribution Board Concealed				
	Supply, Installation, connecting, testing & commissioning of wall mounted LPDB-B7-B1, LPDB-B7-B1/1 Distribution Boards, comes with all metering with indication lamps complete win all respects	No	94775.5	4	379102
15-162-a					
PART-07	Earthing System				
	Drilling of earth bore 3" dia 70 to 80 ft. deep or up to permanent water table, back filling, ramming, complete in all respect. grounding bores shall be made at 6 to 8 feet away from foundation and distance between earth bore shall not be less than 10 feet				
15-105-c		Each	11398	4	45592
15-105-i	Construction of water tight brick type Grounding inspection pit.	Each	5857.12	4	23428.48
26-02-e-02	Supply and Installation of Earthing Chemical	KG	30.88	400	12352
26-02-e-01	Supply and Installation of Copper Rod/ Plate	KG	3952	12	47424
15-43-a	Supply and Erection copper tape, including copper staple & copper nails/Screw etc : Size 1.5"x1/8"	m	1909.59	25	47739.75
	TOTAL SCHEDULE ITEMS RS				5247964.55
	NON- SCHEDULE ITEMS				
NSI	Supply Installation testing & Commissioning of Philips SmartBright Highbay, 200 W, 26000 lm, 6500 K Complete in all respect.	No	47,649.87	28.00	1334196.36
PART-08	LED PANEL LIGHT				
N.S.I	Supply, Installation, Testing and commissioning of Surface/Recessed Panel type LED light fixture (600mm by 600 mm) suitable for 2' x 2' false ceiling with minimum 3700 lumens IP20 rated.				
	Ground Floor	Each	15,330.87	24	367,940.88
	TOTAL NON-SCHEDULE ITEMS				1702137.24
	TOTAL S.I + N.S.I				6950101.79


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Name of Client:WOMEN UNIVERSITY SAWABI						
Name of Consultant: Allied Engineering Consultants (Pvt.) Ltd 19-A Halli Road Gulberg II. Lahore						
SUB-TITLE: MULTI PURPOSE HALL						
TELEPHONE & NETWORKING SYSTEM Bill of Quantity						
S.NO	MRS -2025 REF NO	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
1	15-136-b	Supply at site, installation, testing and commissioning of Layer 2 (Edge) Level Network Switch, Manageable for Data Rack, 24 Port Giga Ethernet (10/100/1000) with Copper & Fiber Uplink Ports (Support 04 Nos 1.0 Giga SFP Modules). 1.0 Gigabit uplink flexibility with Small Form-Factor Pluggable Plus (SFP+). 8 ports of Gigabit Ethernet for desktop connectivity, complete in all respects.	Each	106284.7	1	106284.7
2	15-136-c	Supply at site, installation, testing and commissioning of U/UTP, 4 pair Cat 6a (500 MHz) Network Cable supports (10 Giga) laid in PVC Conduit, with pure copper conductor PVC insulated PVC sheathed including cost of Single Shutter Face plate with UTP Cat-6a Keystone Jack with Back Box to be installed on walls, from Data Cabinet to Computer Points, PVC conduit & Cable tray. Complete in all respects.	Each	7431.79	8	59454.32
3	15-141-a	Supply, installation, testing and commissioning of Cable Manager / Organizer	Each	5546.65	1	5546.65
4	15-140-b	Supply, installation, testing and commissioning of Patch Panel 24 Port Loaded with RJ-45 I/Os Suitable for CAT-VI FTP CABLE; Rack Mount, complete in all respects.	Each	9510.16	1	9510.16
5	15-145	Supply, installation, testing and commissioning of the ODF; 12 Port Loaded with 6x Pigtaills Multimode Tray & Other Accessories, Rack Mount 1U Form Factor, complete in all respects.	Each	127294.7	2	254589.4
6	15-136-f	Supply at site, installation, testing and commissioning of 8U data rack, powder coated, having lockable glass door at front, 01x fix x sliding trays, 2 exhaust fans on top, 1 x 04 way rack mountable PDU, suitable for CAT 6A modular patch panels and all active and passive equipment, including power bus bar. The data cabinet shall be complete in all respect. Data cabinet shall be installed after obtaining necessary permission from the computer specialist of the client.	Each	29142.85	1	29142.85
7	15-141-b	Supply, installation, Testing and commissioning of UTP Cat-6a Patch Cords 1m (Supports 10 Giga Network) to be installed in Data Cabinets	Each	698.99	12	8387.88

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8	15-141-c	Supply, installation, Testing and commissioning of UTP Cat-6a Patch Cords 3m (Supports 10 Giga Network) to be Installed in Data Cabinets	Each	1895.51	12	22746.12
9	15-143-a	Supply, installation, testing and commissioning of the following Fiber Optic Cables to be installed in conduits, cable trays and dura duct including cost of all necessary accessories/materials complete in all respects.	m	207.41	100	20741
10	15-136-e	Supply, installation, testing and commissioning of Wireless Access Point (AP); 802.11 A/G/N; DUAL BAND, complete in all respects	Each	32174.52	2	64349.04
11	15-135-d	Supply at site, fabrication and installation of GI perforated cable tray 16 SWG 8 ft. to 10 ft. long with sides 3" high to be installed on wall, or in vertical, or above false ceiling in horizontal position or floor mounted or as shown on drawing, including cost of hanging arrangement brackets made of angle iron 38mm x 38mm x 6mm installed at every 3 ft., cost of all necessary fixing accessories, complete in all respects.	m	4057.13	10	40571.3
12	15-146	Supply, installation, testing and commissioning of OFC Patch Cord; 3m; Multi Mode; Duplex Type, complete in all respects.	Each	2175.15	10	21751.5
		TOTAL COST OF (S.I)	RS			643074.92
1	NSI-1	Supply & Installation of 3 kVA Online UPS	Each	168530.22	1	168530.22
		TOTAL COST OF (N.S.I)		= Rs.		168530.22
		TOTAL COST OF (S.I & N.S.I)		= Rs.		811605.14



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Name of Client: WOMEN UNIVERSITY SAWABI									
Name of Consultant: Allied Engineering Consultants (Pvt.) Ltd 19-A Halli Road Gulberg II, Lahore									
SUB-TITLE: MULTI PURPOSE HALL									
CCTV CAMERA SYSTEM Bill of Quantity									
	MRS - 2025	(1ST BI-ANNUAL)	DESCRIPTION	UNIT	RATE	QTY	AMOUNT		
S.NO	REF NO								
1	15-139-I		Supply and installation of 40" LED monitor of best quality	Each	74745.15	2	149490.3		
2	15-02-b-03		Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 1" i/d	m	435.15	250	108787.5		
3	15-139-c		Supply, Installation, Testing and Commissioning of Wall bracket box Camera, type PoE I.P camera with day and night feature having 1.3MP Resolution with live/recording quality of min 15 fps, Varifocal Lens 2.8-12mm, along with all mounting accessories complete in all respect	Each	29073.5	12	348882		
4	15-139-o		Supply, installation, connecting, testing & commissioning of High-sensitivity, 1/3" Ex-View HAD CCD color Camera Day/ Night (outdoor), 12//24V dual perating voltage with Motorized gear box, complete in all respects or equivalent,	No	44140.5	2	88281		
5	15-141-a		Supply, installation, testing and commissioning of Cable Manager / Organizer	Each	5546.65	1	5546.65		
6	15-140-b		Supply, installation, testing and commissioning of Patch Panel 24 Port Loaded with RJ-45 I/Os Suitable for CAT-VI FTP CABLE; Rack Mount, complete in all respects.	Each	9510.16	1	9510.16		
7	15-136-f		Supply at site, installation, testing and commissioning of 8U data rack, powder coated, having lockable glass door at front, 01x fix x sliding trays, 2 exhaust fans on top, 1 x 04 way rack mountable PDU, suitable for CAT 6A modular patch panels and all active and passive equipment, including power bus bar. The data cabinet shall be complete in all respect. Data cabinet shall be installed after obtaining necessary permission from the computer specialist of the client.	Each	29142.85	1	29142.85		
8	15-141-b		Supply, installation, Testing and commissioning of UTP Cat-6a Patch Cords 1m (Supports 10 Giga Network) to be Installed in Data Cabinets	Each	698.99	16	11183.84		
			TOTAL SCHEDULE ITEMS			RS	750824.3		
1	NSI-1		Supply, Installation, Testing & Commissioning of 16-Port PoE Switch (Managed)	Each	51282.72	1	51282.72		
2	NSI-2		Supply & Installation of 16-Channel NVR (H.265+, 4 SATA)	Each	107780.22	1	107780.22		
4	NSI-4		Supply & Installation of 4TB Surveillance Grade HDD (Seagate SkyHawk / WD Purpl	Each	33057.72	1	33057.72		
5	NSI-5		Supply & Installation of High-quality CAT6 FTP cable for camera connectivity	M	330	600	198000		

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6	NSI-6	Supply & Installation of 3 kVA Online UPS for NVR and Switch	Each	168530.22	1	168530.22
		TOTAL COST OF (N.S.I)			= Rs.	558650.88
		TOTAL COST OF (S.I & N.S.I)			= Rs.	1309475.18



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Name Of Client: WOMEN UNIVERSITY OF SWABI						
Name of Consultant: ALLIED ENGINEERING CONSULTANTS (PVT.) LTD						
19-A HALLI ROAD GULBERG II, LAHORE						
SUB-TITLE: MULTI PURPOSE HALL						
FIRE ALARM SYSTEM Bill of Quantity						
S.NO	Ref: MRS-2025	Description	Unit	Rate	Quantity	Amount
SCHEDULE ITEMS						
FA-1	15-131-g	Supply, installation, testing & commissioning of Micro processor based Fire Alarm Control Panel, suppression consisting of loops and can address around 125points, indicating circuits, including 2x12V VDC Batteries, suppression zone built in power supply, including stand by battery, alarm and trouble indication, silence alarm and reset system, general alarm and reset system, general alarm facility, complete in all respects.	Each	325111.81	1	325,111.81
	15-131-e	Supply, installation, testing & commissioning of Addressable Heat Detector	Each	8172.81	1	8,172.81
FA-2	15-131-d	Supply, installation, testing & commissioning of Analogue Addressable Optical Smoke Detector with Base; 24 VDC, UL LISTED, low voltage, solid state, Not Radio Active type, uni-polar and dual chamber with LED alarm indication to be installed on RCC slab, complete in all respects.	Each	13755.01	8	110,040.08
FA-4	15-131-f	Supply, installation, testing & commissioning of Wall mounted Sounder complete in all respect .	Each	13668.56	2	27,337.12
FA-5	15-131-b	Supply, installation, testing & commissioning of Analogue Addressable Manual Call Point / Pull Station with Base and Back Box with Key UL Listed complete in all respects.	Each	9204.11	2	18,408.22
FA-6	15-131-a	Supply, testing and commissioning of 2 core 1.5mm. Sqmm stranded copper conductor tin coated with drain PVC insulated wires 600/1000 V. grade, fire resistant, LSZH Cu Conductor to be pulled in already installed 20mm dia. heavy duty PVC conduit recessed in wall, columns, slab, floor or above false ceiling with all necessary fixing accessories as per site conditions.	Point	6441.25	13	83,736.25
TOTAL SCHEDULE ITEMS				Rs=		572,806.29



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Name Of Client: WOMEN UNIVERSITY OF SWABI						
Name of Consultant: ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE						
SUB-TITLE: MULTI PURPOSE HALL						
PUBLIC ADDRESS SYSTEM Bill of Quantity						
S/NO	MRS-2025	DESCRIPTION	UNIT	UNIT RATE (Rs)	BOQ QUANTITY	AMOUNT (Rs)
		CEILING MOUNT SPEAKERS				
1	15-130-i	Supply, installation, testing & commissioning of Ceiling Mount Speakers	Each	2635.08	4	10,540.32
		WALL MOUNT SPEAKERS				
2	15-130-k	Supply, installation, testing & commissioning of Wall Mount Speakers 12 Watt	Each	6333.13	2	12,666.26
		MIXER AMPLIFIER				
3	15-130-b	Supply, installation, testing and commissioning of Mixer Amplifier (240W); 6 MIC Input; complete in all respects.	Each	85075.55	1	85,075.55
		CORDLESS MIC				
4	15-130-h	Supply, installation, testing & commissioning of Cordless MIC with Receivers	Each	79164.01	1	79,164.01
		CONDUIT				
5	15-02-b-02	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 3/4" i/d	m	424.44	300	127,332.00
		SPEAKER CABLE				
6	15-130-m	Supplying, installation, wiring, connection of speaker cable 37/0.0076 flexible cable for Audio speaker and pre laid 3A" PVC conduit	Meter	92.9	300	27,870.00
		P.A.B				
		Supply at site, installation, testing and commissioning of 8U data rack, powder coated, having lockable glass door at front, 01x fix x sliding trays, 2 exhaust fans on top, 1 x 04 way rack mountable PDU, suitable for CAT 6A modular patch panels and all active and passive equipment, including power bus bar. The data cabinet shall be complete in all respect. Data cabinet shall be installed after obtaining necessary permission from the computer specialist of the client.	Each	29142.85	1	29,142.85
7	15-136-f	TOTAL SCHEDULE ITEMS	Rs			371,790.99


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Building :		CONSTRUCTION OF CAFETERIA			
Estimate :		Main Building (Bill of Quantity)			
S.No	Description	Schedule Cost (Rs.)	Non-Schedule Cost (Rs.)	Schedule+Non Schedule Cost (Rs.)	
1	Civil Works	84,384,910	721,909	85,106,820	
2	Electrical Work	2,384,589	-	2,384,589	
3	Plumbing Work	2,799,692	-	2,799,692	
4	Sui Gas Work	434,573	-	434,573	
	Total Amount = A	90,003,764	721,909	90,725,673	
5	Fire Alarm	627,813	-	627,813	
6	TELEPHONE & NETWORKING SYSTEM	44,591	-	44,591	
	Total Amount = B	672,404	0	672,404	
	Total Amount = A+B	90,676,168	721,909.37	91,398,077	



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CONSTRUCTION OF CAFETERIA						
Grand Summary Of Cost (Bill of Quantity)						
S-No	MRS-2025 (1st Bi Annual)	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)
Chapter #:03						
EARTHWORK (EXCAVATION AND EMBANKMENT)						
1	03-25-d	Excavation in foundation of building, bridges etc complete : in shingle/gravel	m3	485.96	733.19	356,302
2	03-18-a	Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	133.66	733.19	97,998
3	03-18-d	Filling, watering and ramming earth under floor with earth excavated from outside lead upto 30m	m3	527.17	479.08	252,558
4	(03-19-a)+(03-20-a)+(03-20-b)+(03-20-c)	Transportation of earth upto 8 Km	m3	1515.79	479.08	726,189
Chapter #:06						
CONCRETE						
5	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	17035.28	56.29	958,924
6	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	227.86	2,811,953
7	06-05-h	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:3:6)	m3	13983.72	3.15	44,049
8	06-49-a	Concrete Class A1	m3	20624.03	330.53	6,816,813
9	06-49-a	Concrete Class A1				-
10	i	Ground Floor Rcc	m3	20624.03	200.29	4,130,790
11	ii	First Floor Rcc	m3	20624.03	182.05	3,754,616
12	iii	Mummy Floor Rcc	m3	20624.03	40.52	835,621
13	06-07-e	Add extra labour for RCC in 2nd & subsequent storeys	m3	1340.19	182.05	243,982
14	06-07-e	Add extra labour for RCC in 2nd & subsequent storeys	m3	1340.19	40.52	54,300
15	06-08-b	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	Tonne	306713.5	97.12	29,788,015
16	06-08-c	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 40)	Tonne	303008.5	2.98	902,359
17	06-47-c	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shape - Position / Horizontal	m2	1166.35	1632.17	1,903,686
18	06-47-d	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1232.79	928.19	1,144,261
19	06-47-b	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1010.2	599.44	605,557
20	06-47-e	Add extra to the item codes 06-46 and 06-47-a to d for Erection and removal of Form work for ornamental work in RCC or Plain cement concrete.	m2	190.56	180.00	34,301
21	06-30-b-02	V. Damp proof c/s plaster, 1 layer polythene 2 coats bitumen Ratio 1:4 (0.75" thick)	m2	1119.45	175.77	196,762
Chapter #:07						
BRICK MASONRY						
22	07-04-a-05	1st class brick work in foundation and plinth in Cement, sand mortar 1:6	m3	16274.21	70.27	1,143,568
23	07-05-a-05	1st class brick work in ground floor Cement, sand mortar 1:6	m3	17340.09	189.97	3,294,076
24	07-05-a-05	1st class brick work in ground floor Cement, sand mortar 1:6	m3	17340.09	143.53	2,488,838
25	07-05-a-05	1st class brick work in ground floor Cement, sand mortar 1:6	m3	17340.09	42.05	729,234
26	07-06-a	Add extra on item No.07-05 for brick work in First floor	m3	666.3	143.53	95,635
27	07-06-b	Add extra on item No.07-05 for brick work in in Second floor	m3	1515.08	42.05	63,716
28	07-09	Extra labour for arch work in brick masonry, including labour for centring and decentring	m3	1734.65	5.75	9,968


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29	07-10	Extra for 1st class brick work in steining of wells or any other circular masonry.	m3	1524.15	5.10	7,773
30	07-15-a	Extra for dressing or chamfering bricks for Special architectural bricks	100 No.	7463.5	1100.00	82,099
31	07-30	Supplying and filling sand under floor or plugging in wells	m3	2535.9	73.17	185,562
Chapter #:09						
32	09-16	Khuras on roof 2'x2'x6"	Each	1478.69	8.00	11,830
33	14-144-a	Supplying and Fixing UPVC soil waste and vent pipe class B : 6" dia	m	4367.96	50.59	220,994
34	09-35-c	Provide & lay roof insulation complete with Thermopore sheet 1" thick	m2	2869.1	495.63	1,422,018
Chapter #:10						
35	10-15-d	Provide & lay topping of concrete 1:2:4, including surface finishing & dividing in panels : 2" thick	m2	1431.12	105.46	150,926
36	10-22-a	1.5" thick mosaic flooring, including rubbing & polishing complete : Using grey cement	m2	3010.08	89.24	268,616
37	10-41-a-01	Mosaic dado or skirting complete as per specs Using grey cement : 3/8" thick	m2	1852.86	47.96	88,855
38	10-26-c-ii	Provide & lay marble fine dressed stone flooring on surface in white cement complete: 3/4" thick 24 x 24 Sunny White Marble	m2	4911.01	831.67	4,084,345
39	10-45-a-ii	Provide & lay marble fine dressed stone dado or skirting in white cement complete: 0.5" thick 12 x 12 Sunny White Marble	m2	2845.97	50.49	143,686
40	10-26-e	Providing and Laying badal marble fine dressed stone 12"x48" wide 3/4" thick for stairs steps	m2	3431.42	113.03	387,860
41	10-60-a	Providing and laying 3/4"(19mm) thick Granite Black polished tiles of approved quality of any size on floor over 3/8" thick base cement sand mortar 1:3 including setting the tiles with portland cement slurry over cement sand jointing and washing the tiles with cement slurry of matching color including grinding, rubbing, polishing & mortar cost.	m2	11848.78	30.74	364,218
42	10-50-a	Providing and Fixing Ceramic Floor Tiles of approved quality of Size : 12" x 12"	m2	2568.72	64.80	166,454
43	10-55-j	Providing and Fixing of Bath Room Tiles 12"x18" of approved quality	m2	2562.82	208.57	534,519
44	10-55-k	Providing and Fixing of Bath Room Tiles Border 12" x 3" of approved quality	m	707.31	126.65	89,579
45	10-64	Chemical polishing of marble floor/Dado	m2	389.64	831.67	324,052
46	10-38-a	Providing and Laying 3/4" Thick Super White Marble Slab Exceeding 12"x12" size Kitchen Top in White Cement including all labour for Grinding and Polishing.	m2	9969.96	17.10	170,490
Chapter #:11						
47	11-09-b	Cement plaster 1:4 upto 20' height 1/2" thick	m2	519.49		
48		Ground Floor	m2	519.49	809.47	420,509
49		First Floor	m2	519.49	724.31	376,272
50	11-10-b	Cement plaster 3/8" thick under soffit of RCC roof slabs only upto 20' height : (1:3)	m2	512.84		
51		Ground Floor	m2	512.84	721.31	369,914
52		First Floor	m2	512.84	721.31	369,914
53	11-26	Extra for lime, mud or cement plaster & pointing from 20' & above for each additional 10' height	m2	63.43	1445.62	91,695
54	11-18-a	Cement pointing struck joints, on walls, upto 20' height : Ratio 1:2	m2	561.34	879.97	493,961
55	11-29	Extra cost of labour & material for red oxide pigment in cement pointing to match bricks	m2	103.5	879.97	91,077
56	11-20-b	Providing and applying wall putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	m2	89.32	2976.39	265,851
		Providing and fixing with steel nails and washers, the chicken wire mesh of approved quality, at joint of concrete and masonry work (4" wide strip) before plastering etc complete.	m2			
57	28-18	Distempering New surface : Two coats	m2	1000.06	190.00	190,011
58	11-21-a-02		m2	205.04	2976.39	610,278
Chapter #:12						
WOOD WORK, WOODEN/ALUMINIUM JOINERY						

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59	12-16	Providing and fixing of Duca engineered door 2" thick made of parial soft wood, MDF and solid mohagany wood including chowkat, architrave, all required fittings i.e. hinges, handles, locks bolts and including mohagany polish complete in all respects.	m2	33109.46	48.65	1,610,855
60	12-64-a-09	Supply and Fixing aluminium door/window, Fixed Glazing Deluxe model (1.60 mm gauge) Bronz/Black 3" section	m2	10961.02	10.00	109,610
61	12-64-e-03	Supply and Fixing aluminium door/window, Fixed Louver in frame Deluxe model (1.60 mm gauge) 2" section	m2	7925.47	5.50	43,590
62	12-64-b-04	Supply and Fixing aluminium door/window, Fixed Arch Deluxe model (1.60 mm gauge) 4" section	m2	14083.84	42.75	602,097
63	12-65-a-04	Supply and Fixing aluminium door/window, Sliding Window Deluxe model (1.60 mm gauge) 4" section	m2	14216.73	128.62	1,828,620
64	12-64-d-04	Supply and Fixing aluminium door/window, Fly Screen shutter with separate outer frame Deluxe model (1.60 mm gauge) 3" section	m2	6998.55	64.31	450,093
65	12-65-e-16	Supply and Fixing aluminium door/window, Swing Door Double Action Premium model (2.00 mm gauge) Bronz/Black 4" section	m2	16475.79	15.80	260,305
66	12-78-b	Kitchen Wall Cabinet as per approved Design/Specification.	m2	14159.98	14.41	203,977
67	12-70-a	Supply and Fixing MS Sheet 16 gauge(10" x 2") box type chowkats including fixing in position with all charges for Hold fast, Hinges and Painting etc	m	2139.62	96.31	206,071
68	12-73-a	Providing and fixing First class deodar wood projected beading upto one sq.inch.(6.5sq.cm.) wide in section, designed, fixed around the panels of doors, windows of any description.	m	270.73	278.88	75,501
69	12-84	Providing & fixing uPVC white color full body doors with UPVC frame and chowkat including, locks and all hardware fittings, etc. complete in all respects	m2	13402.06	40.71	545,549
70	12-22-e-02	Providing and fixing sliding bolt to doors Brass sliding bolts : 12" long	Each	2252.47	14.00	31,535
	Chapter #:13	PAINTING AND VARNISHING				
71	13-03-e-01	Prepare & Paint new surface, doors & windows Priming coat	m2	339.85	177.51	60,327
72	13-03-e-02	Prepare & Paint new surface, doors & windows Each subsequent coat of paint	m2	243.31	177.51	43,190
73	13-25-a	Preparing surface & painting with snowcem / weathershield paint : First coat	m2	344.07	407.11	140,074
74	13-25-b	Preparing surface & painting with snowcem / weathershield paint : 2nd & subsequent coats	m2	189.64	407.11	77,204
75	25-45-a	Supplying and Fixing 18 SWG MS Sheet Door with angle iron frame (1.5"x1.5"x1/8"), bolt, hinges, paint etc complete	m2	11557.74	3.90	45,114
76	25-47	Supply and fixing of fancy type stainless steel chromium plate 2" dia pipes stair railing 3/4" dia pipe fixed on specified space on steps in horizontal positions, complete in all respects	m	5151.13	101.19	521,236
77	28-15	Pre anti Termite Treatment in the building mixed with water of mixing ratio as per the manufacturer's certified manual	m2	98.63	832.96	82,155
78	24-40	Supplying and Fixing PVC Water Stopper 8" wide 3/8" thick. Providing and fixing PVC water stopper 8" wide 3/8" thick in verticle (Wall/Column) or horizontal (Floor/Slab) expansion joint including cutting and jointing complete in all respects.	m	736.9	23.17	17,075
79	25-33-a	Providing and fixing terrace railing 2" i/d conduit pipe 16 SWG, welded with 5/8" x 5/8" square bar 2.75 ft. high fixed at 5" centre to centre, in RCC slab with suitable arrangement, complete in all respects as per design and drawing.	m	4509.98	51.22	230,999
80	25-10	Fabrication of heavy steel work with angle, tees, sheet iron etc for making trusses, girders etc	Tonne	288717.5	6.00	1,732,305
		Total SI. Items Amount (Rs)				84,384,910.15
		Non Schedule Items				



		Supply and Installation of MS Grill Including MS Solid bars (1/2" x 1/2") and MS angle iron frames (3/4" x 3/4" x 1/8"), executed in accordance with approved designs and drawings.				
1	NSI		M2	4810.25	128.62	618,716.17
2	NSI	Extra for providing/fixing approved quality Door locks : Imported	Each	6115.00	2.00	12,230.00
3	NSI	Supply and Fixing of Iron Holdfasts to Joint Brick Wall & Concrete Column As per Specification and Drawings.	Each	142.13	640.00	90,963.20
		Total NSI. Items Amount (Rs)	721909.37			
		Total Amount of SI. And NSI	85106819.52			



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CONSTRUCTION OF CAFETERIA						
PUBLIC HEALTH WORKS (Bill of Quantity)			Consultant:			
			Allied Engineering Consultant			
Sr-#	MRS-2025 (1st Bi Annual)	Description	Unit	Rate (Rs.)	Qty.	Amount (Rs.)
		Schedule Items				
		Part-1: PLUMBING FIXTURES				
		Providing and Fixing glazed earthen ware WC European type of approved size excluding cost of seat & cover, complete in all respects: White	Each	16874.87	4	67,499.48
1	14-01-a	Providing and Fixing double seat & cover only : Plastic	Each	947.76	4	3,791.04
2	14-02-b	Providing and fitting glazed earthenware water closet (WC), squatter type (orisa pattern) combined with foot rest. complete in all respects : White	Each	4106.76	6	24,640.56
3	14-03-a	Providing and Fixing glazed earthen ware low down flushing cistern 3 gallons (13.63 Liters) capacity including bracket set, copper connection, etc. complete in all respects: White	Each	9091.55	6	54,549.30
4	14-10-a	Providing and Fixing glazed earthen ware wash hand basin (WHB) complete size 56x40 cm (22"x16"), including bracket set, waste coupling, complete in all respects: White with pedestal (Best Quality)	Each	10673.63	18	192,125.34
5	14-05-a-01	Providing and Fixing stainless steel sink with drain board size (120 x 60 cm) 48"x24", including set of brackets, waste pipe etc - (Best Quality)	Each	14511.05	4	58,044.20
6	14-06-a	Providing & fixing chromium plated double bib-cock with Muslim Shower of approved quality Complete is all respects.	Each	3039.58	4	12,158.32
7	14-86	Providing and fixing chorioum plated soap dish complete.	Each	1052.08	18	18,937.44
8	14-13	Providing and Fixing CP (chromium plated) toilet paper holder complete	Each	1274.38	10	12,743.80
9	14-15					
10	14-16-a	Providing and Fixing chromium plated (CP) towel rail complete: 60 cm (24") long and 2 cm (3/4") dia	Each	1347.25	12	16,167.00
11	14-18-a	Providing and fixing best quality 5mm glass shelf (60 x 13) cm 24"x5" complete: With chromium plated brackets & railing	Each	1349.98	18	24,299.64
12	14-25-a	Providing and fixing chromium plated (CP) tee stop cock 1.5 cm (1/2") of approved quality	Each	1817.78	54	98,160.12
13	14-21-c	Providing and fixing chromium plated (CP) double bib cock, heavy duty of approved quality : 1.5 cm (1/2")	Each	2645.24	2	5,290.48
14	14-26-a	Providing and fixing chorimum plated (CP) shower rose complete : Size 1/2"x4" (15 mm x 100 mm) (Best Quality)	Each	1447.28	0	-
15	14-17-d	Providing and fixing 22" x 16" looking mirror of Imported glass complete with Aluminum frame of standard size & c.p screws.	Each	2597.26	18	46,750.68
16	14-24-a	Providing and fixing chromium plated (CP) bib-cock heavy duty of approved quality : 2 cm 3/4"	Each	2003.04	6	12,018.24
17	14-47-a	Providing and Fixing 1/2" (12 mm) dia connection including check nuts etc of approved quality: Plastic rubber connection	Each	283.85	54	15,327.90
		Part-2: WATER SUPPLY				
		Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962,PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 3/4" i/d	m	223.18	120	26,781.60
18	14-35-a	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962,PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1" i/d	m	267.43	100	26,743.00
19	14-35-b					

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20	14-35-c	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1-1/4" i/d	m	391.74	80	31,339.20
21	14-35-d	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1-1/2" i/d	m	564.51	50	28,225.50
22	14-35-e	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 2" i/d	m	825.77	30	24,773.10
23	24-16-a-06	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255-2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation. 2" Nominal Pipe Size (NPS)	m	3209.76	120	385,171.20
24	24-16-a-05	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255-2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation. 1 1/2" Nominal Pipe Size (NPS)	m	2295.5	70	160,685.00
25	14-144-d	uPVC Soil, Waste and vent pipes conforming to ISO:3633 type "B" or BS-4514/5255 class "A", including imported rubber ring/solvent cement fittings, jointing, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects. (for sanitary drainage) : 2" dia	m	1104.9	50	55,245.00
26	24-18-c-05	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc. manufactured by the respective manufacturer complete as per specifications uPVC Pressure Pipes Class D (12 Bar) except excavation. 3" Nominal Pipe Size (NPS)	m	1440.16	80	115,212.80
27	24-18-c-06	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc. manufactured by the respective manufacturer complete as per specifications uPVC Pressure Pipes Class D (12 Bar) except excavation. 4" Nominal Pipe Size (NPS)	m	2489.69	120	298,762.80
28	24-18-c-08	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc. manufactured by the respective manufacturer complete as per specifications uPVC Pressure Pipes Class D (12 Bar) except excavation. 6" Nominal Pipe Size (NPS)	m	5315.4	80	425,232.00
29	14-164	uPVC Multi Floor Trap (110x75mm) including strainer; supports; making required number of connections; breaking concrete or masonry work & then making it good; etc.	Each	2100.65	22	46,214.30
30	14-157	P-Trap (uPVC) for squatting type WC 4"	Each	1364.37	6	8,186.22
31	14-27-b	Providing and fixing chorimum plated (CP) mixing valve for wash hand basin (WHB), sink or shower of approved (Normal) quality HDPE Pipe	Each	2867.53	22	63,085.66


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32	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	m	717.28	120	86,073.60
33	24-49-a	Providing and Fixing Brass peet / gate valve heavy 1" dia	Each	1418.19	16	22,691.04
34	24-49-b	Providing and Fixing Brass peet / gate valve heavy 1.25" dia	Each	2333.29	6	13,999.74
35	24-49-c	Providing and Fixing Brass peet / gate valve heavy 1.5" dia	Each	2765.54	4	11,062.16
36	24-49-d	Providing and Fixing Brass peet / gate valve heavy 2" dia	Each	4062.29	2	8,124.58
37	24-49-f	Providing and Fixing Brass peet / gate valve heavy 3" dia	Each	9434.54	2	18,869.08
38	14-172-a	Supplying and fixing of Dry Chemical Powder Fire Extinguisher 6Kg Capacity complete in all respect	Each	12799.56	4	51,198.24
39	15-220-b	Supply and fixing of 15-25 Litres Electric Geyser including all accessories and fittings	each	32584.38	2	65,168.76
40	06-07-d-05	Providing manhole size 24" x 18" (inside dimensions) as per approved design and specifications complete for 4" to 12" dia pipes upto 4 ft. (1.2 m) depth with 16" dia Concrete Cover fixed in 4" thick RCC 1:2:4 slab (with 5 lbs per Cu.ft. or 80 kg/Cu.m of steel), burnt brick masonry walls 9" (225 mm) thick set in 1:3 cement sand mortar, 6" thick 1:3:6 cement concrete in foundation, 4" av. thickness 1:2:4 cement concrete in benching and 1/2" (13mm) thick cement sand plaster in 1:3 to all inside wall surfaces, channels and benching including making requisite number of main and branch channels but excluding the cost of excavation, back filling and disposal of excavated stuff.	Each	20542.94	8	164,343.52
Total of Schedule item)						2,799,692



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Project : CONSTRUCTION OF CAFETERIA INTERNAL SUI-GAS WORKS					
Bill of Quantity					
Item Code	Description	Unit	Rate (Rs.)	QTY	Amount (Rs.)
14-55-f	Providing and Fixing GI pipe & including specials complete: 1/2" dia (light)	m	782.52	150.00	117378.00
14-72-a	Providing of plumbing tape insulation on G.I pipe complete 1/2" dia	m	11.93	150.00	1789.50
14-55-e	Providing and Fixing GI pipe & including specials complete: 3/4" dia (light)	m	1065.36	130.00	138496.80
14-72-b	Providing of plumbing tape insulation on G.I pipe complete 3/4" dia	m	13.17	130.00	1712.10
14-55-d	Providing and Fixing GI pipe & including specials complete 1" dia (light)	m	1408.12	80.00	112649.60
14-72-c	Providing of plumbing tape insulation on G.I pipe complete 1" dia	m	14.41	80.00	1152.80
14-48-a	Providing and Fixing brass ball float valve of approved quality: 1/2" (13 mm) dia	Each	488.62	5.00	2443.10
14-48-b	Providing and Fixing brass ball float valve of approved quality: 3/4" dia	Each	528.75	5.00	2643.75
14-48-c	Providing and Fixing brass ball float valve of approved quality: 1" (25 mm) dia	Each	815.71	8.00	6525.68
14-48-f	Providing and Fixing brass ball float valve of approved quality: 2" (50 mm) dia	Each	2120.36	1.00	2120.36
14-57-a	Providing and fixing brass gas cock : 1/2" dia (13 mm)	Each	342.6	5.00	1713.00
14-57-b	Providing and Fixing brass gas cock : 3/4" (20 mm) dia	Each	367.3	4.00	1469.20
14-56-a	Providing and Fixing oxidized gas cock : 1" dia.	Each	702.14	4.00	2808.56
14-115-b	Providing and Fixing of Suigas Burner (Double) Stainless steel best quality	Each	10417.63	4.00	41670.52
Total Amount					434573

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NAME OF CLIENT: WOMEN UNIVERSITY OF SWABI						
NAME OF CONSULTANT: ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE						
NAME OF PROJECT: CONSTRUCTION OF WOMEN UNIVERSITY OF SWABI						
SUB-TITLE: CAFETERIA						
INTERNAL ELECTRICAL WORKS Bill of Quantity						
MRS 2025 (1ST BI-ANNUAL)	DESCRIPTION	Unit	Unit Rate(Rs)	Qty	Total Amount	(Rs)
PART-01	CONDUITS					
15-02-b-02	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 3/4" i/d	m	424.44	150	63666	
15-02-b-03	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 1" i/d	m	435.15	550	239332.5	
15-02-b-06	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 2" i/d	m	699.34	10	6993.4	
15-02-b-08	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 4" i/d	m	1069.38	20	21387.6	
PART-02	WIRING					
15-05-a	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 3/0.029" 1/2" i/d	m	104.92	650	68198	
15-05-c	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.029"	m	191.88	850	163098	
15-05-d	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.036"	m	240.74	550	132407	
15-05-e	Supply and Erection single core PVC insulated & sheathed copper conductor 250/440 V grade cable : 7/0.044"	m	384	30	11520	
15-07-a	Supply and Erection single core PVC insulated & sheathed copper conductor, 660/1100V cable : 7/0.064"	m	860.72	20	17214.4	
PART-03	SWITCHES & SOCKETS					
15-127-a	Supply at site, installation, testing and commissioning of the One gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	383.87	10	3838.7	
15-127-b	Supply at site, installation, testing and commissioning of Two gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	632.1	10	6321	
15-127-c	Supply at site, installation, testing and commissioning of Three gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	842.56	10	8425.6	
15-127-d	Supply at site, installation, testing and commissioning of Four gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1027.81	10	10278.1	
15-127-f	Supply at site, installation, testing and commissioning of Six gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1444.52	25	36113	
15-127-g	Supply at site, installation, testing and commissioning of the Eight gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1863.41	6	11180.46	

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15-127-h	Supply at site, installation, testing and commissioning of One gang light control switches 10 Amps, 250Volts two way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	611.11	12	7333.32
15-127-i	Supply at site, installation, testing and commissioning of 2 & 3 pin switched socket unit 5/10 Amps, 250Volts, round pin including appropriate size MS, powder coated back box, complete in all respects.	Each	858.11	25	21452.75
15-127-k	Supply at site, installation, testing and commissioning of 3 pin switched socket unit 20 Amps, 250Volts, round pin including appropriate size MS, powder coated back box, complete in all respects.	Each	774.7	15	11620.5
15-127-m	Supply at site, installation, testing and commissioning of Fan Dimmer with switch/ MS, powder coated back box with all associated accessories, complete in all respects.	Each	990.76	28	27741.28
15-82	Supply and Fixing porcelain power plug 30 Amp	Each	770.8	4	3083.2
PART-04	FAN & LIGHT FIXTURES				
15-50	Wiring of light/fan/call-bell point in 3/0.029" PVC insulated bare cable in PVC pipe recessed	Each	2406.52	158.00	380230.16
15-51	Wiring of 2/3-pin 5-Amp. plug point in 3/0.029" PVC insulated bare cable in PVC pipe recessed	Each	950.05	6	5700.3
26-01-I-01	Supply and Erection of AC ENERGY EFFICIENT CEILING FANS 56 Inch, 30 W	No	13821.55	28	387003.4
15-25	Supply and Erection girder clamp hook, 5/8" dia.for hanging ceiling fans	Each	276.06	28	7729.68
15-36-j-12	Supply, installation, connecting, testing & commissioning of 10W LED Down Light Fixture suitable for 1300 lux, as per instruction of Engineer, surface mounted circular shape or equivalent.	No	1627.31	115	187140.65
15-36-i-8	Supply, installation, testing and commissioning of 2x20 Watt "LED" DC emergency spot light with 3hr backup, complete in all respects.	Each	10438.51	2	20877.02
15-36-i-10	Supply, installation, testing and commissioning of LED BULKHEAD light fixture, of best quality 20-30 watt	Each	1917.02	2	3834.04
15-77-d	Supply, installation, testing & commissioning of Exhaust Fan 10" dia with plastic body, fan blades and louvers, complete in all respects	Each	4016.51	10	40165.1
15-68-f	Supply and Fixing of 24" dia Direct axial Wall Bracket fan,1450Rpm, Max 50db sound level Fan shall be made with 99% purity Copper windings	Each	13595.91	1	13595.91

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PART-05	LT POWER CABLES INPUT				
15-122-b	Supply at site, installation, testing and commissioning of PVC insulated un-armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description) in prelaidd conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects.	RMtr	2544.99	80	203599.2
	Distribution Board Concealed				
	Supply, Installation, connecting, testing & commissioning of wall mounted LPDB-B7-B1, LPDB-B7-B1/1 Distribution Boards, compes with all metering with indication lamps complete win all respects	No	94775.5	2	189551
PART-06	Earthing System				
15-105-c	Drilling of earth bore 3" dia 70 to 80 ft. deep or up to permanent water table, back filling, ramming, complete in all respect. grounding bores shall be made at 6 to 8 feet away from foundation and distance between earth bore shall not be less than 10 feet	Each	11398	1	11398
15-105-i	Construction of water tight brick type Grounding inspection pit.	Each	5857.12	1	5857.12
26-02-e-02	Supply and Installation of Earthing Chemical	KG	30.88	30	926.4
26-02-e-01	Supply and Installation of Copper Rod/ Plate	KG	3952	3	11856
15-43-a	Supply and Erection copper tape, including copper staple & copper nails/Screw etc : Size 1.5"x1/8"	m	1909.59	23	43920.57
	TOTAL SCHEDULE ITEMS RS				2384589.36

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Name of Client:WOMEN UNIVERSITY SAWABI						
Name of Consultant: Allied Engineering Consultants (Pvt.) Ltd 19-A Halli Road Gulberg II. Lahore						
SUB-TITLE: CAFETERIA						
TELEPHONE & NETWORKING SYSTEM Bill of Quantity						
MRS -2025		(1ST BI-ANNUAL)				
S.NO	REF NO	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
1	15-136-c	Supply at site, installation, testing and commissioning of U/UTP, 4 pair Cat 6a (500 MHz) Network Cable supports (10 Giga) laid in PVC Conduit , with pure copper conductor PVC insulated PVC sheathed including cost of Single Shutter Face plate with UTP Cat-6a Keystone Jack with Back Box to be installed on walls, from Data Cabinet to Computer Points, PVC conduit & Cable tray. Complete in all respects.	Each	7431.79	6	44590.74
TOTAL COST OF (S.I)				= Rs.		44590.74

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Name Of Client: WOMEN UNIVERSITY OF SWABI							
Name of Consultant: ALLIED ENGINEERING CONSULTANTS (PVT.) LTD							
19-A HALLI ROAD GULBERG II, LAHORE							
SUB-TITLE: CAFETERIA							
FIRE ALARM SYSTEM Bill of Quantity							
S.NO	Ref: MRS-2025	(1ST BI-ANNUAL)		Unit	Rate	Quantity	Amount
SCHEDULE ITEMS							
			Supply, installation, testing & commissioning of Micro processor based Fire Alarm Control Panel, suppression consisting of loops and can address around 125points, indicating circuits, including 2x12V VDC Batteries, suppression zone built in power supply, including stand by battery, alarm and trouble indication, silence alarm and reset system, general alarm and reset system, general alarm facility, complete in all respects.				
FA-1	15-131-g		Supply, installation, testing & commissioning of Addressable Heat Detector	Each	325111.81	1	325,111.81
	15-131-e			Each	8172.81	2	16,345.62
			Supply, installation, testing & commissioning of Analogue Addressable Optical Smoke Detector with Base; 24 VDC; UL LISTED, low voltage, solid state, Not Radio Active type, uni-polar and dual chamber with LED alarm indication to be installed on RCC slab, complete in all respects.				
FA-2	15-131-d		Supply, installation, testing & commissioning of Wall mounted Sounder complete in all respect .	Each	13755.01	10	137,550.10
FA-4	15-131-f			Each	13668.56	2	27,337.12
			Supply, installation, testing & commissioning of Analogue Addressable Manual Call Point / Pull Station with Base and Back Box with Key UL Listed complete in all respects.				
FA-5	15-131-b			Each	9204.11	2	18,408.22
			Supply, testing and commissioning of 2 core 1.5mm. Sqmm stranded copper conductor tin coated with drain PVC Insulated wires 600/1000 V. grade, fire resistant, LSZH Cu Conductor to be pulled in already installed 20mm dia. heavy duty PVC conduit recessed in wall, columns, slab, floor or above false ceiling with all necessary fixing accessories as per site conditions.				
FA-6	15-131-a			Point	6441.25	16	103,060.00
TOTAL SCHEDULE ITEMS					Rs=		627,812.87

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Building :		CONSTRUCTION OF LIBRARY			
Estimate :		Main Building (Bill of Quantity)			
S.No	Description	Schedule Cost (Rs.)	Non-Schedule Cost (Rs.)	Schedule+Non Schedule Cost (Rs.)	
1	Civil Works	147,376,404	915,012	148,291,416	
2	Electrical Work	4,255,528	1,029,246	5,284,774	
3	Plumbing Work	1,622,133	-	1,622,133	
4	Sui Gas Work	264,359	-	264,359	
	Total = A	153,518,424	1,944,258	155,462,682	
5	CCTV System	750,824	558,651	1,309,475	
6	Telephone & Network System	793,118	168,530	961,648	
7	Fire Alarm	815,161	-	815,161	
	Total = B	2,359,103	727,181	3,086,284	
	Total Amount A+B	155,877,527	2,671,439	158,548,966	


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CONSTRUCTION OF LIBRARY

Grand Summary Of Cost Bill of Quantity

S-No	MRS-2025 (1st Bi Annual)	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)
Chapter #03						
1	03-25-c	Excavation in foundation of building, bridges etc complete : in hard soil or soft murum	m3	442.42	1276.19	564,610.91
2	03-18-a	Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	133.66	1276.19	170,575.23
3	03-18-d	Filling, watering and ramming earth under floor with earth excavated from outside lead upto 30m	m3	527.17	1233.96	650,508.45
4	(03-19-a)+(03-20-a)+(03-20-b)+(03-20-c)	Transportation of earth upto 8 Km	m3	1515.79	1233.96	1,870,429.28
Chapter #06						
5	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	17035.28	132.72	2,260,946.77
6	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	176.25	2,175,032.30
7	06-05-h	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:3:6)	m3	13983.72	14.50	202,735.91
8	06-49-a	Concrete Class A1	m3	20624.03	464.26	9,574,823.44
9	i	Ground Floor	m3	20624.03	338.41	6,979,421.28
10	ii	First Floor	m3	20624.03	346.01	7,136,174.42
11	iv	Mumty Floor	m3	20624.03	24.58	506,921.52
12	06-07-e	Add extra labour for RCC in 2nd & subsequent storeys	m3	1340.19	346.01	463,722.64
13	06-07-e	Add extra labour for RCC in 2nd & subsequent storeys	m3	2680.38	24.58	65,881.51
14	06-08-b	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	Tonne	306713.5	153.97	47,223,757.45
15	06-08-c	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 40)	Tonne	303008.5	4.06	1,230,214.51
16	06-47-c	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shape - Position / Horizontal	m2	1166.35	2586.54	3,016,815.76
17	06-47-d	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1232.79	1511.58	1,863,464.97
18	06-47-B	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1010.2	876.95	885,896.58
19	06-47-e	Add extra to the item codes 06-46 and 06-47-a to d for Erection and removal of Form work for ornamental work in RCC or Plain cement concrete.	m2	190.56	580.00	110,524.80
20	06-30-b-02	V. Damp proof c/s plaster, 1 layer polythene 2 coats bitumen Ratio 1:4 (0.75" thick)	m2	1119.45	248.14	277,781.74
Chapter #07						
21	07-04-a-05	1st class brick work in foundation and plinth in Cement, sand mortar 1:6	m3	16274.21	102.10	1,661,590.16
22	07-05-a-05	1st class brick work in ground floor Cement, sand mortar 1:6	m3	17340.09		
23	i	Ground Floor	m3	17340.09	565.52	9,806,086.11

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24	ii	First Floor		m3	17340.09	300.77	5,215,389.23
25	iii	Mumty Floor		m3	17340.09	103.58	1,796,076.41
26	07-06-a	Add extra on item No.07-05 for brick work in First floor		m3	666.3	300.77	200,403.45
27	07-06-b	Add extra on item No.07-05 for brick work in in Second floor		m3	1515.08	103.58	156,931.10
28	07-30	Supplying and filling sand under floor or plugging in wells		m3	2535.9	153.07	388,175.07
29	07-15-a	Extra for dressing or chamfering bricks for Special architectural bricks		100 No.	7463.5	1800.00	134,343.00
30	07-09	Extra labour for arch work in brick masonry, including labour for centring and decentring		m3	1734.65	150.00	260,197.50
31	07-10	Extra for 1st class brick work in steining of wells or any other circular masonry.		m3	1524.15	130.00	198,139.50
Chapter #:09							
32	09-35-c	Provide & lay roof insulation complete with Thermopore sheet 1" thick		m2	2869.1	1025.64	2,942,667.35
33	09-16	Khuras on roof 2'x2'x6"		Each	1478.69	10.00	14,786.90
34	14-144-a	Supplying and Fixing UPVC soil waste and vent pipe class B : 6" dia		m	4367.96	80.49	351,567.51
Chapter #:10							
35	10-15-d	Provide & lay topping of concrete 1:2:4, including surface finishing & dividing in panels : 2" thick		m2	1431.12	152.23	217,860.09
36	10-22-a	1.5" thick mosaic flooring, including rubbing & polishing complete : Using grey cement		m2	3010.08	178.80	538,190.97
37	10-41-a-01	Mosaic dado or skirting complete as per specs Using grey cement : 3/8" thick		m2	1852.86	76.34	141,454.50
38	10-26-c-ii	Provide & lay marble fine dressed stone flooring on surface in white cement complete: 3/4" thick 24 x 24 Sunny White Marble		m2	4911.01	1353.49	6,646,982.07
39	10-45-a-ii	Provide & lay marble fine dressed stone dado or skirting in white cement complete: 0.5" thick 12 x 12 Sunny White Marble		m2	2845.97	380.94	1,084,137.89
40	10-26-e	Providing and Laying badal marble fine dressed stone 12"x48" wide 3/4" thick for stairs steps		m2	3431.42	111.52	382,686.25
41	10-60-a	Providing and laying 3/4"(19mm) thick Granite Black polished tiles of approved quality of any size on floor over 3/8" thick base cement sand mortar 1:3 including setting the tiles with portland cement slurry over cement sand jointing and washing the tiles with cement slurry of matching color including grinding, rubbing, polishing & mortar cost.		m2	11848.78	70.63	836,902.68
42	10-50-a	Providing and Fixing Ceramic Floor Tiles of approved quality of Size : 12" x 12"		m2	2568.72	75.01	192,668.32
43	10-55-j	Providing and Fixing of Bath Room Tiles 12"x18" of approved quality		m2	2562.82	234.85	601,881.61
44	10-55-k	Providing and Fixing of Bath Room Tiles Border 12" x 3" of approved quality		m	707.31	110.03	77,823.50
45	10-58-c	Providing and Fixing of porcelain full body tiles 20" x 20" x 3/8 of approved colour of shade, joint using spacers in white cement with pigment laid on base of CM 1:2 etc complete in all respects		m2	3975.79	1069.14	4,250,695.93
46	10-64	Chemical polishing of marble floor/Dado		m2	389.64	2101.09	818,667.90
Chapter #:11							
47	11-09-b	Cement plaster 1:4 upto 20' height 1/2" thick		m2	519.49	4842.81	2,515,790.61
48	11-10-b	Cement plaster 3/8" thick under soffit of RCC roof slabs only upto 20' height : (1:3)		m2	512.84	2518.29	1,291,477.44

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49	11-26	Extra for lime, mud or cement plaster & pointing from 20' & above for each additional 10' height	m2	63.43	4476.43	283,940.21
50	11-26	Extra for lime, mud or cement plaster & pointing from 20' & above for each additional 10' height	m2	126.86	898.33	113,962.37
51	11-26	Extra for lime, mud or cement plaster & pointing from 20' & above for each additional 10' height	m2	190.29	898.33	170,943.56
52	11-18-a	Cement pointing struck joints, on walls, upto 20' height : Ratio 1:2	m2	561.34	2425.65	1,361,613.12
53	11-29	Extra cost of labour & material for red oxide pigment in cement pointing to match bricks	m2	103.5	2425.65	251,054.54
54	11-20-b	Providing and applying wall putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	m2	89.32	7361.09	657,492.90
55	28-18	Providing and fixing with steel nails and washers, the chicken wire mesh of approved quality, at joint of concrete and masonry work (4" wide strip) before plastering etc complete.	m2	1000.06	360.00	360,021.60
56	11-21-a-02	Distemping New surface : Two coats	m2	205.04	7361.09	1,509,318.69
Chapter #:12						
57	12-16	Providing and fixing of Duca engineered door 2" thick made of partial soft wood, MDF 3/4" thick UV Coated including chowkat, architrave, all required fittings i.e. hinges, handles, locks bolts complete in all respects.	m2	33109.46	72.82	2,410,897.95
58	12-41-a-02	Providing and fixing partition including framework : Sheet on one side of frame : Ply wood 1/4" thick	m2	2110.19	242.23	511,158.23
59	12-64-a-09	Supply and Fixing aluminium door/window, Fixed Glazing Deluxe model (1.60 mm gauge) Bronze/Black 3" section	m2	10961.02	10.20	111,802.40
60	12-64-e-03	Supply and Fixing aluminium door/window, Fixed Louver in frame Deluxe model (1.60 mm gauge) 2" section	m2	7925.47	20.00	158,509.40
61	12-64-b-04	Supply and Fixing aluminium door/window, Fixed Arch Deluxe model (1.60 mm gauge) 4" section	m2	14083.84	54.28	764,401.72
62	12-65-a-04	Supply and Fixing aluminium door/window, Sliding Window Deluxe model (1.60 mm gauge) 4" section	m2	14216.73	167.29	2,378,263.38
63	12-64-d-03	Supply and Fixing aluminium door/window, Fly Screen shutter with separate outer frame Deluxe model (1.60 mm gauge) 2" section	m2	6746.07	83.64	564,262.36
64	12-65-e-16	Supply and Fixing aluminium door/window, Swing Door Double Action Premium model (2.00 mm gauge) Bronze/Black 4" section	m2	16475.79	20.26	333,803.18
65	12-65-d-02	Supply and Fixing aluminium door/window, Sliding Door Economy model (1.20 mm gauge) 4" section	m2	13552.29	2.60	35,266.18
66	12-70-a	Supply and Fixing MS Sheet 16 gauge (10" x 2") box type chowkats including fixing in position with all charges for Hold fast, Hinges and Painting etc	m	2139.62	161.23	344,973.78
67	12-73-a	Providing and fixing First class deodar wood projected beading upto one sq.inch.(6.5sq.cm.) wide in section, designed, fixed around the panels of doors, windows of any description.	m	270.73	485.22	131,363.05
68	12-84	Providing & fixing uPVC white color full body doors with UPVC frame and chowkat including, locks and all hardware fittings, etc. complete in all respects	m2	13402.06	27.97	374,908.93
69	12-22-c-02	Providing and fixing sliding bolt to doors Brass sliding bolts : 12" long	Each	2252.47	24.00	54,059.28
Chapter #:13						
70	13-03-c-01	Prepare & Paint new surface, doors & windows Priming coat	m2	339.85	201.58	68,506.94

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71	13-03-c-02	Prepare & Paint new surface, doors & windows Each subsequent coat of paint	m2	243.31	201.58	49,046.41
72	13-08-b	Bitumen coating to plastered / cement concrete surface : 14 lbs. per 100 sqft.	m2	288.03	1260.57	363,081.36
73	13-25-a	Preparing surface & painting with snowcem / weathershield paint : First coat	m2	344.07	508.31	174,893.72
74	13-25-b	Preparing surface & painting with snowcem / weathershield paint : 2nd & subsequent coats	m2	189.64	508.31	96,395.63
75	13-03-d-01	Prepare & Paint new surfaces of guard bars, railing & similar open work : Priming coat	m2	200.88	188.85	37,935.70
76	13-03-d-02	Prepare & Paint new surfaces of guard bars, railing & similar work : Each subsequent coat	m2	140.04	188.85	26,446.22
77	14-128	Providing and Fixing of hydraulic Door Closer heavy (Best Quality).	Each	2944.38	6.00	17,666.28
78	12-47	Supply and Fixing acoustic mineral fibre tile ceiling fixed with aluminium tee hung by GI wire fixed in roof	m2	2520.09	673.75	1,697,908.62
79	25-45-a	Supplying and Fixing 18 SWG MS Sheet Door with angle iron frame (1.5"x1.5"x1/8"), bolt, hinges, paint etc complete	m2	11557.74	4.55	52,632.83
80	25-47	Supply and fixing of fancy type stainless steel chromium plate 2" dia pipes stair railing 3/4" dia pipe fixed on specified space on steps in horizontal positions, complete in all respects	m	5151.13	130.65	672,990.97
81	28-15	Pre anti Termite Treatment in the building mixed with water of mixing ratio as per the manufacturer's certified manual	m2	98.63	1384.77	136,580.18
82	24-40	Supplying and Fixing PVC Water Stopper 8" wide 3/8" thick. Providing and fixing PVC water stopper 8" wide 3/8" thick in verticle (Wall/Column) or horizontal (Floor/Slab) expansion joint including cutting and jointing complete in all respects.	m	736.9	9.29	6,848.51
83	25-32	Providing and fixing grating in opening including fixing at site with flat iron 2" x 3/8" and 3/4" round bars at 4" center to center.	m2	11495.27	94.42	1,085,426.98
84	10-26-e	Providing and Laying badal marble fine dressed stone 12"x48" wide 3/4" thick for stairs steps	m2	3431.42	15.80	54,213.88
Total SI. Items Amount (Rs)						147,376,404
Non Schedule Items						
1	NSI	Supply and Installation of MS Grill Including MS Solid bars (1/2" x 1/2") and MS angle iron frames (3/4" x 3/4" x 1/8"), executed in accordance with approved designs and drawings.	M2	4810.25	155.76	749,254.55
2	NSI	Extra for providing/fixing approved quality Door locks : Imported	Each	6115.00	10.00	61,150.00
2	NSI	Supply and Fixing of Iron Holdfasts to Joint Brick Wall & Concrete Column As per Specification and Drawings.	Each	142.13	736.00	104,607.68
Total SI. Items Amount (Rs)						915,012
Total Amount of SI. And NSI						148,291,416

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CONSTRUCTION OF LIBRARY						Consultant: Allied Engineering Consultant			
PUBLIC HEALTH WORKS						Bill of Quantity			
Sr #	MRS-2025 (1st Bi Annual)	Description		Unit	Rate (Rs.)	Qty.	Amount (Rs.)		
		Schedule Items							
		Part-1: PLUMBING FIXTURES							
1	14-01-a	Providing and Fixing glazed earthen ware WC European type of approved size excluding cost of seat & cover, complete in all respects: White		Each	16874.87	2	33,749.74		
2	14-02-b	Providing and Fixing double seat & cover only : Plastic		Each	947.76	2	1,895.52		
3	14-03-a	Providing and fitting glazed earthenware water closet (WC), squatter type (orisa pattern) combined with foot rest. complete in all respects : White		Each	4106.76	8	32,854.08		
4	14-10-a	Providing and Fixing glazed earthen ware low down flushing cistern 3 gallons (13.63 Liters) capacity including bracket set, copper connection, etc. complete in all respects: White		Each	9091.55	8	72,732.40		
5	14-05-a-01	Providing and Fixing glazed earthen ware wash hand basin (WHB) complete size 56x40 cm (22"x16"), including bracket set, waste coupling, complete in all respects: White with pedestal (Best Quality)		Each	10673.63	10	106,736.30		
6	14-06-a	Providing and Fixing stainless steel sink with drain board size (120 x 60 cm) 48"x24", including set of brackets, waste pipe etc - (Best Quality)		Each	14511.05	0	-		
7	14-86	Providing & fixing chromium plated double bib-cock with Muslim Shower of approved quality Complete is all respects.		Each	3039.58	2	6,079.16		
8	14-13	Providing and fixing choricum plated soap dish complete.		Each	1052.08	10	10,520.80		
9	14-15	Providing and Fixing CP (chromium plated) toilet paper holder complete		Each	1274.38	10	12,743.80		
10	14-16-a	Providing and Fixing chromium plated (CP) towel rail complete: 60 cm (24") long and 2 cm (3/4") dia		Each	1347.25	10	13,472.50		
11	14-18-a	Providing and fixing best quality 5mm glass shelf (60 x 13) cm 24"x5" complete: With chromium plated brackets & railing		Each	1349.98	10	13,499.80		
12	14-25-a	Providing and fixing chromium plated (CP) tee stop cock 1.5 cm (1/2") of approved quality		Each	1817.78	30	54,533.40		
13	14-21-c	Providing and fixing chromium plated (CP) double bib cock, heavy duty of approved quality : 1.5 cm (1/2")		Each	2645.24	2	5,290.48		
14	14-26-a	Providing and fixing chorimum plated (CP) shower rose complete : Size 1/2"x4" (15 mm x 100 mm) (Best Quality)		Each	1447.28	0	-		
15	14-17-d	Providing and fixing 22" x 16" looking mirror of Imported glass complete with Aluminum frame of standard size & c.p screws.		Each	2597.26	10	25,972.60		
16	14-24-a	Providing and fixing chromium plated (CP) bib-cock heavy duty of approved quality : 2 cm 3/4"		Each	2003.04	8	16,024.32		
17	14-47-a	Providing and Fixing 1/2" (12 mm) dia connection including check nuts etc of approved quality: Plastic rubber connection		Each	283.85	30	8,515.50		
0		Part-2: WATER SUPPLY							
18	14-35-a	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962.PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 3/4" i/d		m	223.18	120	26,781.60		

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Allied Engineering Consultant

19	14-35-b	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1" i/d	m	267.43	100	26,743.00
20	14-35-c	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1-1/4" i/d	m	391.74	60	23,504.40
21	14-35-d	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 1-1/2" i/d	m	564.51	50	28,225.50
22	14-35-e	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (conforming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962, PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: except excavation 2" i/d	m	825.77	40	33,030.80
23	24-16-a-05	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with socket joint, using GI pipes of EN 10255 - 2004 (Heavy Approved Quality) including specials etc. Complete as per specifications except excavation.	m	2295.5	50	114,775.00
24	14-72-d	Providing of plumbing tape insulation on G.I pipe complete 1.5" dia	m	15.64	50	782.00
		Part-3: SEWERAGE & DRAINAGE				-
25	14-144-d	uPVC Soil, Waste and vent pipes conforming to ISO:3633 type "B" or BS-4514/5255 class "A" including imported rubber ring/solvent cement fittings, jointing, cutting, and breaking concrete/masonry and then making it good, applying painting, cleaning and testing etc. complete in all respects. (for sanitary drainage) : 2" dia	m	1104.9	20	22,098.00
26	24-18-c-05	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc.manufactured by the respective manufacturer complete as per specifications uPVC Pressure Pipes Class D (12 Bar) except excavation. 3" Nominal Pipe Size (NPS)	m	1440.16	60	86,409.60
27	24-18-c-06	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc.manufactured by the respective manufacturer complete as per specifications uPVC Pressure Pipes Class D (12 Bar) except excavation. 4" Nominal Pipe Size (NPS)	m	2489.69	80	199,175.20
28	24-18-c-08	Providing, laying, cutting, jointing, testing and disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc.manufactured by the respective manufacturer complete as per specifications uPVC Pressure Pipes Class D (12 Bar) except excavation. 6" Nominal Pipe Size (NPS)	m	5315.4	40	212,616.00
29	14-172-a	Supplying and fixing of Dry Chemical Powder Fire Extinguisher 6Kg Capacity complete in all respect	Each	12799.56	6	76,797.36

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30	14-33	Providing and Fixing 4" gully trap of approved quality including cement concrete cost of PVC grating 6" x6" (150 x 150 mm) and masonry chamber 12"x12" (300 x 300 mm).	Each	2296.97	4	9,187.88
31	14-164	uPVC Multi Floor Trap (110x75mm) including strainer; supports; making required number of connections; breaking concrete or masonry work & then making it good; etc.	Each	2100.65	8	16,805.20
32	14-157	P-Trap (uPVC) for squatting type WC 4"	Each	1364.37	8	10,914.96
33	14-27-b	Providing and fixing chlorinum plated (CP) mixing valve for wash hand basin (WHB), sink or shower of approved (Normal) quality	Each	2867.53	10	28,675.30
		HDPE Pipe				-
34	24-30-a-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-8	m	717.28	120	86,073.60
35	24-49-a	Providing and Fixing Brass peet / gate valve heavy 1" dia	Each	1418.19	10	14,181.90
36	24-49-b	Providing and Fixing Brass peet / gate valve heavy 1.25" dia	Each	2333.29	4	9,333.16
37	24-49-c	Providing and Fixing Brass peet / gate valve heavy 1.5" dia	Each	2765.54	2	5,531.08
38	24-49-d	Providing and Fixing Brass peet / gate valve heavy 2" dia	Each	4062.29	2	8,124.58
39	24-49-f	Providing and Fixing Brass peet / gate valve heavy 3" dia	Each	9434.54	1	9,434.54
40	15-220-a	Supply and fixing of 40-50 Litres Electric Geyser including all accessories and fittings	no	35054.38	1	35,054.38
41	06-07-d-05	Providing manhole size 24" x 18" (inside dimensions) as per approved design and specifications complete for 4" to 12" dia pipes upto 4 ft. (1.2 m) depth with 16" dia. Concrete Cover fixed in 4" thick RCC 1:2:4 slab (with 5 lbs per Cu.ft. or 80 kg/Cu.m of steel), burnt brick masonry walls 9" (225 mm) thick set in 1:3 cement sand mortar, 6" thick 1:3:6 cement concrete in foundation, 4" av. thickness 1:2:4 cement concrete in benching and 1/2" (13mm) thick cement sand plaster in 1:3 to all inside wall surfaces, channels and benching including making requisite number of main and branch channels but excluding the cost of excavation, back filling and disposal of excavated stuff.	Each	20542.94	6	123,257.64
Total of Schedule item)						1,622,133

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Project : CONSTRUCTION OF LIBRARY INTERNAL SUI-GAS WORKS					
Bill of Quantity					
Item Code	Description	Unit	Rate (Rs.)	QTY	Amount (Rs.)
14-55-f	Providing and Fixing GI pipe & including specials complete: 1/2" dia (light)	m	782.52	100.00	78252.00
14-72-a	Providing of plumbing tape insulation on G.I pipe complete 1/2" dia	m	11.93	100.00	1193.00
14-55-e	Providing and Fixing GI pipe & including specials complete: 3/4" dia (light)	m	1065.36	80.00	85228.80
14-72-b	Providing of plumbing tape insulation on G.I pipe complete 3/4" dia	m	13.17	80.00	1053.60
14-55-d	Providing and Fixing GI pipe & including specials complete 1" dia (light)	m	1408.12	60.00	84487.20
14-72-c	Providing of plumbing tape insulation on G.I pipe complete 1" dia	m	14.41	60.00	864.60
14-48-a	Providing and Fixing brass ball float valve of approved quality: 1/2" (13 mm) dia	Each	488.62	8.00	3908.96
14-48-b	Providing and Fixing brass ball float valve of approved quality: 3/4" dia	Each	528.75	8.00	4230.00
14-48-c	Providing and Fixing brass ball float valve of approved quality: 1" (25 mm) dia	Each	815.71	2.00	1631.42
14-57-a	Providing and fixing brass gas cock : 1/2" dia (13 mm)	Each	342.6	4.00	1370.40
14-57-b	Providing and Fixing brass gas cock : 3/4" (20 mm) dia	Each	367.3	2.00	734.60
14-56-a	Providing and Fixing oxidized gas cock : 1" dia.	Each	702.14	2.00	1404.28
Total Amount					264359

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NAME OF CLIENT: WOMEN UNIVERSITY OF SWABI					
NAME OF CONSULTANT: ALLIED ENGINEERING CONSULTANTS (PVT.) LTD					
19-A HALLI ROAD GULBERG II, LAHORE					
NAME OF PROJECT: CONSTRUCTION OF WOMEN UNIVERSITY OF SWABI					
SUB-TITLE: LIBRARY					
INTERNAL ELECTRICAL WORKS Bill of Quantity					
MRS 2025 (1ST BI-ANNUAL)	DESCRIPTION	Unit	Unit Rate(Rs)	Qty	Total Amount (Rs)
PART-01	CONDUITS				
15-02-b-02	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 3/4" i/d	m	424.44	600	254664
15-02-b-03	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 1" i/d	m	435.15	1200	522180
15-02-b-06	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 2" i/d	m	699.34	50	34967
15-02-b-08	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 4" i/d	m	1069.38	100	106938
PART-02	WIRING				
15-05-a	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 3/0.029" 1/2" i/d	m	104.92	1800	188856
15-05-c	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.029"	m	191.88	1200	230256
15-05-b	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 3/0.036"	m	119.59	1100	131549
15-05-d	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.036"	m	240.74	800	192592
15-05-e	Supply and Erection single core PVC insulated & sheathed copper conductor 250/440 V grade cable : 7/0.044"	m	384	300	115200
15-07-a	Supply and Erection single core PVC insulated & sheathed copper conductor, 660/1100V cable : 7/0.064"	m	860.72	30	25821.6
PART-03	SWITCHES & SOCKETS				
15-127-a	Supply at site, installation, testing and commissioning of the One gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	383.87	10	3838.7
15-127-b	Supply at site, installation, testing and commissioning of Two gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	632.1	20	12642
15-127-c	Supply at site, installation, testing and commissioning of Three gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	842.56	12	10110.72
15-127-d	Supply at site, installation, testing and commissioning of Four gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1027.81	10	10278.1
15-127-f	Supply at site, installation, testing and commissioning of Six gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1444.52	40	57780.8
15-127-g	Supply at site, installation, testing and commissioning of the Eight gang light control switches 10 Amps, 250Volts one way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	1863.41	10	18634.1

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15-127-h	Supply at site, installation, testing and commissioning of One gang light control switches 10 Amps, 250Volts two way, including appropriate size concealed MS, powder coated back box, complete in all respects.	Each	611.11	4	2444.44
15-127-i	Supply at site, installation, testing and commissioning of 2 & 3 pin switched socket unit 5/10 Amps, 250Volts, round pin including appropriate size MS, powder coated back box, complete in all respects.	Each	858.11	40	34324.4
15-127-k	Supply at site, installation, testing and commissioning of 3 pin switched socket unit 20 Amps, 250Volts, round pin including appropriate size MS, powder coated back box, complete in all respects.	Each	774.7	25	19367.5
15-127-m	Supply at site, installation, testing and commissioning of Fan Dimmer with switch/ MS, powder coated back box with all associated accessories, complete in all respects.	Each	990.76	20	19815.2
15-82	Supply and Fixing porcelain power plug 30 Amp	Each	770.8	4	3083.2
PART-04	FAN & LIGHT FIXTURES				
15-50	Wiring of light/fan/call-bell point in 3/0.029" PVC insulated bare cable in PVC pipe recessed	Each	2406.52	270.00	649760.4
15-51	Wiring of 2/3-pin 5-Amp. plug point in 3/0.029" PVC insulated bare cable in PVC pipe recessed	Each	950.05	40	38002
26-01-i-01	Supply and Erection of AC ENERGY EFFICIENT CEILING FANS 56 inch, 30 W	No	13821.55	20	276431
15-25	Supply and Erection girder clamp hook, 5/8" dia for hanging ceiling fans	Each	276.06	20	5521.2
15-36-j-12	Supply, installation, connecting, testing & commissioning of 10W LED Down Light Fixture suitable for 1300 lux, as per instruction of Engineer, surface mounted circular shape or equivalent.	No	1627.31	130	211550.3
15-36-i-8	Supply, installation, testing and commissioning of 2x20 Watt "LED" DC emergency spot light with 3hr backup, complete in all respects.	Each	10438.51	14	146135.14
15-36-i-10	Supply, installation, testing and commissioning of LED BULKHEAD light fixture, of best quality 20-30 watt	Each	1917.02	5	9585.1
15-77-d	Supply, installation, testing & commissioning of Exhaust Fan 10" dia with plastic body, fan blades and louvers, complete in all respects	Each	4016.51	16	64264.16
15-68-f	Supply and Fixing of 24" dia Direct axial Wall Bracket fan, 1450Rpm, Max 50db sound level Fan shall be made with 95% purity Copper windings	Each	13595.91	13	176746.83

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PART-05	LT POWER CABLES INPUT				
15-122-c	Supply at site, installation, testing and commissioning of PVC insulated un-armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description) in pre-laid conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects.	RMtr	3483.82	120	418058.4
	Ground Floor				
	Distribution Board Concealed				
15-162-a	Supply, Installation, connecting, testing & commissioning of wall mounted LPDB-B7-B1, LPDB-B7-B1/1 Distribution Boards, compes with all metering with indication lamps complete win all respects	No	94775.5	2	189551
PART-06	Earthing System				
15-105-c	Drilling of earth bore 3" dia 70 to 80 ft. deep or up to permanent water table, back filling, ramming, complete in all respect. grounding bores shall be made at 6 to 8 feet away from foundation and distance between earth bore shall not be less than 10 feet	Each	11398	1	11398
15-105-i	Construction of water tight brick type Grounding inspection pit.	Each	5857.12	1	5857.12
26-02-e-02	Supply and Installation of Earthing Chemical	KG	30.88	50	1544
26-02-e-01	Supply and Installation of Copper Rod/ Plate	KG	3952	3	11856
15-43-a	Supply and Erection copper tape, including copper staple & copper nails/Screw etc : Size 1.5"x1/8"	m	1909.59	23	43920.57
	TOTAL SCHEDULE ITEMS RS				4255527.98
	NON- SCHEDULE ITEMS				
PART-07	LED PANEL LIGHT				
N.S.I-01	Supply, Installation, Testing and commissioning of Surface/Recessed Panel type LED light fixture (600mm by 600 mm) suitable for 2' x 2' false ceiling with minimum 3700 lumens IP20 rated.	Each	15,330.87	36	551,911.32
N.S.I-02	Supply, Installation, Testing and commissioning of circular recessed type false ceiling fan having size of 2' x 2' made of plastic body complete with speed control remote, shoe, cord, etc. complete in all respect i/c connection with 14,0076" flexible wire as required. (Pak/ Royal or approved equivalent)	Each	13,259.30	36	477,334.62
	TOTAL NON-SCHEDULE ITEMS				1029245.94
	TOTAL S.I + N.S.I				5284773.92

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Name of Client:WOMEN UNIVERSITY SAWABI						
Name of Consultant: Allied Engineering Consultants (Pvt.) Ltd 19-A Halli Road Gulberg II. Lahore						
SUB-TITLE: LIBRARY						
TELEPHONE & NETWORKING SYSTEM Bill of Quantity						
S.NO	MRS -2025 REF NO	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
1	15-136-b	Supply at site, installation, testing and commissioning of Layer 2 (Edge) Level Network Switch, Manageable for Data Rack, 24 Port Giga Ethernet (10/100/1000) with Copper & Fiber Uplink Ports (Support 04 Nos 1.0 Giga SFP Modules). 1.0 Gigabit uplink flexibility with Small Form-Factor Pluggable Plus (SFP+). 8 ports of Gigabit Ethernet for desktop connectivity, complete in all respects.	Each	106284.7	1	106284.7
2	15-136-c	Supply at site, installation, testing and commissioning of U/UTP, 4 pair Cat 6a (500 MHz) Network Cable supports (10 Giga) laid in PVC Conduit , with pure copper conductor PVC insulated PVC sheathed including cost of Single Shutter Face plate with UTP Cat-6a Keystone Jack with Back Box to be installed on walls, from Data Cabinet to Computer Points, PVC conduit & Cable tray. Complete in all respects.	Each	7431.79	24	178362.96
3	15-141-a	Supply, installation, testing and commissioning of Cable Manager / Organizer	Each	5546.65	1	5546.65
4	15-140-b	Supply, installation, testing and commissioning of Patch Panel 24 Port Loaded with RJ-45 I/Os Suitable for CAT-VI FTP CABLE; Rack Mount, complete in all respects.	Each	9510.16	1	9510.16
5	15-145	Supply, installation, testing and commissioning of the ODF; 12 Port Loaded with 6x Pigtaills Multimode Tray & Other Accessories, Rack Mount 1U Form Factor, complete in all respects.	Each	127294.7	2	254589.4
6	15-136-f	Supply at site, installation, testing and commissioning of 8U data rack, powder coated, having lockable glass door at front,01x fix x sliding trays, 2 exhaust fans on top, 1 x 04 way rack mountable PDU, suitable for CAT 6A modular patch panels and all active and passive equipment, including power bus bar. The data cabinet shell be complete in all respect. Data cabinet shall be installed after obtaining necessary permission from the computer specialist of the client.	Each	29142.85	1	29142.85
7	15-141-b	Supply, installation, Testing and commissioning of UTP Cat-6a Patch Cords 1m (Supports 10 Giga Network) to be Installed in Data Cabinets	Each	698.99	24	16775.76

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8	15-141-c	Supply, installation, Testing and commissioning of UTP Cat-6a Patch Cords 3m (Supports 10 Giga Network) to be Installed in Data Cabinets	Each	1895.51	24	45492.24
9	15-143-a	Supply, installation, testing and commissioning of the following Fiber Optic Cables to be installed in conduits, cable trays and dura duct including cost of all necessary accessories/materials complete in all respects.	m	207.41	100	20741
10	15-136-e	Supply, installation, testing and commissioning of Wireless Access Point (AP); 802.11 A/G/N; DUAL BAND, complete in all respects	Each	32174.52	2	64349.04
11	15-135-d	Supply at site, fabrication and installation of GI perforated cable tray 16 SWG 8 ft. to 10 ft. long with sides 3" high to be installed on wall, or in vertical, or above false ceiling in horizontal position or floor mounted or as shown on drawing, including cost of hanging arrangement brackets made of angle iron 38mm x 38mm x 6mm installed at every 3 ft., cost of all necessary fixing accessories, complete in all respects.	m	4057.13	10	40571.3
12	15-146	Supply, installation, testing and commissioning of OFC Patch Cord; 3m; Multi Mode; Duplex Type, complete in all respects.	Each	2175.15	10	21751.5
		TOTAL COST OF (S.I)	RS			793117.56
1	NSI-1	Supply & Installation of 3 kVA Online UPS	Each	168530.22	1	168530.22
		TOTAL COST OF (N.S.I)		= Rs.		168530.22
		TOTAL COST OF (S.I & N.S.I)		= Rs.		961647.78



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Name of Client:WOMEN UNIVERSITY SAWABI						
Name of Consultant: Allied Engineering Consultants (Pvt.) Ltd 19-A Halli Road Gulberg II, Lahore						
SUB-TITLE: LIBRARY						
CCTV CAMERA SYSTEM Bill of Quantity						
S.NO	MRS - 2025 REF NO	DESCRIPTION (1ST BI-ANNUAL)	UNIT	RATE	QTY	AMOUNT
1	15-139-I	Supply and installation of 40" LED monitor of best quality	Each	74745.15	2	149490.3
2	15-02-b-03	Supply and Erection PVC pipe for wiring purpose complete Recessed in walls including chase etc : 1" /d	m	435.15	250	108787.5
3	15-139-c	Supply, Installation, Testing and Commissioning of Wall bracket box Camera, type PoE I.P camera with day and night feature having 1.3MP Resolution with live/recording quality of min 15 fps, Varifocal Lens 2.8-12mm, along with all mounting accessories complete in all respect	Each	29073.5	12	348882
4	15-139-o	Supply, installation, connecting, testing & commissioning of High-sensitivity, 1/3" Ex-View HAD CCD color Camera Day/ Night (outdoor), 12/24V dual perating voltage with Motorized gear box, complete in all respects or equivalent,	No	44140.5	2	88281
5	15-141-a	Supply, installation, testing and commissioning of Cable Manager / Organizer	Each	5546.65	1	5546.65
6	15-140-b	Supply, installation, testing and commissioning of Patch Panel 24 Port Loaded with RJ-45 I/Os Suitable for CAT-VI FTP CABLE; Rack Mount, complete in all respects.	Each	9510.16	1	9510.16
7	15-136-f	Supply at site, installation, testing and commissioning of 8U data rack, powder coated, having lockable glass door at front,01x fix x sliding trays, 2 exhaust fans on top, 1 x 04 way rack mountable PDU, suitable for CAT 6A modular patch panels and all active and passive equipment, including power bus bar. The data cabinet shall be complete in all respect. Data cabinet shall be installed after obtaining necessary permission from the computer specialist of the client.	Each	29142.85	1	29142.85
8	15-141-b	Supply, installation, Testing and commissioning of UTP Cat-6a Patch Cords 1m (Supports 10 Giga Network) to be Installed in Data Cabinets	Each	698.99	16	11183.84
		TOTAL SCHEDULE ITEMS			RS	750824.3
1	NSI-1	Supply, Installation, Testing & Commissioning of 16-Port PoE Switch (Managed)	Each	51282.72	1	51282.72
2	NSI-2	Supply & Installation of 16-Channel NVR (H.265+, 4 SATA)	Each	107780.22	1	107780.22
4	NSI-4	Supply & Installation of 4TB Surveillance Grade HDD (Seagate SkyHawk / WD Purpl	Each	33057.72	1	33057.72
5	NSI-5	Supply & Installation of High-quality CAT6 FTP cable for camera connectivity	M	330	600	198000
6	NSI-6	Supply & Installation of 3 kVA Online UPS for NVR and Switch	Each	168530.22	1	168530.22
		TOTAL COST OF (N.S.I)			= Rs.	558650.88
		TOTAL COST OF (S.I & N.S.I)			= Rs.	1309475.18

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Name Of Client: WOMEN UNIVERSITY OF SWABI							
Name of Consultant: ALLIED ENGINEERING CONSULTANTS (PVT.) LTD							
19-A HALLI ROAD GULBERG II, LAHORE							
SUB-TITLE: LIBRARY							
FIRE ALARM SYSTEM Bill of Quantity							
S.NO	Ref: MRS-2025	(1ST BI-ANNUAL)	Description	Unit	Rate	Quantity	Amount
EDULE ITEMS							
FA-1	15-131-g		Supply, installation, testing & commissioning of Micro processor based Fire Alarm Control Panel, suppression consisting of loops and can address around 125points, indicating circuits, including 2x12V VDC Batteries, suppression zone built in power supply, including stand by battery, alarm and trouble indication, silence alarm and reset system, general alarm and reset system, general alarm facility, complete in all respects.	Each	325111.81	1	325,111.81
	15-131-e		Supply, installation, testing & commissioning of Addressable Heat Detector	Each	8172.81	1	8,172.81
FA-2	15-131-d		Supply, installation, testing & commissioning of Analogue Addressable Optical Smoke Detector with Base; 24 VDC; UL LISTED, low voltage, solid state, Not Radio Active type, uni-polar and dual chamber with LED alarm indication to be installed on RCC slab, complete in all respects.	Each	13755.01	20	275,100.20
FA-4	15-131-f		Supply, installation, testing & commissioning of Wall mounted Sounder complete in all respect .	Each	13668.56	2	27,337.12
FA-5	15-131-b		Supply, installation, testing & commissioning of Analogue Addressable Manual Call Point / Pull Station with Base and Back Box with Key UL Listed complete in all respects.	Each	9204.11	2	18,408.22
FA-6	15-131-a		Supply, testing and commissioning of 2 core 1.5mm. Sqmm stranded copper conductor tin coated with drain PVC insulated wires 600/1000 V. grade, fire resistant, LSZH Cu Conductor to be pulled in already installed 20mm dia. heavy duty PVC conduit recessed in wall, columns, slab, floor or above false ceiling with all necessary fixing accessories as per site conditions.	Point	6441.25	25	161,031.25
TOTAL SCHEDULE ITEMS						Rs=	815,161.41



Project Director
PROJECT DIRECTOR
 Women University Swabi

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II. LAHORE

Client : WOMEN UNIVERSITY SAWABI KHYBER PAKHTUNKHWA

Project : STRENGTHENING OF WOMEN UNIVERSITY, SAWABI (NEW CAMPUS)

Sub Title : GRAND SUMMARY OF COST

Bill of Quantity				Based On MRS : 2025 1st Bi Annual	
S.No	Description	Schedule Cost (Rs.)	Non-Schedule Cost (Rs.)	Total Cost (Rs.)	
A	External Work				
1	Protection Wall	2,626,635.86	-		2,626,635.86
2	Walk Ways	1,309,541.07	-		1,309,541.07
3	RCC Pipe Culverts	1,030,369.62	-		1,030,369.62
4	External Sewerage System	5,591,801.86	-		5,591,801.86
5	Open Drains	9,574,898.94	-		9,574,898.94
6	U.G.W Tank 22000 Gallons	4,694,835.03	-		4,694,835.03
7	Tube Well with Pump	9,438,132.40	-		9,438,132.40
8	Test Bore	1,040,621.00	-		1,040,621.00
9	Pump Room	1,133,817.85	-		1,133,817.85
10	External Water Supply System	7,277,155.04	1,302,023.80		8,579,178.84
11	External Sui Gas	3,058,074.49	-		3,058,074.49
	Total Amount	46,775,883.17	1,302,023.80		48,077,906.97
	Total Amount in Million				48.08

Handwritten Signature
PROJECT DIRECTOR
Women University Swabi



ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Sub Title: Road & Walk Ways

Subject: Bill of Quantity

Based On MRS. 2025 1st Bi

S-No	Item-No	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)
Chapter #:06 CONCRETE						
Construction of Protection Wall						
1	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	614.86	132.71	81596.03
2	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	11.06	136472.90
3	06-44-c	PCC 1:3:6 in mass concrete less formwork using 30% boulders	m3	11257.6	82.94	933724.21
4	19-28-a	Providing and Laying stone pitching for top layer only : On slope	m3	5965.99	231.42	1380647.08
5	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	17035.28	5.53	94195.65

Total Amount With (Rs.)

2626635.86

Chapter #:10

FLOORING

Construction of Foot Path

1	10-49-a	Providing and Fixing Precast Concrete 7000 psi TUFF Tiles 50mm thick over bed of 2" thick sand & 4" thick brick ballast/stone ballast complete.	m2	1462.28	345.45	505138.92
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Chapter #:16

ROADS AND BRIDGES

Construction of Foot Path

2	16-73-a	Providing and fixing kerb stone (12"x18"x6") in cement sand mortar 1:3 in center media or round about as specified.	m	1065.07	755.26	804402.15
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Total Amount With (Rs.)

1309541.07

Yasir
PROJECT DIRECTOR
Women University Swabi



ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Sub Title : RCC Pipe Culverts

Subject : Abstract of Cost

Based On MRS : 2025 1st Bi

S-No	Item-No	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)	Remarks
Chapter #03 EARTHWORK (EXCAVATION AND EMBANKMENT)							
1	03-25-d	Excavation in foundation of building, bridges etc complete : in shingle/gravel	m3	485.96	114.45	55619.86	
2	03-18-a	Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	133.66	68.67	9178.72	
Chapter #06 CONCRETE							
3	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	16.35	201774.45	
4	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	17035.28	23.69	403519.28	
5	24-74-c	Providing and laying R.C.C pipe moulded with cement concrete 1:1-1/2:3, Class-2, including carriage of pipe from factory to site of work, jointing, cutting pipe where necessary, finishing and testing, etc. for culverts complete:- 12" i/d, wall thickness 2"	m	2724.68	50.29	137022.92	
6	24-74-d	Providing and laying R.C.C pipe moulded with cement concrete 1:1-1/2:3, Class-2, including carriage of pipe from factory to site of work, jointing, cutting pipe where necessary, finishing and testing, etc. for culverts complete:- 18" i/d, wall thickness 2.2"	m	4439.38	50.29	223254.40	
Total Amount (Rs.)						1030369.62	

Project Director
PROJECT DIRECTOR
Momen University Swabi



ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Sub Title : External Sewerage System

Subject : Abstract of Cost

Based On MRS : 2025 1st Bi Annual

S-No	Item-No	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)	Remarks
1	03-09-b	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Hard Soil	m3	614.86	639.33	393096.08	
2	03-16-b	Rehaling of earthwork upto a lead of 25 m.	m3	156.36	479.49	74973.78	
3	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	17035.28	1.81	30868.00	
4	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	9.17	113203.33	
5	06-07-a-03	RCC in roof slab, beam, column & other structural members, insitu or precast. (1:2:4)	m3	19446.34	5.55	107912.87	
6	06-08-c	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 40)	Tonne	303008.5	0.031	9345.76	
7	06-47-b	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1010.2	65.43	66094.87	
8	07-04-a-03	1st class brick work in foundation and plinth in Cement, sand mortar 1:4	m3	17062.81	47.57	811594.59	
9	07-30	Supplying and filling sand under floor or plugging in wells	m3	2535.9	202.52	513570.01	
10	11-09-b	Cement plaster 1:4 upto 20' height 1/2" thick	m2	519.49	327.14	169944.68	
11	13-08-a	Bitumen coating to plastered / cement concrete surface : 20 lbs. per 100 sq.ft.	m2	255.43	327.14	83560.74	
12	24-74-b	Providing and laying R.C.C pipe moulded with cement concrete 1:1-1/2:3, Class-2, including carriage of pipe from factory to site of work, jointing, cutting pipe where necessary, finishing and testing, etc. for culverts complete:- 9" i/d wall thickness 1".	m	2151.19	861.32	1852868.92	
13	23-03-a-01	Providing & laying R.C.C. pipe sewers, moulded with cement concrete 1:1-1/2:3 conforming to ASTM specification C-76-79, Class II, Wall B, including carriage, lowering in trenches to correct alignment and grade, jointing with rubber ring, cutting pipes where necessary, testing, etc. complete:- 12" i/d, wall thickness 2".	m	2759.96	91.44	252358.43	
14	23-03-a-02	Providing & laying R.C.C. pipe sewers, moulded with cement concrete 1:1-1/2:3 conforming to ASTM specification C-76-79, Class II, Wall B, including carriage, lowering in trenches to correct alignment and grade, jointing with rubber ring, cutting pipes where necessary, testing, etc. complete:- 15" i/d, wall thickness 2.2".	m	3507.46	45.72	160353.25	

PROJECT DIRECTOR
Women University Swabi



15	23-03-a-03	Providing & laying R.C.C. pipe sewers, moulded with cement concrete 1:1-1/2:3 conforming to ASTM specification C-76-79, Class II, Wall B, including carriage, lowering in trenches to correct alignment and grade, jointing with rubber ring, cutting pipes where necessary, testing, etc. complete:- 18" i/d, wall thickness 2.5".	m	4475.9	45.72	204628.16
16	23-03-a-04	Providing & laying R.C.C. pipe sewers, moulded with cement concrete 1:1-1/2:3 conforming to ASTM specification C-76-79, Class II, Wall B, including carriage, lowering in trenches to correct alignment and grade, jointing with rubber ring, cutting pipes where necessary, testing, etc. complete:- 21" i/d, wall thickness 2.5".	m	5433.68	22.86	124207.86
17	23-03-a-05	Providing & laying R.C.C. pipe sewers, moulded with cement concrete 1:1-1/2:3 conforming to ASTM specification C-76-79, Class II, Wall B, including carriage, lowering in trenches to correct alignment and grade, jointing with rubber ring, cutting pipes where necessary, testing, etc. complete:- 24" i/d, wall thickness 3".	m	6507.14	22.86	148745.96
18	23-07	Providing and Fixing 3" thick RCC manhole cover, 22" dia with tee shaped CI frame of 20" clear i/d complete	Set	14827.33	32.00	474474.56
Total Amount (Rs)						5591801.86



Project Director
PROJECT DIRECTOR
 Women University Swabi

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Sub Title : Open Drains

Subject : Abstract of Cost

Based On MRS : 2025 1st Bi Annual

S-No	Item-No	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)	Remarks
Chapter #:03							
EARTHWORK (EXCAVATION AND EMBANKMENT)							
1	03-16-b	Rehandling of earthwork upto a lead of 25 m.	m3	156.36	298.08	46607.74	Rehandling
2	03-09-a	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Ordinary Soil	m3	497.2	425.83	211721.75	
Chapter #:06							
CONCRETE							
3	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	35.15	433727.71	
4	06-05-h	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:3:6)	m3	13983.72	237.36	3319153.92	
5	06-07-a-03	RCC in roof slab, beam, column & other structural members, insitu or precast. (1:2:4)	m3	19446.34	43.52	846312.20	
6	06-08-c	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 40)	Tonne	303008.5	5.13	1553259.38	
7	06-47-b	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1010.2	1930.72	1950408.91	
8	06-47-a	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain Concrete in any shape - Position / Horizontal	m2	970.34	1037.81	1007030.98	
9	06-47-a	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain Concrete in any shape - Position / Horizontal	m2	970.34	212.99	206.676.33	
Total Amount (Rs)						9574898.94	

Yasir
PROJECT DIRECTOR
Women University Swabi



ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Sub Title: **Bore Hole + Pump**

Subject: **Summary Of Cost**

Based On MRS : 2025 1st Bi Annual

S.NO	Mrs-Code	DESCRIPTION	UNIT	RATE	QUANT ITY	AMOUNT
Schedule Items						
1	24-79	Electric Resistivity Survey for tubewell construction complete in all respects (minimum 03 locations).	No	38486.89	1.00	38,487
2	24-01-a	Mobilization of plant, equipment and camping arrangements etc & demobilization after completion	Job	76186.66	1.00	76,187
3	24-02-a-09	Drilling of Bore holes for tube well in all types of soil and soft rock except hard rock from ground level upto 328 ft depth (0m to 100m), including sinking, collection of 100 % corings and withdrawing of pipe, complete as per specifications.: Dia of Bore 18" (450 mm) i/d	m	17564.64	100.00	1,756,464
4	24-02-b-07	Drilling of Bore holes for tube well in all types of soil and soft rock except hard rock from a depth of 328.1 ft to 656 ft (100.1m to 200 m) depth, including sinking, collection of 100 % corings and withdrawing of pipe, complete as per specifications.:	m	20178.64	100.00	2,017,864
5	24-05	Collection and submission at approved water testing laboratory of two water samples in bottles from each bore hole for testing.	Per set	370.5	2.00	741
6	24-08-b	Providing and installing M.S. Bail plug of approved make / quality in tubewell bore hole complete as per specification:- 8" (200 mm) i/d 2 ft (450 mm) long.	m	39929	0.61	24,340
7	24-12-c-04	Providing and installing PVC blind pipe BSS Class "D" in Tube Well Bore Hole including Sockets and Solvents and jointing with strainer etc. complete : 12" Nominal Pipe Size (NPS) (300 mm)	m	20098.76	199.94	4,018,527
8	24-14	Shrouding with graded pack gravel 3/8" (10 mm) to 1/8" (3 mm) around tubewell in bore hole complete as per specification:- Supply and Fixing MS Column pipe for Deep well Turbine (DWT) pumps for 4" (100 mm) Nominal Pipe Size (NPS), 3/16" thick, 10' length	m	347.67	199.94	69,513
9	24-55-a		m	4132.25	137.15	566,752

Yasir
PROJECT DIRECTOR
Allied Engineering Consultancy
Islamabad University Swat



ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II. LAHORE

Sub Title : **Bore Hole + Pump**

Subject : **Summary Of Cost**

Based On MRS : 2025 1st Bi Annual

S.NO	Mrs-Code	DESCRIPTION	UNIT	RATE	QUANT ITY	AMOUNT
10	24-41	Conducting Elec: Resistivity survey of the area and furnishing its reports.	No	37258.38	4.00	149,034
11	24-42	Logging of bore hole with electrical equipment and furnishing reports.	Job	27309.4	1.00	27,309
12	24-81	Providing & installation of 20 BHP submersible pumping having a discharge 7000 gallons per hour including cost of all allied accessories, commissioning testing etc, complete in all respects.	Each	692916	1.00	692,916
Total Amount (Rs.)				= Rs.		9,438,132



[Signature]
PROJECT DIRECTOR
Women University Swabi

Sub Title: **Test Bore**

Subject: Summary Of Cost			Based On MRS : 2025 1st Bi Annual			
S.NO	Mrs-Code	DESCRIPTION	UNIT	RATE	QUANTI TY	AMOUNT
Schedule Items						
1	24-02-a-06	Drilling of Bore holes for tube well in all types of soil and soft rock except hard rock from ground level upto 328 ft depth (0m to 100m), including sinking, collection of 100 % corings and withdrawing of pipe, complete as per specifications.: Dia of Bore 10" (250 mm) i/d	m	10406.21	100.00	1,040,621
Total Amount (Rs.)				= Rs.		1,040,621

[Signature]
PROJECT DIRECTOR
Women University Swabi



Client : Provincial Housing Authority Peshawar Khyber Pakhtunkhwa
 Consultant : M/S Allied Engineering Consultant Peshawar
 Project : #REF!

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE
 Sub Title: Pump Room

Subject: Abstract of Cost

Based On MRS : 2025 1st Bi Annual

S.NO	DESCRIPTION	UNIT	Rate	Qty	AMOUNT
Chapter-03 Earth Work					
1	03-25-b Excavation in foundation of building, bridges etc complete : in ordinary soil	m3	360.39	4.53	1632.52
2	28-15 Pre anti Termite Treatment in the building mixed with water of mixing ratio as per the manufacturer's certified manual	m2	98.63	39.03	3849.87
3	03-18-a Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	133.66	160.00	21385.60
Chapter-6 Concrete					
4	06-05-i Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	12340.56	2.07	25504.97
5	06-07-b-03 RCC in raft foundation slab, base slab of column & ret. wall etc, not including in 06-07-a-03 (1:2:4)	m3	19446.34	2.43	47348.18
6	06-07-a-03 RCC in roof slab, beam, column & other structural members, insitu or precast. (1:2:4)	m3	19446.34	7.00	136124.38
7	06-08-b Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	Tonne	306713.5	1.11	340849.45
Chapter -7 Brick Masonry					
8	07-04-a-05 1st class brick work in foundation and plinth in Cement, sand mortar 1:6	m3	16274.21	4.25	69112.75
9	07-05-a-05 1st class brick work in ground floor Cement, sand mortar 1:6	m3	17340.09	8.92	154642.52
10	25-45-a Supplying and Fixing 18 SWG MS Sheet Door with angle iron frame (1.5"x1.5"x1/8"), bolt, hinges, paint etc complete	m2	11557.74	2.28	26316.42
11	11-10-C Cement plaster 3/8" thick under soffit of RCC roof slabs only upto 20' height : (1:4)	m2	499.22	11.25	5613.91
12	11-09-b Cement plaster 1:4 upto 20' height 1/2" thick	m2	519.49	35.55	18467.00
13	12-65-a-03 Supply and Fixing aluminium door/window, Sliding Window Deluxe model (1.60 mm gauge) 3" section	m2	10828.13	1.86	20126.64
14	12-61 MS flat 1/2"x1/8" grill in windows of approved design	m2	3736.91	1.86	6945.93
15	11-20-b Providing and applying wall putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	m2	89.32	50.28	4490.90
16	11-18-b Cement pointing struck joints, on walls, upto 20' height : Ratio 1:3	m2	530.25	44.61	23654.28

Yasir
PROJECT DIRECTOR
 Women University Swabi



Client : Provincial Housing Authority Peshawar Khyber Pakhtunkhwa

Consultant : M/S Allied Engineering Consultant Peshawar

Project : #REF!

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II. LAHORE

Sub Title: Pump Room

Subject: Abstract of Cost

Based On MRS : 2025 1st Bi Annual

S.NO	DESCRIPTION	UNIT	Rate	Qty	AMOUNT
17	Preparing surface & painting with snowcem / weathershield paint : First coat	m2	344.07	44.61	15348.85
18	Preparing surface & painting with snowcem / weathershield paint : 2nd & subsequent coats	m2	189.64	44.61	8459.78
19	Provide & lay topping of concrete 1:2:4, including surface finishing & dividing in panels : 2" thick	m2	1431.12	9.29	13300.37
20	Provide & lay roof insulation complete with Thermopore sheet 1/2" thick	m2	2747.28	11.25	30894.13
21	2 coats of bitumen laid hot using 34 lbs. for %sft over roof & blinded with sand at 1 cft per % sft	m2	427.51	11.25	4807.50
22	Single layer of tiles 12"x6"x2" laid over 4" earth and 1" mud plaster on top of RC roof slab	m2	2075.27	11.25	23337.14
23	Cast iron rain water down pipe fixed in position excluding heads & shoes : 4" dia	m	2455.82	3.51	8607.72
24	Shoes, bends or offsets for cast iron ran water down pipe, including fixing & painting	Each	1466.67	2.00	2933.34
25	Khuras on roof 2'x2'x6"	Each	1478.69	1.00	1478.69
26	Supplying and filling sand under floor or plugging in wells	m3	2535.9	3.07	7777.39
27	Erection and removal of Form work with Steel Surface Finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1010.2	19.33	19528.03
28	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shpae - Position / Horizontal	m2	1166.35	14.96	17451.89
29	Erection and removal of Form work with Plywood sheet finishing for RCC or Plain cement Concrete in any shape - Position / Vertical	m2	1232.79	14.87	18331.45
30	V. Damp proof c/s plaster, 1 layer polythene 2 coats bitumen Ratio 1:2 (0.75" thick)	m2	1260.46	11.15	14057.17
31	Providing & Fixing of M.S Girder (WF 10x30) Duly painted including red oxide primer, complete in all respects.	m	12360.15	3.35	41439.09
Total Amount (Rs)				= Rs.	1,133,818

Handwritten Signature
PROJECT DIRECTOR
Women University Swabi



ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Sub Title: **WATER SUPPLY System**

Bill of Quantity

Based On MRS : 2025 1st Bi Annual

S.No	Item-No	Description Of Items	Unit	Rate(Rs)	Quantity	Amount(Rs)
Chapter #:03 EMBANKMENT						
1	03-09-a	Earth excavation in open cut upto 3 m depth for drains, pipes etc & disposal : in Ordinary Soil	m3	497.2	2109.27	1,048,727.32
2	03-16-b	Rehandling of earthwork upto a lead of 25 m.	m3	156.36	1687.41	263,843.93
3	03-20-a	Transportation of earth all types beyond 250 m and upto 500 m.	m3	317.18	1687.41	535,213.73
4	07-30	Supplying and filling sand under floor or plugging in wells	m3	2535.9	395.49	1,002,916.69
Chapter #:06 HDPE PIPE LINE						
5	24-30-b-02	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (25mm dia) PN-10	m	142.07	450.00	63,931.50
7	24-30-b-03	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (32 mm dia) PN-10	m	187.16	393.50	73,647.46
8	24-30-b-04	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (40 mm dia) PN-10	m	279.01	80.00	22,320.80
9	24-30-b-05	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE)Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (50 mm dia) PN-10	m	409.43	350.00	143,300.50
10	24-30-b-07	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-10	m	874.56	150.00	131,184.00
11	24-30-b-09	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (110 mm dia) PN-10	m	1864.85	289.55	539,959.62
12	24-30-b-10	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (160 mm dia) PN-10	m	3823.54	396.22	1,514,965.56
12	24-16-a-11	Providing, laying, cutting, jointing, testing and disinfecting GI pipeline in trenches, with welded joint, using GI pipes of ASTM A53 89 (Heavy Approved Quality) including specials etc.Complete as per specifications except excavation. 6" Nominal Pipe Size (NPS)	m	12501.75	40.00	500,070.00
Accessories						
13	24-30-e-02	Providing and installing HDPE Socket 25mm dia	Each	330.42	18.00	5,947.56
14	24-30-e-03	Providing and installing HDPE Socket 32mm dia	Each	416.88	18.00	7,503.84

PROJECT DIRECTOR
Women University Swabi



15	24-30-e-04	Providing and installing HDPE Socket 40mm dia	Each	709.88	18.00	12,777.84
16	24-30-e-07	Providing and installing HDPE Socket 75mm dia	Each	1712.85	16.00	27,405.60
17	24-30-e-08	Providing and installing HDPE Socket 90mm dia	Each	2120.4	16.00	33,926.40
18	24-30-e-09	Providing and installing HDPE Socket 110mm dia	Each	4685.67	18.00	84,342.06
19	24-30-f-03	Providing and installing HDPE Tee 32mm dia	Each	949.1	10.00	9,491.00
20	24-30-f-08	Providing and installing HDPE Tee 90mm dia	Each	2862.42	12.00	34,349.04
21	24-30-f-09	Providing and installing HDPE Tee 110mm dia	Each	4553.45	10.00	45,534.50
22	24-30-f-10	Providing and installing HDPE Tee 160mm dia	Each	13112	10.00	131,120.00
23	24-30-f-11	Providing and installing HDPE Tee 200mm dia	Each	26480.88	2.00	52,961.76
24	24-30-f-12	Providing and installing HDPE Tee 250mm dia	Each	41072.4	1.00	41,072.40
25	24-30-g-03	Providing and installing HDPE bend 32mm dia	Each	615.21	8.00	4,921.68
26	24-30-g-08	Providing and installing HDPE bend 90mm dia	Each	1693.4	10.00	16,934.00
27	24-30-g-09	Providing and installing HDPE bend 110mm dia	Each	2381.24	8.00	19,049.92
28	24-30-g-10	Providing and installing HDPE bend 160mm dia	Each	6746.96	8.00	53,975.68
29	24-30-g-11	Providing and installing HDPE bend 200mm dia	Each	13348.04	2.00	26,696.08
30	24-30-g-12	Providing and installing HDPE bend 250mm dia	Each	24277.79	2.00	48,555.58
UPVC PIPE USED FOR ROAD CROSS CONDUIT						
		disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc.manufactured by the respective manufacturer complete as per specifications				
32	24-18-c-06	uPVC Pressure Pipes Class D (12 Bar) except excavation. 4" Nominal Pipe Size (NPS)	m	2489.69	100.00	248,969.00
		disinfecting UPVC pressure pipeline in trenches (conforming to BS 3505 manufactured) jointed with socket, elbow, tee, bend and plug bend etc.manufactured by the respective manufacturer complete as per specifications				
33	24-18-c-08	uPVC Pressure Pipes Class D (12 Bar) except excavation. 6" Nominal Pipe Size (NPS)	m	5315.4	100.00	531,540.00
Total Amount Rs						
						7,277,155.04
1	NSI	Provide and construct brickwork chamber with air valve 2-1/2" (65mm) dia (double orifice) and 3" dia gate valve of B.S: 3464 quality and weight, class B (complete with jointing material)including M.S tee and flange adaptor as per drawing complete in all respects.	EACH	53100.00	2.00	106,200.00
2	NSI	Providing and fixing, Pedestal type fire hydrants (including cost of jointing material) as per drawing complete in all respects.	EACH	84960	4.00	339,840.00
3	NSI	Providing and construct brick work chamber and fixing, WashOut (including cost of jointing material) as per drawing complete in all respects.	EACH	53100.00	2.00	106,200.00
4	NSI	Provide and install Garden Hydrant B.S.S 50 mm (2") including uPVC short piece, 2" dia G.I pipe, 9" dia surface box and flange adaptor as per drawing complete in all respect.	EACH	35400.00	4.00	141,600.00
5	NSI	Provide and construct brickwork chamber with sluice (gate) valve of B.S: 3464 quality including flange adaptor/ stuff flange as per drawing (including cost of jointing material).				
6	3"		EACH	44840	3.00	134,520.00
7	4"		EACH	54280	3.00	162,840.00

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8	6"	EACH	61360	2.00	122,720.00
9	NSI	Providing and installing indication plate as per drawing and specifications or as directed by the Engineer.	EACH	50.00	129,800.00
10	NSI	Supplying, laying, jointing, testing and disinfection of water service connection of 32 mm o/d polyethylene pipe (PE 100), excluding the cost of P.E pipe, but including the cost of P.E ferrule, end cap, equal bends & PP saddle clamp, complete in all respects as per drawings and instructions of the Engineer incharge.	EACH	2596	
		a) Connection from 3" dia pipe	EACH	3,717.00	6.00
		b) Connection from 4" dia pipe	EACH	4,165.40	3.00
		c) Connection from 6" dia pipe	EACH	5,876.40	4.00
Total Amount					1,302,023.80
Grand Total Amount					8,579,178.84



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ALLIED ENGINEERING CONSULTANTS (PVT.) LTD 19-A HALLI ROAD GULBERG II, LAHORE

Sub Title: Sui Gas

Subject: Abstract of Cost

Based On MRS : 2025 1st Bi Annual

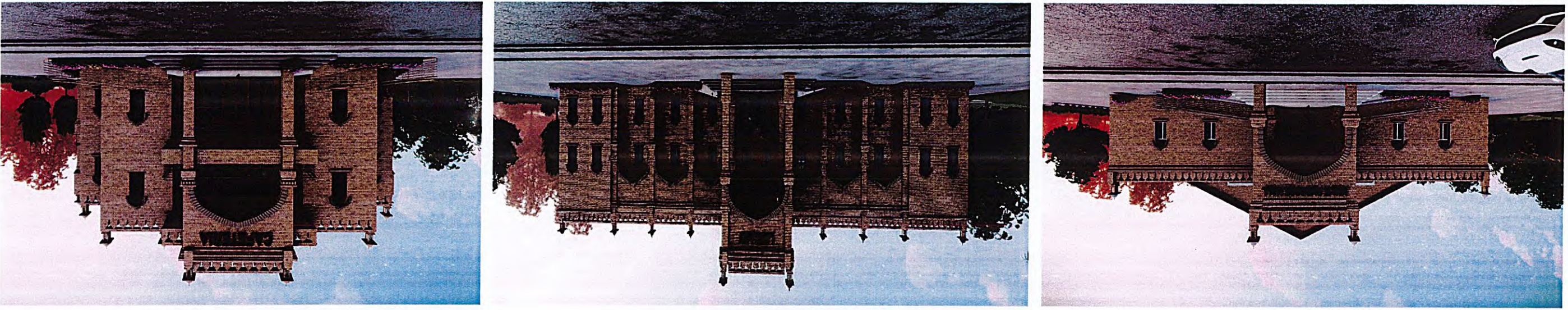
Mrs	Description	Unit	Rate (Rs.)	QTY	Amount (Rs.)
14-50-a	Providing and Fixing Audco type valve : 4" dia	Each	13909.95	12	166,919
14-51-a	Providing and Fixing pressure regulator : No. 103	Each	1738	8	13,904
14-52-a	Providing and Fixing high pressure flange type valve : 4" dia	Each	18064	10	180,640
24-30-c-03	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (32 mm dia) PN-12.5	m	217.71	1005.8	218,971
24-30-c-07	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (75 mm dia) PN-12.5	m	1058.29	914.4	967,653
24-30-c-09	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE) Din-8074/Din-8075/ISO-4427 in trenches, complete in all respects except excavation. (110 mm dia) PN-12.5	m	2251.94	670.5	1,509,987
Total Amount (Rs.)					3,058,074

[Signature]
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WOMEN UNIVERSITY SWABI

STRENGTHENING OF WOMEN UNIVERSITY SWABI (NEW CAMPUS)
CONSTRUCTION OF MULTI-PURPOSE HALL, LIBRARY, CAFETRIA
AND EXTERNAL INFRASTRUCTURE WORKS
(Package -3)



Construction Drawings

ALLIED ENGINEERING CONSULTANTS (PVT) LIMITED

WOMEN UNIVERSITY OF SWABI

MULTI PURPOSE HALL

ARCHITECTURAL DRAWINGS

DRAWING NO.

PROJECT NO.

ARCHITECT

AR.BAQIR ALI

DRAWN

ASIM

SCALE

AS SHOWN

DATE

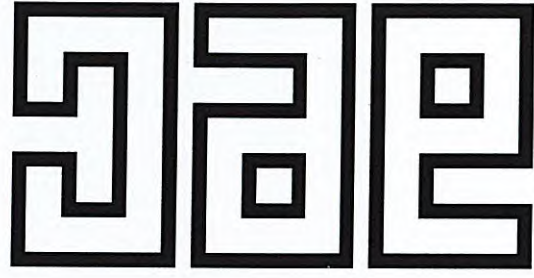
CHECKED

MRS. SHAHINE KHAN

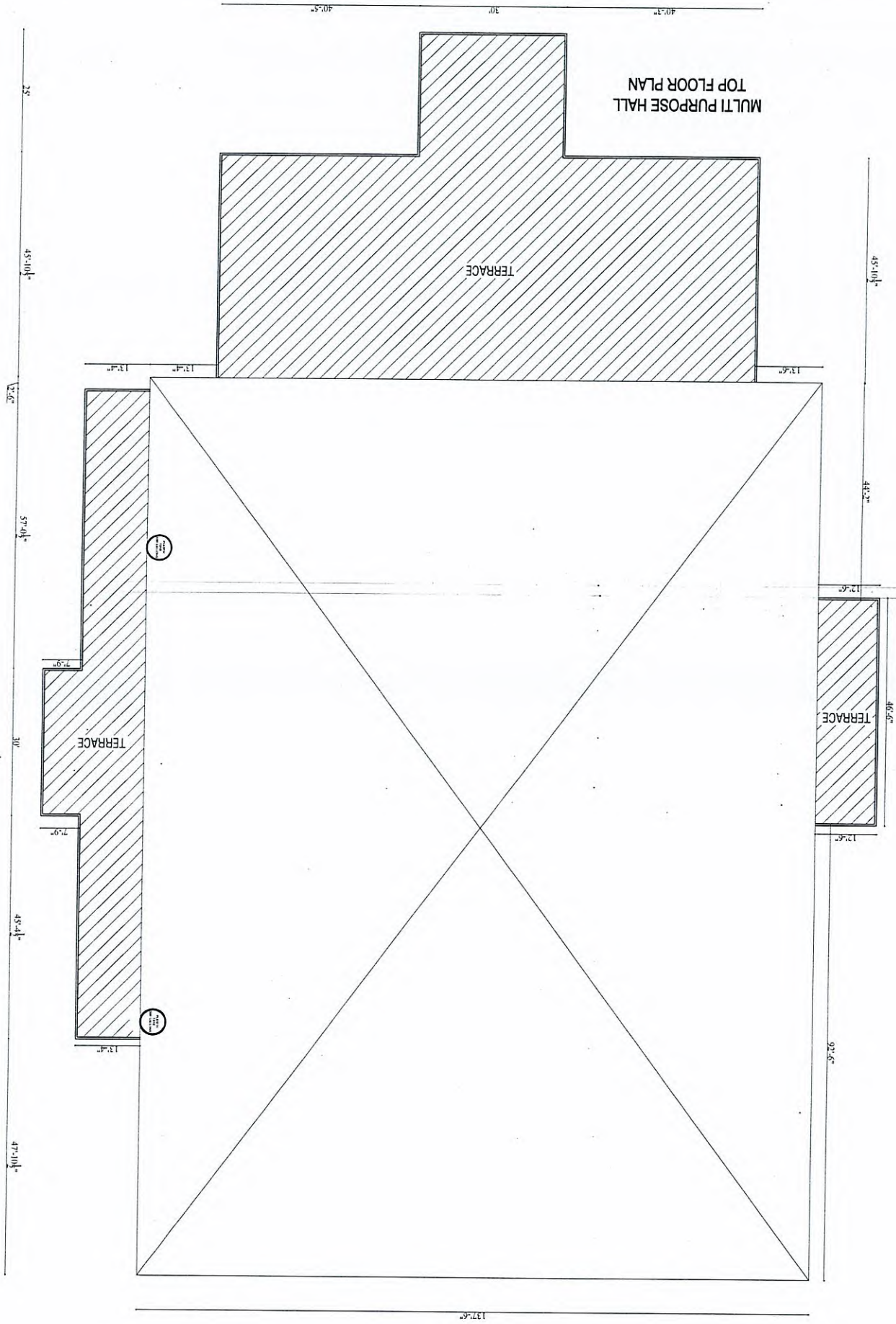
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD

ARCHITECTS. ENGINEERS. PLANNERS.

19 - A, GULBERG -II- LAHORE PH: 5758433 / 5756752



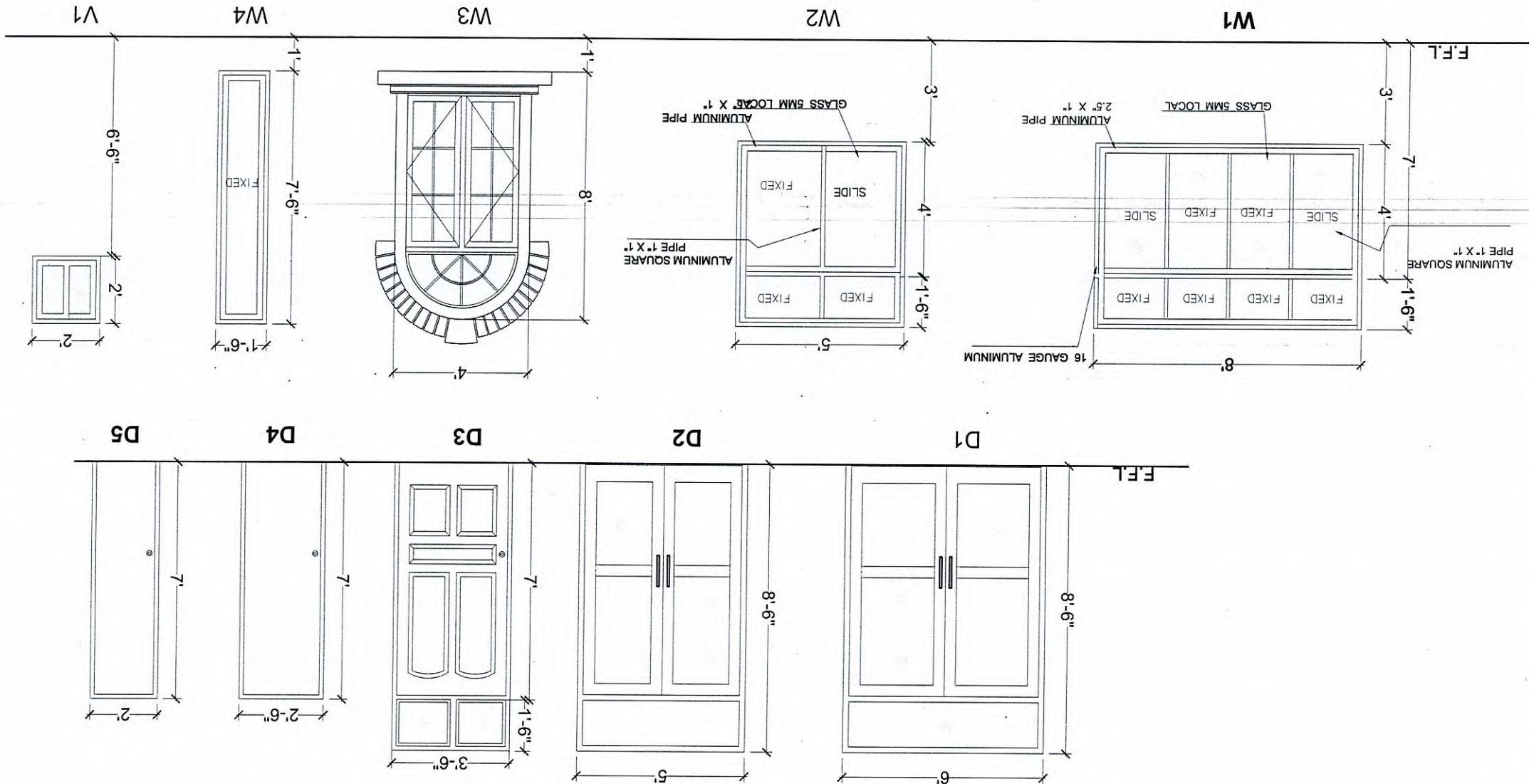
MULTI PURPOSE HALL		PROJECT NO. AEC/591/2021	
TOP FLOOR PLAN		DRAWING NO. A-(2)	
ARCHITECT AR. BAQIR ALI		CHECKED MRS. SHAHINE KHAN	
DRAWN ASIM		SCALE DATE MARCH, 2025	
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD ARCHITECTS, ENGINEERS, PLANNERS, 19-A, GULBERG-II, LAHORE. PH. 5758433, 5756752			



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WOMEN UNIVERSITY SWABI



WOMEN UNIVERSITY OF SWABI	
MULTI PURPOSE HALL	
PROJECT NO AEC/591/2021	DRAWING NO A-(3)
SCHEDULE OF DOORS AND WINDOWS	
ARCHITECT AR.BAQIR ALI	CHECKED MRS. SHAHINE KHAN
DRAWN ASIM	SCALE AS SHOWN
DATE MARCH, 2025	
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD. ARCHITECTS, ENGINEERS, PLANNERS. 19-A, GULBERG-II, LAHORE. PH: 5758433, 5756752	



SCHEDULE OF DOORS AND WINDOWS			
NO.	SIZE	SILL	DESCRIPTION
D1	6'-0"x8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D2	5'-0"x8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D3	3'-6"x8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D4	2'-6"x7'-0"	0'-0"	UPVC DOOR AS PER SPEC
D5	2'-0"x7'-0"	0'-0"	UPVC DOOR AS PER SPEC
W1	8'-0"x5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
W2	5'-0"x5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
W3	1'-6"x7'-6"	1'-0"	ALUMINUM WINDOWS AS PER SPEC
V1	2'-0"x2'-0"	6'-6"	ALUMINUM VENT AS PER SPEC



Project Director
WOMEN UNIVERSITY SWABI

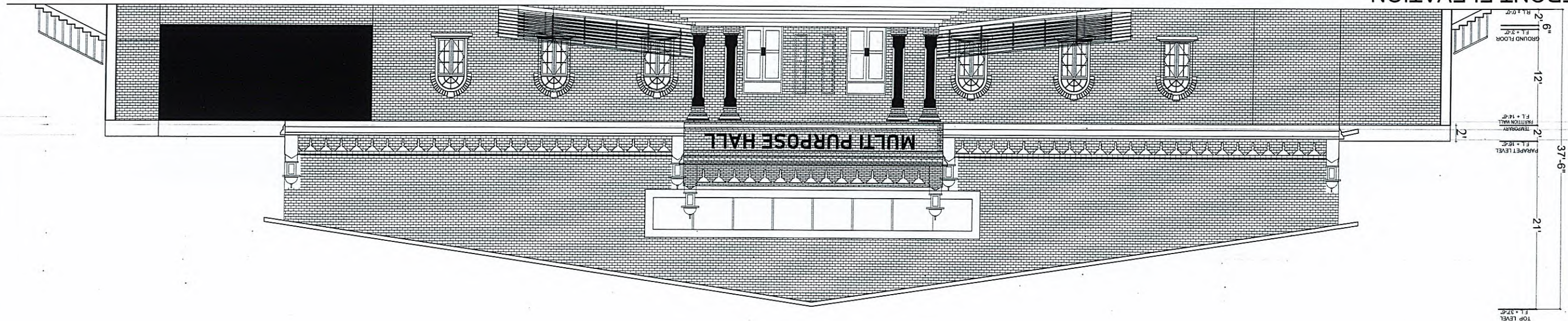
PROJECT NO.		MULTI PURPOSE HALL	
DRAWING NO.		A-(5)	
ARCHITECT		AR.BAQIR ALI	
CHECKED		MRS. SHAHINE KHAN	
DATE		MARCH, 2025	
SCALE		AS SHOWN	
DRAWN		ASIM	
19-A, GULBERG-II, LAHORE. PH. 5758433, 5756752 ALLIED ENGINEERING CONSULTANTS (PVT.) LTD. ARCHITECTS, ENGINEERS, PLANNERS.			



Project Director
WOMEN UNIVERSITY SWABI

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FRONT ELEVATION



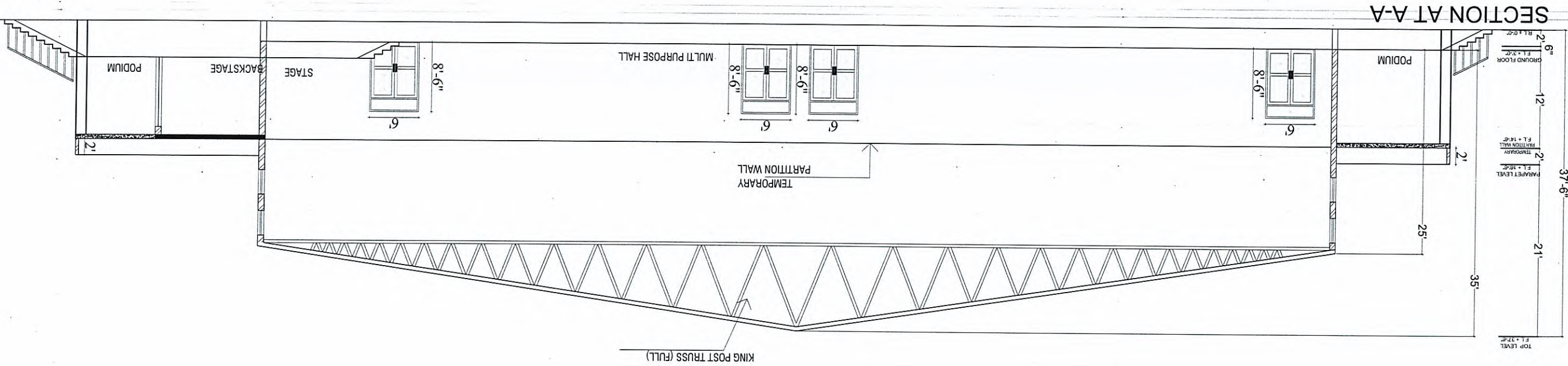
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ARCHITECT AR. BAQIR ALI		CHECKED MRS. SHAHINE KHAN	
DRAWN ASIM		SCALE DATE MARCH, 2025	
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD. ARCHITECTS, ENGINEERS, PLANNERS, 19-A, GULBERG-II, LAHORE PH. 5758433, 5756752			

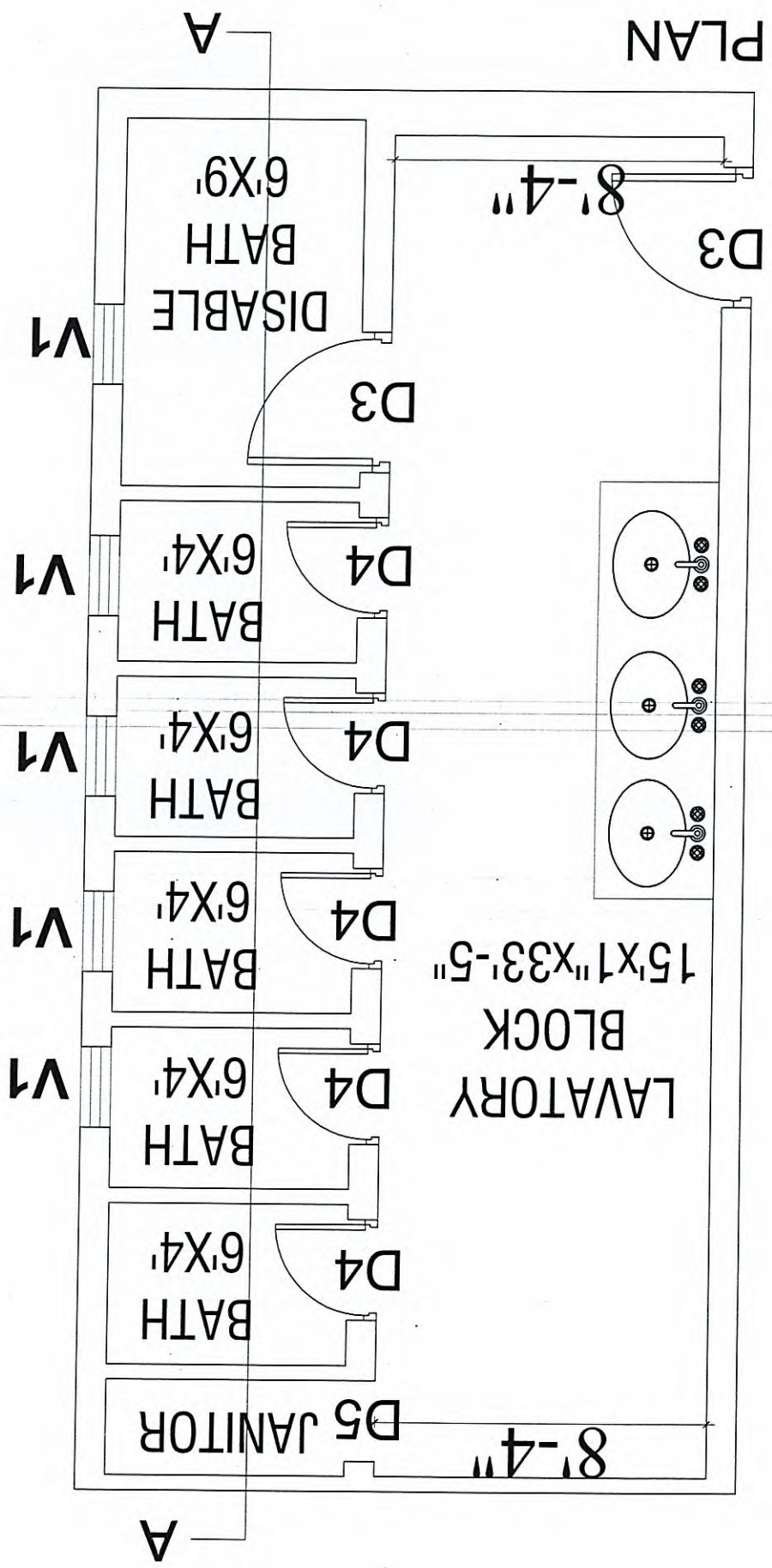
WOMEN UNIVERSITY OF SWABI
 MULTI PURPOSE HALL



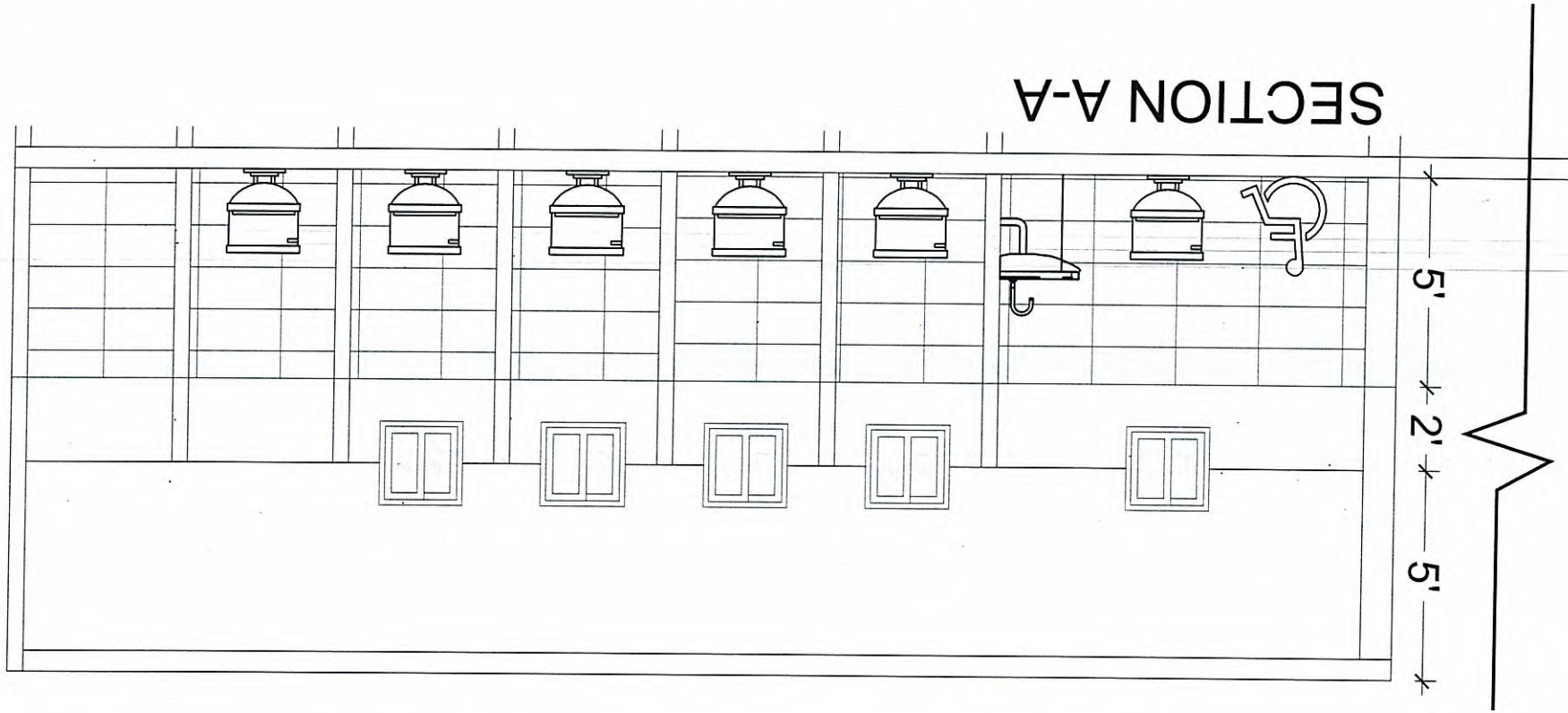
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WOMEN UNIVERSITY SWABI

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TYPICALLY LAVATORY BLOCK



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WOMEN UNIVERSITY SWABI



PROJECT NO. AEC/691/2021		DRAWING NO. A-(7)	
LAVATORY DETAIL		CHECKED	
ARCHITECT		MRS. SHAHINE KHAN	
DATE		MARCH, 2025	
SCALE		AS SHOWN	
DRAWN		ARCHITECT	
ASIM		AR. BAQIR ALI	
ARCHITECTS		ENGINEERS.	
19-A, GULBERG-II, LAHORE. PH. 5758433, 5756752		ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.	

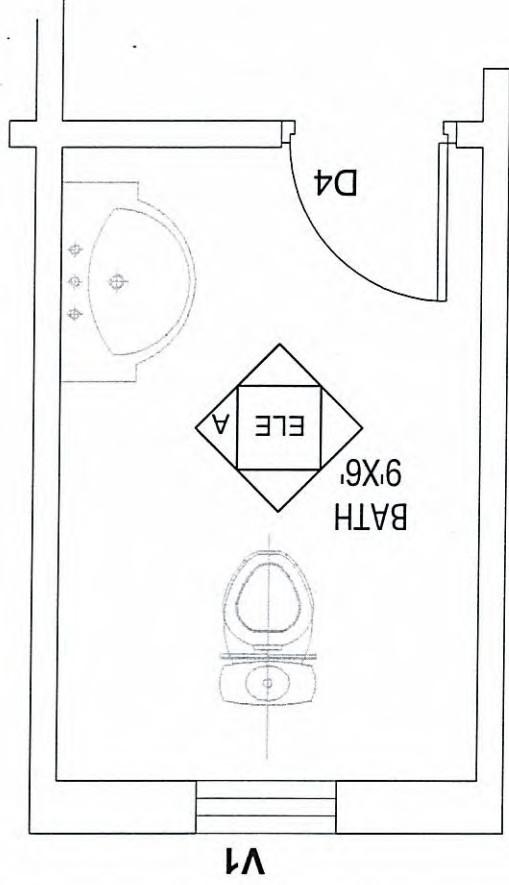
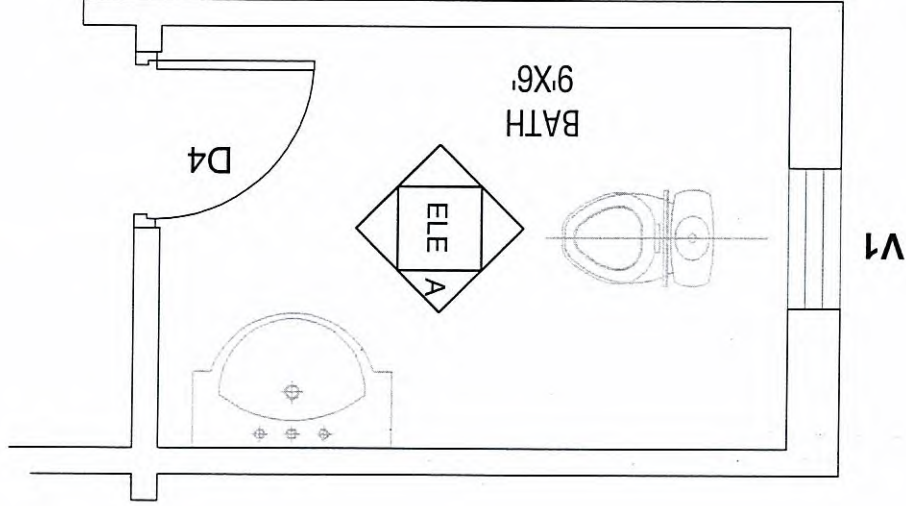
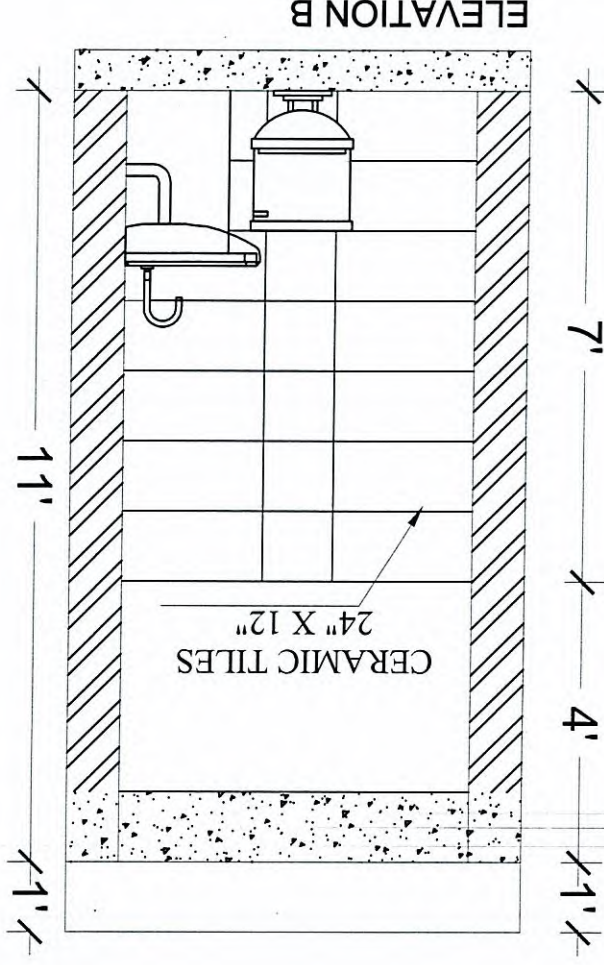
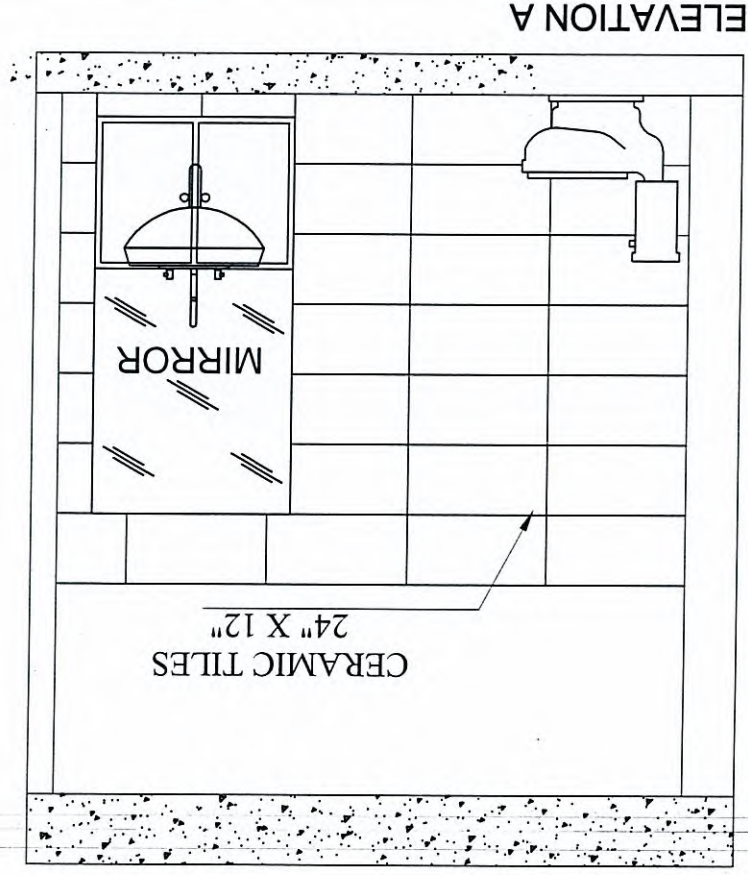
WOMEN UNIVERSITY OF SWABI
MULTI PURPOSE HALL

WOMEN UNIVERSITY OF SWABI			
MULTI PURPOSE HALL			
PROJECT NO.	REC/591/2021	DRAWING NO.	A-(8)
ARCHITECT	AR. BAQIR ALI	CHECKED	MRS. SHAHME KHAN
DRAWN	ASIM	SCALE	AS SHOWN
DATE			
MARCH, 2025			
2025 ALLIED ENGINEERING CONSULTANTS (PVT.) LTD. ARCHITECTS, ENGINEERS, PLANNERS. 19-A, GULBERG-II, LAHORE. PH. 5758433, 5756752			



Project Director
WOMEN UNIVERSITY SWABI

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LAVATORY BLOCK (5'-0" HEIGHT)
ATTACHED BATH (7'-0" HEIGHT)

SCHEDULE OF INTERNAL FINISHES

SCHEDULE OF INTERNAL FINISHES		NO.	ROOMS NAME	FLOOR	SKIRTING	DADO	WALLS / COLUMNS	CEILING
VC OFFICE / EXECUTIVE LOUNGE RETIRE ROOM MEETING ROOM CARE TAKER OFFICE CONFERENCE HALL PODIUM LOBBY BACKSTAGE HALL MULTI PURPOSE HALL INDOOR GYM INDOOR GAME HALL BATH LAVATORY	01	VC OFFICE / EXECUTIVE LOUNGE		●	●	●	●	●
	02	RETIRE ROOM		●	●	●	●	●
	03	MEETING ROOM		●	●	●	●	●
	04	CARE TAKER OFFICE		●	●	●	●	●
	05	CONFERENCE HALL		●	●	●	●	●
	06	PODIUM			●		●	
	07	LOBBY			●		●	
	08	BACKSTAGE HALL			●		●	
	09	MULTI PURPOSE HALL			●		●	
	10	INDOOR GYM			●		●	
	11	INDOOR GAME HALL			●		●	
	12	BATH			●		●	
	13	LAVATORY					●	
			MOSAIC FLOORING MARBLE FLOORING PCC CERAMIC TILE PORCELAIN TILE MOSAIC MARBLE PORCELAIN TILE GLAZED CERAMIC TILE DISTEMPER PLASTIC EMULATION PAINT FALSE CEILING DISTEMPER					



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		19 - A, GULBERG - III, LAHORE. PH: 5758433 5756752 ARCHITECTS. ENGINEERS. PLANNERS.	
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD		ASIM	
DR. WAHID		SCALE	
DATE		AS SHOWN	
MARCH, 2025		MRS. SHAHINE KHAN	
ARCHITECT		CHECKED	
A-9		SCHEDULE OF INTERNAL FINISHES	
DRAWING NO.		PROJECT NO.	
AEC/591/2021		MULTI PURPOSE HALL	
WOMEN UNIVERSITY OF SWABI			

PROJECT NAME:

PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"

! . CONSTRUCTION OF MULTI PURPOSE HALL

STRUCTURAL DRAWINGS



ALLIED ENGINEERING CONSULTANTS (PVT.) LTD
ARCHITECTS ENGINEERS PLANNERS
19 - A, GULBERG -II- LAHORE PH: 5758433 / 5756752

PROJECT NAME: PROPOSED STRUCTURAL DESIGN OF "WOMEN UNIVERSITY OF SWABI" CONSTRUCTION OF MULTI PURPOSE HALL

DESIGNED BY: ENGR. SHAHAB ALI	DRAWING TYPE: STRUCTURAL	CHECKED BY: ENGR. ZAIN UL ABIDEEN	PROJECT NO: GSK-ED-241-I	ISSUE DATE: APRIL, 2025
DRAFTED BY: TAUQEER ZEB	SCALE: AS SHOWN	DRAWING NO: STR-II	REVISION	
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ARCHITECTS ENGINEERS PLANNERS

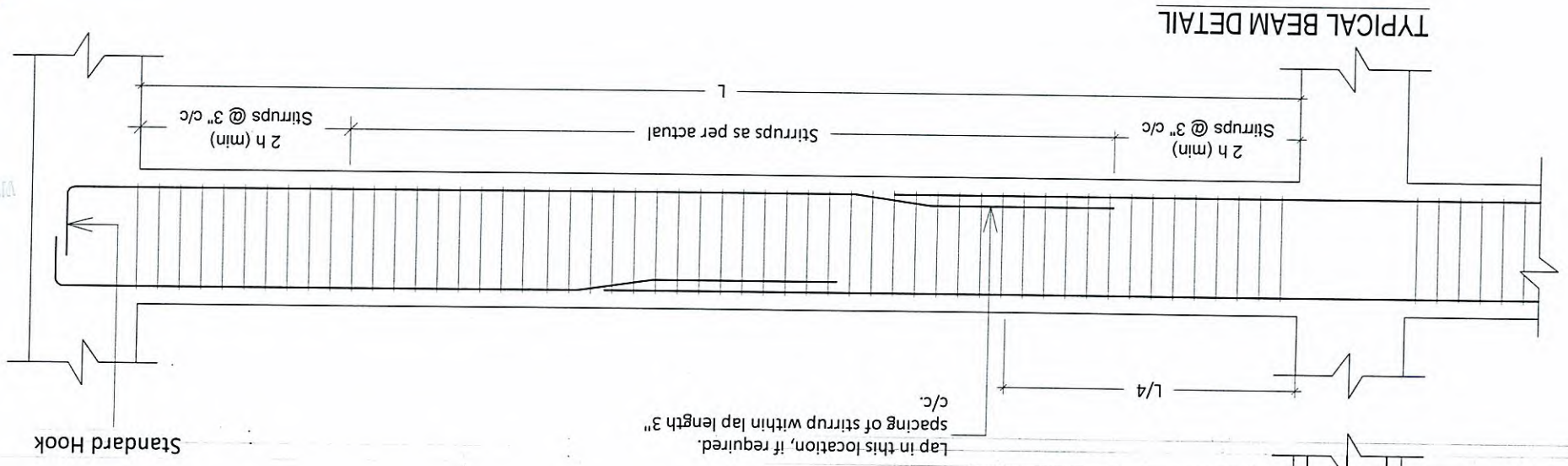
NOTE: THE STRUCTURAL DRAWINGS WILL BE FOLLOWED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ARCHITECTURAL DRAWINGS ARE PRIMARY DRAWINGS AND STRUCTURAL DRAWINGS SHOULD BE CONSIDERED AS SECONDARY DRAWINGS. IN CASE OF ANY DIFFERENCES DESIGNER MUST BE CONTACTED.

BAR DIA	SLAB	BEAM / COLUMN	MINIMUM SPLICE LAP LENGTH (INCHES)				
			$f_c = 3,000 \text{ psi}$ $f_y = 60,000 \text{ psi}$				
1"	-	70					
3/4"	-	55					
5/8"	-	44					
1/2"	25	35					

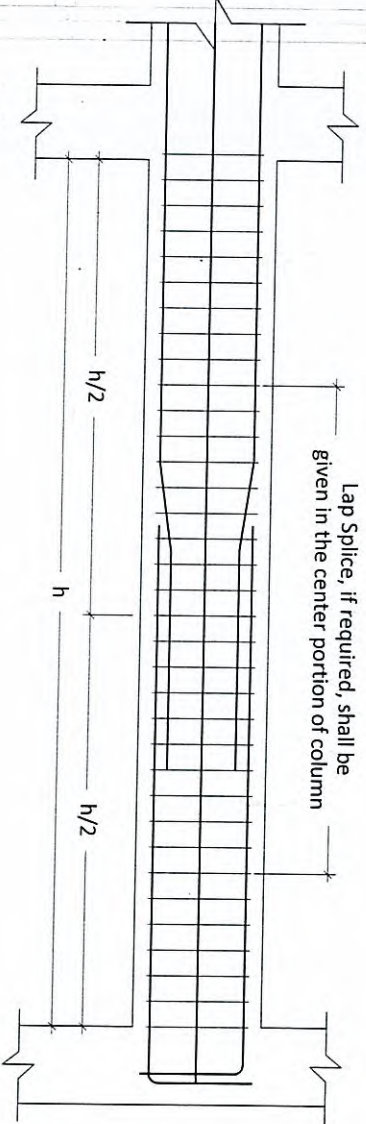
BAR DIA	MINIMUM SPLICE LAP LENGTH (INCHES)			
	fc' = 3,000 psi fy = 40,000 psi			
TENSION	COMPRESSION			
		15	20	30
		-	9	15
				48
				18

BAR DIA	STRAIGHT BARS	DEVELOPMENT LENGTH (INCHES)			
		fc' = 3,000 psi fy = 60,000 psi			
1/2"	22	11"	14"	17"	22"
5/8"	30				
3/4"	34				
1"	55				

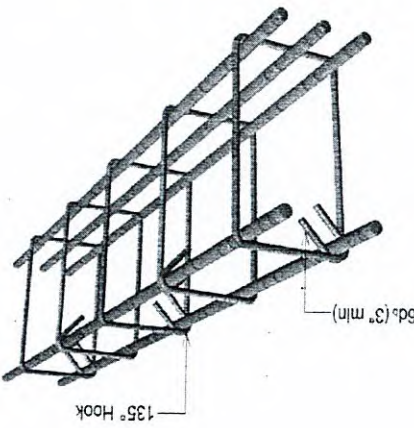
BAR DIA	DEVELOPMENT LENGTH (INCHES)		DEVELOPMENT LENGTH IN TENSION			
	WITH STANDARD HOOK		(ACI 21.3.4.1)			
3/8"	18	7.5				
1/2"	24	9.5				
3/4"	30	14.5				
1"	48	19				



TYPICAL COLUMN DETAIL

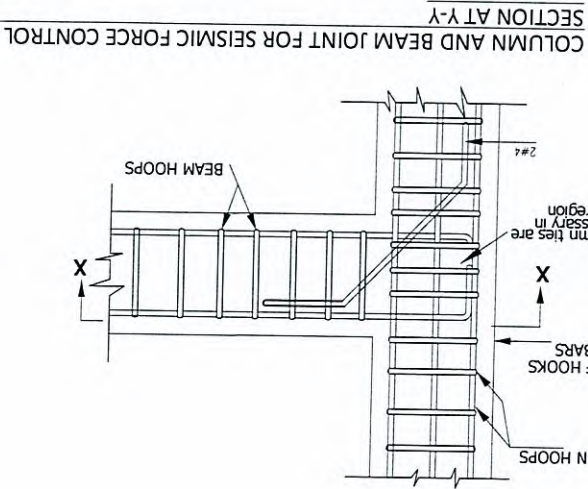
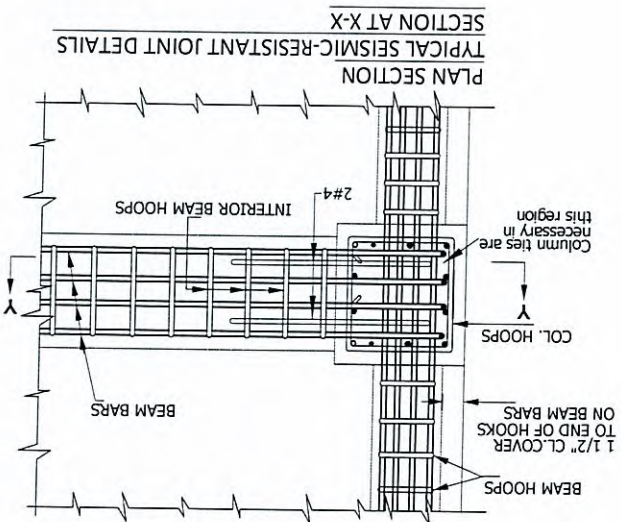


SEISMIC HOOK DETAILS

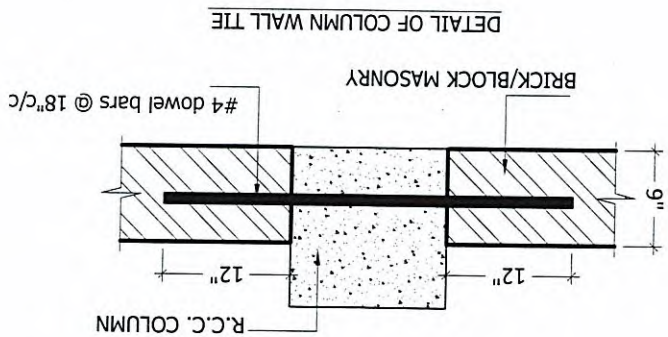
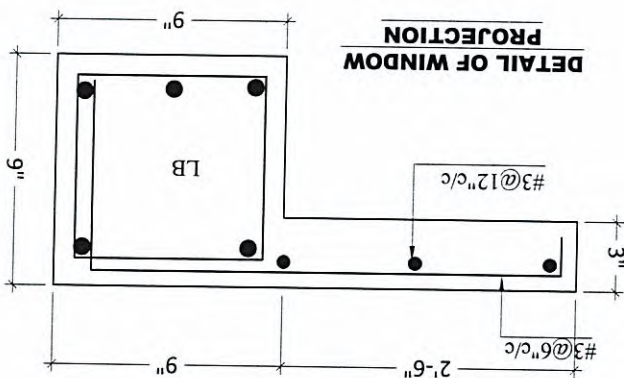
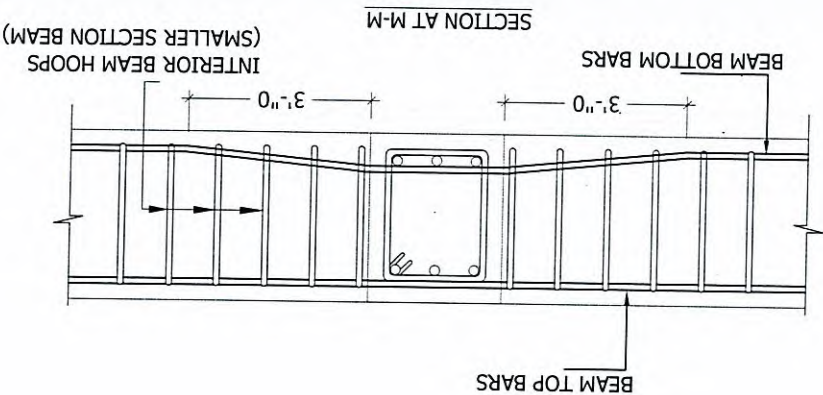
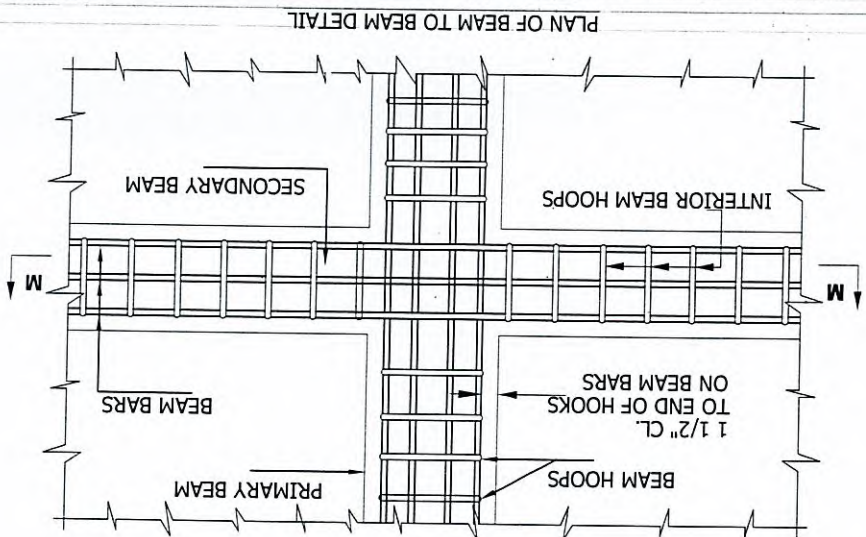


Project Director
WOMEN UNIVERSITY SWABI

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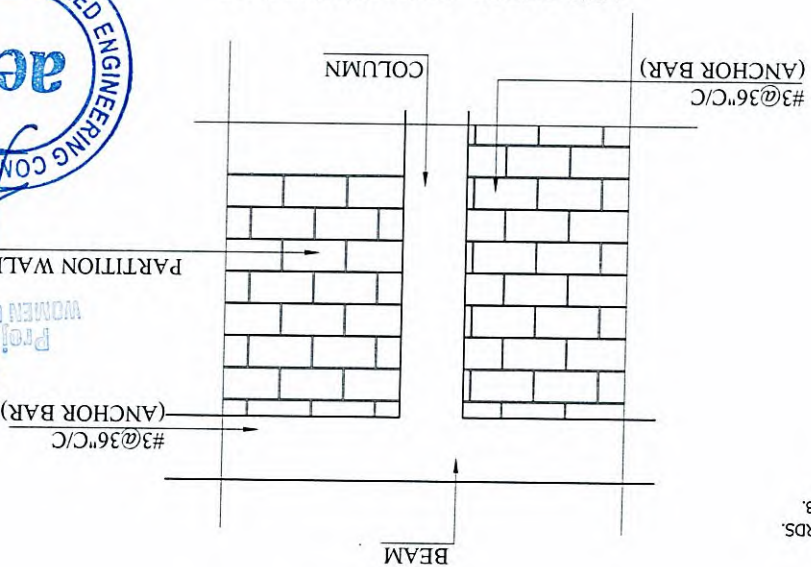


- NOTE:-
1. SHRINKAGE STRIPS MUST BE PROVIDED AT A SPACING OF NOT MORE THAN 100ft.
 2. PREFERABLY SHRINKAGE STRIP BE PROVIDED AT CONSTRUCTION JOINT.
 3. LOCATION OF SHRINKAGE STRIP BE KEPT AT A DISTANCE OF SPAN/3 FROM THE COLUMN SUPPORT.
 4. 3ft WIDE PORTION OF SHRINKAGE STRIP BE KEPT OPEN FOR AT LEAST 3 WEEKS. THE OPENED PORTION SHOULD BE POURED AFTERWARDS.
 5. REINFORCEMENT BE LAPPED IN SHRINKAGE STRIPS. ALTERNATIVELY BARS MAY BE SLIGHTLY BENT IN PLAN PARALLEL TO FACE OF SLAB.

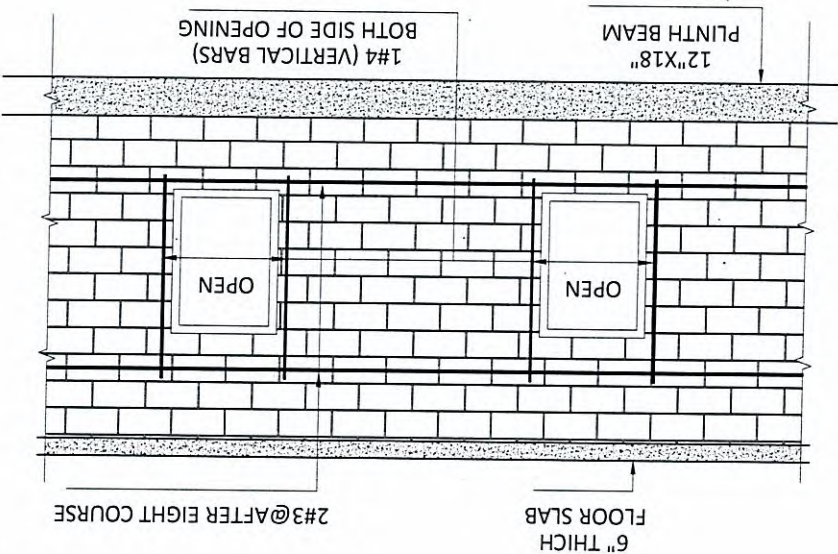


GENERAL DETAILS

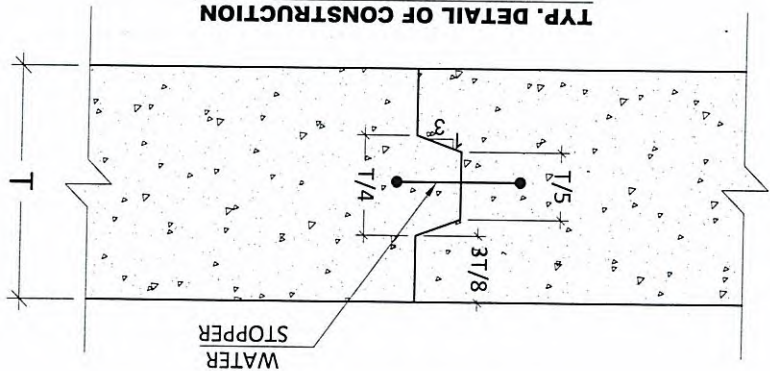
TYP. DETAIL OF CONNECTION OF PARTITION WALL WITH BEAM & COLUMN FOR SEISMIC LOADING



SECTIONAL ELEVATION OF WALL



TYP. DETAIL OF CONSTRUCTION JOINT IN RAFT & SLABS



PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF MULTI PURPOSE HALL

DESIGNED BY: ENGR. SHAHAB ALI

DRAFTED BY: TAUQEER ZEB

SCALE:

DRAWING NO: STR-01

4	
3.	
2.	

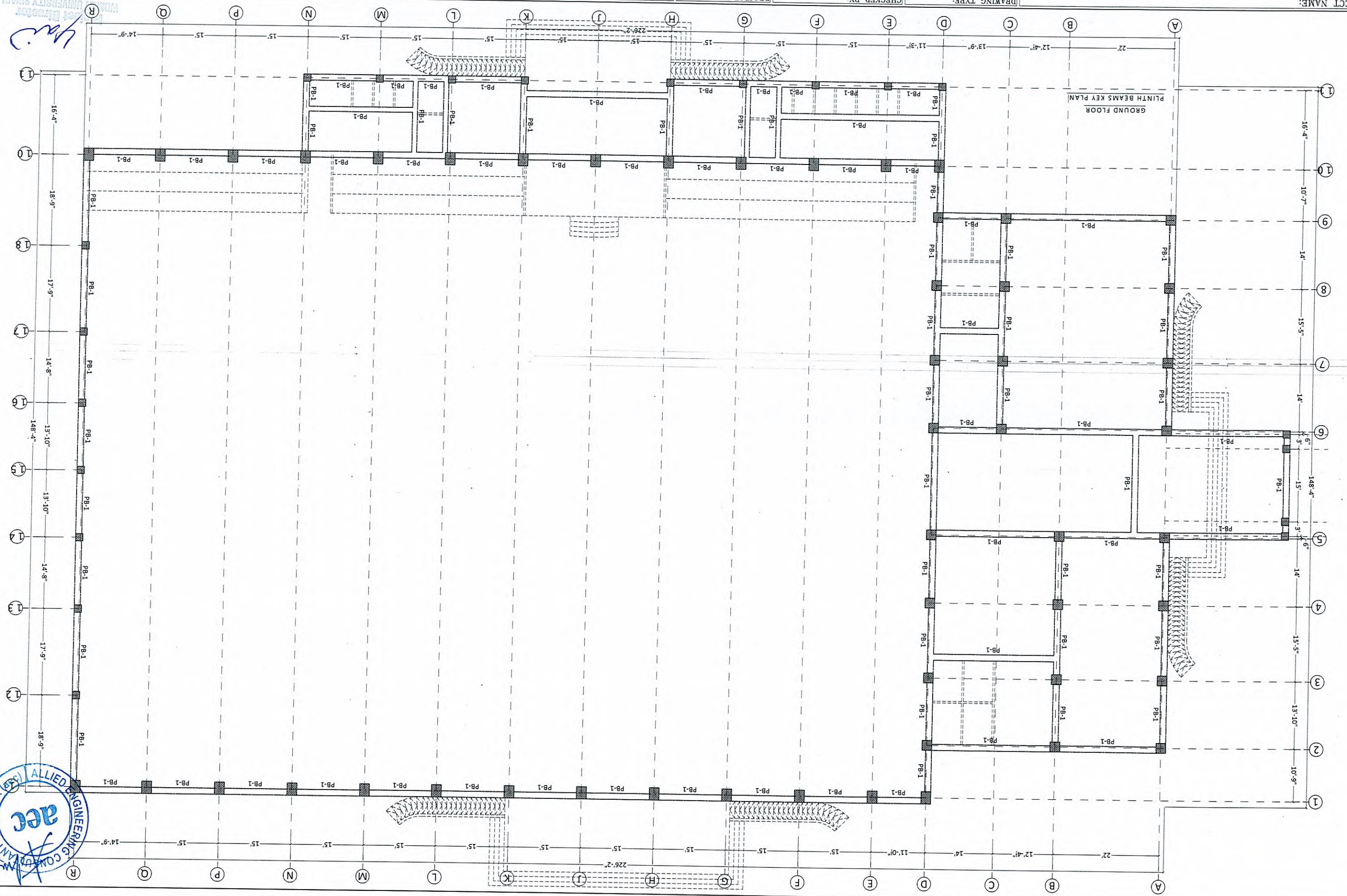
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD
ARCHITECTS ENGINEERS PLANNERS
19 - A, GULBERG-II, LAHORE PH: 5758433 / 5756752



PROJECT NAME: "WOMEN UNIVERSITY OF SWABI"
PROPOSED STRUCTURAL DESIGN OF
CONSTRUCTION OF MULTI PURPOSE HALL

DESIGNED BY: ENGR. SHAHAB ALI	DRAWING TYPE: STRUCTURAL	CHECKED BY: ENGR. ZAIN UL ABIDEEN	PROJECT NO: GSK-ED-241-I
DRAFTED BY: TAUCHEER ZEB	SCALE: AS SHOWN	ISSUE DATE: APRIL, 2025	DRAWING NO: STR-02
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REVISION			
1.			
2.			
3.			
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19 - A, GULBERG -II- LAHORE PH: 5758433 / 5756752



PROJECT NAME:

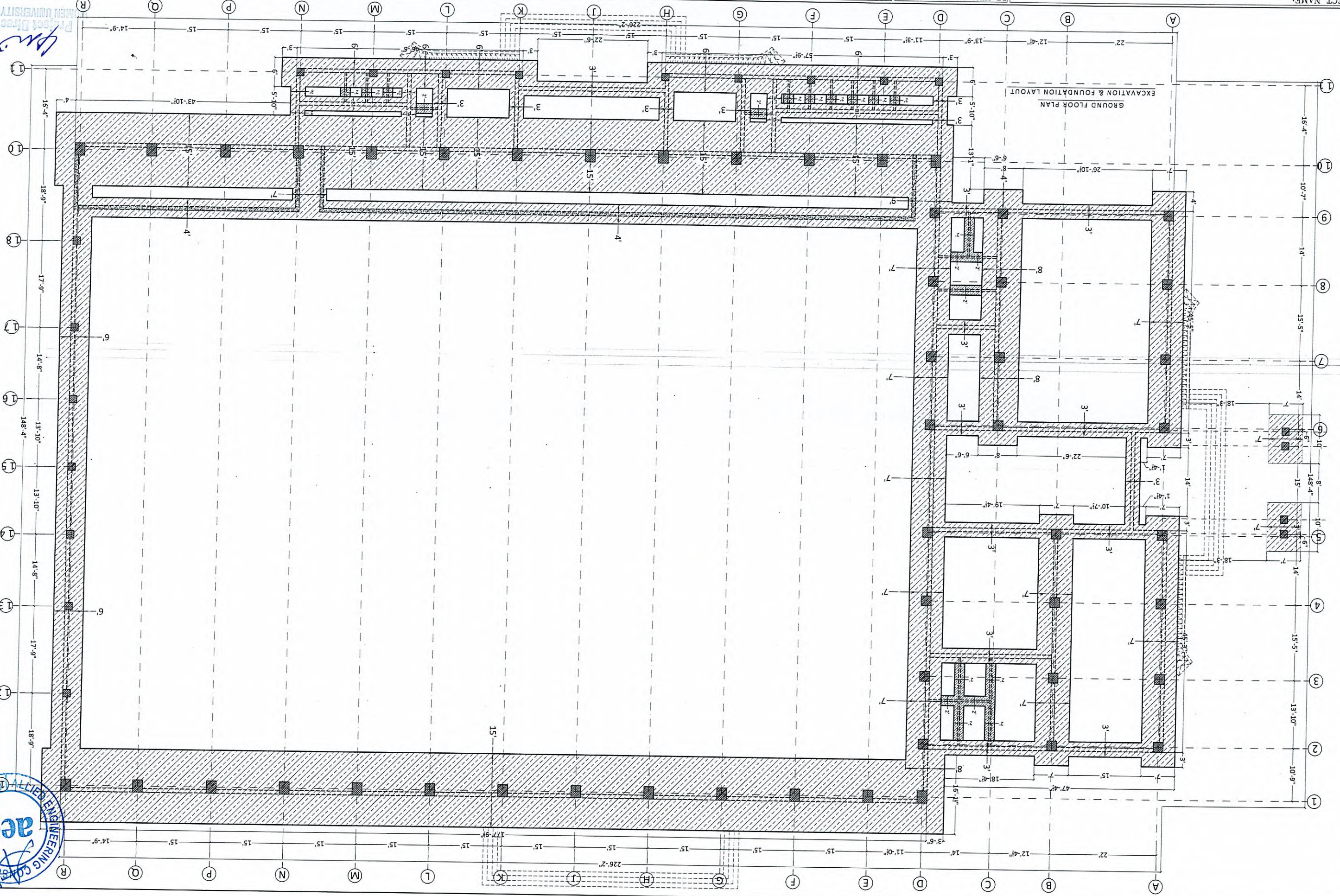
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
I. CONSTRUCTION OF MULTI PURPOSE HALL

DESIGNED BY: ENGR. SHAHAB ALI	CHECKED BY: ENGR. ZAIN UL ABIDEEN	PROJECT NO: GSK-ED-241-I	ISSUE DATE: APRIL, 2025
DRAWING TYPE: STRUCTURAL	DRAFTED BY: TAUQEER ZEB	SCALE: AS SHOWN	DRAWING NO: STR-03
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ENGR. SHAHAB ALI

DESIGNED BY:

CHECKED BY:

TAUQEER ZEB

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DRAWING NO:

ISSUE DATE:

STR-04

DRAWING NO:

ISSUE DATE:

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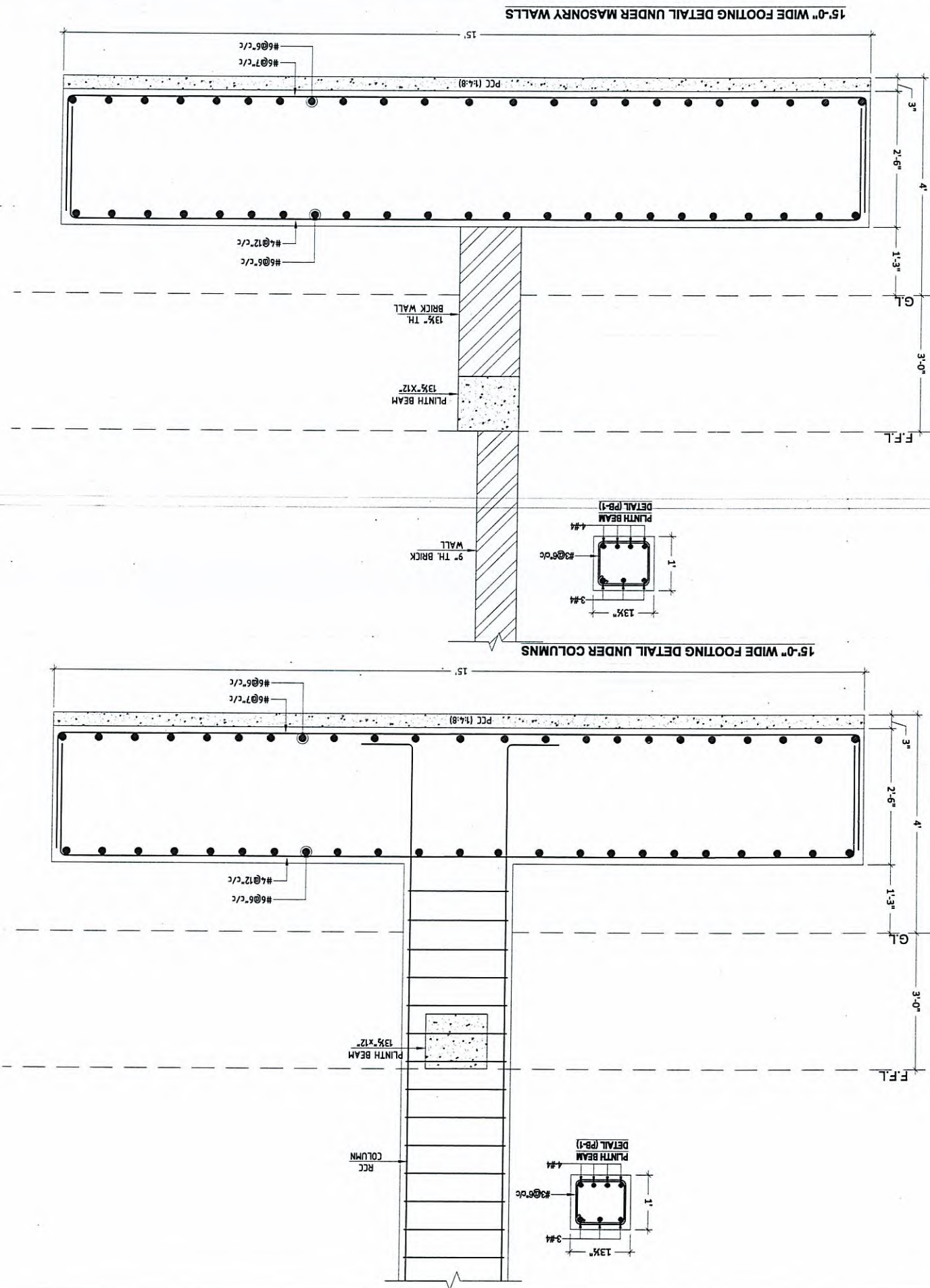
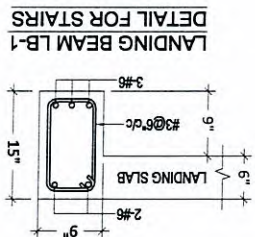
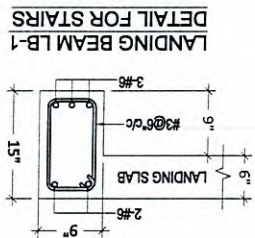
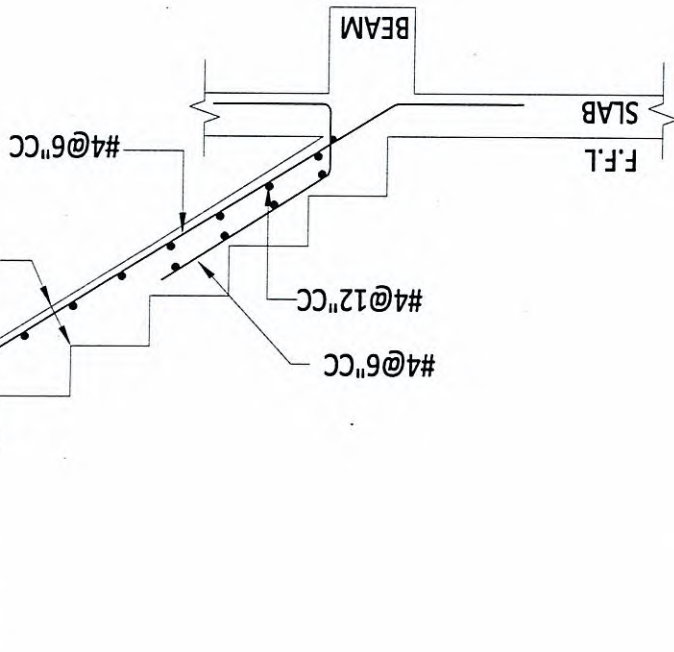
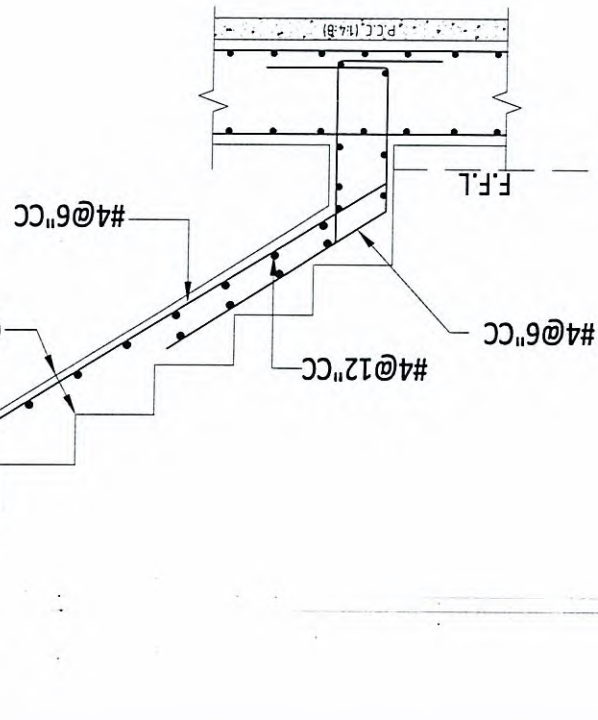
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ALLIED ENGINEERING CONSULTANTS (PVT.) LTD



Project Director
WOMEN UNIVERSITY SWABI

TYPICAL REINFORCEMENT DETAIL OF STAIR CASE



PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
! . CONSTRUCTION OF MULTI PURPOSE HALL

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19 - A, GULBERG - II, LAHORE PH: 5758433 / 5756752



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ENGR. SHAHAB ALI	TAJVEER ZEB	AS SHOWN	STR-06				
1.	2.	3.	4.				
REVISION							

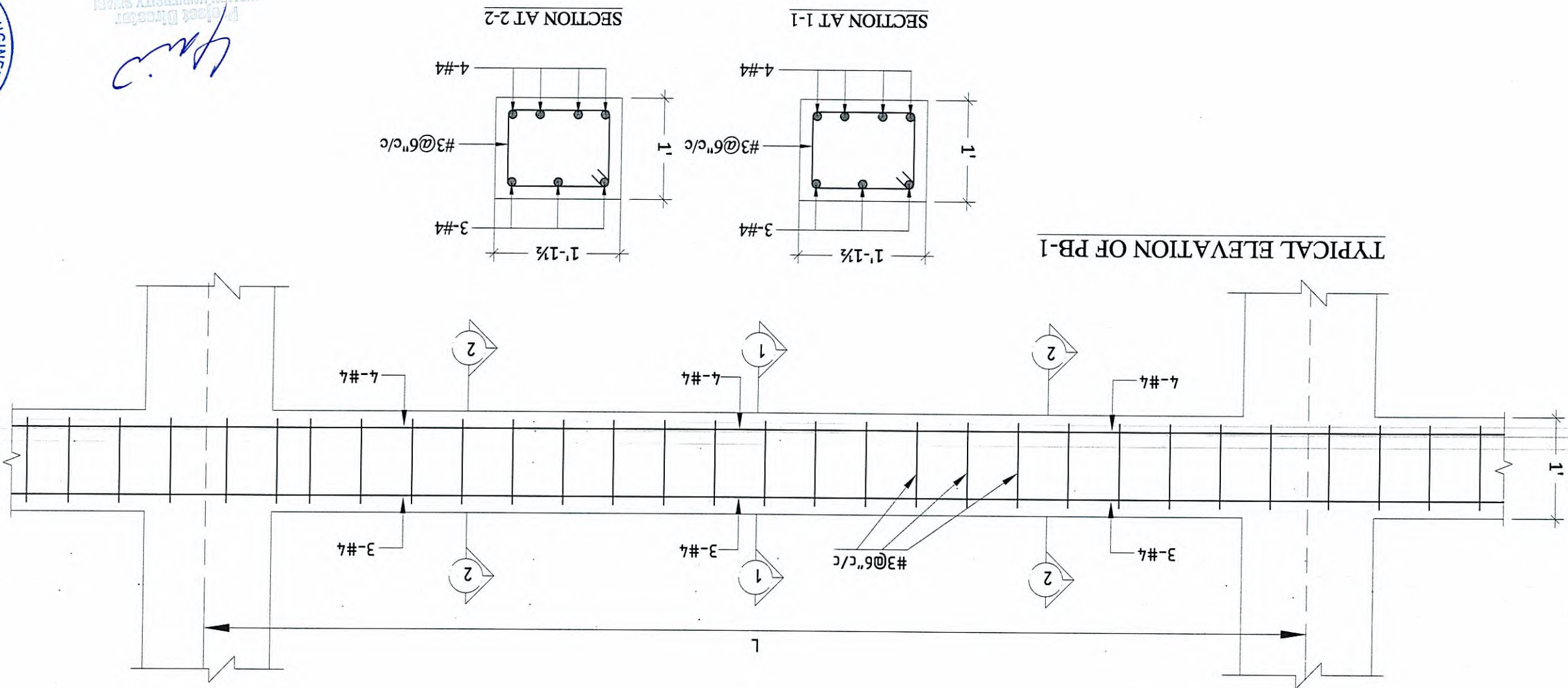
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DETAIL OF PB-1

TYPICAL ELEVATION OF PB-1

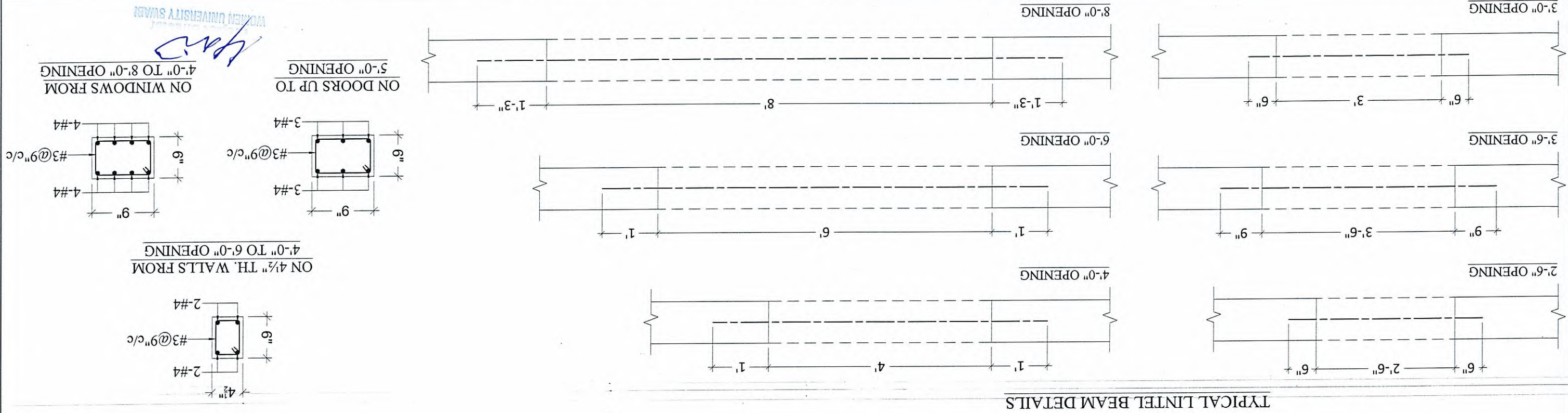


COLUMN X-SECTION DETAILS		
SL.NO	GROUND FLOOR	
C-1	2'-0" 2'-0" 20-#8 Stirrups #3@6" c/c	
C-2	2' 2' 24-#8 4-#6 Stirrups #3@6" c/c	
C-3	2' 2' 20-#8 4-#6 Stirrups #3@6" c/c	
C-4	2' 2' 16-#6 Stirrups #3@6" c/c	
C-5	2' 2' 12-#6 Stirrups #3@6" c/c	
C-6	1'-6" 1'-6" 12-#5 Stirrups #3@6" c/c	

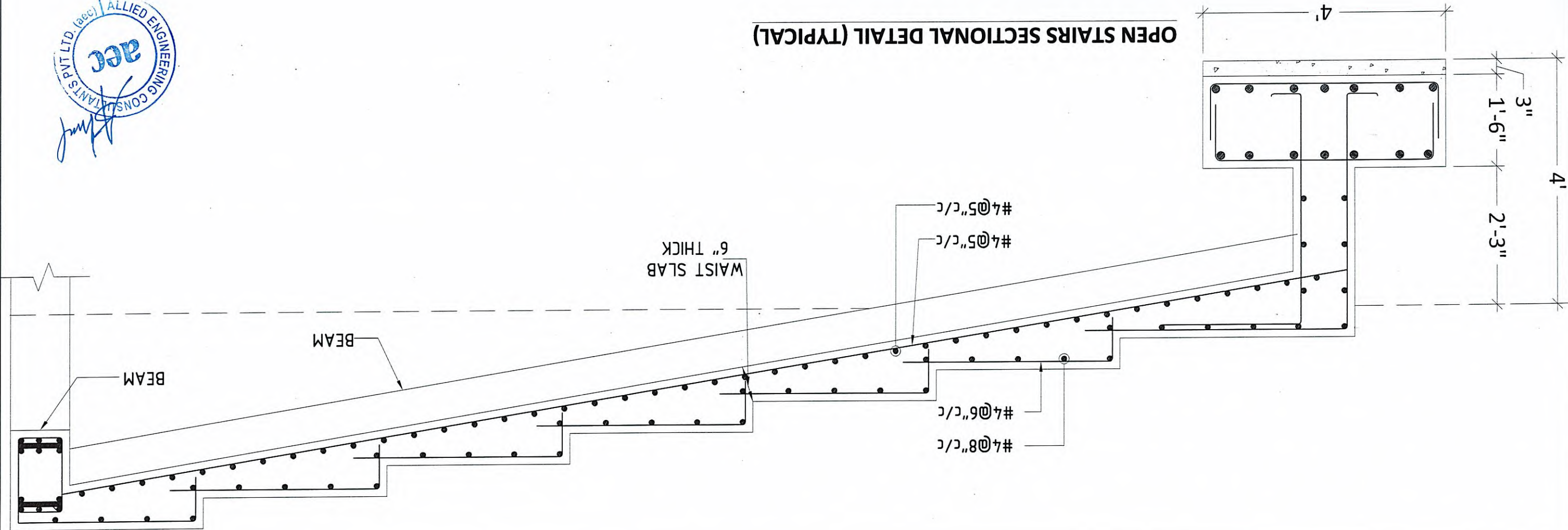
PROJECT NAME:
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF MULTI PURPOSE HALL

DRAWING TYPE:	STRUCTURAL	CHECKED BY:	ENGR. ZAIN UL ABIDEEN	PROJECT NO:	GSK-ED-241-I
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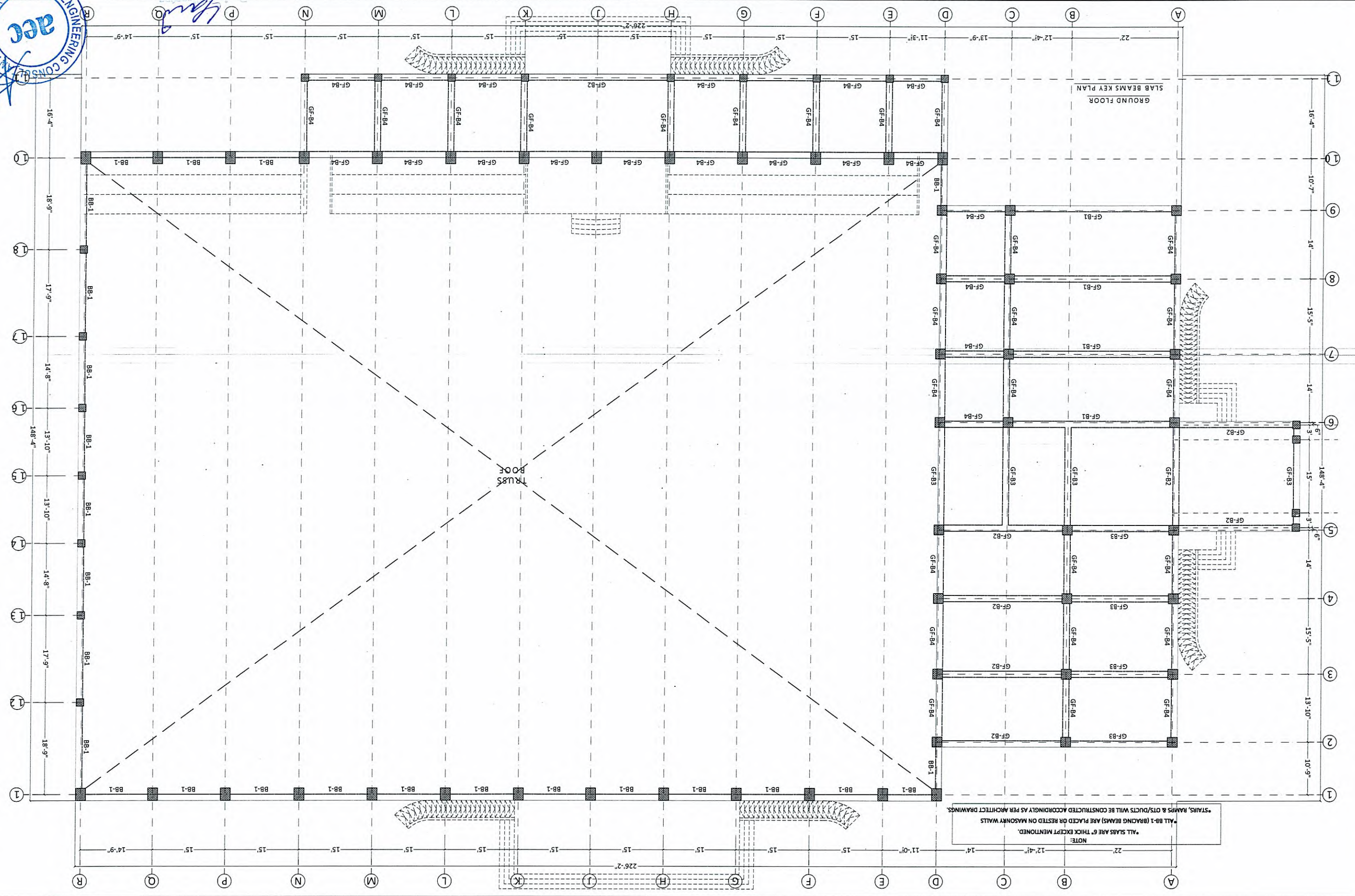
OPEN STAIRS SECTIONAL DETAIL (TYPICAL)



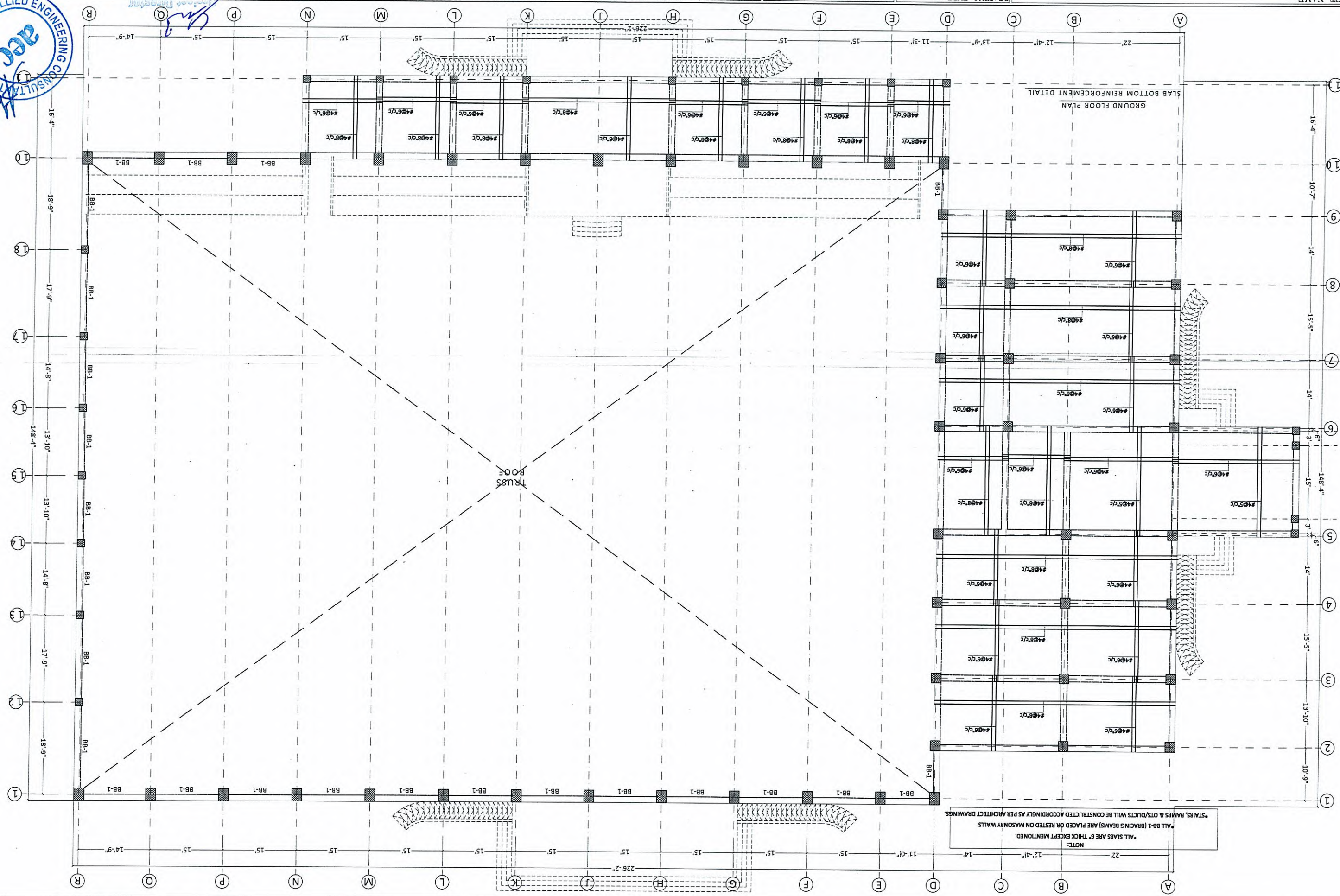
PROJECT NAME: PROPOSED STRUCTURAL DESIGN OF "WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF MULTI PURPOSE HALL

DESIGNED BY: ENGR. SHAHAB ALI
CHECKED BY: ENGR. ZAIN UL ABIDEEN
PROJECT NO: GSK-ED-241-1
ISSUE DATE: APRIL, 2025
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WOMEN UNIVERSITY SWABI



DESIGNED BY: ENGR. SHAHAB ALI	CHECKED BY: ENGR. ZAIN UL ABIDEEN	PROJECT NO: GSK-ED-241-1	ISSUE DATE: APRIL, 2025
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"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF MULTI PURPOSE HALL

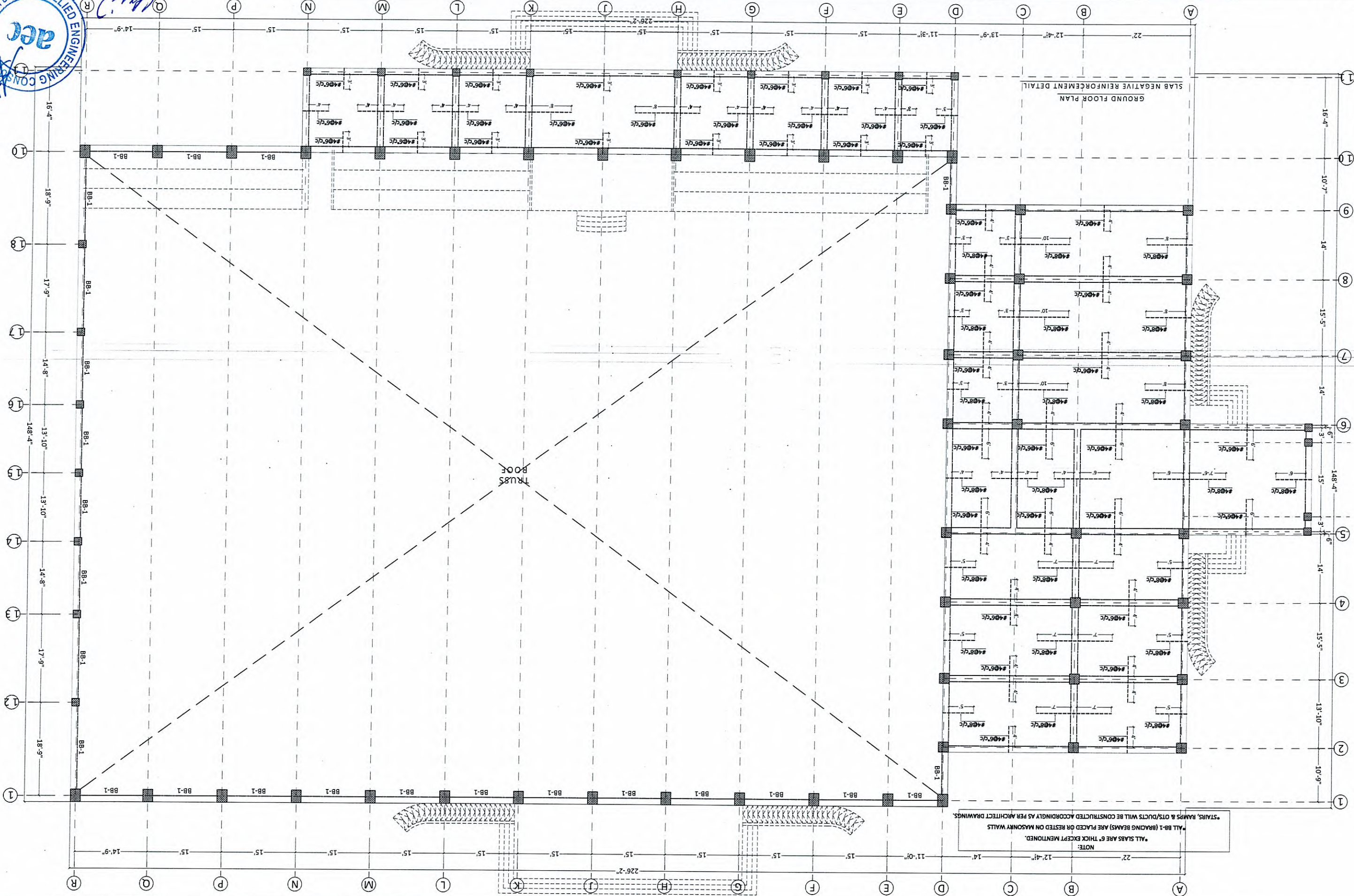
DRAWING TYPE: STRUCTURAL
DESIGNED BY: ENGR. SHAHAB ALI
CHECKED BY: ENGR. ZAIN UL ABIDEEN
PROJECT NO: GSK-ED-241-I

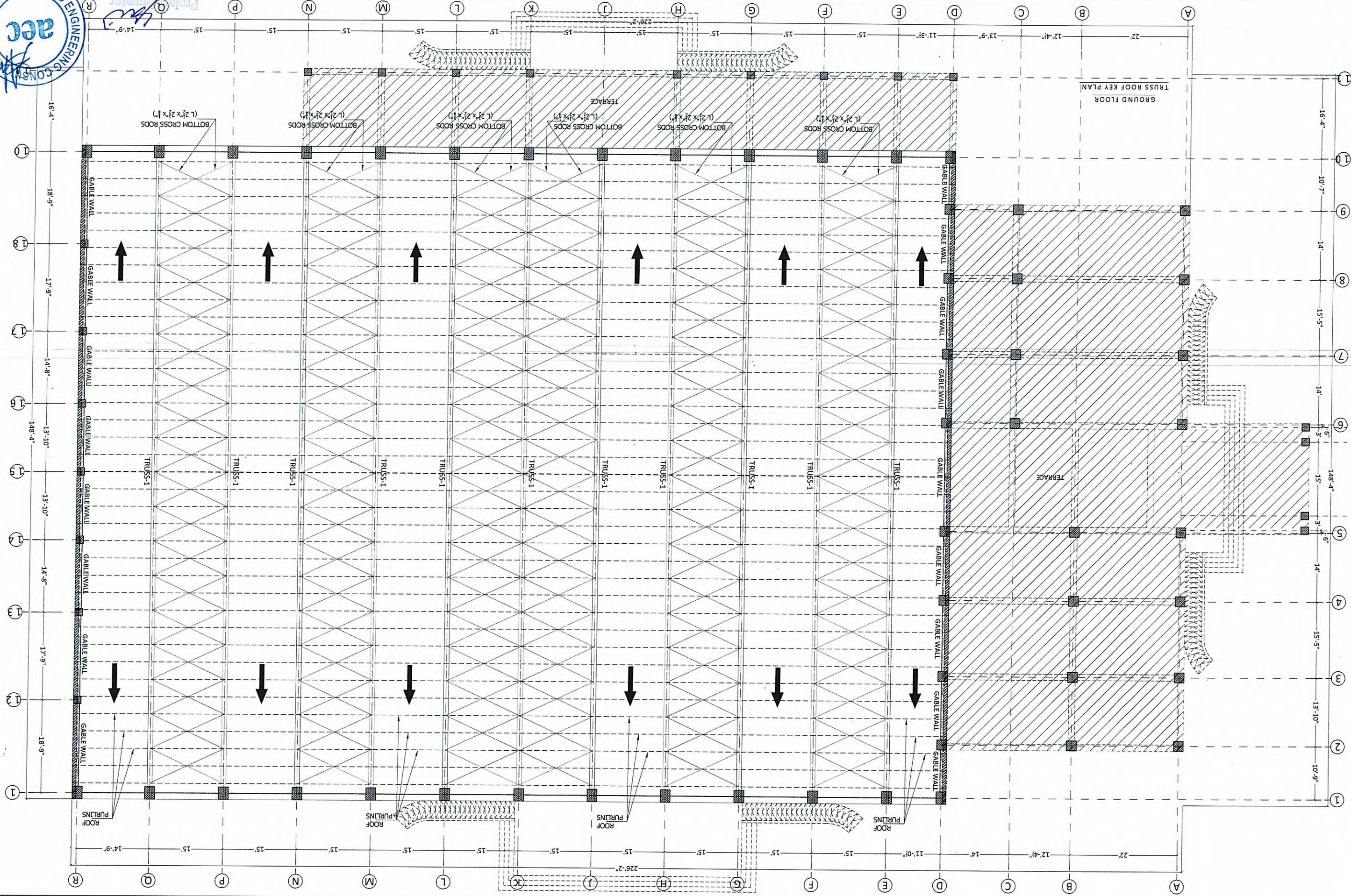
ISSUE DATE: APRIL, 2025
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SCALE: AS SHOWN
PROJECT NO: GSK-ED-241-I

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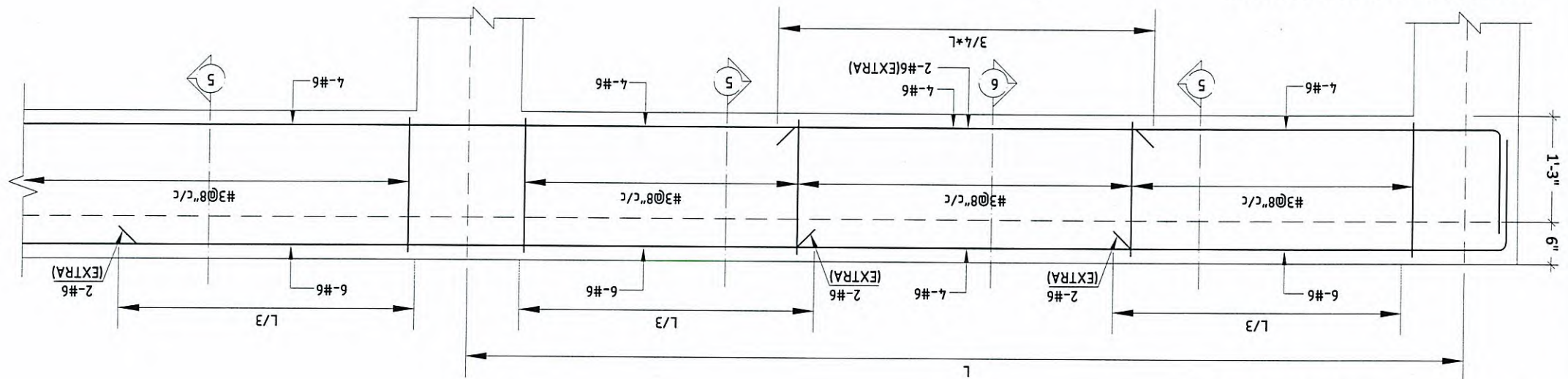
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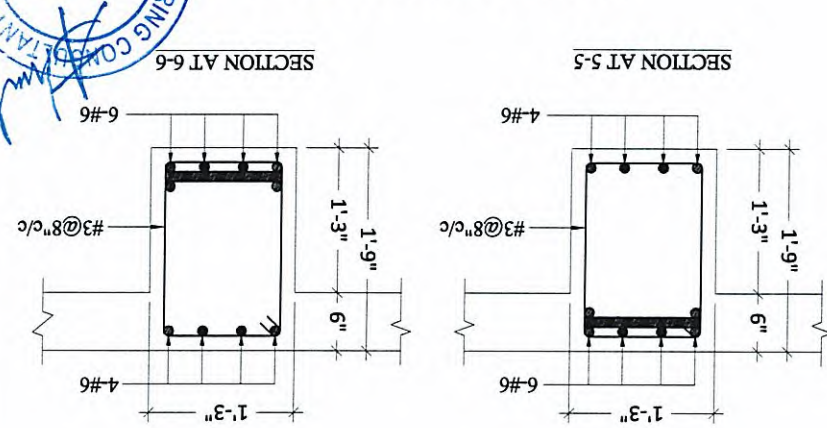


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STRUCTURAL		ENGR. ZAIN UL ABIDEEN	GSK-ED-241-1	APRIL, 2025		
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ENGR. SHAHAB ALI		TAOUEER ZEB	AS SHOWN	STR-12		
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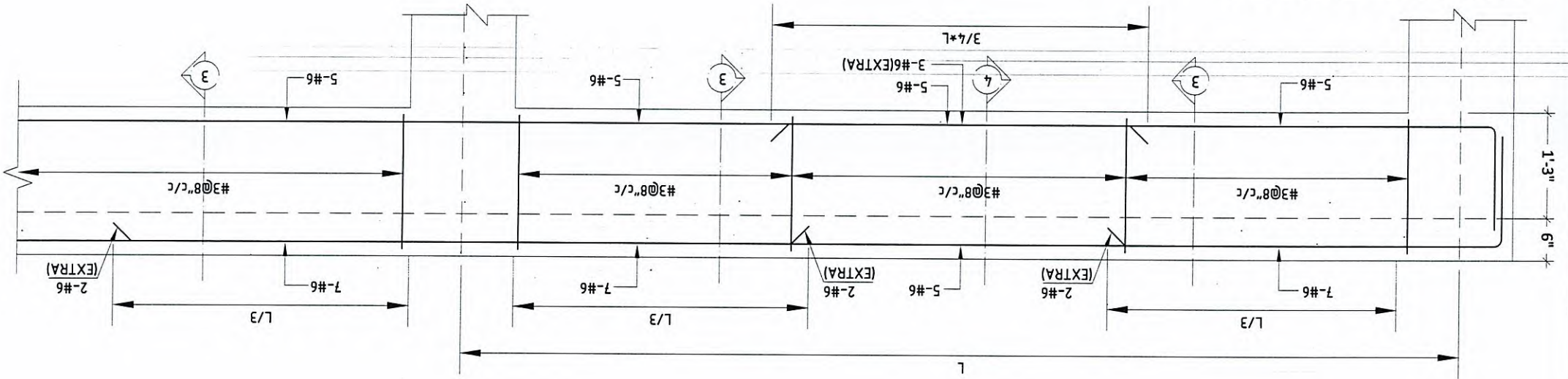
TYPICAL ELEVATION OF GF-B3



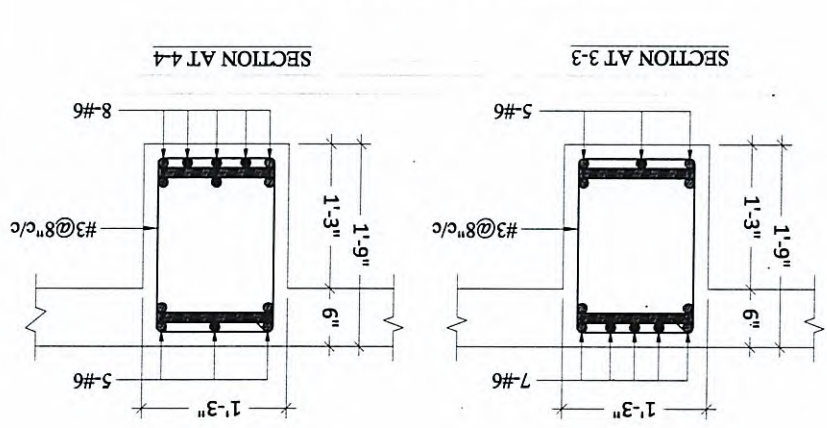
DETAIL SECTIONS OF GF-B3



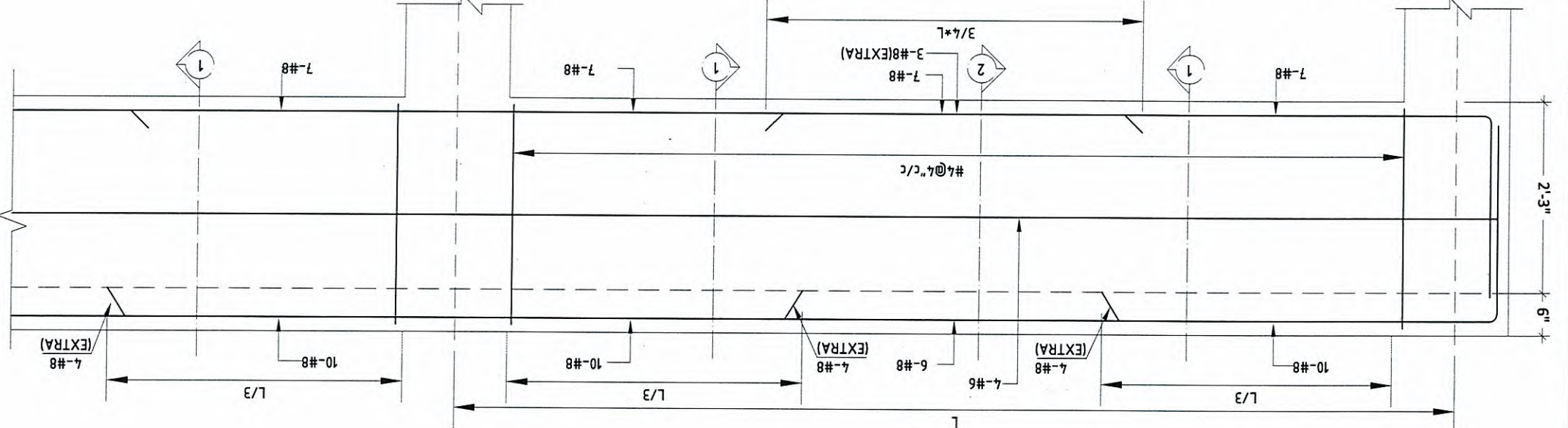
TYPICAL ELEVATION OF GF-B2



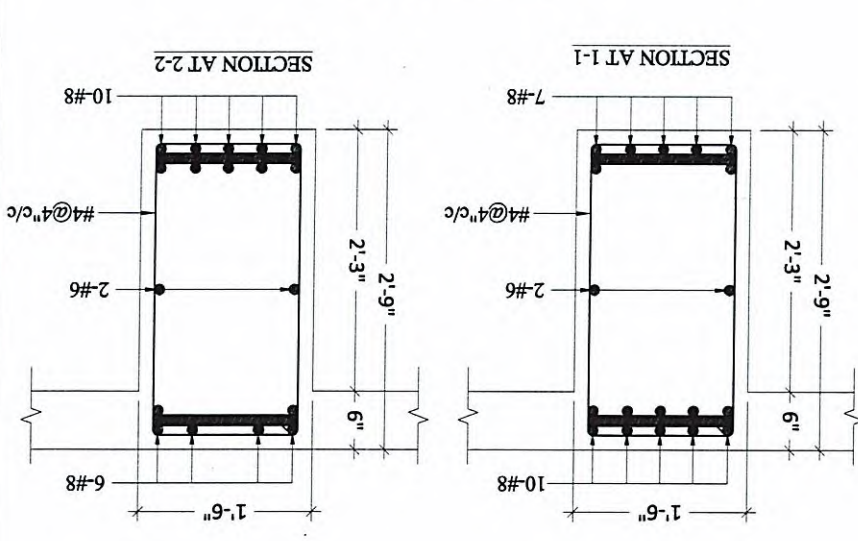
DETAIL SECTIONS OF GF-B2



TYPICAL ELEVATION OF GF-B1



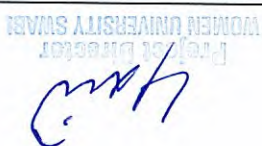
DETAIL OF GF-B1



PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF MULTI PURPOSE HALL

DRAWING TITLE:	STRUCTURAL	DESIGNED BY:	ENGR. SHAHAB ALI
CHECKED BY:	ENGR. ZAIN UL ABIDEEN	DRAWN BY:	TAJVEER ZEB
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ISSUE DATE:	APRIL, 2025	DRAWING NO.:	STR-13
1.	REVISION	2.	
3.		4.	

32E

[illegible]

SECTION AT 11-11

SECTION AT 12-12

5 #6

5 #6

3 #8 @ 8" c/c

3 #8 @ 8" c/c

2'

1'-9"

2'

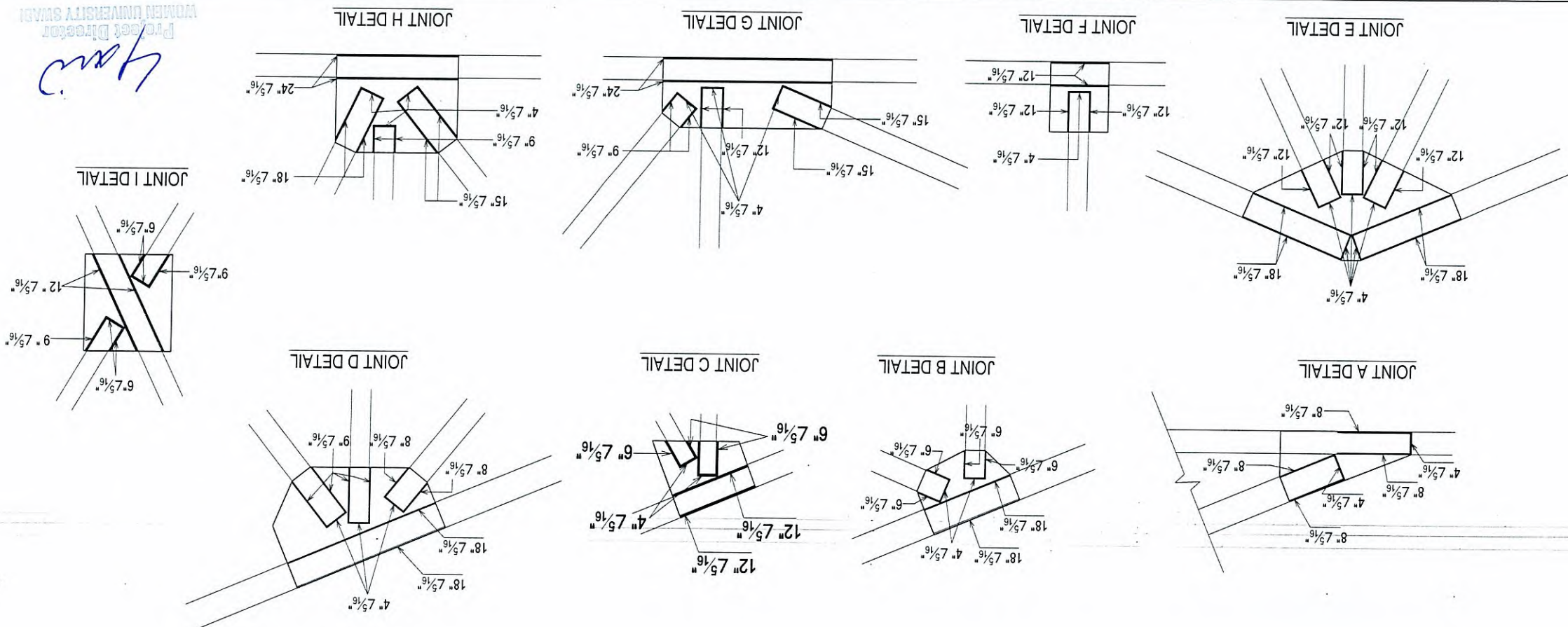
1'-9"

PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF MULTI PURPOSE HALL

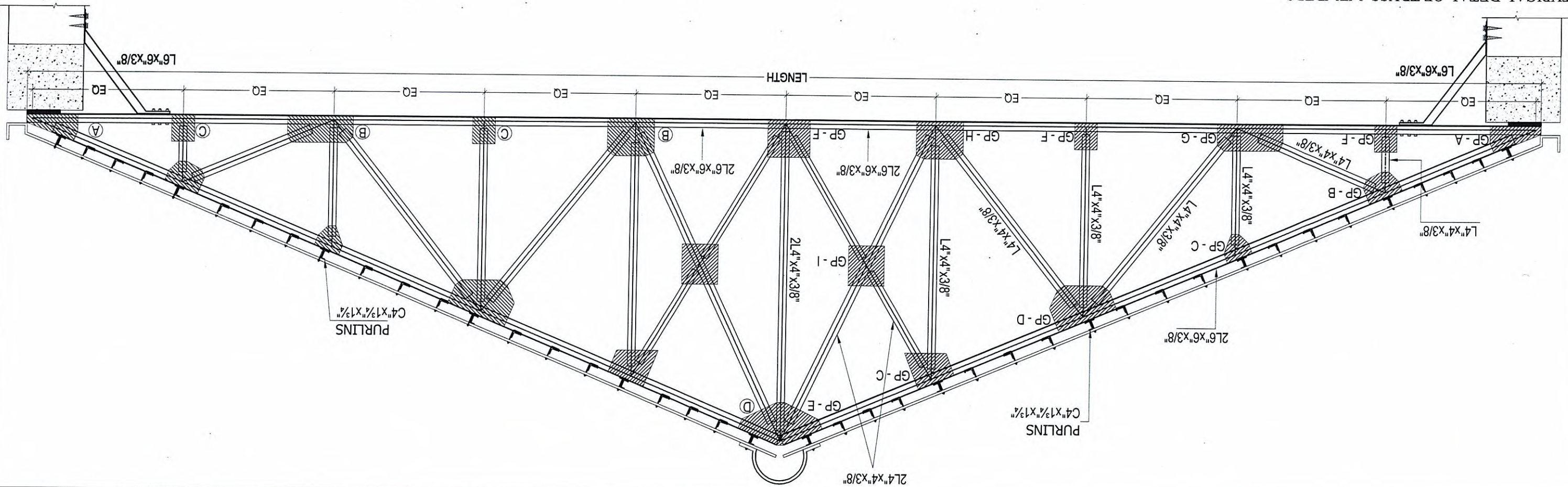
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40



TYPICAL DETAIL OF TRUSS MEMBERS



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DESIGNED BY:	DRAFTED BY:	SCALE:	DRAWING NO:	2.
ENGR. SHAHAB ALI	TAOUEER ZEB	AS SHOWN	STR-15	3.
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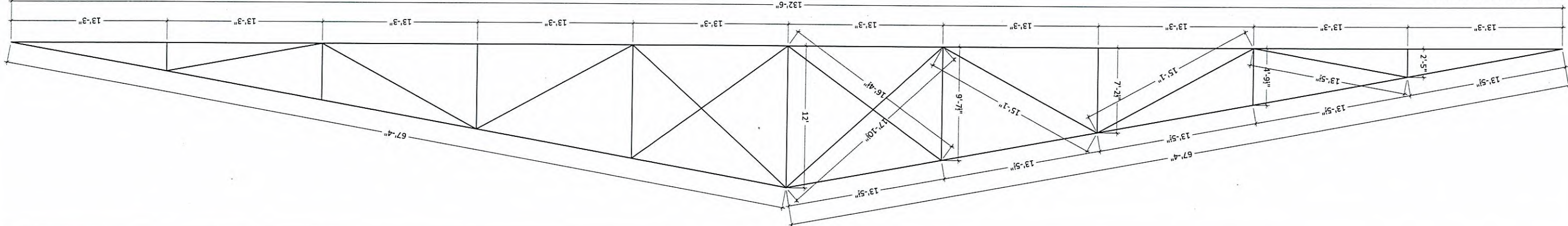


Yours

Technical drawings of Gusset Plates A through H, showing various shapes and dimensions in inches.

- GUSSET PLATE-A:** A rectangular plate with a width of 3'-5 1/2" and a height of 1'-6". The top-left corner is chamfered with a 1 1/4" radius.
- GUSSET PLATE-B:** A rectangular plate with a width of 2'-6" and a height of 1'-10 1/2". The top-left corner is chamfered with a 1'-1" radius.
- GUSSET PLATE-C:** A rectangular plate with a width of 1'-10 1/2" and a height of 1'-1 1/2". The top-left corner is chamfered with a 9" radius.
- GUSSET PLATE-D:** A rectangular plate with a width of 2'-8 1/2" and a height of 1'-5 1/2". The top-left corner is chamfered with a 6" radius.
- GUSSET PLATE-E:** An irregular plate with a width of 2'-6 1/2" and a height of 2'-8". The top-left corner is chamfered with a 1 1/2" radius.
- GUSSET PLATE-F:** A rectangular plate with a width of 2'-3 1/4" and a height of 1'-8 3/4". The top-left corner is chamfered with a 6" radius.
- GUSSET PLATE-G:** A rectangular plate with a width of 3'-9" and a height of 1'-8". The top-left corner is chamfered with a 6" radius.
- GUSSET PLATE-H:** A rectangular plate with a width of 3'-6 1/4" and a height of 2'-5". The top-left corner is chamfered with a 6" radius.
- GUSSET PLATE-I:** A small rectangular plate with a width of 1'-9" and a height of 6 1/2".

DETAIL OF TRUSS - 1 (DIMENSIONS)



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STRUCTURAL		ENGR. ZAIN UL ABIDEEN		GSK-ED-241-		APRIL, 2025			
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ENGR. SHAHAB ALI		TAUQEER ZEB		AS SHOWN		STR-16		4.	
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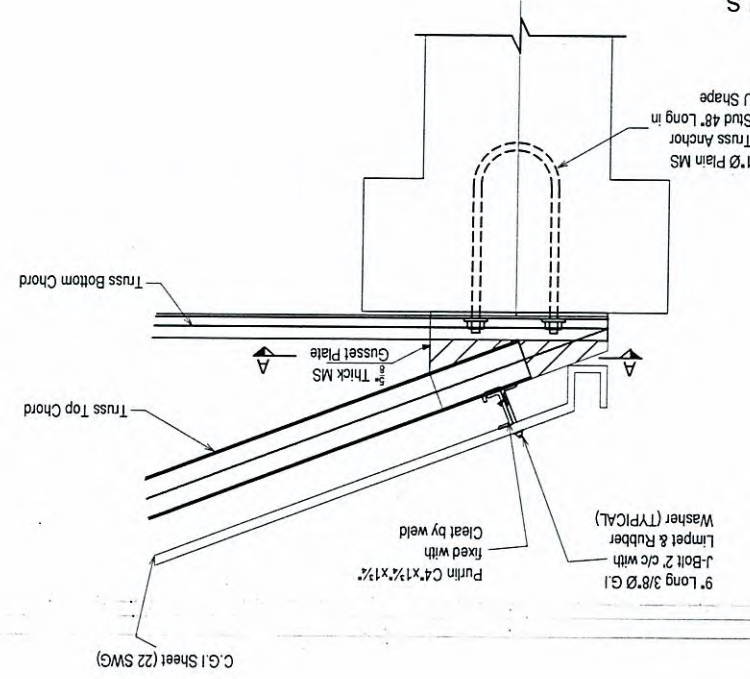
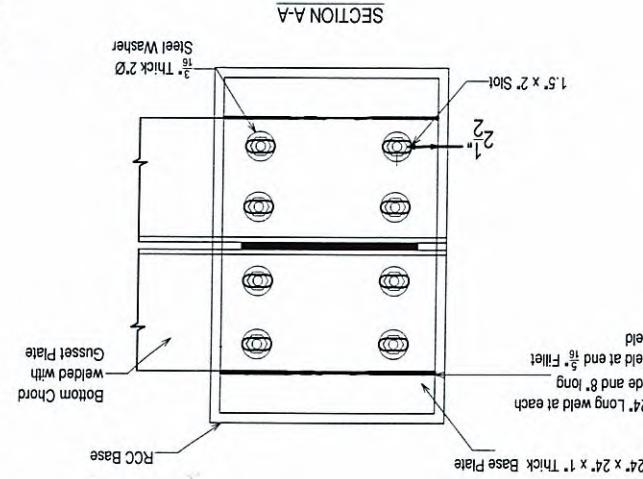
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WOMEN UNIVERSITY SWABI

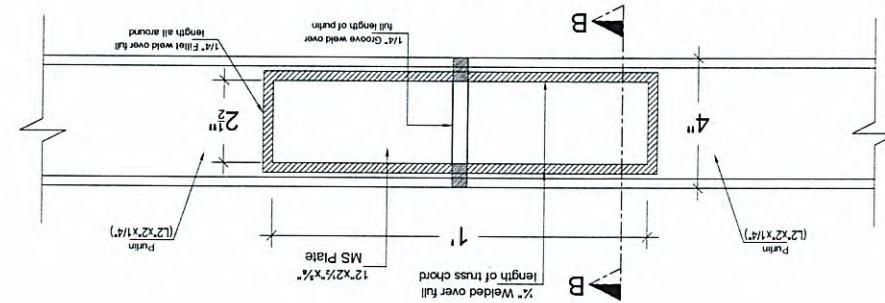
Hand

CONNECTION DETAILS



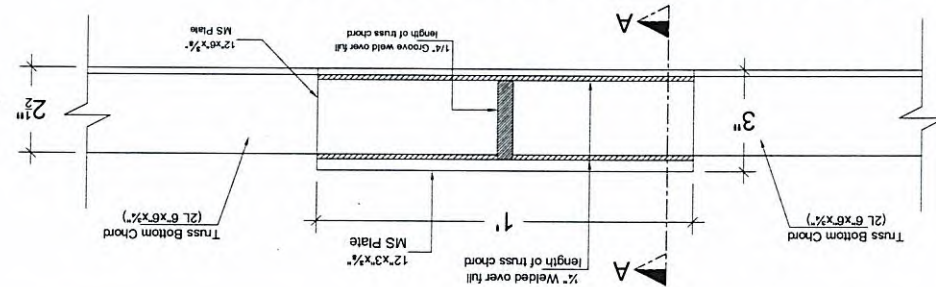
TYPICAL WELDED BUTT JOINT
(For Purlin, If Required)

(For Purlin, If Required)

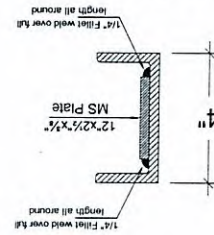


TYPICAL WELDED BUTT JOINT (2½" ANGLE)

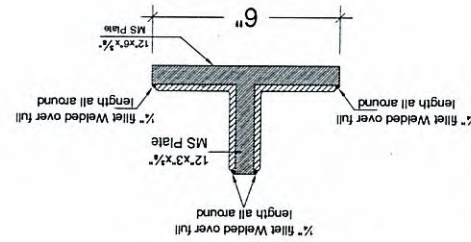
(For Truss Top and Bottom Chord, If Required)



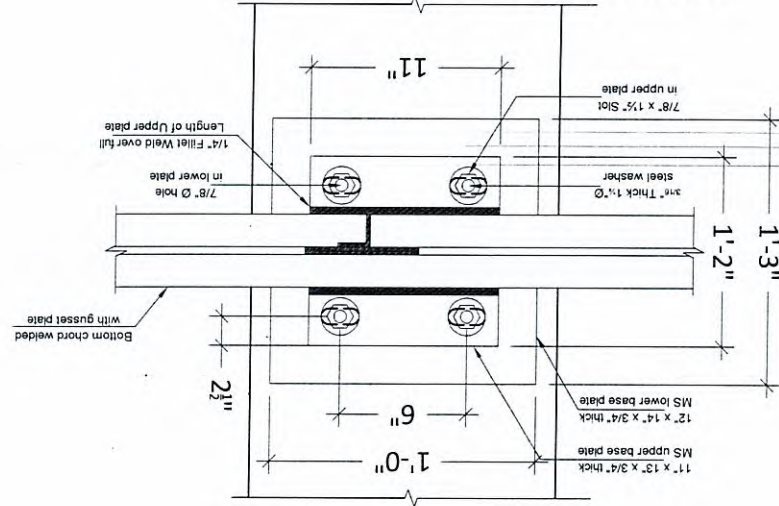
SECTION AT B-B



SECTION AT A-A

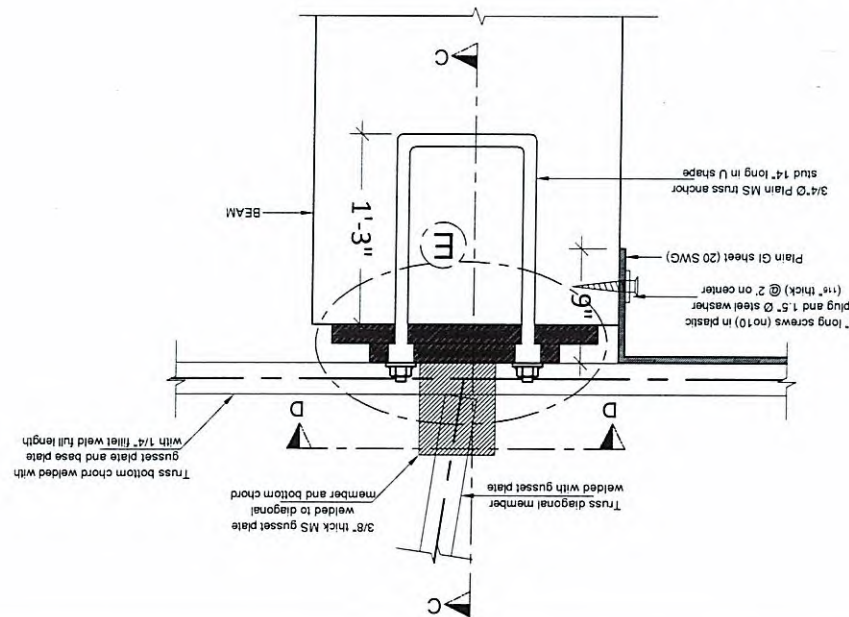


SECTION AT D-D

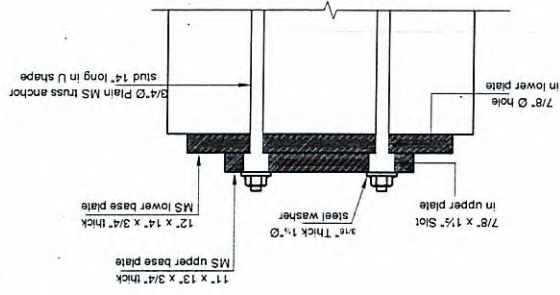


BASE PLATE DETAIL

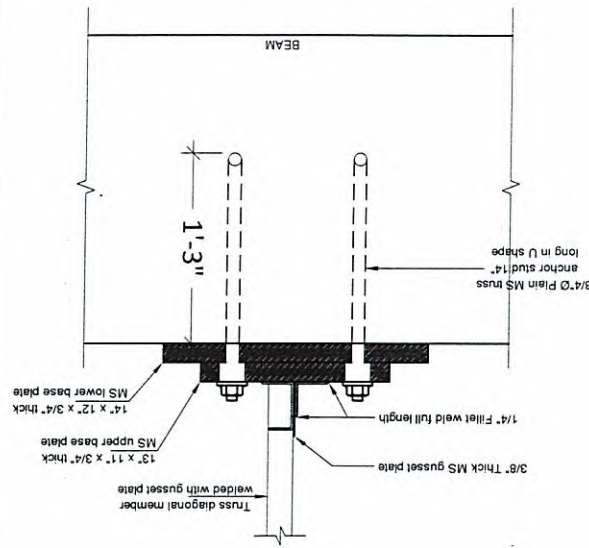
(For all trusses)



DETAIL AT "E"



SECTION AT C-C



DRAWING TYPE: STRUCTURAL
DESIGNED BY: ENGR. SHAHAB ALI
CHECKED BY: ENGR. ZAIN UL ABIDEEN
DRAFTED BY: TAUQEER ZEB
SCALE: AS SHOWN

PROJECT NO: GSK-ED-241-1
ISSUE DATE: APRIL, 2025
DRAWING NO: STR-17

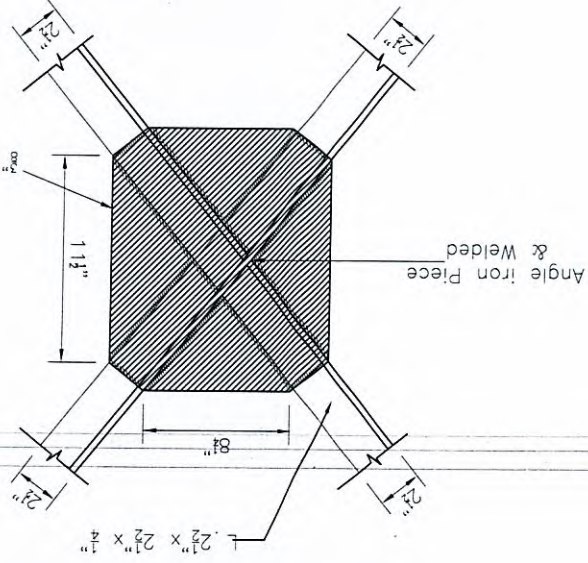
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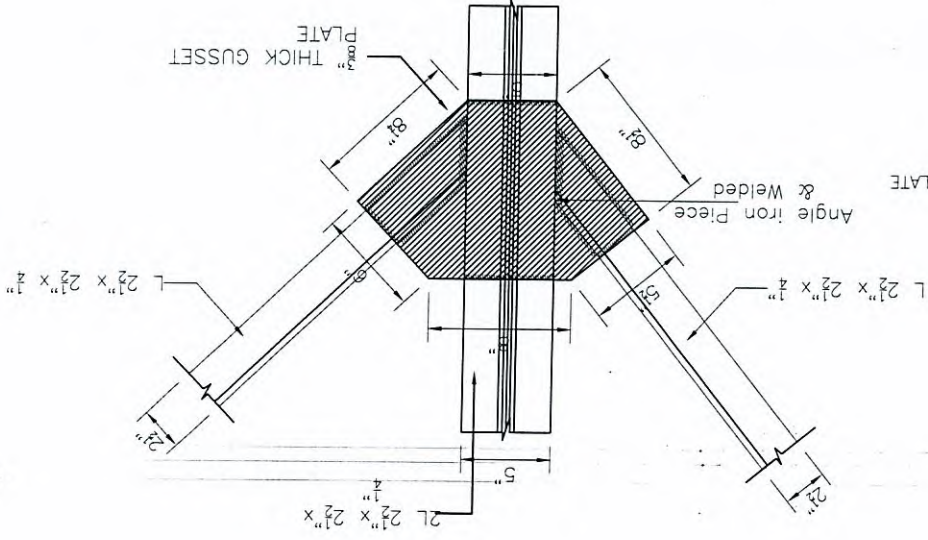
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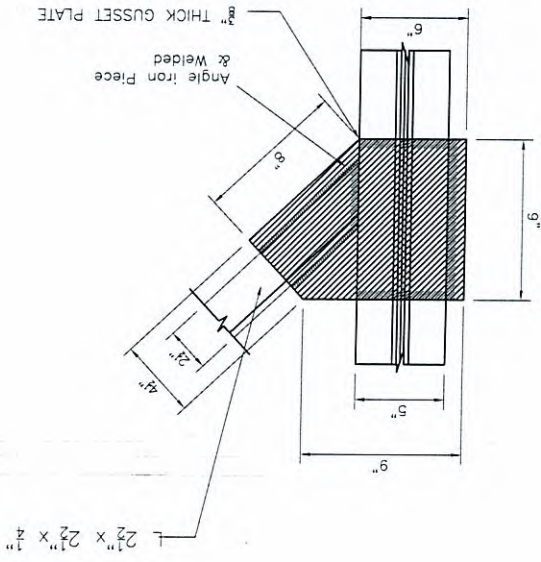
TYPICAL
DETAIL-1



TYPICAL
DETAIL-2

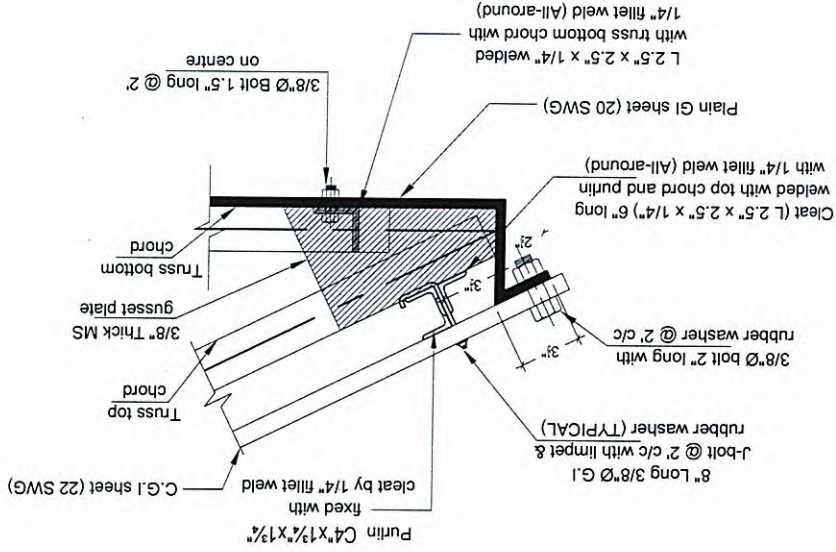


TYPICAL
DETAIL-3

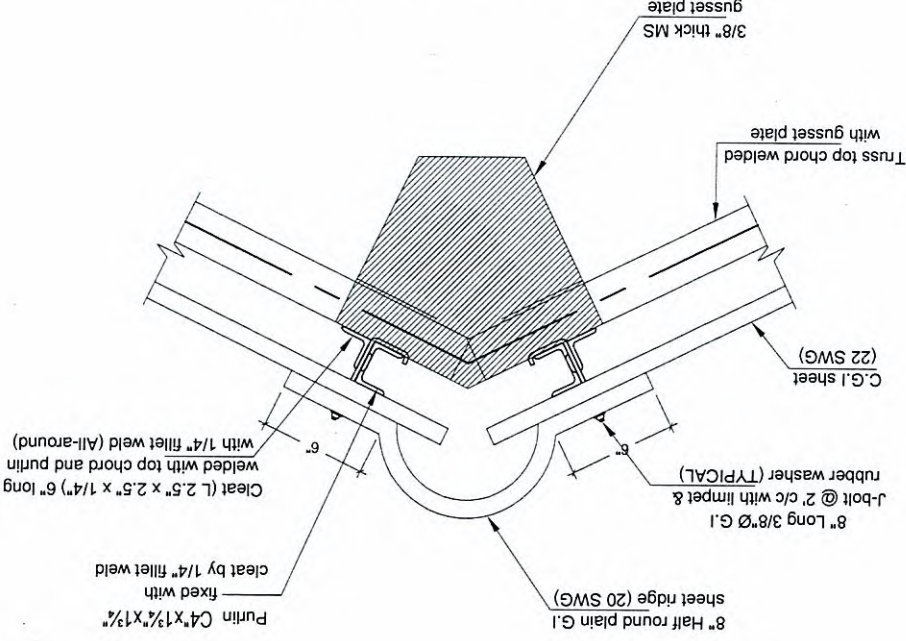


BOTTOM TIES CONNECTION DETAILS

DETAIL AT "A"
(For all trusses)



DETAIL AT "D"
(For all trusses)

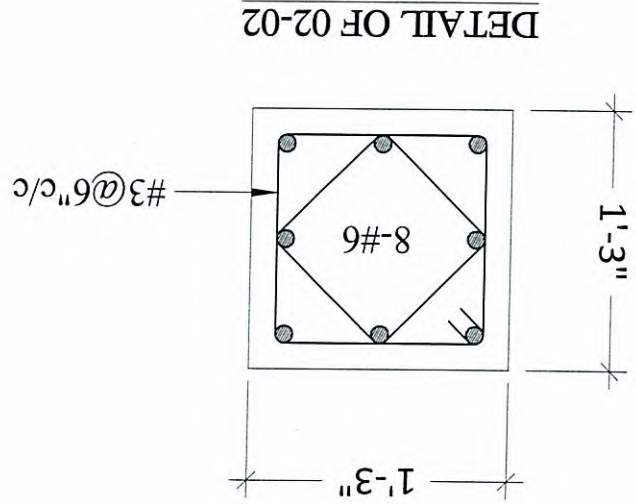
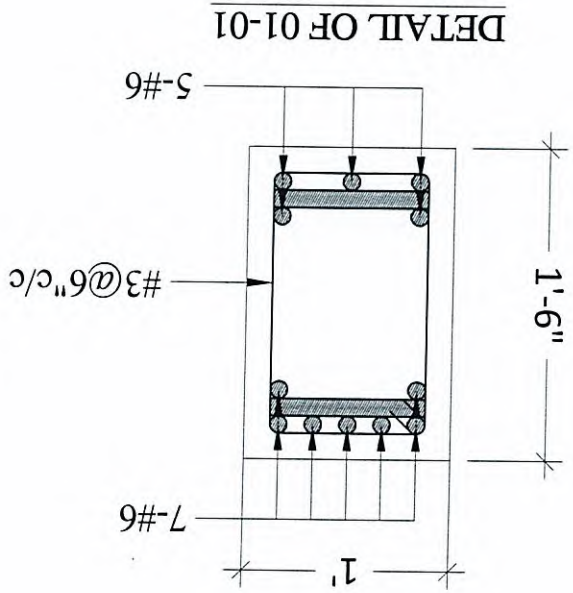
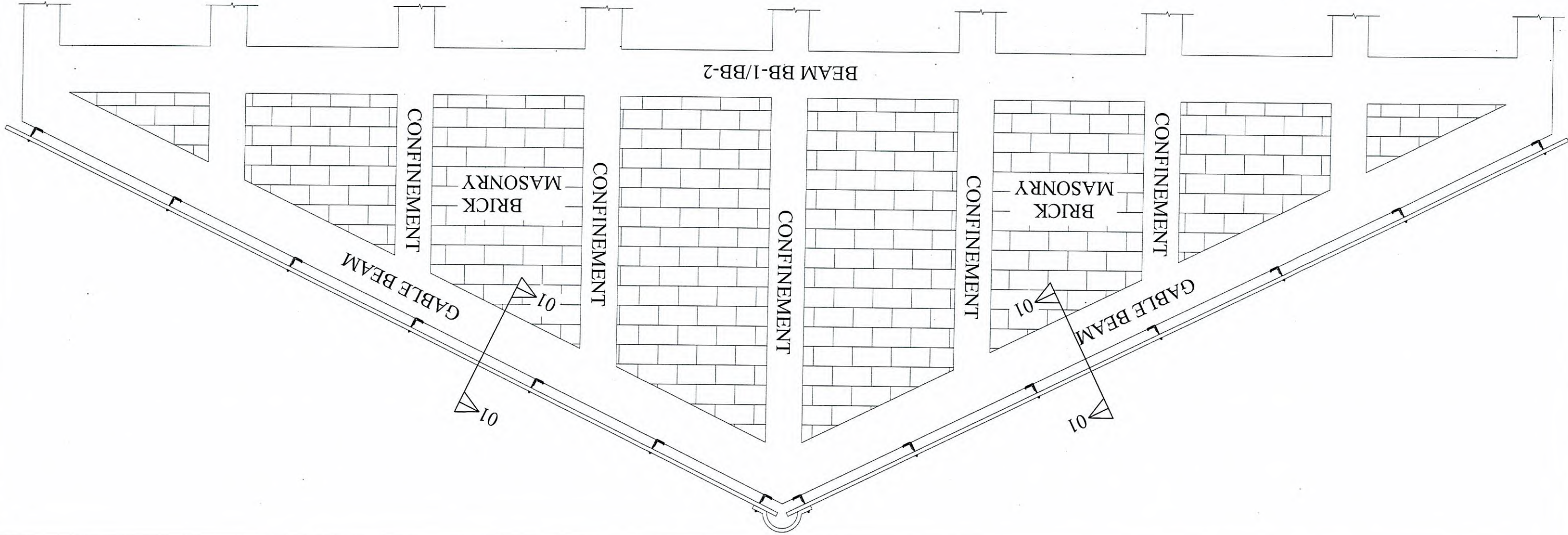


Project Director
WOMEN UNIVERSITY SWABI

Handwritten signature and initials in blue ink.



TYPICAL DETAIL OF GABLE WALL



WOMEN UNIVERSITY OF SWABI
MULTI PURPOSE HALL

ELECTRICAL DRAWINGS

DRAWING NO.

PROJECT NO.

ARCHITECT

CHECKED

MRS. SHAHINE KHAN

DRAWN

SCALE

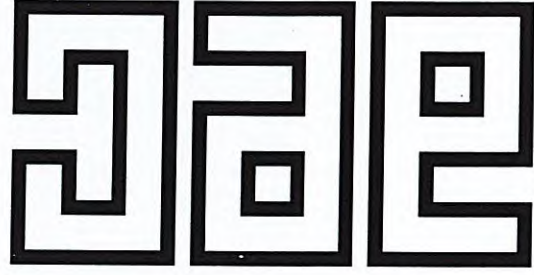
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DATE

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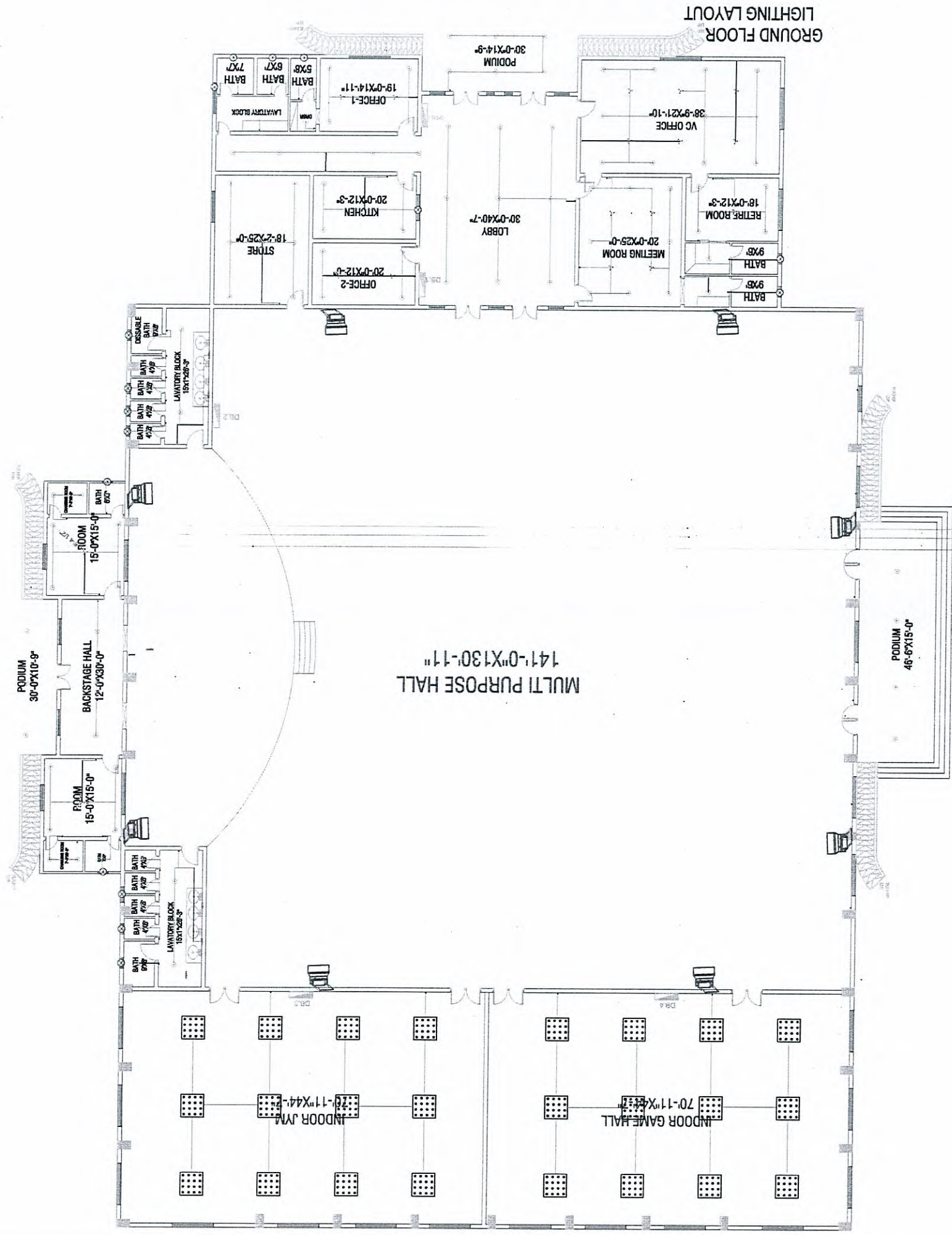
WOMEN UNIVERSITY SWABI
MULTI PURPOSE HALL
LIGHTING LAYOUT
GROUND FLOOR
ELE - (1)

AS SHOWN
MARCH 2025
ARCHITECTS, ENGINEERS, PLANNERS,
ALLIED ENGINEERING CONSULTANTS (PVT) LTD
10-A, OUTLETS, D. LAROSE, PAF, 75000 (AFGHANISTAN)

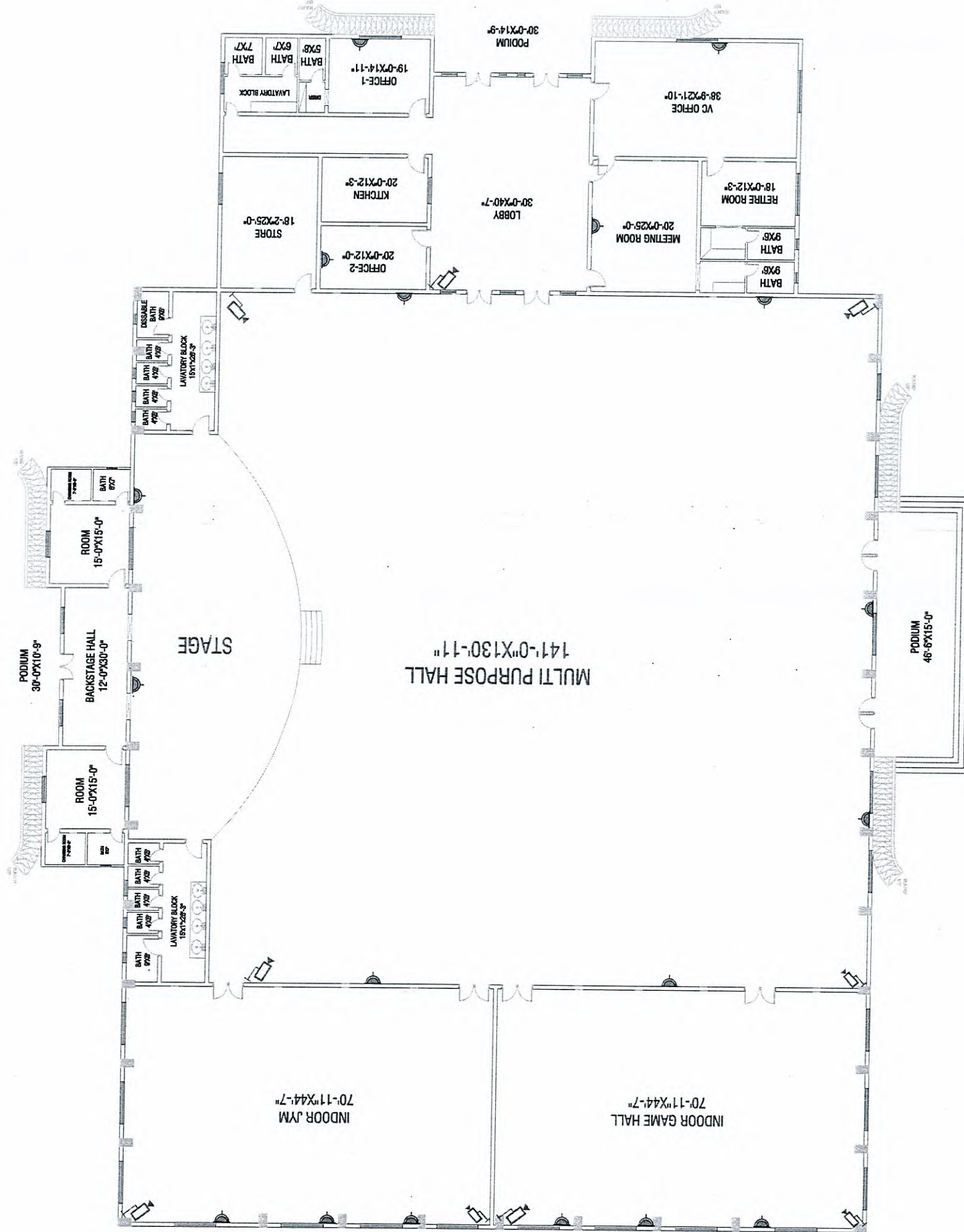


Project Director
WOMEN UNIVERSITY SWABI

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GROUND FLOOR
POWER & CCTV LAYOUT



WOMEN UNIVERSITY SWABI
MULTI PURPOSE HALL

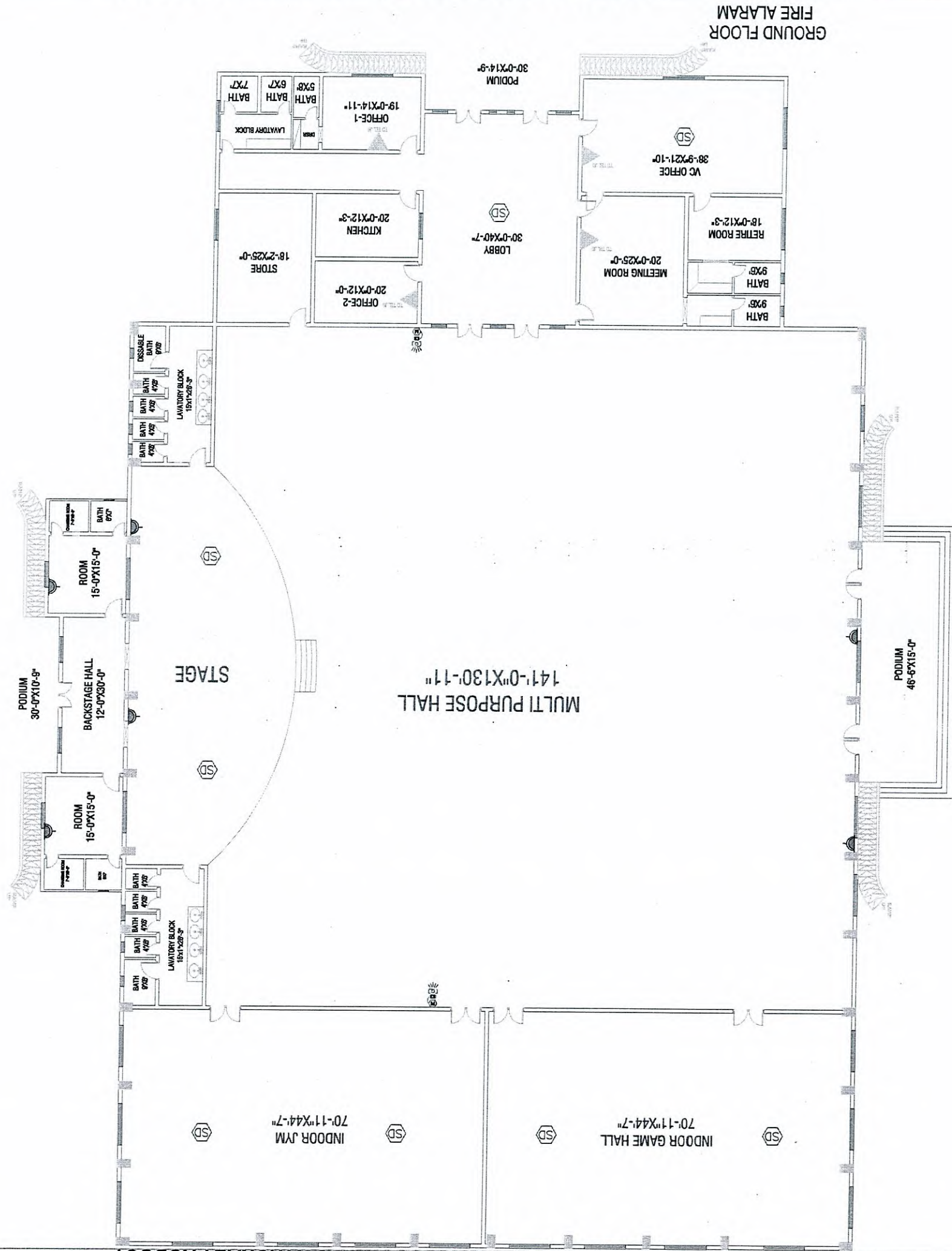
POWER & CCTV LAYOUT

ELE - (2)

AS SHOWN

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.
ARCHITECTS ENGINEERS PLANNERS





WOMEN UNIVERSITY SWABI
MULTI PURPOSE HALL
FIRE ALARM LAYOUT
GROUND FLOOR
ELE - (3)



Project Director
WOMEN UNIVERSITY SWABI

PUBLIC HEALTH
DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL		CMD /VER
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19 - A, GULBERG-II-LAHORE PH: 5758433 / 5756752

PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

DATE: APRIL, 2025	DWG. NO.	JOB NO.
TITLE: PLUMBING DRAWINGS	MEP - PD - 00	N.T.S
SCALE		

GENERAL NOTES FOR PUBLIC HEALTH

- NO WORK SHALL BE CARRIED OUT UNLESS SHOP DRAWINGS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.
- THESE NOTES SHALL BE APPLICABLE TO THE ENTIRE PUBLIC HEALTH WORKS THE SITE CONDITIONS NECESSITATE ALTERATION OR DEVIATION OF THE DIRECTIONS OF THE ENGINEER SHALL BE OBSERVED AS FINAL INSTRUCTIONS.
- CONTRACTOR SHALL NOT PROVIDE ANY EQUIPMENT OR MATERIAL UNLESS TECHNICAL SUBMITTALS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.
- THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL THE DRAWINGS BEFORE START OF WORK AND SHALL COORDINATE WITH ALL OTHER DISCIPLINE AND ANY DISCREPANCY APPEARS IT SHOULD BE BROUGHT TO THE CONSULTANTS KNOWLEDGE IMMEDIATELY.
- CONTRACTOR SHALL COORDINATE ALL WORKS WITH ELECTRICAL, STRUCTURAL & ARCHITECTURAL LAYOUTS.
- MECHANICAL SERVICES SHALL NOT CUT IN ANY STRUCTURAL BEAMS, RIBS OR ANY OTHER STRUCTURAL ELEMENTS UNLESS A PRIOR WRITTEN APPROVAL HAS BEEN TAKEN FROM THE ENGINEER.
- ALL EQUIPMENTS SHALL BE INSTALLED STRICTLY AS PER MANUFACTURER'S RECOMMENDATION.
- MECHANICAL CONTRACTOR SHALL PROVIDE SLEEVE ON ALL PIPES PENETRATING WALLS SLABS OR BEAMS.
- ALL WORK SHALL CONFORM TO THE LATEST INTERNATIONAL BUILDING CODE, AND THE REQUIREMENTS OF LOCAL AUTHORITIES
- MANHOLE COVERS AND FRAMES ARE TO BE HEAVY DUTY IN TRAFFIC AREAS AND MEDIUM DUTY IN PEDESTRIAN AREAS.
- MANHOLES SHALL BE OF CONCERT CONSTRUCTION.
- ALL SEWAGE PIPES SHALL HAVE A MINIMUM SLOPE OF 1%. INDIRECTION OF FLOW
- ALL PIPES UNDER TRAFFIC WILL HAVE MINIMUM 1000 mm COVER OR WALL BE ENCASED IN CONCRETE.
- ALL SANITARY APPLIANCES SHALL BE PROVIDED WITH TRAPS.
- JOINTS TO W.C. PANS SHALL BE WITH UPVC CONNECTORS & RUBBER GASKETS.
- ISOLATING VALVES SHALL BE PROVIDED TO SEPARATE THE INDIVIDUAL TOILETS, GATE VALVES SHALL BE PROVIDED TO/FROM WATER HEATERS
- EXACT LOCATION OF WATER PIPE WORK SHALL BE DETERMINED ON SITE.
- PROVIDE ISOLATING VALVE ON ALL MAIN AND BRANCH LINES FOR MAINTENANCE.
- IN PLUMBING WATER SUPPLY SYSTEM THE PIPE DIAMETERS ARE INDICATED CONTRACTOR SHALL USE ADEQUATE PIPES TO ACCOUNT FOR PIPE WALL THICKNESS.
- CONTRACTOR TO PROVIDE OVERFLOW, TEST PIPE, WARNING OF LEVEL AND DRAIN CONNECTION.
- ALL ELECTRICAL POWER AND CONTROL WIRING / CONDUITING FROM M.C.C. TO PLUMBING EQUIPMENTS SHALL BE CARRIED OUT BY ELECTRICAL CONTRACTOR.
- CONTRACTOR TO PROVIDE CLEAN OUTS AT EVERY 15 METER OF PIPE RUN EVEN IF IT IS NOT MENTIONED IN THE DRAWINGS.
- FOR COLD AND HOT WATER SUPPLY PPR PN-20 PIPES SHALL BE USED.
- ALL EXPOSED COLD AND HOT WATER PIPING SHALL BE GI (11L) MEDIUM CLASS.
- FOR SEWAGE SYSTEM UPVC (SWV) NON-PRESSURE PIPES AND FITTINGS SHALL BE USED.
- FOR DRAINAGE SYSTEM PVC NON-PRESSURE PIPES AND FITTINGS CLASS-B, SHALL BE USED.
- VENT PIPES SHALL BE EXTENDED ONE FEET ABOVE THE PARAPET WALL.
- GEYSER SHALL BE STORAGE TYPE (COMMERCIAL MAKE).
- ALL THE PUBLIC HEALTH SYSTEMS IS HANGING TYPE USE PROPER HANGING ARRANGEMENT FOR PIPES ETC.
- ALL WATER SUPPLY PPR PIPES SHOWN IN DRAWINGS ARE INTERNAL DIAMETER.
- SLOP FOR SEWAGE PIPE I.E FOR WASTE IS 1.8 CM PER METER AND FOR SOIL IS 1.5 CM PER METER.

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PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

DATE: APRIL, 2025	DWG. NO. MEP - PD - 100	JOB NO.
TITLE: GENERAL NOTES & LEGENGS	N.T.S	SCALE

NOTES:

- NO WORK SHALL BE CARRIED OUT UNLESS SHOP DRAWINGS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.
- CONTRACTOR SHALL NOT PROVIDE ANY EQUIPMENT OR MATERIAL UNLESS TECHNICAL SUBMITTALS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.
- THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL THE DRAWINGS BEFORE START OF WORK AND SHALL COORDINATE WITH ALL OTHER DISCIPLINE AND ANY DISCREPANCY APPEARS IT SHOULD BE BROUGHT TO THE CONSULTANTS KNOWLEDGE IMMEDIATELY.
- CONTRACTOR SHALL COORDINATE ALL WORKS WITH ELECTRICAL, STRUCTURAL & ARCHITECTURAL DRAWINGS.
- MECHANICAL SERVICES SHALL NOT CUT IN ANY STRUCTURAL BEAMS, RIBS OR ANY OTHER STRUCTURAL ELEMENTS UNLESS A PRIOR WRITTEN APPROVAL HAS BEEN TAKEN FROM THE ENGINEER.
- ALL EQUIPMENTS SHALL BE INSTALLED STRICTLY AS PER MANUFACTURER'S RECOMMENDATION.
- MECHANICAL CONTRACTOR SHALL PROVIDE SLEEVE ON ALL PIPES PENETRATING WALLS SLABS OR BEAMS.
- ALL WORK SHALL CONFORM TO THE LATEST INTERNATIONAL BUILDING CODE, AND THE REQUIREMENTS OF LOCAL AUTHORITIES
- ALL PIPES UNDER TRAFFIC WILL HAVE MINIMUM 1000 mm COVER OR WALL BE ENCASED IN CONCRETE.
- JOINTS TO W.C. PANS SHALL BE WITH UPVC CONNECTORS & RUBBER GASKETS.
- ISOLATING VALVES SHALL BE PROVIDED TO SEPARATE THE INDIVIDUAL TOILETS, GATE VALVES SHALL BE PROVIDED TO / FROM WATER HEATERS
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- CONTRACTOR TO PROVIDE OVERFLOW, TEST PIPE, WARNING OF LEVEL AND DRAIN CONNECTION.
- ALL ELECTRICAL POWER AND CONTROL WIRING/CONDUITING FROM M.C.C. TO PLUMBING EQUIPMENTS SHALL BE CARRIED OUT BY ELECTRICAL CONTRACTOR.
- FOR COLD AND HOT WATER SUPPLY PPR PN-20 PIPES SHALL BE USED.
- ALL EXPOSED COLD AND HOT WATER PIPING SHALL BE GI (11L) MEDIUM CLASS.
- ALL EXPOSE HOT WATER PIPES SHALL BE INSULATED.

LEGEND	
SP	SOIL WATER PIPE
WP	WASTE WATER PIPE
RWP	RAIN WATER PIPE
FD	FLOOR DRAIN
COP	CLEAN OUT PLUG (ABOVE CEILING)
○	HANGING CLAMP
⊗	WMH WASTE WATER MANHOLE
⊠	SMH SOIL WATER MANHOLE
⊞	RMH RAIN WATER MANHOLE
⊗	S&WMH SOIL AND WASTE WATER CIRCLE MANHOLE

LEGEND	
CW	COLD WATER SUPPLY
HW	HOT WATER SUPPLY
WM	WATER GYSER
⊞	WASHBASIN
⊞	ENGLISH WC
⊞	MUSLIM WC

PLUMBING LEGENDS

SYMBOL		DESCRIPTION
—	CW	COLD WATER SUPPLY PIPE
—	HW	HOT WATER SUPPLY PIPE
—	NG	HOT WATER SUPPLY PIPE
⊙		NATURAL GAS
FITTINGS & VALVES		
—		GATE VALVE
—		FLOAT VALVE
—		STRAINER
SYMBOL		
—		DESCRIPTION
—		MAKE UP PIPE
—		FROM ABOVE
—	F/A	FROM BELOW
—	F/B	TO ABOVE
—	T/A	TO BELOW
⊞		WATER GAYSER
—		GAS COCK
⊞		EUROPEAN WC WALL MOUNTED
⊞		EUROPEAN WC
⊞		MUSLIM WC
—		MUSLIM SHOWER
—		DOUBLE BIBCOCK
—		SINGLE BIBCOCK
⊞		MIXER
⊞		VANITY WASH BASIN
⊞		WASHBASIN
⊞		MIXER SHOWER
⊞		PRESSURE REDUCING VALVE



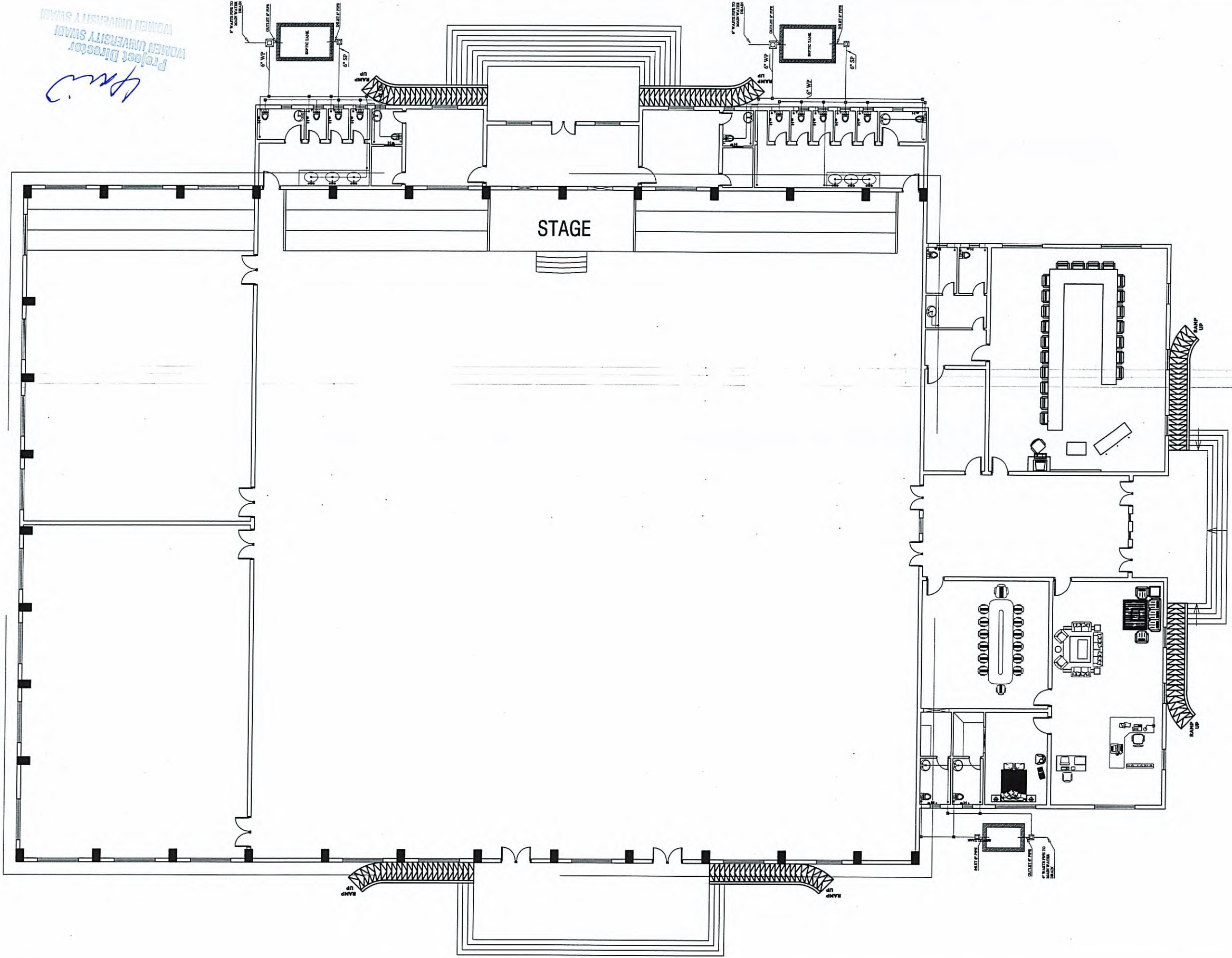
Project Director
WOMEN UNIVERSITY SWABI

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19-A, GULBERG-II, LAHORE PH: 5758433 / 5756752

PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

TITLE:	GROUND FLOOR SEWERAGE LAYOUT	DATE:	APRIL, 2025	DWG. NO.	MEP - SEWD - 101	JOB NO.	SCALE
							N.T.S



Project Director
WOMEN UNIVERSITY SWABI

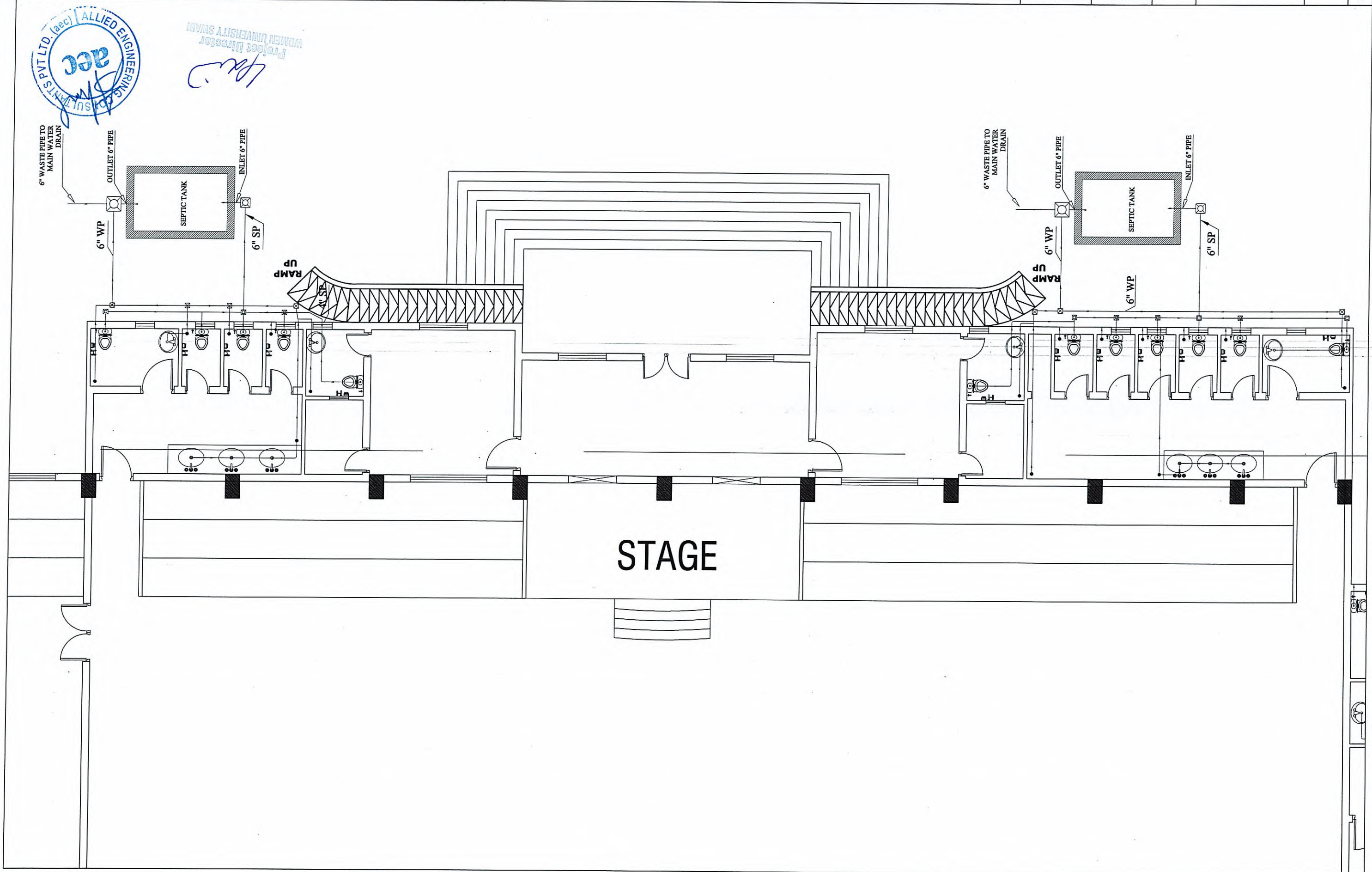
REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.	
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENGR. HIKMAT KHAN
04			DESIGNED BY	ENGR. HIKMAT KHAN



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PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

TITLE: GROUND FLOOR
SEWERAGE BLOWUP
N.T.S
SCALE
DATE: APRIL, 2025
DWG. NO. MEP - SEWD - 102
JOB NO.

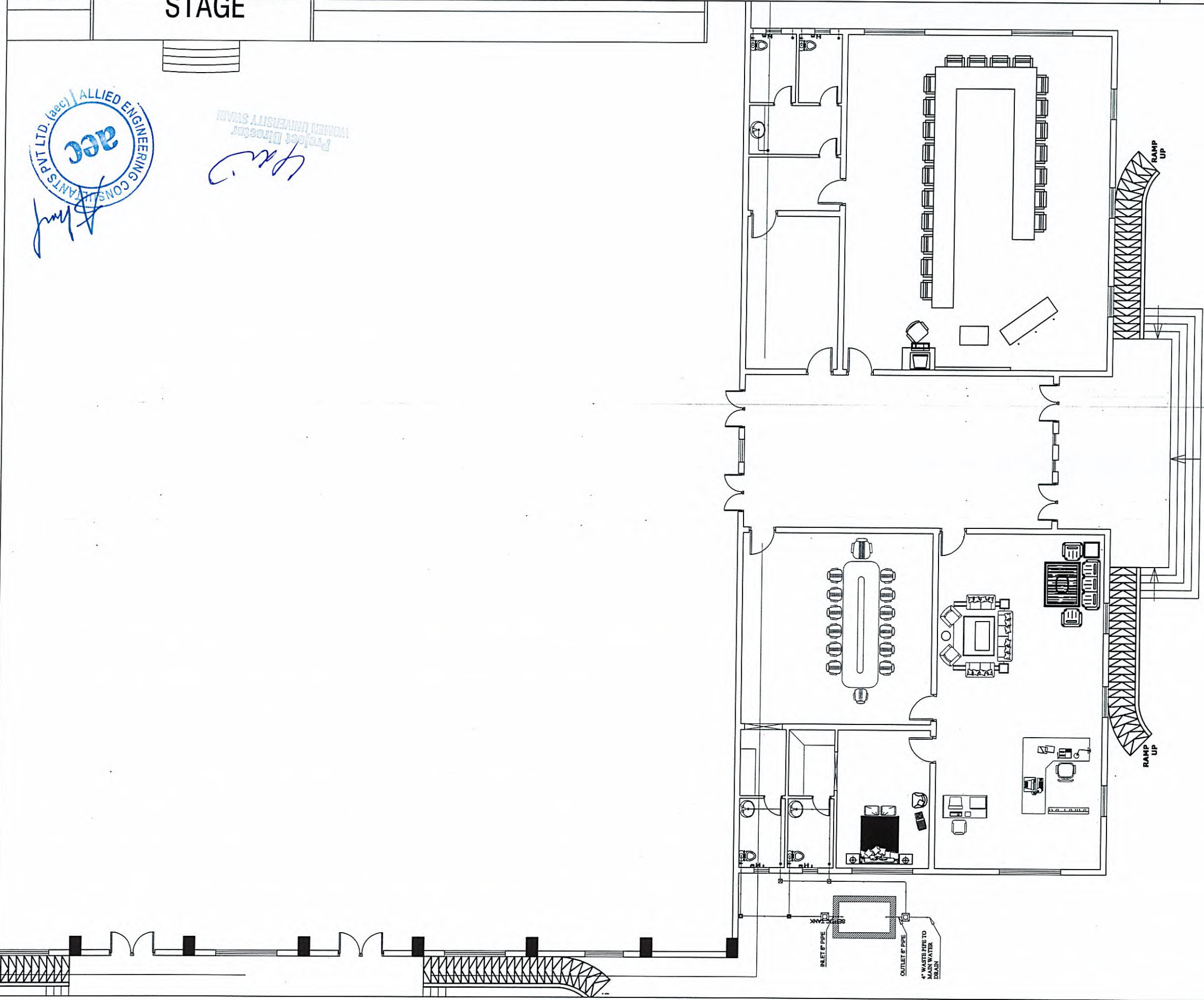


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01	14/04/2025	FOR REVIEW & APPROVAL		
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PROJECT:	WOMEN UNIVERSITY OF SWABI (MULTI PURPOSE HALL)	DATE:	APRIL, 2025	DWG. NO.	MEP - SEWD - 103	JOB NO.	
SCALE	N.T.S	TITLE:	GROUND FLOOR SEWERAGE BLOWUP				



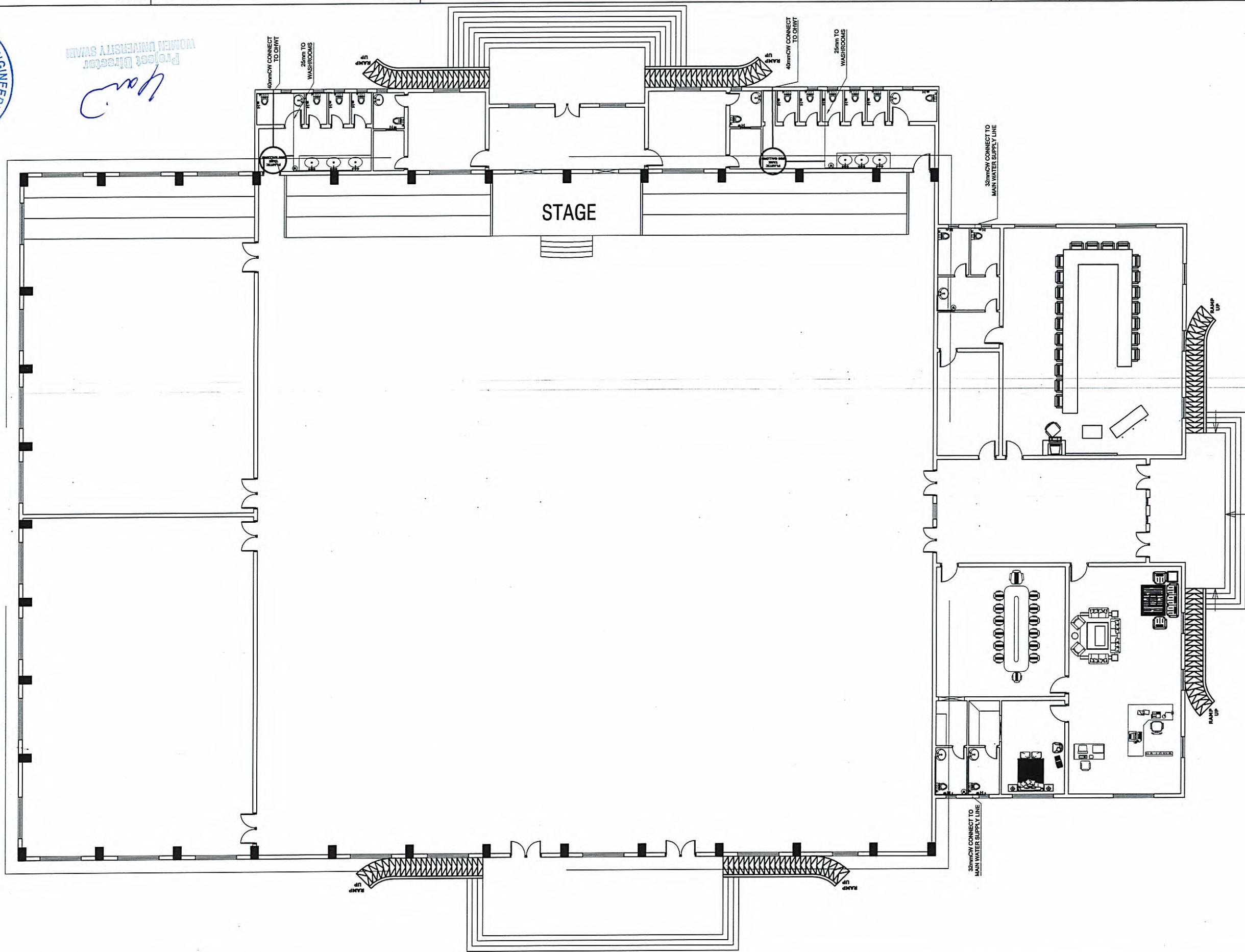
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PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

SCALE	N.T.S	TITLE: GROUND FLOOR WATER SUPPLY LAYOUT	DWG. NO. MEP - WSD - 101	DATE: APRIL, 2025	JOB NO.
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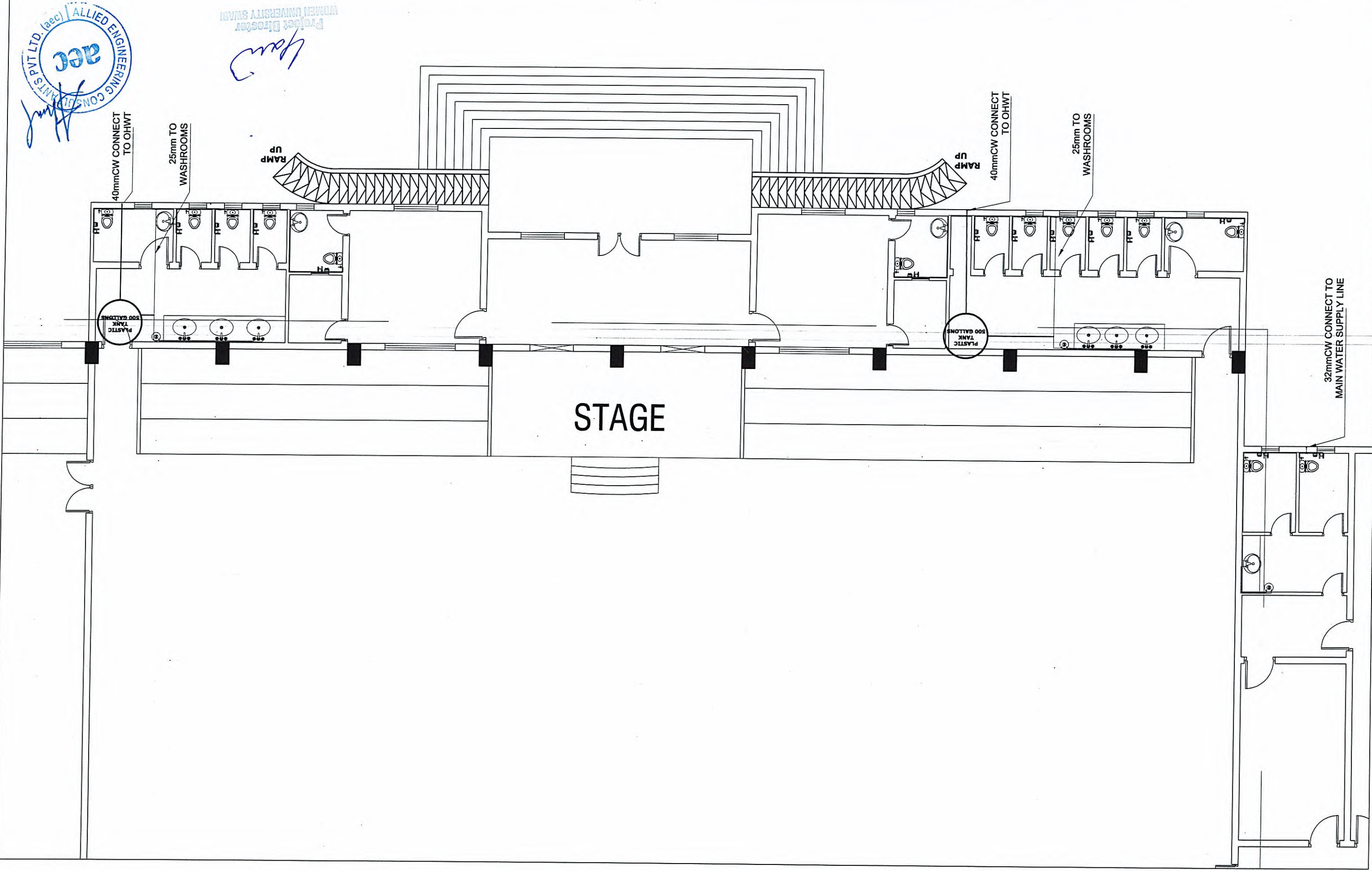
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01	14/04/2025	FOR REVIEW & APPROVAL		
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PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

JOB NO.	DATE: APRIL, 2025	DWG. NO.	MEP - WSD - 102
SCALE	TITLE: GROUND FLOOR WATER SUPPLY BLOWUP	N.T.S.	



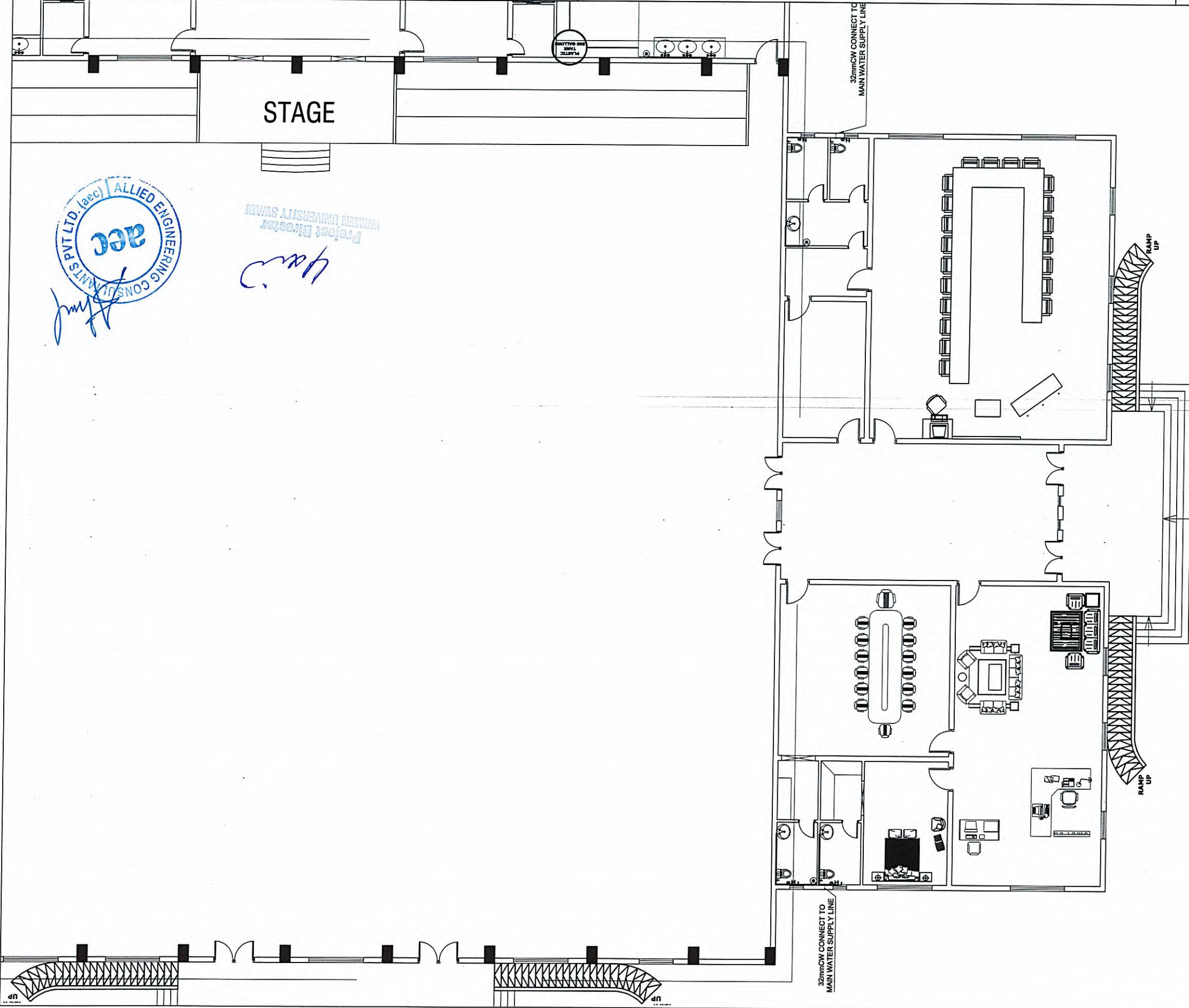
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01	14/04/2025	FOR REVIEW & APPROVAL		CHD/VER
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PROJECT:
WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

TITLE:	DATE:	DWG. NO.	JOB NO.
GROUND FLOOR WATER SUPPLY BLOWUP	APRIL, 2025	MEP - WSD - 103	N.T.S
SCALE			



REV.	DATE	DESCRIPTION	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.
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ENGR. HIKMAT KHAN
ENGR. HIKMAT KHAN
SALEEM KHAN

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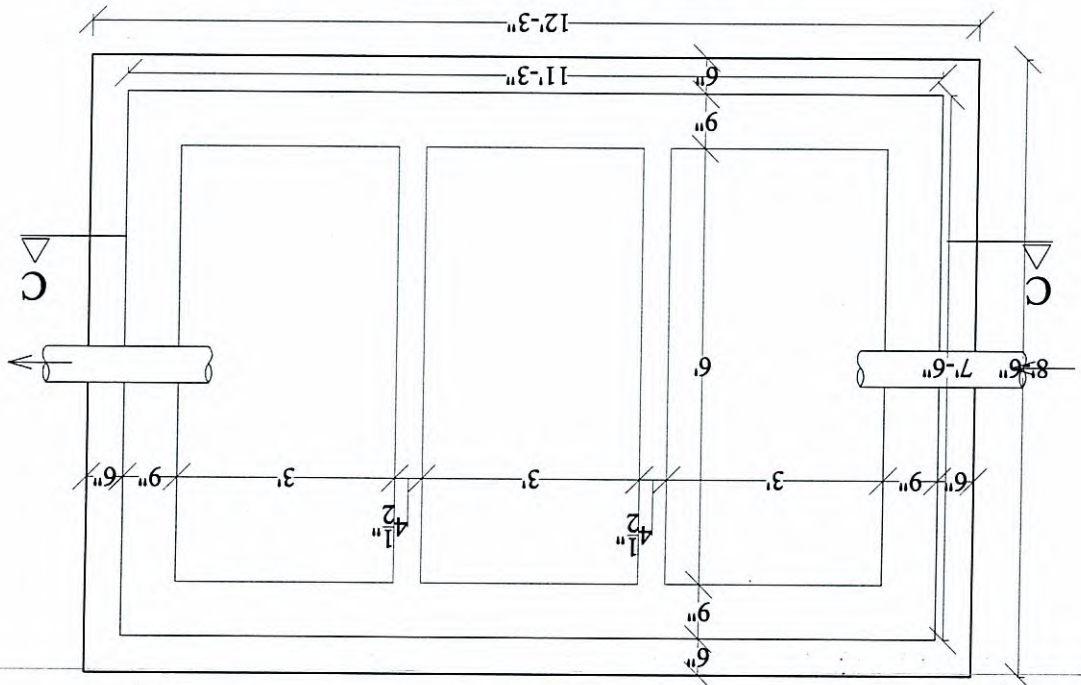


PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

TITLE: SEPTIC TANK DETAILS
DATE: APRIL, 2025
DWG. NO. MEP - PD - 100

SCALE
N.T.S.
JOB NO.

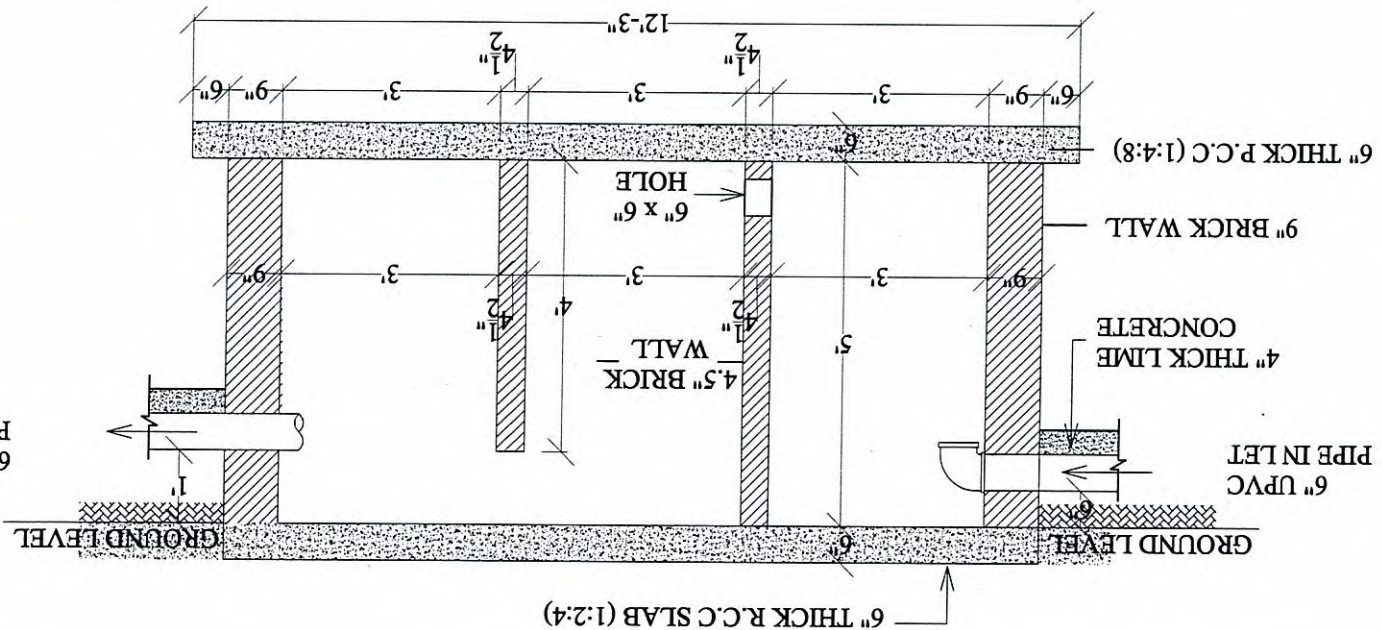
PLAN OF SEPTIC TANK



6" UPVC
PIPE IN LET

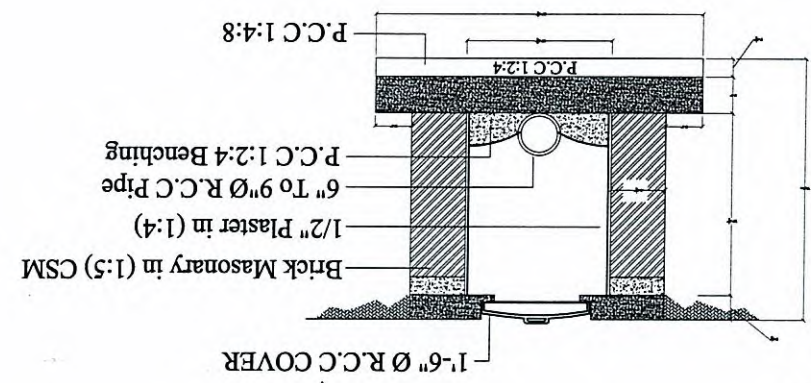
6" UPVC
PIPE OUT LET

SECTION AT C-C



6" UPVC
PIPE IN LET

6" UPVC
PIPE OUT LET



Project Director
WOMEN UNIVERSITY SWABI



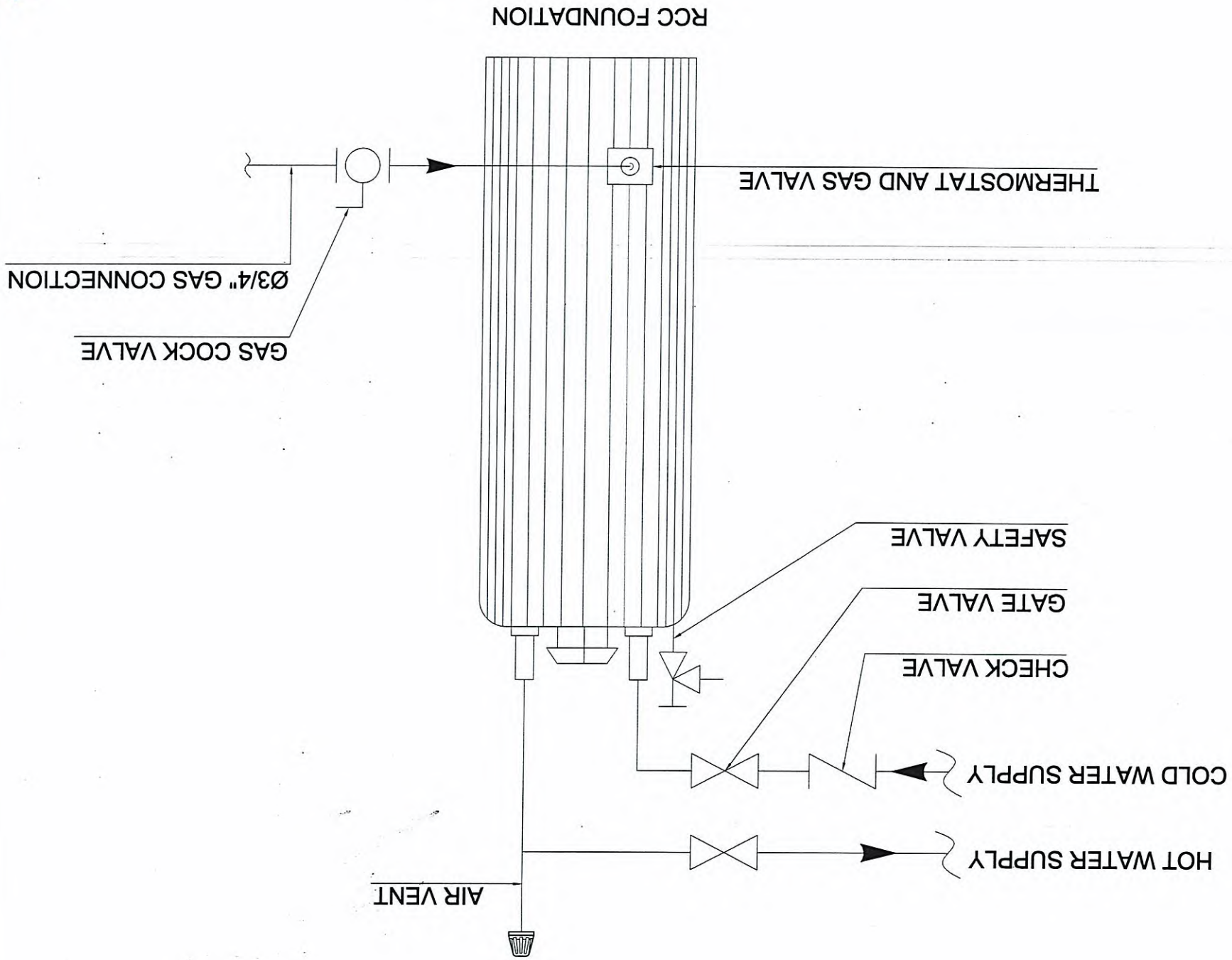
REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.	
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PROJECT:	WOMEN UNIVERSITY OF SWABI (MULTI PURPOSE HALL)	DATE: APRIL, 2025	DWG. NO. MEP - PD - 101	JOB NO.
TITLE:	GEYSER INSTALLATION DETAILS			N.T.S.
SCALE				

HOT WATER GEYSER BOTH OPTIONAL GAS AND ELECTRIC GEYSER



Project Director
WOMEN UNIVERSITY SWABI

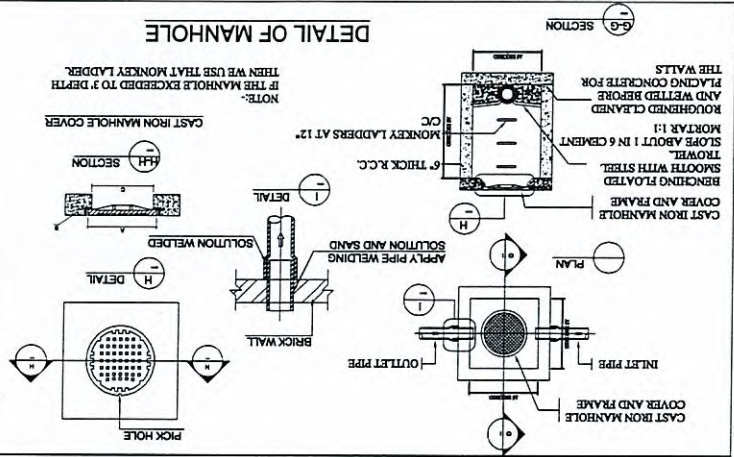
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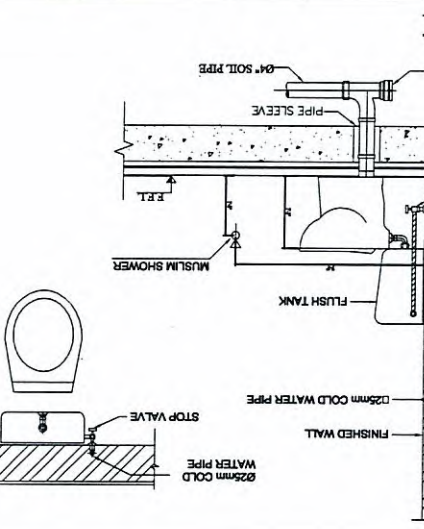
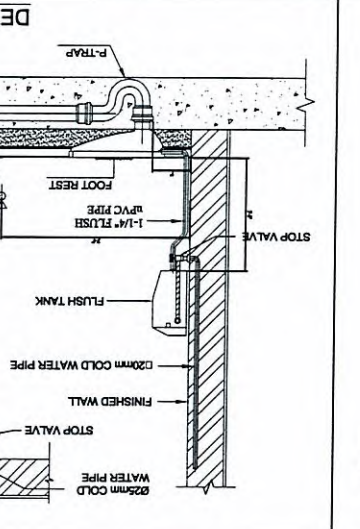
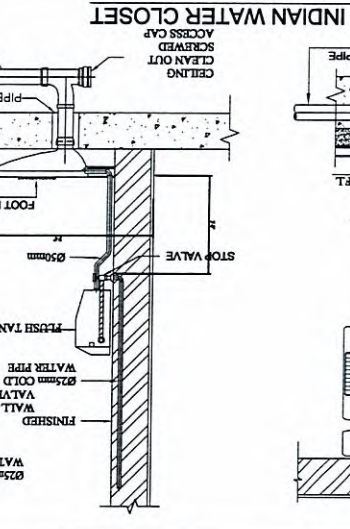
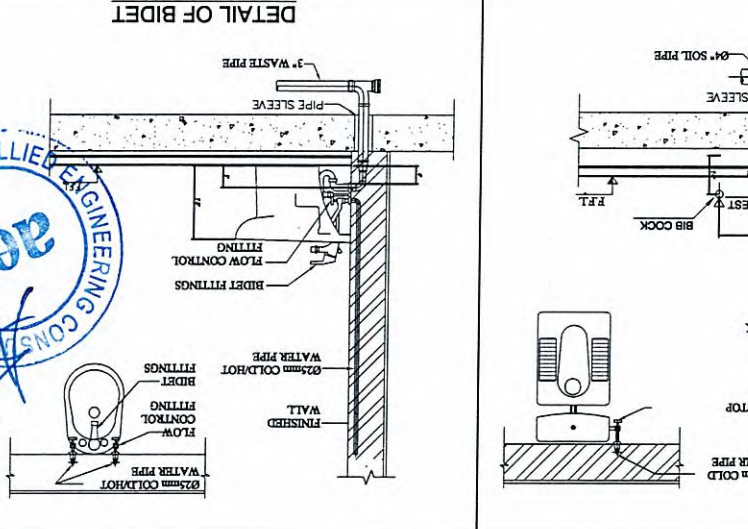
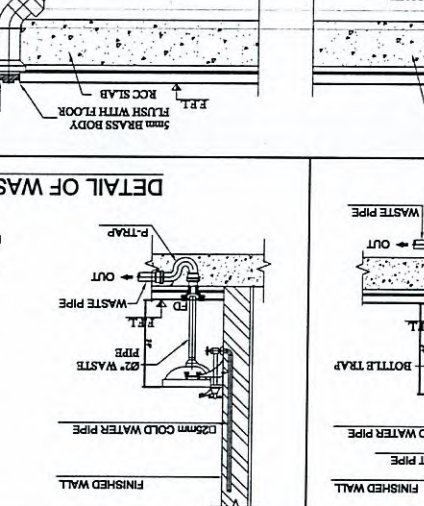
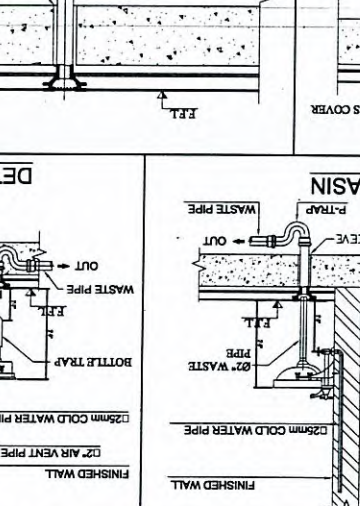
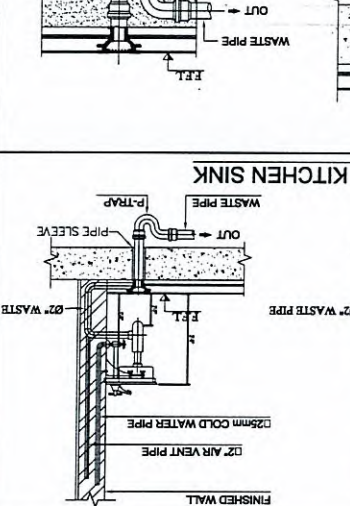
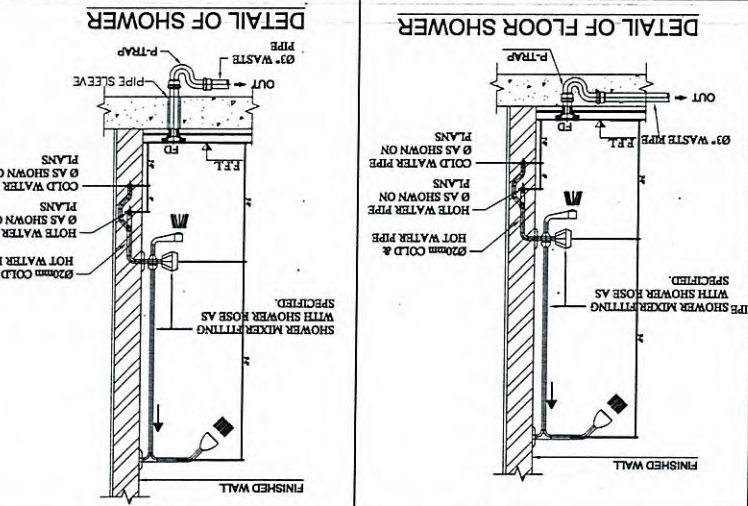
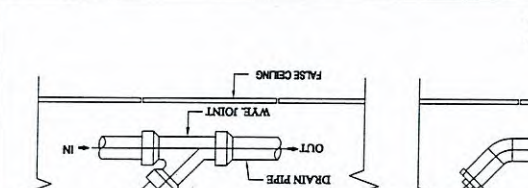
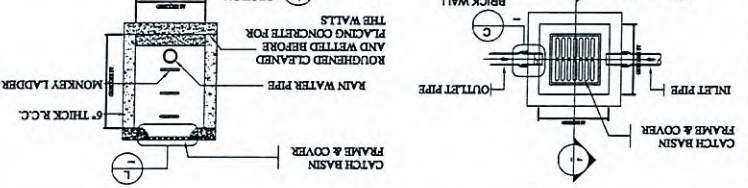
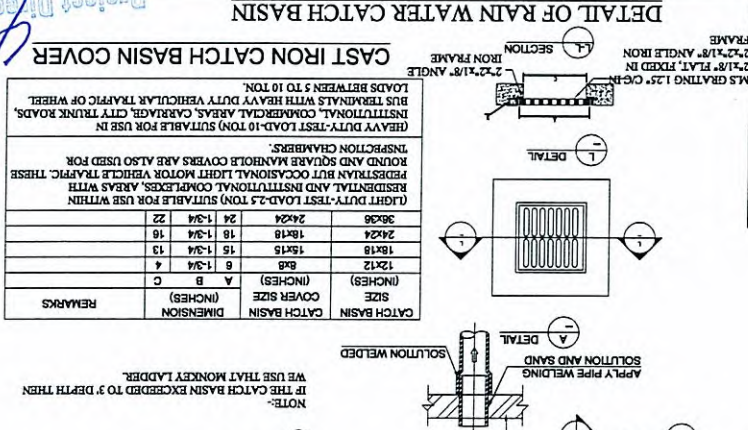
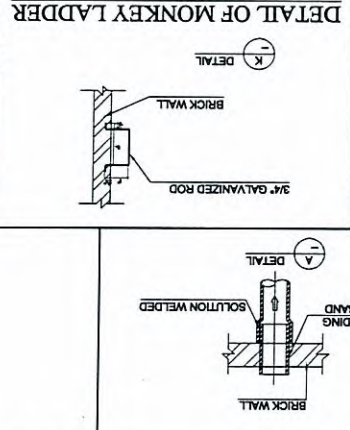
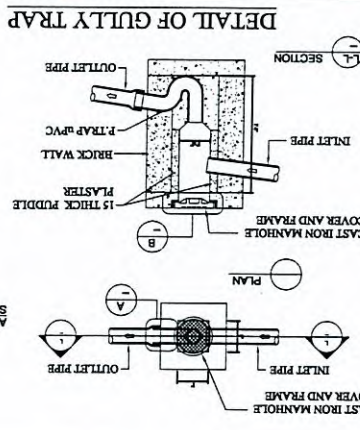
DATE:	DWG. NO.	MFP - WSD - 103
APRIL, 2025		
TITLE:	PLUMBING FIXTURES DETAILS - I	
SCALE	N.T.S	JOB NO.



CAST IRON MANHOLE

MANHOLE	SIZE	COVER SIZE	DIMENSION	REMARKS
12" DIA	12"	12"	12"	
18" DIA	18"	18"	18"	
24" DIA	24"	24"	24"	
30" DIA	30"	30"	30"	
36" DIA	36"	36"	36"	

(LIGHT DUTY - TEST LOAD 2.5 TON) SUITABLE FOR USE WITHIN RESIDENTIAL AND OCCASIONAL LIGHT MOTOR VEHICLE TRAFFIC. THESE MANHOLES ARE NOT SUITABLE FOR USE WITHIN INDUSTRIAL, COMMERCIAL AREAS, CARRIAGE, CITY TRUNK ROADS, BUS TERMINALS WITH HEAVY DUTY VEHICULAR TRAFFIC OR WHEEL LOADS BETWEEN 5 TO 10 TON.

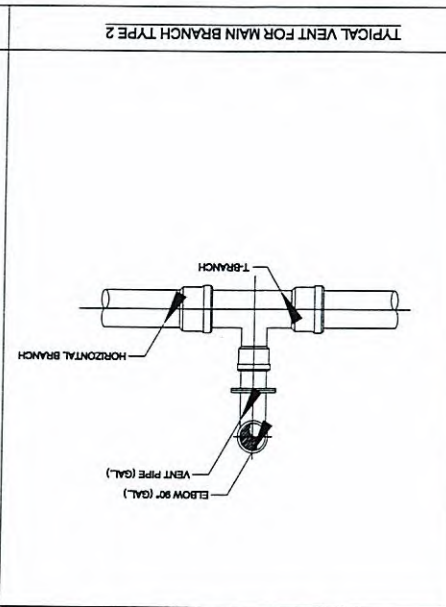


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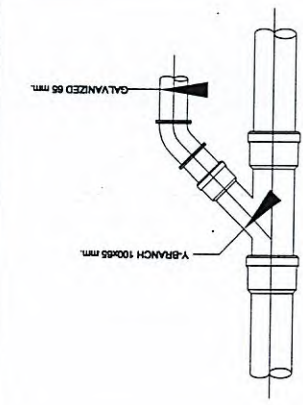
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PROJECT: WOMEN UNIVERSITY OF SWABI
(MULTI PURPOSE HALL)

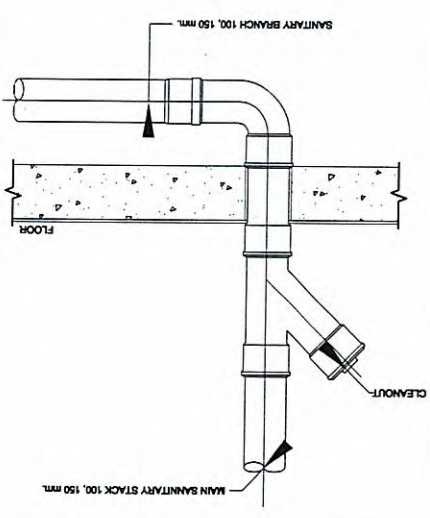
DATE: APRIL, 2025	DWG. NO. MEP - WSD - 104	JOB NO.
TITLE: PLUMBING FIXTURES, PIPES, JOINTS INSTALLATION DETAILS	N.T.S	SCALE



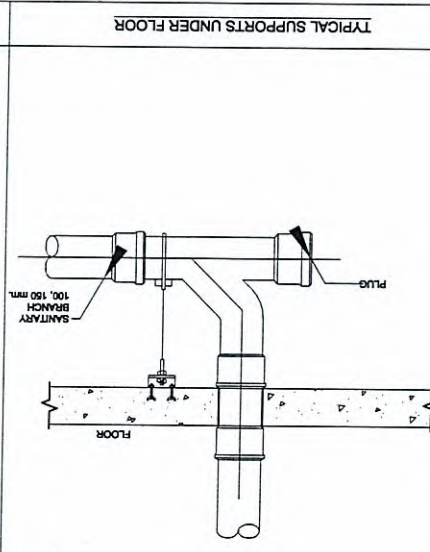
TYPICAL VENT FOR MAIN BRANCH TYPE 2



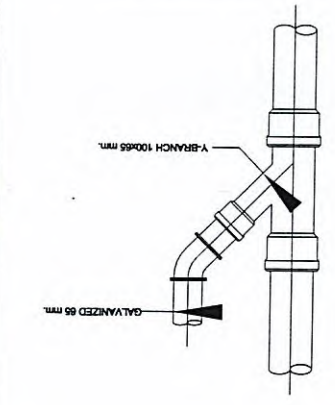
TYPICAL VENT FOR STACK TYPE 1



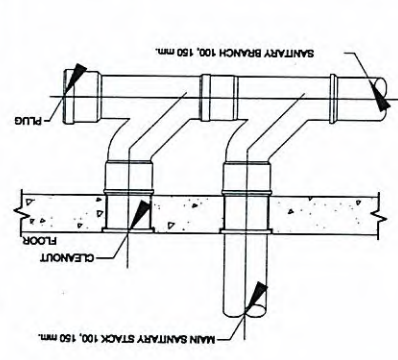
TYPICAL CLEAN OUT FOR MAIN SANITARY STACK TYPE 1



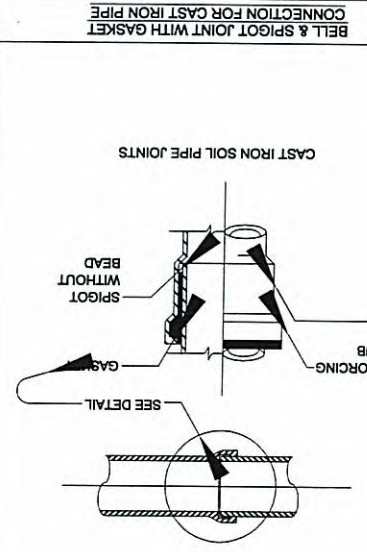
TYPICAL SUPPORTS UNDER FLOOR



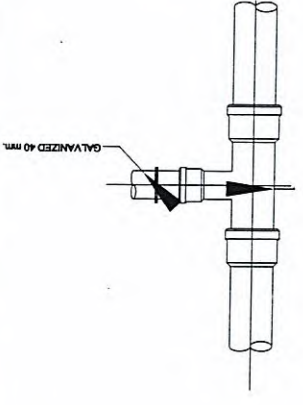
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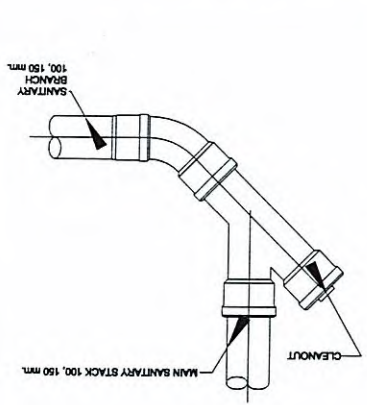
TYPICAL CLEAN OUT FOR MAIN SANITARY STACK TYPE 2



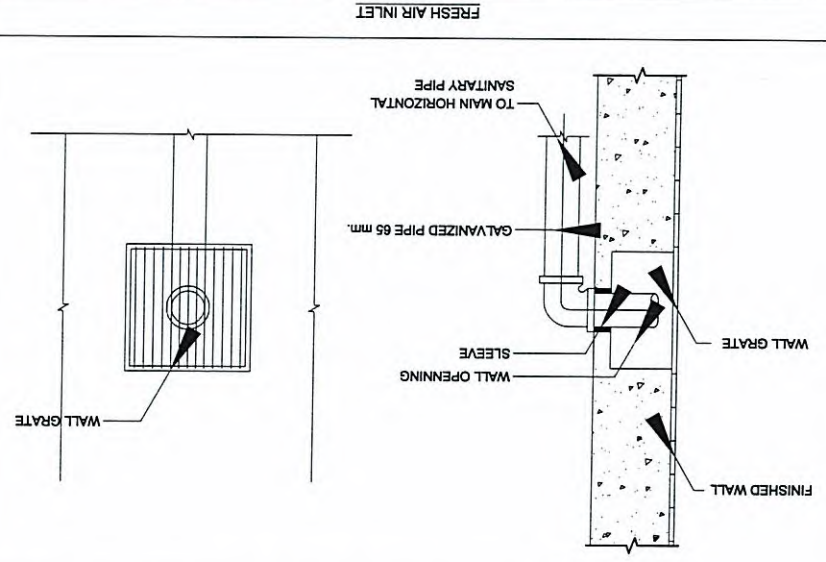
BELL & SPIGOT JOINT WITH GASKET CONNECTION FOR CAST IRON PIPE



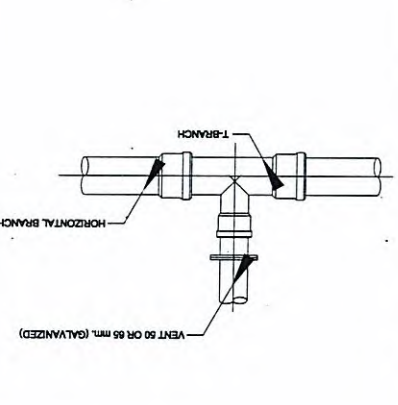
TYPICAL VENT FOR STACK TYPE 3



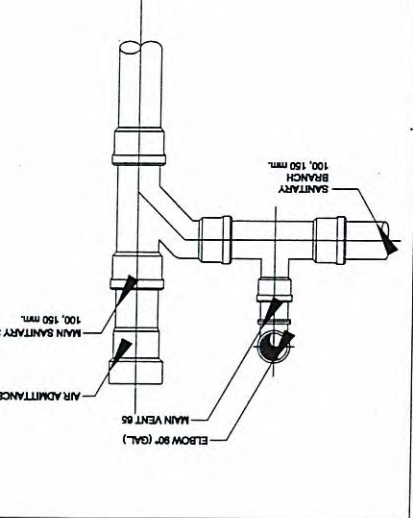
TYPICAL CLEAN OUT FOR MAIN SANITARY STACK TYPE 3



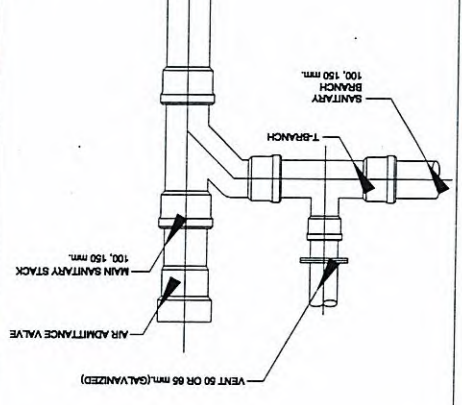
FRESH AIR INLET



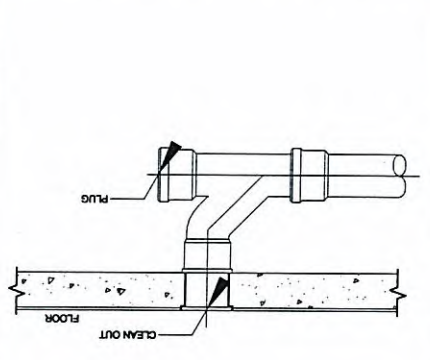
TYPICAL VENT FOR MAIN BRANCH TYPE 1



TYPICAL MAIN SANITARY STACK



TYPICAL CLEAN OUT ON FLOOR



TYPICAL CLEAN OUT ON FLOOR



REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.	APPROVED
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENGR. HIKMAT KHAN
04			DESIGNED BY	ENGR. HIKMAT KHAN



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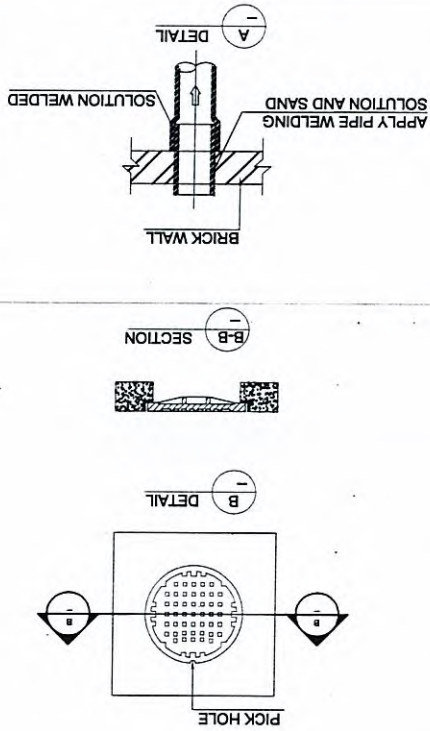
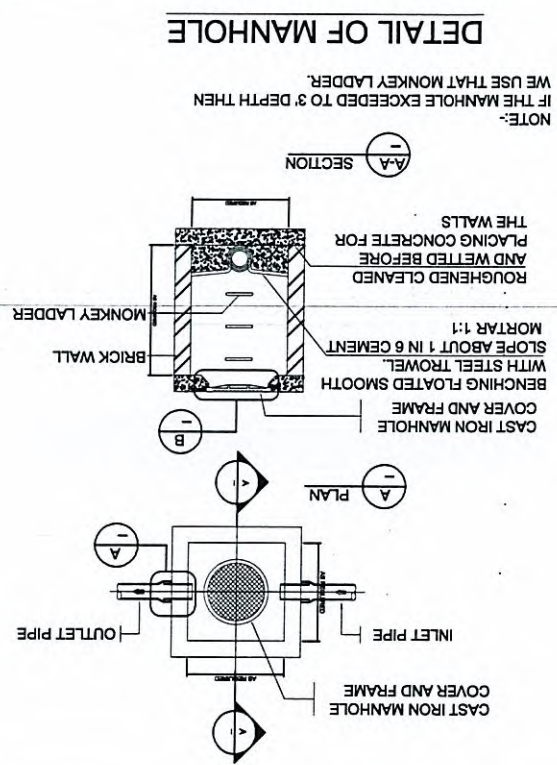
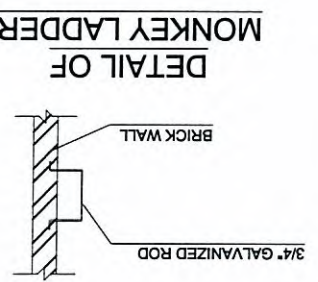
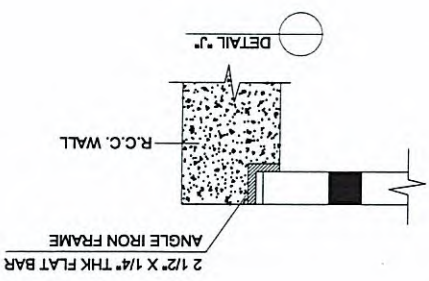
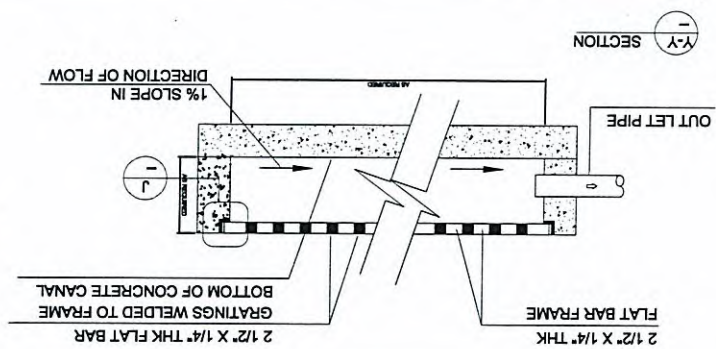
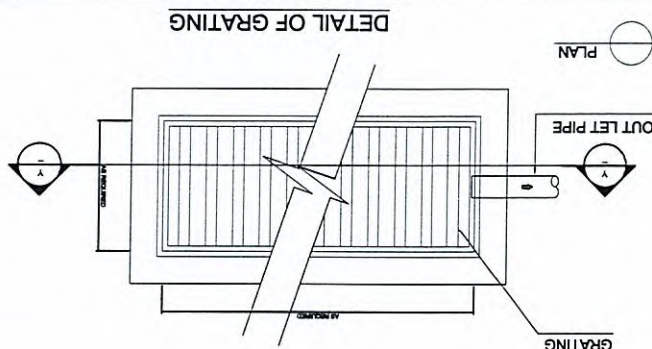
19-A, GULBERG-II, LAHORE PH: 5758433 / 5756752

PROJECT:

WOMEN UNIVERSITY OF SWABI

(MULTI PURPOSE HALL)

DATE:	APRIL, 2025	DWG. NO.	MEP - WSD - 105	JOB NO.	
TITLE:	PLUMBING FIXTURES	INSTALLATION DETAILS	N.T.S	SCALE	

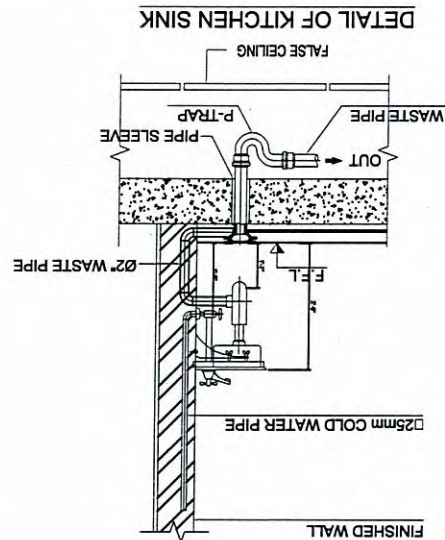
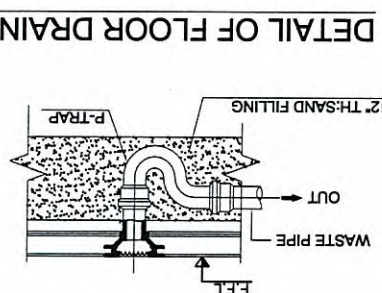
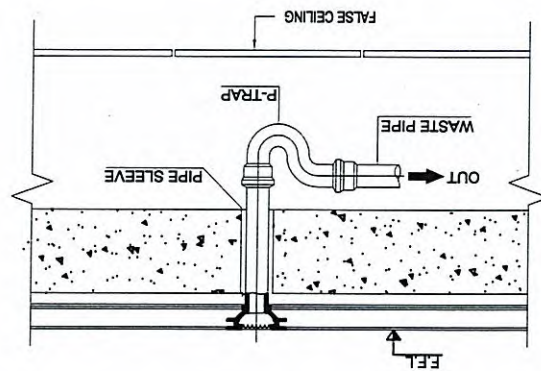
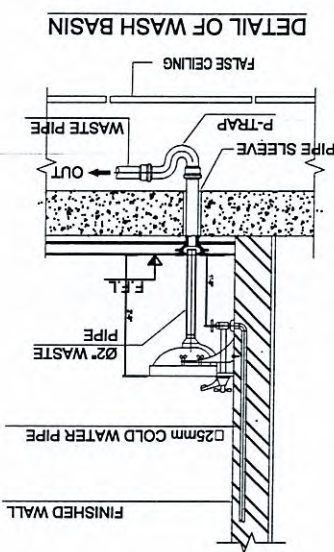


CAST IRON MANHOLE

(HEAVY DUTY-TEST LOAD-10 TON) SUITABLE FOR USE IN INSTITUTIONAL, COMMERCIAL AREAS, CARRIAGE, CITY TRUNK ROADS, BUS TERMINALS WITH HEAVY DUTY VEHICULAR TRAFFIC OF WHEEL LOADS BETWEEN 5 TO 10 TON.

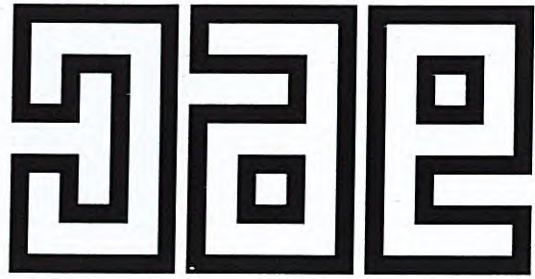
(LIGHT DUTY-TEST LOAD-2.5 TON) SUITABLE FOR USE WITHIN RESIDENTIAL AND INSTITUTIONAL COMPLEXES, AREAS WITH PEDESTRIAN BUT OCCASIONAL LIGHT MOTOR VEHICLE TRAFFIC. THESE ROUND AND SQUARE MANHOLE COVERS ARE ALSO USED FOR INSPECTION CHAMBERS.

MANHOLE SIZE (INCHES)	MANHOLE COVER SIZE (INCHES)	DIMENSION (INCHES)	REMARKS	
36x36	Ø24	24	1-3/4	22
24x24	Ø18	18	1-3/4	16
18x18	Ø15	15	1-3/4	13
12x12	Ø6	6	1-3/4	4
	A	B	C	



Project Director
WOMEN UNIVERSITY SWABI

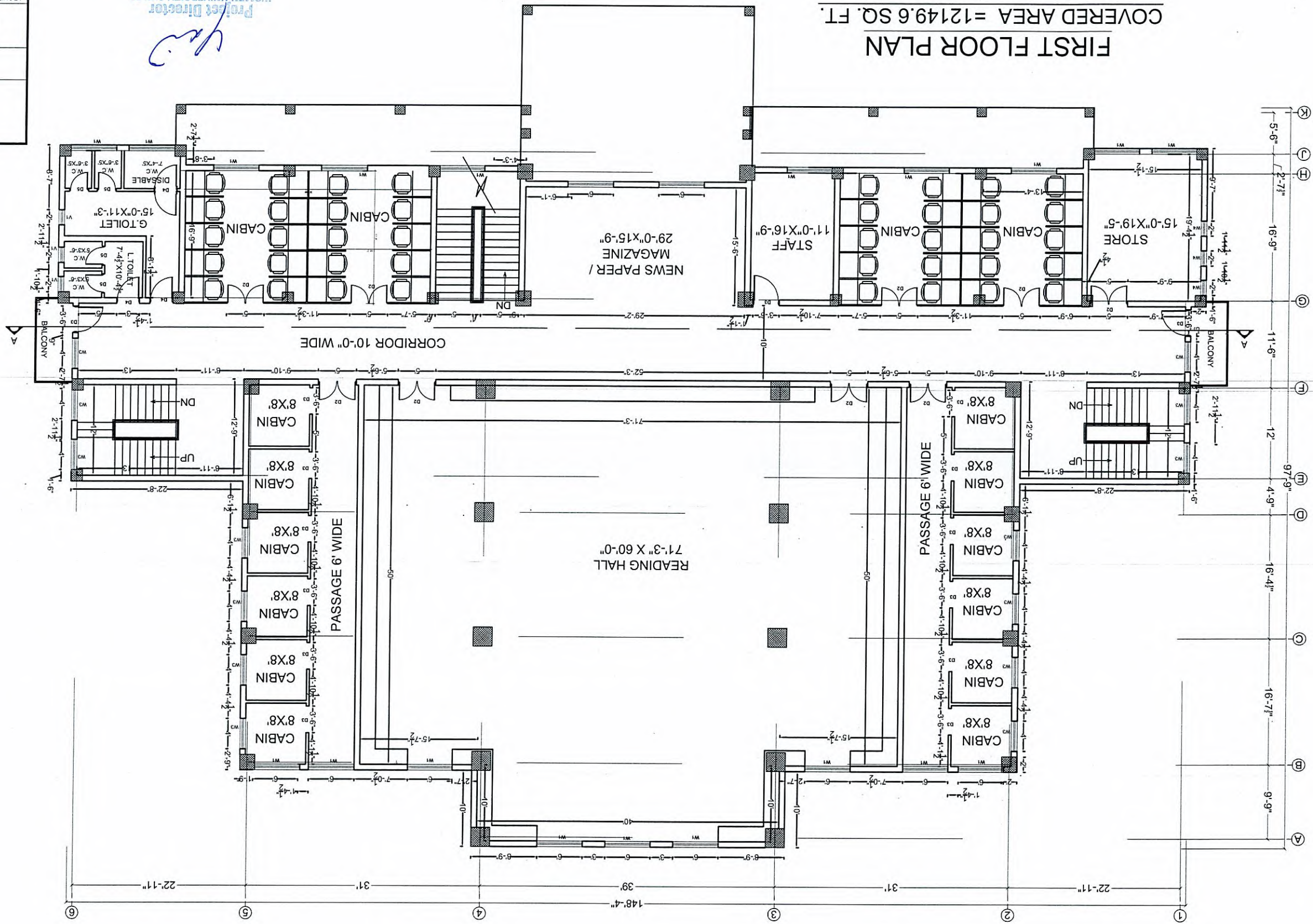
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DRAWN		ASIM		SCALE		DATE	
ARCHITECT		BAQIR ALI		CHECKED		MRS.SHAHINE KHAN	
ARCHITECTURAL DRAWINGS		LIBRARY		PROJECT NO.		DRAWING NO.	
				PROJECT NO.		DRAWING NO.	
WOMEN UNIVERSITY OF SWABI							

FIRST FLOOR PLAN

COVERED AREA = 12149.6 SQ. FT.



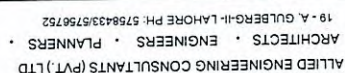
Project Director
WOMEN UNIVERSITY SWABI

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WOMEN UNIVERSITY OF SWABI		LIBRARY		PROJECT NO.		DRAWING NO.	
		FIRST FLOOR PLAN		A-02			
ARCHITECT		BAQIR ALI		CHECKED		MRS.SHAHINE KHAN	
DRAWM		ASIM		SCALE		DATE	
MARCH 2025		ALLIED ENGINEERING CONSULTANTS (PVT.) LTD					
ARCHITECTS • ENGINEERS • PLANNERS		19 - A, GULBERGH, LAHORE PH: 5756433/5756752					
							





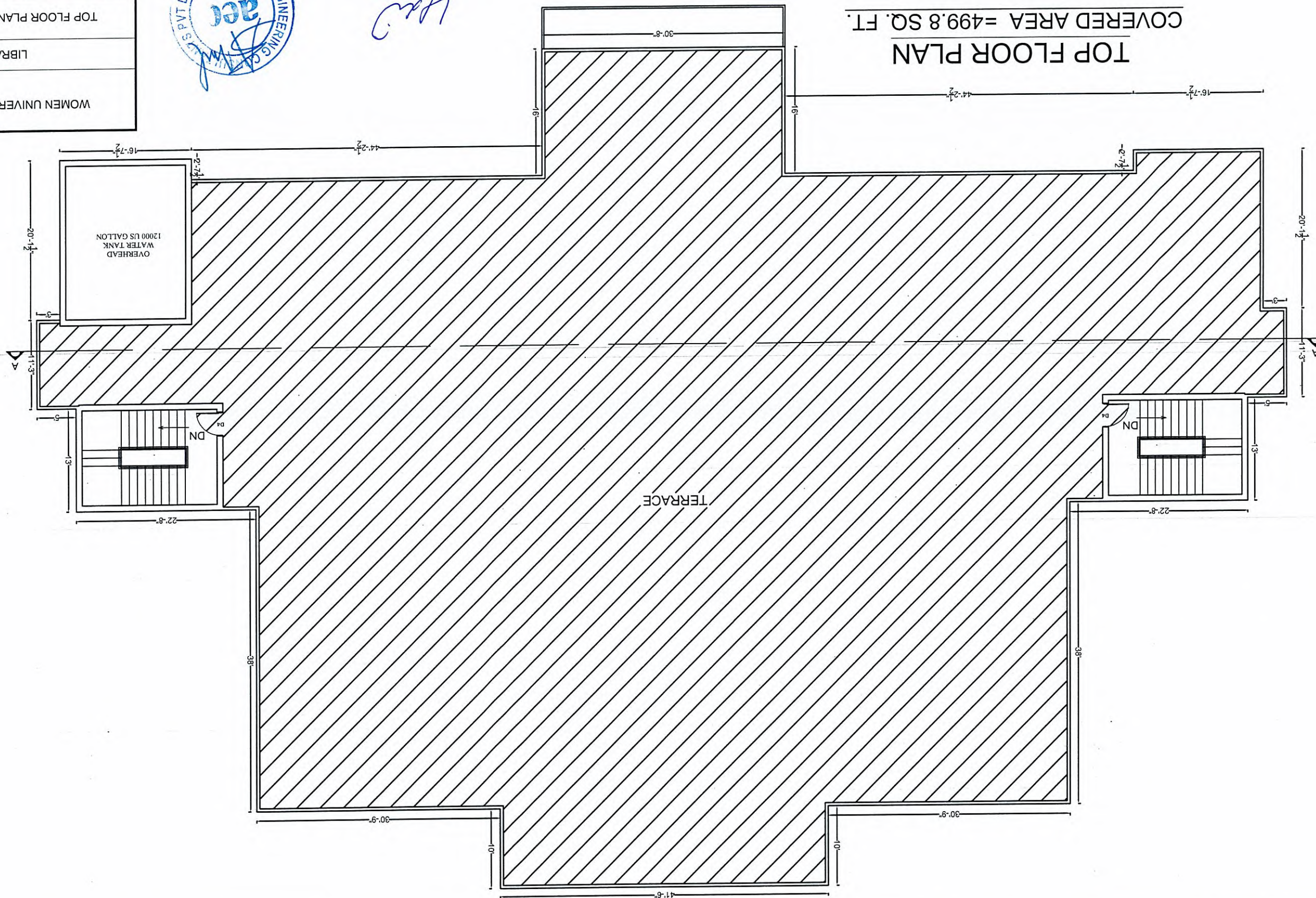
WOMEN UNIVERSITY OF SWABI		LIBRARY	
PROJECT NO.		TOP FLOOR PLAN	
DRAWING NO.		A-(3)	
CHECKED BY		ARCHITECT	
MRS. SHAHINE KHAN		BAQIR ALI	
SCALE		ASIM	
DATE		DRAWN	



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WOMEN UNIVERSITY SWABI

[Handwritten signature]

TOP FLOOR PLAN

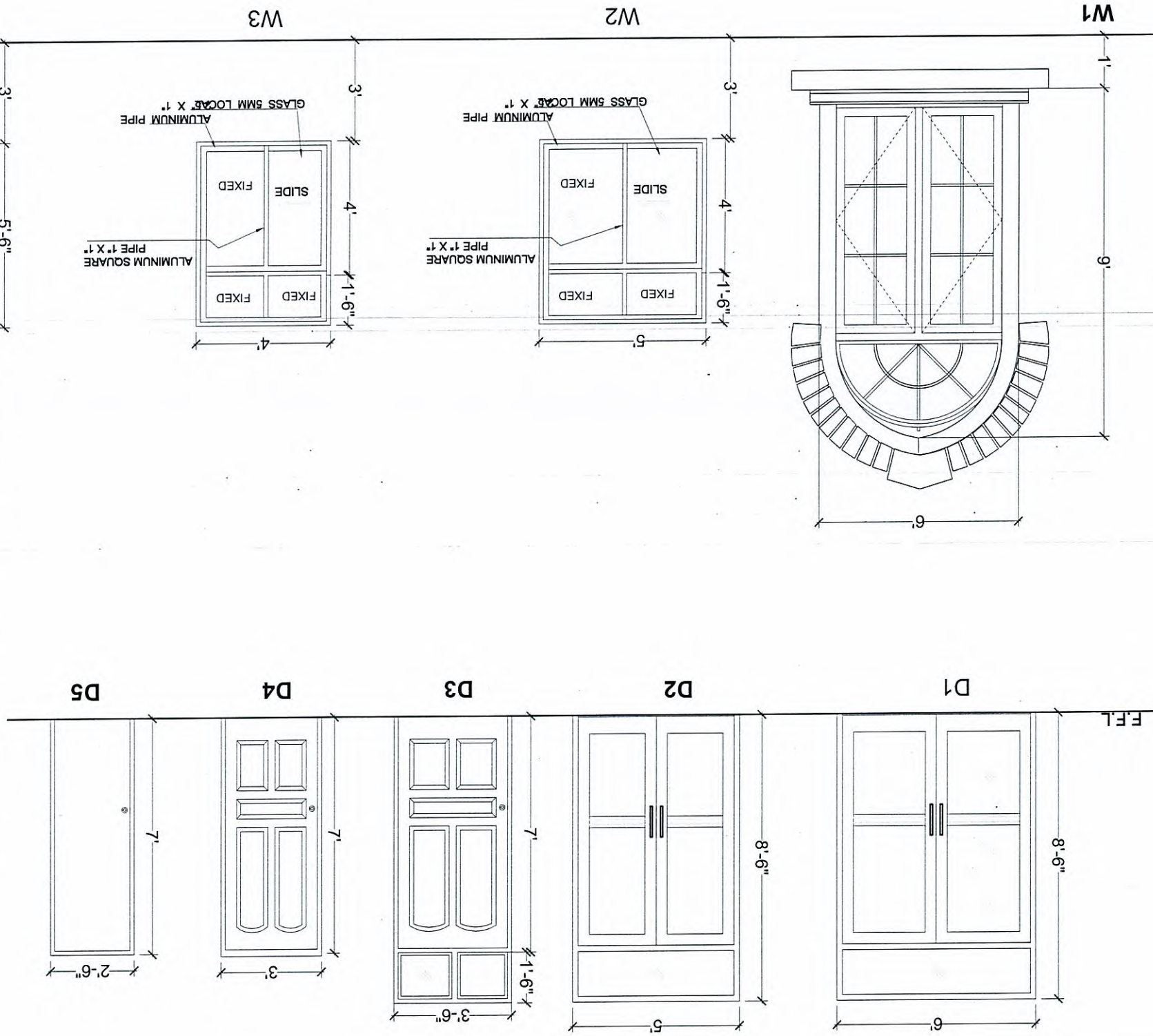


WOMEN UNIVERSITY OF SWABI		PROJECT NO.	
LIBRARY		DRAWING NO.	
ARCHITECT		CHECKED	
BAQIR ALI		MRS. SHAHINE KHAN	
DATE		SCALE	
MARCH 2025		ASIM	
DRAWN			
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SCHEDULE OF DOORS AND WINDOWS			
NO.	SIZE	SILL	DESCRIPTION
D1	6'-0"X8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D2	5'-0"X8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D3	3'-6"X8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D4	3'-0"X7'-0"	0'-0"	UPVC DOOR AS PER SPEC
D5	2'-6"X7'-0"	0'-0"	UPVC DOOR AS PER SPEC
W1	6'-0"X9'-0"	1'-0"	ALUMINUM WINDOWS AS PER SPEC
W2	5'-0"X5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
W3	4'-0"X5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
W4	2'-0"X5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
V1	2'-0"X2'-0"	6'-6"	ALUMINUM VENT AS PER SPEC



PROJECT NO.

LIBRARY

DRAWING NO.

A-5

ARCHITECT

BAQIR ALI

CHECKED

MRS. SHAHINE KHAN

SCALE

ASIM

DATE

MARCH 2025

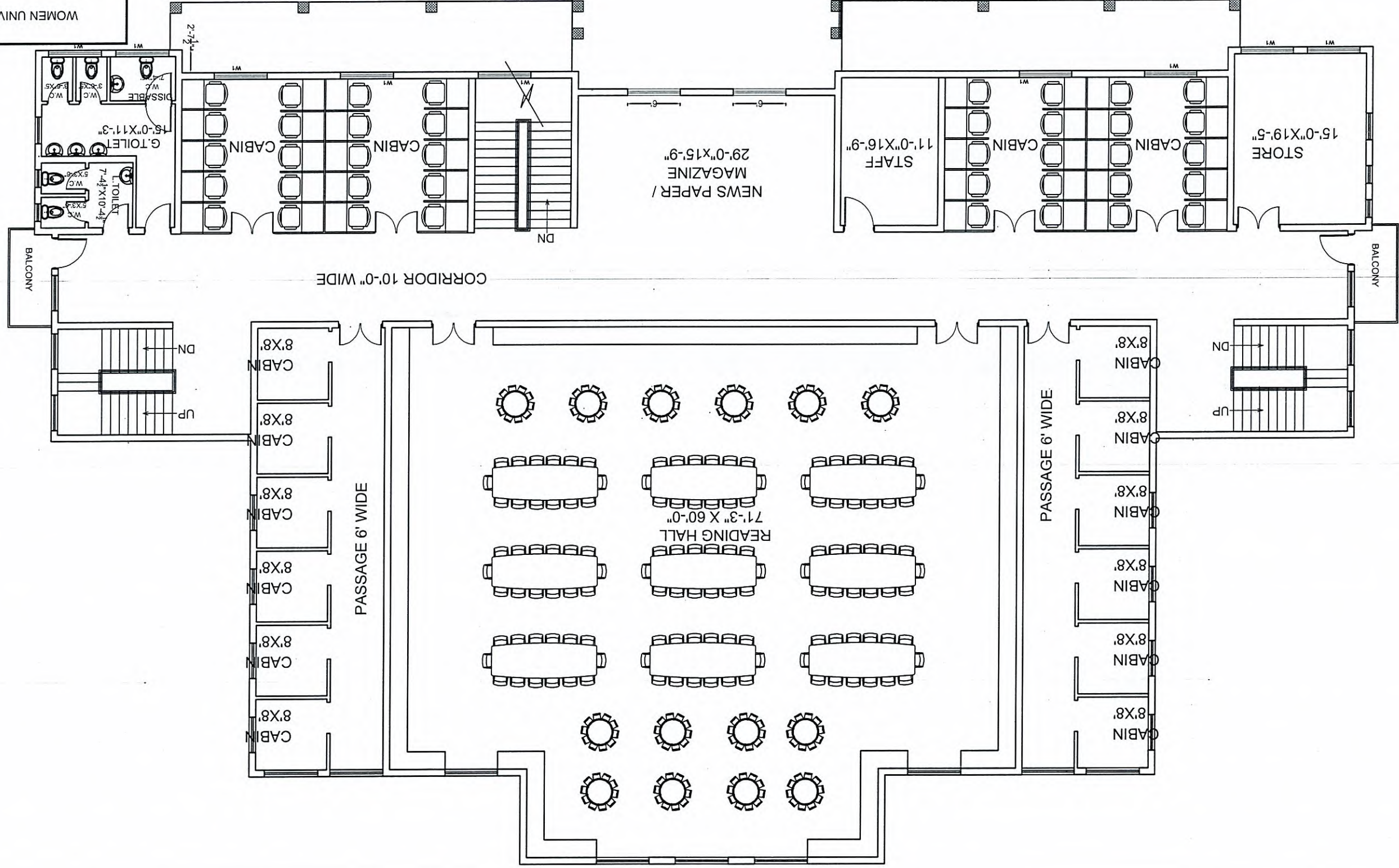
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FIRST FLOOR FURNITURE PLAN



Project Director
WOMEN UNIVERSITY SWABI

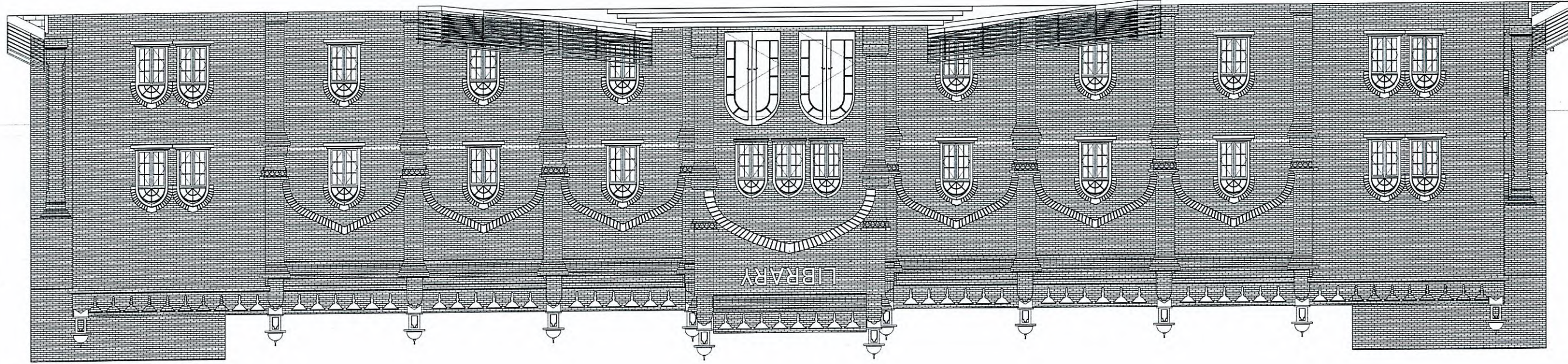


19-A GULBERGH-LAHORE PH: 5758433/5758792	
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ALLIED ENGINEERING CONSULTANTS (PVT.) LTD	
PROJECT NO.	LIBRARY
DRAWING NO.	FURNITURE PLAN
CHECKED	ARCHITECT
DATE	BAQIR ALI
SCALE	ASIM
MARCH 2025	

WOMEN UNIVERSITY OF SWABI	
LIBRARY	
FRONT ELEVATION	
PROJECT NO.	
DRAWING NO.	A-7
CHECKED	ARCHITECT
BAQIR ALI	
DATE	
MARCH 2025	
DRAWN	
ASIM	
SCALE	
DATE	
MARCH 2025	
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FRONT ELEVATION

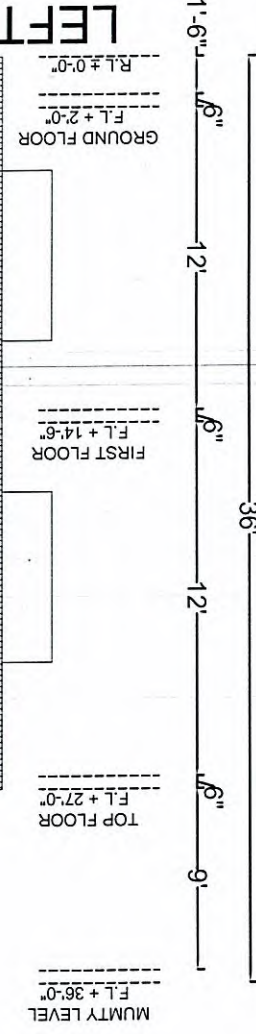
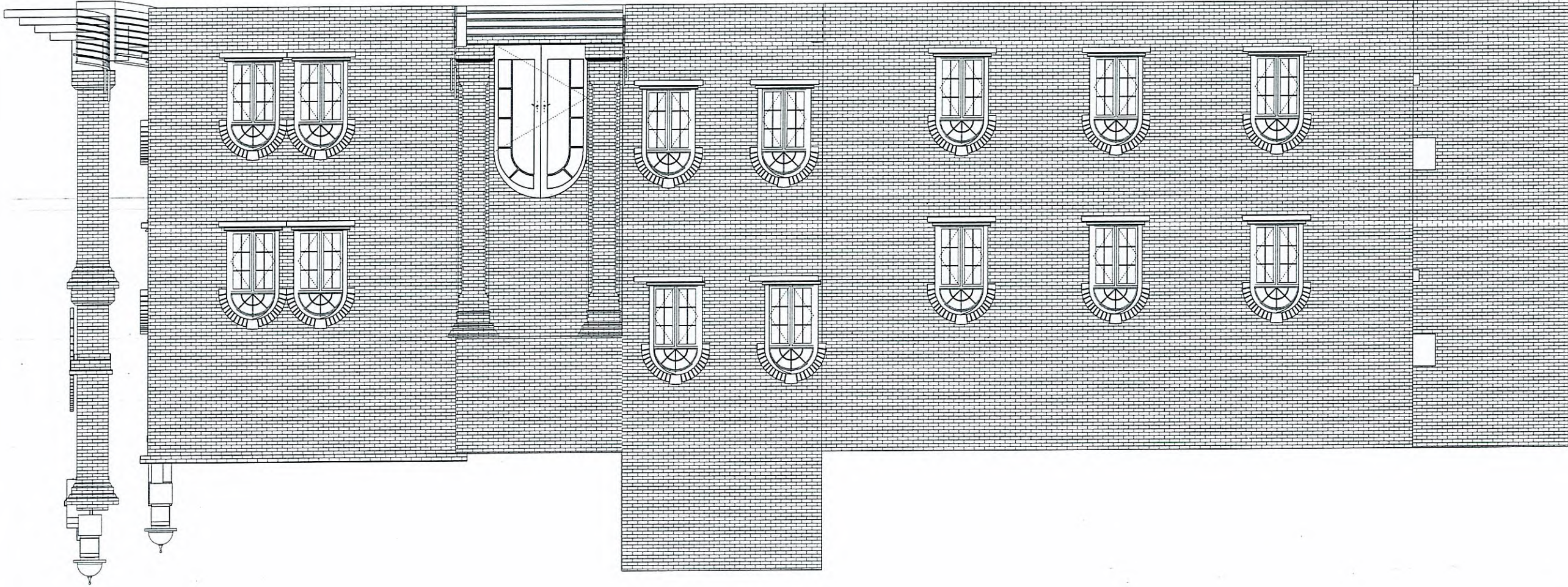
1'-6"	6'	12'	6'	12'	6'	5'	36'
GROUND FLOOR	FL + 0'-0"	FL + 2'-0"	FL + 14'-6"	TOP FLOOR	FL + 27'-0"	PAPER LEVEL	FL + 31'-0"
MULTY LEVEL	FL + 36'-0"						

WOMEN UNIVERSITY OF SWABI	
LIBRARY	
PROJECT NO.	
DRAWING NO.	
A-(8)	
ARCHITECT	CHECKED
BAQIR ALI	
MRS. SHAHINE KHAN	
DATE	SCALE
MARCH 2025	ASIM
DRAWN	
19-A, GULBERG-II, LAHORE PH: 5758433/5756752	
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ALLIED ENGINEERING CONSULTANTS (PVT.) LTD	



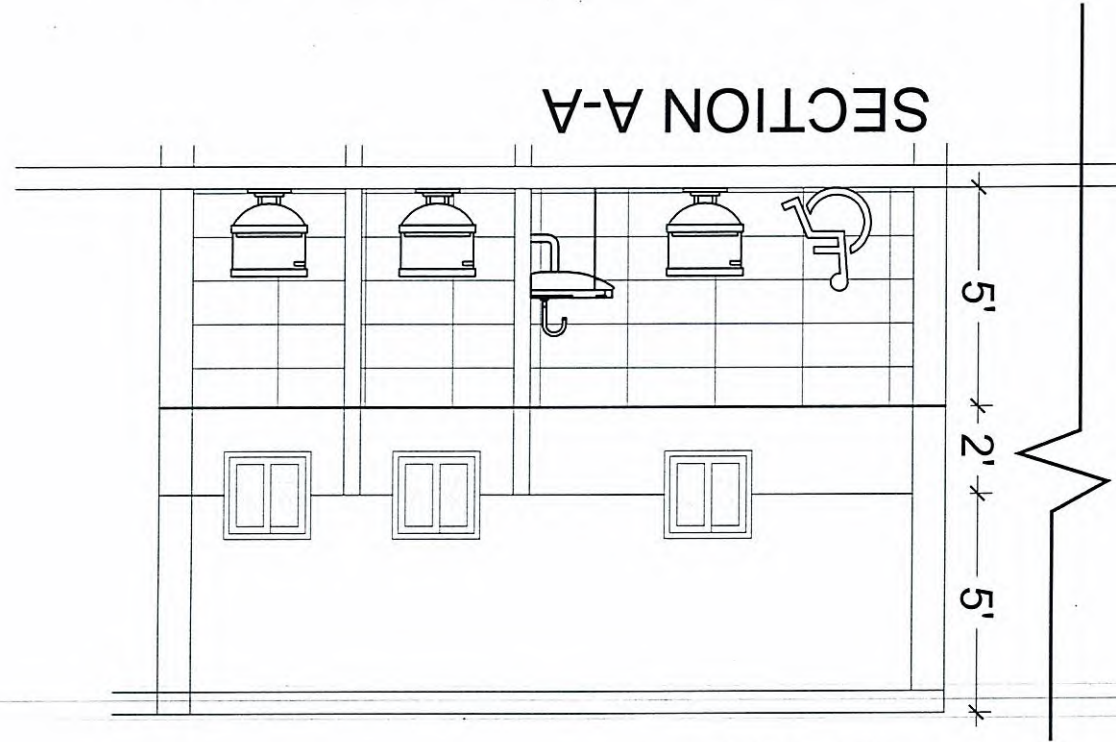
Project Director
WOMEN UNIVERSITY SWABI

LEFT ELEVATION

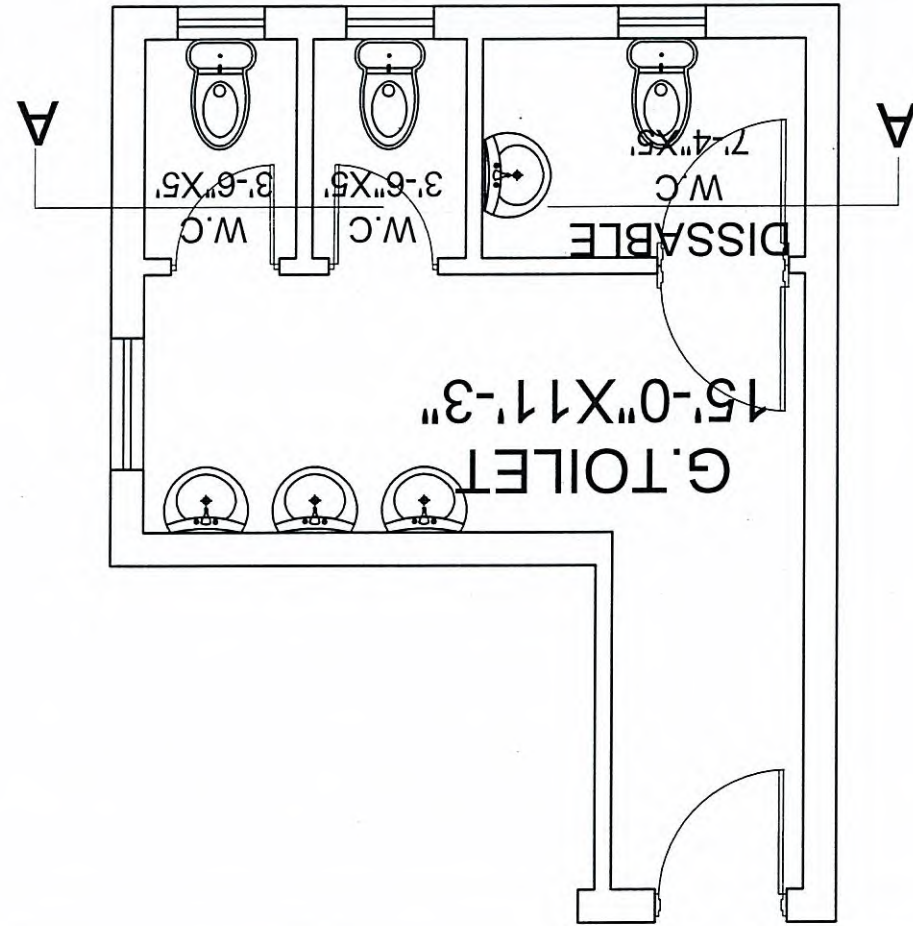


TYPICALLY LAVATORY BLOCK

SECTION A-A



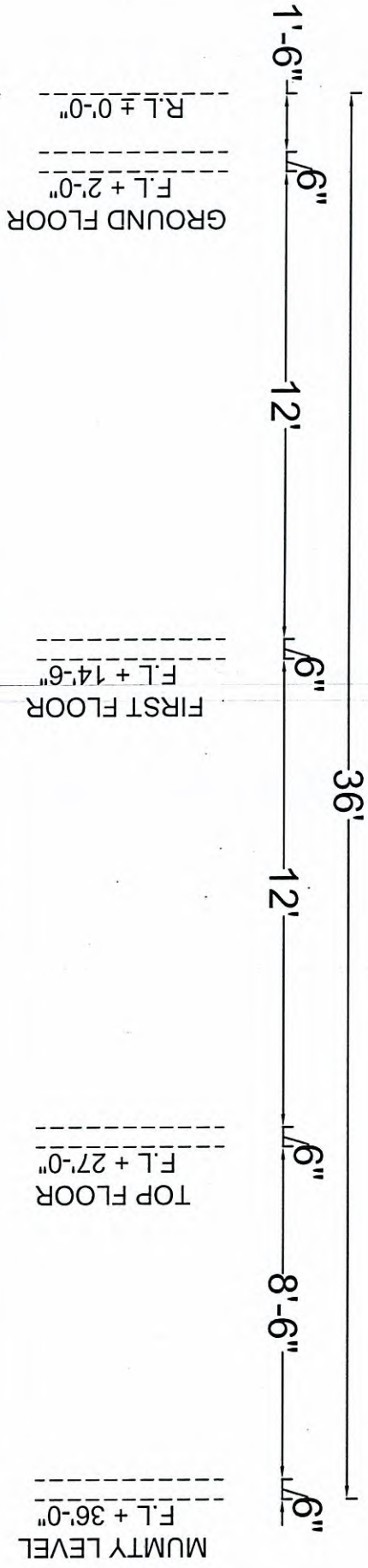
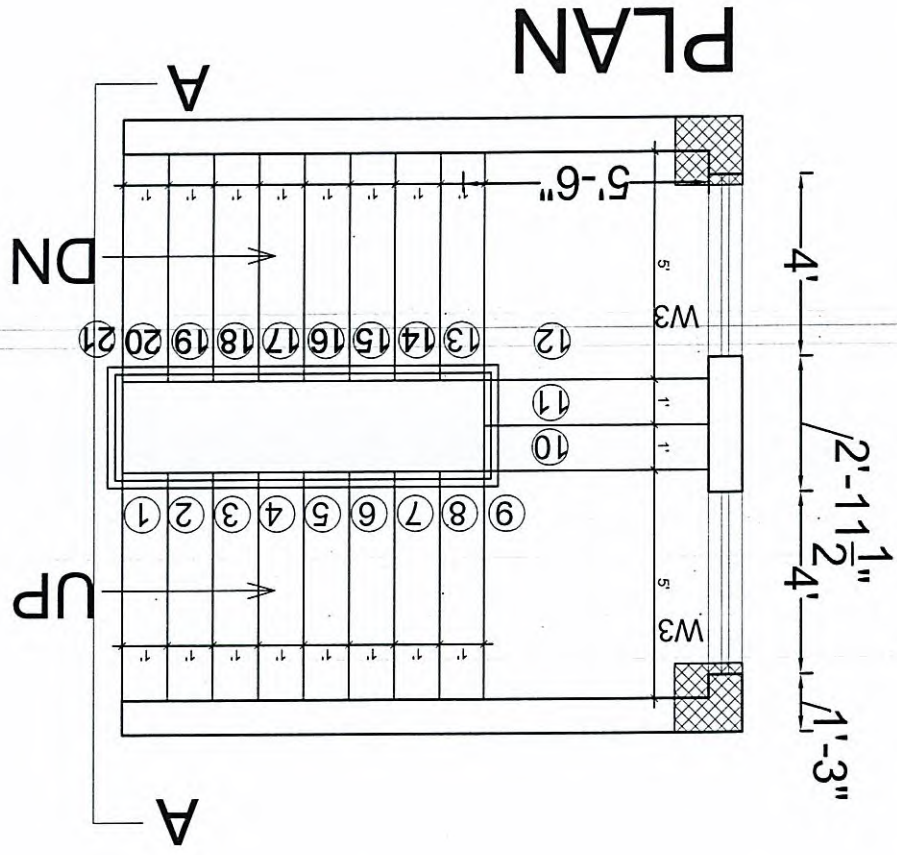
PLAN



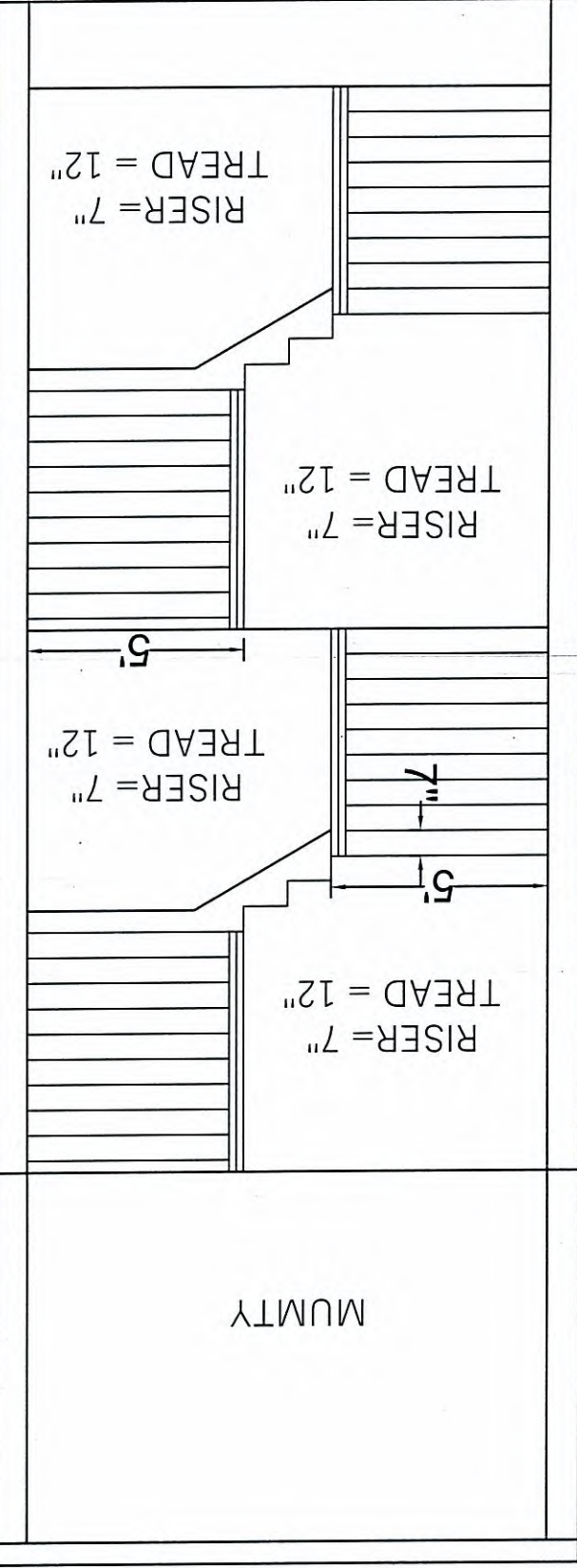
WOMEN UNIVERSITY OF SWABI		
LIBRARY		
PROJECT NO.	LAVATORY BLOCK	
DRAWING NO.	A-(10)	
ARCHITECT	BAQIR ALI	CHECKED
DATE	MARCH 2025	SCALE
DRAWN	ASIM	
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SECTION AT A.A



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WOMEN UNIVERSITY OF SWABI		LIBRARY		PROJECT NO.		DRAWING NO.		A-(11)	

LAVATORY BLOCK (5'-0" HEIGHT)
ATTACHED BATH (7'-0" HEIGHT)

SCHEDULE OF INTERNAL FINISHES

SCHEDULE OF INTERNAL FINISHES									
NO.	ROOMS NAME	FLOOR	SKIRTING	DADO	WALLS / COLUMNS	CEILING			
01	LOCKER	MOSAIC FLOORING MARBLE FLOORING PCC CERAMIC TILE PORCELAIN TILE	●		●				
02	LIBRARIAN			●	●	●			
03	DEPUTY LIBRARIAN			●	●	●			
04	STATIONARY / PRINTING		●		●	●			
05	STAFF		●		●	●			
06	HALL			●	●	●			
07	CORRIDOR			●	●	●			
08	STORE			●	●	●			
09	CABIN			●	●	●			
10	READING HALL			●	●	●			
11	NEWS PAPER / MAGAZINE		●						
12	BATH			●	●				
13	LAVATORY				●				



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PROJECT NAME:

PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"

e. CONSTRUCTION OF LIBRARY BLOCK

STRUCTURAL DRAWINGS



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GENERAL NOTES

1.4. ACCESSORIES

- a. CONCRETE BE TESTED AT IMPORTANT PLACES & STRENGTH BE TESTED AT 28 DAYS CEMENTS, SPACERS & AND OTHER FOUND. WALLS, BEAMS, SLAB
- b. DESIGN OF STRUCTURE IS BASED ON PAKISTAN BUILDING CODE
8. FORM WORK & REMOVAL
- a. FORMWORK TO CONCRETE SHALL BE OF METAL SHEETS OR PLY WOOD.
- b. THE FORMWORK BE DONE AS PER STRUCTURAL FORMS
- c. BUILDING LAYOUT BE DONE WRT TO STRUCTURAL DRAWINGS
- d. ANY DIFFERENCE BE DISCUSSED WITH STR. DESIGNER.
3. EXCAVATION AND TERMITE TREATMENT
- a. FOUNDATIONS TO BE PLACED ON COMPACTED SOIL
- b. IN CASE OF FILL / OVERBURDEN REMOVE IT.
- c. IN CASE OF RAISED PLINTH, FILL WITH SAND / GRAVEL & b. EXPANSION JOINT IN THE BUILDING BE PROVIDED AS SHOWN BY THE RESIDENT ENGINEER.
- a. EXPANSION JOINTS BE FINALIZED AND GOT APPROVED
10. STEEL BINDING
- a. STEEL BARS BE PLACED IN THE FORM AS PER DRAWINGS.
- b. ALL JUNCTION OF THE BARS / CROSS BE TIED WITH BINDING WIRE.
- c. FRESH WATER: IN ACCORDANCE OF UBC 97 SECTION 1903.4
- d. FRESH PORTLAND CEMENT TO BE USED FOR ALL WORKS.
- e. SAND : LAWRAKAPUR / GHAZI.
4. W:C:S: AGGREGATES AND SIZES
- a. TOILET WASHING & DRAIN PIPES BE PLACED IN SLAB AT PROPER DESIGNED POSITION BEFORE CONCRETE.
- b. WHERE PLUMBING AND OTHER PIPES ARE PLACES IN SLAB b/2 TO COVER THE REDUCED STRENGTH.
12. BRICK, CONC BLOCK MASONRY
- a. FIRST CLASS BRICKS BE USED FOR MASONRY WORK.
- b. BRICKS BE SOAKED IN WATER A DAY BEFORE USE.
- c. CONCRETE BLOCKS BE MOISTED JUST BEFORE USE.
- d. JOINTS BE 3/8" FILLED WITH CEMENT SAND MORTAR.
- e. ALL MORTAR BE MACHINE MIXED.
- f. MORTAR FOR WALLS 8", 9" SHALL BE 1:5
- FOR 4" & 4.5" SHALL BE 1:4
- g. ALL INTERNAL PARTITIONS 4.5" BRICKS / 6" HOLLOW BLOCKS / WOODEN PARTITION OUTER 8" HOLLOW / 9" BRICKS OR 12" CAVITY WALLS.
- h. ALL ABOVE ITEM TO BE EXECUTED, TESTED AND MAINTAINED IN ACCORDANCE OF UBC 1997 CODE STANDARD CHAPTER 21.
- a. FIRST & LAST BAR IN WALLS & SLAB BE PLACED AT 1/2 OF THE SPACING OF BARS. OR JUST GIVE COVER AND PLACE THE BAR b. FIRST AND THE LAST HOOK/TIE IN BEAMS & COLUMNS BE BE PLACED AT 2" FROM THE SUPPORT.
- d. TRY 5 TO 6 GALLONS OF WATER / BAG OF CEMENT
- e. MIXING TIME OF CONCRETE PER BATCH 1.5 MINUTES AFTER ADDING WATER.

1. BUILDING DESCRIPTION & DESIGN

- a. BUILDING IS DESIGNED FOR TWO STOREY.
- b. DESIGN OF STRUCTURE IS BASED ON PAKISTAN BUILDING CODE
8. FORM WORK & REMOVAL
- a. FORMWORK TO CONCRETE SHALL BE OF METAL SHEETS OR PLY WOOD.
- b. THE FORMWORK BE DONE AS PER STRUCTURAL FORMS
- c. BUILDING LAYOUT BE DONE WRT TO STRUCTURAL DRAWINGS
- d. ANY DIFFERENCE BE DISCUSSED WITH STR. DESIGNER.
3. EXCAVATION AND TERMITE TREATMENT
- a. FOUNDATIONS TO BE PLACED ON COMPACTED SOIL
- b. IN CASE OF FILL / OVERBURDEN REMOVE IT.
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- e. SAND : LAWRAKAPUR / GHAZI.
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- FOR 4" & 4.5" SHALL BE 1:4
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- h. ALL ABOVE ITEM TO BE EXECUTED, TESTED AND MAINTAINED IN ACCORDANCE OF UBC 1997 CODE STANDARD CHAPTER 21.
- a. FIRST & LAST BAR IN WALLS & SLAB BE PLACED AT 1/2 OF THE SPACING OF BARS. OR JUST GIVE COVER AND PLACE THE BAR b. FIRST AND THE LAST HOOK/TIE IN BEAMS & COLUMNS BE BE PLACED AT 2" FROM THE SUPPORT.
- d. TRY 5 TO 6 GALLONS OF WATER / BAG OF CEMENT
- e. MIXING TIME OF CONCRETE PER BATCH 1.5 MINUTES AFTER ADDING WATER.

2. BUILDING LAYOUT

c. BEARING CAPACITY TAKEN FOR THIS SITE IS 0.60 TSF.

MINIMUM CLEAR COVER

S.No	LOCATION	MINIMUM COVER
1.	FOOTING	2" above PCC and 3" on other sides
2.	COLUMN	1 1/2"
3.	SLAB	3/4"
4.	BEAM/PLINTH BEAM	1 1/2"
5.	CONFINING ELEMENT/INTL BEAM	1"

STANDARD HOOKS (ACI 7.1)

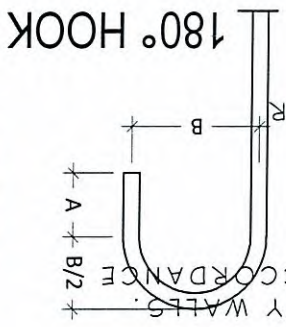
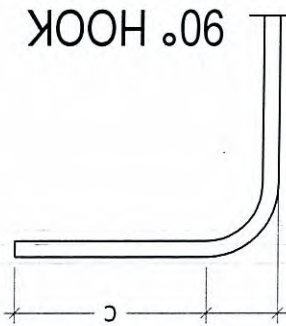
BAR DIA	A (in.)	B (in.)	C (in.)
3/8"	2.5	2.5	4.5
1/2"	2.5	3.0	6.0
5/8"	2.5	4.0	7.5
3/4"	3.0	4.5	9
1"	4.0	6.0	12

STRUCTURAL ELEMENTS	MAXIMUM AGGREGATE SIZE	FOUNDATIONS	1.25" DOWN GRADED	COLUMNS & BEAMS	3/4" DOWN GRADED	SLABS	3/4" DOWN GRADED
---------------------	------------------------	-------------	-------------------	-----------------	------------------	-------	------------------

3/4" DOWN GRADED MEANS 1/2" AND 3/8" MIX

5 REINFORCING STEEL

- a. DESIGN OF STRUCTURE IS BASED ON STEEL DEFORMED MAIN STEEL FOR ASTM A 615
- b. FOUNDATION, COLUMNS, BEAMS
- SLABS
- GRADE - 60
- b. SAMPLES OF STEEL BE GOT TESTED BEFORE USE.
- 6 CONC. MIXING & PLACING
- a. CONCRETE BE WELL MIXED, VIBRATED, COMPACTED, CURED, TESTED AND RECORD TO BE MAINTAINED AS PER ACI 318 AND UBC 1997 CHAPTER 19
- b. MIXED CONCRETE BE PLACED IN POSITION WITHIN 15 MINUTES
- c. MIN WATER IN CONC. GIVES MORE STRENGTH.
- d. TRY 5 TO 6 GALLONS OF WATER / BAG OF CEMENT
- e. MIXING TIME OF CONCRETE PER BATCH 1.5 MINUTES AFTER ADDING WATER.



- a. FIRST & LAST BAR IN WALLS & SLAB BE PLACED AT 1/2 OF THE SPACING OF BARS. OR JUST GIVE COVER AND PLACE THE BAR b. FIRST AND THE LAST HOOK/TIE IN BEAMS & COLUMNS BE BE PLACED AT 2" FROM THE SUPPORT.
- d. TRY 5 TO 6 GALLONS OF WATER / BAG OF CEMENT
- e. MIXING TIME OF CONCRETE PER BATCH 1.5 MINUTES AFTER ADDING WATER.

3. REINFORCING STEEL BAR SPACING

- a. FIRST & LAST BAR IN WALLS & SLAB BE PLACED AT 1/2 OF THE SPACING OF BARS. OR JUST GIVE COVER AND PLACE THE BAR b. FIRST AND THE LAST HOOK/TIE IN BEAMS & COLUMNS BE BE PLACED AT 2" FROM THE SUPPORT.
- d. TRY 5 TO 6 GALLONS OF WATER / BAG OF CEMENT
- e. MIXING TIME OF CONCRETE PER BATCH 1.5 MINUTES AFTER ADDING WATER.

PROPOSED STRUCTURAL DESIGN OF "WOMEN UNIVERSITY OF SWABI"

e. CONSTRUCTION OF LIBRARY BLOCK

PROJECT NAME:

DRAWING TYPE: STRUCTURAL

CHECKED BY: ENGR. ZAIN UL ABIDEEN

PROJECT NO: GSK-ED-241-e

ISSUE DATE: MARCH, 2025

REVISION

1. 2. 3. 4.



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WOMEN UNIVERSITY SWABI

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DESIGNED BY: ENGR. SHAHAB ALI		DRAWN BY: AS SHOWN	SCALE: AS SHOWN
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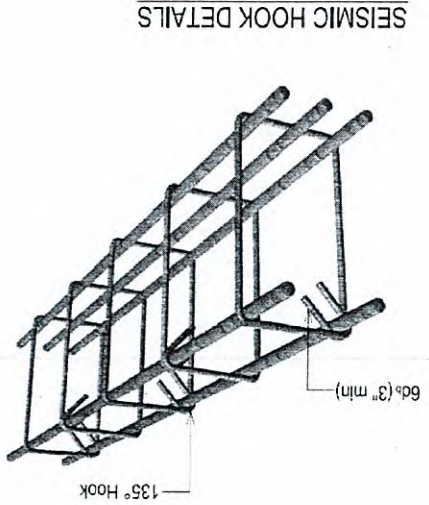
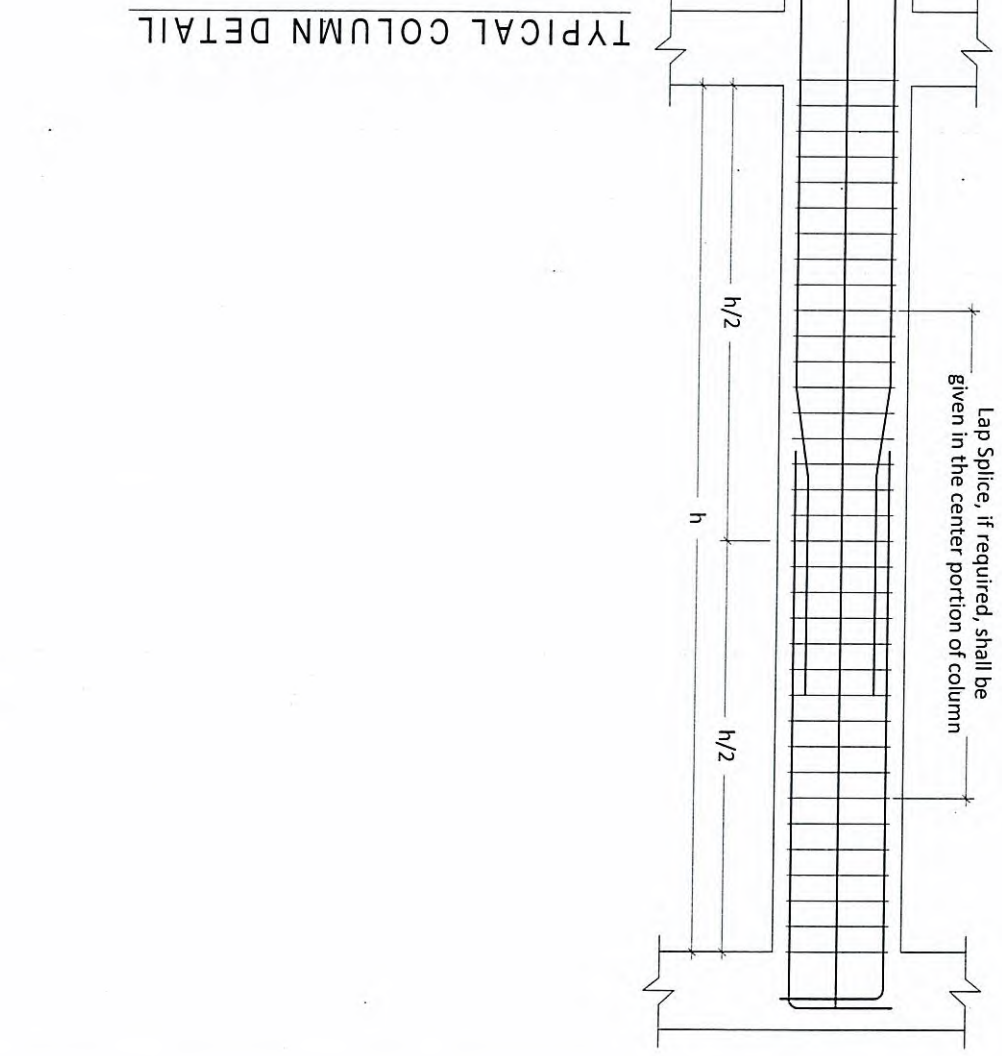
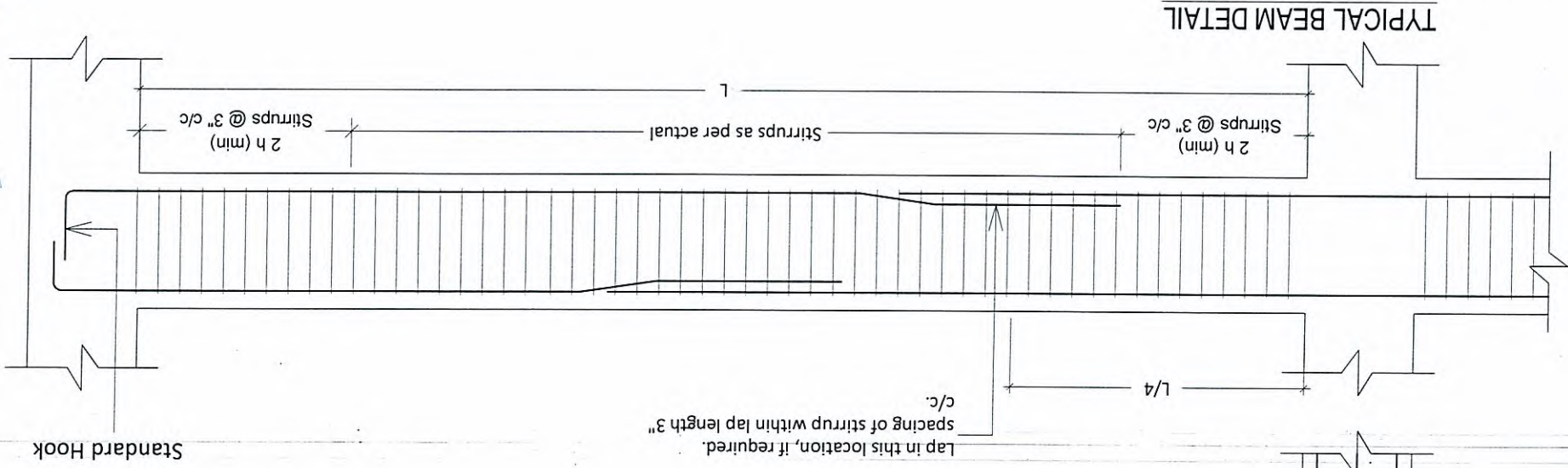
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BAR DIA	MINIMUM SPLICE LAP LENGTH (INCHES)	SLAB		BEAM / COLUMN	
		fc = 3,000 psi fy = 60,000 psi			
1"		-		70	
3/4"		-		55	
5/8"		-		44	
1/2"		25		35	

BAR DIA		SPICE LENGTH				(ACI 21.3.2.4, Class B Splice)	
MINIMUM SPLICE LAP LENGTH (INCHES) $f_c' = 3,000 \text{ psi}$ $f_y = 40,000 \text{ psi}$		TENSION		COMPRESSION			
		3/8"		15		-	
		1/2"		20		9	
		3/4"		30		15	
		1"		48		18	

DEVELOPMENT LENGTH IN TENSION		(ACI 21.5.4.1)	
BAR DIA	STRAIGHT BARS WITH STANDARD HOOK	DEVELOPMENT LENGTH (INCHES)	
		$f_c' = 3,000 \text{ psi}$ $f_y = 60,000 \text{ psi}$	
1/2"	22	11"	14"
5/8"	30	14"	17"
3/4"	34	17"	22"
1"	55		

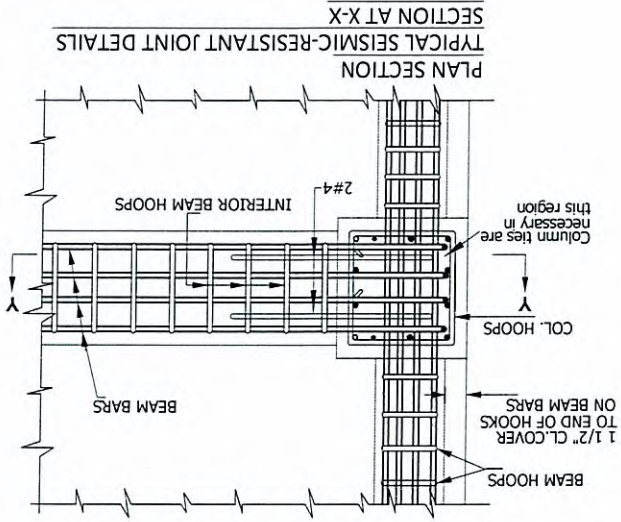
DEVELOPMENT LENGTH IN TENSION		(ACI 21.5.4.1)	
BAR DIA	STRAIGHT BARS	WITH STANDARD HOOK	
		DEVELOPMENT LENGTH (INCHES)	$f_c' = 4,000 \text{ psi}$ $f_y = 60,000 \text{ psi}$
3/8"	18	7.5	
1/2"	24	9.5	
3/4"	30	14.5	
1"	48	19	



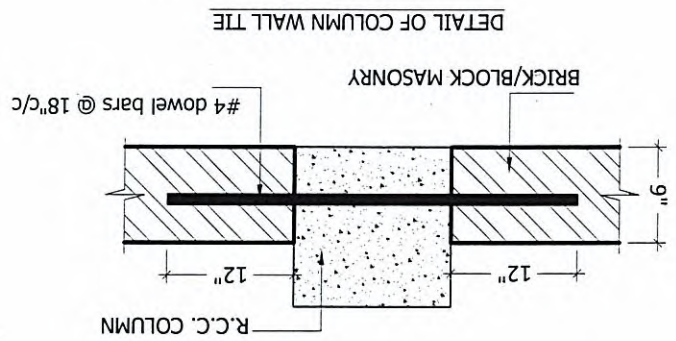
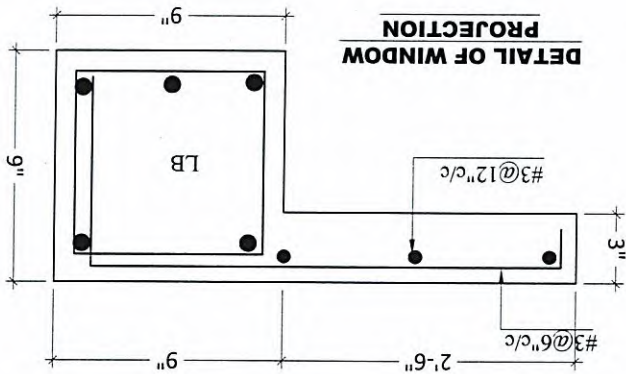
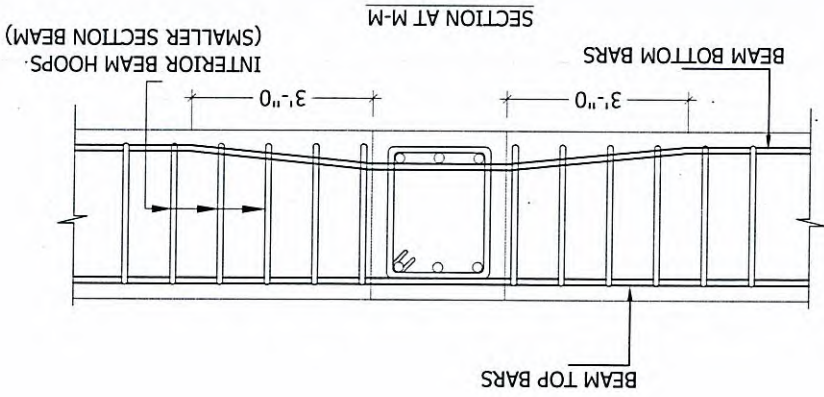
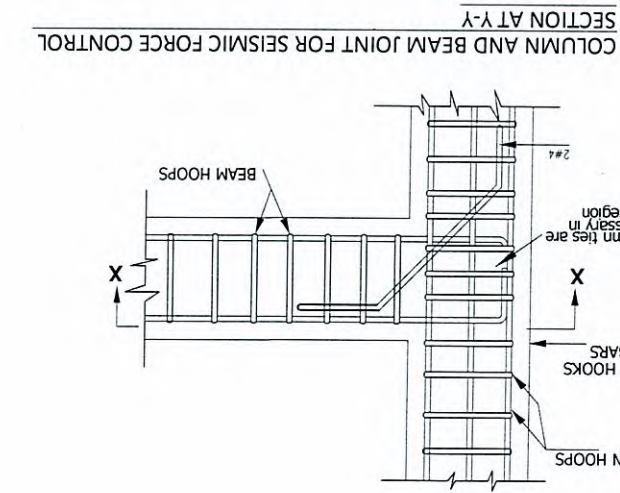
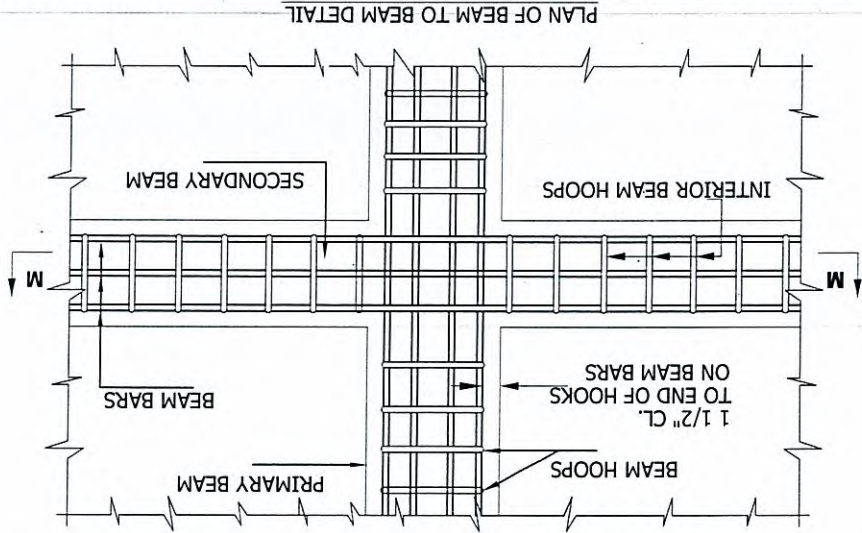
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e. CONSTRUCTION OF LIBRARY BLOCK

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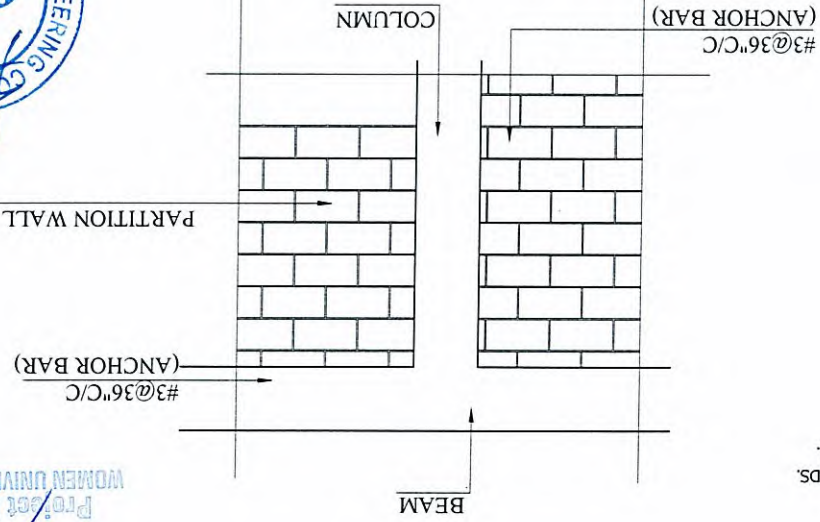
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STRUCTURAL		ENGR. ZAIN UL ABIDEEN		GSK-ED-241-e		MARCH, 2025		1.	
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ENGR. SHAHAB ALI		TAUQEER ZEB		AS SHOWN		STR-!!!		3.	
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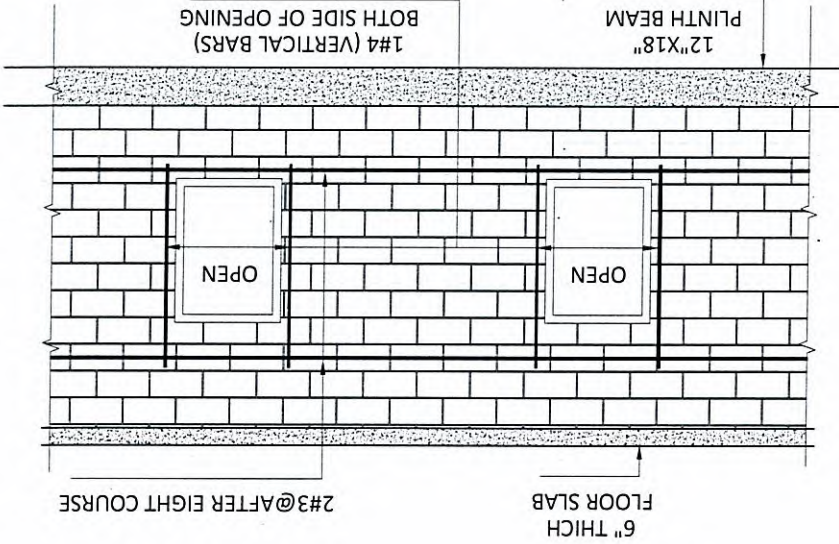
- NOTE:-
1. SHRINKAGE STRIPS MUST BE PROVIDED AT A SPACING OF NOT MORE THAN 100H.
 2. PREFERABLY SHRINKAGE STRIP BE PROVIDED AT CONSTRUCTION JOINT.
 3. LOCATION OF SHRINKAGE STRIP BE KEPT AT A DISTANCE OF SPAN/3 FROM THE COLUMN SUPPORT.
 4. 3H WIDE PORTION OF SHRINKAGE STRIP BE KEPT OPEN FOR AT LEAST 3 WEEKS. THE OPENED PORTION SHOULD BE POURED AFTERWARDS.
 5. REINFORCEMENT BE LAPPED IN SHRINKAGE STRIPS. ALTERNATIVELY BARS MAY BE SLIGHTLY BENT IN PLAN PARALLEL TO FACE OF SLAB.



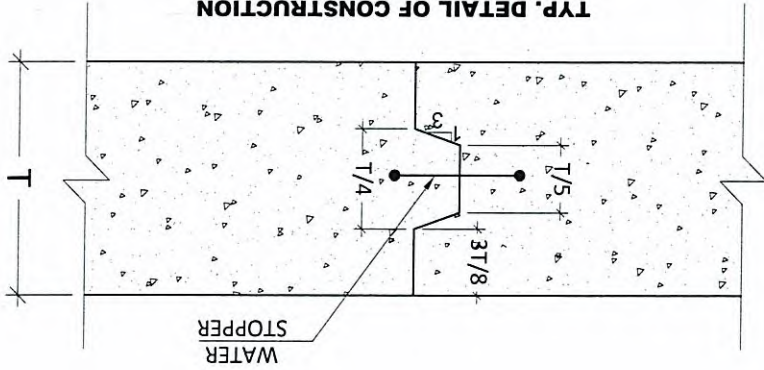
TYP. DETAIL OF CONNECTION OF
PARTITION WALL WITH BEAM
& COLUMN FOR SEISMIC LOADING



SECTIONAL ELEVATION OF WALL



TYP. DETAIL OF CONSTRUCTION
JOINT IN RAFT & SLABS



GENERAL DETAILS



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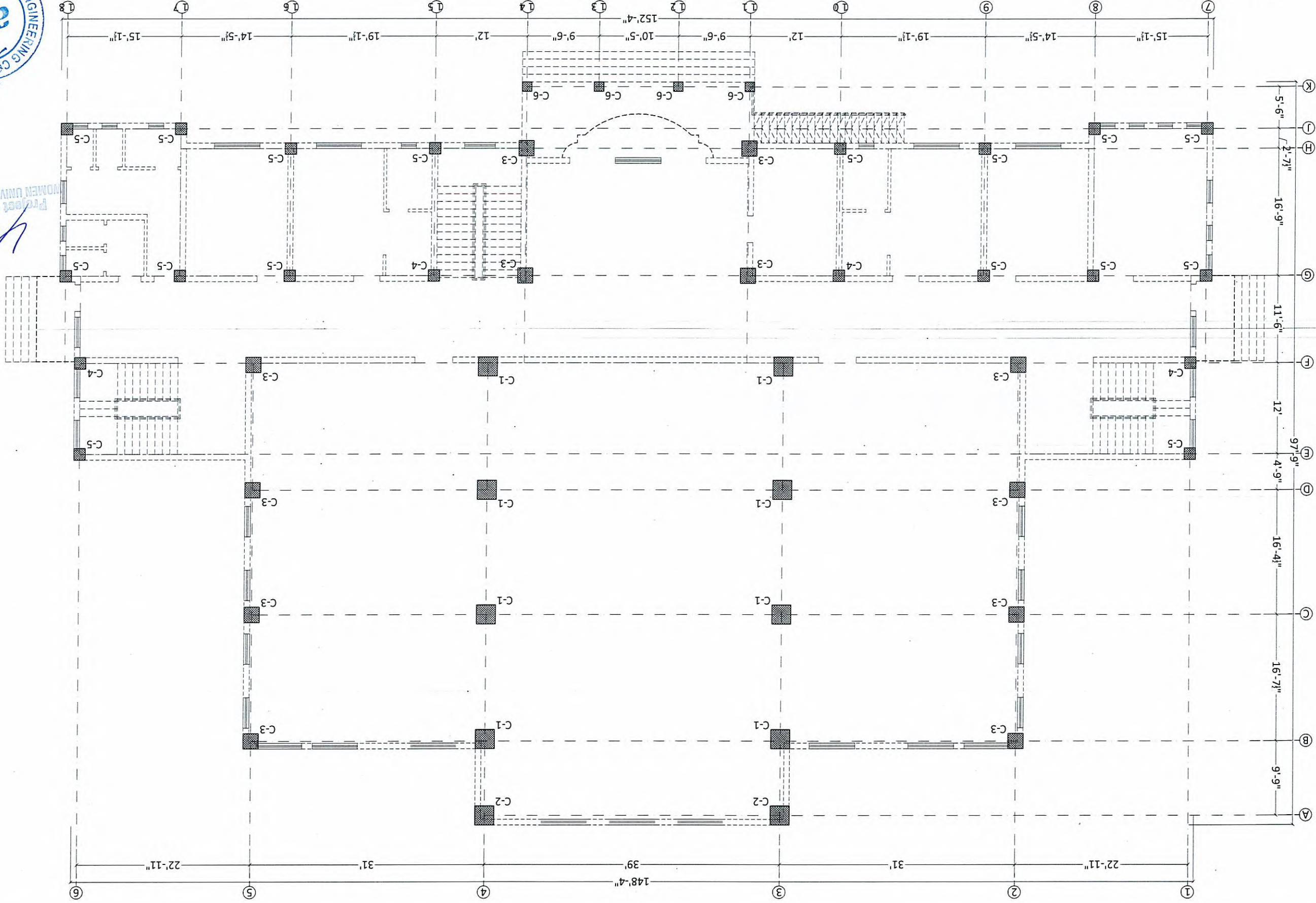
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PROPOSED STRUCTURAL DESIGN OF

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GROUND FLOOR
COLUMNS KEY PLAN



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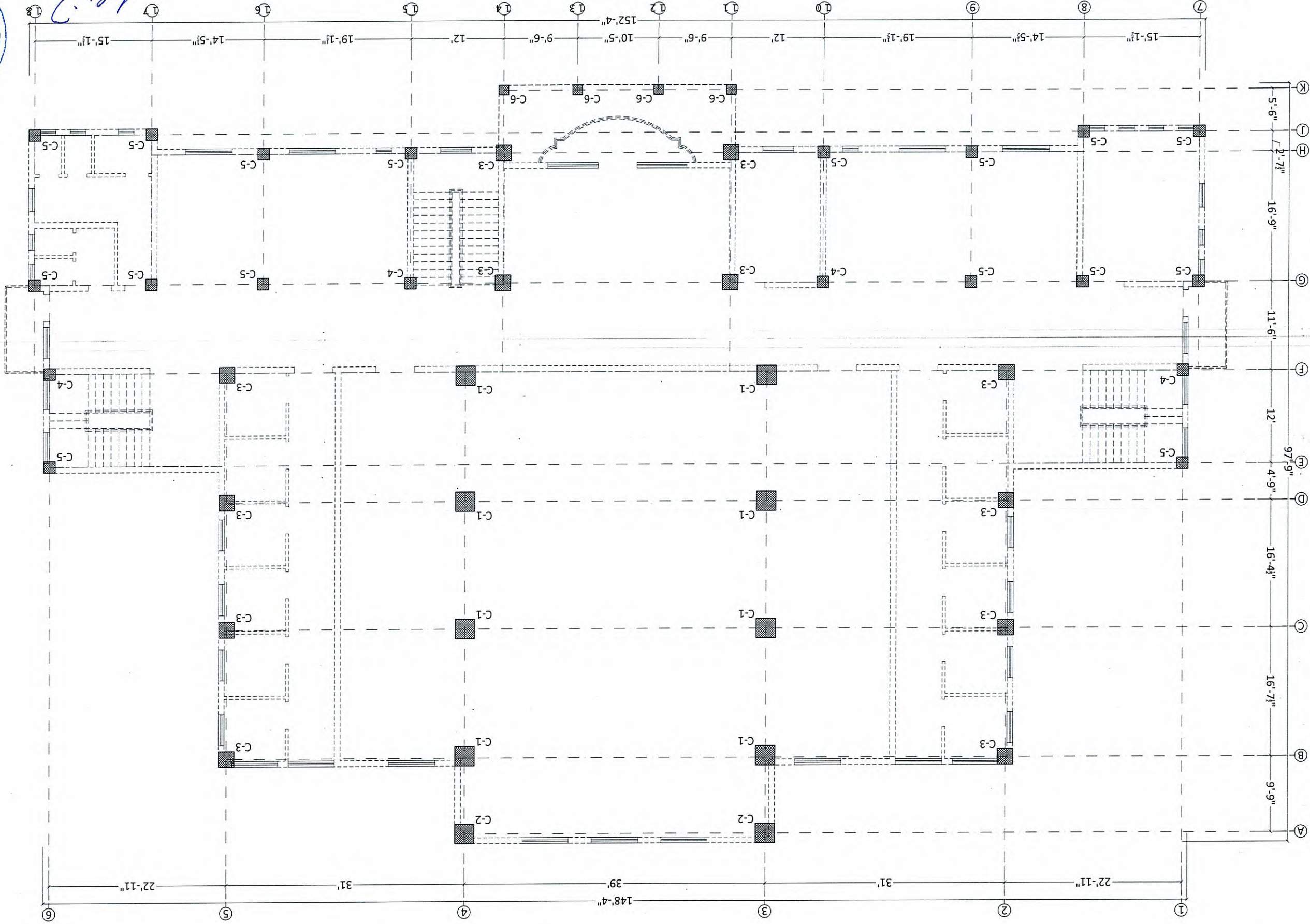
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FIRST FLOOR
COLUMNS KEY PLAN



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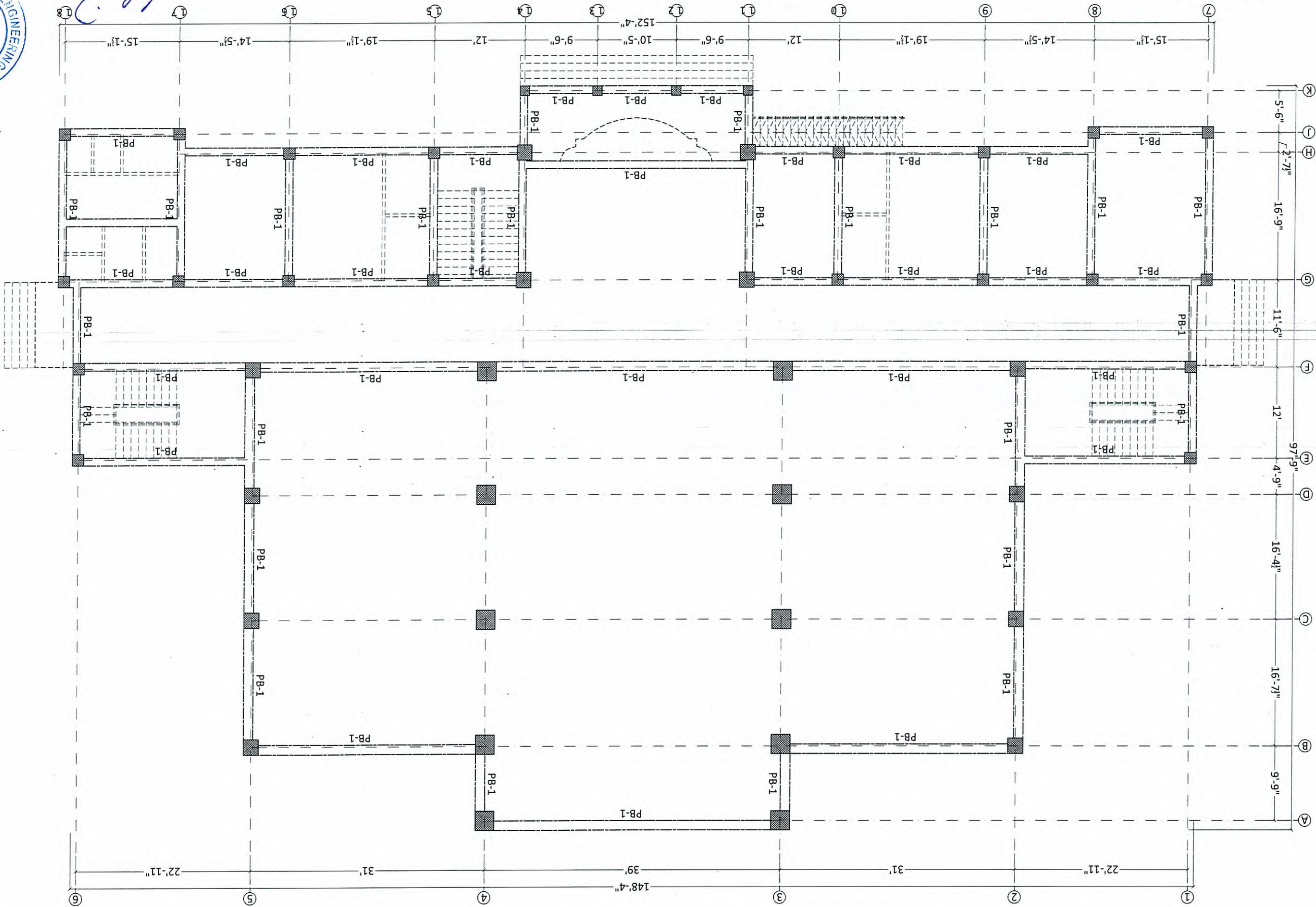
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PLINTH BEAMS KEY PLAN
GROUND FLOOR



PROPOSED STRUCTURAL DESIGN OF
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e. CONSTRUCTION OF LIBRARY BLOCK

92E

[illegible]

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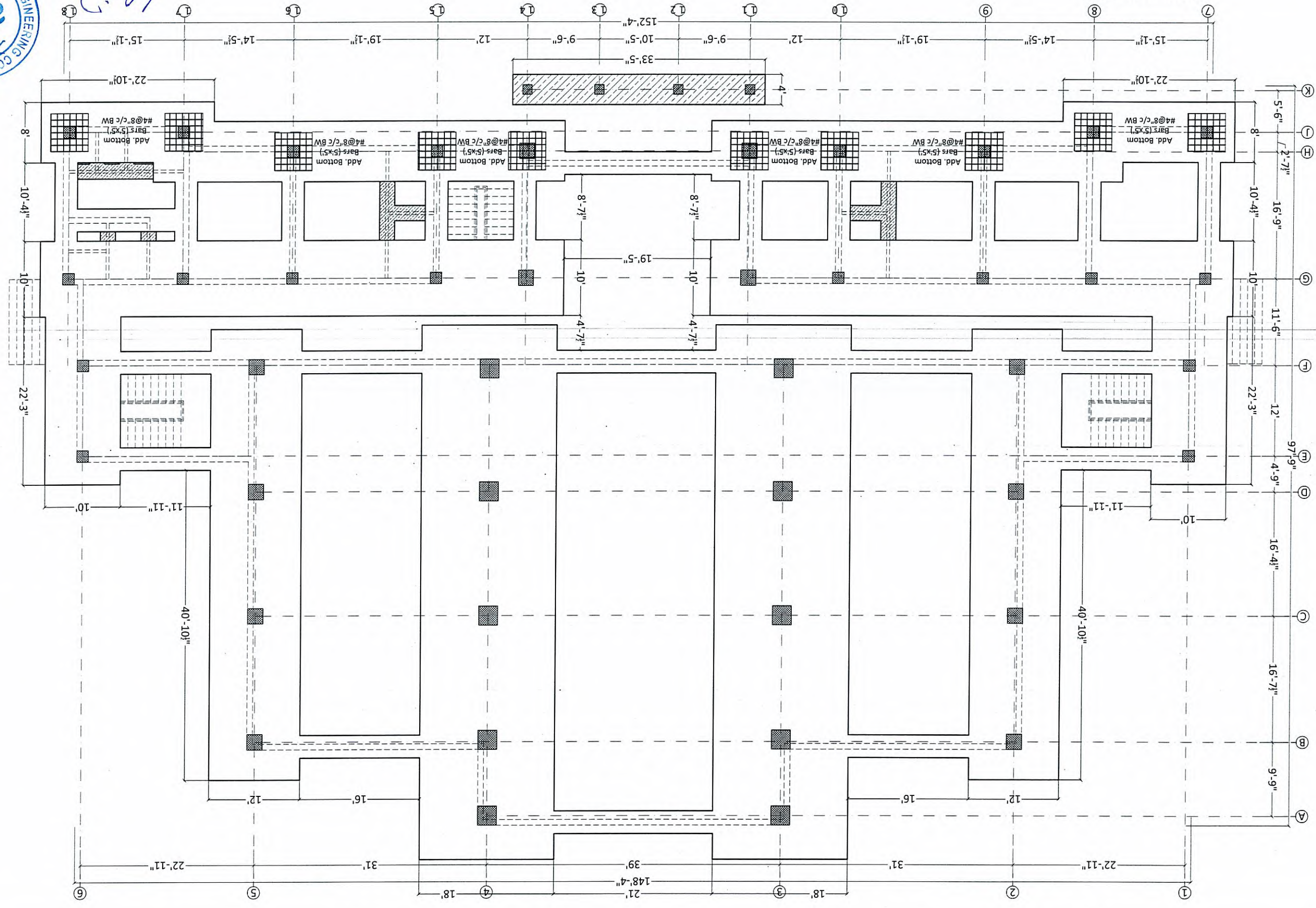
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GROUND FLOOR PLAN
FOUNDATION ADDITIONAL BOTTOM BARS DETAIL



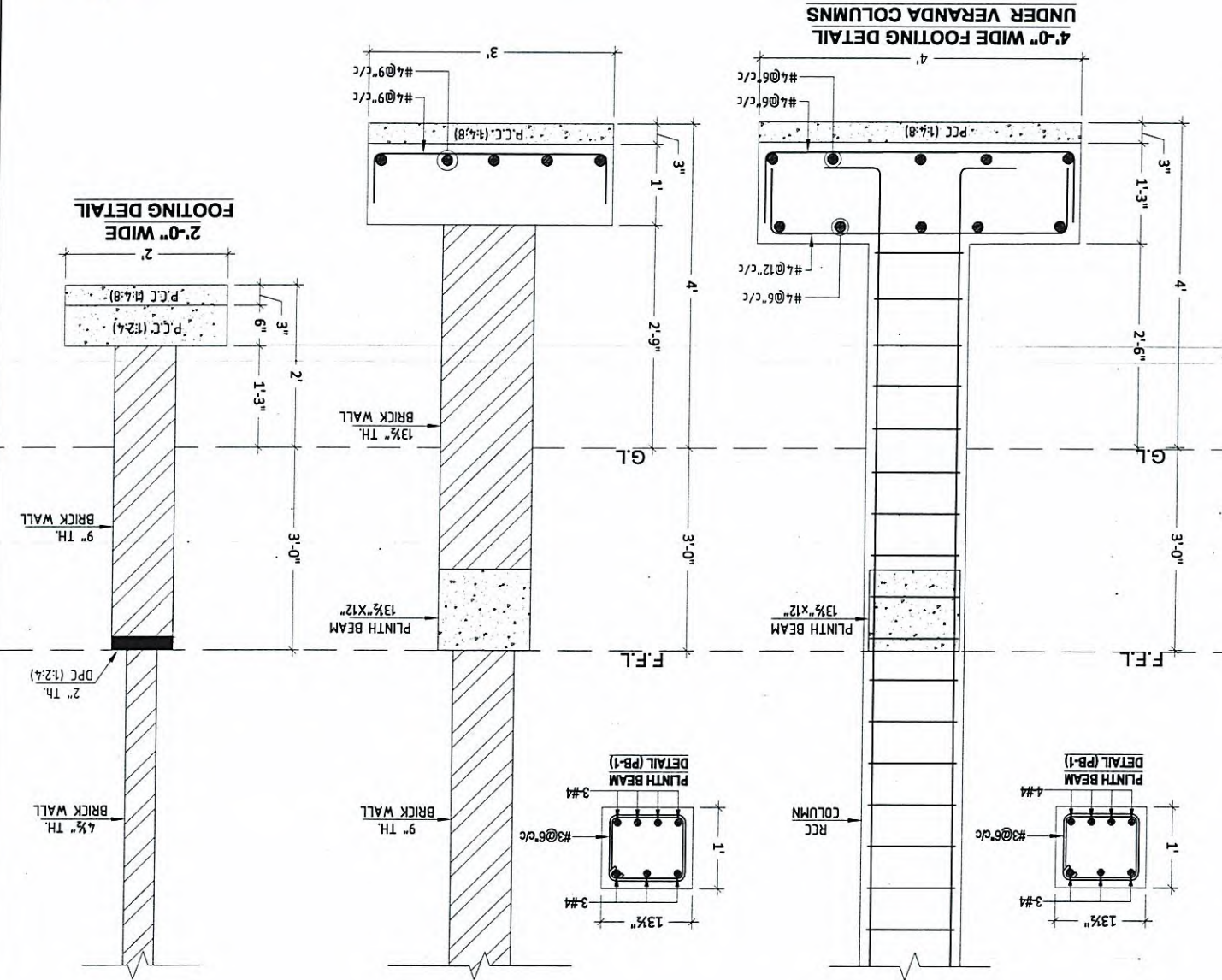
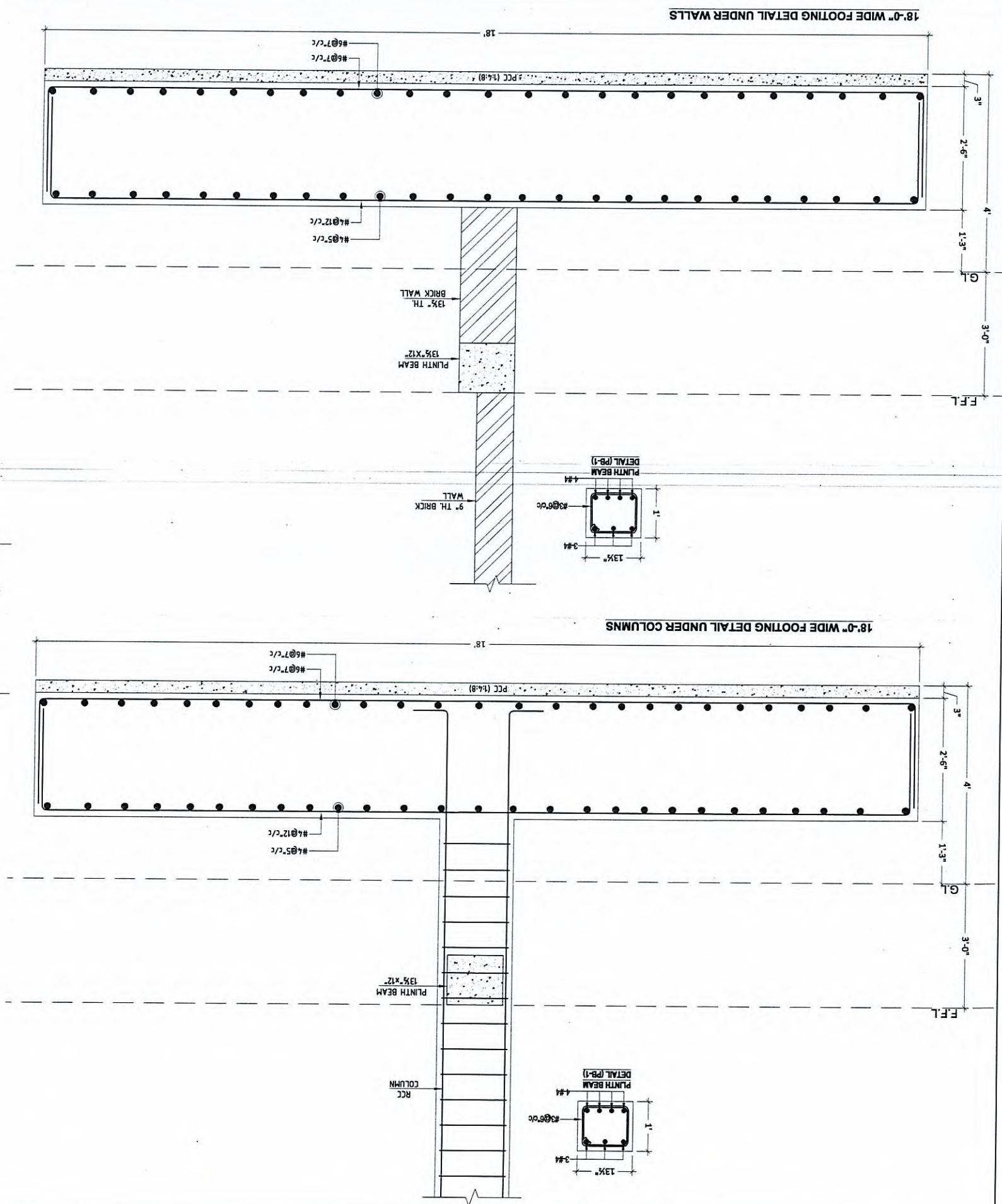
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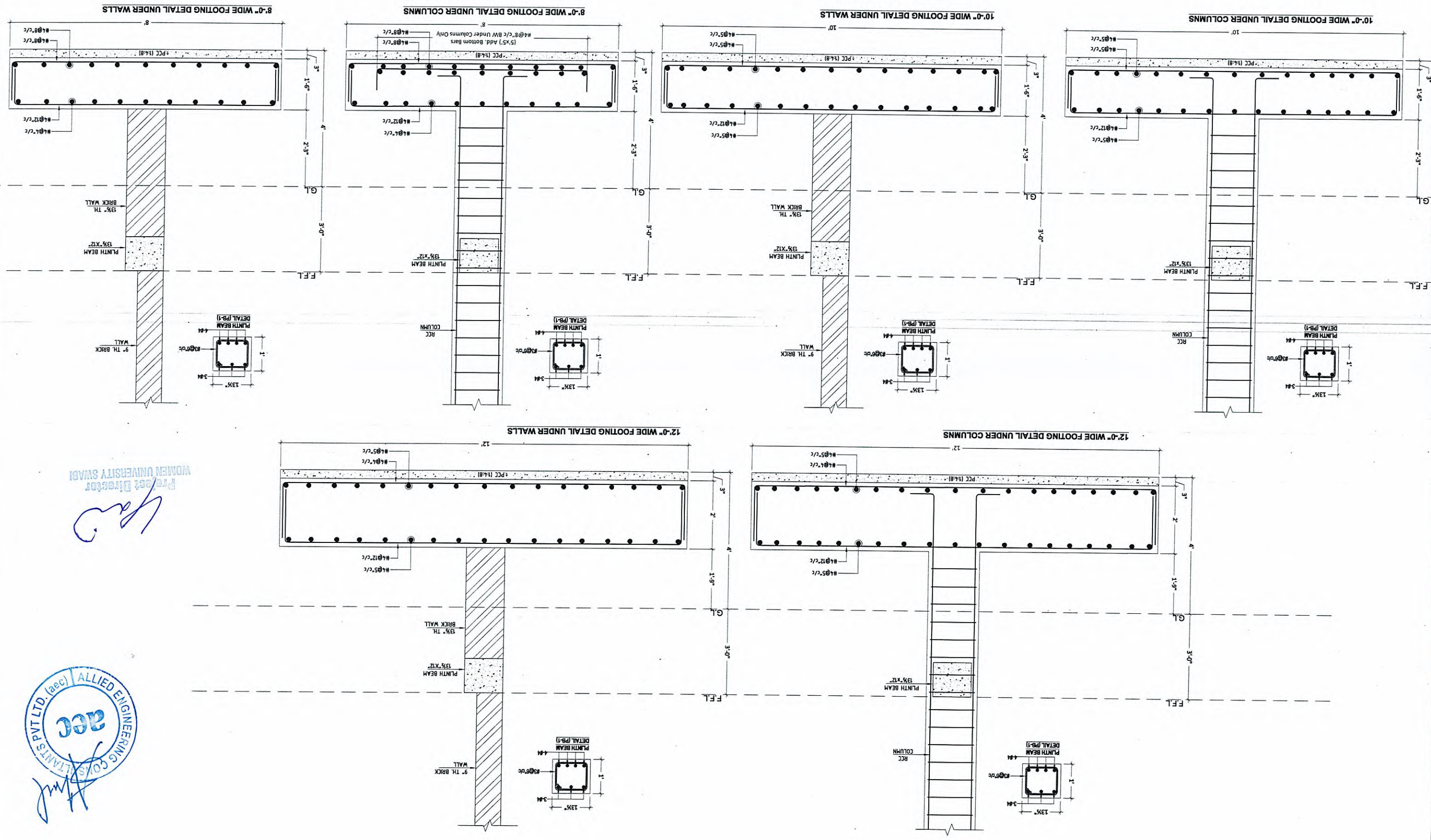
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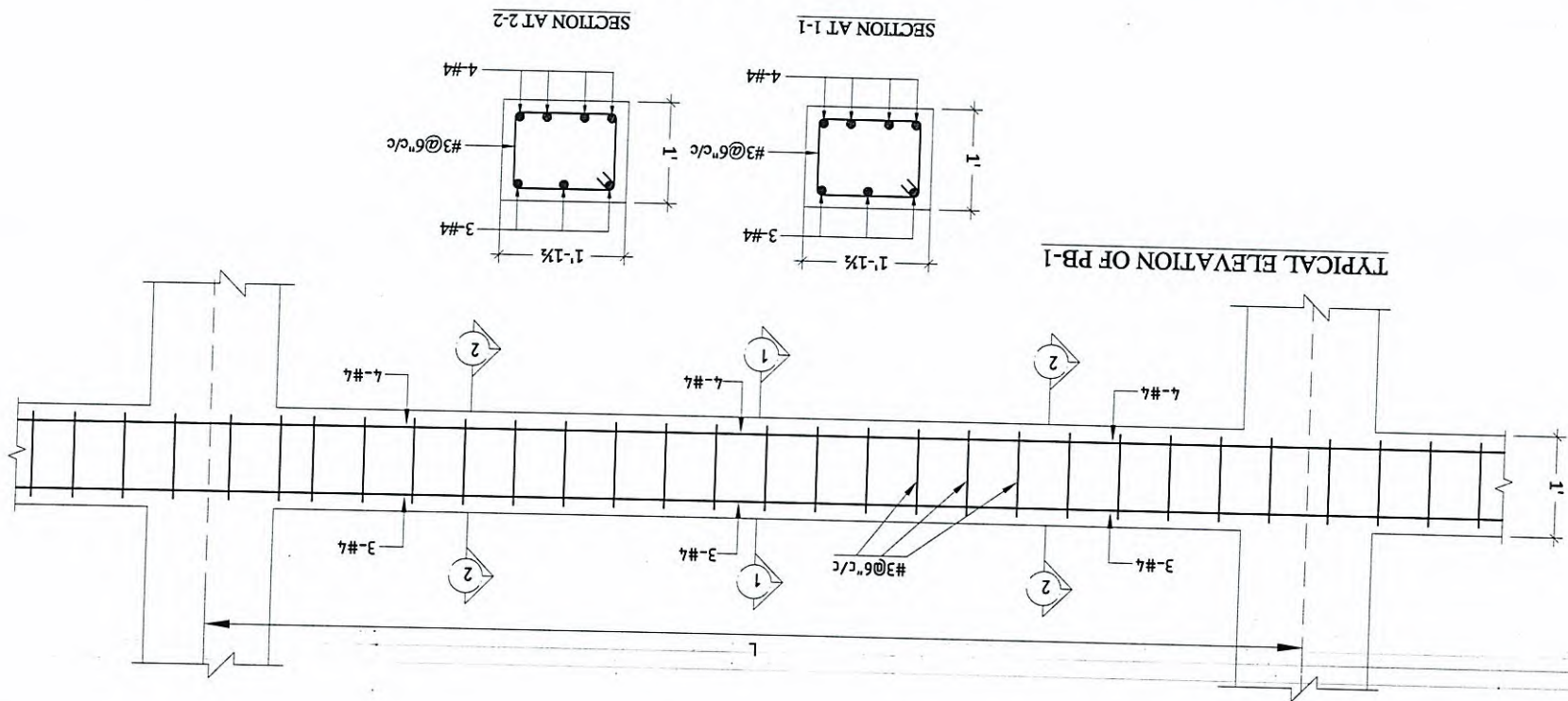
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DETAIL OF PB-1



COLUMN X-SECTION DETAILS						SL.NO
GROUND FLOOR						FIRST FLOOR
C-1	20-#8	2'-6"	2'-6"	2'-6"	2'-6"	20-#8
C-2	12-#8	2'-6"	2'-6"	2'-6"	2'-6"	12-#8
C-3	20-#6	2'	2'	2'	2'	20-#6
C-4	16-#6	1'-6"	1'-6"	1'-6"	1'-6"	16-#6
C-5	12-#6	1'-6"	1'-6"	1'-6"	1'-6"	12-#6
C-6	12-#6	1'-3"	1'-3"	1'-3"	1'-3"	12-#6

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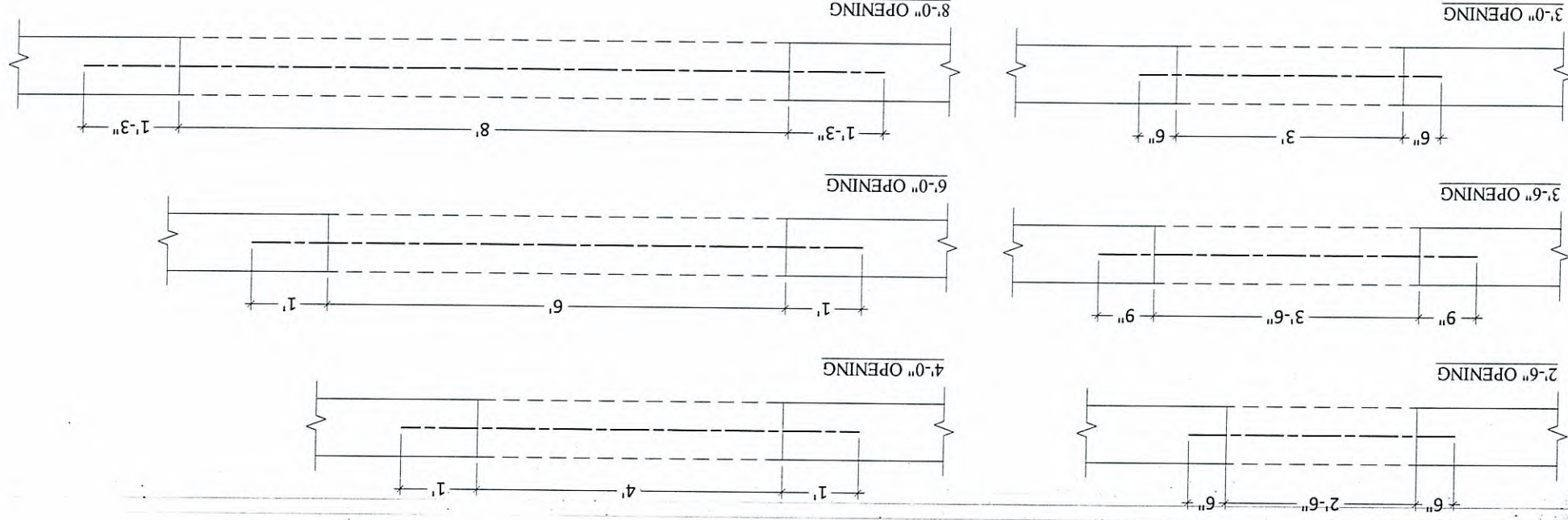


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e. CONSTRUCTION OF LIBRARY BLOCK

PROJECT NAME:

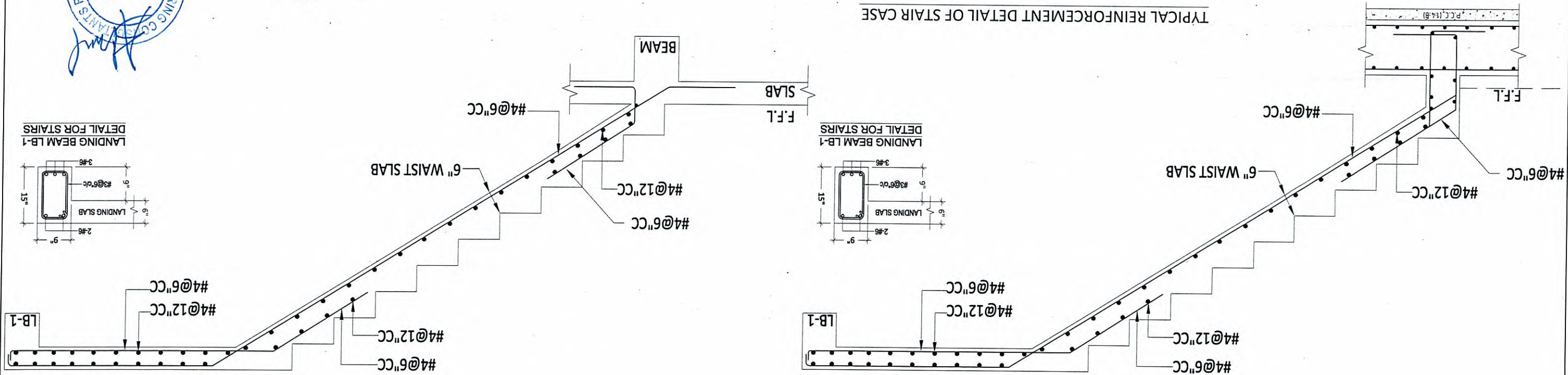
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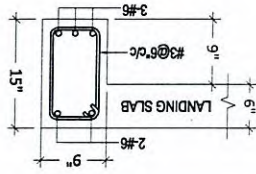


TYPICAL LINTEL BEAM DETAILS

TYPICAL REINFORCEMENT DETAIL OF STAIR CASE



LANDING BEAM LB-1
DETAIL FOR STAIRS



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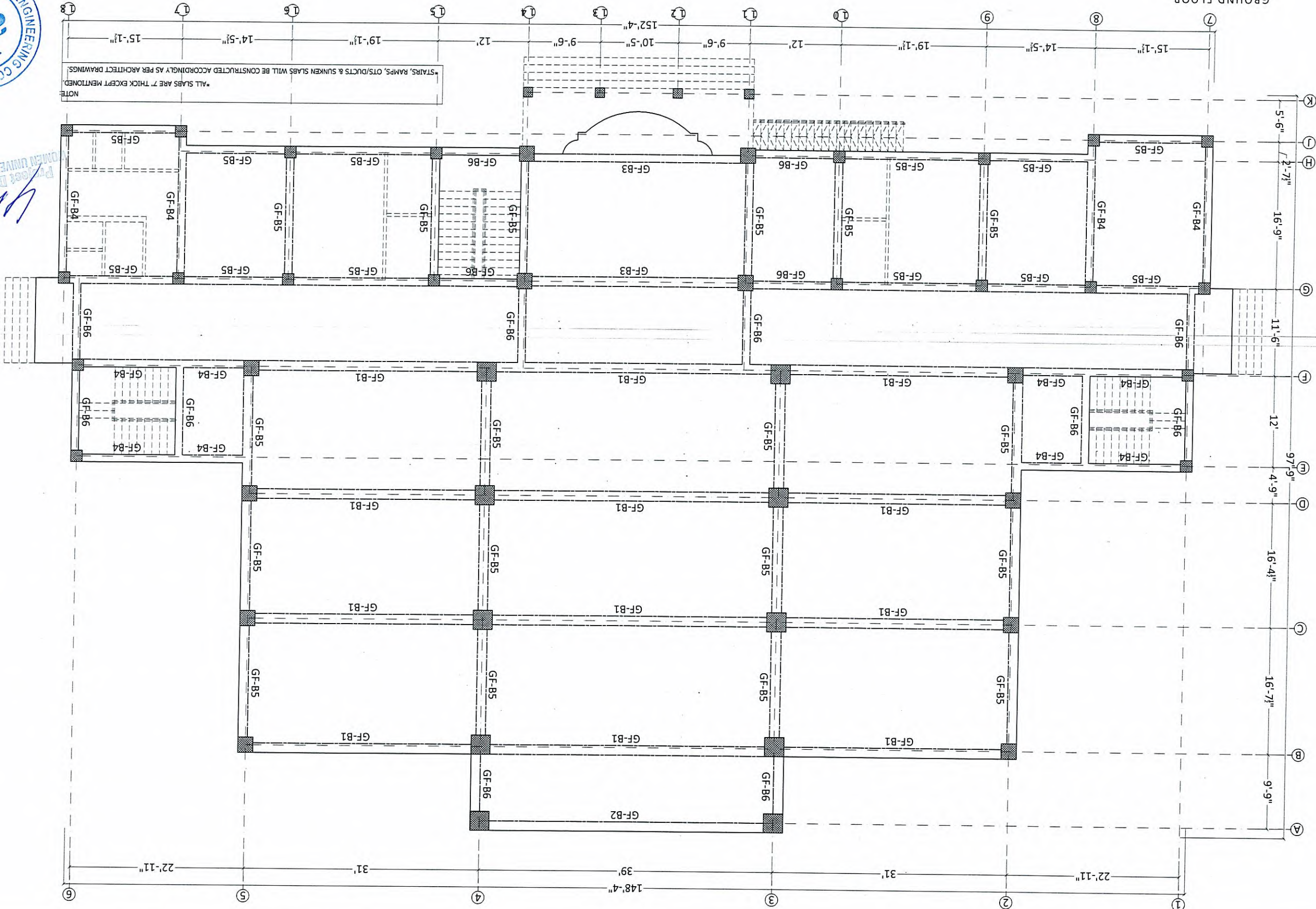
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DESIGNED BY:	ENGR. SHAHAB ALI	DRAFTED BY:	TAUQEER ZEB	SCALE:	AS SHOWN
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GROUND FLOOR
SLAB BEAMS KEY PLAN



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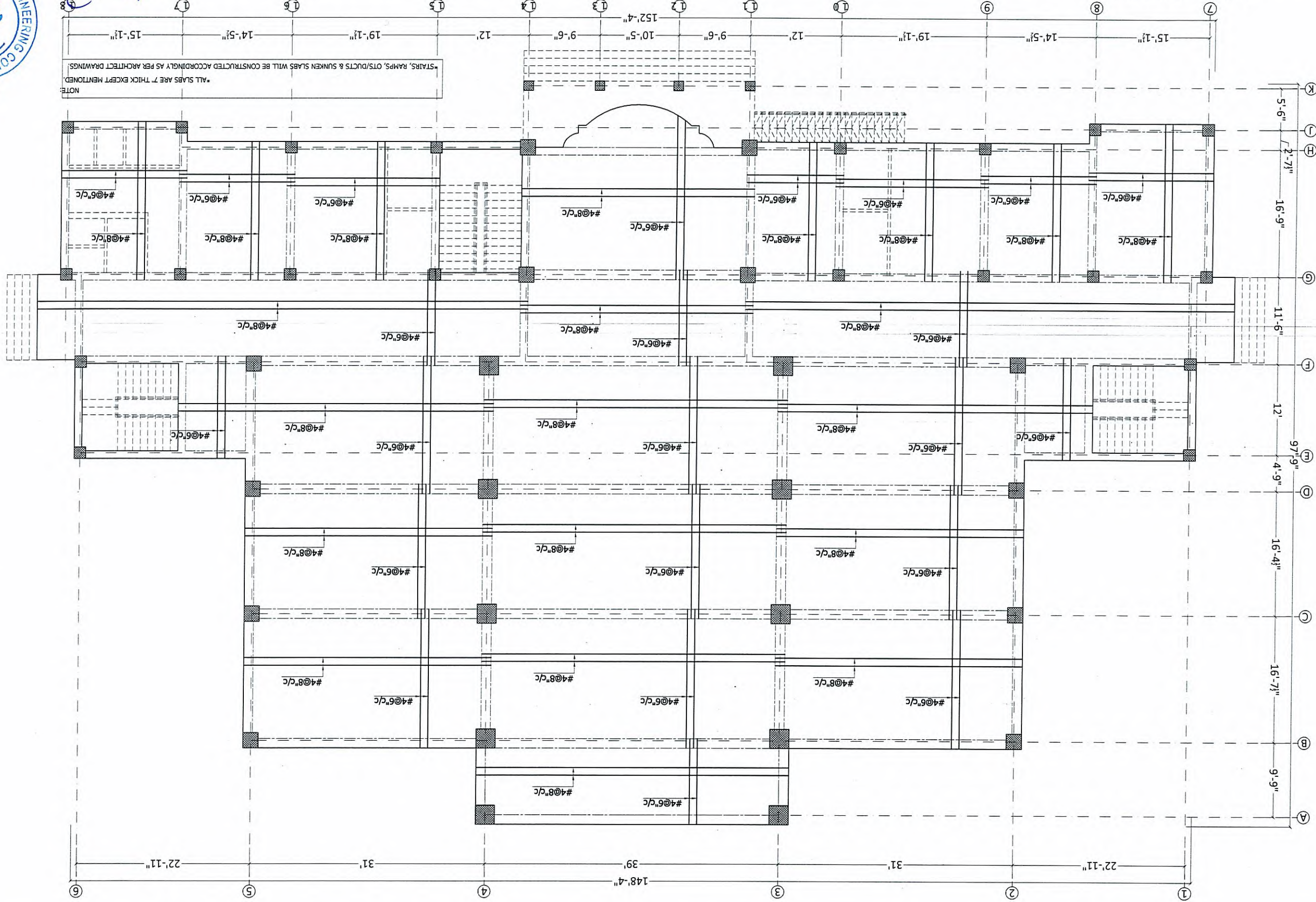
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GROUND FLOOR PLAN
SLAB BOTTOM REINFORCEMENT DETAIL



PROJECT NAME:

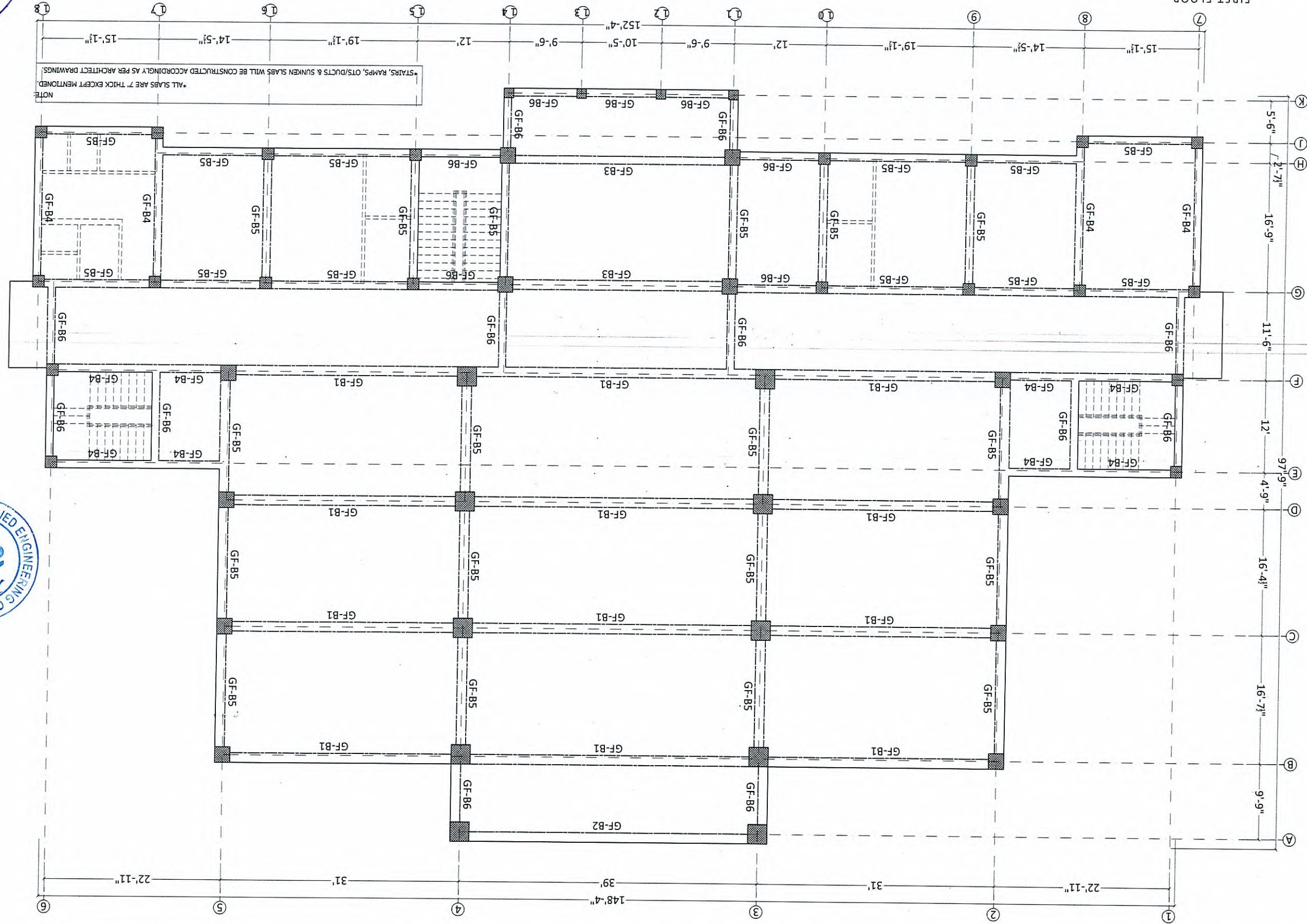
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
e. CONSTRUCTION OF LIBRARY BLOCK

DRAWING TYPE:	STRUCTURAL
CHECKED BY:	ENGR. ZAIN UL ABIDEEN
PROJECT NO:	GSK-ED-241-e
ISSUE DATE:	MARCH, 2025
DRAWING NO:	STR-13
AS SHOWN	TAUQEER ZEB
DESIGNED BY:	ENGR. SHAHAB ALI
DRAFTED BY:	TAUQEER ZEB
SCALE:	AS SHOWN
REVISION	
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FIRST FLOOR
SLAB BEAMS KEY PLAN



Project Director
WOMEN UNIVERSITY SWABI



PROJECT NAME:

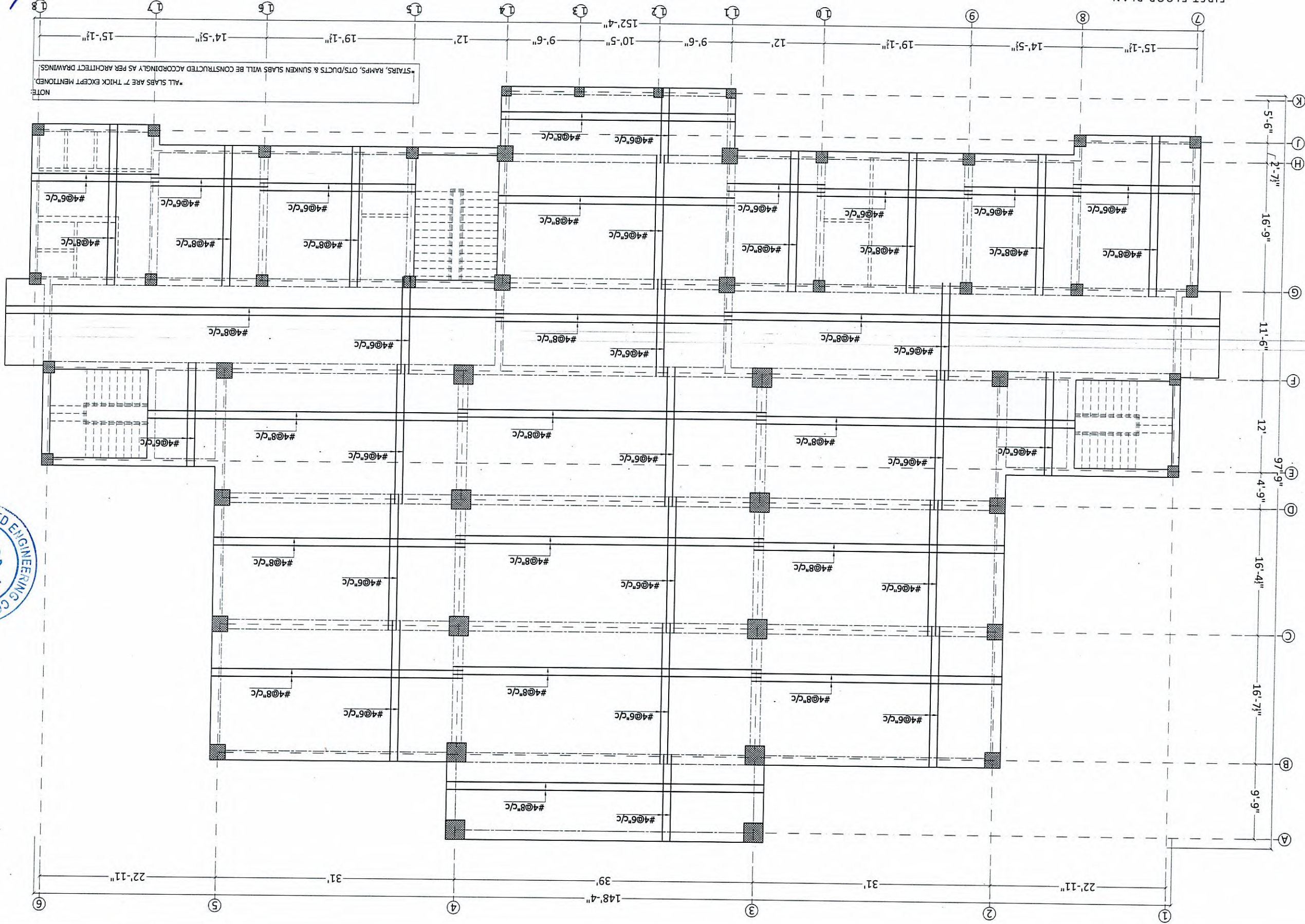
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"WOMEN UNIVERSITY OF SWABI"
e. CONSTRUCTION OF LIBRARY BLOCK

DRAWING TYPE:	STRUCTURAL	CHECKED BY:	ENGR. ZAIN UL ABIDEEN	PROJECT NO:	GSK-ED-241-e	ISSUE DATE:	MARCH, 2025
DESIGNED BY:	ENGR. SHAHAB ALI	DRAFTED BY:	TAJUEER ZEB	SCALE:	AS SHOWN	DRAWING NO:	STR-14
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FIRST FLOOR PLAN
SLAB BOTTOM REINFORCEMENT DETAIL



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CONSTRUCTION OF LIBRARY BLOCK

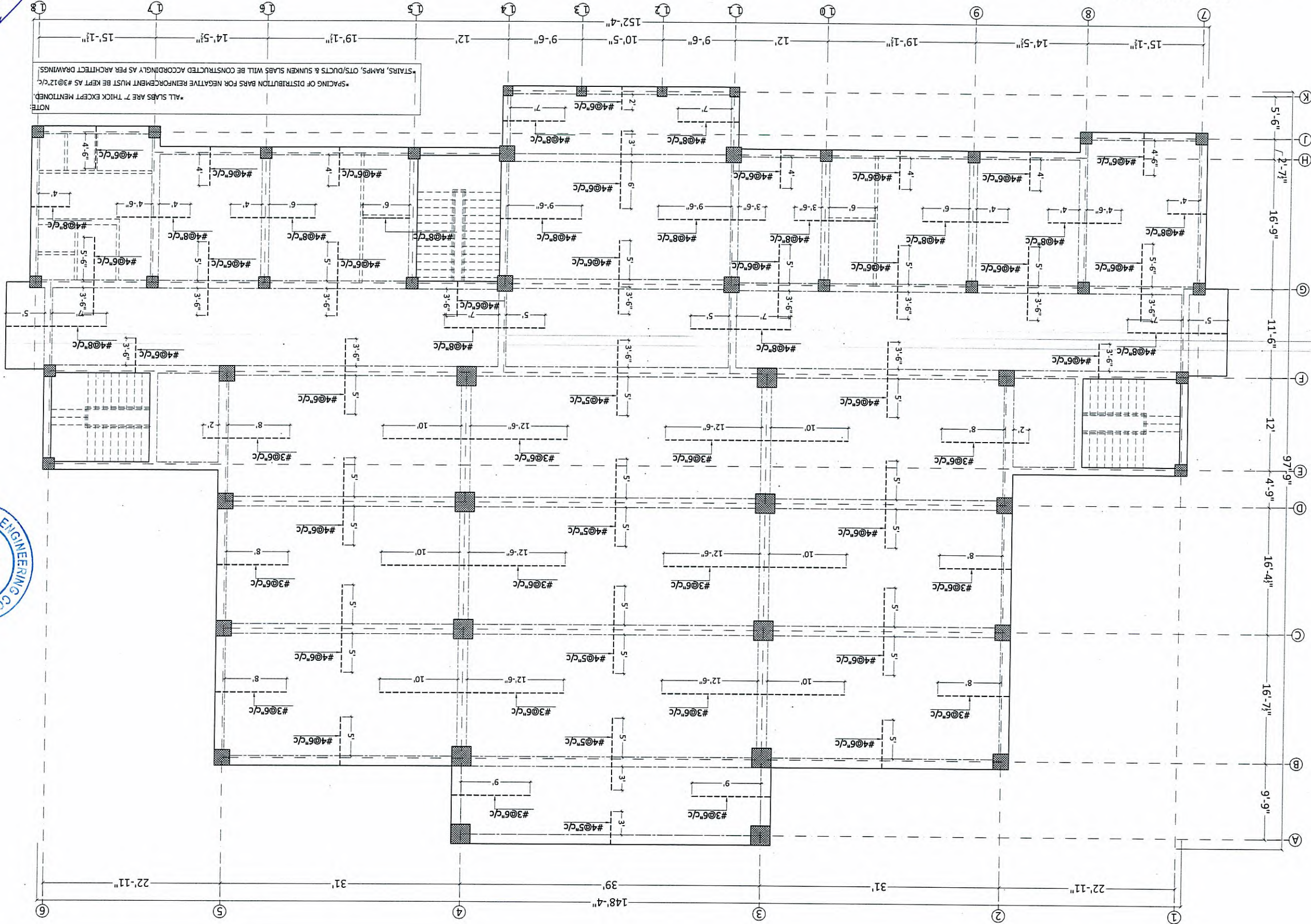
PROJECT NAME:

DRAWING TYPE:	STRUCTURAL
CHECKED BY:	ENGR. ZAIN UL ABIDEEN
PROJECT NO:	GSK-ED-241-e
ISSUE DATE:	MARCH, 2025
REVISION	
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STR-15	
DRAWING NO:	
AS SHOWN	
TAUQEER ZEB	
DRAFTED BY:	ENGR. SHAHAB ALI
DESIGNED BY:	
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FIRST FLOOR PLAN
SLAB NEGATIVE REINFORCEMENT DETAIL



PROJECT NAME:

PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
e. CONSTRUCTION OF LIBRARY BLOCK

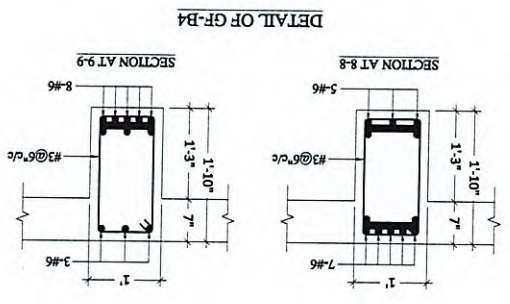
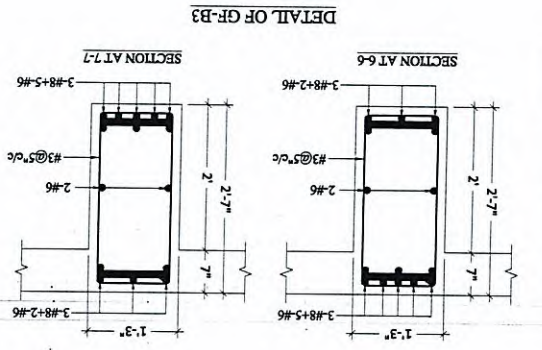
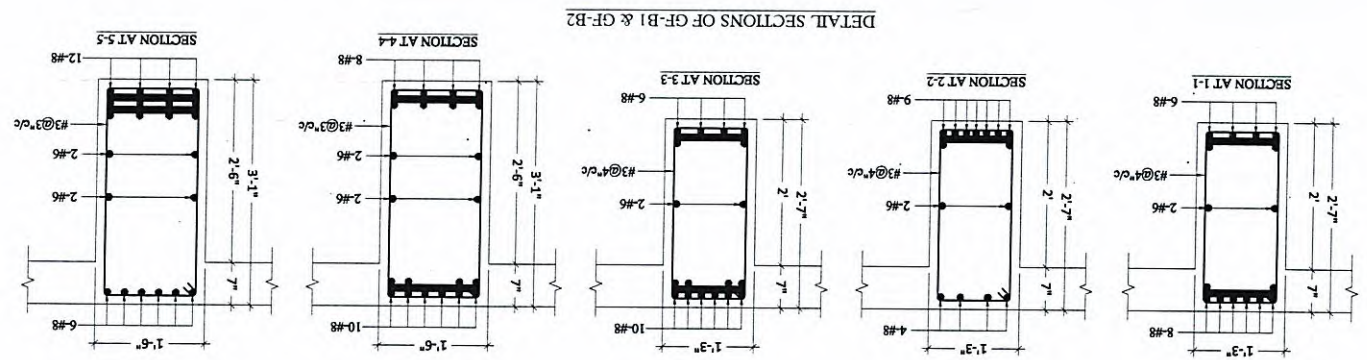
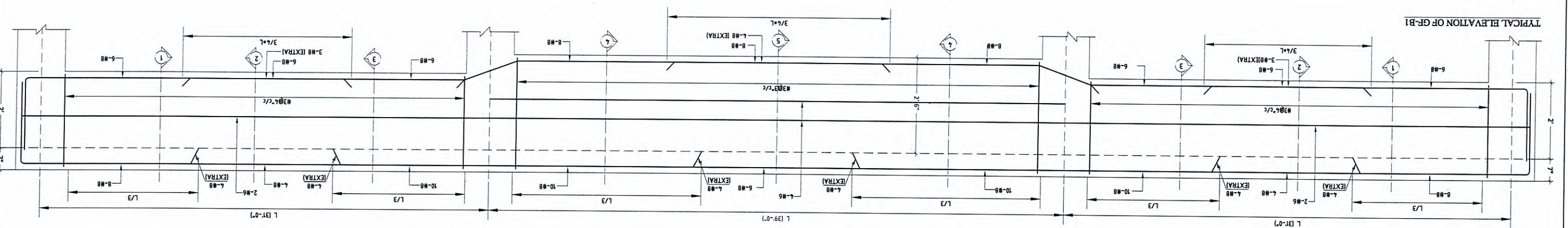
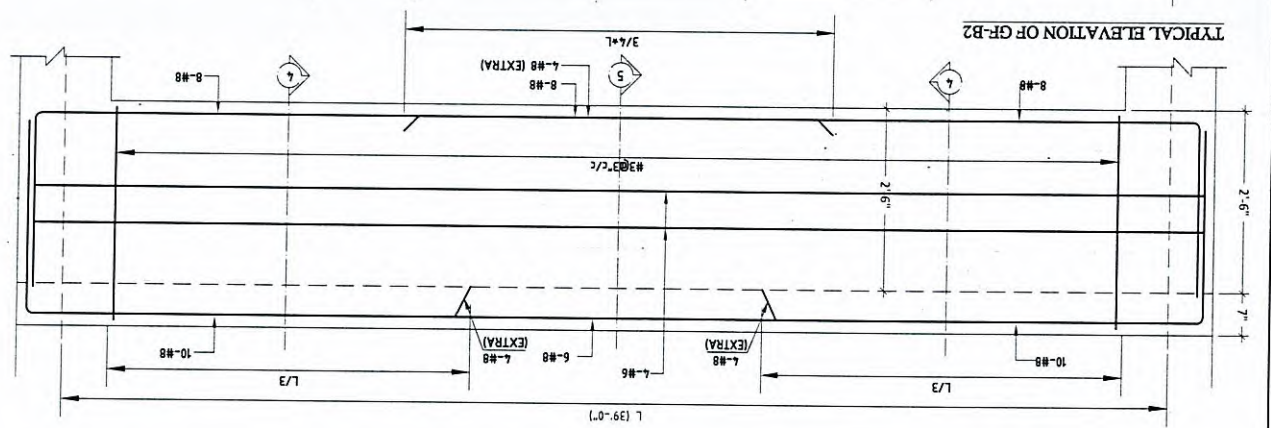
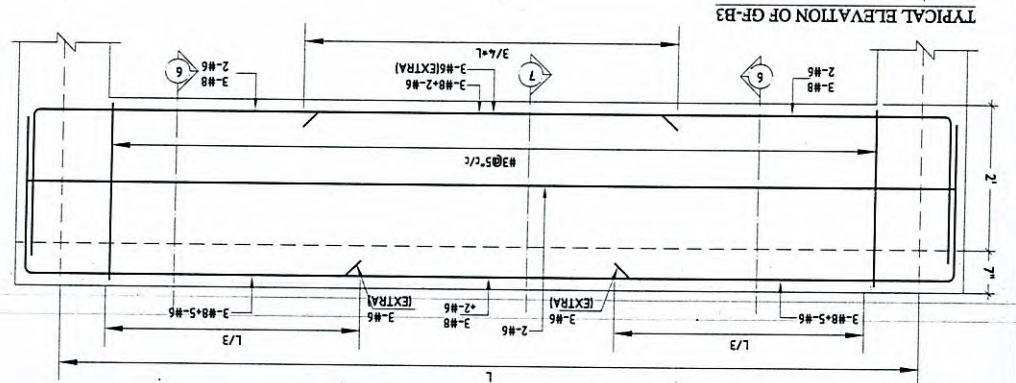
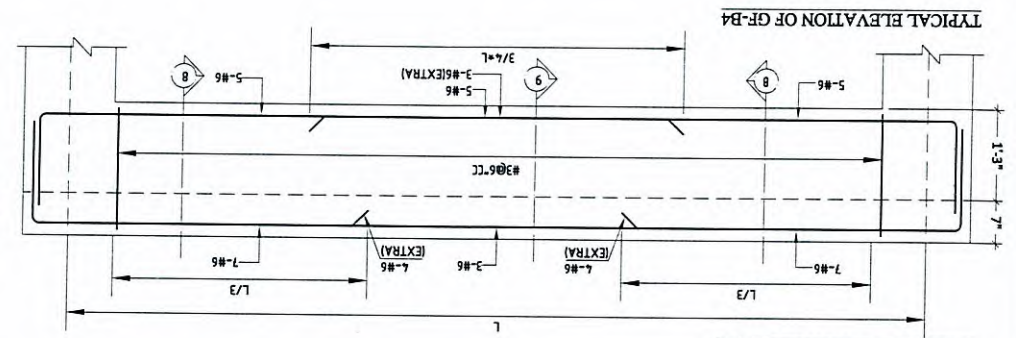
DESIGNED BY:	ENGR. SHAHAB ALI
CHECKED BY:	ENGR. ZAIN UL ABIDEEN
DRAWING TYPE:	STRUCTURAL
PROJECT NO:	GSK-ED-241-e
ISSUE DATE:	MARCH, 2025
DRAWING NO:	STR-16
AS SHOWN	TAUQEER ZEB
REVISION	
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Project Director
WOMEN UNIVERSITY SWABI



PROJECT NAME: "WOMEN UNIVERSITY OF SWABI"
 PROPOSED STRUCTURAL DESIGN OF
 e. CONSTRUCTION OF LIBRARY BLOCK

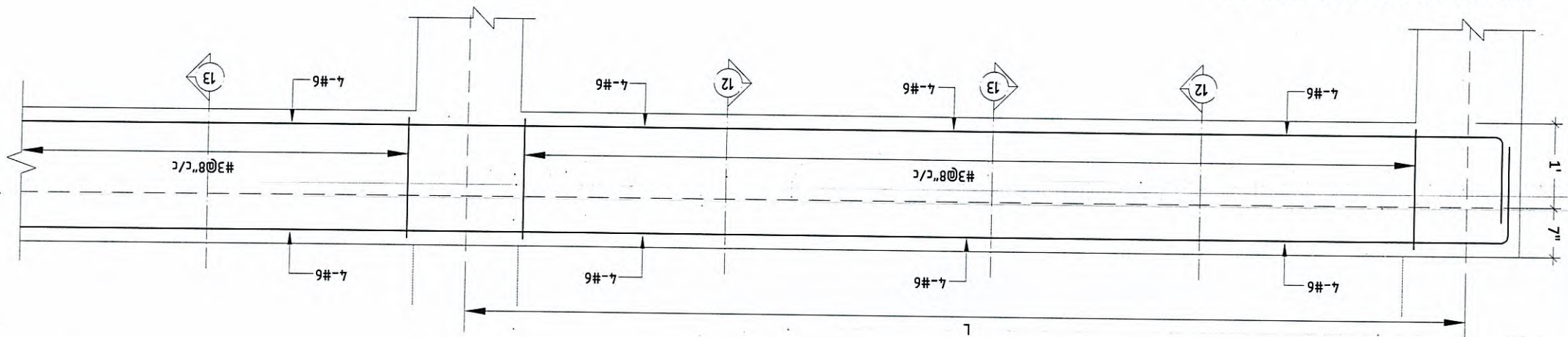
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DESIGNED BY: ENGR. SHAHAB ALI		DRAFTED BY: TAUQEER ZEB	SCALE: AS SHOWN	DRAWING NO: STR-17	1. 2. 3. 4.
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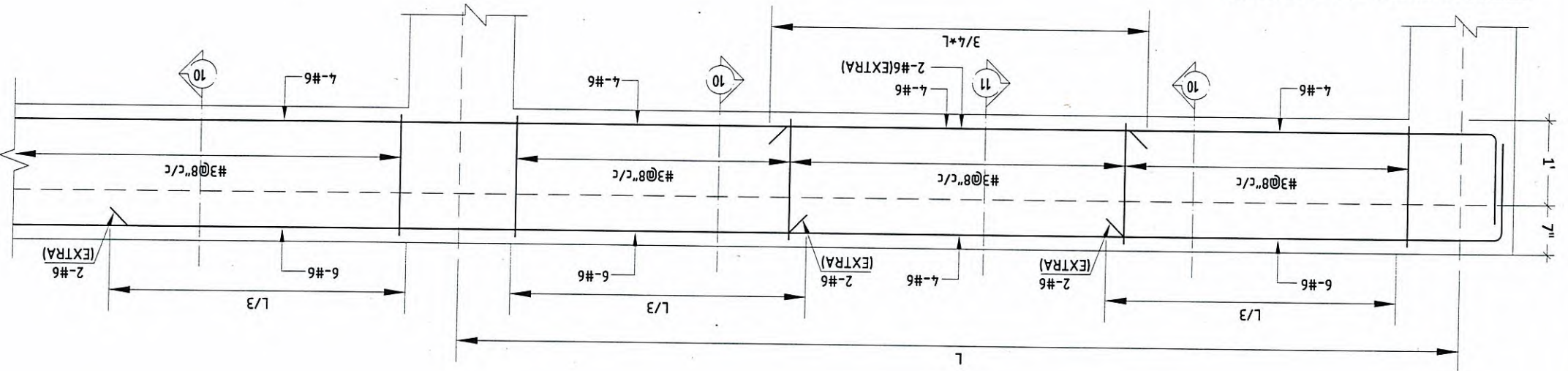


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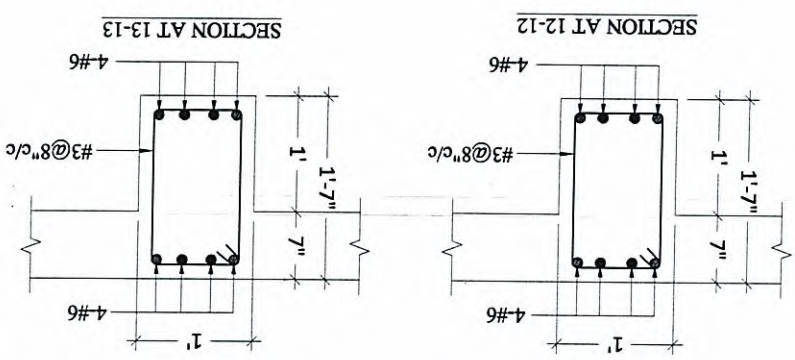
TYPICAL ELEVATION OF GF-B6



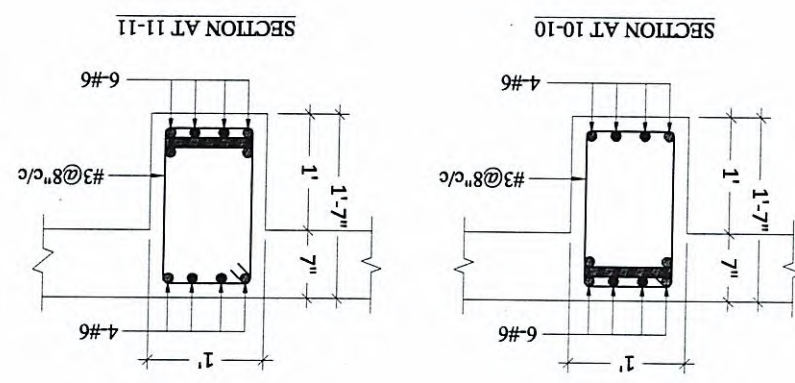
TYPICAL ELEVATION OF GF-B5



DETAIL SECTIONS OF GF-B6



DETAIL SECTIONS OF GF-B5



PROJECT NAME:

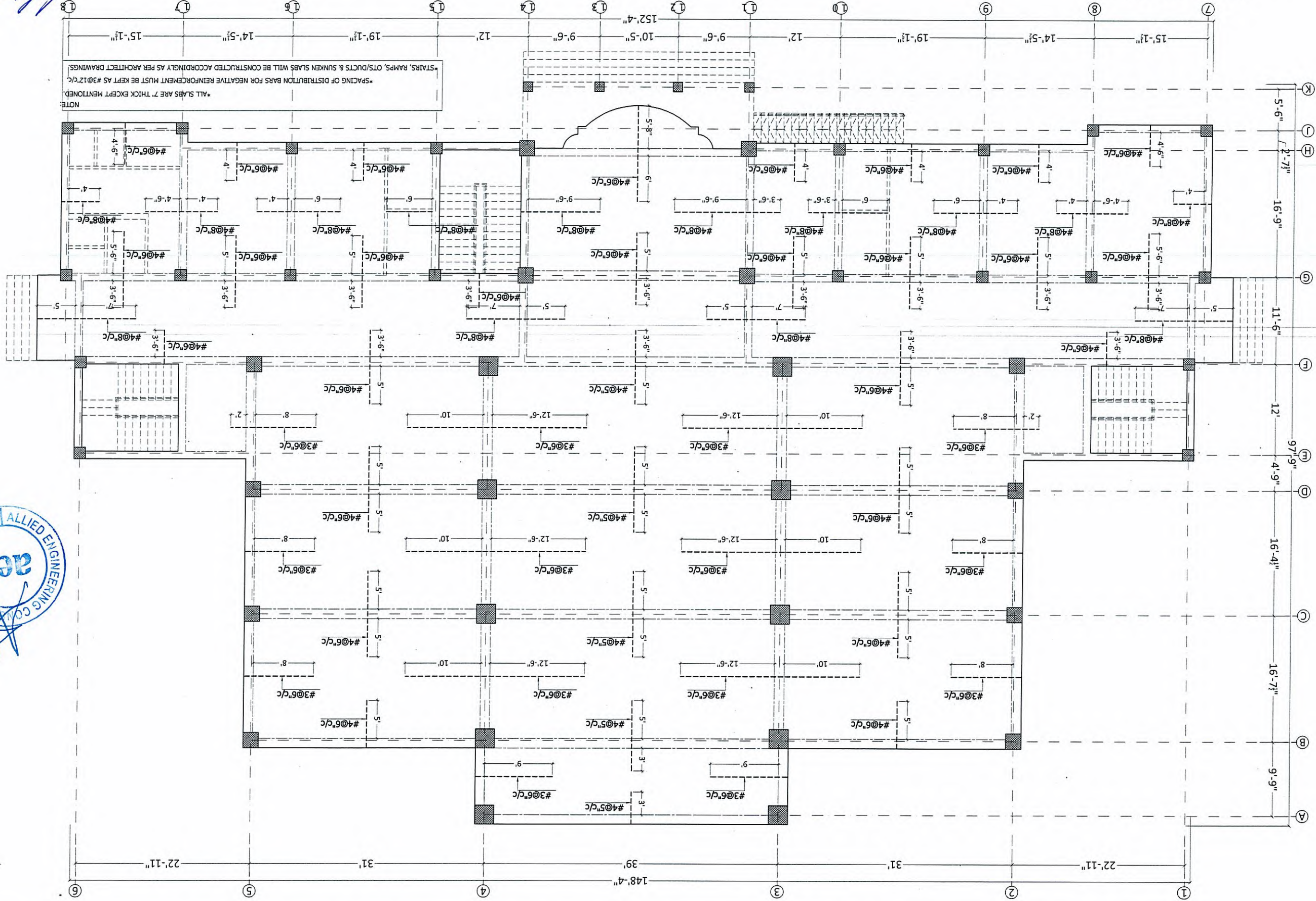
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF LIBRARY BLOCK

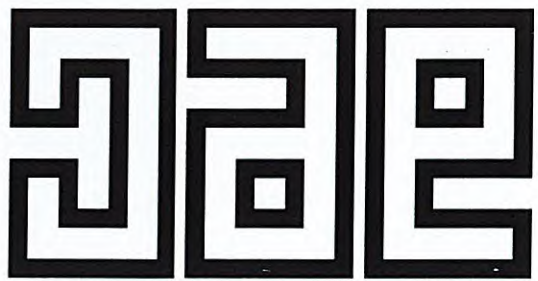
DRAWING TYPE:	STRUCTURAL	CHECKED BY:	ENGR. ZAIN UL ABIDEEN	PROJECT NO:	GSK-ED-241-e
DESIGNED BY:	ENGR. SHAHAB ALI	DRAFTED BY:	TAUQEER ZEB	SCALE:	AS SHOWN
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REVISION					
1.	MARCH, 2025	ISSUE DATE:	DRAWING NO: STR-12		
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GROUND FLOOR PLAN
SLAB NEGATIVE REINFORCEMENT DETAIL

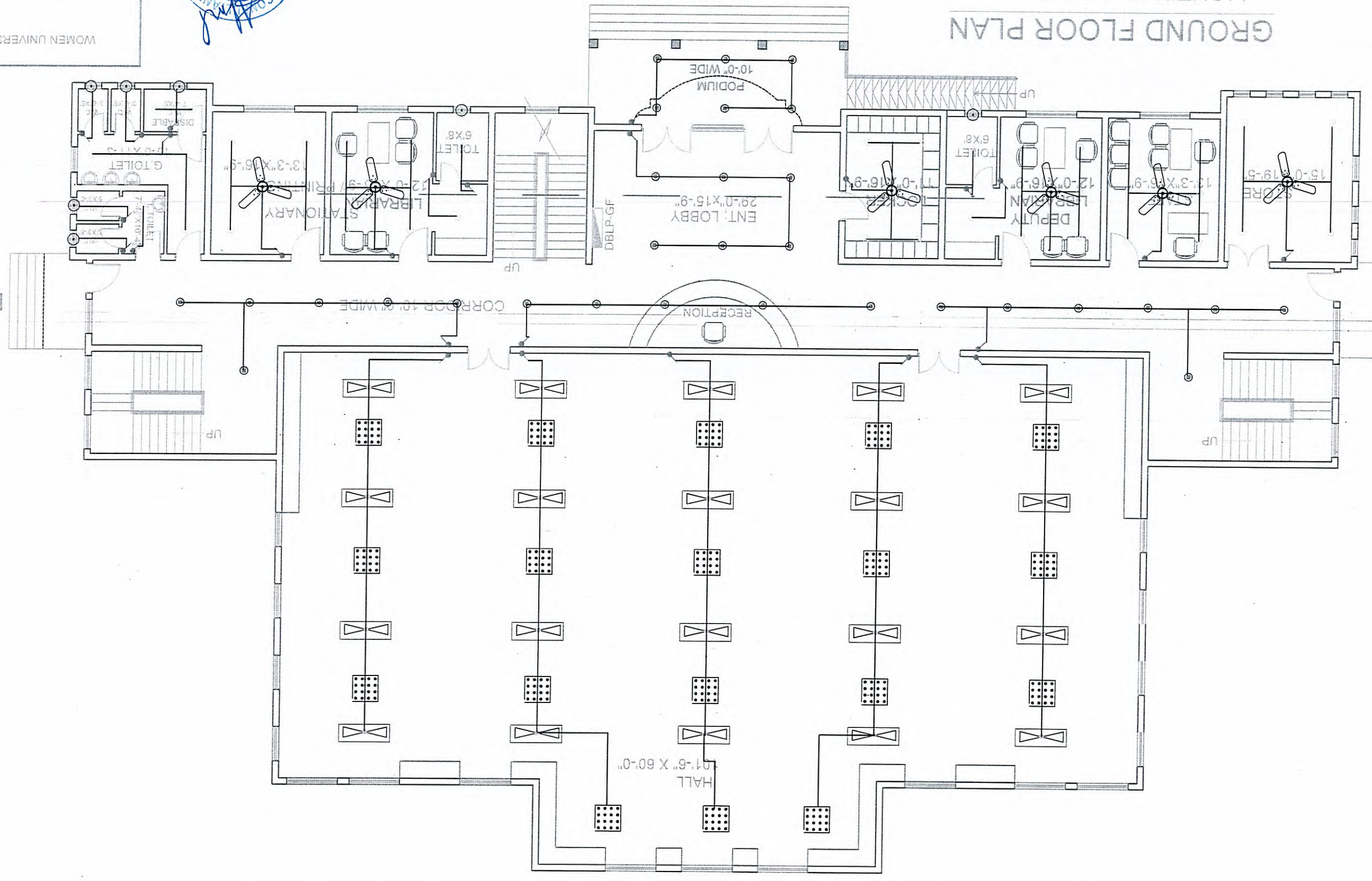




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DRAWN		SCALE		DATE	
ARCHITECT		CHECKED		MRS.SHAHINE KHAN	
ELECTRICAL DRAWINGS		PROJECT NO.		DRAWING NO.	
		LIBRARY			
WOMEN UNIVERSITY OF SWABI					

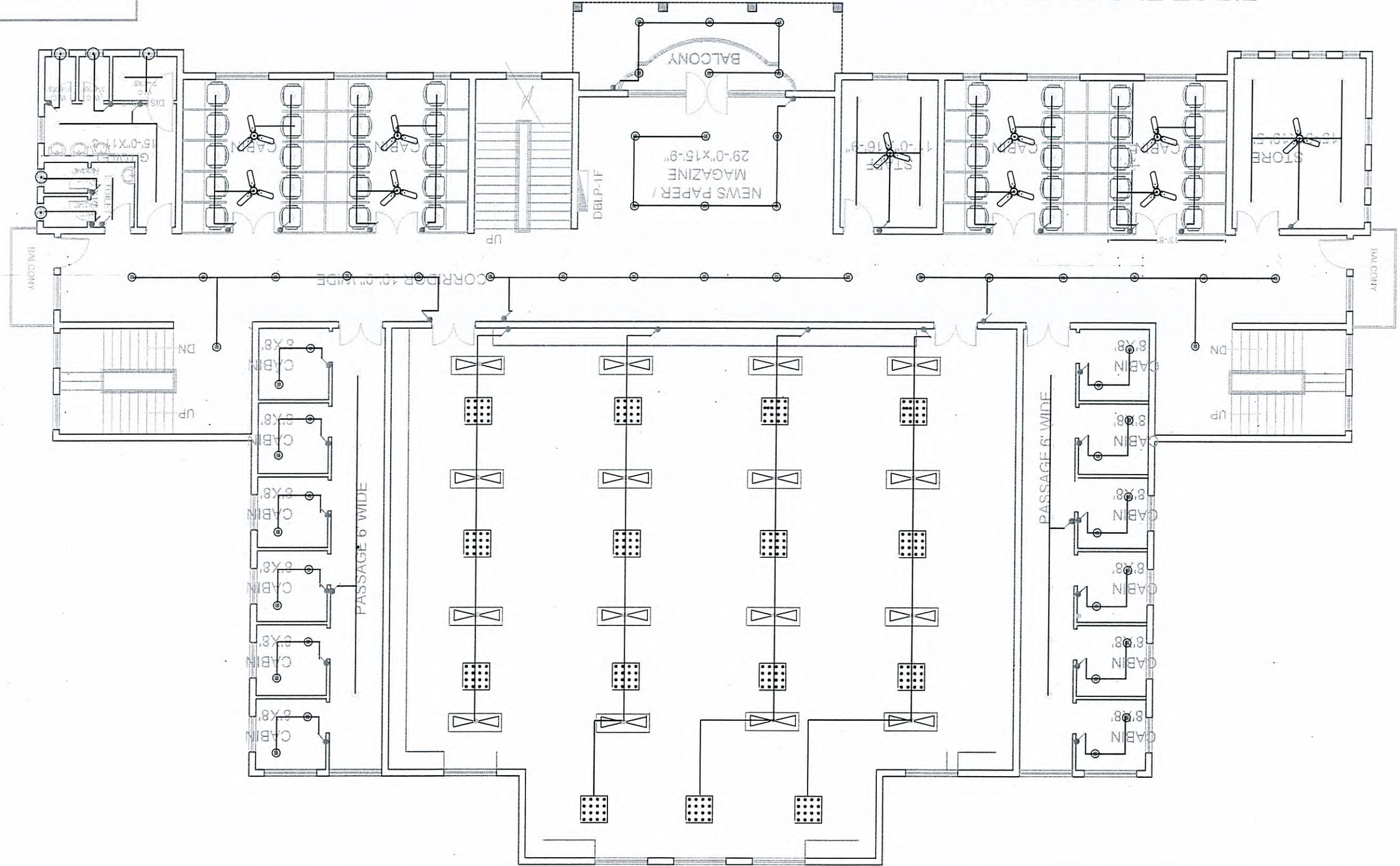
GROUND FLOOR PLAN LIGHTING LAYOUT



Project Director
WOMEN UNIVERSITY SWABI

WOMEN UNIVERSITY SWABI
CENTRAL LIBRARY
GROUND FLOOR PLAN
YASIR KHAN
YASIR KHAN
MRS. SHAHME KHAN
ARCHITECTS, ENGINEERS, PLANNERS
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.
10-A, SUBBERRILLAH ROAD, KARACHI-77000

FIRST FLOOR PLAN LIGHTING LAYOUT

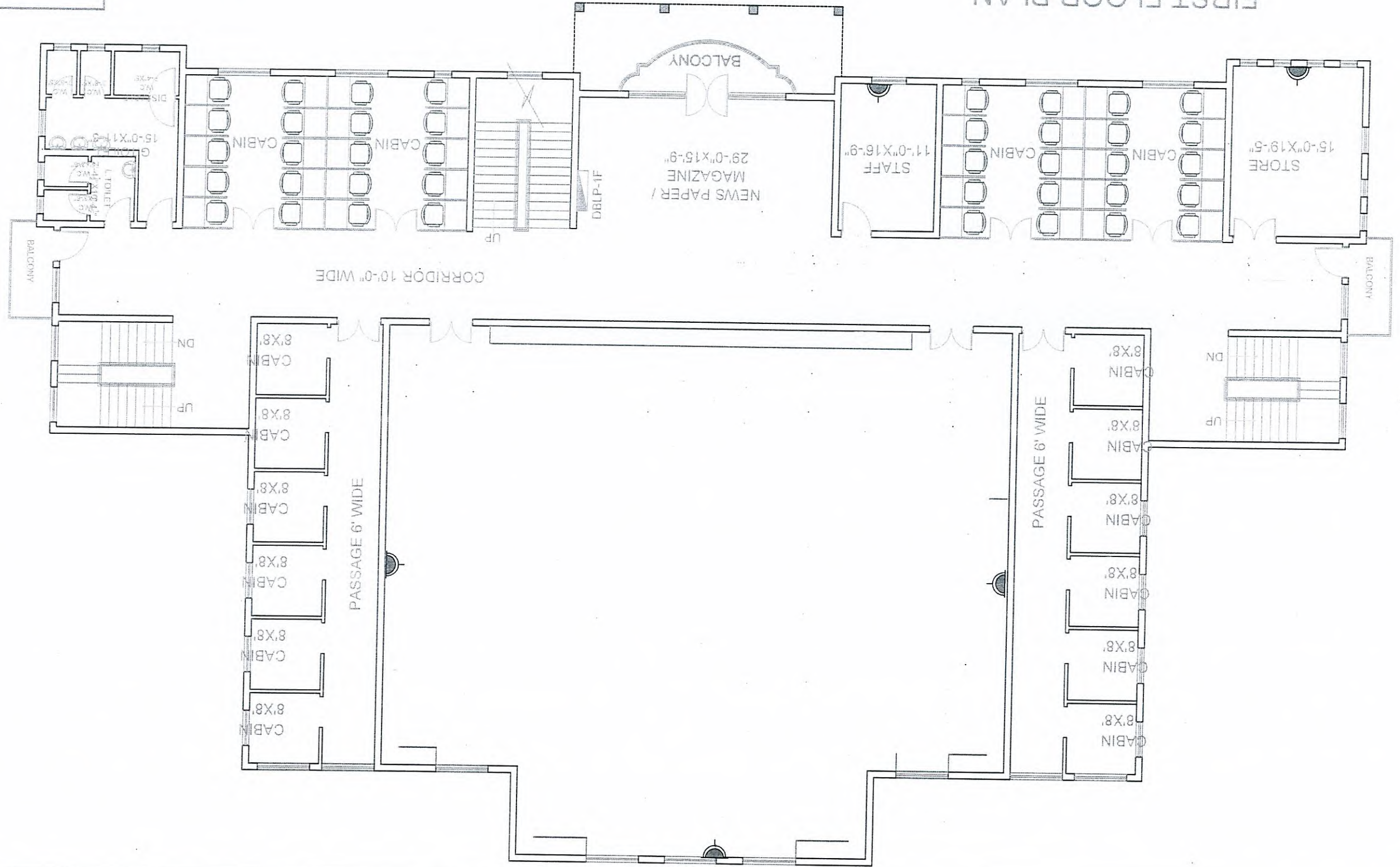


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WOMEN UNIVERSITY SWABI



WOMEN UNIVERSITY OF SWABI
CENTRAL LIBRARY
FIRST FLOOR PLAN
BAGIR ALI
MRS. SHAHINE KHAN
MARCH 2021
ASIM
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.
ARCHITECTS & ENGINEERS - PLANNERS
15-A, GULBERGAH LAHORE PAKISTAN 75200

FIRST FLOOR PLAN
POWER LAYOUT

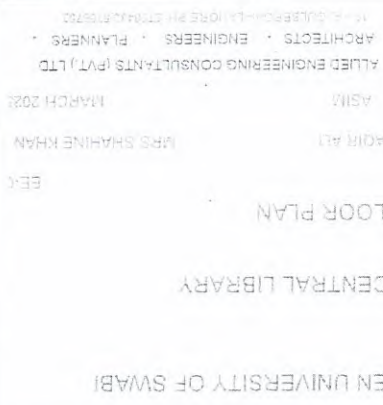


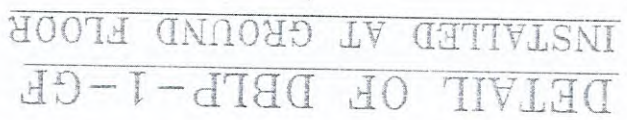
Project Director
WOMEN UNIVERSITY SWABI



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CENTRAL LIBRARY
FIRST FLOOR PLAN
BADR ALI
MRS. SHAHINE KHAN
MARCH 2005
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13-A, QUTB-UL-KARIM, LAHORE 54782







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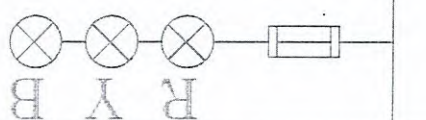
CABLE FROM TRANSFORMER

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ARCHITECTS, ENGINEERS, PLANNERS,
11, GULBERGH LANE PH 570012581515



INSTALLED AT FIRST FLOOR



100 A TP MCCB RC:25 KA

1-4 CORE 16mm² CU/PVC/PVC COND
CABLE+1X6mm² CABLE AS CPC

[Signature]

CABLE FROM DBLP-GF

[illegible]

2x4mm2 SC. PVC CU. COND
CABLE+1x1.5mm2 CABLE AS CPC



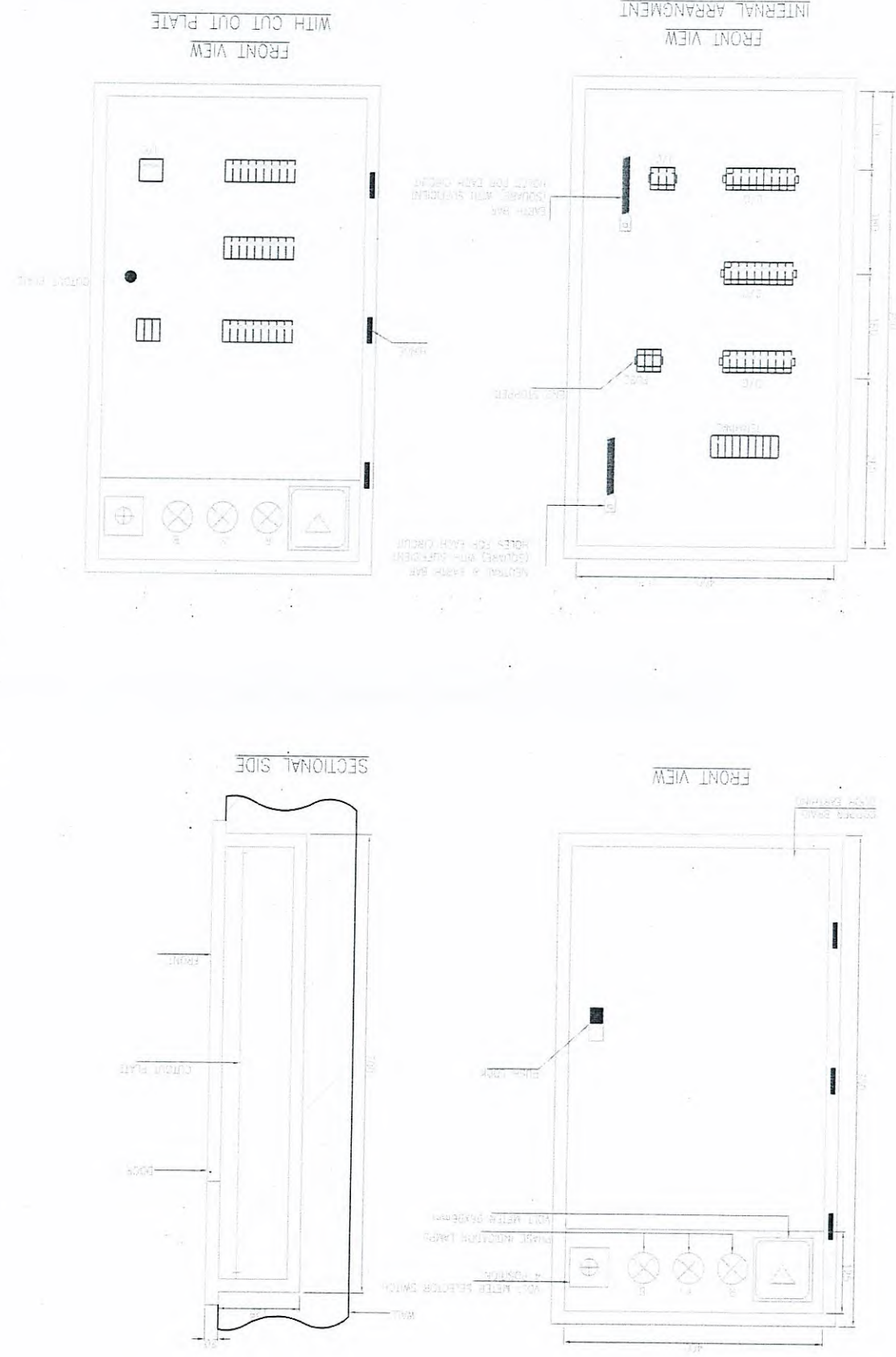
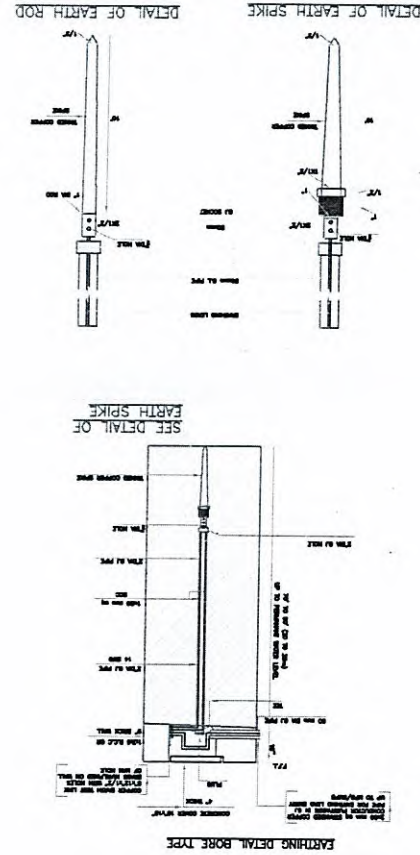
WOMEN UNIVERSITY OF SWABI
CENTRAL LIBRARY
SINGLE LINE DIAGRAM
DISTRIBUTION BOARD LIGHT & POWER
FIRST FLOOR
BAGIR ALI
MRS. SHAHINE KHAN
ASIM
MARCH 2021
ALL ENGINEERING CONSULTANTS (PVT.) LTD.
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18/10/2020 14:06:59

WOMEN UNIVERSITY OF SWABI
CENTRAL LIBRARY
EARTHING, DB DETAIL & GENERAL NOTES
BAGIR ALI
MRS. SHAHINE KHAN
MARCH 2021
ALLIED ENGINEERING CONSULTANTS (PVT) LTD
ARCHITECTS & ENGINEERS & PLANNERS
15-A, OUTPOST-II, LAHORE P.O. BOX 30707



Project Director
WOMEN UNIVERSITY SWABI

- GENERAL & WIRING NOTES:-**
1. ALL ELECTRICAL WORKS PERTAINING TO WIRING OF ELECTRICAL SYSTEMS SHALL STRICTLY CONFORM TO LATEST EDITION OF RULES & REGULATIONS.
 2. ALL WIRING SHALL BE DONE IN PVC CONDUIT TO BE CONCEALED IN WALLS, SLABS, COLUMNS AND FLOOR OR AS SHOWN ON DRAWINGS.
 3. THE WIRING SHOULD BE STARTED ONLY AFTER THE CONDUIT SYSTEM HAS BEEN COMPLETED AND ALL OUTLET BOXES ARE FIXED AT THEIR RESPECTIVE POSITIONS.
 4. ALL PVC CONDUITS SHALL BE 3/4" OR 1" DIA. (DEPENDENT UPON NUMBER OF WIRES) FROM SWITCH BOARD TO LIGHT POINTS & 1" DIA. FROM DB TO SWITCH BOARD AND POWER SOCKETS OR AS SHOWN ON DRAWINGS.
 5. LIGHT / FANS POINT CONTROLLED BY ONE WAY SWITCH. WIRED WITH 1.5mm² (3/0.029") AS OF WIRE (2x2.5mm² sq (7/0.029") AS COMMON NEUTRAL(N) & EARTH(E) WIRE.
 6. LIGHTING CIRCUITS FROM RESPECTIVE DB TO SWITCH SOCKET WIRED WITH 2x2.5mm² sq (7/0.029") AS P+N+E.
 7. SOCKETS WIRED IN PARALLEL WITH 2x2.5mm² sq AS P+N+E.
 8. POWER SOCKETS WIRED WITH 3x4mm² sq AS P+N+E.
 9. SA/C 1-1.5 TON WIRED WITH 3x4mm² sq AS P+N+E.
 10. SA/C 2-2.5 TON WIRED WITH 3x6mm² sq AS P+N+E.
 11. NO DISCREPANCY EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED FOR PULLING OF WIRES IN PVC CONDUITS. NO OIL OF ANY KIND SHALL BE USED. COLOUR CODING FOR WIRING SHALL BE AS FOLLOWS:
RED, YELLOW AND BLUE FOR PHASES, BLACK FOR NEUTRAL AND GREEN / YELLOW FOR CPC (EARTH).
 12. ALL LIGHT POINTS AND POWER SOCKETS SHALL BE PROPERLY EARTHED WITH 2.5mm² sq PVC INSULATED WIRES OF COLOUR GREEN-YELLOW.
 13. THE NUMBER OF WIRES TO BE PULLED IN ANY CONDUIT FOR WIRING PURPOSES SHALL CONFORM TO IEE TABLE 15.1.1 DA PVC CONDUIT SHALL BE USED FOR WIRING OF ALL OTHER SYSTEMS UNLESS OTHERWISE MENTIONED ON PLANS OR AS SPECIFIED IN BOD.
 14. ELECTRICAL CONTRACTOR TO CONSULT ELECTRICAL CONSULTANT/ENGINEER FOR ANY FURTHER CLARIFICATIONS. NO ASSUMPTIONS SHOULD BE MADE. RESULT AND SUBMIT IT TO THE CLIENT FOR RECORD. AND CONTRACTOR SHALL SIGN THE EARTH TESTING PRESENCE OF SITE ENGINEER BOTH THE SITE ENGINEER CONTRACTOR TO MEASURE EARTHING RESISTANCE IN THE JOINT SHALL BE COVERED WITH BITUMEN.
 4. BOLT SHALL BE COVERED WITH BITUMEN.
 3. COPPER CONDUCTOR AT TOP OF GI PIPE SHALL BE LESS THEN 10 ft (3m).
 2. DISTANCE BETWEEN 2 EARTH BORES SHALL NOT BE FOUNDATION.
 1. EARTH BORE SHALL BE MADE AT 6'-0" AWAY FROM
- NOTES FOR EARTHING SYSTEM:-**



PUBLIC HEALTH
DRAWINGS

REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL		
02				
03				
04				



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PROJECT:
WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

TITLE:	DATE:	DWG. NO.	JOB NO.
PLUMBING DRAWINGS	APRIL, 2025	MEP - PD - 00	
SCALE	N.T.S		

GENERAL NOTES FOR PUBLIC HEALTH

1. NO WORK SHALL BE CARRIED OUT UNLESS SHOP DRAWINGS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

2. THESE NOTES SHALL BE APPLICABLE TO THE ENTIRE PUBLIC HEALTH WORKS THE SITE CONDITIONS NECESSITATE ALTERATION OR DEVIATION OF THE DIRECTIONS OF THE ENGINEER SHALL BE OBSERVED AS FINAL INSTRUCTIONS.

3. CONTRACTOR SHALL NOT PROVIDE ANY EQUIPMENT OR MATERIAL UNLESS TECHNICAL SUBMITTALS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

4. THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL THE DRAWINGS BEFORE START OF WORK AND SHALL COORDINATE WITH ALL OTHER DISCIPLINE AND ANY DISCREPANCY APPEARS IT SHOULD BE BROUGHT TO THE CONSULTANTS KNOWLEDGE IMMEDIATELY.

5. CONTRACTOR SHALL COORDINATE ALL WORKS WITH ELECTRICAL, STRUCTURAL & ARCHITECTURAL LAYOUTS.

6. MECHANICAL SERVICES SHALL NOT CUT IN ANY STRUCTURAL BEAMS, RIBS OR ANY OTHER STRUCTURAL ELEMENTS UNLESS A PRIOR WRITTEN APPROVAL HAS BEEN TAKEN FROM THE ENGINEER.

7. ALL EQUIPMENTS SHALL BE INSTALLED STRICTLY AS PER MANUFACTURER'S RECOMMENDATION, OR BEAMS.

9. ALL WORK SHALL CONFORM TO THE LATEST INTERNATIONAL BUILDING CODE, AND THE REQUIREMENTS OF LOCAL AUTHORITIES

10. MANHOLE COVERS AND FRAMES ARE TO BE HEAVY DUTY IN TRAFFIC AREAS AND MEDIUM DUTY IN PEDESTRIAN AREAS.

11. MANHOLES SHALL BE OF CONCRETE CONSTRUCTION.

12. ALL SEWAGE PIPES SHALL HAVE A MINIMUM SLOPE OF 1% IN DIRECTION OF FLOW

13. ALL PIPES UNDER TRAFFIC WILL HAVE MINIMUM 1000 mm COVER OR WALL BE ENCASED IN CONCRETE.

14. ALL SANITARY APPLIANCES SHALL BE PROVIDED WITH TRAPS.

15. JOINTS TO W.C. PANS SHALL BE WITH UPVC CONNECTORS & RUBBER GASKETS.

16. ISOLATING VALVES SHALL BE PROVIDED TO SEPARATE THE INDIVIDUAL TOILETS, GATE VALVES SHALL BE PROVIDED TO/FROM WATER HEATERS

17. EXACT LOCATION OF WATER PIPE WORK SHALL BE DETERMINED ON SITE.

18. PROVIDE ISOLATING VALVE ON ALL MAIN AND BRANCH LINES FOR MAINTENANCE.

19. IN PLUMBING WATER SUPPLY SYSTEM THE PIPE DIAMETERS ARE INDICATED CONTRACTOR SHALL USE ADEQUATE PIPES SIZE, SPECIALLY WHEN USING PLASTIC PIPES TO ACCOUNT FOR PIPE WALL THICKNESS.

20. CONTRACTOR TO PROVIDE OVERFLOW, TEST PIPE, WARNING OF LEVEL AND DRAIN CONNECTION. ALL ELECTRICAL POWER AND CONTROL WIRING / CONDUITING FROM M.C.C. TO PLUMBING EQUIPMENTS SHALL BE CARRIED OUT BY ELECTRICAL CONTRACTOR.

21. CONTRACTOR TO PROVIDE CLEAN OUTS AT EVERY 15 METER OF PIPE RUN EVEN IF IT IS NOT MENTIONED IN THE DRAWINGS.

22. FOR COLD AND HOT WATER SUPPLY PPR PN-20 PIPES SHALL BE USED.

23. ALL EXPOSED COLD AND HOT WATER PIPING SHALL BE GI (11L) MEDIUM CLASS.

24. FOR SEWAGE SYSTEM UPVC (SWV) NON-PRESSURE PIPES AND FITTINGS SHALL BE USED.

25. FOR DRAINAGE SYSTEM PVC NON-PRESSURE PIPES AND FITTINGS CLASS-B, SHALL BE USED.

26. VENT PIPES SHALL BE EXTENDED ONE FEET ABOVE THE PARAPET WALL.

27. GEYSER SHALL BE STORAGE TYPE (COMMERCIAL MAKE).

28. ALL THE PUBLIC HEALTH SYSTEMS IS HANGING TYPE USE PROPER HANGING ARRANGEMENT FOR PIPES ETC.

29. ALL WATER SUPPLY PPR PIPES SHOWN IN DRAWINGS ARE INTERNAL DIAMETER.

30. SLOPE FOR SEWAGE PIPE I.E FOR WASTE IS 1.8 CM PER METER AND FOR SOIL IS 1.5 CM PER METER.

31. SLOPE FOR SEWAGE PIPE I.E FOR WASTE IS 1.8 CM PER METER AND FOR SOIL IS 1.5 CM PER METER.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.	APPROVED
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENGR.HIKMAT KHAN
04			DESIGNED BY	ENGR.HIKMAT KHAN

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19-A, GULBERG-II, LAHORE PH: 5758433 / 5756752

PROJECT: WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

TITLE: GENERAL NOTES & LEGENDS
N.T.S
SCALE
DATE: APRIL, 2025
DWG. NO. MEP - PD - 100
JOB NO.

NOTES:

1. NO WORK SHALL BE CARRIED OUT UNLESS SHOP DRAWINGS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

2. CONTRACTOR SHALL NOT PROVIDE ANY EQUIPMENT OR MATERIAL UNLESS TECHNICAL SUBMITTALS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

3. THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL THE DRAWINGS BEFORE START OF WORK AND SHALL COORDINATE WITH ALL OTHER DISCIPLINE AND ANY DISCREPANCY APPEARS IT SHOULD BE BROUGHT TO THE CONSULTANTS KNOWLEDGE IMMEDIATELY.

4. CONTRACTOR SHALL COORDINATE ALL WORKS WITH ELECTRICAL, STRUCTURAL & ARCHITECTURAL DRAWINGS.

5. MECHANICAL SERVICES SHALL NOT CUT IN ANY STRUCTURAL BEAMS, RIBS OR ANY OTHER STRUCTURAL ELEMENTS UNLESS A PRIOR WRITTEN APPROVAL HAS BEEN TAKEN FROM THE ENGINEER.

6. ALL EQUIPMENTS SHALL BE INSTALLED STRICTLY AS PER MANUFACTURER'S RECOMMENDATION.

7. MECHANICAL CONTRACTOR SHALL PROVIDE SLEEVE ON ALL PIPES PENETRATING WALLS SLABS OR BEAMS.

8. ALL WORK SHALL CONFORM TO THE LATEST INTERNATIONAL BUILDING CODE, AND THE REQUIREMENTS OF LOCAL AUTHORITIES

9. ALL PIPES UNDER TRAFFIC WILL HAVE MINIMUM 1000 mm COVER OR WALL BE ENCASED IN CONCRETE.

10. JOINTS TO W.C. PANS SHALL BE WITH UPVC CONNECTORS & RUBBER GASKETS.

11. ISOLATING VALVES SHALL BE PROVIDED TO SEPARATE THE INDIVIDUAL TOILETS, GATE VALVES SHALL BE PROVIDED TO / FROM WATER HEATERS

12. EXACT LOCATION OF WATER PIPE WORK SHALL BE DETERMINED ON SITE.

13. PROVIDE ISOLATING VALVE ON ALL MAIN AND BRANCH LINES FOR MAINTENANCE.

14. IN PLUMBING WATER SUPPLY SYSTEM THE PIPE DIAMETERS ARE INDICATED CONTRACTOR SHALL USE ADEQUATE PIPES SIZE, SPECIALLY WHEN USING PLASTIC PIPES TO ACCOUNT FOR PIPE WALL THICKNESS.

15. CONTRACTOR TO PROVIDE OVERFLOW, TEST PIPE, WARNING OF LEVEL AND DRAIN CONNECTION.

16. ALL ELECTRICAL POWER AND CONTROL WIRING/CONDUITING FROM M.C.C. TO PLUMBING EQUIPMENTS SHALL BE CARRIED OUT BY ELECTRICAL CONTRACTOR.

17. FOR COLD AND HOT WATER SUPPLY PPR PN-20 PIPES SHALL BE USED.

18. ALL EXPOSED COLD AND HOT WATER PIPING SHALL BE GI (11L) MEDIUM CLASS.

19. ALL EXPOSE HOT WATER PIPES SHALL BE INSULATED.

LEGEND	
SP	SOIL WATER PIPE
WP	WASTE WATER PIPE
RWP	RAIN WATER PIPE
FD	FLOOR DRAIN
COP	CLEAN OUT PLUG (ABOVE CEILING)
	HANGING CLAMP
WMH	WASTE WATER MANHOLE
SMH	SOIL WATER MANHOLE
RMH	RAIN WATER MANHOLE
S&WMH	SOIL AND WASTE WATER CIRCLE MANHOLE

LEGEND	
CW	COLD WATER SUPPLY
HW	HOT WATER SUPPLY
WGYSR	WATER GYSER
	WASHBASIN
	ENGLISH WC
	MUSLIM WC

PLUMBING LEGENDS		
SYMBOL	DESCRIPTION	SYMBOL
	CW COLD WATER SUPPLY PIPE	
	HW HOT WATER SUPPLY PIPE	
	NG HOT WATER SUPPLY PIPE	
	NATURAL GAS	
FITTINGS & VALVES		
	GATE VALVE	
	FLOAT VALVE	
	STRAINER	
DESCRIPTION		
MU	MAKE UP PIPE	
F/A	FROM ABOVE	
F/B	FROM BELOW	
T/A	TO ABOVE	
T/B	TO BELOW	
	WATER GYSER	
	GAS COCK	
	EUROPEAN WC WALL MOUNTED	
	EUROPEAN WC	
	MUSLIM WC	
	MUSLIM SHOWER	
	DOUBLE BIBCOCK	
	SINGLE BIBCOCK	
	MIXER	
	VANITY WASH BASIN	
	WASHBASIN	
	MIXER SHOWER	
	PRESSURE REDUCING VALVE	



Project Director
WOMEN UNIVERSITY SWABI

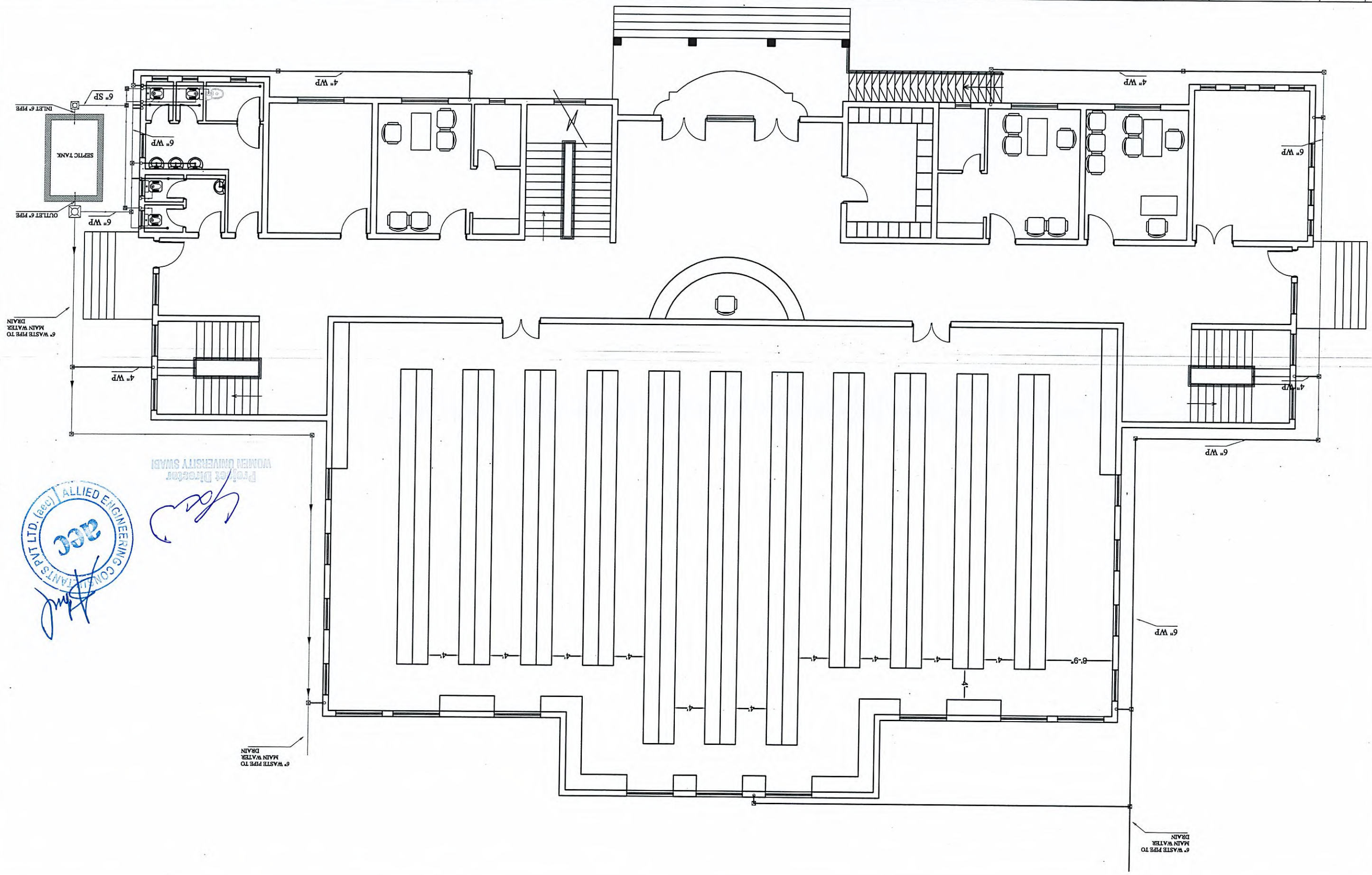
REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.	APPROVED
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENGR HIKMAT KHAN
04			DESIGNED BY	ENGR HIKMAT KHAN



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PROJECT: WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

TITLE: GROUND FLOOR
SEWERAGE LAYOUT
N.T.S.
SCALE
DATE: APRIL, 2025
DWG. NO. MEP - SEWD - 101
JOB NO.



Project Director
WOMEN UNIVERSITY SWABI



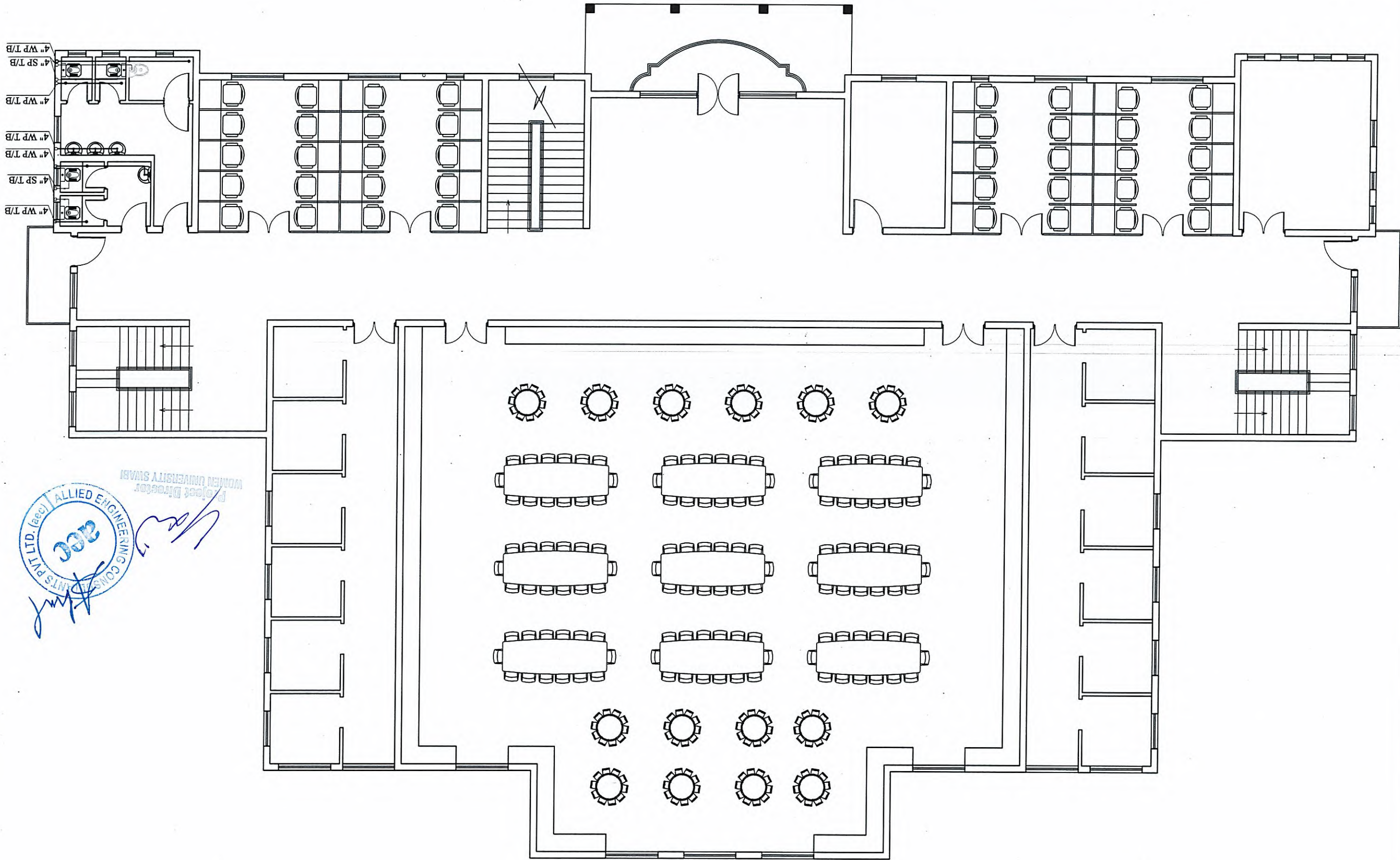
REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL		
02			CHD/VER.	
03			DRAWN BY	SALEEM KHAN
04			CHECKED BY	ENGR. HIKMAT KHAN
			DESIGNED BY	ENGR. HIKMAT KHAN



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PROJECT: WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

DATE: APRIL, 2025	DWG. NO. MEP - SEWD - 102	JOB NO.
TITLE: FIRST FLOOR SEWERAGE LAYOUT	N.T.S.	SCALE



REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL		CHD/VER
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03				CHECKED BY
04				DESIGNED BY

ENGR. HIKMAT KHAN
ENGR. HIKMAT KHAN
SALEEM KHAN



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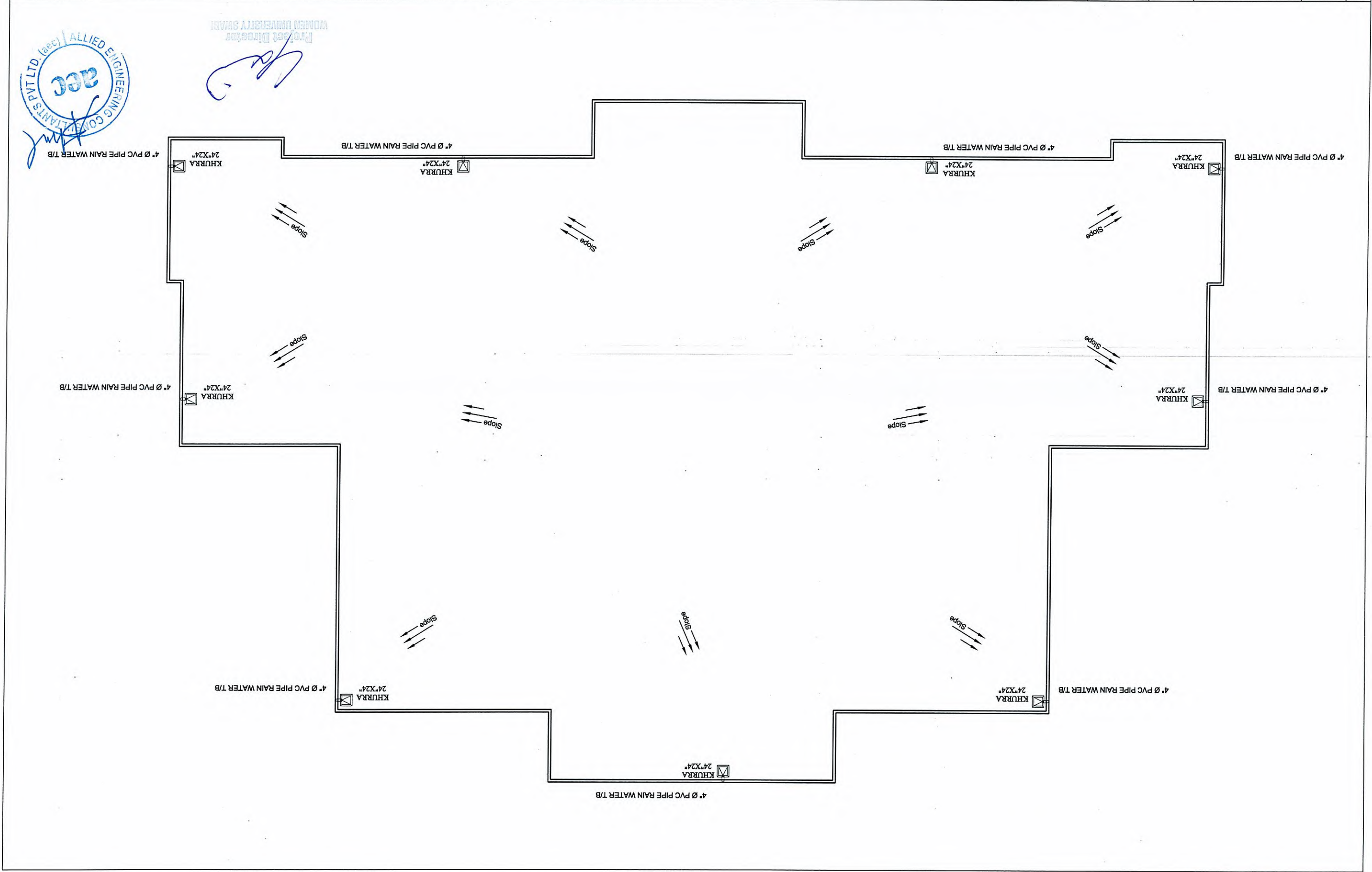
PROJECT:

WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

TITLE:

ROOFTOP FLOOR
DRAINAGE LAYOUT

JOB NO.	DATE:	DWG. NO.	MEP - SEWD - 103
SCALE	N.T.S.		



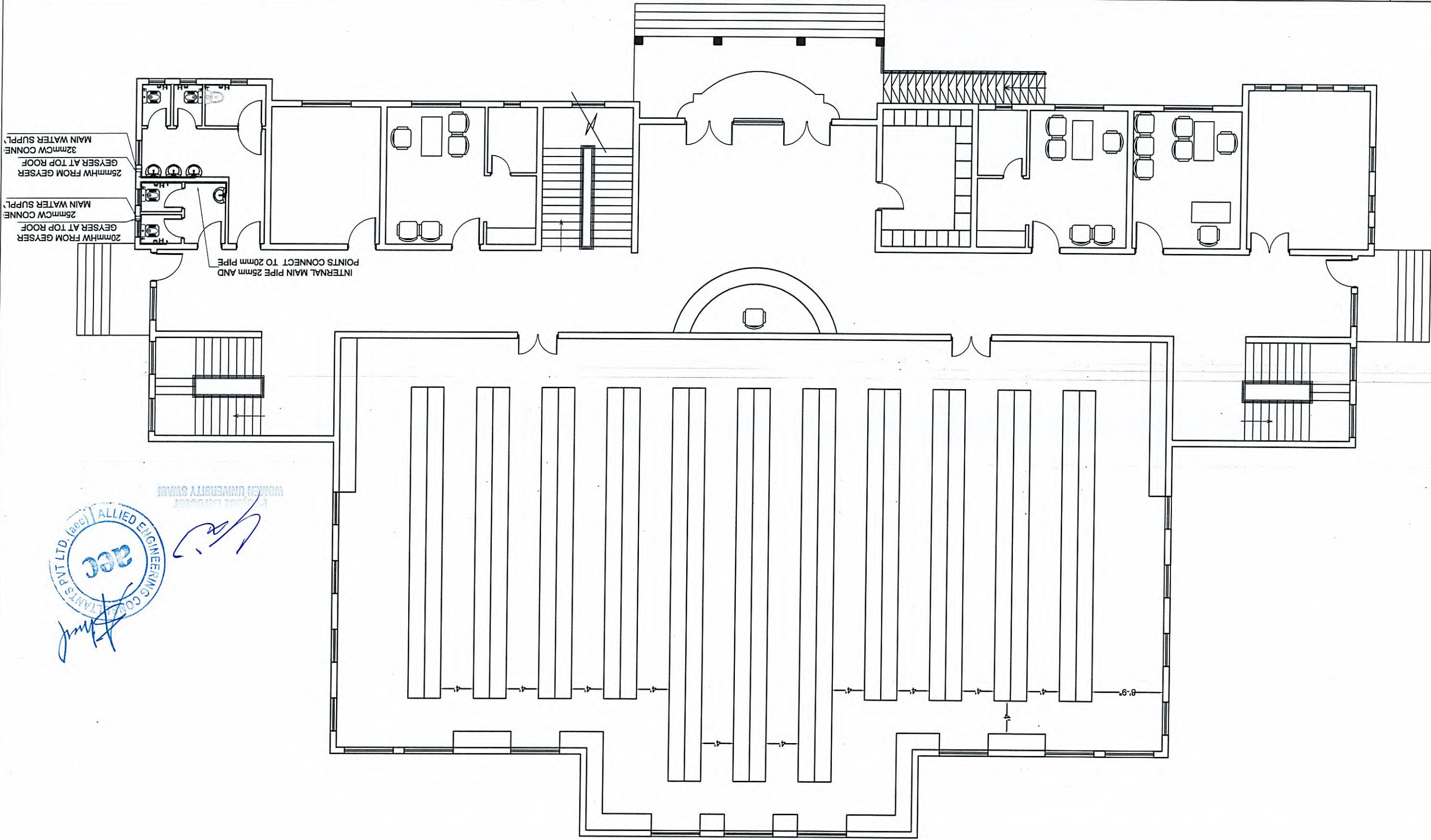
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03				CHECKED BY
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PROJECT: WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

TITLE: GROUND FLOOR WATER SUPPLY LAYOUT	DATE: APRIL, 2025	DWG. NO. MEP - WSD - 101	JOB NO.
SCALE	N.T.S.		



PROJECT DIRECTOR
WOMEN UNIVERSITY SWABI

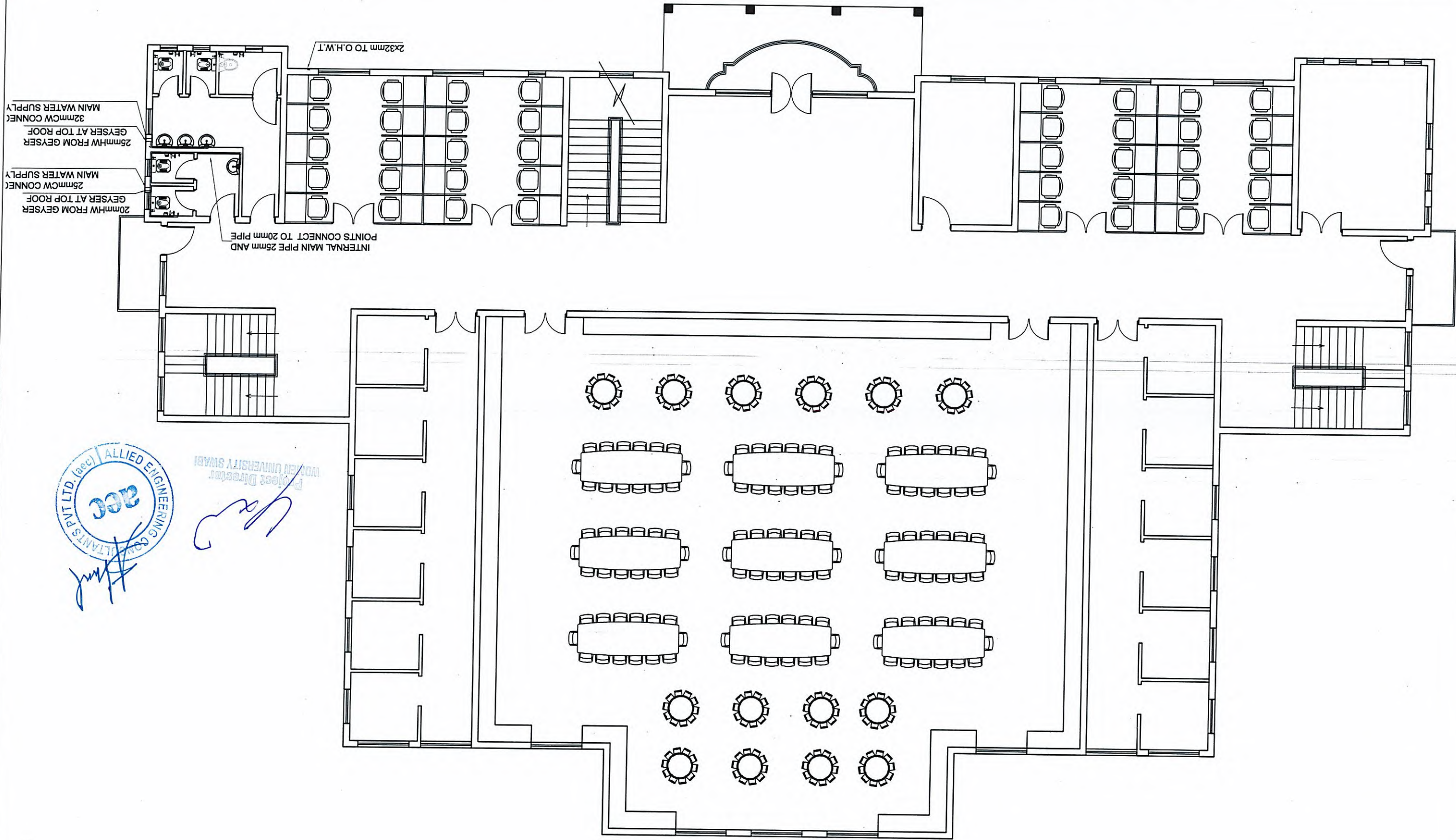
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01	14/04/2025	FOR REVIEW & APPROVAL		CHD/MER.
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03				CHECKED BY
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PROJECT: WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

TITLE:	DATE:	DWG. NO.	JOB NO.
FIRST FLOOR WATER SUPPLY LAYOUT	APRIL, 2025	MEP - WSD - 102	N.T.S
SCALE			



Project Director
WOMEN UNIVERSITY SWABI

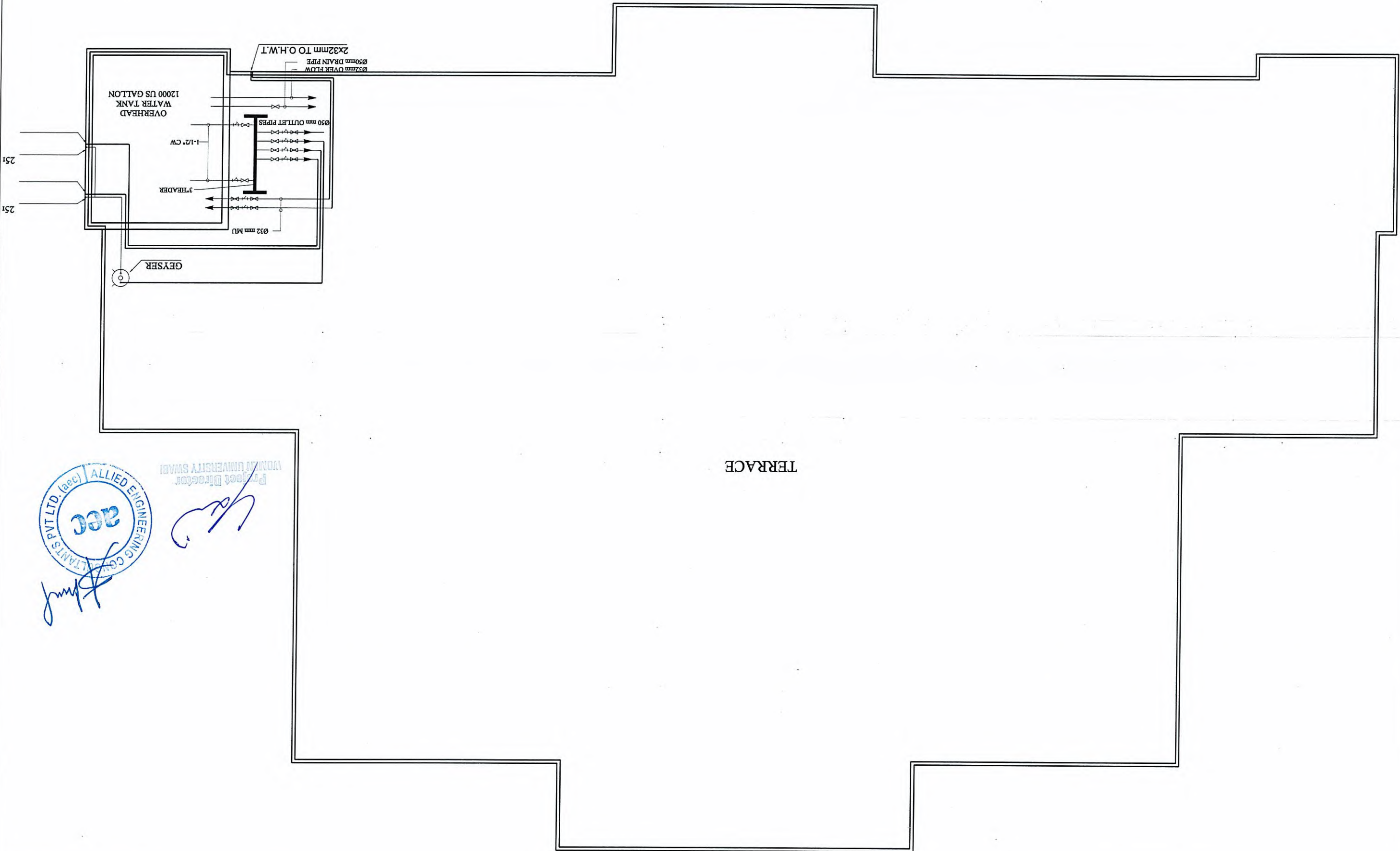
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01	14/04/2025	FOR REVIEW & APPROVAL		CHD / VER.
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PROJECT:
WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

SCALE	N.T.S.	TITLE: ROOFTOP FLOOR WATER SUPPLY LAYOUT	DATE: APRIL, 2025	DWG. NO. MEP - WSD - 103	JOB NO.
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TERRACE

Project Director
WOMEN UNIVERSITY SWABI

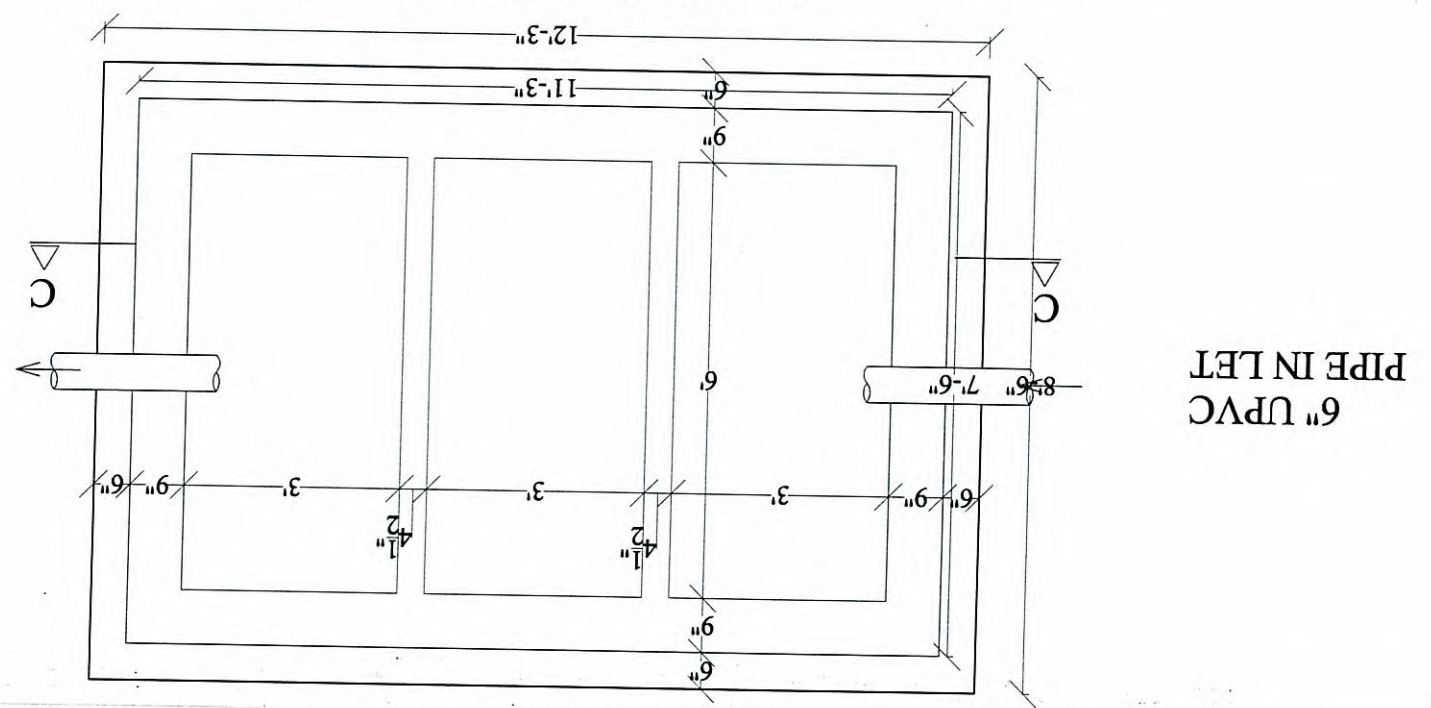


REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER	APPROVED
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENGR. HIKMAT KHAN
04			DESIGNED BY	ENGR. HIKMAT KHAN

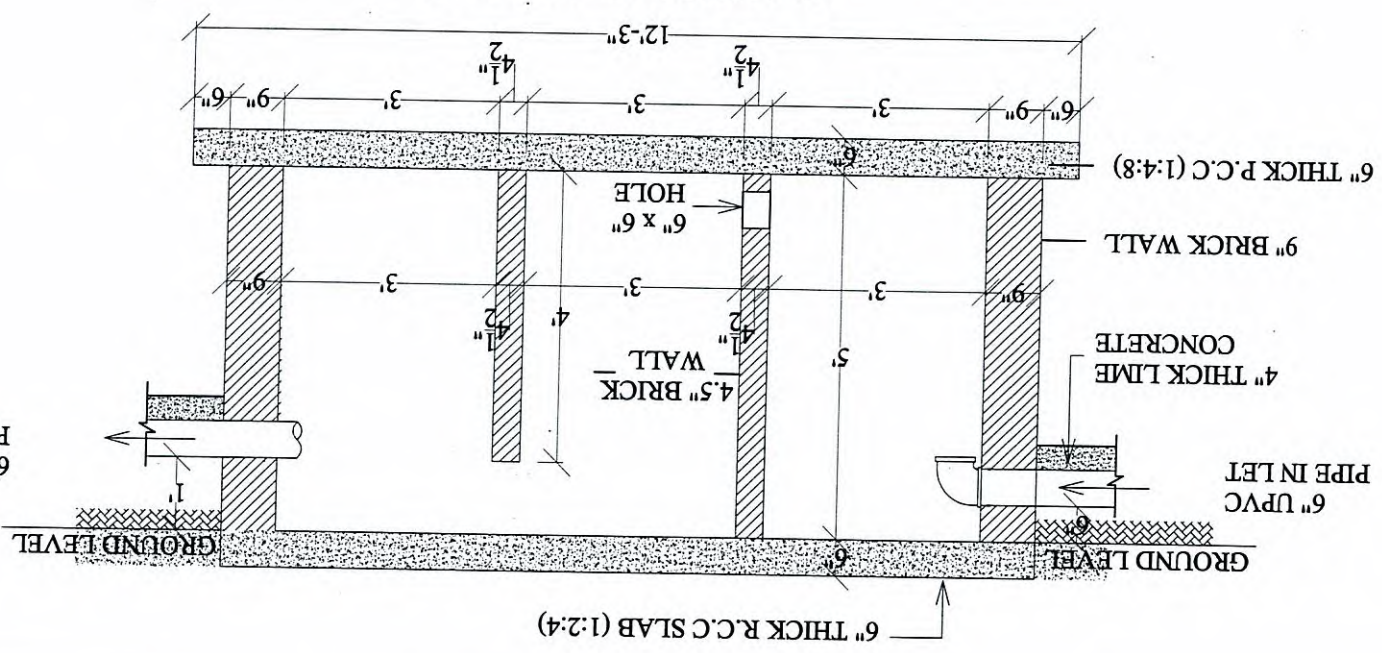
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PROJECT:	WOMEN UNIVERSITY OF SWABI (LIBRARY BUILDING)	DATE: APRIL, 2025	DWG. NO. MEP - PD - 100	JOB NO.
SCALE	N.T.S.	TITLE: SEPTIC TANK DETAILS		

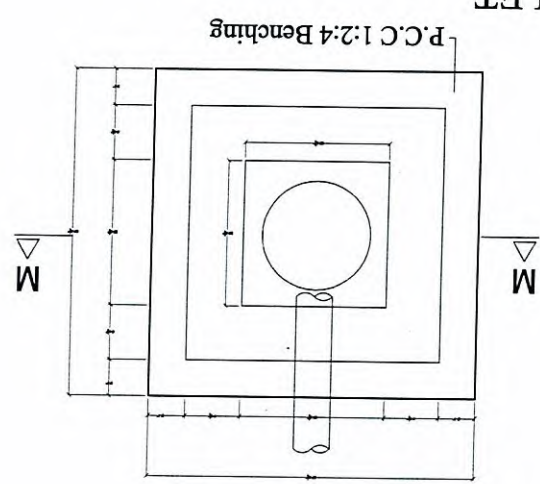
PLAN OF SEPTIC TANK



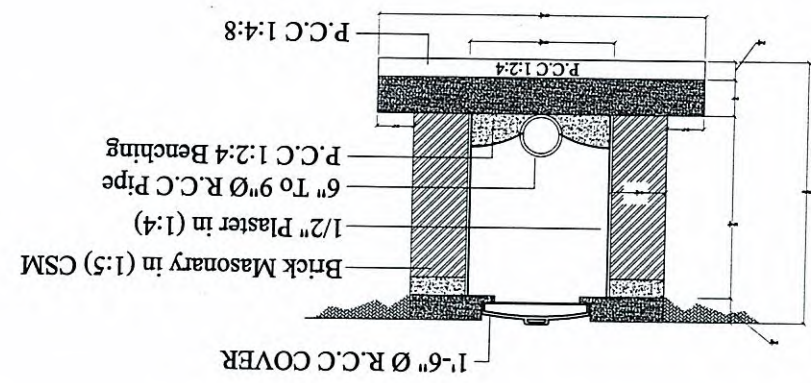
SECTION AT C-C



6" UPVC
PIPE OUT LET



6" UPVC
PIPE OUT LET



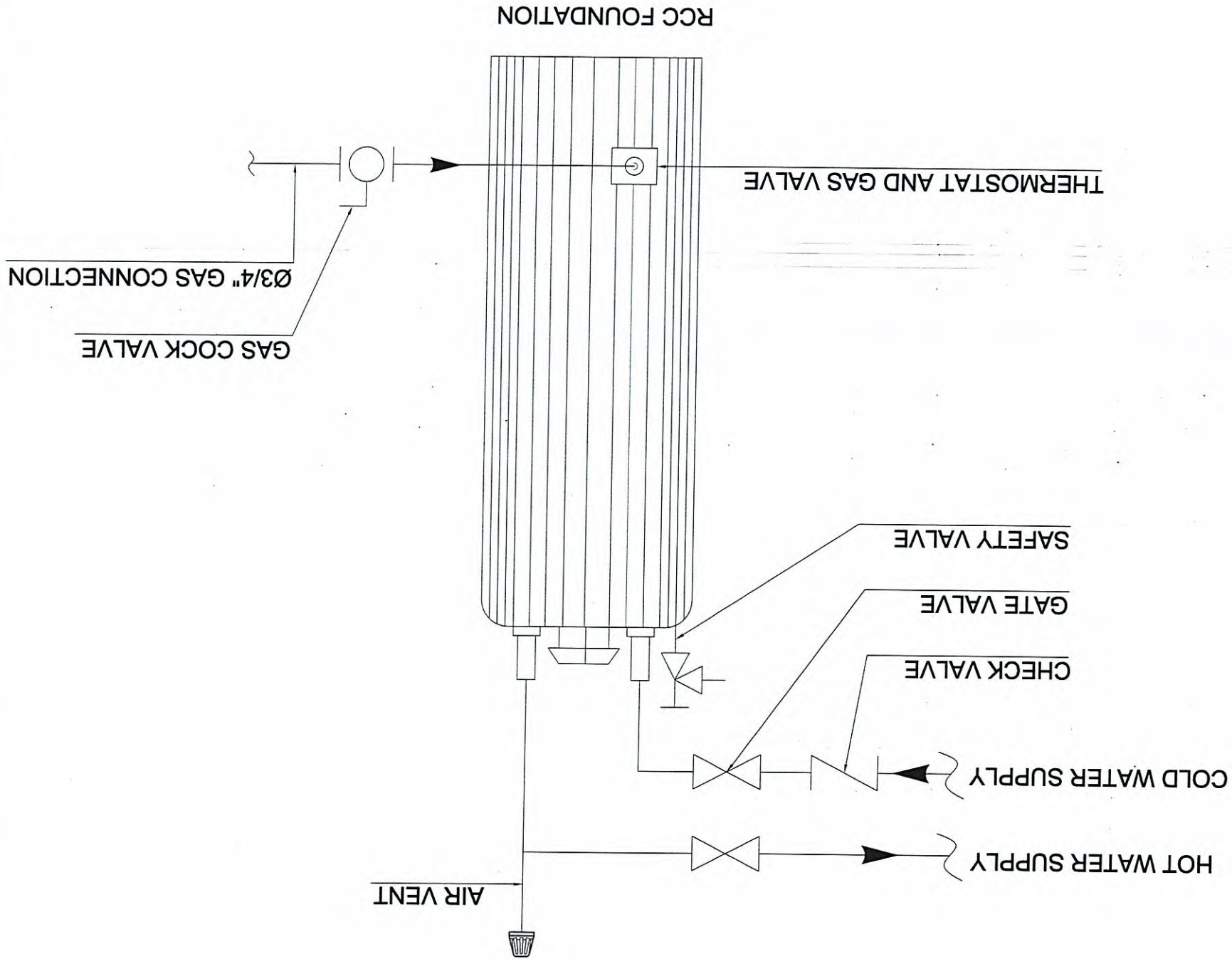
REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD.VER	APPROVED
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENGR. HIKMAT KHAN
04			DESIGNED BY	ENGR. HIKMAT KHAN

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PROJECT: WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

JOB NO.	DATE: APRIL, 2025	DWG. NO.	MEP - PD - 101
SCALE	TITLE: GEYSER INSTALLATION DETAILS	N.T.S	

HOT WATER GEYSER BOTH OPTIONAL GAS AND ELECTRIC GEYSER



LEGEND	
	GATE VALVE
	STRAINER
	CHECK VALVE
	FLEXIBLE
	FLOAT VALVE
	FOOT VALVE



Project Director
WOMEN UNIVERSITY SWABI

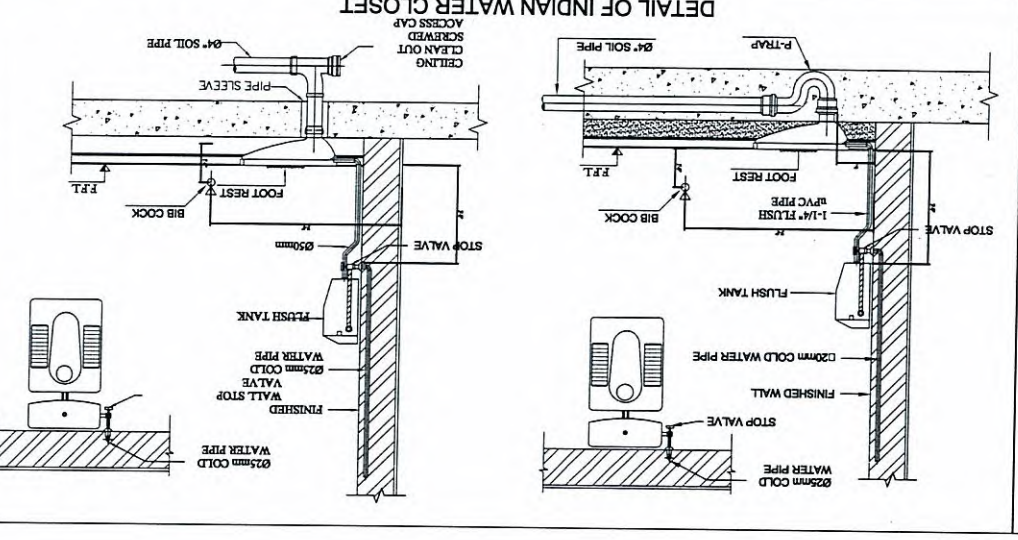
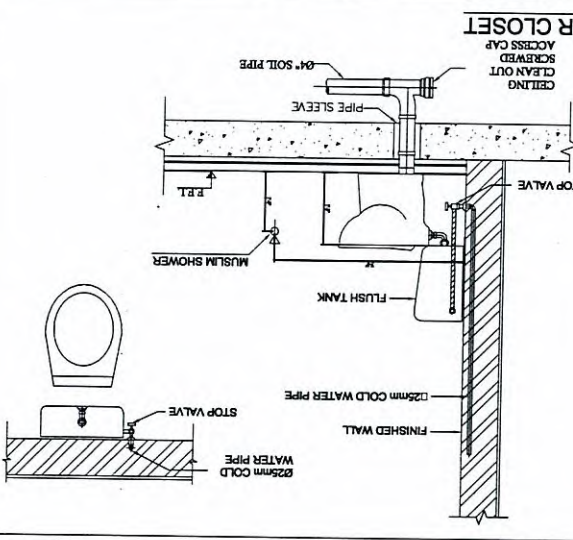
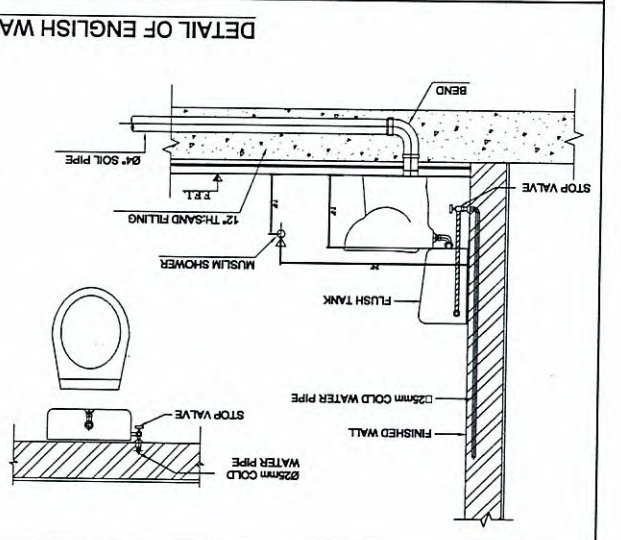
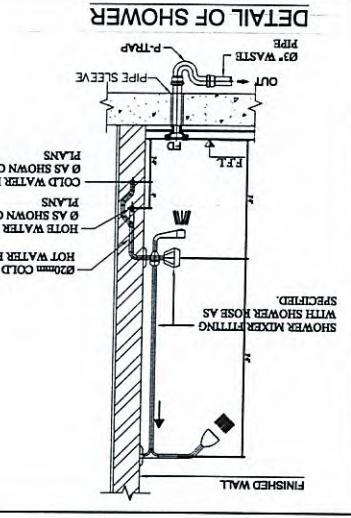
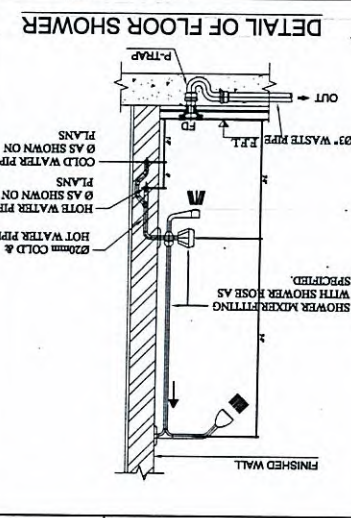
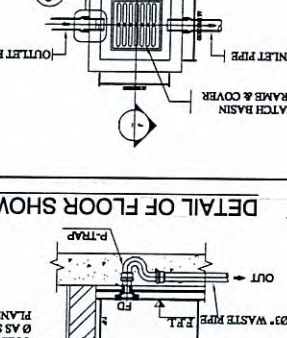
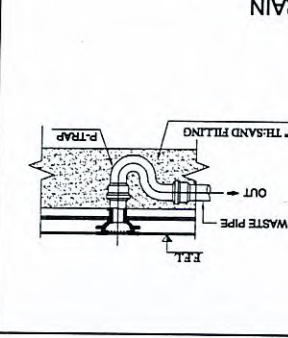
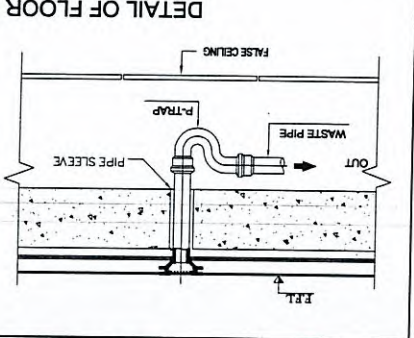
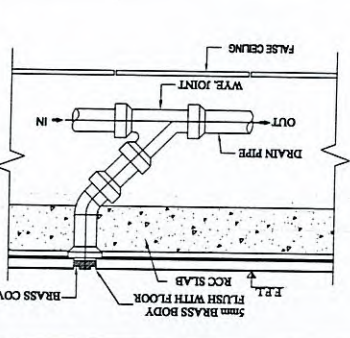
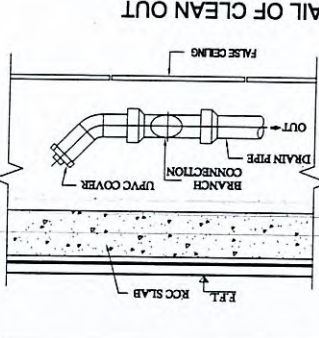
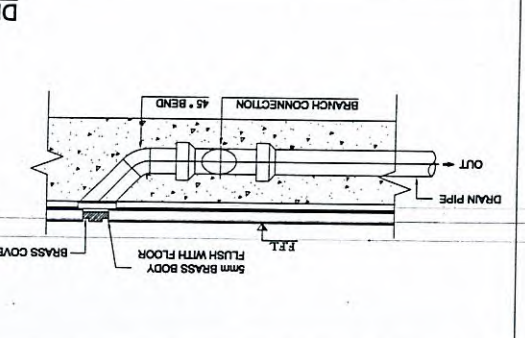
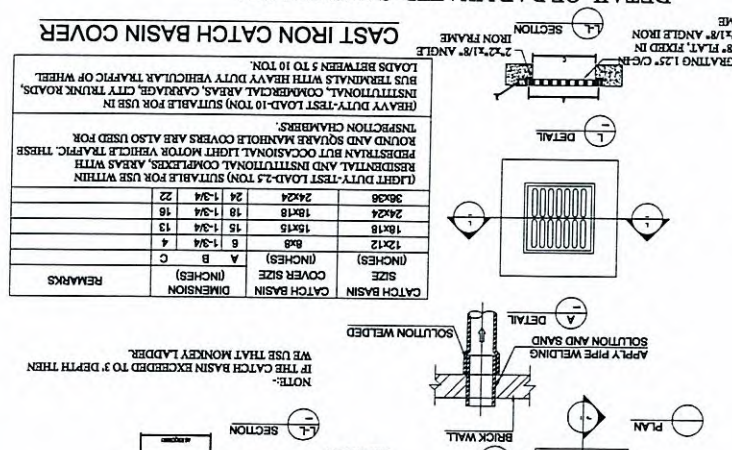
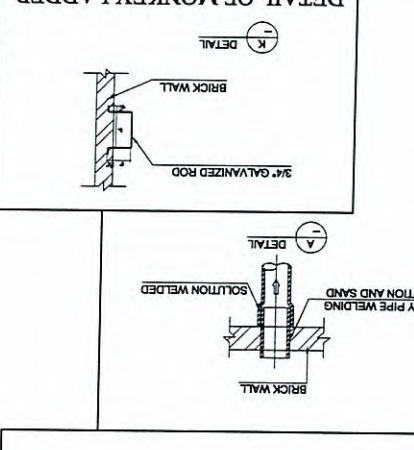
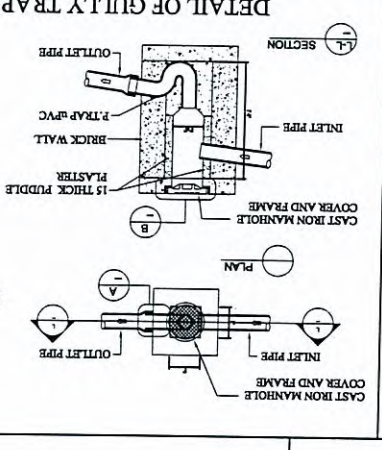
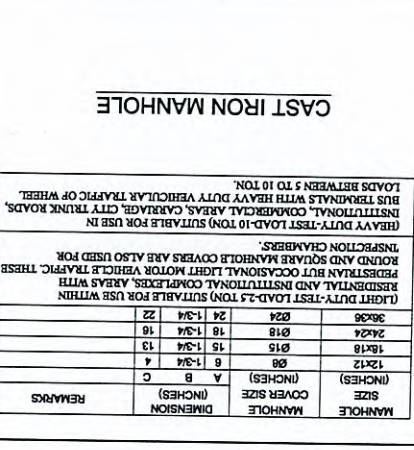
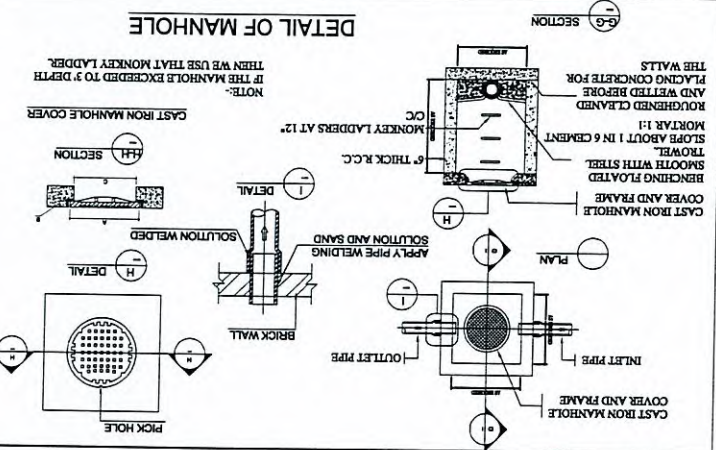
REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER	
02			DRAWN BY	SALHEEM KHAN
03			CHECKED BY	ENGR. HIKMAT KHAN
04			DESIGNED BY	ENGR. HIKMAT KHAN



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PROJECT: WOMEN UNIVERSITY OF SWABI (LIBRARY BUILDING)

TITLE: PLUMBING FIXTURES DETAILS - I
 DATE: APRIL, 2025
 DWG. NO. MEP - WSD - 103
 JOB NO. N.T.S. SCALE



REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.	APPROVED
02			DRAWN BY	SALEEM KHAN
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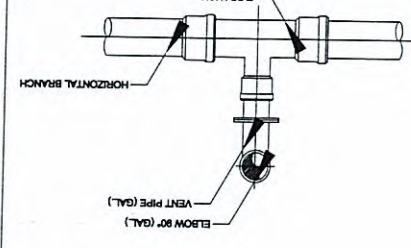


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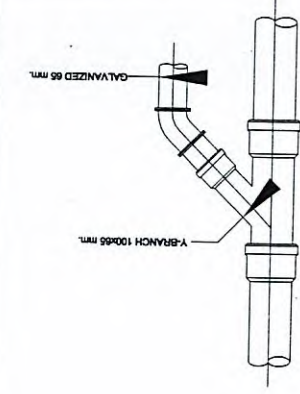
PROJECT: WOMEN UNIVERSITY OF SWABI
(LIBRARY BUILDING)

TITLE:	PLUMBING FIXTURES, PIPES, JOINTS INSTALLATION DETAILS
SCALE	N.T.S.
JOB NO.	MEP - WSD - 104
DWG. NO.	APRIL, 2025

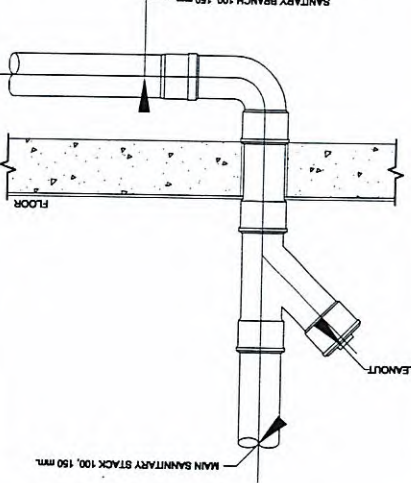
TYPICAL VENT FOR MAIN BRANCH TYPE 2



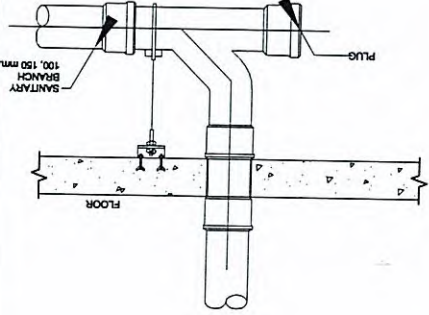
TYPICAL VENT FOR STACK TYPE 1



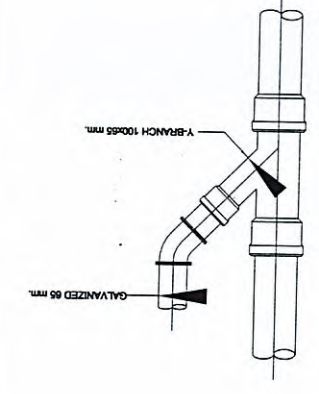
TYPICAL CLEAN OUT FOR MAIN SANITARY STACK TYPE 1



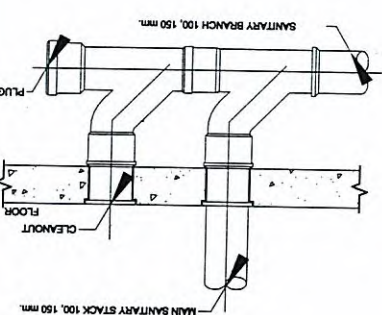
TYPICAL SUPPORTS UNDER FLOOR



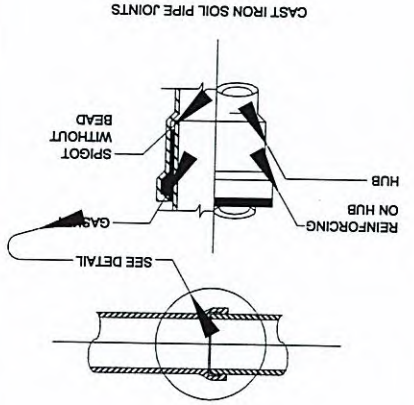
TYPICAL VENT FOR STACK TYPE 2



TYPICAL CLEAN OUT FOR MAIN SANITARY STACK TYPE 2



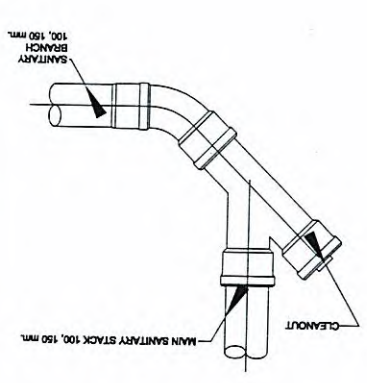
BELL & SPIGOT JOINT WITH GASKET CONNECTION FOR CAST IRON PIPE



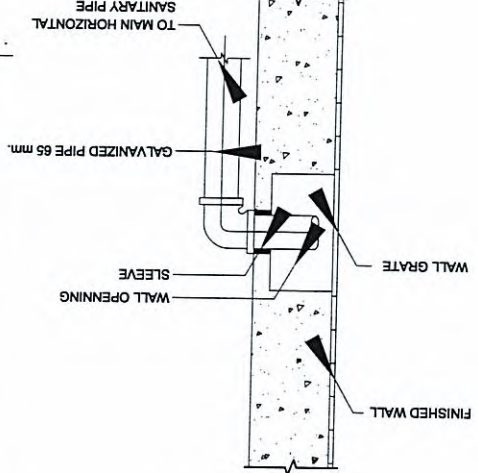
TYPICAL VENT FOR STACK TYPE 3



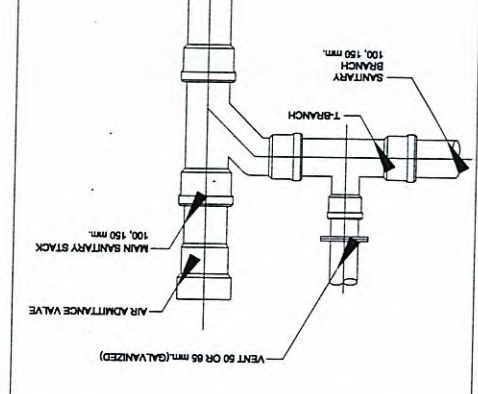
TYPICAL CLEAN OUT FOR MAIN SANITARY STACK TYPE 3



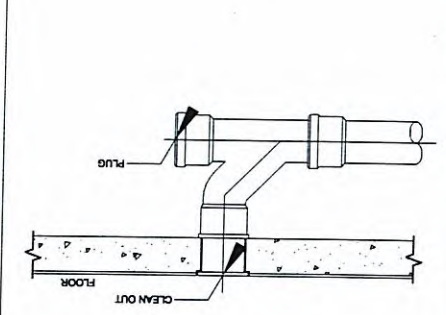
TYPICAL VENT FOR MAIN HORIZONTAL



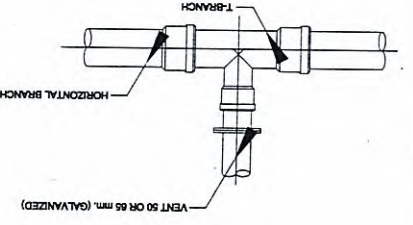
TYPICAL VENT FOR MAIN HORIZONTAL



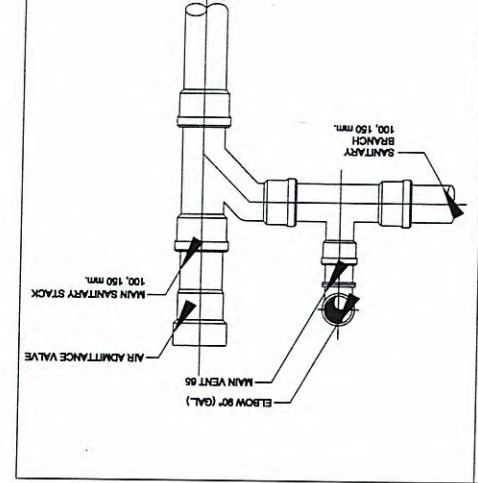
TYPICAL CLEAN OUT ON FLOOR



TYPICAL VENT FOR MAIN BRANCH TYPE 1



TYPICAL MAIN SANITARY STACK



Project Director
WOMEN UNIVERSITY SWABI

REV.	DATE	DESCRIPTION	APPROVED	APPROVED
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03			CHECKED BY	ENGR. HIKMAT KHAN
04			DESIGNED BY	ENGR. HIKMAT KHAN



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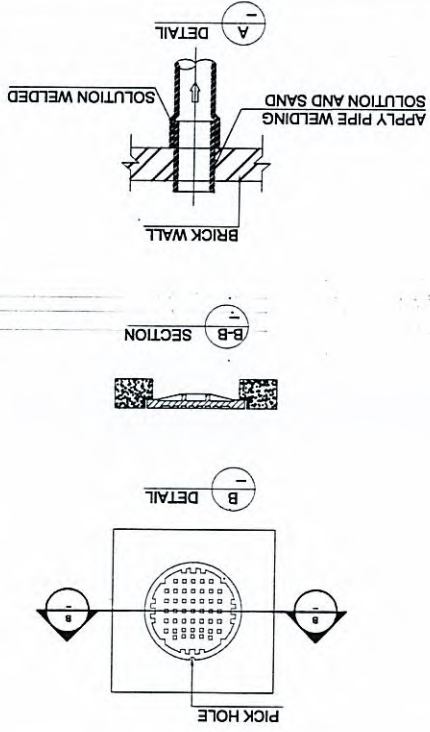
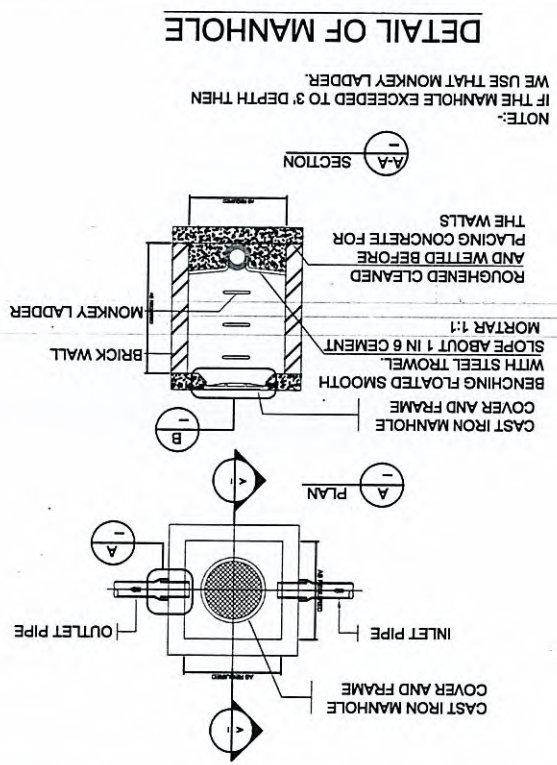
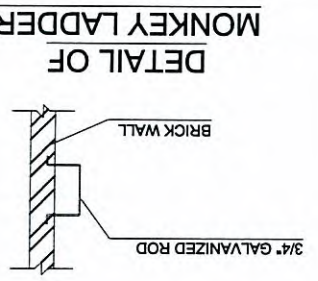
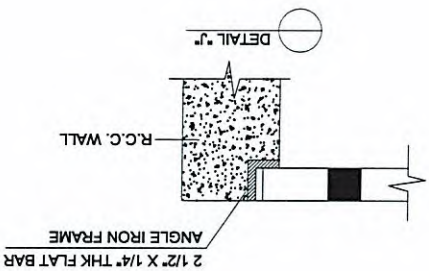
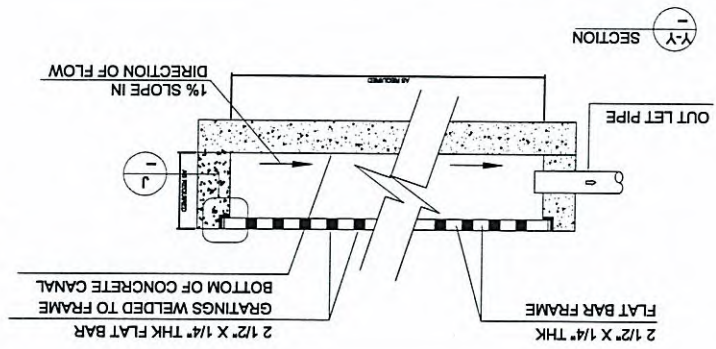
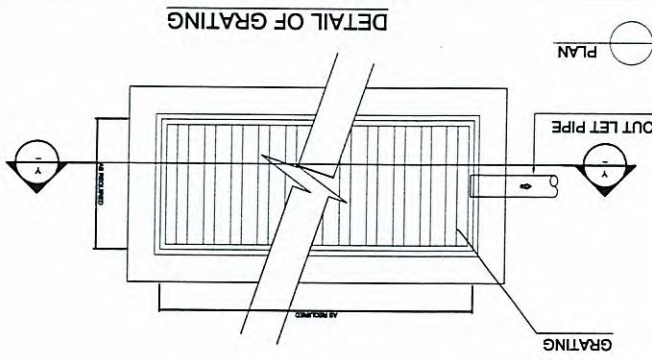
ARCHITECTS • ENGINEERS • PLANNERS.

19-A, GULBERG-II, LAHORE PH: 57584433 / 5756752

PROJECT:

WOMEN UNIVERSITY OF SWABI (LIBRARY BUILDING)

DATE:	APRIL, 2025	MEP - WSD - 105	JOB NO.
TITLE:	PLUMBING FIXTURES INSTALLATION DETAILS	DWG. NO.	N.T.S
SCALE:			

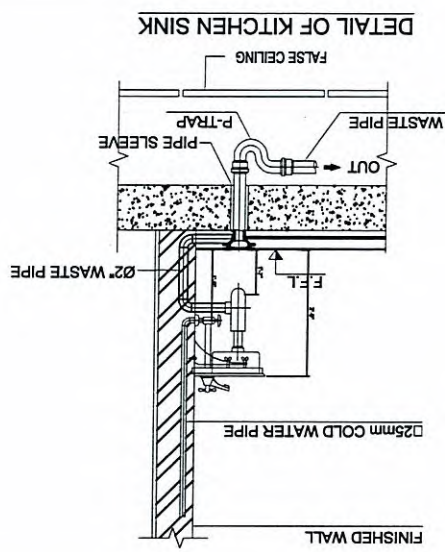
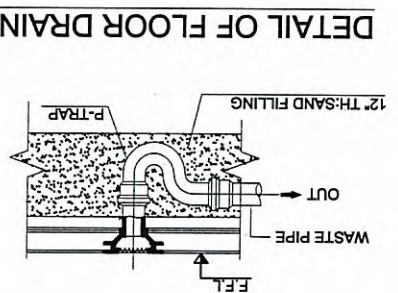
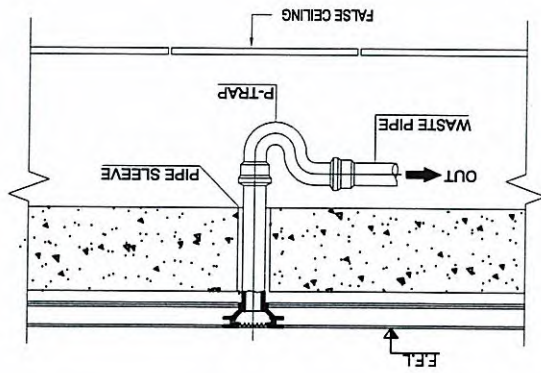
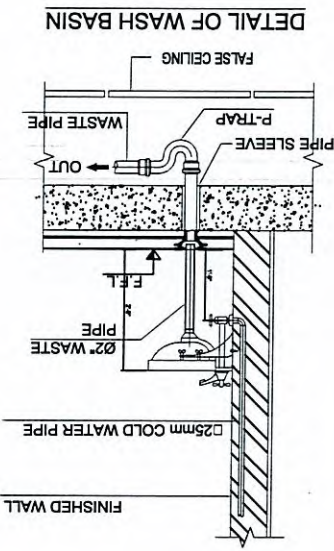


CAST IRON MANHOLE

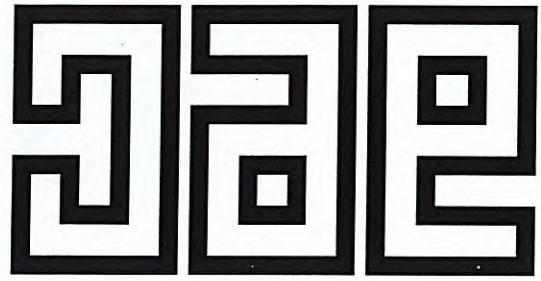
(LIGHT DUTY-TEST LOAD-2.5 TON) SUITABLE FOR USE WITHIN RESIDENTIAL AND INSTITUTIONAL COMPLEXES, AREAS WITH PEDESTRIAN BUT OCCASIONAL LIGHT MOTOR VEHICLE TRAFFIC. THESE ROUND AND SQUARE MANHOLE COVERS ARE ALSO USED FOR INSPECTION CHAMBERS.

(HEAVY DUTY-TEST LOAD-10 TON) SUITABLE FOR USE IN INSTITUTIONAL, COMMERCIAL AREAS, CARRIAGE, CITY TRUNK ROADS, BUS TERMINALS WITH HEAVY DUTY VEHICULAR TRAFFIC OF WHEEL LOADS BETWEEN 5 TO 10 TON.

MANHOLE SIZE (INCHES)	MANHOLE COVER SIZE (INCHES)	DIMENSION (INCHES)	REMARKS
12x12	Ø6	A B C	
18x18	Ø15	15 1-3/4 13	
24x24	Ø18	18 1-3/4 16	
36x36	Ø24	24 1-3/4 22	



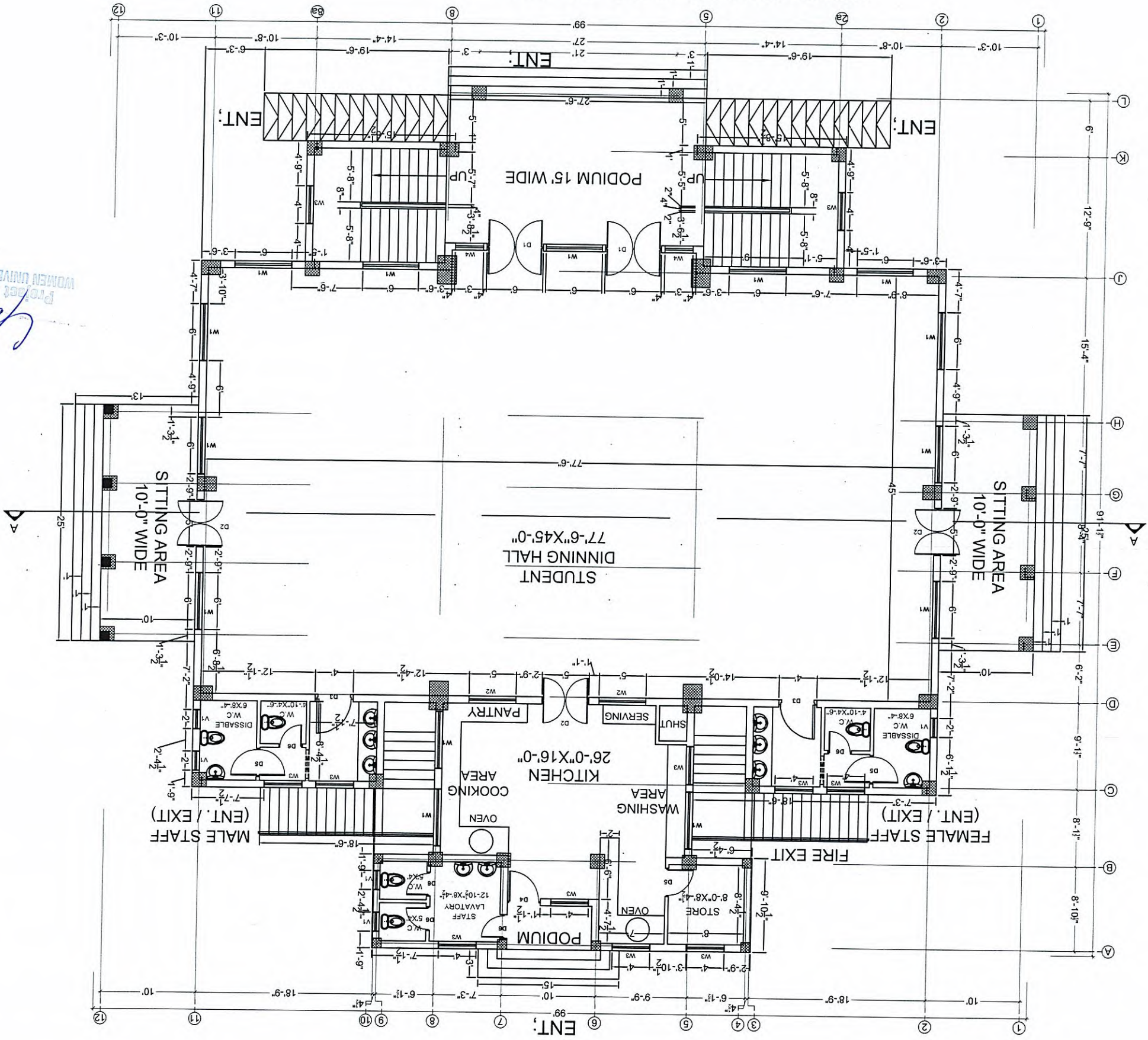
Project Director
WOMEN UNIVERSITY SWABI



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ARCHITECTS
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• ENGINEERS • PLANNERS •

DRAWN		ASIM	
ARCHITECT		BAQIR ALI	
CHECKED		MRS.SHAHINE KHAN	
PROJECT NO.		DRAWING NO.	
CAFETERIA BUILDING			
WOMEN UNIVERSITY SWABI			

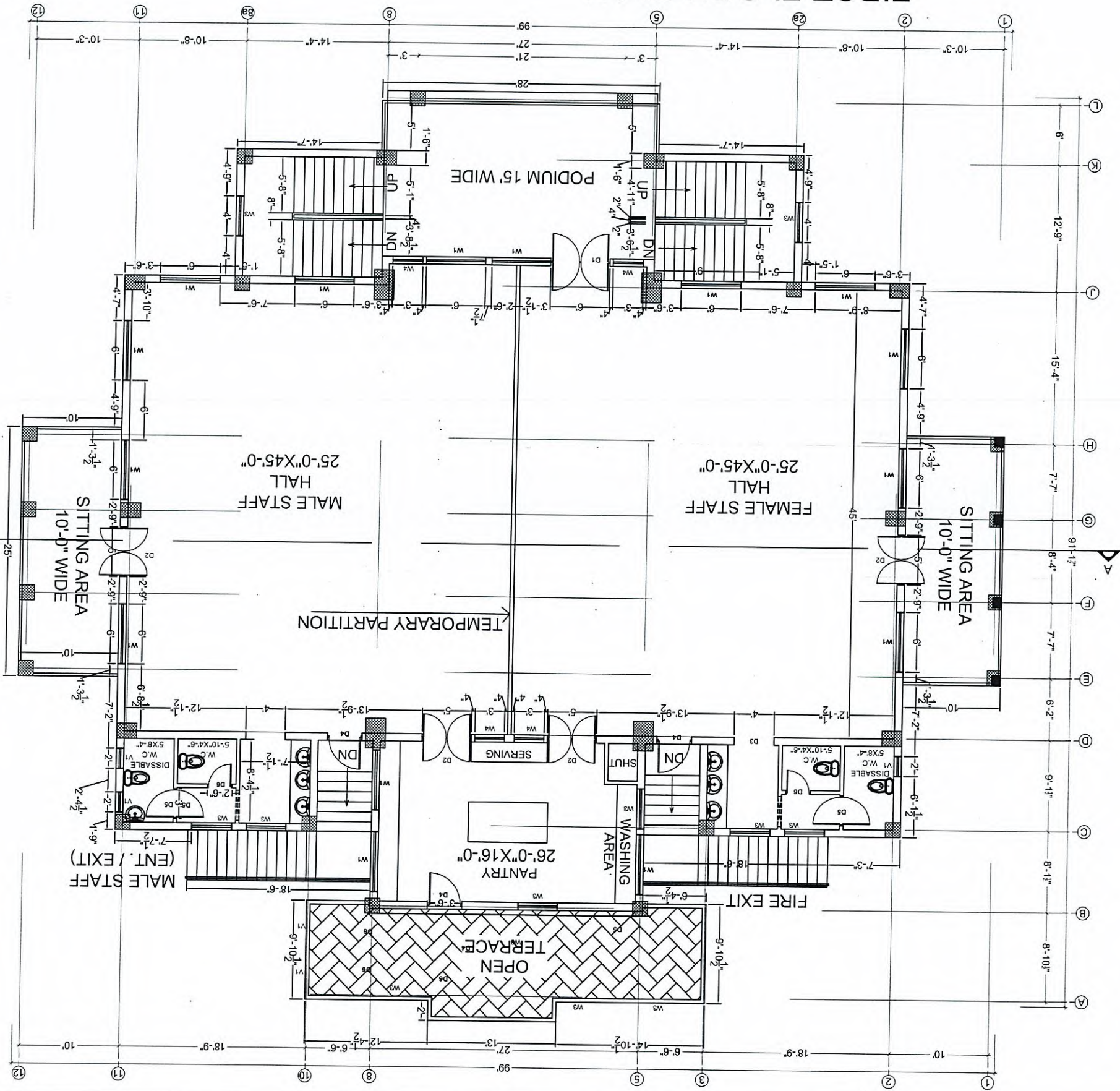


GROUND FLOOR PLAN
COVERED AREA = 6460.38 sq ft

PROJECT NO.		CAETERIA BUILDING	
DRAWING NO.		GROUND FLOOR PLAN	
A-01		CHECKED	
ARCHITECT		BAQIR ALI	
DRAWN		MRS, SHAHINE KHAN	
DATE		SCALE	
MARCH 2025		ASIM	
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FIRST FLOOR PLAN
 COVERED AREA = 6010.01 sq ft

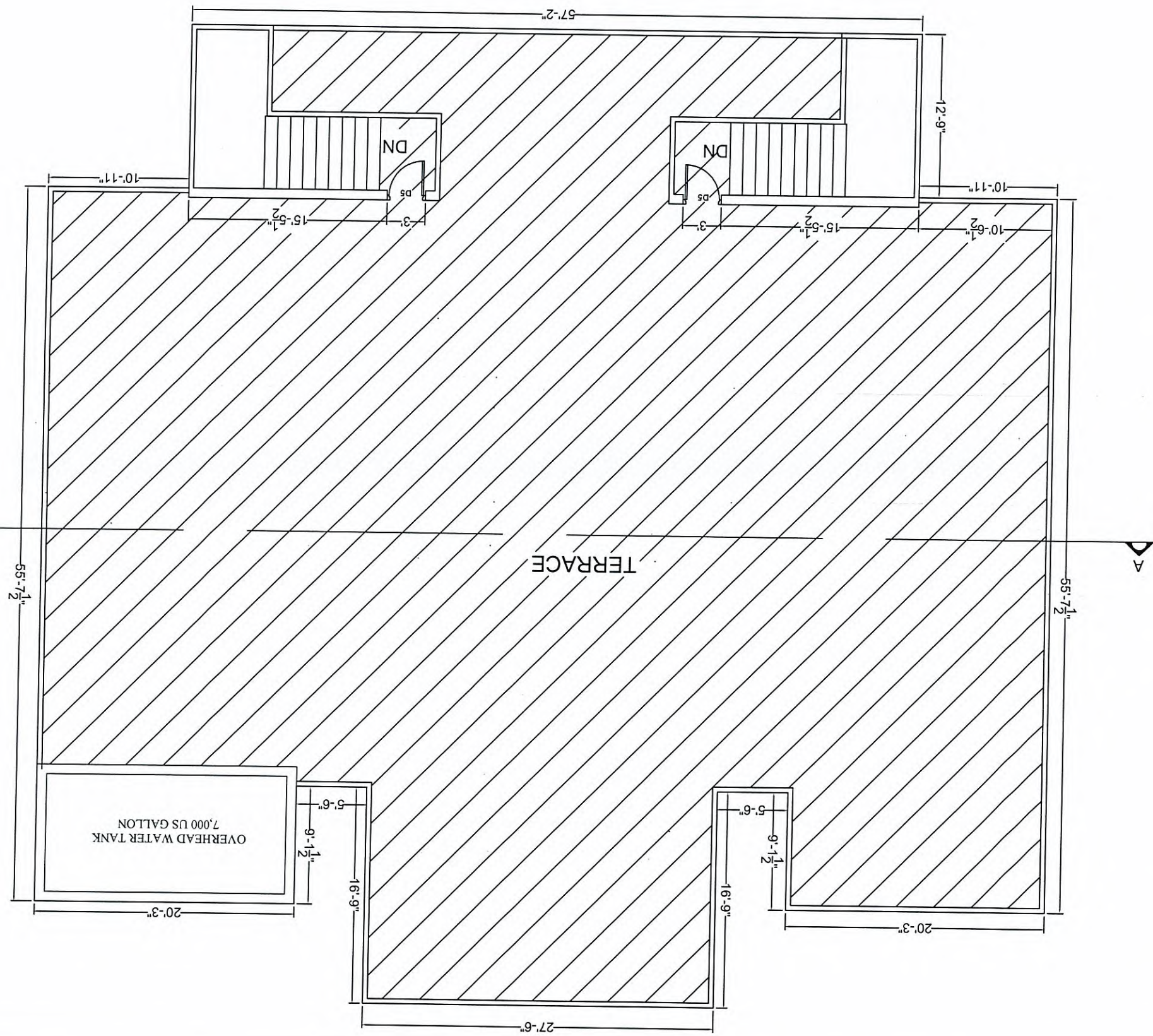
WOMEN UNIVERSITY SWABI		CAFETERIA BUILDING		FIRST FLOOR PLAN		A-12	
		ARCHITECT		BAQIR ALI		MRS. SHAHINE KHAN	
		CHECKED		SCALE		DATE	
		ASIM		MARCH 2025		DRAWN	
		ALLIED ENGINEERING CONSULTANTS (PVT.) LTD		ARCHITECTS • ENGINEERS • PLANNERS •		19 - A GULBERG-II, LAHORE PH: 5756423/5756752	
		19 - A GULBERG-II, LAHORE PH: 5756423/5756752		ARCHITECTS • ENGINEERS • PLANNERS •		19 - A GULBERG-II, LAHORE PH: 5756423/5756752	



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TOP FLOOR PLAN

COVERED AREA = 350.8 SQ. FT.



DRAWING NO.		ARCHITECT	
PROJECT NO.		BAQIR ALI	
TOP FLOOR PLAN		CHECKED	
DATE		SCALE	
MARCH 2025		ASIM	
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.		DRAWN	
ARCHITECTS • ENGINEERS • PLANNERS		BAQIR ALI	
19 - A, GULBERG-II, LAHORE PH: 5758433/5756752		ARCHITECT	



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ALLIED ENGINEERING CONSULTANTS (PVT.) LTD

ARCHITECT

BAQIR ALI

CHECKED

MRS. SHAHINE KHAN

DATE

MARCH 2025

PROJECT NO.

SCHEDULE OF DOORS AND WINDOWS

DRAWING NO.

A-14

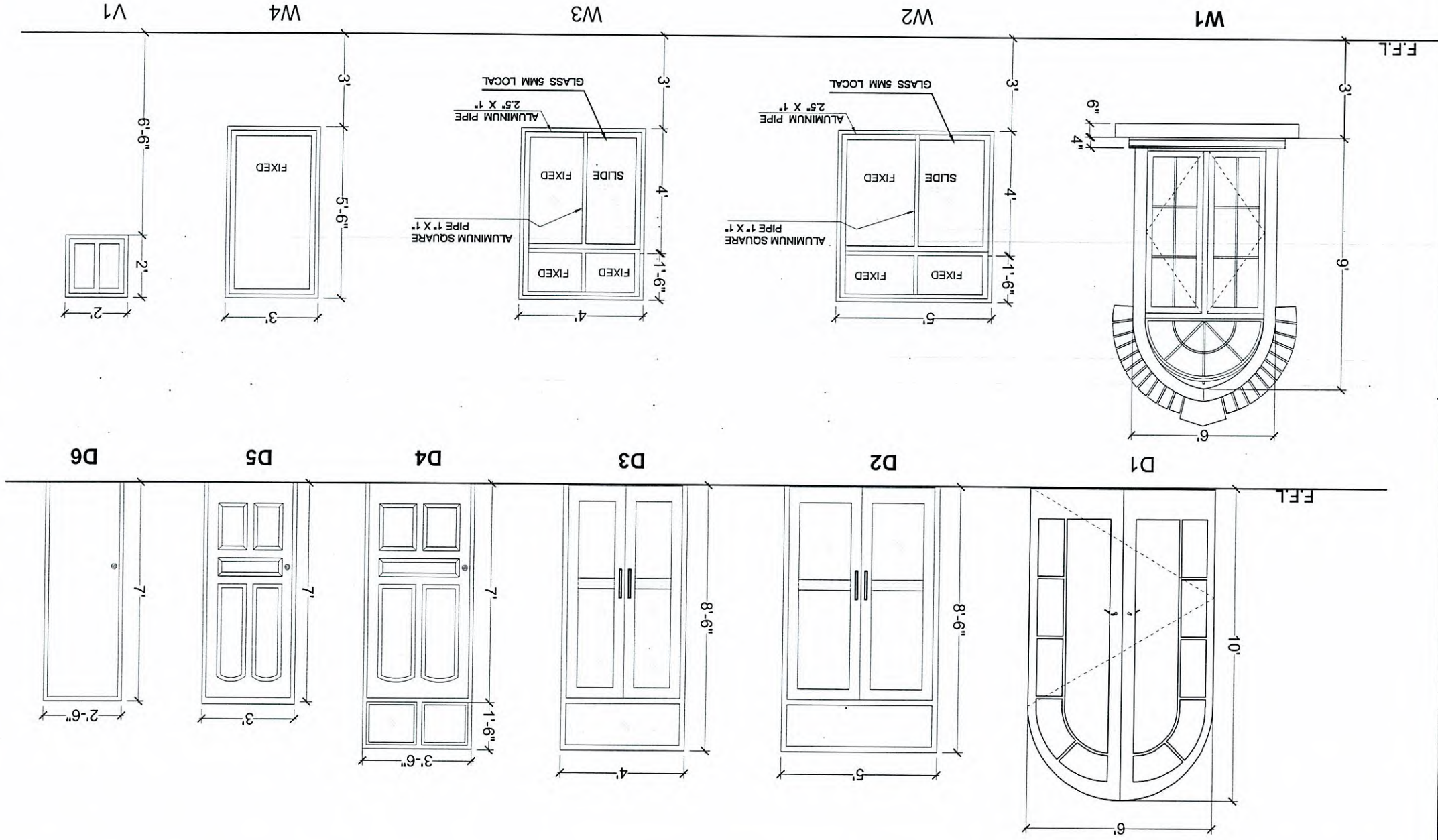
CAFETERIA BUILDING

WOMEN UNIVERSITY SWABI

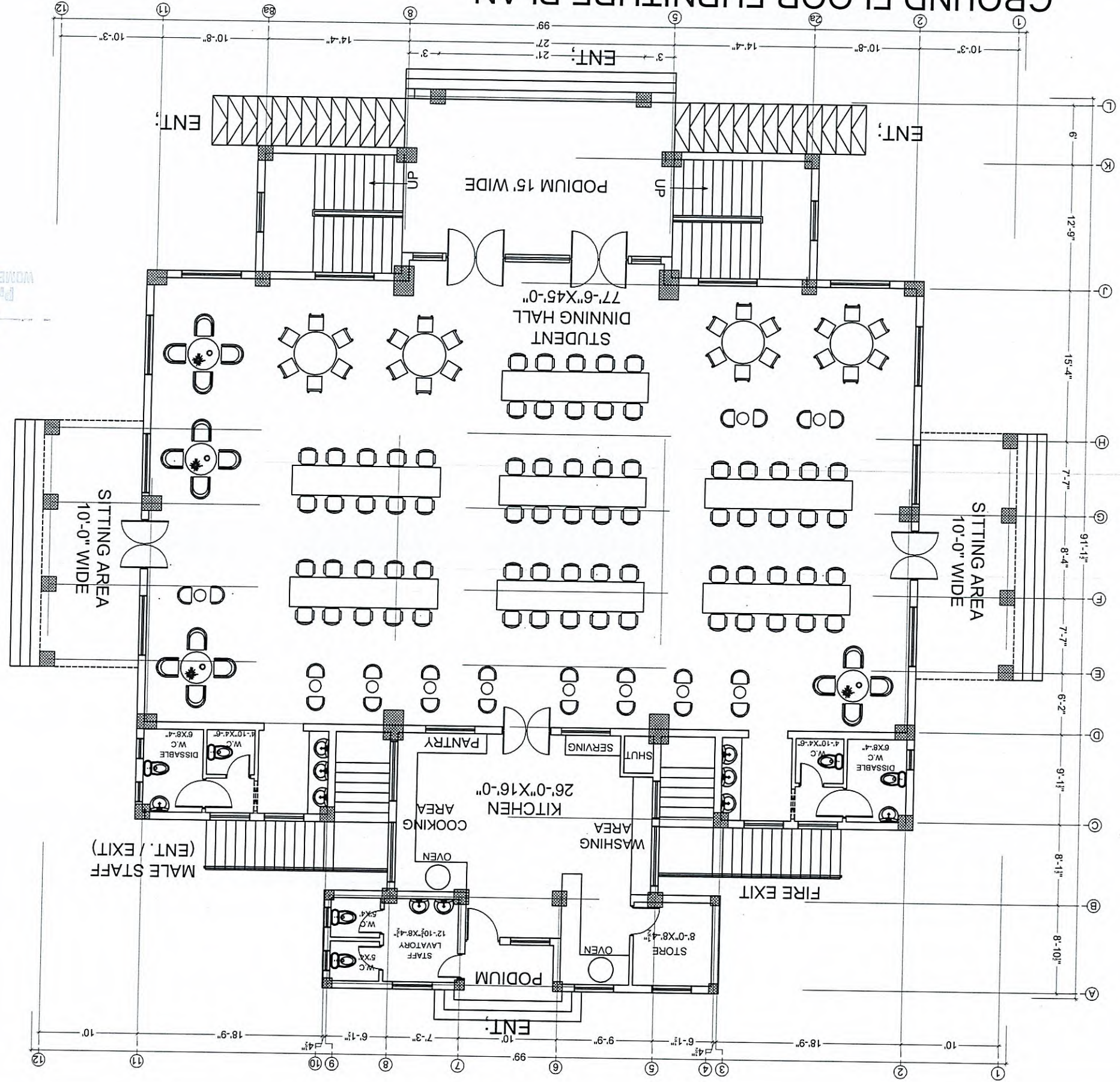


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SCHEDULE OF DOORS AND WINDOWS			
NO.	SIZE	SILL	DESCRIPTION
D1	6'-0"x10'-0"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D2	5'-0"x8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D3	4'-0"x8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D4	3'-6"x8'-6"	0'-0"	DEODAR WOODEN DOOR AS PER SPEC
D5	3'-0"x7'-0"	0'-0"	UPVC DOOR AS PER SPEC
D6	2'-6"x7'-0"	0'-0"	UPVC DOOR AS PER SPEC
W1	6'-0"x5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
W2	5'-0"x5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
W3	4'-0"x5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
W4	2'-0"x5'-6"	3'-0"	ALUMINUM WINDOWS AS PER SPEC
V1	2'-0"x2'-0"	6'-6"	ALUMINUM VENT AS PER SPEC



GROUND FLOOR FURNITURE PLAN

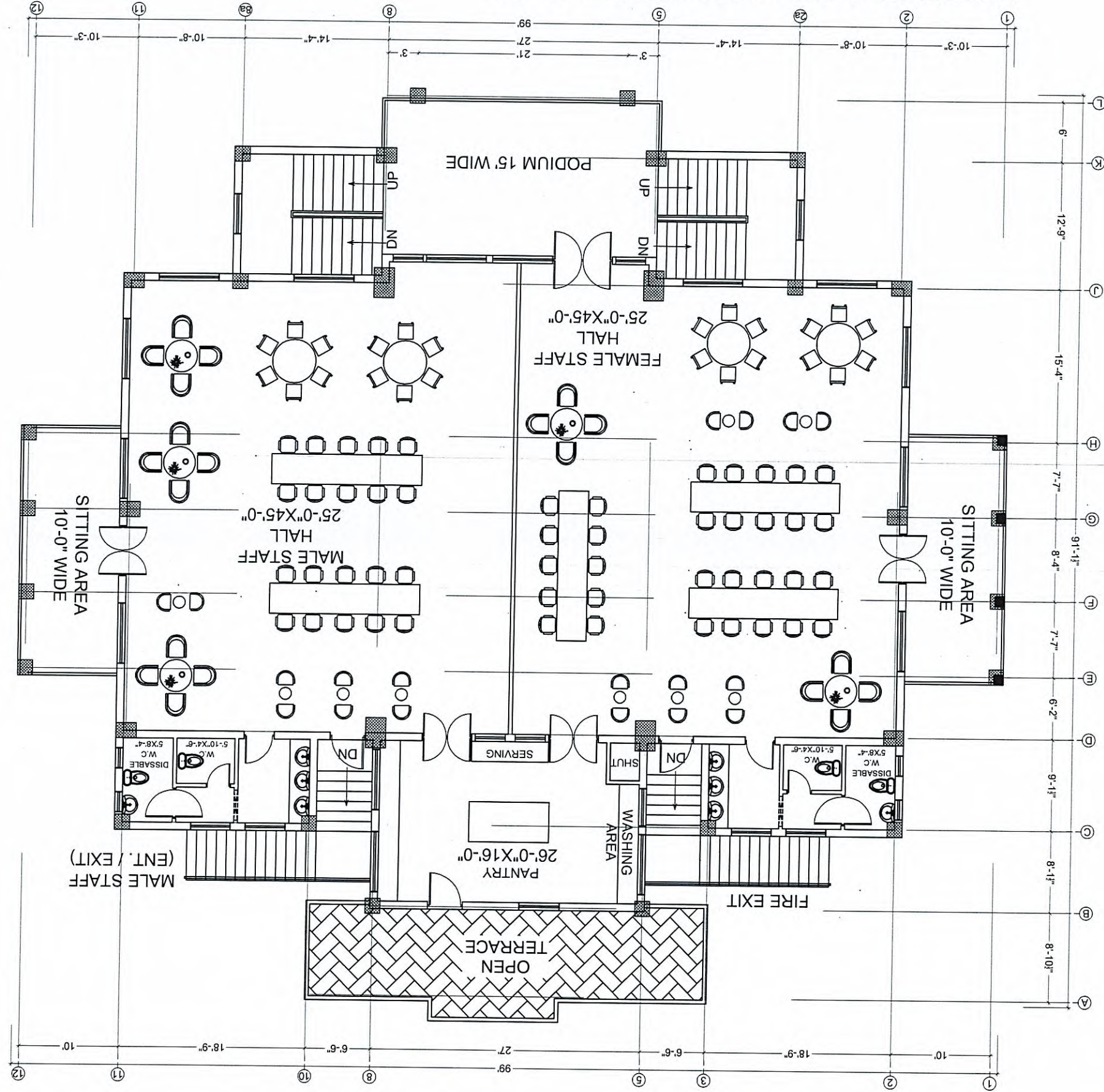


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WOMEN UNIVERSITY SWABI		CAFETERIA BUILDING		GROUND FLOOR FURNITURE PLAN		DRAWING NO. _____ PROJECT NO. _____	
						A-(5)	
				CHECKED		MRS SHAHINE KHAN	
		SCALE		BAQIR ALI		DATE	
		MARCH 2025		ASIM			
		ALLIED ENGINEERING CONSULTANTS (PVT.) LTD ARCHITECTS • ENGINEERS • PLANNERS •					
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FIRST FLOOR FURNITURE PLAN



WOMEN UNIVERSITY SWABI		CAFETERIA BUILDING		FIRST FLOOR		FURNITURE PLAN		DRAWING NO. _____ PROJECT NO. _____	
		ARCHITECT		CHECKED	BAQIR ALI		SCALE		DATE
					ASIM		MARCH 2025		
19 - A. GULBERG-II, LAHORE PH: 5758433/5756752 ALLIED ENGINEERING CONSULTANTS (PVT.) LTD ARCHITECTS • ENGINEERS • PLANNERS •									

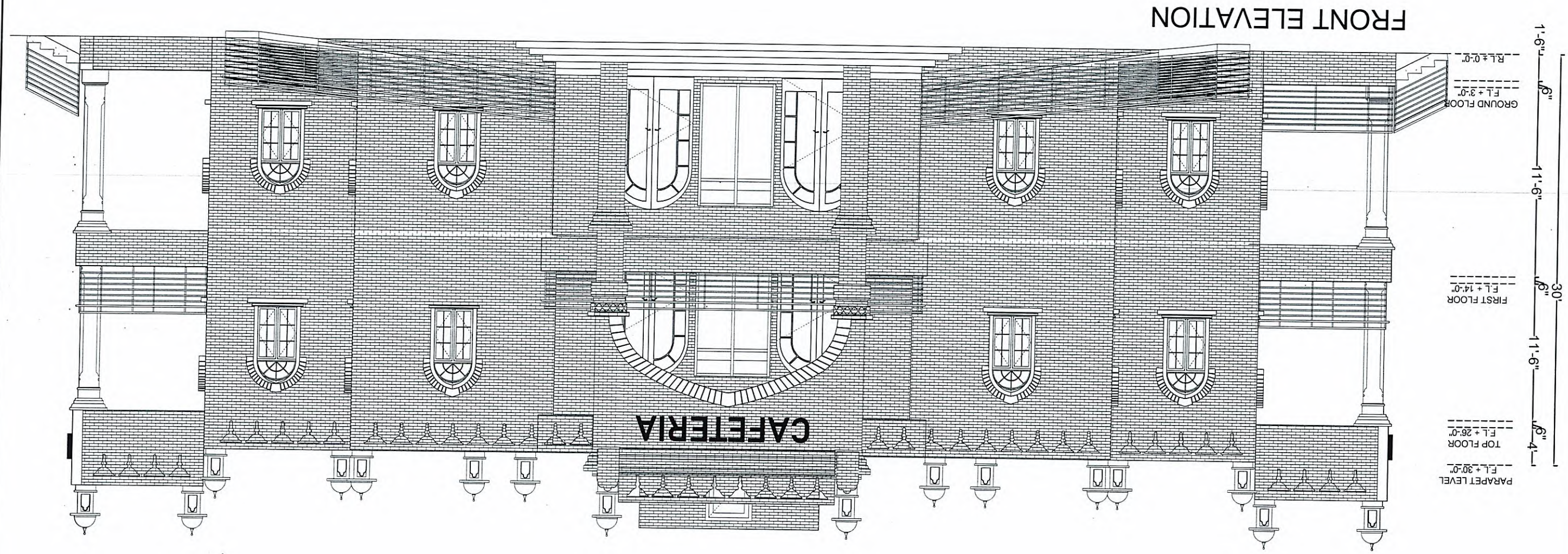


[Signature]

WOMEN UNIVERSITY SWABI	
CAFETERIA BUILDING	
FRONT ELEVATION	
PROJECT NO.	
DRAWING NO.	A-17
ARCHITECT	BAQIR ALI
CHECKED	MRS. SHAHINE KHAN
DATE	MARCH 2025
SCALE	ASIM
DRAWN	
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ARCHITECTS • ENGINEERS • PLANNERS	
19 - A, GULBERG-II, LAHORE PH: 5758439/5756752	

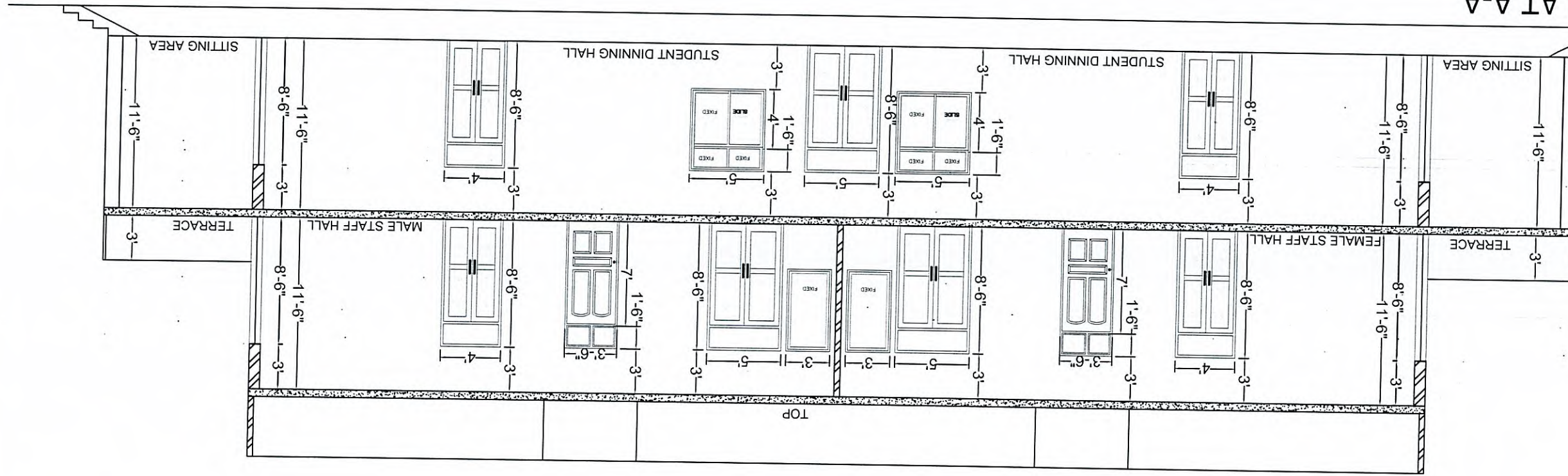
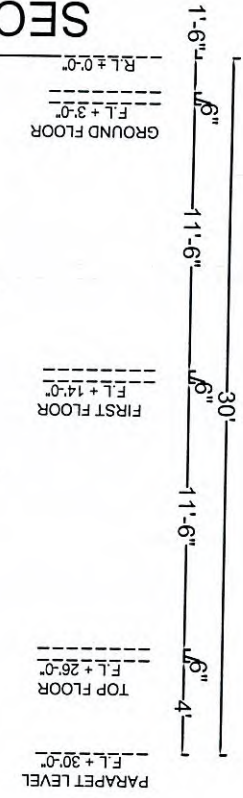


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FRONT ELEVATION

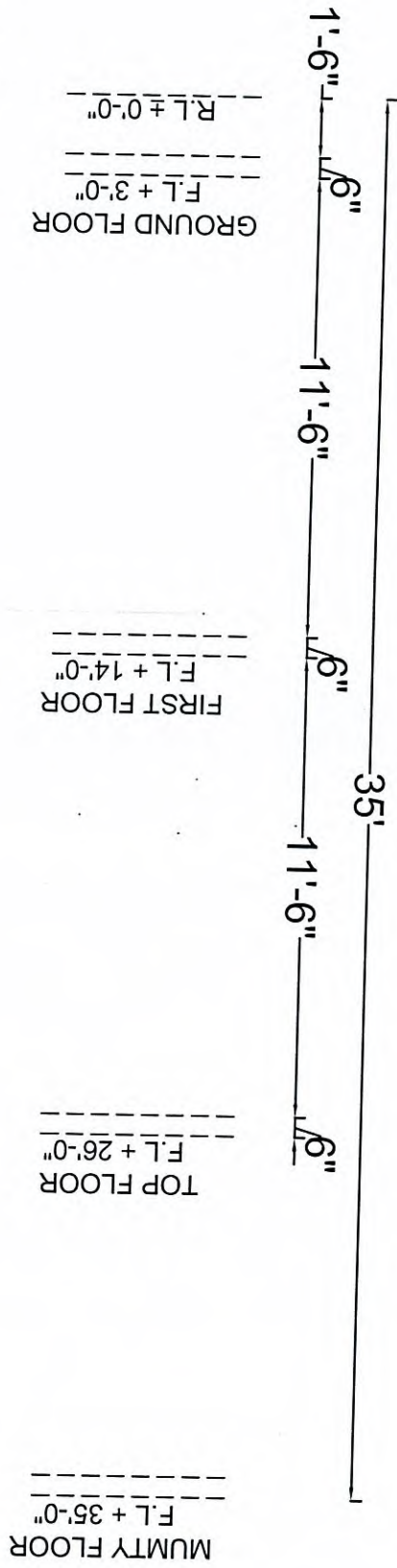
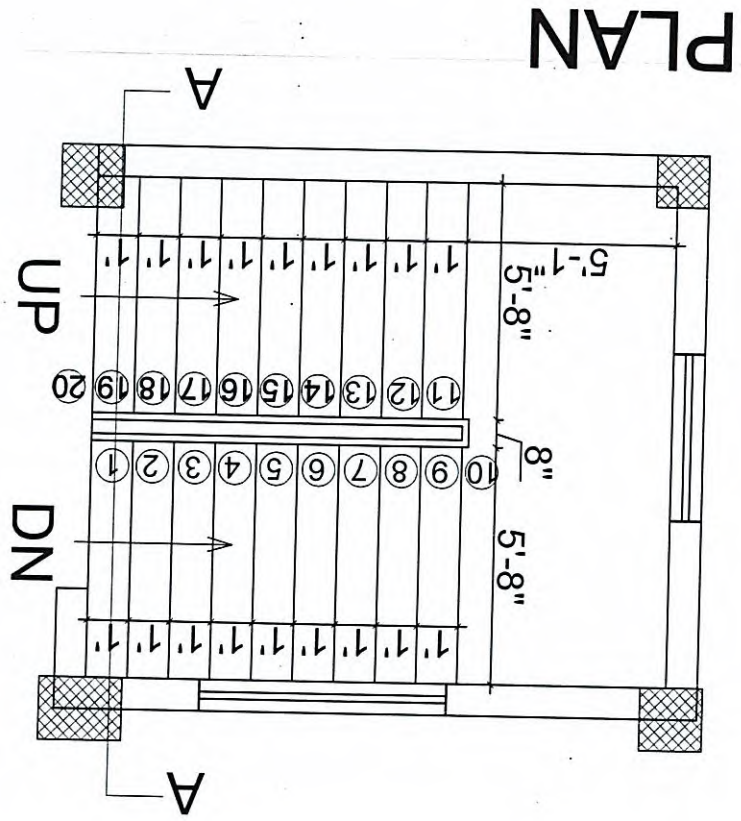
SECTION AT A-A



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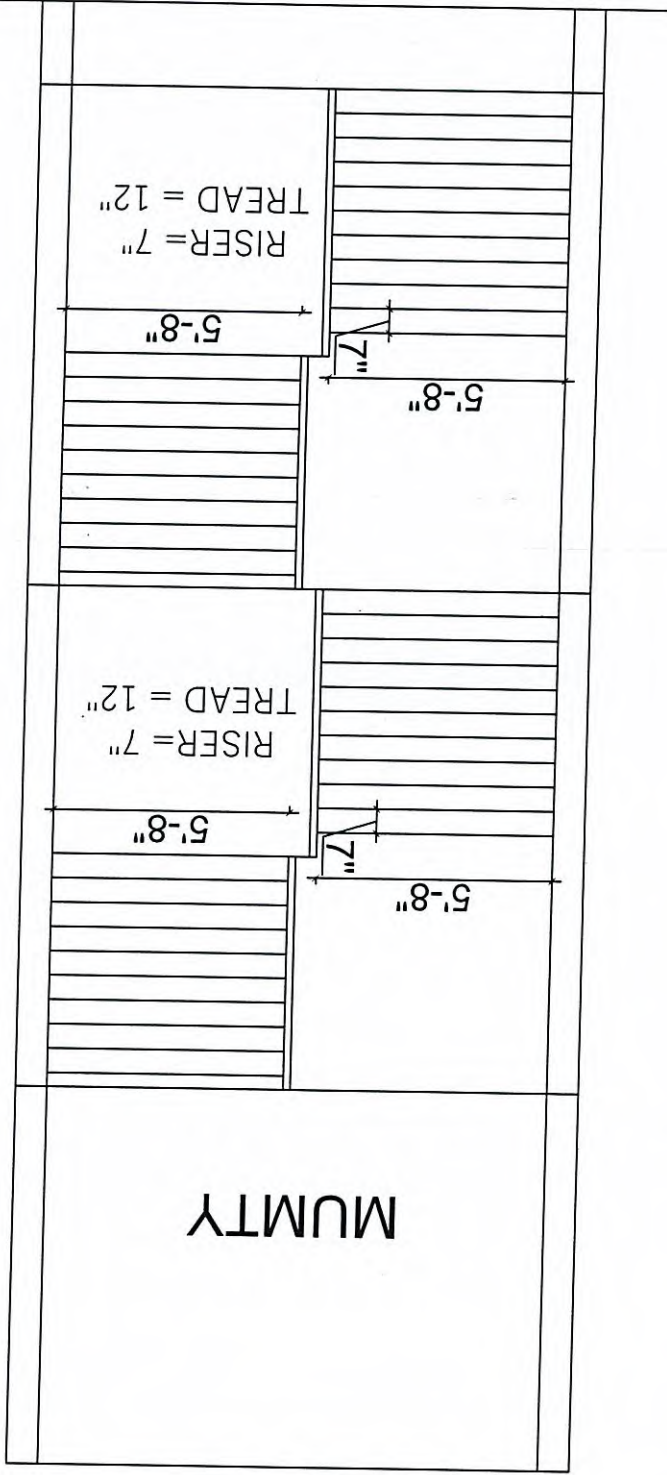


WOMEN UNIVERSITY SWABI					
CAFETERIA BUILDING					
SECTION AT A-A					
PROJECT NO.					
DRAWING NO.					
A-(9)	CHECKED	BAQIR ALI		ARCHITECT	
	SCALE	ASIM		DRAWMAN	
DATE		MARCH 2025			
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD ARCHITECTS . ENGINEERS . PLANNERS . 18 - A, GULBERG-II, LAHORE PH: 5756433/5756752					



TYPICAL STAIR DETAIL

SECTION AT A.A



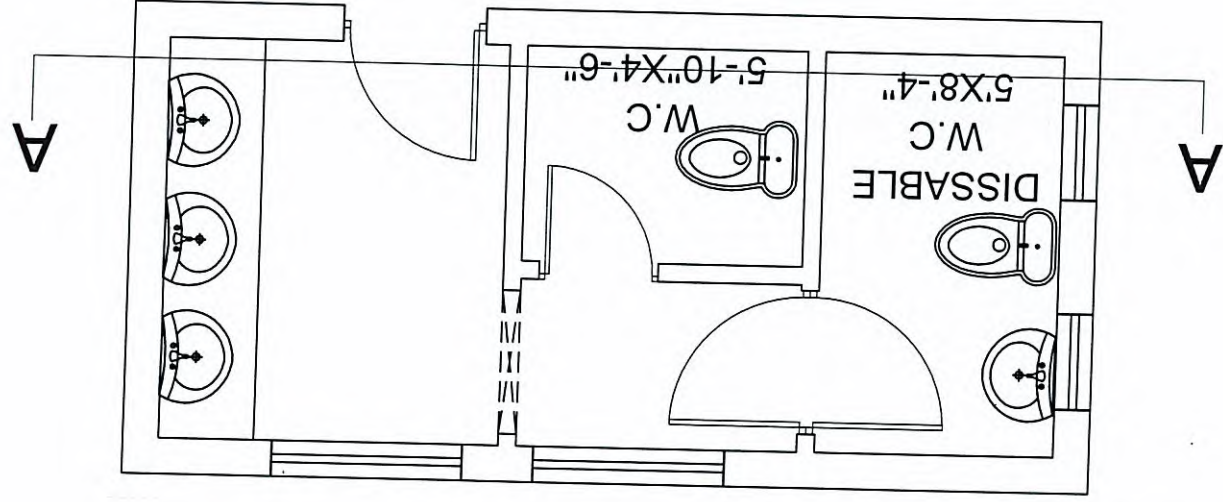
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DRAWING NO.		TYPICAL STAIR DETAIL	
ARCHITECT		CHECKED	
BAQIR ALI		MRS. SHAHINE KHAN	
SCALE		DATE	
ASIM		MARCH 2025	
DRAWN		ARCHITECT	
18 - A. GULBERG-II, LAHORE PH. 5758439/5756752		ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.	
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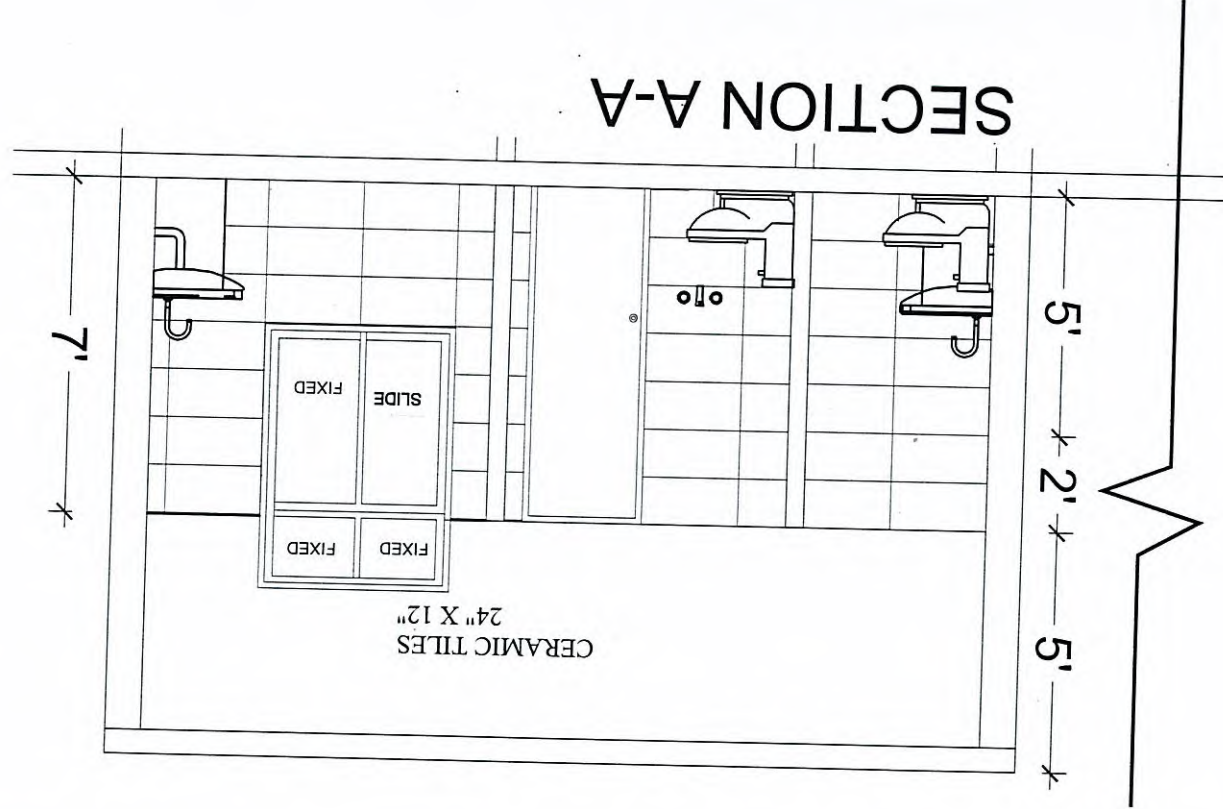
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TYPICAL LAVATORY DETAIL

PLAN



SECTION A-A



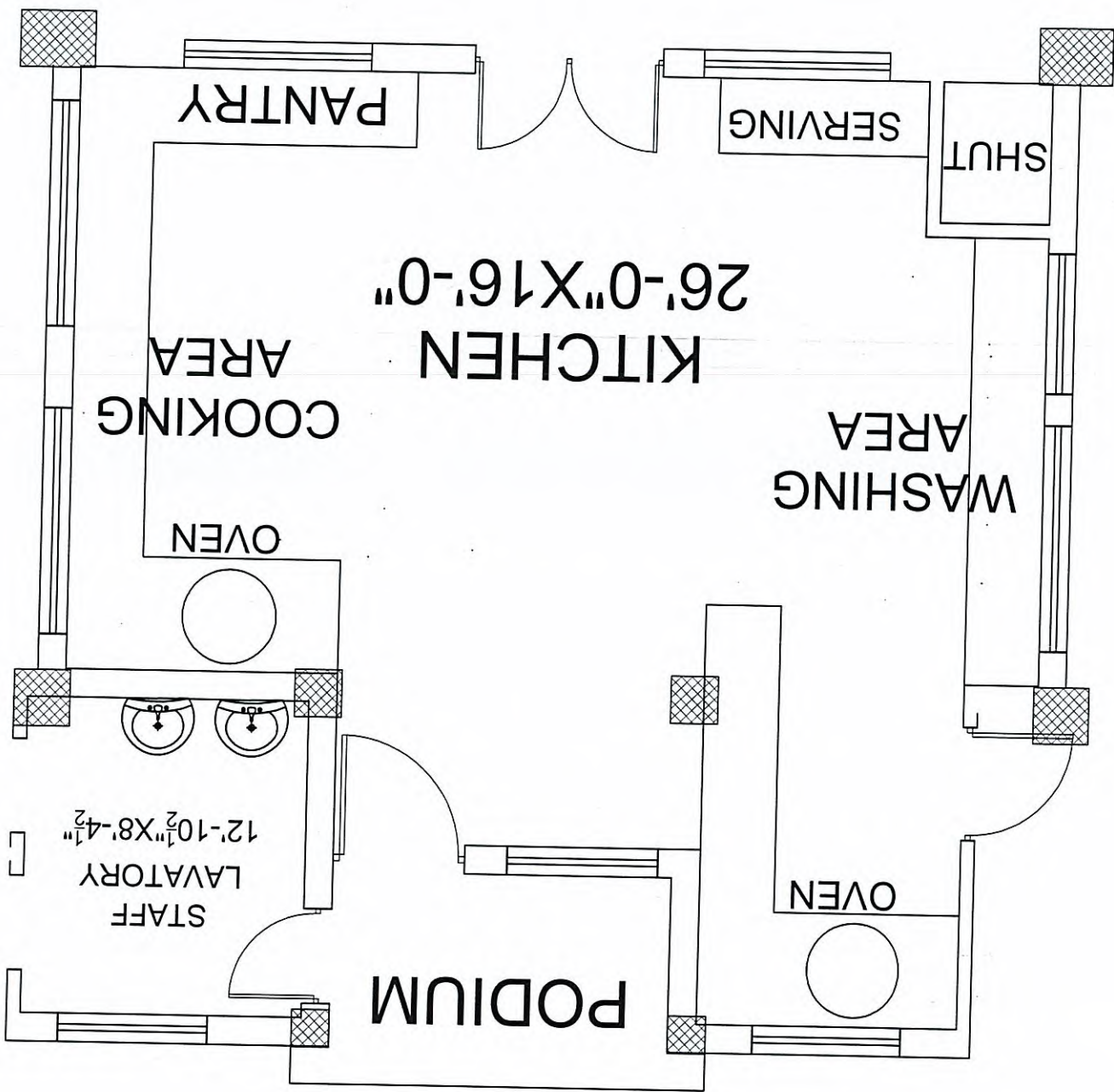
PROJECT NO.		TYPICAL LAVATORY DETAIL	
DRAWING NO. A-111		CHECKED	
ARCHITECT		BAQIR ALI	
DRAWN		SCALE	
DATE		MARCH 2025	
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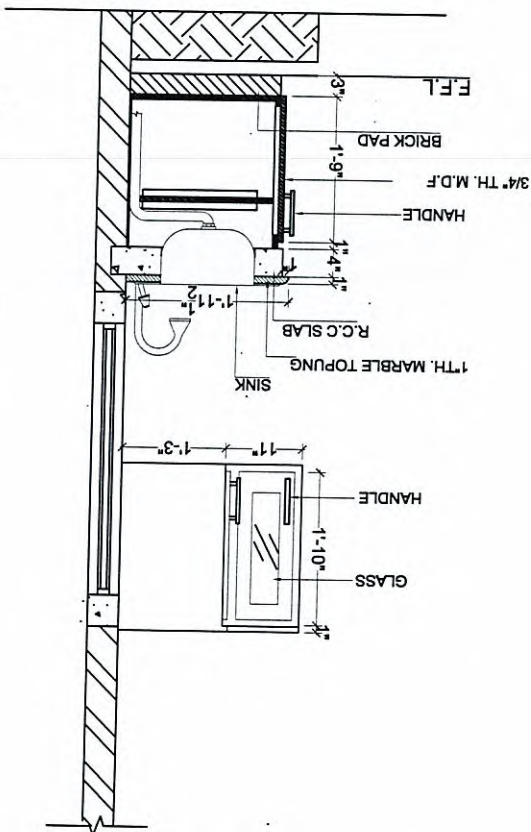


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WOMEN UNIVERSITY SWABI

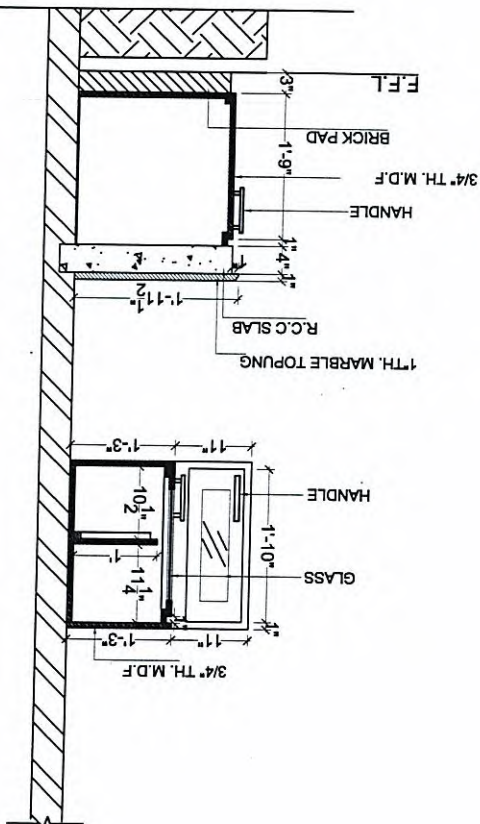
TYPICAL KITCHEN DETAIL



C
DETAIL OF
KITCHEN CABINET



D
DETAIL OF
KITCHEN CABINET



Project Director
WOMEN UNIVERSITY SWABI



PROJECT NO.		CAETERIA BUILDING	
DRAWING NO.		TYPICAL KITCHEN DETAIL	
ARCHITECT		BAQIR ALI	
CHECKED		MRS. SHAHINE KHAN	
DATE		MARCH 2025	
DRAWN		ASIM	
SCALE			
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NOTE:
LAVATORY BLOCK (5'-0") HEIGHT
ATTACHED BATH (7'-0") HEIGHT

SCHEDULE OF INTERNAL FINISHES									
NO.	ROOMS NAME	FLOOR	SKIRTING	DADO	WALLS / COLUMNS	CEILING			
01	PODIUM	MOSAIC FLOORING							
02	STUDENT DINNING HALL	MARBLE FLOORING							
03	KITCHEN	PCC							
04	STORE	CERAMIC TILE							
05	PANTRY	PORCELAIN TILE							
06	MALE STAFF HALL								
07	FEMALE STAFF HALL								
08	BATH								
09	LAVATORY								

Project Director
WOMEN UNIVERSITY SWABI



WOMEN UNIVERSITY SWABI	
CAFETERIA BUILDING	
PROJECT NO.	
SCHEDULE OF INTERNAL FINISHES	
DRAWING NO.	A-13
ARCHITECT	BAQIR ALI
CHECKED	MRS. SHAHINE KHAN
DRAWN	ASIM
SCALE	
DATE	MARCH 2025
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.	
ARCHITECTS • ENGINEERS • PLANNERS	
19 - A, GULBERG-II, LAHORE PH: 5756433/5756752	



PROJECT NAME:

PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"

b. CONSTRUCTION OF CAFETERIA BLOCK

STRUCTURAL DRAWINGS



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ARCHITECTS ENGINEERS PLANNERS
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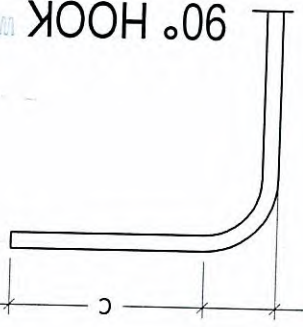
GENERAL NOTES

1. BUILDING DESCRIPTION & DESIGN

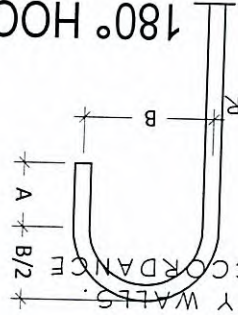
- BUILDING IS DESIGNED FOR TWO STOREY.
 - DESIGNED AS FRAME STRUCTURE FOR ZONE -2B.
 - DESIGN OF STRUCTURE IS BASED ON PAKISTAN BUILDING CODE (S.P. - 2007) , ACI 318-2005 AND UBC 97.
 - BEARING CAPACITY TAKEN FOR THIS SITE IS 0.85 TSF.
- ## 2. BUILDING LAYOUT
- BUILDING LAYOUT BE DONE WRT TO STRUCTURAL DRAWINGS AND ARCH DRAWINGS
 - ANY DIFFERENCE BE DISCUSSED WITH STR. DESIGNER.
 - EXCAVATION AND TERMITE TREATMENT
 - FOUNDATIONS TO BE PLACED ON COMPACTED SOIL
 - IN CASE OF FILL / OVERBURDEN REMOVE IT.
 - IN CASE OF RAISED PLINTH, FILL WITH SAND / GRAVEL & B. EXPANSION JOINT IN THE BUILDING BE PROVIDED AS SHOWN ON THE DRAWINGS.
 - PROVIDE TERMITE TREATMENT IN FOUNDATIONS AND IN FLOOR BEFORE LAYING PCC.
- ## 4. W.C:S: AGGREGATES AND SIZES
- FRESH WATER: IN ACCORDANCE OF UBC 97 SECTION 1903.4 WIRE.
- CEMENT: FRESH PORTLAND CEMENT TO BE USED FOR ALL WORKS.
- SAND : LAWRAKCEPUR / GHAZI.
- AGGREGATES: IN ACCORDANCE OF UBC 97 SECTION 1903.3
- STEEL BARS BE PLACED IN THE FORM AS PER DRAWINGS.
 - ALL JUNCTION OF THE BARS / CROSS BE TIED WITH BINDING.
 - TOILET WASHING & DRAIN PIPES BE PLACED IN SLAB AT PROPER DESIGNED POSITION BEFORE CONCRETE.
 - WHERE PLUMBING AND OTHER PIPES ARE PLACES IN SLAB B/2 TO COVER THE REDUCED STRENGTH.
- ## 12. BRICK , CONG BLOCK MASONRY
- FIRST CLASS BRICKS BE USED FOR MASONRY WORK.
 - BRICKS BE SOAKED IN WATER A DAY BEFORE USE.
 - CONCRETE BLOCKS BE MOISED JUST BEFORE USE.
 - JOINTS BE 3/8" FILLED WITH CEMENT SAND MORTAR.
 - ALL MORTAR BE MACHINE MIXED.
 - 40 MORTAR FOR WALLS 8" , 9" SHALL BE 1:5
 - FOR 4" & 4.5" SHALL BE 1:4
 - ALL INTERNAL PARTITIONS 4.5" BRICKS / 6" HOLLOW BLOCKS / WOODEN PARTITION OUTER 8" HOLLOW / 9" BRICKS OR 12" CAVITY WALLS.
 - ALL ABOVE ITEM TO BE EXECUTED , TESTED AND MAINTAINED IN ACCORDANCE OF UBC 1997 CODE STANDARD CHAPTER 21.
- ## 3. REINFORCING STEEL
- DESIGN OF STRUCTURE IS BASED ON STEEL DEFORMED MAIN STEEL FOR ASTM A 615
- FOUNDATION, COLUMNS, BEAMS
- SLABS
- SAMPLES OF STEEL BE GOT TESTED BEFORE USE.
- ## 6. CONG. MIXING & PLACING
- CONCRETE BE WELL MIXED, COMPACTED, VIBRATED, TESTED AND RECORD TO BE MAINTAINED AS PER ACI 318 AND UBC 1997 CHAPTER 19
 - MIXED CONCRETE BE PLACED IN POSITION WITHIN 15 MINUTES
 - MIN WATER IN CONG. GIVES MORE STRENGTH.
 - TRY 5 TO 6 GALLONS OF WATER / BAG OF CEMENT
 - MIXING TIME OF CONCRETE PER BATCH 1.5 MINUTES AFTER ADDING WATER.
- ## 9. FORM WORK & REMOVAL
- CONCRETE BE TESTED AT IMPORTANT PLACES & STRENGTH BE TESTED AT 28 DAYS
 - FOUND. WALLS, BEAMS, SLAB
 - 3000 PSI 28 DAYS CYLINDRICAL TESTS ARE NOT SHOWN IN DRAWINGS
 - THIS BAR SUPPORTS BE PROVIDES AS AP BY ENGINEER
 - SUPPORTS TO BARS BE SUFFICIENT & SUCH THAT THE STEEL REMAIN IN POSIT DURING CONCRETING.
- ## 14. ACCESSORIES

S No	LOCATION	MINIMUM COVER
1	FOOTING	2" above PCC and 3" on other sides
2	COLUMN	1 1/2"
3	SLAB	3/4"
4	BEAM/PLINTH BEAM	1 1/2"
5	CONFINING ELEMENT/INTEL BEAM	1"

STANDARD HOOKS (ACI 7.1)



90° HOOK



180° HOOK

STRUCTURAL ELEMENTS	MAXIMUM AGGREGATE SIZE
FOUNDATIONS	1.25" DOWN GRADED
COLUMNS & BEAMS	3/4" DOWN GRADED
SLABS	3/4" DOWN GRADED

3/4" DOWN GRADED MEANS 1/2" AND 3/8" MIX

5. REINFORCING STEEL

- FIRST CLASS BRICKS BE USED FOR MASONRY WORK.
- BRICKS BE SOAKED IN WATER A DAY BEFORE USE.
- CONCRETE BLOCKS BE MOISED JUST BEFORE USE.
- JOINTS BE 3/8" FILLED WITH CEMENT SAND MORTAR.
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- 40 MORTAR FOR WALLS 8" , 9" SHALL BE 1:5
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- ALL INTERNAL PARTITIONS 4.5" BRICKS / 6" HOLLOW BLOCKS / WOODEN PARTITION OUTER 8" HOLLOW / 9" BRICKS OR 12" CAVITY WALLS.
- ALL ABOVE ITEM TO BE EXECUTED , TESTED AND MAINTAINED IN ACCORDANCE OF UBC 1997 CODE STANDARD CHAPTER 21.

6. CONG. MIXING & PLACING

- CONCRETE BE WELL MIXED, COMPACTED, VIBRATED, TESTED AND RECORD TO BE MAINTAINED AS PER ACI 318 AND UBC 1997 CHAPTER 19
- MIXED CONCRETE BE PLACED IN POSITION WITHIN 15 MINUTES
- MIN WATER IN CONG. GIVES MORE STRENGTH.
- TRY 5 TO 6 GALLONS OF WATER / BAG OF CEMENT
- MIXING TIME OF CONCRETE PER BATCH 1.5 MINUTES AFTER ADDING WATER.

PROJECT NAME:

PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF CAFETERIA BLOCK

DRAWING TYPE:	STRUCTURAL
CHECKED BY:	ENGR. ZAIN UL ABIDEEN
DRAFTED BY:	TAUQUEER ZEB
AS SHOWN	ENGR. SHAHAB ALI
PROJECT NO:	GSK-ED-241-B
ISSUE DATE:	MARCH, 2025
DRAWING NO:	STR-1
REVISION	
1.	
2.	
3.	
4.	

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Project Director
WOMEN UNIVERSITY SWABI

PROJECT NAME: "WOMEN UNIVERSITY OF SWABI" PROPOSED STRUCTURAL DESIGN OF b. CONSTRUCTION OF CAFETERIA BLOCK

DRAWING TYPE: STRUCTURAL		DESIGNED BY: ENGR. SHAHAB ALI	DISCLAIMER: This document & all associated documents are prepared for a specific site & event, incorporate calculations & measurements available from the client. The recipient agrees to protect the contents from distribution & dissemination. The contents of this document are not to be reproduced or copied in whole or parts without the written permission of the office. Use of this design is granted to the client for the specified and named event only.
CHECKED BY: ENGR. ZAIN UL ABIDEEN		DRAFTED BY: TAUQEER ZEB	
PROJECT NO: GSK-ED-241-b		SCALE: AS SHOWN	
ISSUE DATE: MARCH, 2025		DRAWING NO: STR-II	
REVISION			
1.			
2.			
3.			
4.			

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ARCHITECTS ENGINEERS PLANNERS
ALLIED ENGINEERING CONSULTANTS (PVT.) LTD



NOTE: THE STRUCTURAL DRAWINGS WILL BE FOLLOWED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ARCHITECTURAL DRAWINGS ARE PRIMARY DRAWINGS AND STRUCTURAL DRAWINGS SHOULD BE CONSIDERED AS SECONDARY DRAWINGS. IN CASE OF ANY DIFFERENCES DESIGNER MUST BE CONTACTED.

BAR DIA	SLAB	BEAM / COLUMN
1"	-	70
3/4"	-	55
5/8"	-	44
1/2"	25	35
MINIMUM SPLICE LAP LENGTH (INCHES) fc' = 3,000 psi fy = 60,000 psi		

SPLICE LENGTH (ACI 21.3.2.4, Class B Splice)

BAR DIA	TENSION	COMPRESSION
1"	48	18
3/4"	30	15
1/2"	20	9
3/8"	15	-
MINIMUM SPLICE LAP LENGTH (INCHES) fc' = 3,000 psi fy = 40,000 psi		

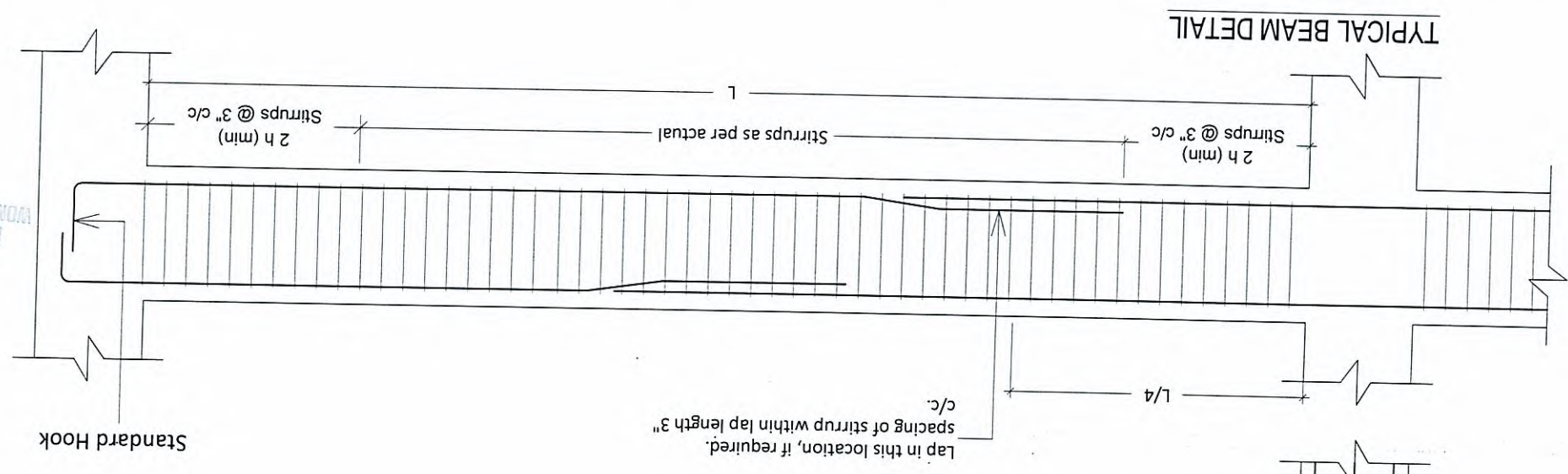
SPLICE LENGTH (ACI 21.3.2.4, Class B Splice)

BAR DIA	STRAIGHT BARS	WITH STANDARD HOOK
1"	55	22"
3/4"	34	17"
5/8"	30	14"
1/2"	22	11"
DEVELOPMENT LENGTH (INCHES) fc' = 3,000 psi fy = 60,000 psi		

DEVELOPMENT LENGTH IN TENSION (ACI 21.5.4.1)

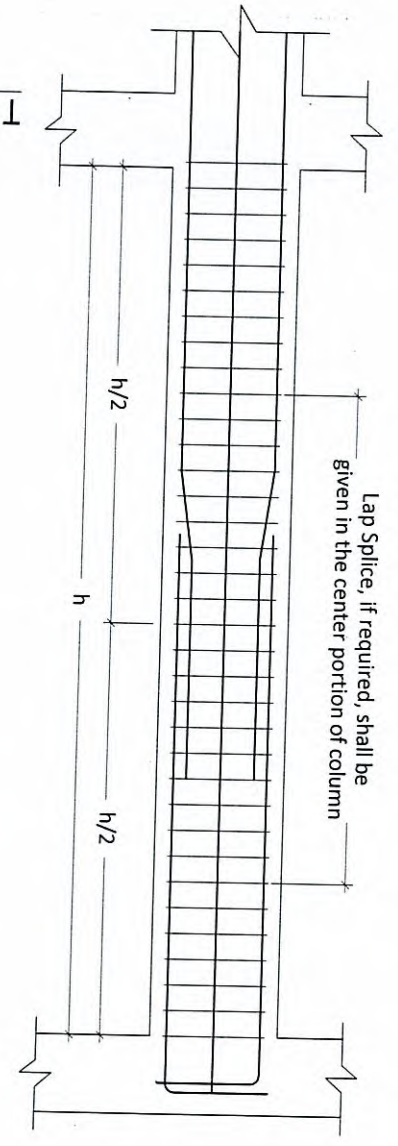
BAR DIA	STRAIGHT BARS	WITH STANDARD HOOK
1"	48	19
3/4"	30	14.5
1/2"	24	9.5
3/8"	18	7.5
DEVELOPMENT LENGTH (INCHES) fc' = 4,000 psi fy = 60,000 psi		

DEVELOPMENT LENGTH IN TENSION (ACI 21.5.4.1)

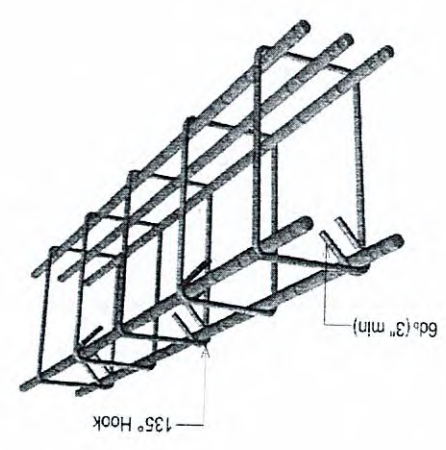


Lap in this location, if required, spacing of stirrup within lap length 3" c/c.

TYPICAL COLUMN DETAIL



SEISMIC HOOK DETAILS

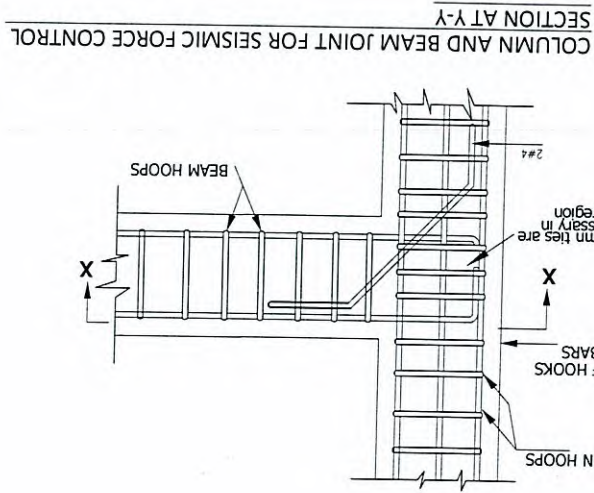
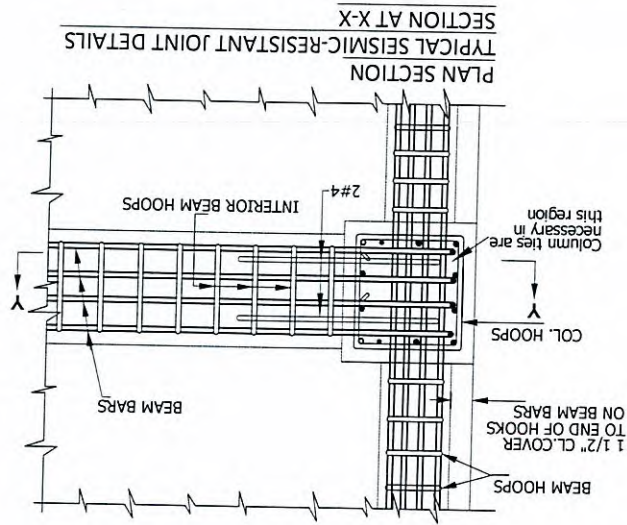


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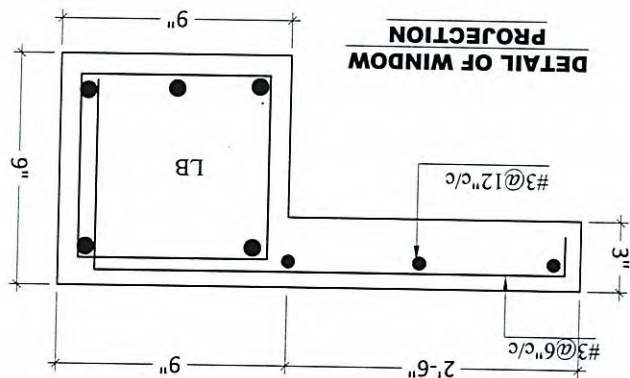
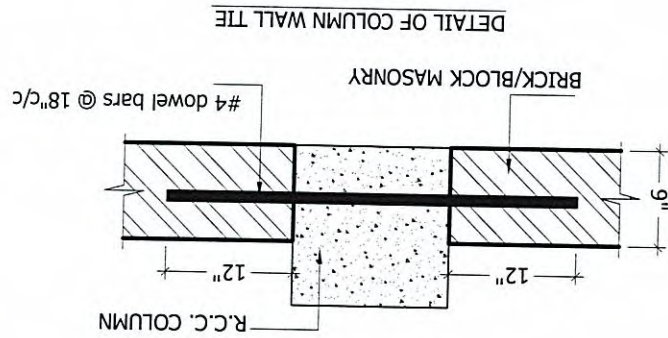
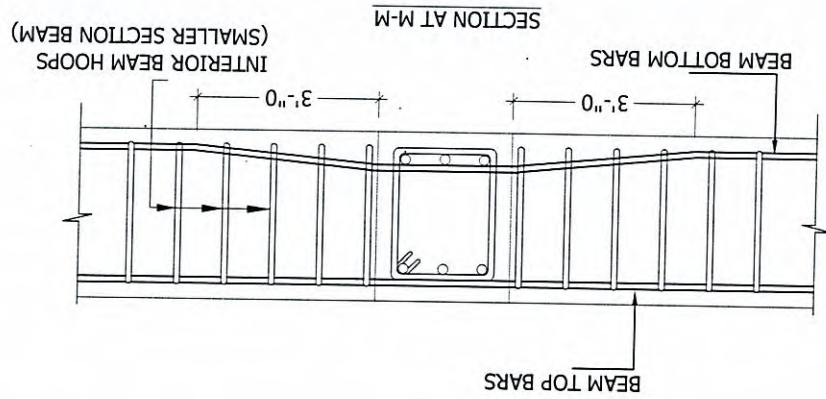
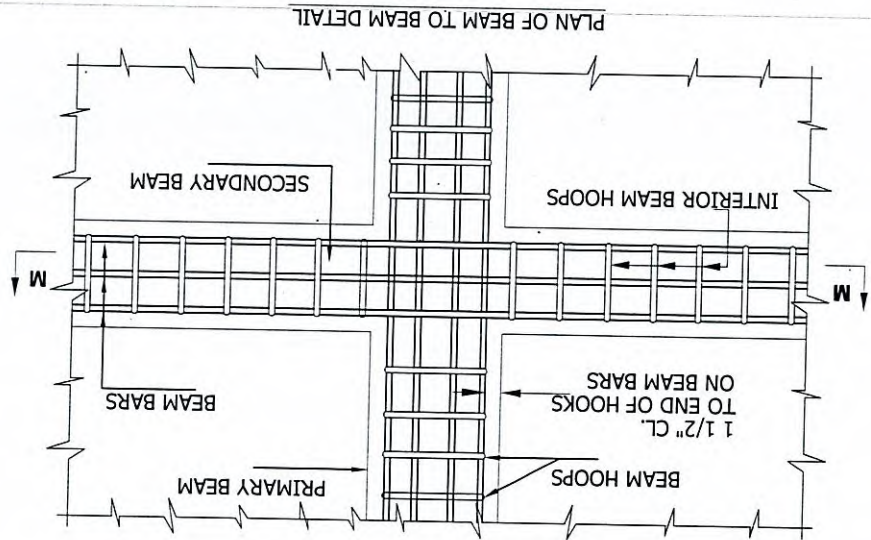
PROJECT NAME:
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

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PROJECT NO: GSK-ED-241-b	SCALE: AS SHOWN	DRAFTED BY: TAUQEER ZEB	DESIGNED BY: ENGR. SHAHAB ALI
ISSUE DATE: MARCH, 2025	DRAWING NO: STR-III		
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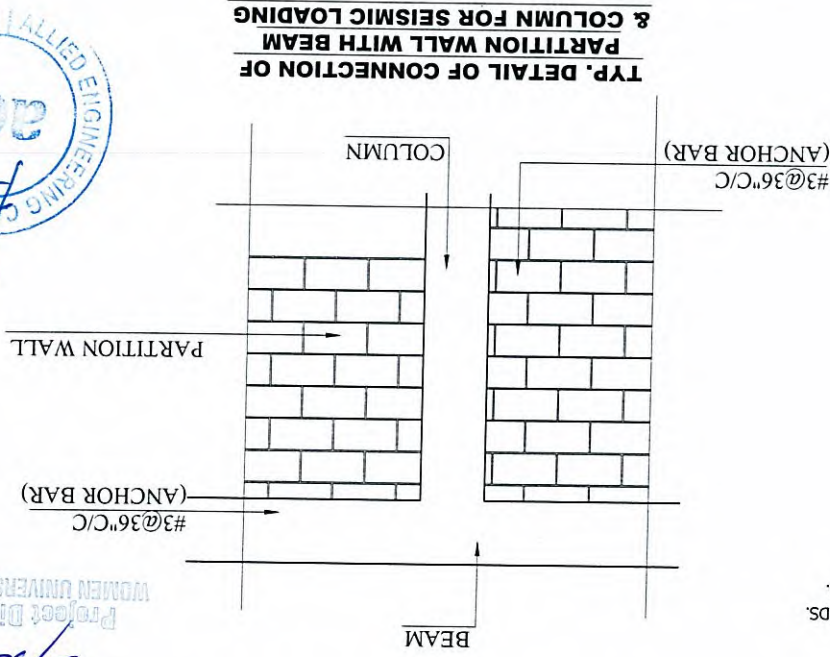
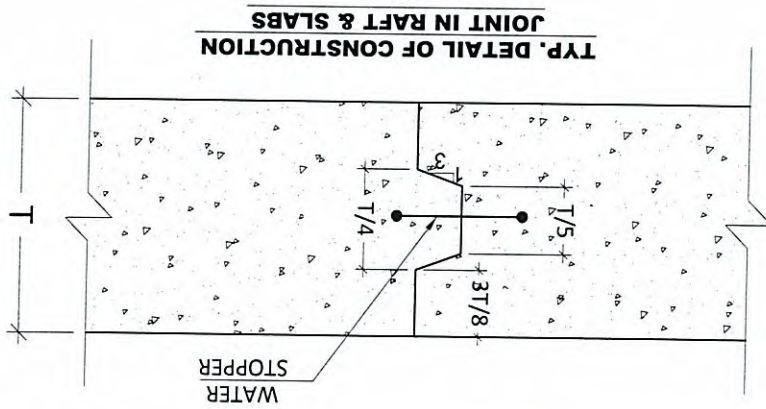
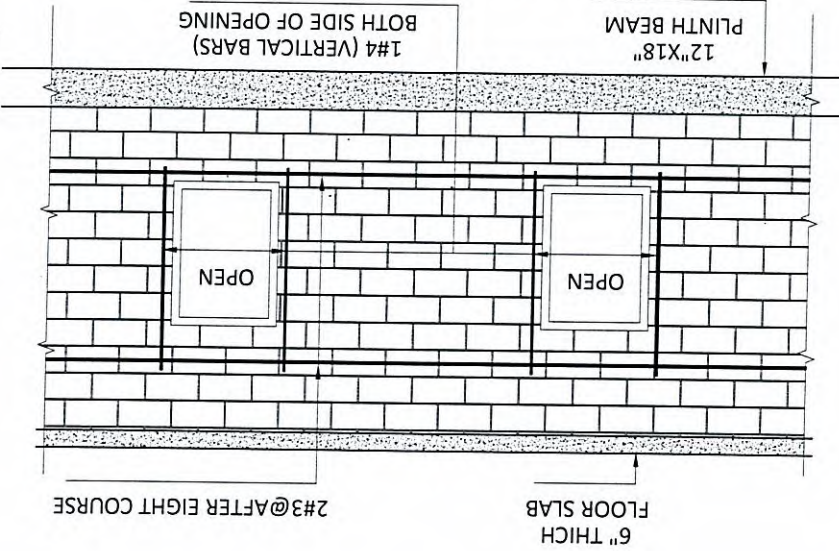
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- NOTE:-
1. SHRINKAGE STRIPS MUST BE PROVIDED AT A SPACING OF NOT MORE THAN 100R.
 2. PREFERABLY SHRINKAGE STRIP BE PROVIDED AT CONSTRUCTION JOINT.
 3. LOCATION OF SHRINKAGE STRIP BE KEPT AT A DISTANCE OF SPAN/3 FROM THE COLUMN SUPPORT.
 4. 3R WIDE PORTION OF SHRINKAGE STRIP BE KEPT OPEN FOR AT LEAST 3 WEEKS. THE OPENED PORTION SHOULD BE POURED AFTERWARDS.
 5. REINFORCEMENT BE LAPPED IN SHRINKAGE STRIPS. ALTERNATIVELY BARS MAY BE SLIGHTLY BENT IN PLAN PARALLEL TO FACE OF SLAB.



GENERAL DETAILS



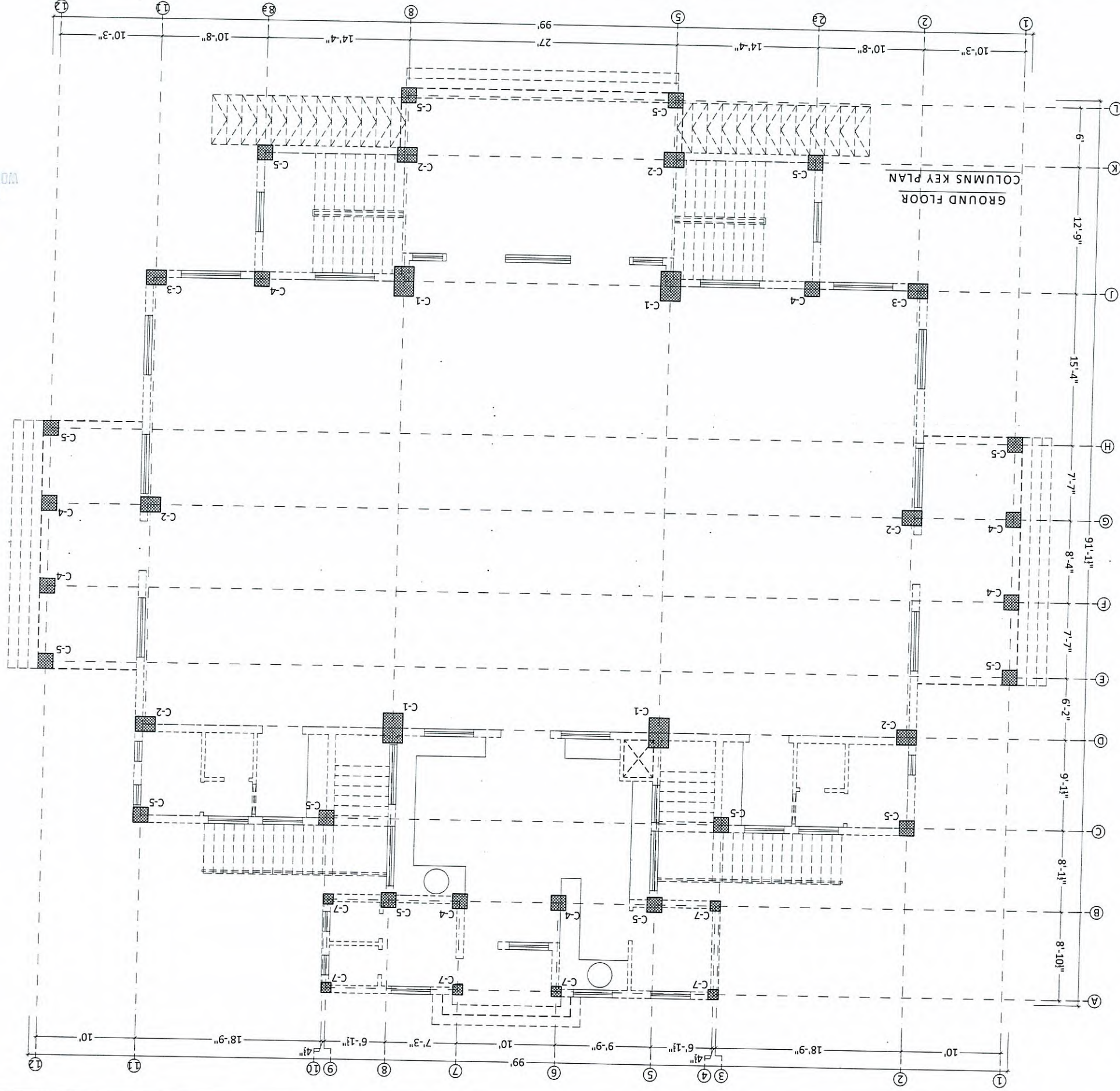
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WOMEN UNIVERSITY SWABI

PROJECT NAME:

PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

DRAWING TYPE:	STRUCTURAL
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DRAFTED BY:	ENGR. SHAHAB ALI
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PROJECT NO:	GSK-ED-241-b
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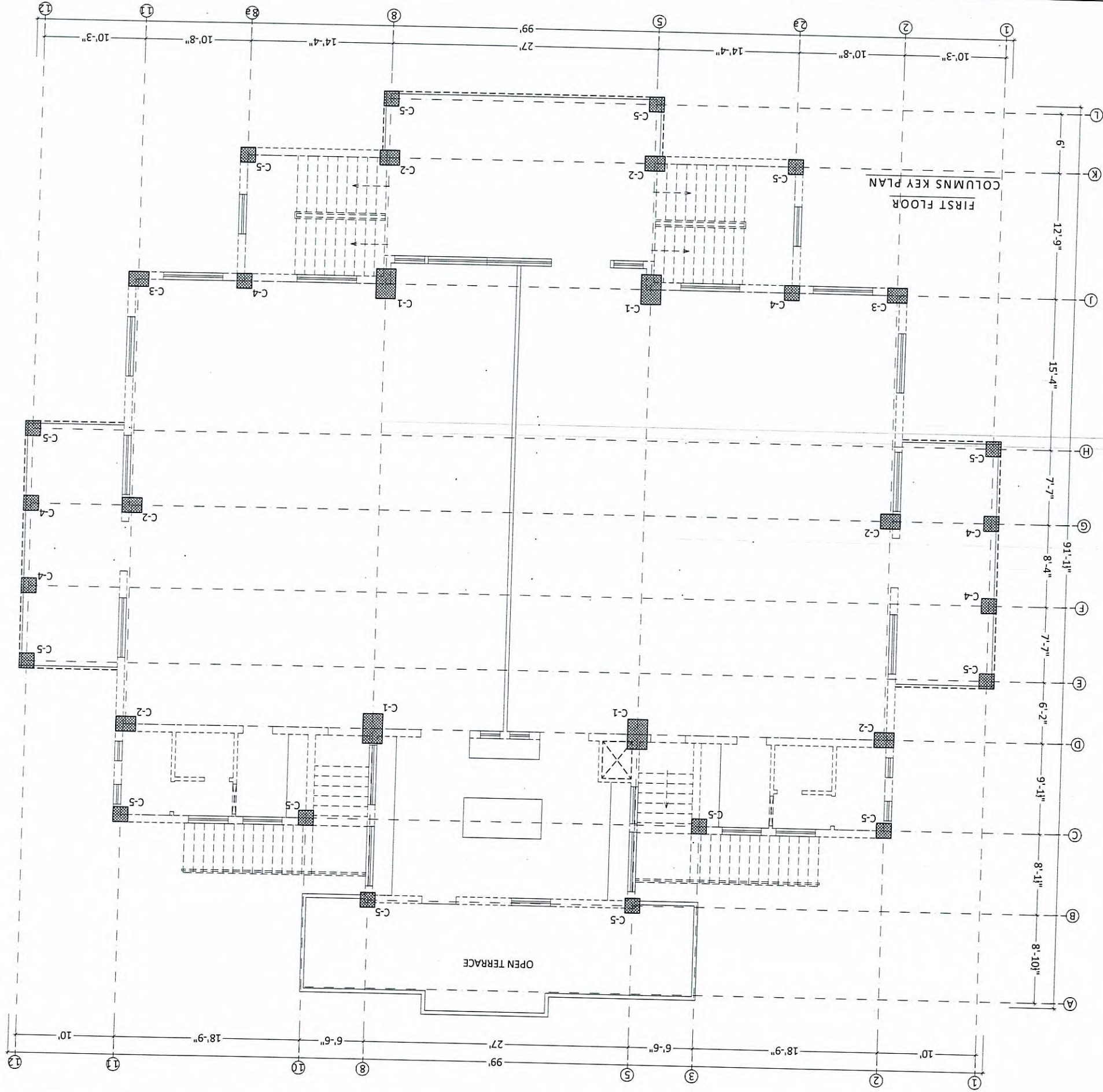
PROJECT NAME:
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

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DESIGNED BY:	ENGR. SHAHAB ALI
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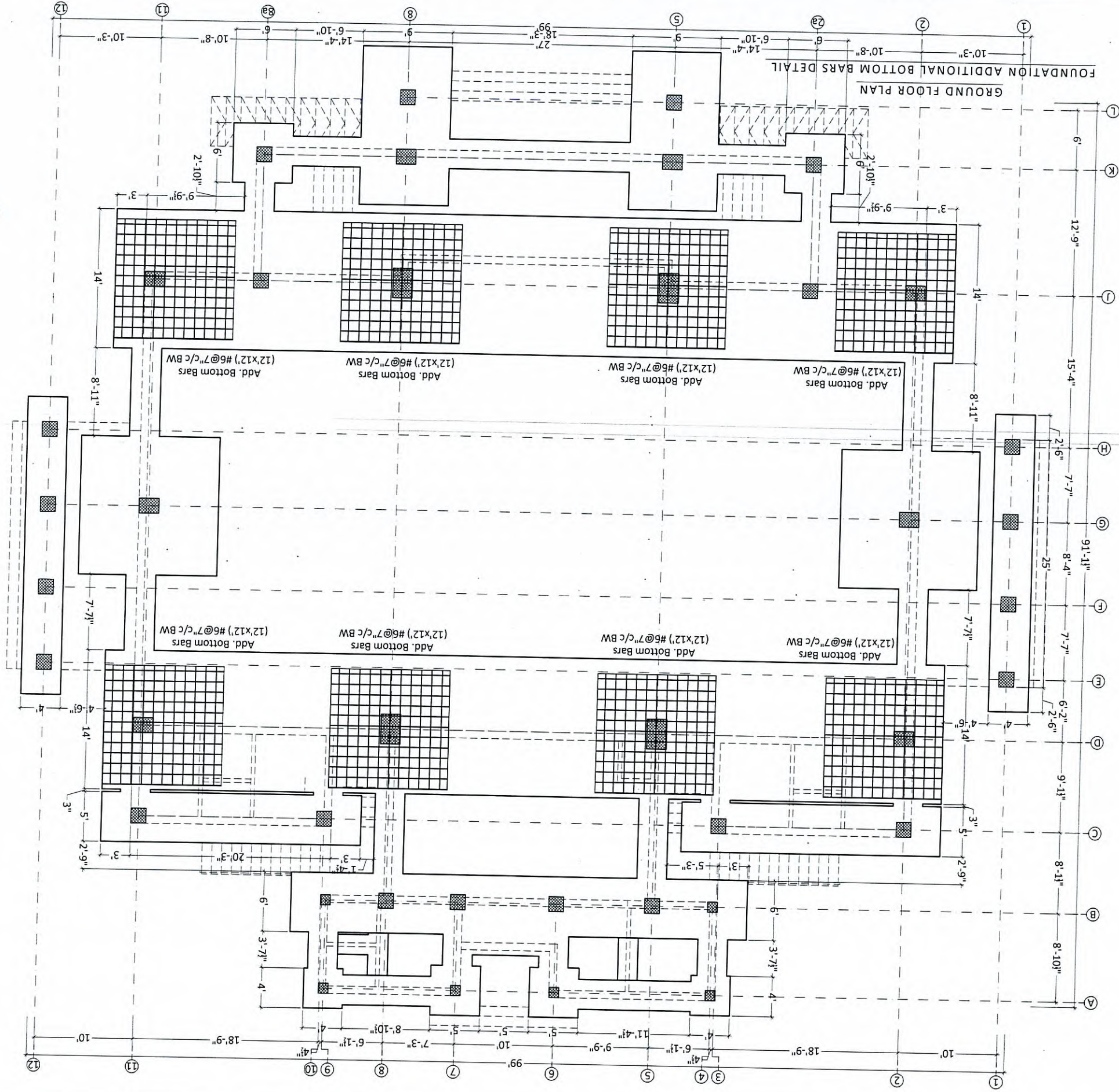
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b. CONSTRUCTION OF CAFETERIA BLOCK

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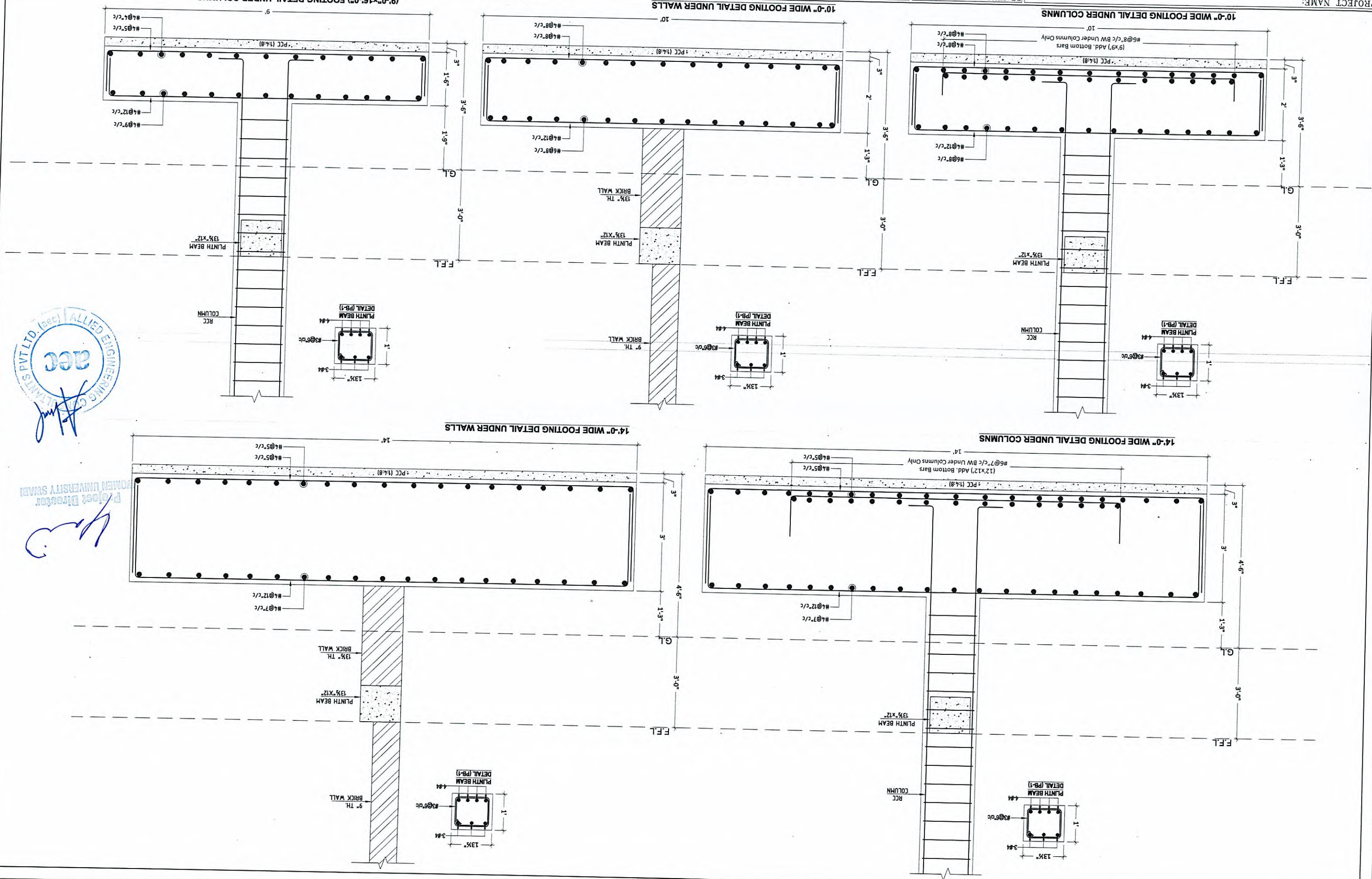


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PROJECT NAME: "WOMEN UNIVERSITY OF SWABI"
PROPOSED STRUCTURAL DESIGN OF
CONSTRUCTION OF CAFETERIA BLOCK

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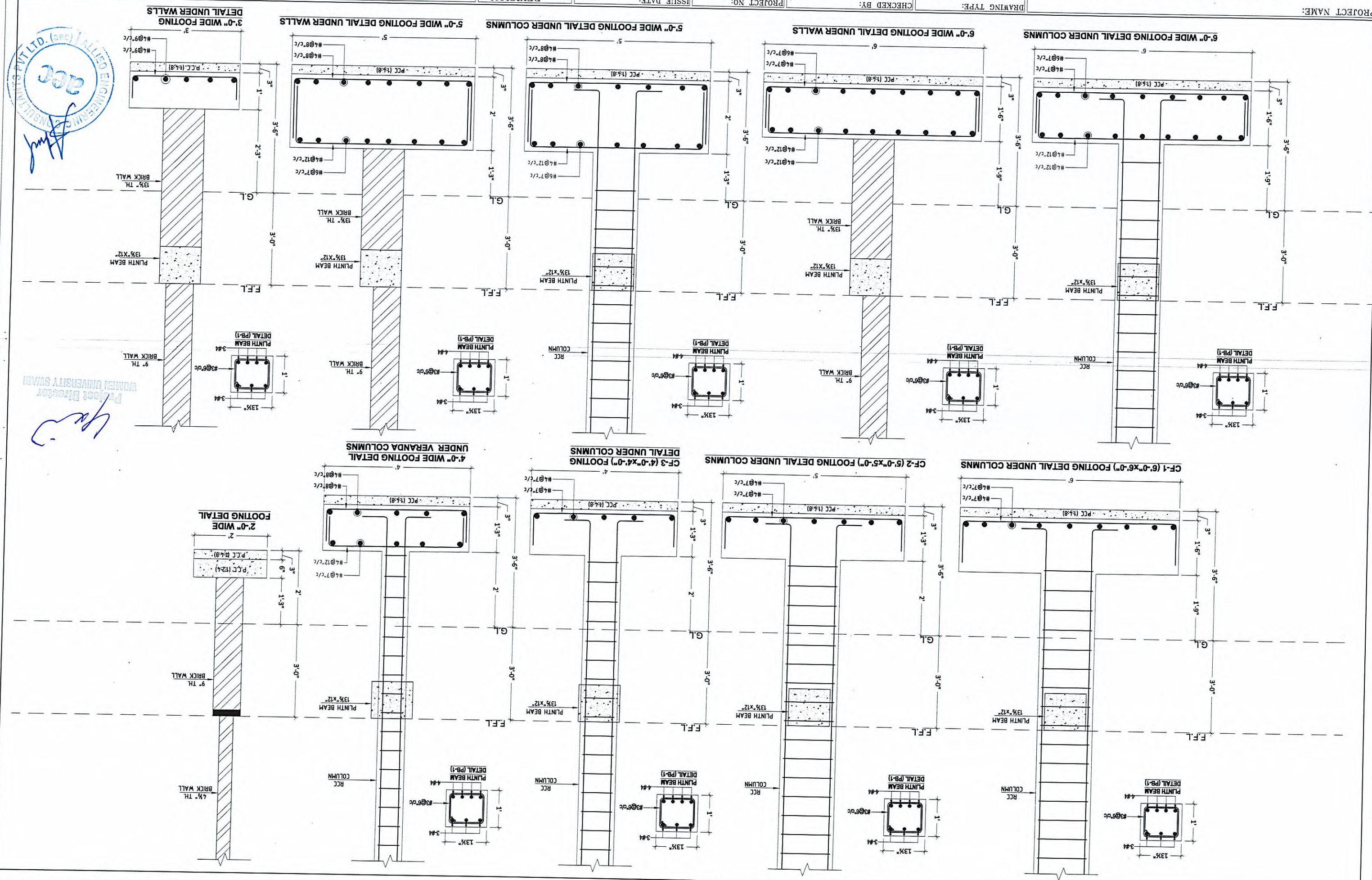
PROJECT NAME: "WOMEN UNIVERSITY OF SWABI"
PROPOSED STRUCTURAL DESIGN OF
"CONSTRUCTION OF CAFETERIA BLOCK"

DRAWING TYPE: STRUCTURAL	DESIGNED BY: ENGR. SHAHAB ALI	CHECKED BY: ENGR. ZAIN UL ABIDEEN	PROJECT NO: GSK-ED-241-B	ISSUE DATE: MARCH, 2025	DRAWING NO: STR-07
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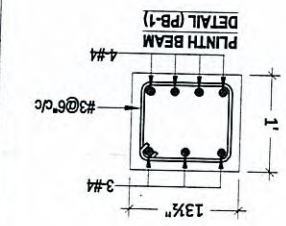
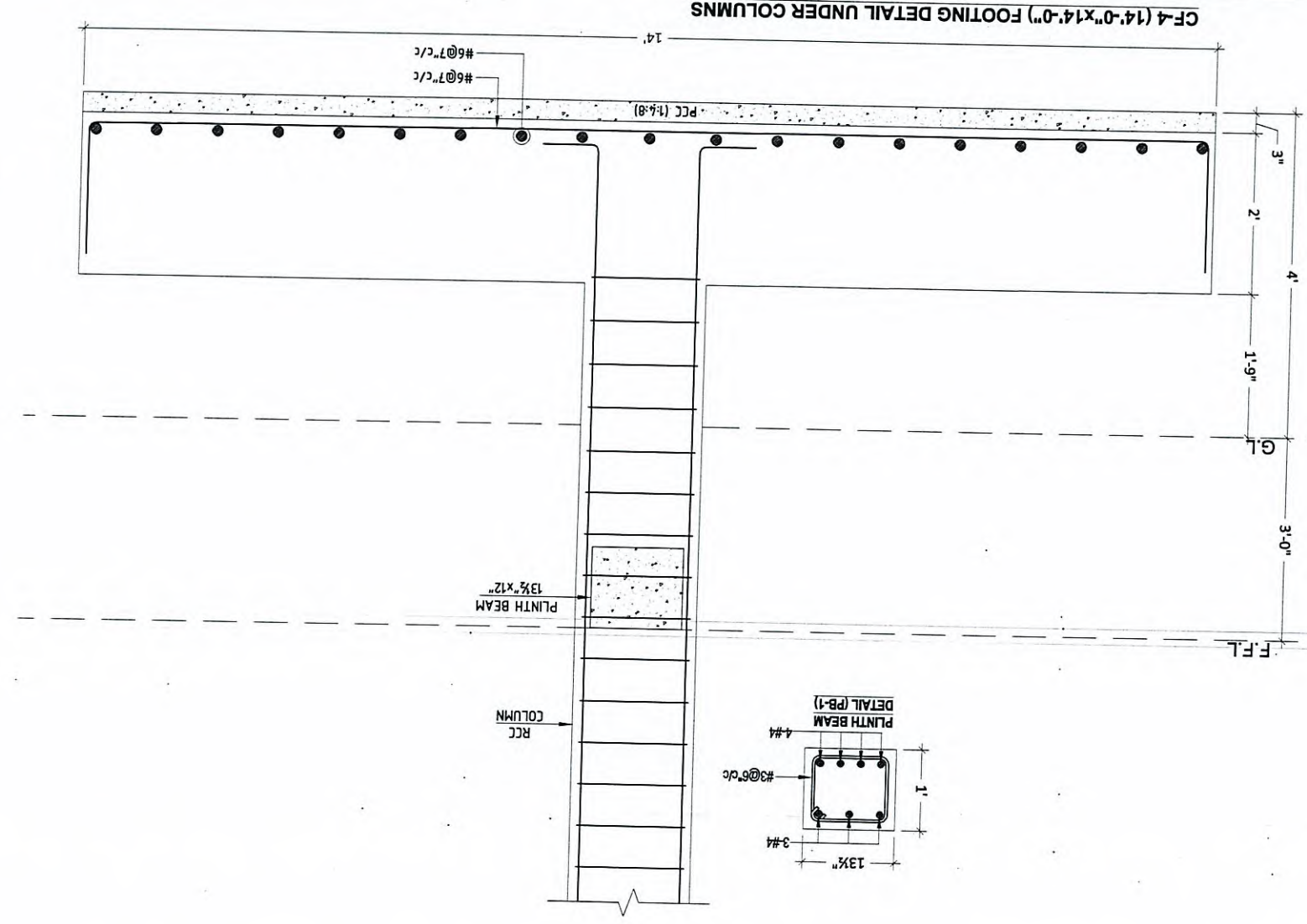


PROJECT NAME:
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

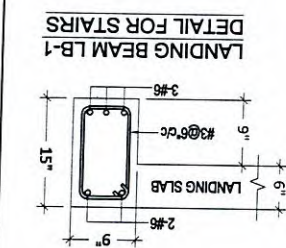
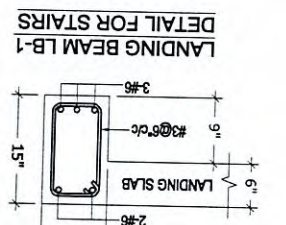
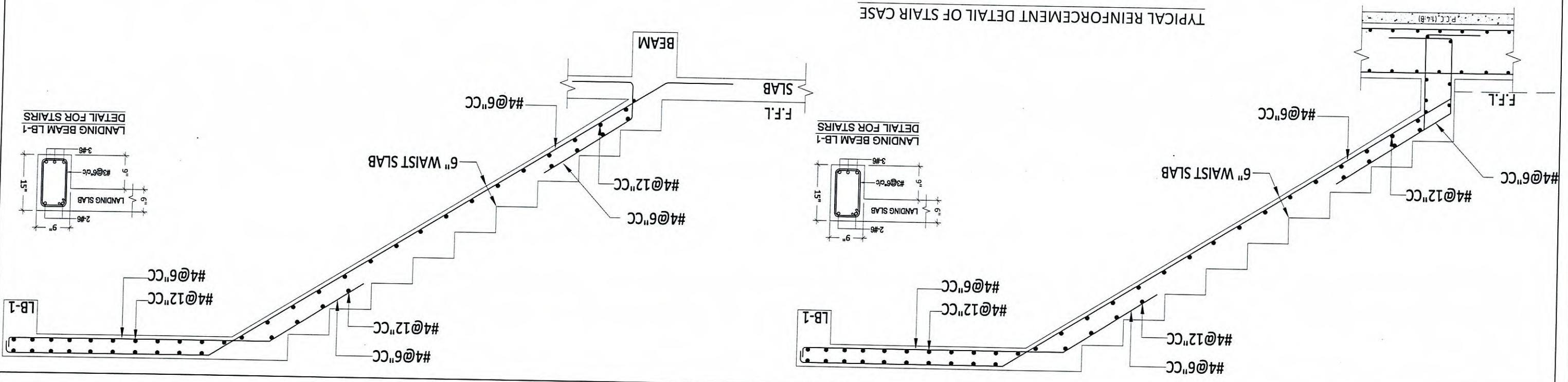
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DRAFTED BY:	ENGR. ZAIN UL ABIDEEN
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SCALE:	AS SHOWN
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TYPICAL REINFORCEMENT DETAIL OF STAIR CASE



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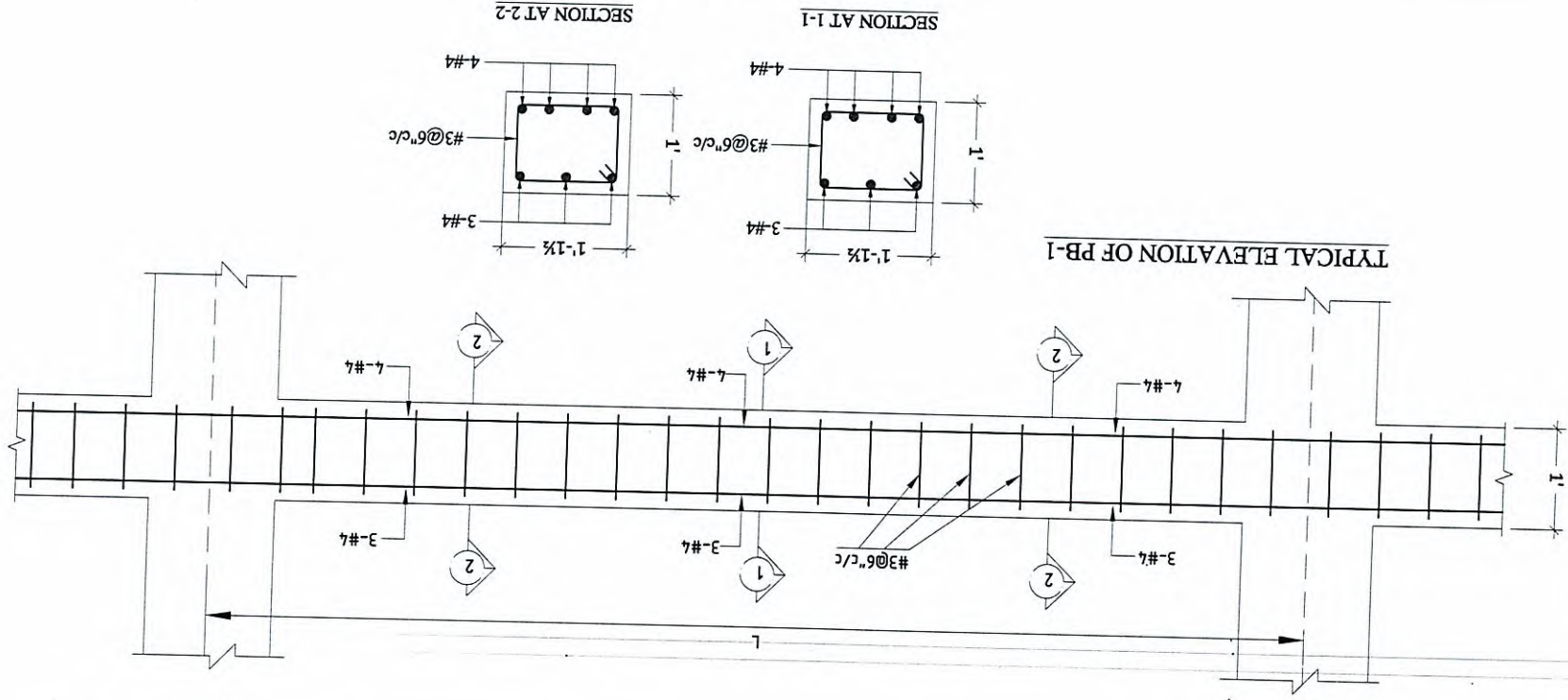
PROJECT NAME:
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

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DETAIL OF PB-1



COLUMNS X-SECTION DETAIL			
SL.NO		GROUND FLOOR	FIRST FLOOR
C-1			
C-2			
C-3			
C-4			
C-5			
C-6			
C-7			



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b. CONSTRUCTION OF CAFETERIA BLOCK

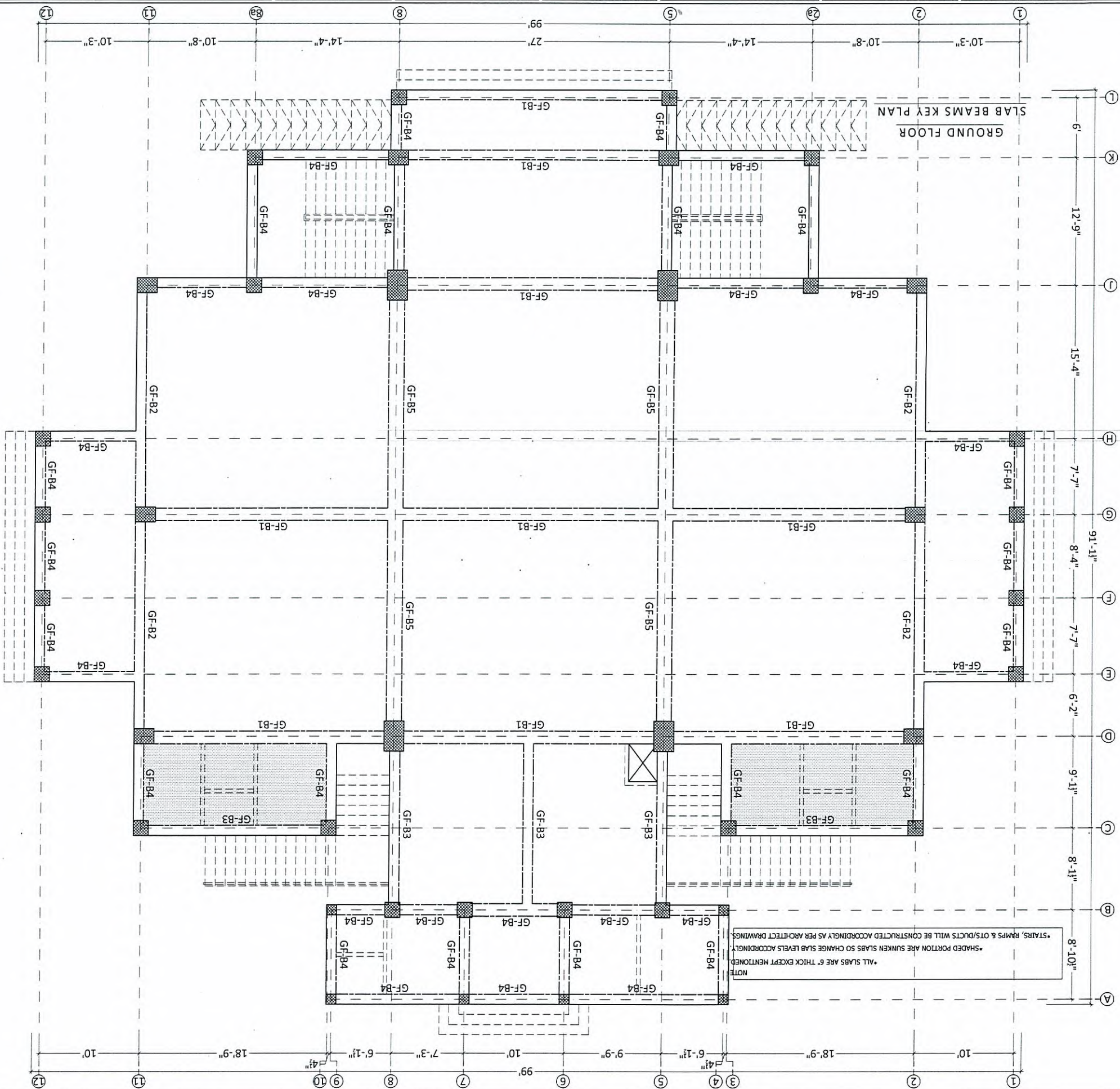
"WOMEN UNIVERSITY OF SWABI"

PROPOSED STRUCTURAL DESIGN OF

PROJECT NAME:

DRAWING TYPE:	STRUCTURAL	ENGR. ZAIN UL ABIDEEN	CHECKED BY:	PROJECT NO:	GSK-ED-241-B	ISSUE DATE:	MARCH, 2025
DESIGNED BY:	ENGR. SHAHAB ALI	TAUQEER ZEB	DRAFTED BY:	SCALE:	AS SHOWN	DRAWING NO:	STR-10
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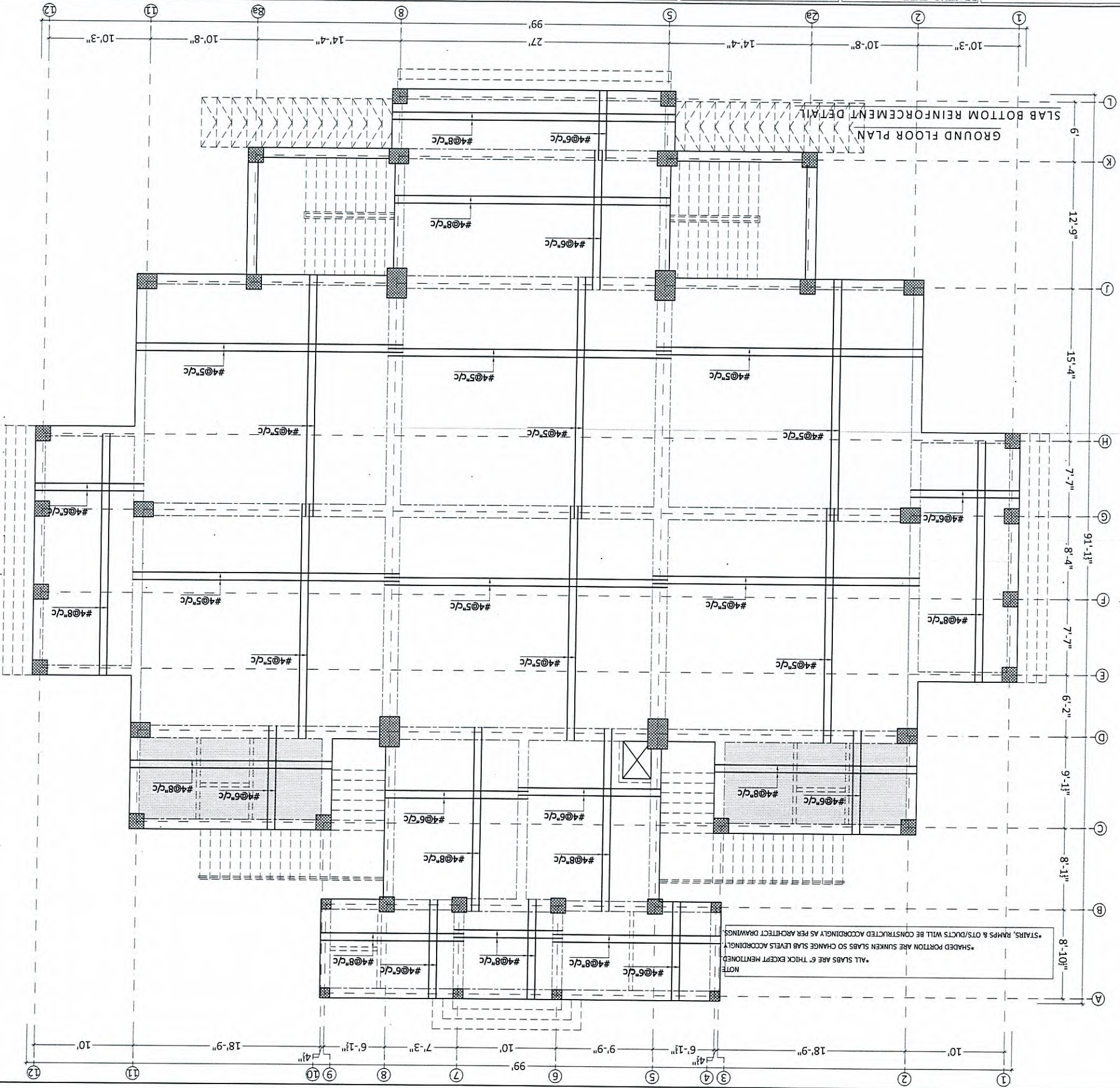


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PROJECT NAME:
PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

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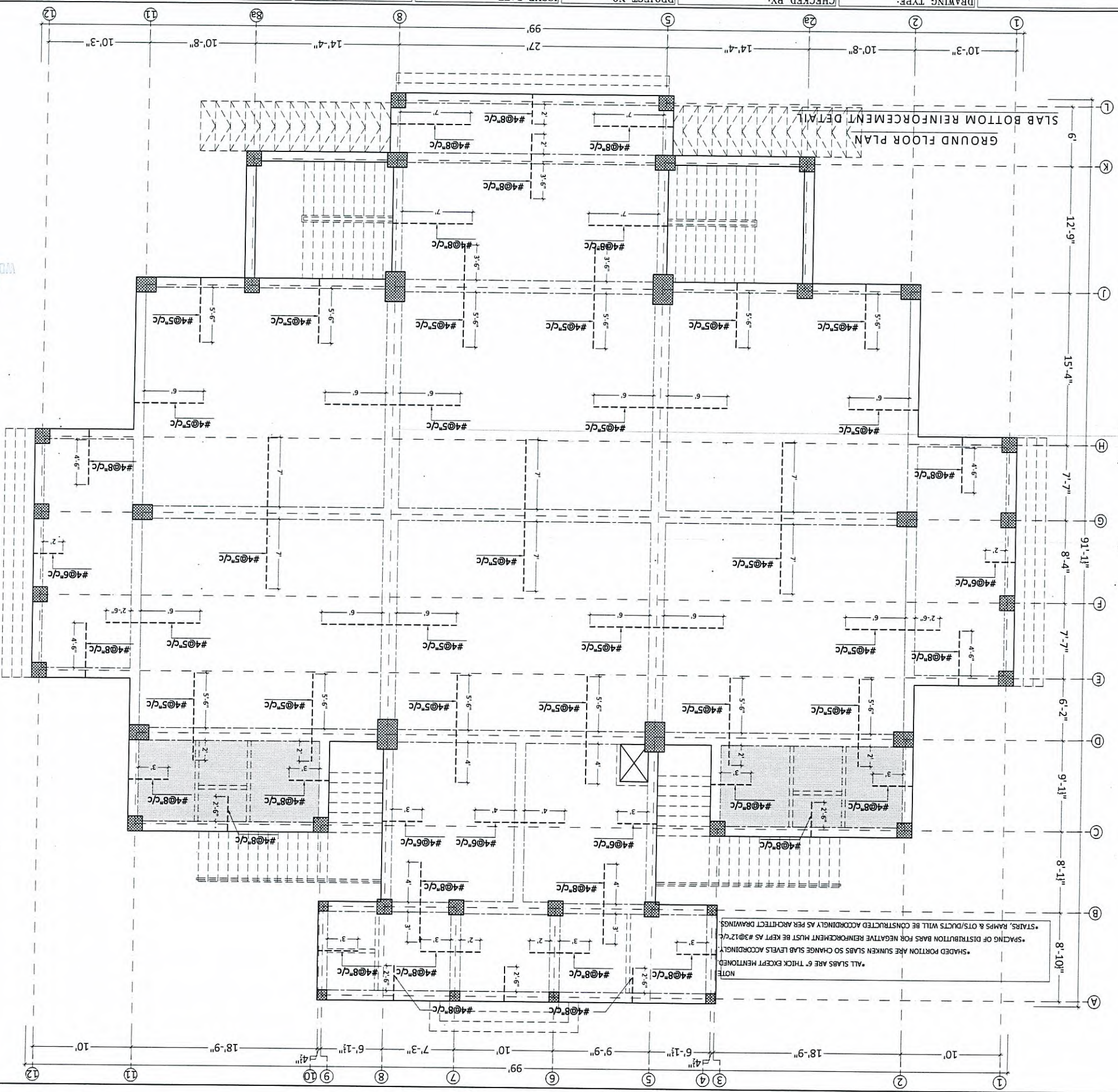
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PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

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DESIGNED BY:	ENGR. SHAHAB ALI
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SCALE:	AS SHOWN
PROJECT NO:	GSK-ED-241-b
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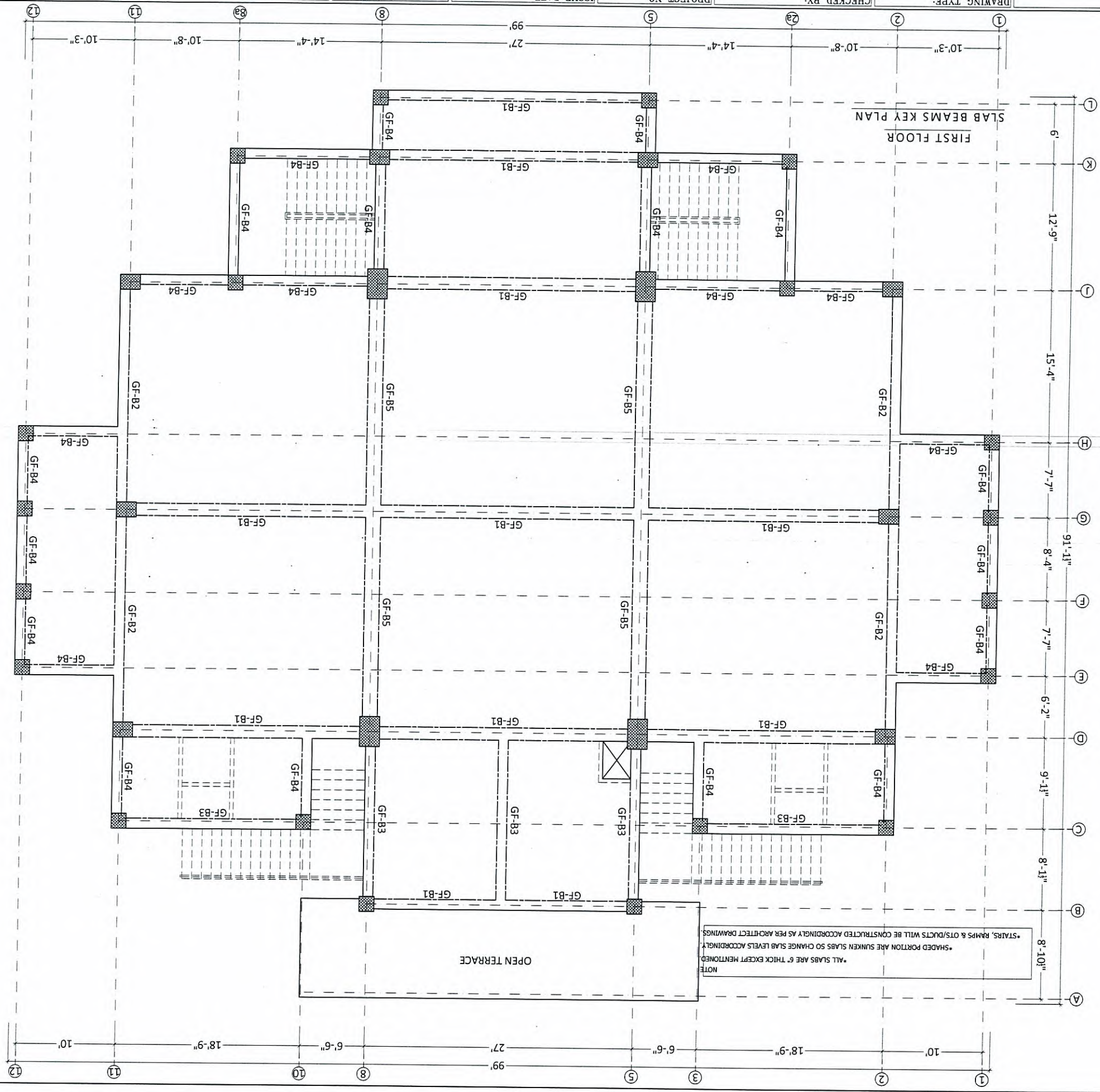
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"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

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b. PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
CONSTRUCTION OF CAFETERIA BLO

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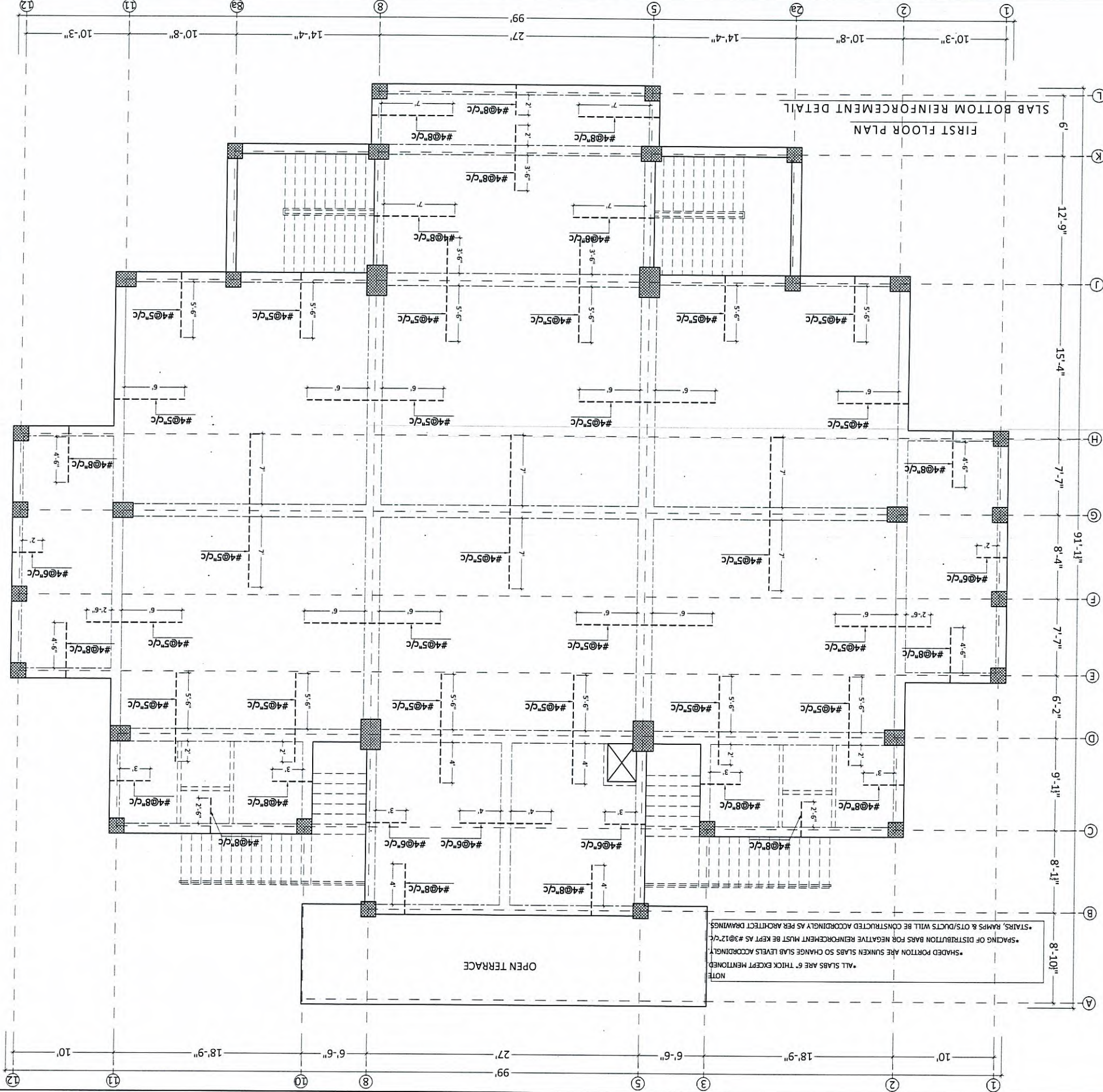
"WOMEN UNIVERSITY OF SWABI"

b. CONSTRUCTION OF CAFETERIA BLOCK

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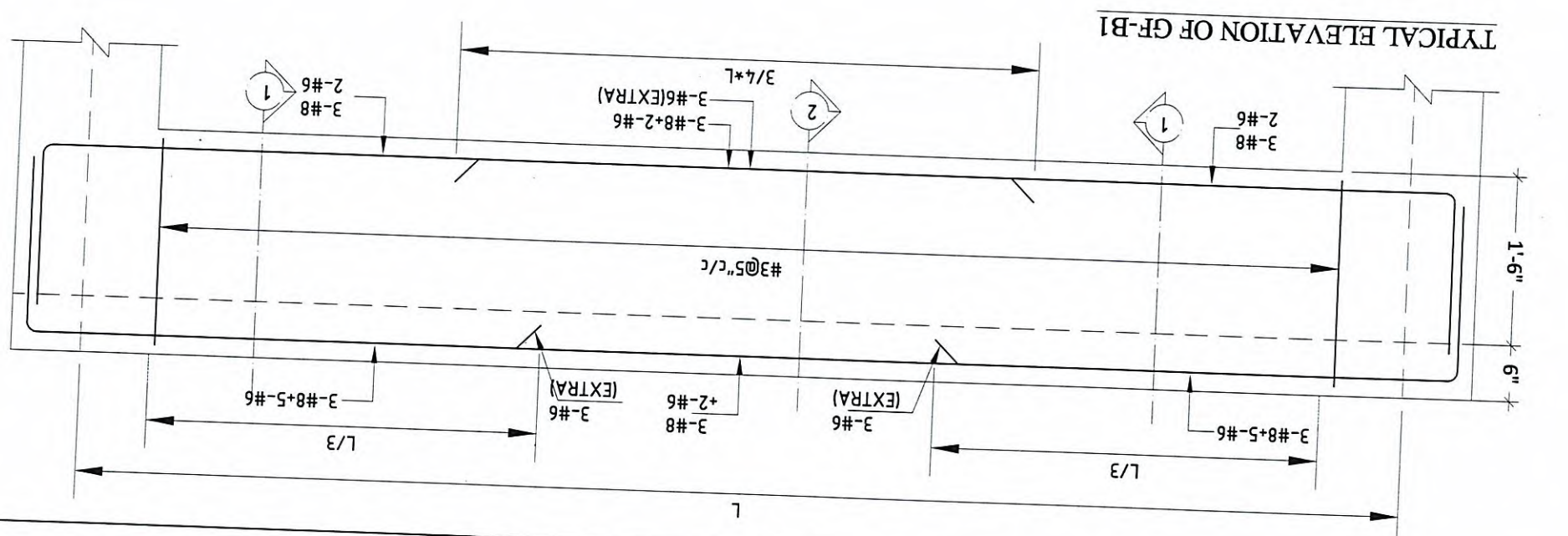
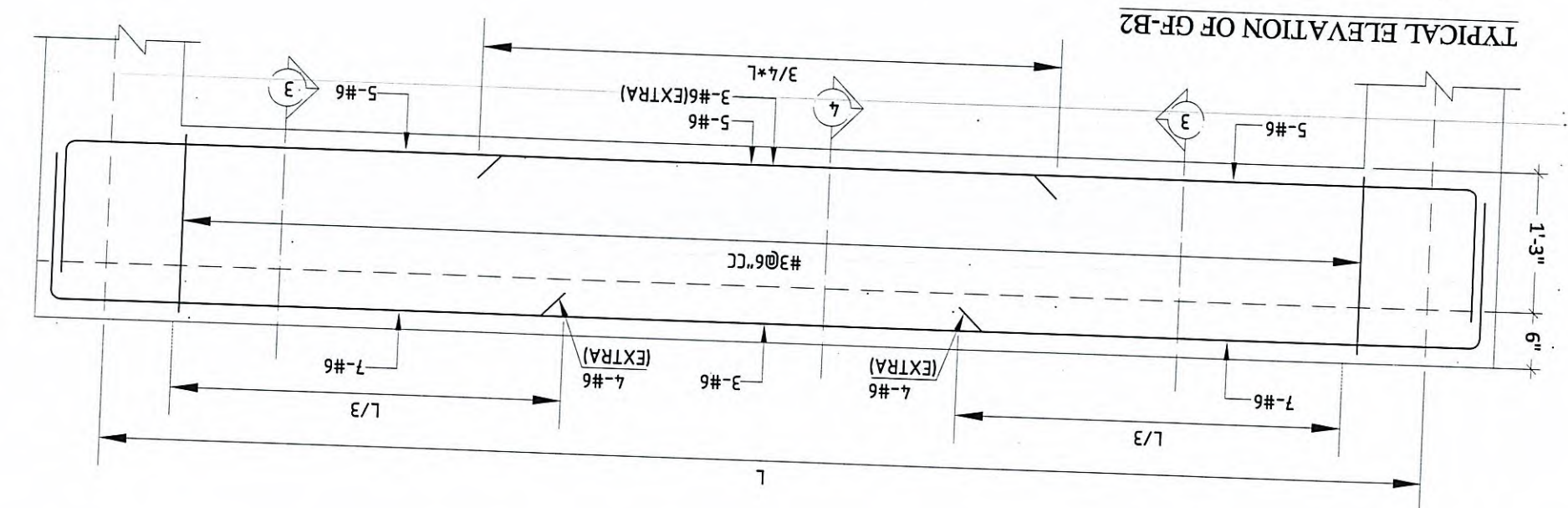
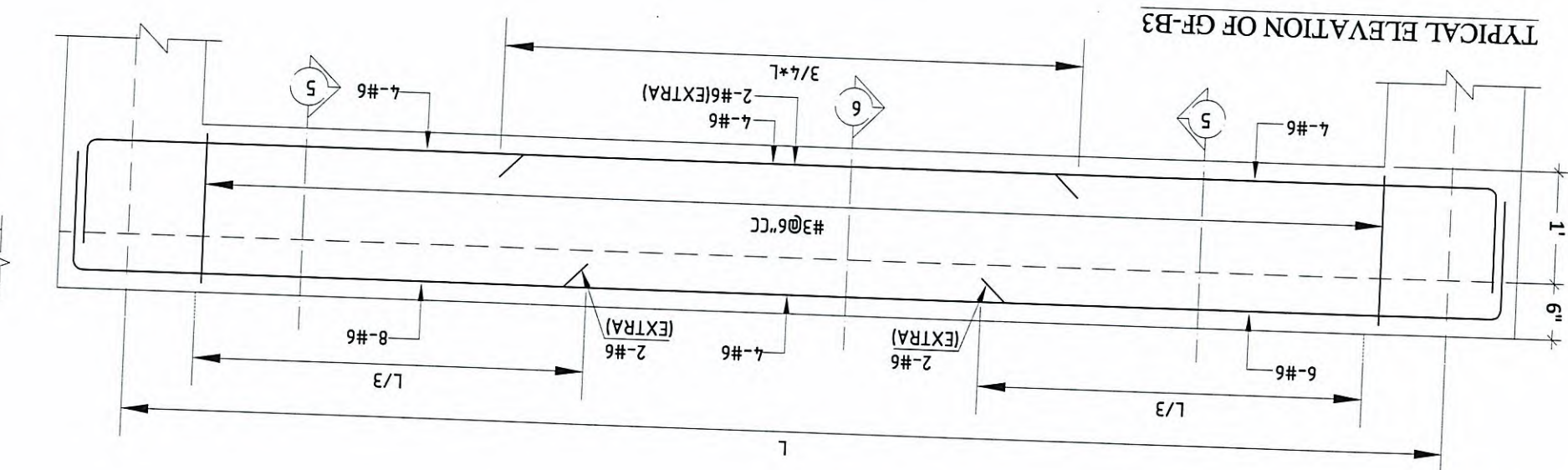
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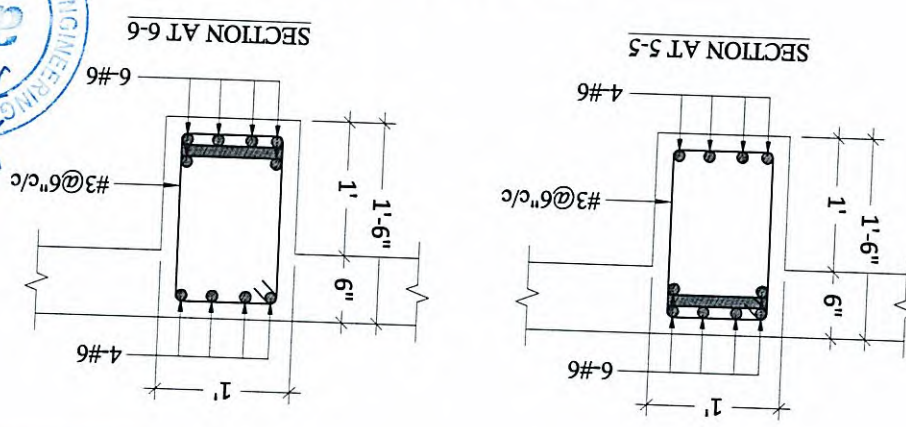
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PROJECT NAME: b. CONSTRUCTION OF CAFETERIA BLOCK
"WOMEN UNIVERSITY OF SWABI"
PROPOSED STRUCTURAL DESIGN OF

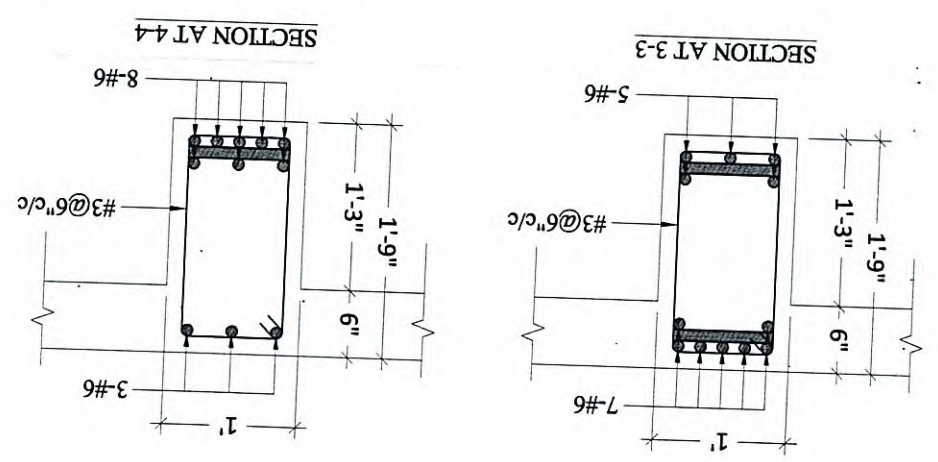
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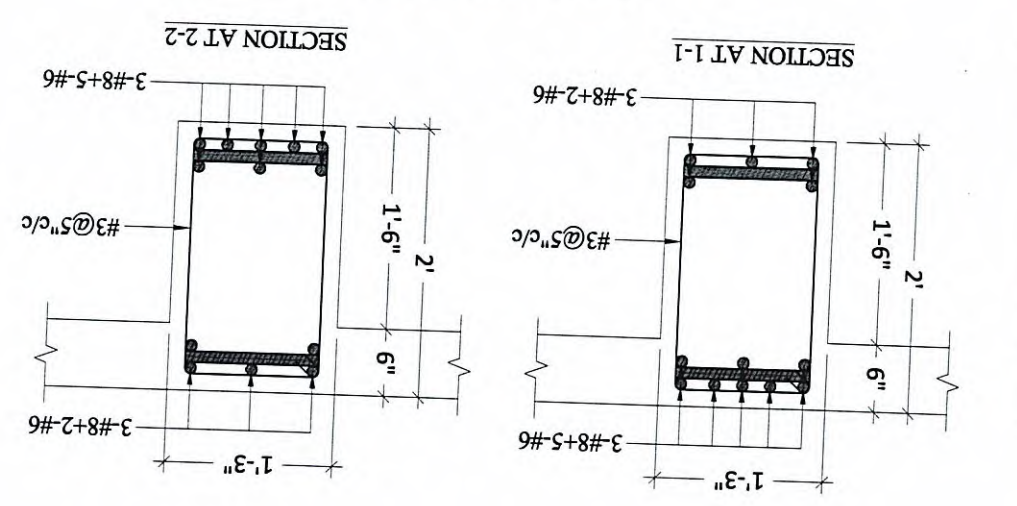
DETAIL OF GF-B3



DETAIL OF GF-B2



DETAIL OF GF-B1



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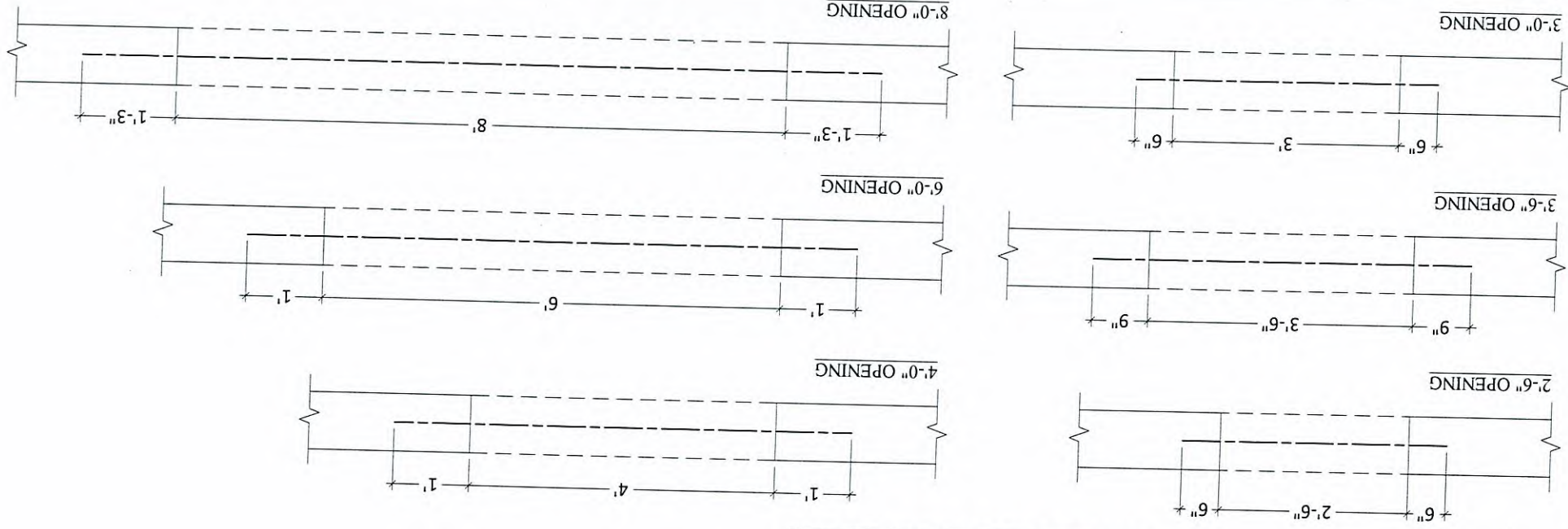
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PROPOSED STRUCTURAL DESIGN OF
"WOMEN UNIVERSITY OF SWABI"
b. CONSTRUCTION OF CAFETERIA BLOCK

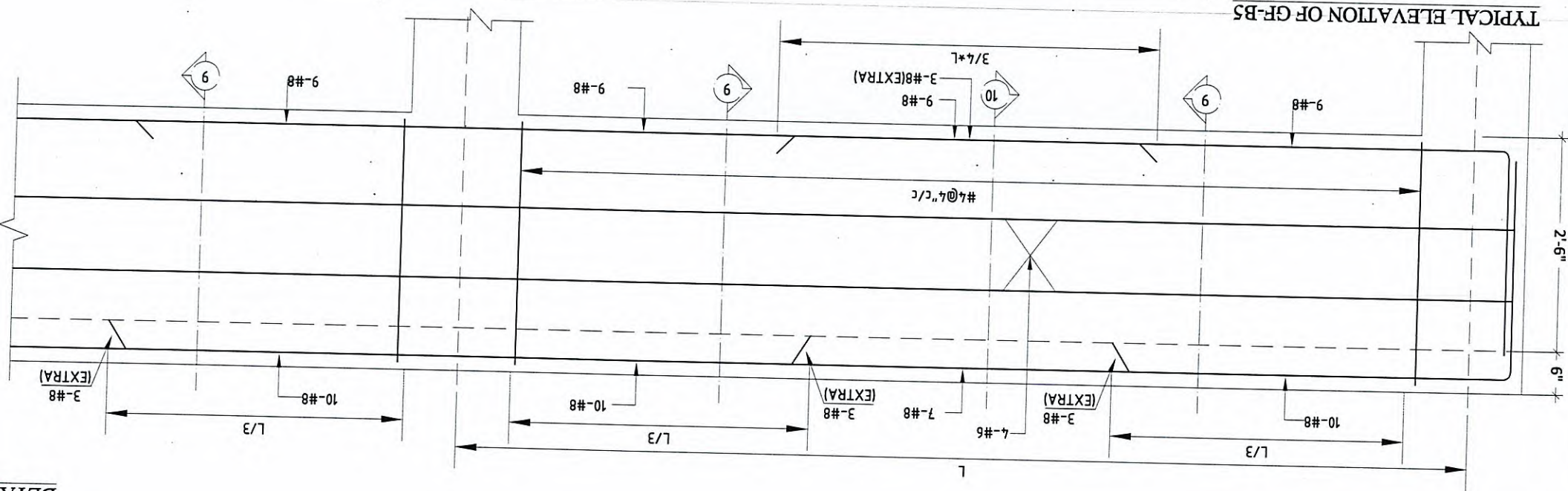
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DRAFTED BY:	ENGR. SHAHAB ALI
SCALE:	AS SHOWN
PROJECT NO:	GSK-ED-241-b
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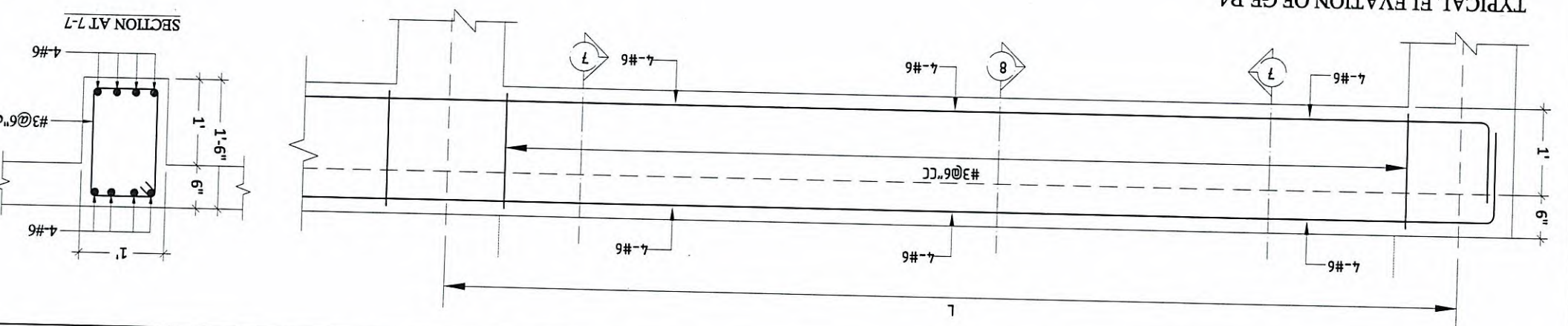
PROJECT NAME:



TYPICAL LINTEL BEAM DETAILS

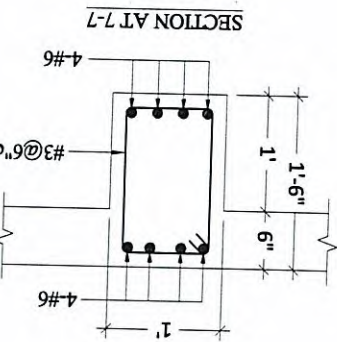


TYPICAL ELEVATION OF GF-B5

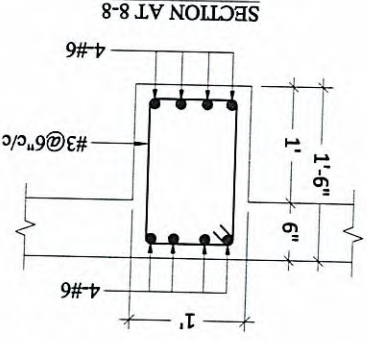


TYPICAL ELEVATION OF GF-B4

DETAIL OF GF-B4



SECTION AT 7-7



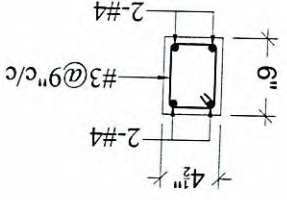
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DETAIL OF GF-B5

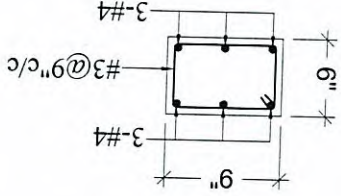
SECTION AT 9-9

SECTION AT 10-10

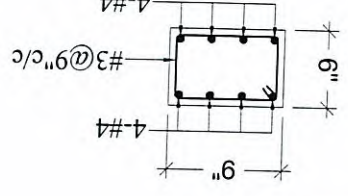
ON 4 1/2" TH. WALLS FROM
4'-0" TO 6'-0" OPENING



ON DOORS UP TO
5'-0" OPENING

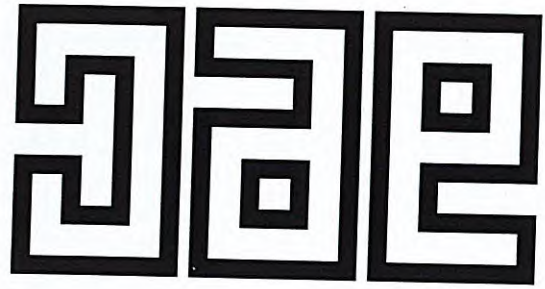


ON WINDOWS FROM
4'-0" TO 8'-0" OPENING



Project Director
WOMEN UNIVERSITY SWABI





WOMEN UNIVERSITY SWABI

CAFETERIA BUILDING

ELECTRICAL DRAWINGS

ARCHITECT

DRAWN

CHECKED

MRS.SHAHINE KHAN

SCALE

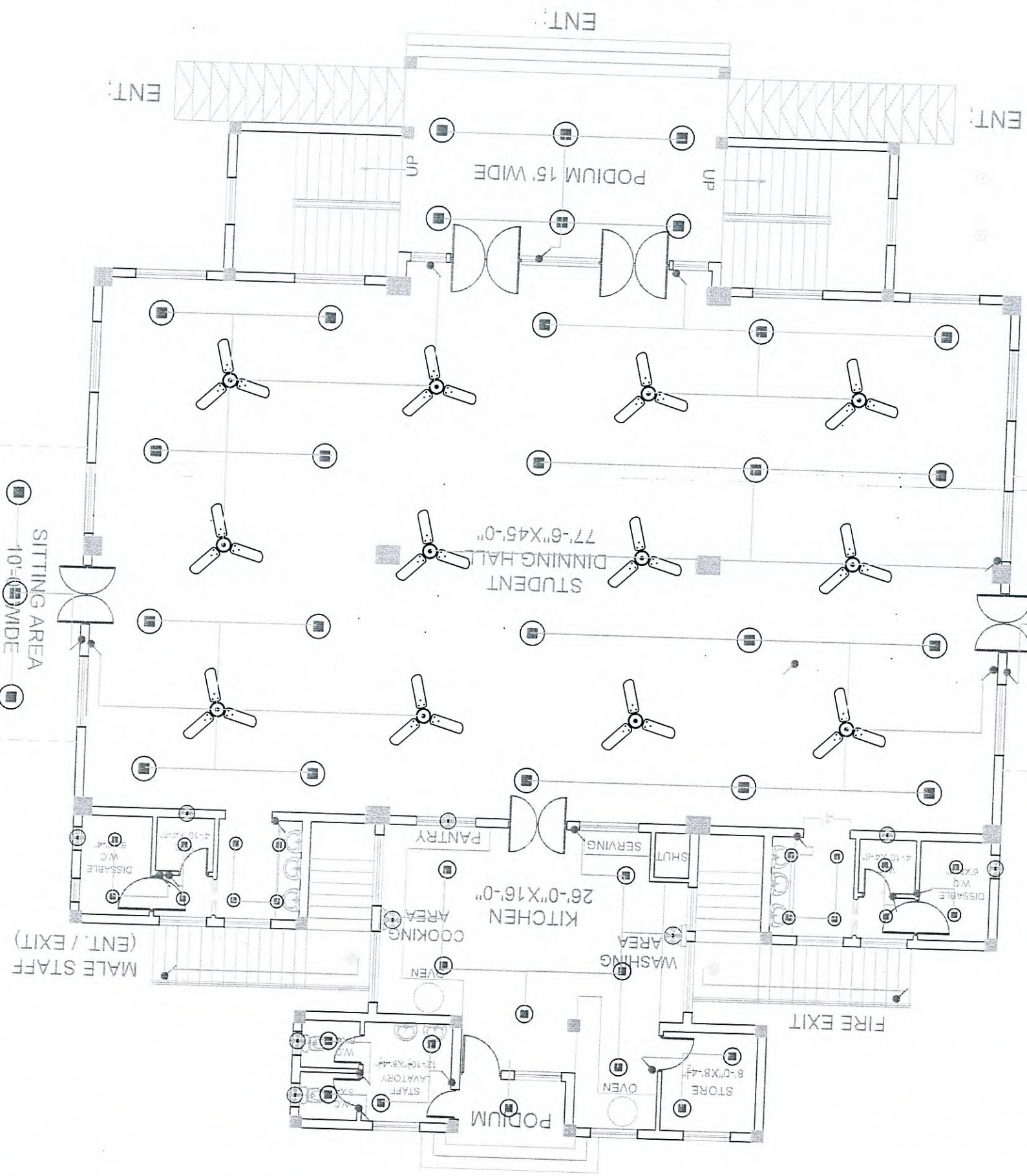
DATE

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD

ARCHITECTS

19 - A, GULBERG-II- LAHORE PH: 5758433/5756752
• ENGINEERS • PLANNERS •

ENT



GROUND FLOOR PLAN

LIGHTING LAYOUT

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

WOMEN UNIVERSITY SWABI
CAFETERIA

GROUND FLOOR PLAN
LIGHTING LAYOUT
ELE - (1)

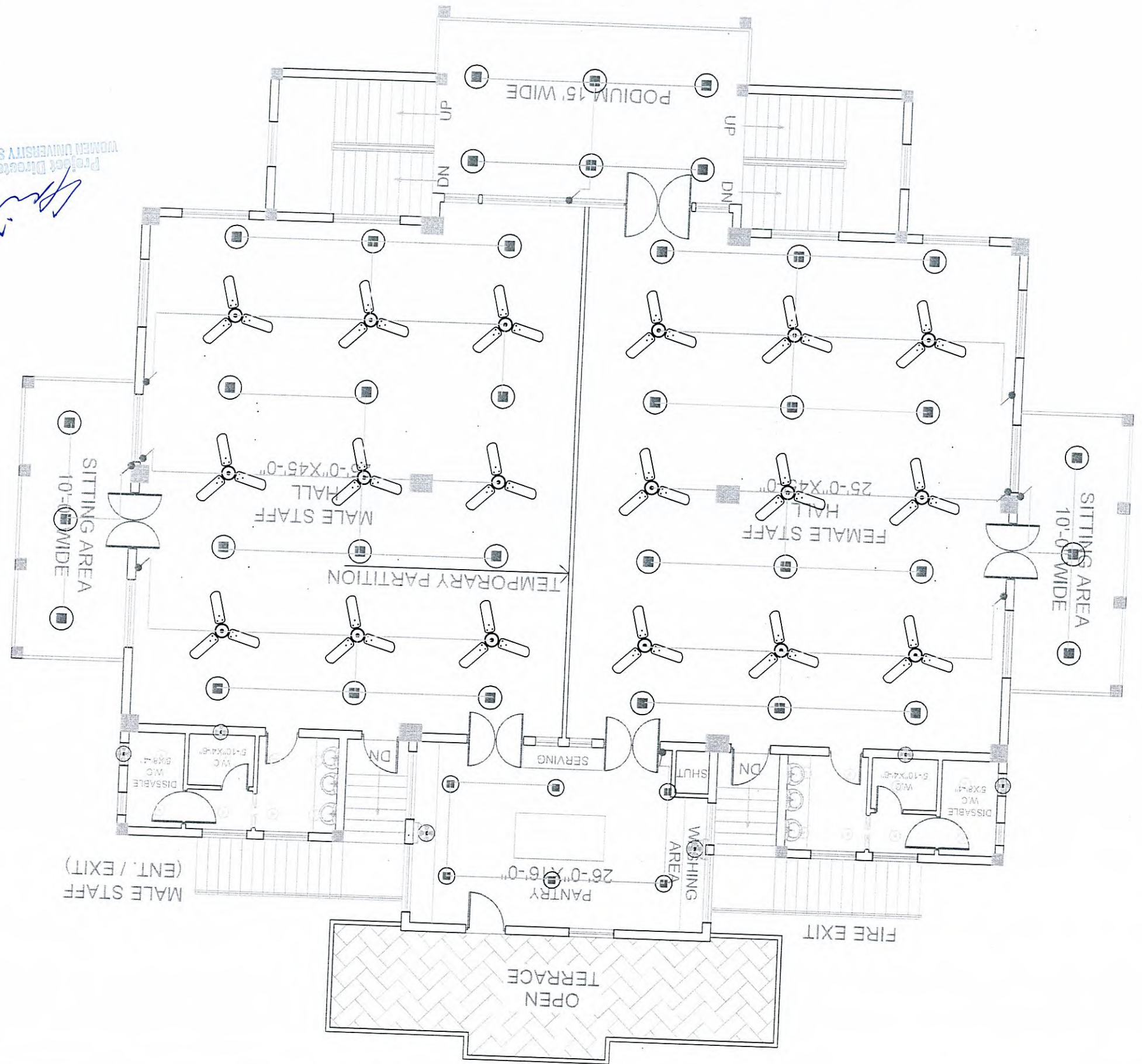
AS SHOWN
MARCH 2025
MRS. SHAHIDE KHAN
VASIR KHAN

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.
ARCHITECTS
ENGINEERS
PLANNERS
19-A, QUBBER, 4-LANES, PH. 03472/07832



Project Director
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FIRST FLOOR PLAN LIGHTING LAYOUT



WOMEN UNIVERSITY SWABI
CAFETERIA

GROUND FLOOR PLAN
POWER & FIRE ALARM
E.L.E. - (2)

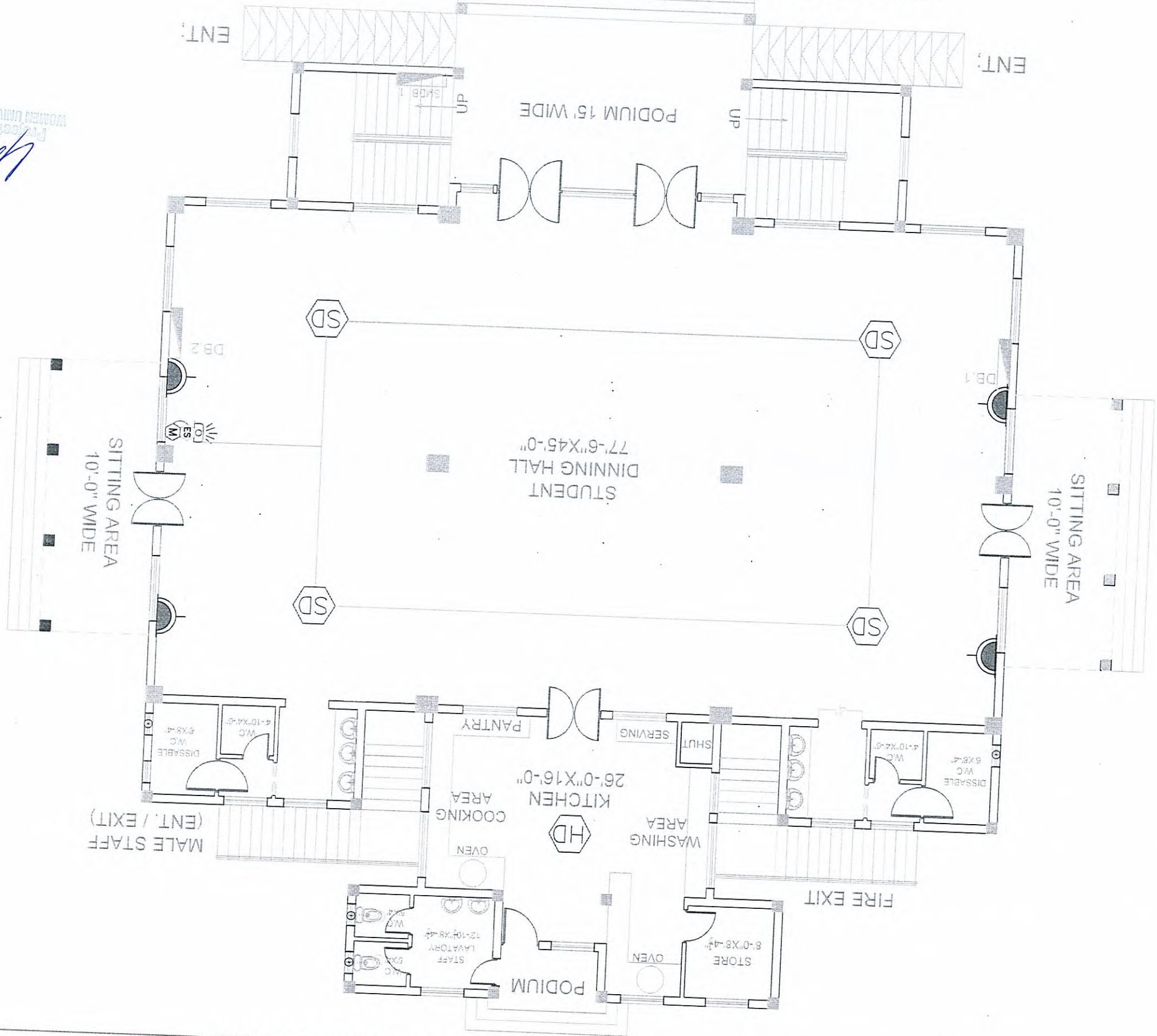
YASIR KHAN
AS SHOWN
MARCH 2025

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15-A, QUAERD 44, LAHORE PH. 3746311 STP252



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GROUND FLOOR PLAN FIRE ALARM LAYOUT



WOMEN UNIVERSITY SWABI
CAFATARIA

GROUND FLOOR PLAN
POWER & FIRE ALARM

ELE - (3)

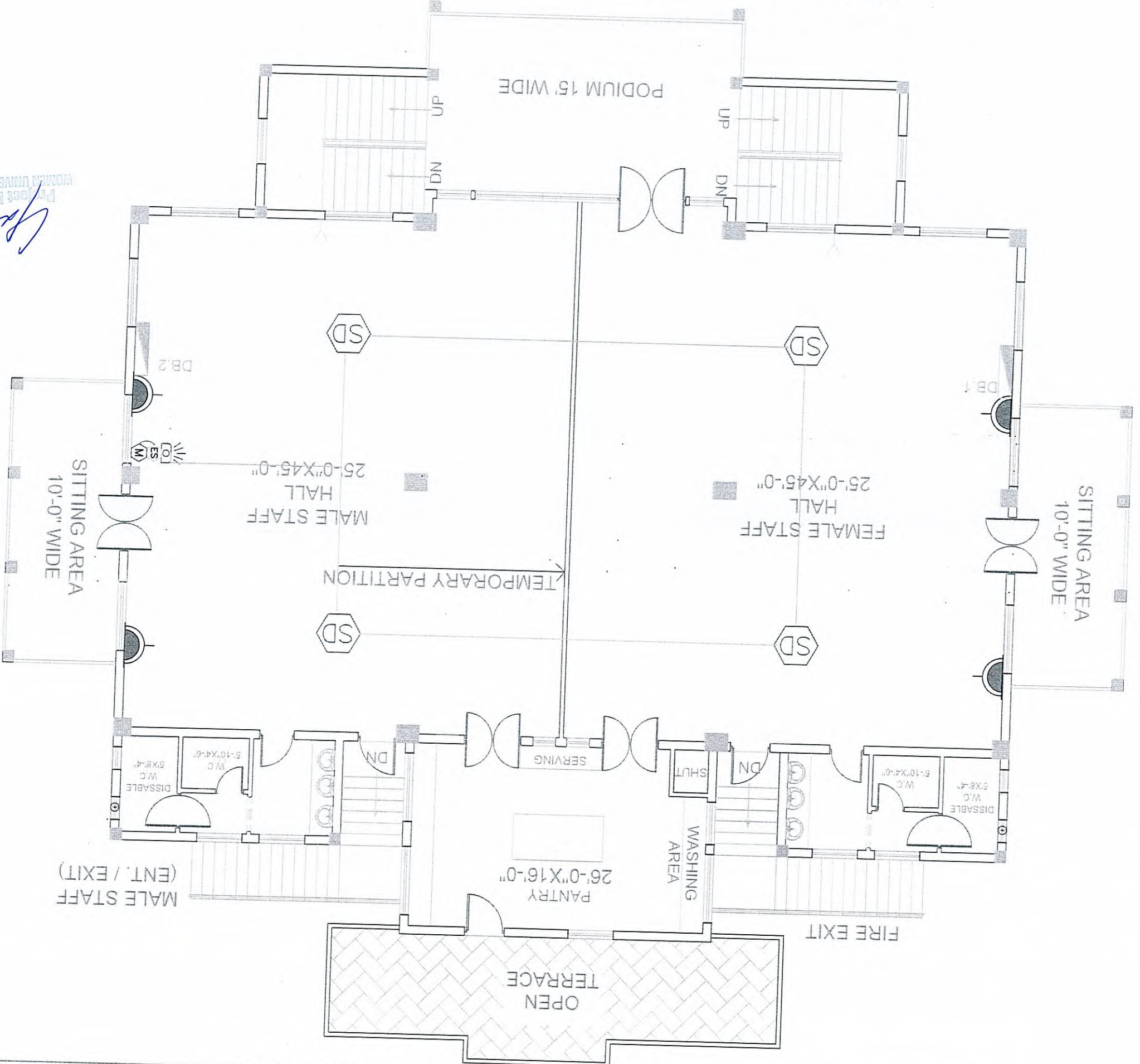
YASIR KHAN
MRS. SHAHINE KHAN
AS SHOWN
MARCH 2025

ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.
ARCHITECTS, ENGINEERS, PLANNERS.
19-A, OUTSTANDING LADDER PH. 753423 / 570352



Project Director
WOMEN UNIVERSITY SWABI

FIRE ALARM LAYOUT FIRST FLOOR PLAN



WOMEN UNIVERSITY SWABI
CAFETERIA

GROUND FLOOR PLAN
POWER & FIRE ALARM
ELE - (4)

YASIR KHAN
MRS. SHAHINE KHAN
AS SHOWN
MARCH 2025

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ARCHITECTS, ENGINEERS, PLANNERS
19-A, OUTPOST 41, LAHORE PH. 3734331/373575



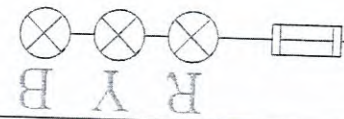
Project Director
WOMEN UNIVERSITY SWABI

DETAIL OF DBLP-1-GF
INSTALLED AT GROUND FLOOR

2x2.5mm ² SC. PVC CU. COND CABLE+1x1.5mm ² CABLE AS CPC			M C B		RATING-"AMPS"		M C B NO:		P H A S E		DBP-2G-WAYS		W A Y		TPN - 16.20 Amps.	
TO LIGHTING CIRCUIT			10	10	10	10	10	10	10	10	10	10	10	10	10	10
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TO LIGHTING CIRCUIT			10	10	10	10	10	10	10	10	10	10	10	10	10	10
TO																

2x2.5mm² SC. PVC CU. COND
CABLE+1x1.5mm² CABLE AS CPC

2x4mm² SC. PVC CU. COND
CABLE+1x1.5mm² CABLE AS CPC



100 A TP
MCCB
RC:25 KA

1-4 CORE 10mm² CUPVC/PVC COND
CABLE+1X6mm² CABLE AS CPC

CABLE FROM TRANSFORMER

Project Director
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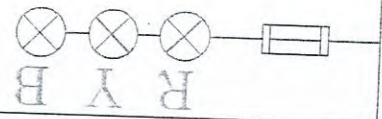
WOMEN UNIVERSITY SWABI
CAFATARIA

SINGLE LINE DIAGRAM
DISTRIBUTION BOARD LIGHT & POWER
GROUND FLOOR
ELE - (5)

YASIR KHAN
AS SHOWN
MARCH 2025

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ARCHITECTS
ENGINEERS
PLANNERS

CABLE FROM TRANSFORMER



100 A TP
MCCB
RC:25 KA

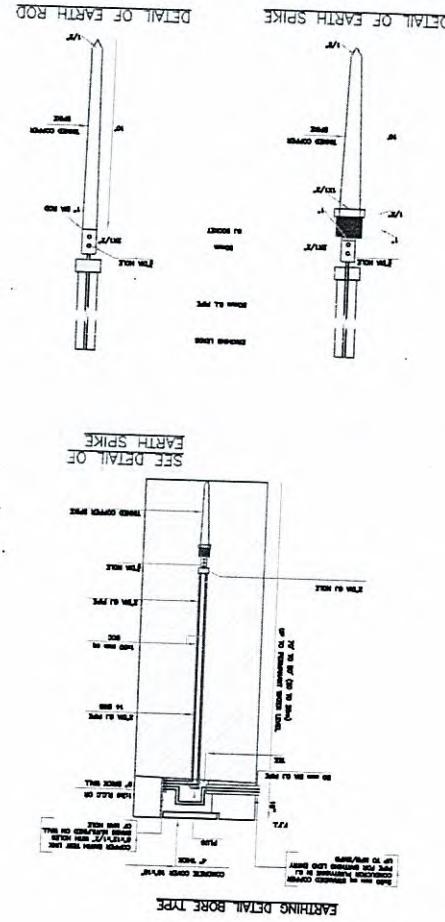
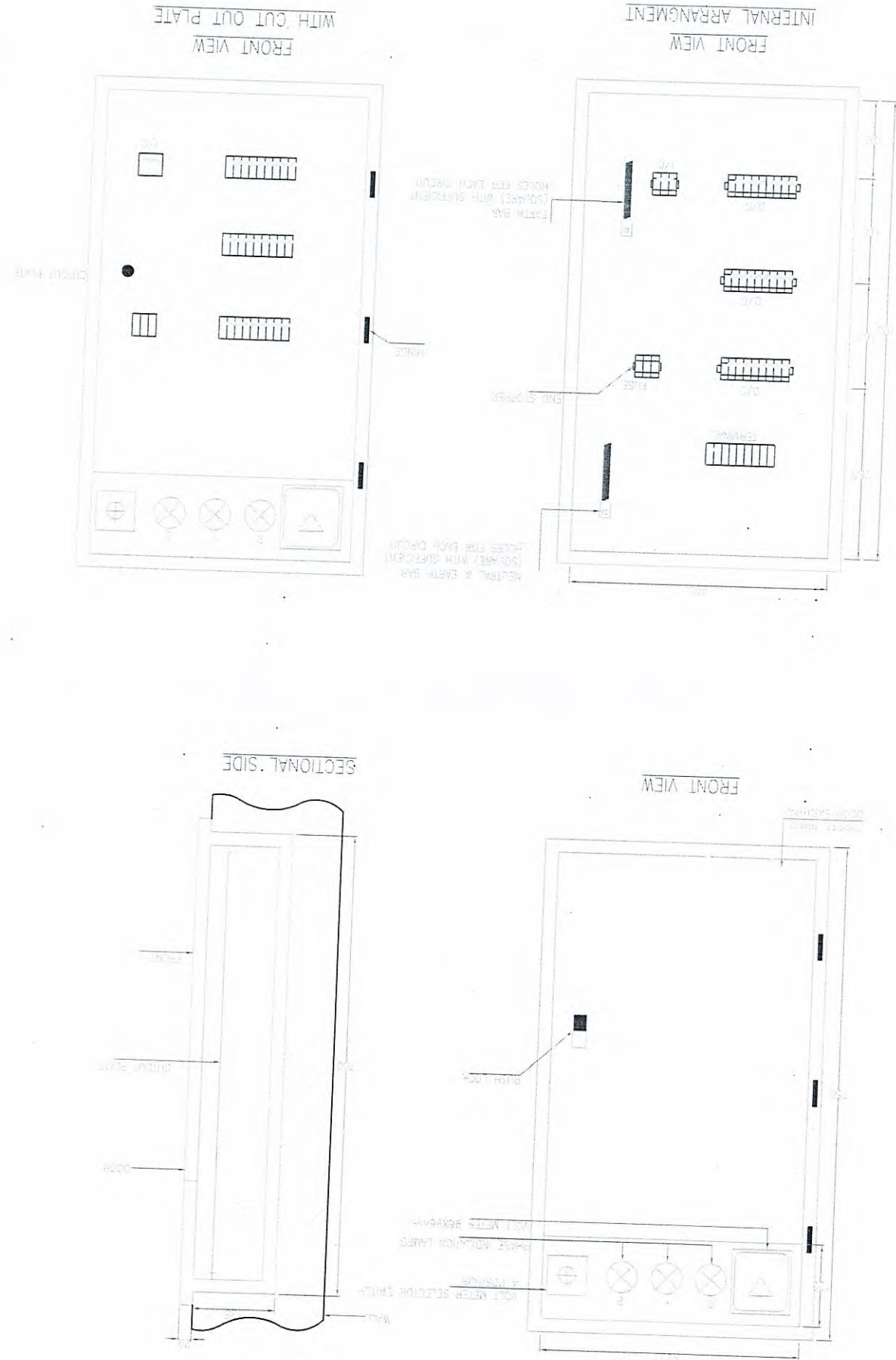
1-4 CORE 10mm² CU/PVC/PVC COND
CABLE+1X6mm² CABLE AS CPC

Project Director
WOMEN UNIVERSITY SWABI

M C B		M C B NO:		P H A S E		DBP-2G-WAYS	
RATING-"AMPS"							
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2x4mm² SC, PVC·CU, COND
CABLE+1x1.5mm² CABLE AS CPC





WOMEN UNIVERSITY SWABI



WOMEN UNIVERSITY SWABI
CAFATARIA
EARTHING, DB DETAIL & GENERAL NOTES
ELE - (7)

- NOTES FOR EARTHING SYSTEM:-**
1. EARTH BORE SHALL BE MADE AT 6"-0" AWAY FROM FOUNDATION.
 2. DISTANCE BETWEEN 2 EARTH BORES SHALL NOT BE LESS THAN 10 ft (3m).
 3. COPPER CONDUCTOR AT TOP OF GI PIPE SHALL BE BOLTED WITH THIMBLES, BRASS NUTS, BOLTS ETC.
 4. JOINT SHALL BE COVERED WITH BITUMEN.
 5. CONTRACTOR TO MEASURE EARTHING RESISTANCE IN THE PRESENCE OF SITE ENGINEER, BOTH THE SITE ENGINEER AND CONTRACTOR SHALL SIGN THE EARTH TESTING RESULT AND SUBMIT IT TO THE CLIENT FOR RECORD.
- GENERAL & WIRING NOTES:-**
1. ALL ELECTRICAL WORKS PERTAINING TO WIRING OF ELECTRICAL SYSTEMS SHALL STRICTLY CONFORM TO I.E.E. LATEST EDITION OF RULES & REGULATIONS.
 2. ALL WIRING SHALL BE DONE IN PVC CONDUIT TO BE CONCEALED IN WALLS, SLABS, COLUMNS AND FLOOR OR AS SHOWN ON DRAWINGS.
 3. THE WIRING SHOULD BE STARTED ONLY AFTER THE CONDUIT SYSTEM HAS BEEN COMPLETED AND ALL OUTLET BOXES ARE FIXED AT THEIR RESPECTIVE POSITIONS.
 4. ALL PVC CONDUITS SHALL BE 3/4" OR 1" DIA. (DEPENDENT UPON NUMBER OF WIRES) FROM SWITCH BOARD TO LIGHT POINTS & 1" DIA FROM DBS TO SWITCHES.
 5. LIGHT / FANS POINT CONTROLLED BY ONE WAY SWITCH, WIRING WITH 1.5mm sq (3/0.029") (AS OF WIRE) 2x2.5mm sq (7/0.029") AS COMMON NEUTRAL(N) & EARTH(E) WIRE.
 6. LIGHTING CIRCUITS FROM RESPECTIVE DB TO SWITCH SOCKET WIRING WITH 2x2.5mm sq (7/0.029") AS P+N+E.
 7. SOCKETS WIRING IN PARALLEL WITH 2x2.5mm sq AS P+N+E.
 8. POWER SOCKETS WIRING WITH 3x4mm sq AS P+N+E.
 9. SA/C 1-1.5 TON WIRING WITH 3x4mm sq AS P+N+E.
 10. SA/C 2-2.5 TON WIRING WITH 3x4mm sq AS P+N+E.
 11. NO LUBRICATION EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED FOR PULLING OF WIRES.
 12. IN PVC CONDUITS, NO OIL OF ANY KIND SHALL BE USED. COLOUR CODING FOR WIRING SHALL BE AS FOLLOWS:
RED, YELLOW, AND BLUE FOR PHASES, BLACK FOR NEUTRAL AND GREEN / YELLOW FOR CPC (EARTH).
 13. ALL LIGHT POINTS AND POWER SOCKETS SHALL BE PROPERLY EARTHED WITH 2.5mm sq PVC INSULATED WIRES OF COLOUR GREEN-YELLOW.
 14. THE NUMBER OF WIRES TO BE PULLED IN ANY CONDUIT FOR WIRING PURPOSES SHALL CONFORM TO I.E.E. TABLE.
 15. 1" DIA PVC CONDUIT SHALL BE USED FOR WIRING OF ALL OTHER SYSTEMS UNLESS OTHERWISE MENTIONED ON PLANS OR AS SPECIFIED IN D.O.C.
 16. ELECTRICAL CONTRACTOR TO CONSULT ELECTRICAL CONSULTANT/ENGINEER FOR ANY FURTHER CLARIFICATIONS. NO ASSUMPTIONS SHOULD BE MADE.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED
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02				
03				
04				



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PROJECT:
WOMEN UNIVERSITY OF SWABI
(CAFETERIA BUILDING)

TITLE:	DATE:	DWG. NO.	JOB NO.
PLUMBING DRAWINGS	APRIL, 2025	MEP - PD - 00	
SCALE	N.T.S		

PUBLIC HEALTH DRAWINGS

GENERAL NOTES FOR PUBLIC HEALTH

1. NO WORK SHALL BE CARRIED OUT UNLESS SHOP DRAWINGS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

2. THESE NOTES SHALL BE APPLICABLE TO THE ENTIRE PUBLIC HEALTH WORKS THE SITE CONDITIONS NECESSITATE ALTERATION OR DEVIATION OF THE DIRECTIONS OF THE ENGINEER SHALL BE OBSERVED AS FINAL INSTRUCTIONS.

3. CONTRACTOR SHALL NOT PROVIDE ANY EQUIPMENT OR MATERIAL UNLESS TECHNICAL SUBMITTALS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

4. THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL THE DRAWINGS BEFORE START OF WORK AND SHALL COORDINATE WITH ALL OTHER DISCIPLINE AND ANY DISCREPANCY APPEARS IT SHOULD BE BROUGHT TO THE CONSULTANTS KNOWLEDGE IMMEDIATELY.

5. CONTRACTOR SHALL COORDINATE ALL WORKS WITH ELECTRICAL, STRUCTURAL & ARCHITECTURAL LAYOUTS.

6. MECHANICAL SERVICES SHALL NOT CUT IN ANY STRUCTURAL BEAMS, RIBS OR ANY OTHER STRUCTURAL ELEMENTS UNLESS A PRIOR WRITTEN APPROVAL HAS BEEN TAKEN FROM THE ENGINEER.

7. ALL EQUIPMENTS SHALL BE INSTALLED STRICTLY AS PER MANUFACTURER'S RECOMMENDATION. MECHANICAL CONTRACTOR SHALL PROVIDE SLEEVE ON ALL PIPES PENETRATING WALLS SLABS OR BEAMS.

9. ALL WORK SHALL CONFORM TO THE LATEST INTERNATIONAL BUILDING CODE, AND THE REQUIREMENTS OF LOCAL AUTHORITIES

10. MANHOLE COVERS AND FRAMES ARE TO BE HEAVY DUTY IN TRAFFIC AREAS AND MEDIUM DUTY IN PEDESTRIAN AREAS.

11. MANHOLES SHALL BE OF CONCERT CONSTRUCTION.

12. ALL SEWAGE PIPES SHALL HAVE A MINIMUM SLOPE OF 1% IN DIRECTION OF FLOW

13. ALL PIPES UNDER TRAFFIC WILL HAVE MINIMUM 1000 mm COVER OR WALL BE ENCASED IN CONCRETE.

14. ALL SANITARY APPLIANCES SHALL BE PROVIDED WITH TRAPS.

15. JOINTS TO W.C. PANS SHALL BE WITH UPVC CONNECTORS & RUBBER GASKETS.

16. ISOLATING VALVES SHALL BE PROVIDED TO SEPARATE THE INDIVIDUAL TOILETS, GATE VALVES SHALL BE PROVIDED TO/ FROM WATER HEATERS

17. EXACT LOCATION OF WATER PIPE WORK SHALL BE DETERMINED ON SITE.

18. PROVIDE ISOLATING VALVE ON ALL MAIN AND BRANCH LINES FOR MAINTENANCE.

19. IN PLUMBING WATER SUPPLY SYSTEM THE PIPE DIAMETERS ARE INDICATED CONTRACTOR SHALL USE ADEQUATE PIPES SIZE, SPECIALLY WHEN USING PLASTIC PIPES TO ACCOUNT FOR PIPE WALL THICKNESS.

20. CONTRACTOR TO PROVIDE OVERFLOW, TEST PIPE, WARNING OF LEVEL AND DRAIN CONNECTION. ALL ELECTRICAL POWER AND CONTROL WIRING / CONDUITING FROM M.C.C. TO PLUMBING EQUIPMENTS SHALL BE CARRIED OUT BY ELECTRICAL CONTRACTOR

21. ALL ELECTRICAL POWER AND CONTROL WIRING / CONDUITING FROM M.C.C. TO PLUMBING EQUIPMENTS SHALL BE CARRIED OUT BY ELECTRICAL CONTRACTOR

22. CONTRACTOR TO PROVIDE CLEAN OUTS AT EVERY 15 METER OF PIPE RUN EVEN IF IT IS NOT MENTIONED IN THE DRAWINGS.

23. FOR COLD AND HOT WATER SUPPLY PPR PN-20 PIPES SHALL BE USED.

24. ALL EXPOSED COLD AND HOT WATER PIPING SHALL BE GI (III) MEDIUM CLASS.

25. FOR SEWERAGE SYSTEM UPVC (SWV) NON-PRESSURE PIPES AND FITTINGS SHALL BE USED.

26. FOR DRAINAGE SYSTEM PVC NON-PRESSURE PIPES AND FITTINGS CLASS-B, SHALL BE USED.

27. VENT PIPES SHALL BE EXTENDED ONE FEET ABOVE THE PARAPET WALL.

28. GEYSER SHALL BE STORAGE TYPE (COMMERCIAL MAKE).

29. ALL THE PUBLIC HEALTH SYSTEMS IS HANGING TYPE USE PROPER HANGING ARRANGEMENT FOR PIPES ETC.

30. ALL WATER SUPPLY PPR PIPES SHOWN IN DRAWINGS ARE INTERNAL DIAMETER.

31. SLOPE FOR SEWERAGE PIPE I.E FOR WASTE IS 1.8 CM PER METER AND FOR SOIL IS 1.5 CM PER METER.

REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/MER	APPROVED
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENG'R HIKMAT KHAN
04			DESIGNED BY	ENG'R HIKMAT KHAN



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PROJECT: WOMEN UNIVERSITY OF SWABI (CAFETERIA BUILDING)
DATE: APRIL, 2025
DWG. NO. MEP - PD - 100
JOB NO.

TITLE: GENERAL NOTES & LEGENDS
N.T.S.
SCALE

NOTES:

1. NO WORK SHALL BE CARRIED OUT UNLESS SHOP DRAWINGS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

2. CONTRACTOR SHALL NOT PROVIDE ANY EQUIPMENT OR MATERIAL UNLESS TECHNICAL SUBMITTALS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE CONSULTANT.

3. THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL THE DRAWINGS BEFORE START OF WORK AND SHALL COORDINATE WITH ALL OTHER DISCIPLINE AND ANY DISCREPANCY APPEARS IT SHOULD BE BROUGHT TO THE CONSULTANTS KNOWLEDGE IMMEDIATELY.

4. CONTRACTOR SHALL COORDINATE ALL WORKS WITH ELECTRICAL, STRUCTURAL & ARCHITECTURAL DRAWINGS.

5. MECHANICAL SERVICES SHALL NOT CUT IN ANY STRUCTURAL BEAMS, RIBS OR ANY OTHER STRUCTURAL ELEMENTS UNLESS A PRIOR WRITTEN APPROVAL HAS BEEN TAKEN FROM THE ENGINEER.

6. ALL EQUIPMENTS SHALL BE INSTALLED STRICTLY AS PER MANUFACTURER'S RECOMMENDATION.

7. MECHANICAL CONTRACTOR SHALL PROVIDE SLEEVE ON ALL PIPES PENETRATING WALLS SLABS OR BEAMS.

8. ALL WORK SHALL CONFORM TO THE LATEST INTERNATIONAL BUILDING CODE, AND THE REQUIREMENTS OF LOCAL AUTHORITIES

9. ALL PIPES UNDER TRAFFIC WILL HAVE MINIMUM 1000 mm COVER OR WALL BE ENCASED IN CONCRETE.

10. JOINTS TO W.C. PANS SHALL BE WITH UPVC CONNECTORS & RUBBER GASKETS.

11. ISOLATING VALVES SHALL BE PROVIDED TO SEPARATE THE INDIVIDUAL TOILETS, GATE VALVES SHALL BE PROVIDED TO / FROM WATER HEATERS

12. EXACT LOCATION OF WATER PIPE WORK SHALL BE DETERMINED ON SITE.

13. PROVIDE ISOLATING VALVE ON ALL MAIN AND BRANCH LINES FOR MAINTENANCE.

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16. ALL ELECTRICAL POWER AND CONTROL WIRING/CONDUITING FROM M.C.C. TO PLUMBING EQUIPMENTS SHALL BE CARRIED OUT BY ELECTRICAL CONTRACTOR.

17. FOR COLD AND HOT WATER SUPPLY PPR PN-20 PIPES SHALL BE USED.

18. ALL EXPOSED COLD AND HOT WATER PIPING SHALL BE GI (III) MEDIUM CLASS.

19. ALL EXPOSE HOT WATER PIPES SHALL BE INSULATED.

LEGEND	
SP	SOIL WATER PIPE
WP	WASTE WATER PIPE
RWP	RAIN WATER PIPE
FD	FLOOR DRAIN
COP	CLEAN OUT PLUG (ABOVE CEILING)
HANGING CLAMP	
WMH	WASTE WATER MANHOLE
SMH	SOIL WATER MANHOLE
RMH	RAIN WATER MANHOLE
S&WMH	SOIL AND WASTE WATER CIRCLE MANHOLE

LEGEND	
CW	COLD WATER SUPPLY
HW	HOT WATER SUPPLY
WM	WATER GYSER
	WASHBASIN
	ENGLISH WC
	MUSLIM WC

PLUMBING LEGENDS	
SYMBOL	DESCRIPTION
CW	COLD WATER SUPPLY PIPE
HW	HOT WATER SUPPLY PIPE
NG	HOT WATER SUPPLY PIPE
	NATURAL GAS
FITTINGS & VALVES	
	GATE VALVE
	FLOAT VALVE
	STRAINER
SYMBOL	
	DESCRIPTION
MU	MAKE UP PIPE
F/A	FROM ABOVE
F/B	FROM BELOW
T/A	TO ABOVE
T/B	TO BELOW
	WATER GAYSER
	GAS COCK
	EUROPEAN WC WALL MOUNTED
	EUROPEAN WC
	MUSLIM WC
	MUSLIM SHOWER
	DOUBLE BIBCOCK
	SINGLE BIBCOCK
	MIXER
	VANITY WASH BASIN
	WASHBASIN
	MIXER SHOWER
	PRESSURE REDUCING VALVE



Project Director
WOMEN UNIVERSITY SWABI

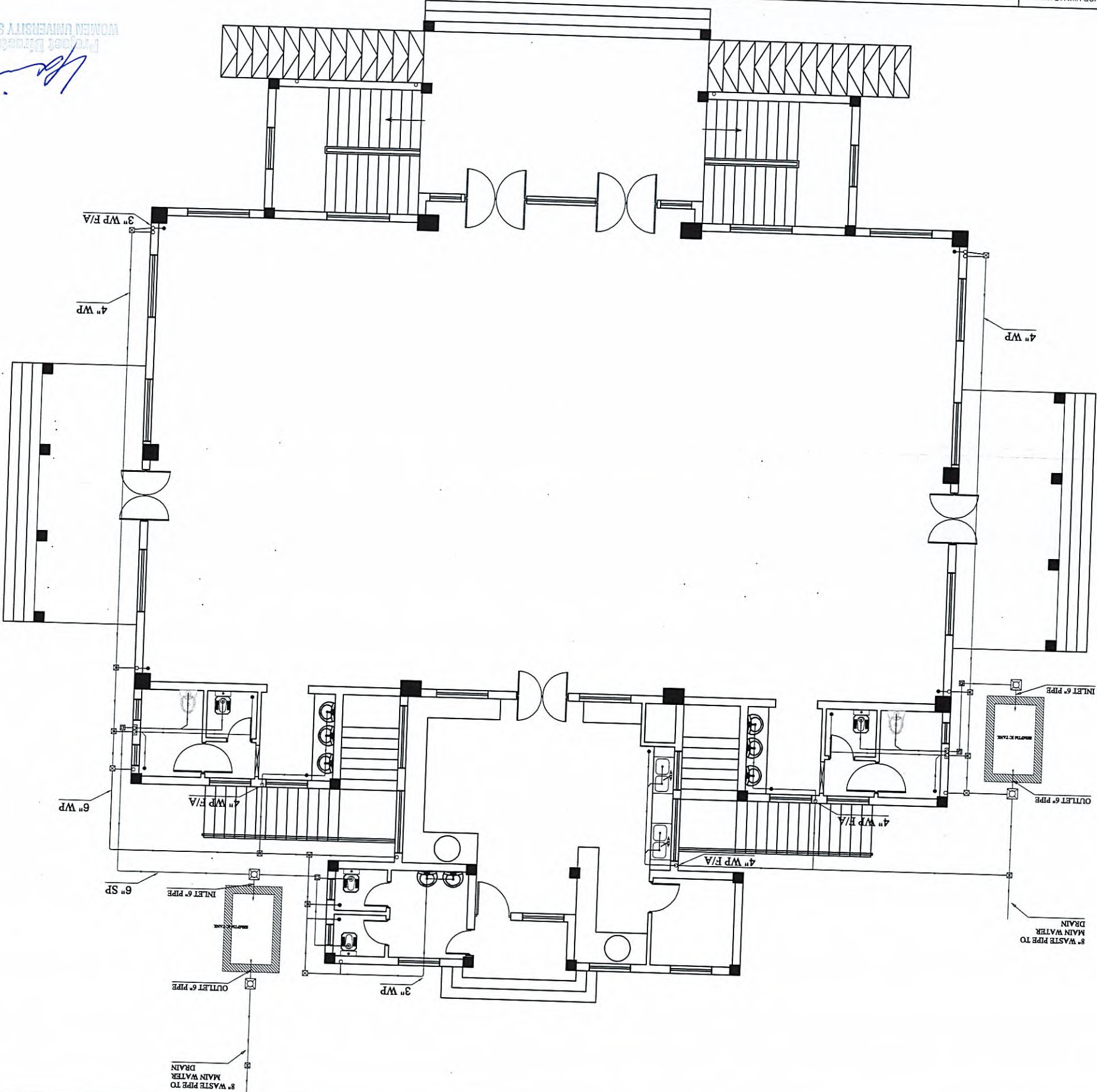
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PROJECT: **WOMEN UNIVERSITY OF SWABI**
 (CAFETERIA BUILDING)

TITLE: **GROUND FLOOR SEWERAGE LAYOUT**
 DATE: APRIL, 2025
 DWG. NO. MEP - SEWD - 101
 JOB NO. N.T.S. SCALE



Project Director
 WOMEN UNIVERSITY SWABI





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PROJECT: WOMEN UNIVERSITY OF SWABI
(CAFETERIA BUILDING)

TITLE:

FIRST FLOOR
SEWERAGE LAYOUT

SCALE

N.T.S

JOB NO.

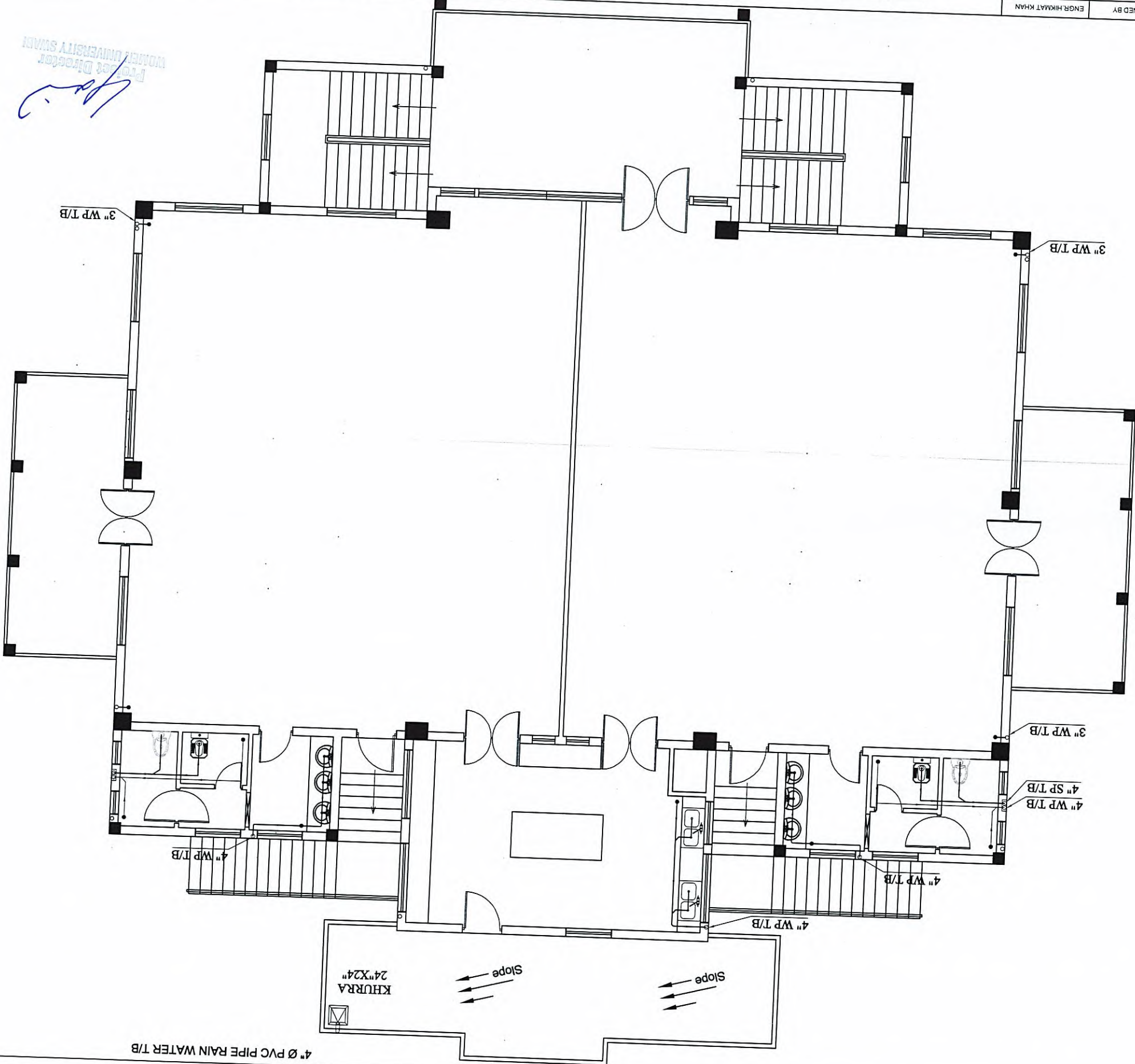
DWG. NO.

MEP - SEWD - 102

DATE:

APRIL, 2025

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WOMEN UNIVERSITY SWABI



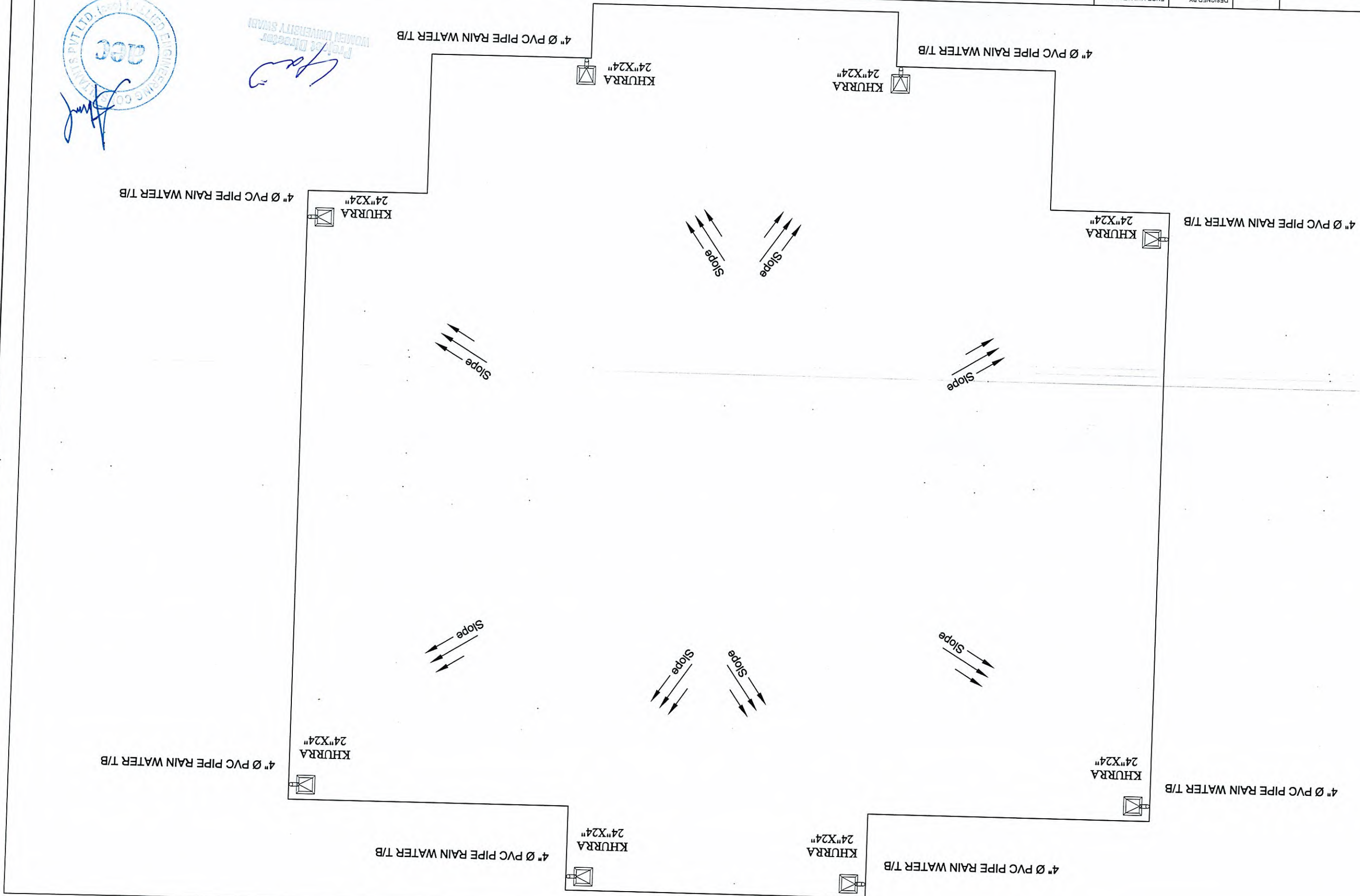
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PROJECT: WOMEN UNIVERSITY OF SWABI
(CAFETERIA BUILDING)

TITLE:	DATE:	DWG. NO.	JOB NO.
ROOFTOP FLOOR DRAINAGE LAYOUT	APRIL, 2025	MEP - SEWD - 103	
SCALE	N.T.S		



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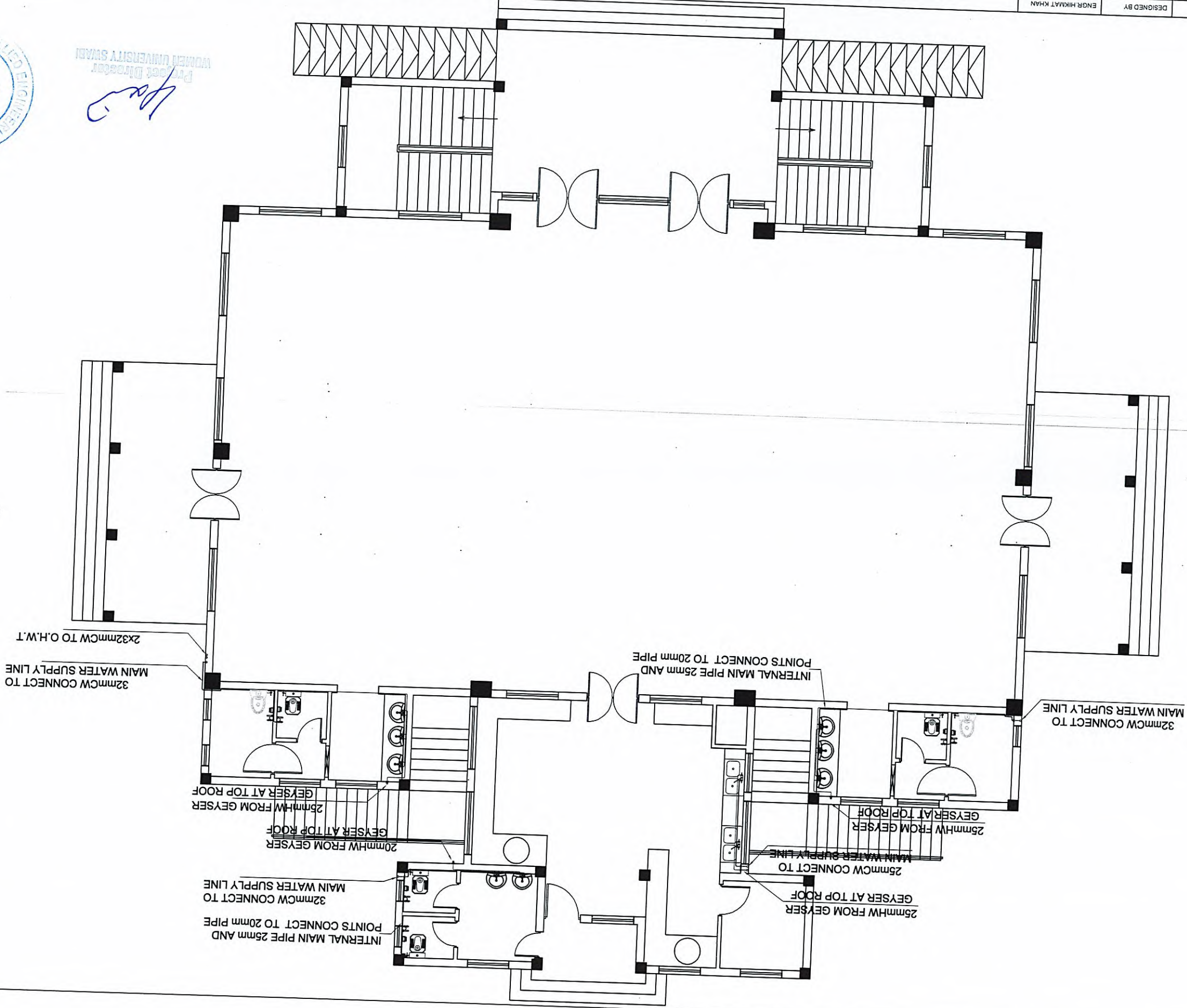


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PROJECT: WOMEN UNIVERSITY OF SWABI
(CAFETERIA BUILDING)

TITLE:
GROUND FLOOR
WATER SUPPLY LAYOUT

SCALE
N.T.S
JOB NO.
DWG. NO.
MEP - WSD - 101
DATE:
APRIL, 2025



Project Director
WOMEN UNIVERSITY SWABI

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01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER.	APPROVED
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PROJECT: WOMEN UNIVERSITY OF SWABI
(CAFETERIA BUILDING)

TITLE:

FIRST FLOOR
WATER SUPPLY LAYOUT

SCALE

N.T.S

JOB NO.

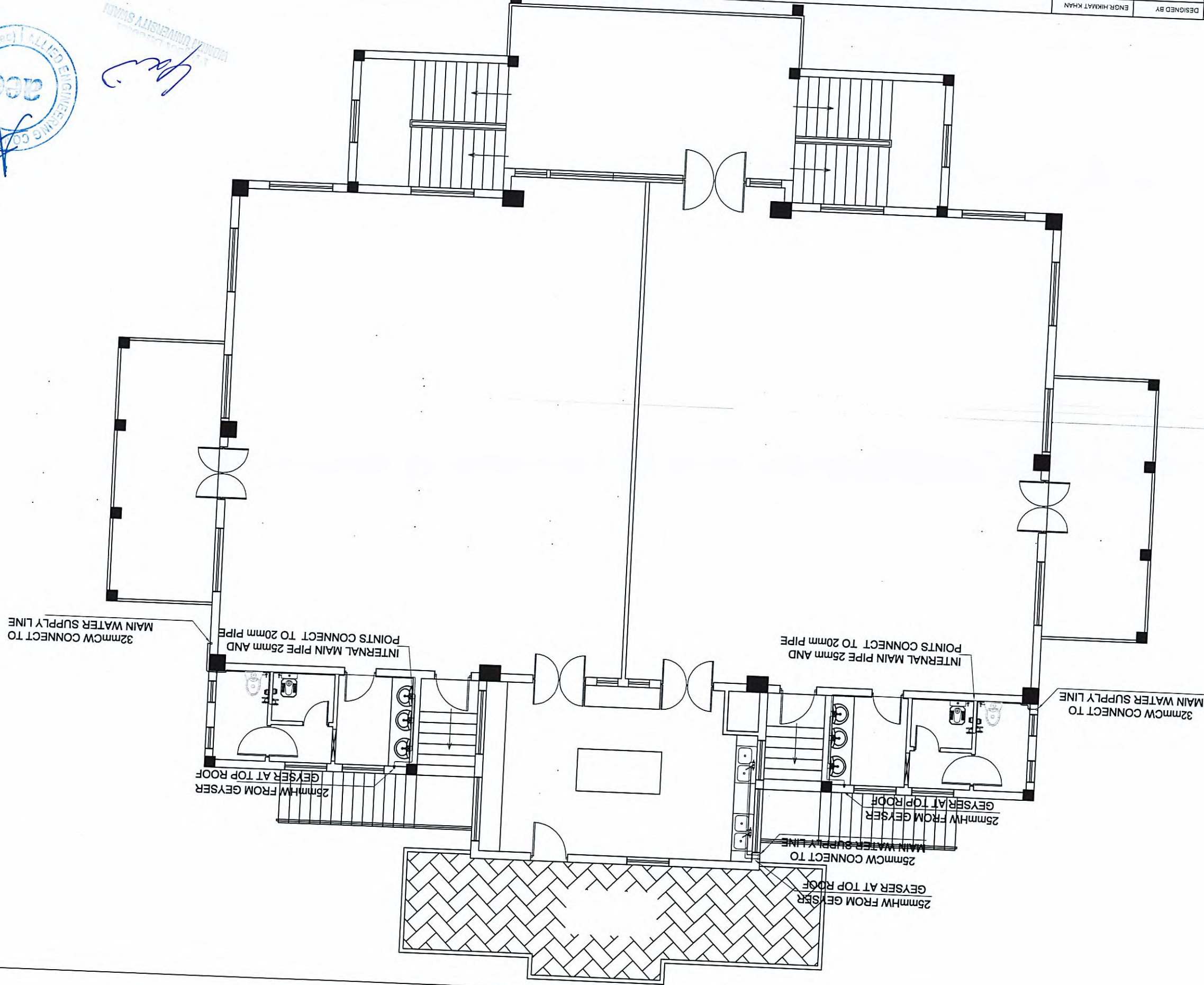
DATE: APRIL, 2025

DWG. NO.

MEP - WSD - 102



WOMEN UNIVERSITY SWABI
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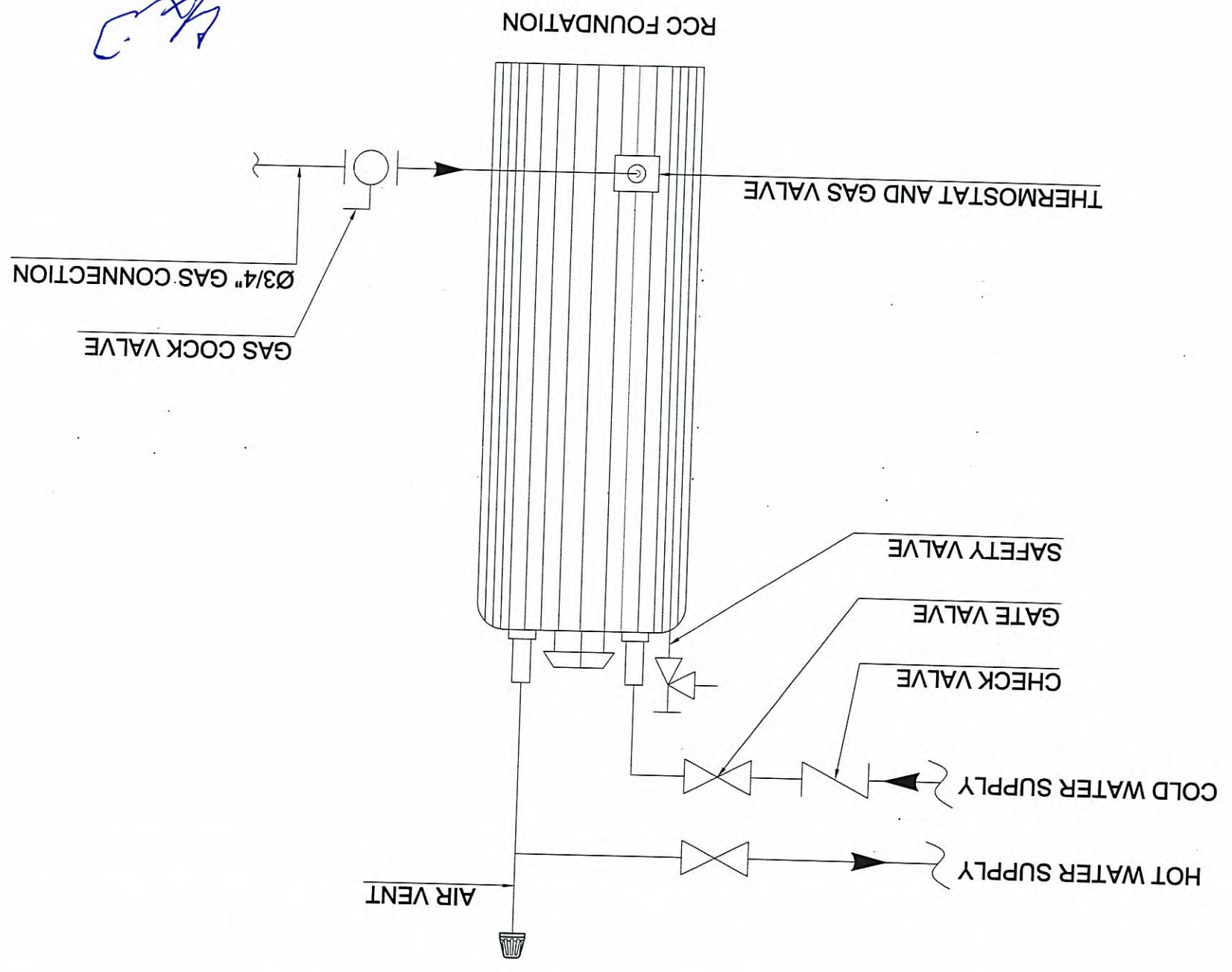


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PROJECT: WOMEN UNIVERSITY OF SWABI
(CAFETERIA BUILDING)

TITLE: GEYSER INSTALLATION DETAILS
DATE: APRIL, 2025
DWG. NO. MEP - PD - 101
JOB NO. SCALE N.T.S

HOT WATER GEYSER BOTH OPTIONAL GAS AND ELECTRIC GEYSER



LEGEND	
	GATE VALVE
	STRAINER
	CHECK VALVE
	FLEXIBLE
	FLOAT VALVE
	FOOT VALVE



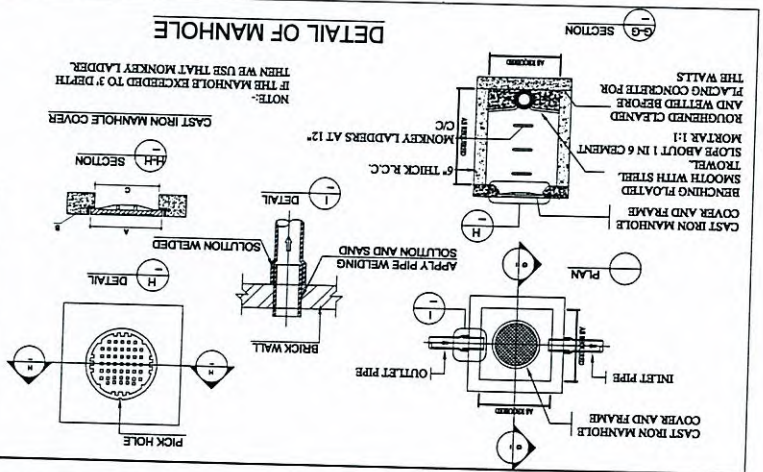
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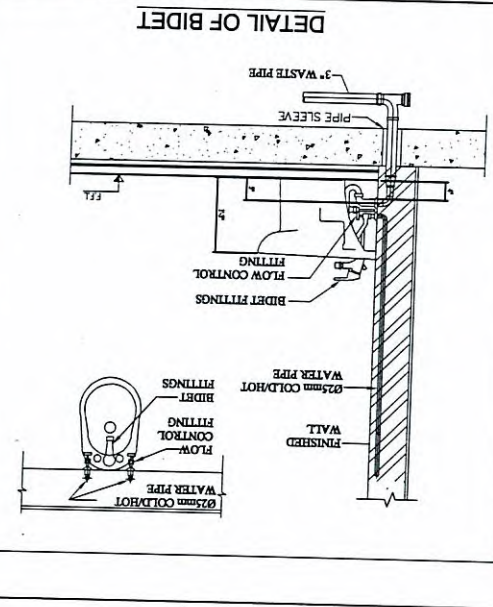
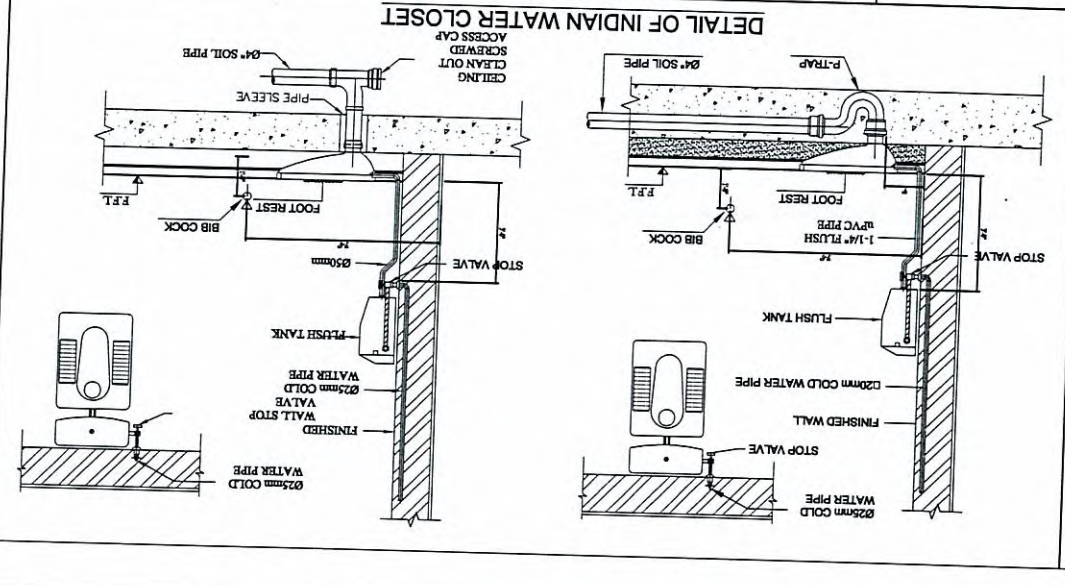
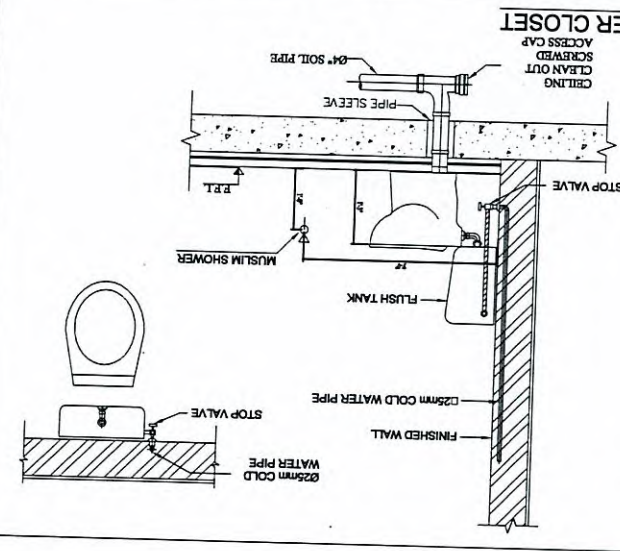
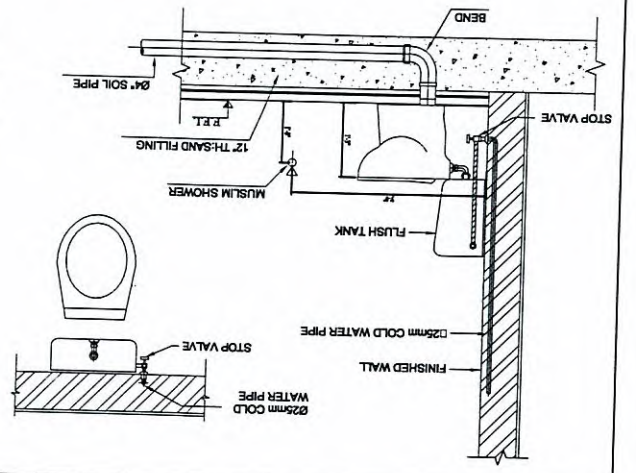
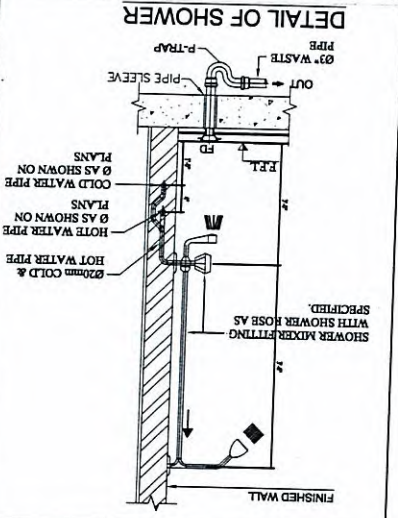
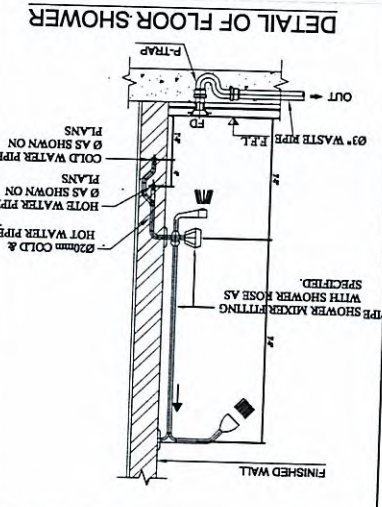
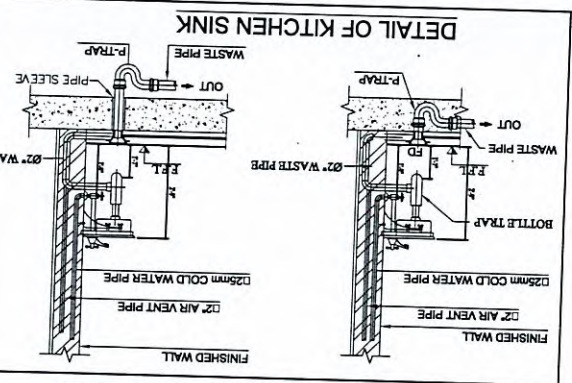
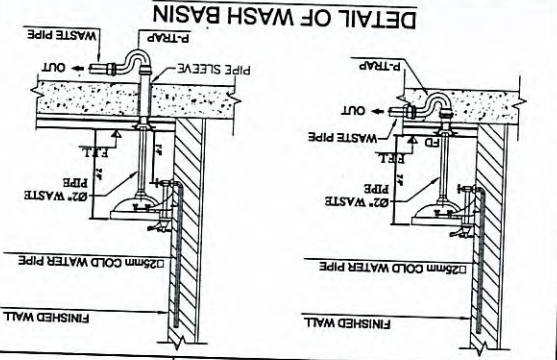
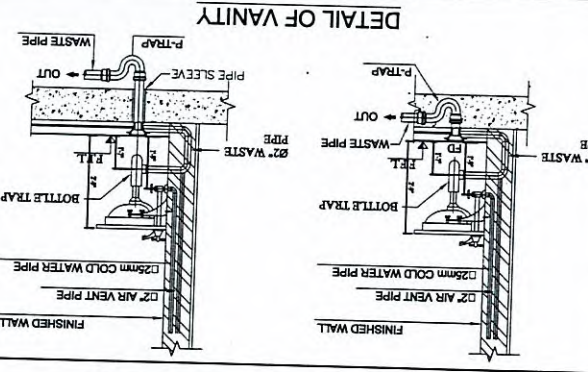
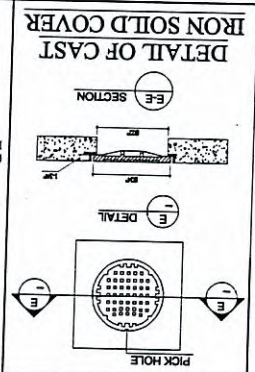
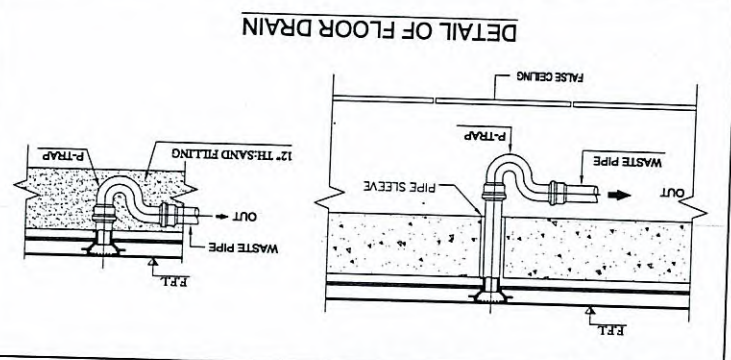
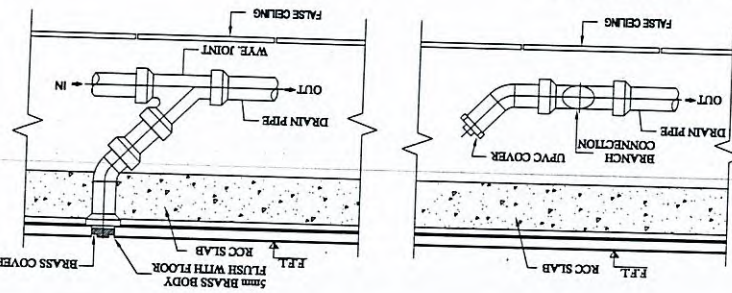
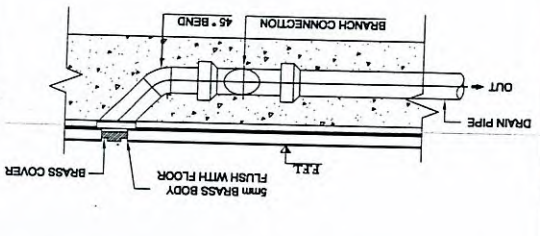
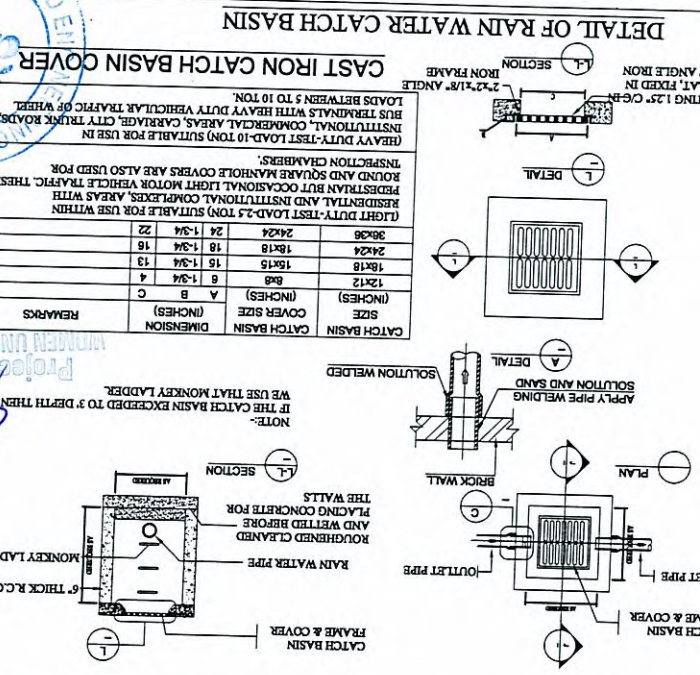
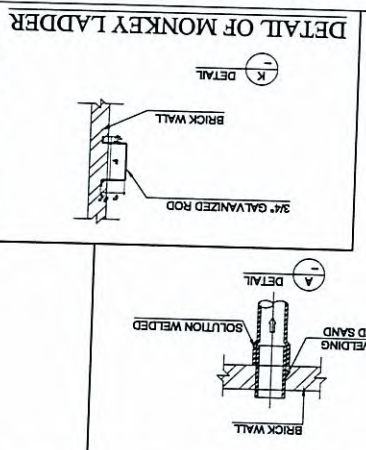
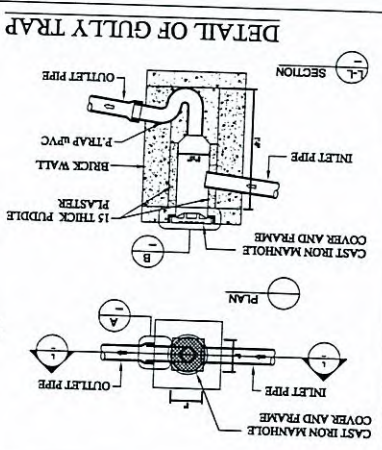
PROJECT: WOMEN UNIVERSITY OF SWABI
(CAFETERIA BUILDING)

TITLE: PLUMBING FIXTURES DETAILS - I
DATE: APRIL, 2025
DWG. NO. MEP - WSD - 103
JOB NO. N.T.S.
SCALE



CAST IRON MANHOLE

MANHOLE SIZE (INCHES)	COVER SIZE (INCHES)	DIMENSION (INCHES)	REMARKS
12x12	12	12	HEAVY DUTY-TEST LOAD-10 TON SUITABLE FOR USE IN INSTITUTIONAL, COMMERCIAL AREAS, CITY TRUNK ROADS, BUS TERMINALS WITH HEAVY DUTY VEHICULAR TRAFFIC OF WHEEL LOADS BETWEEN 5 TO 10 TON.
15x15	15	15	
18x18	18	18	
24x24	24	24	
30x30	30	30	



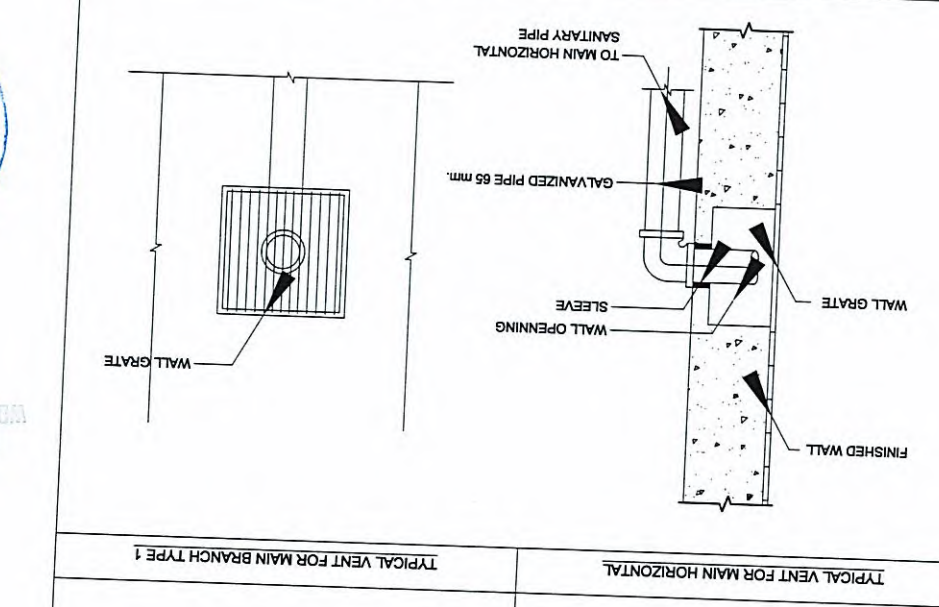
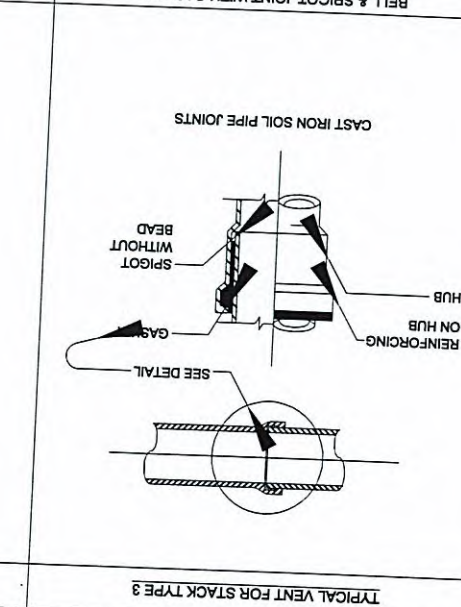
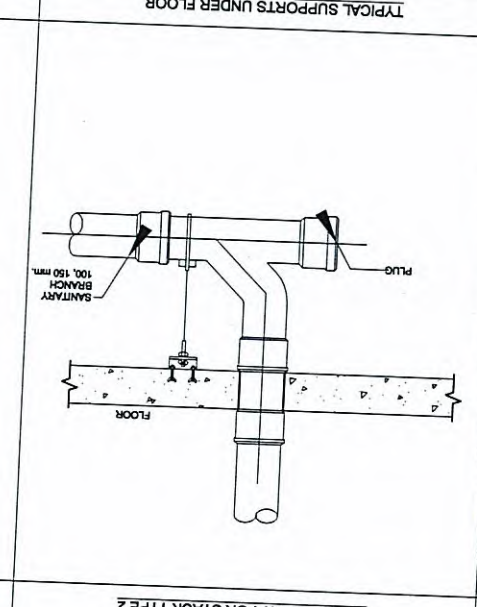
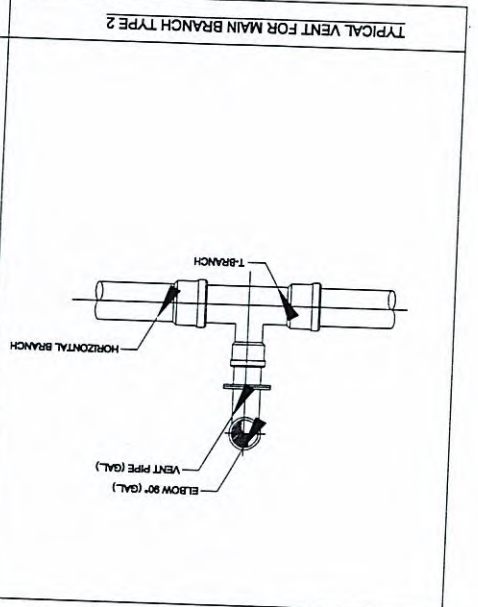
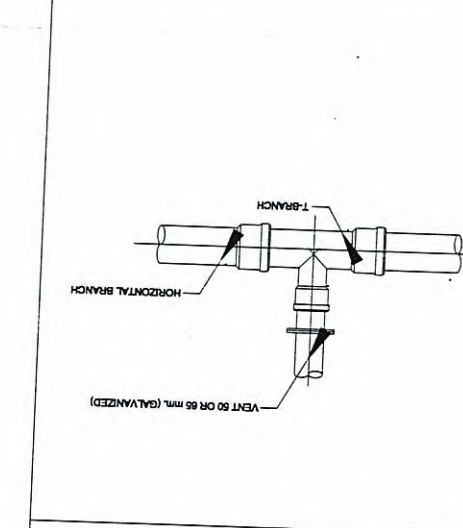
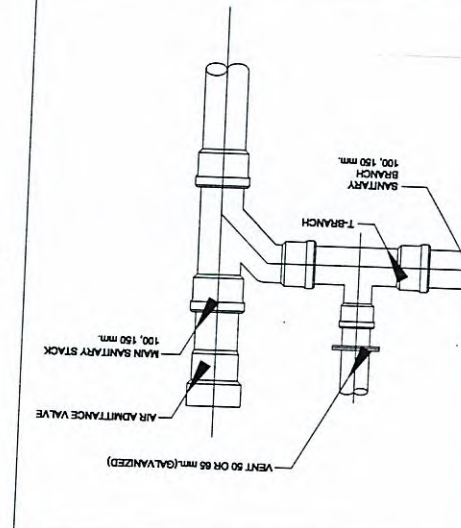
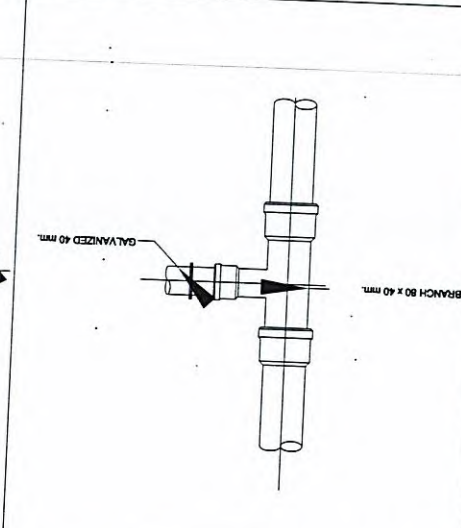
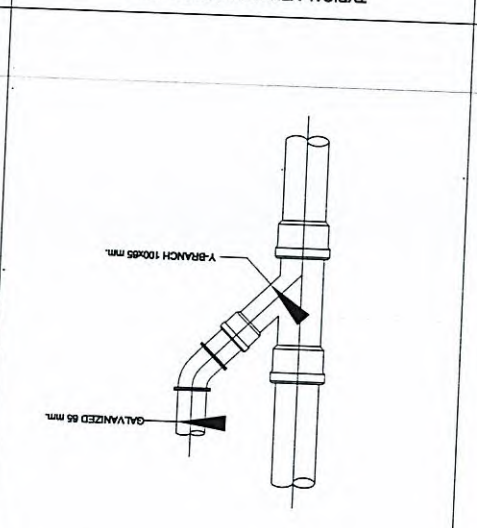
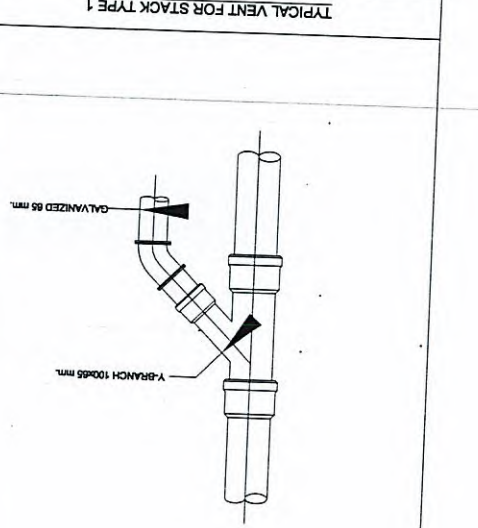
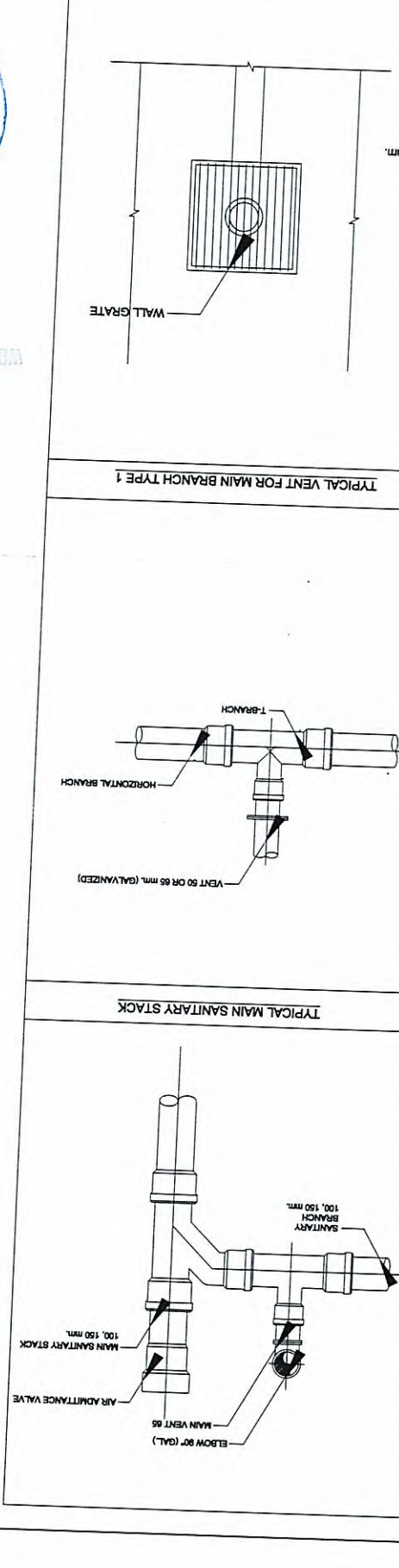
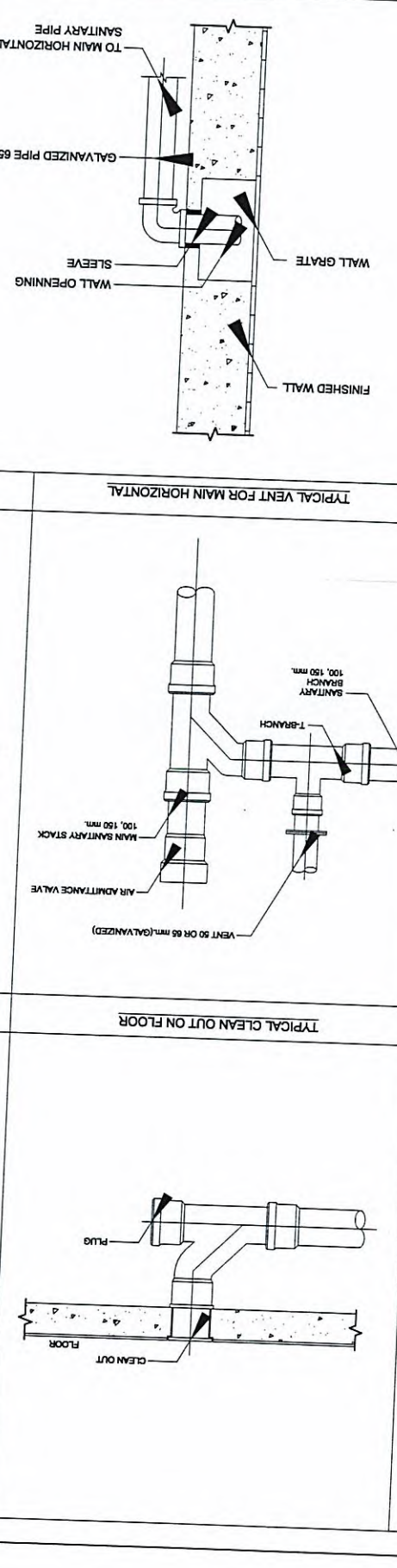
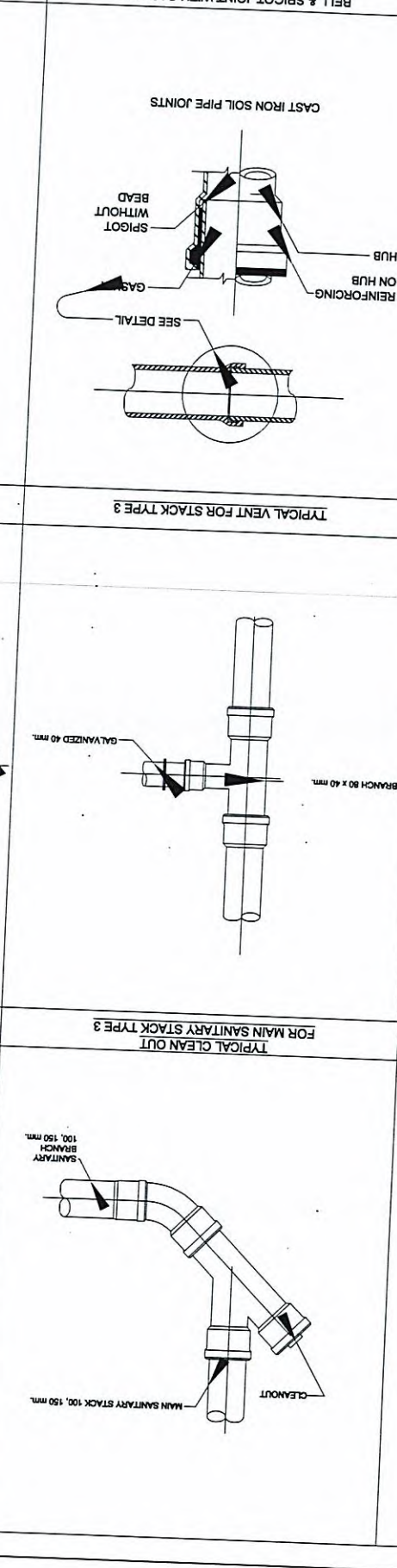
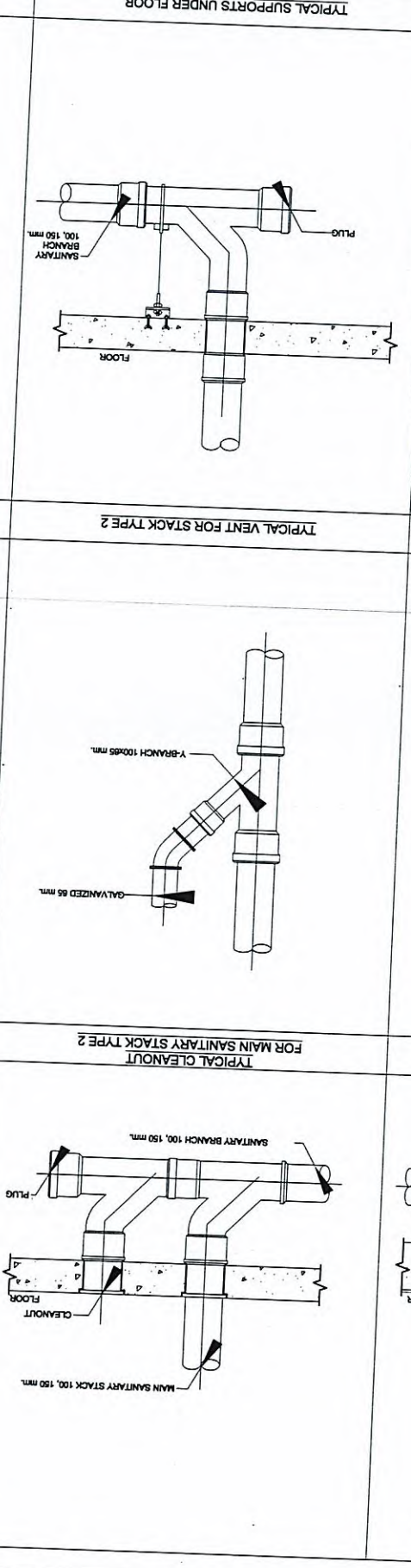
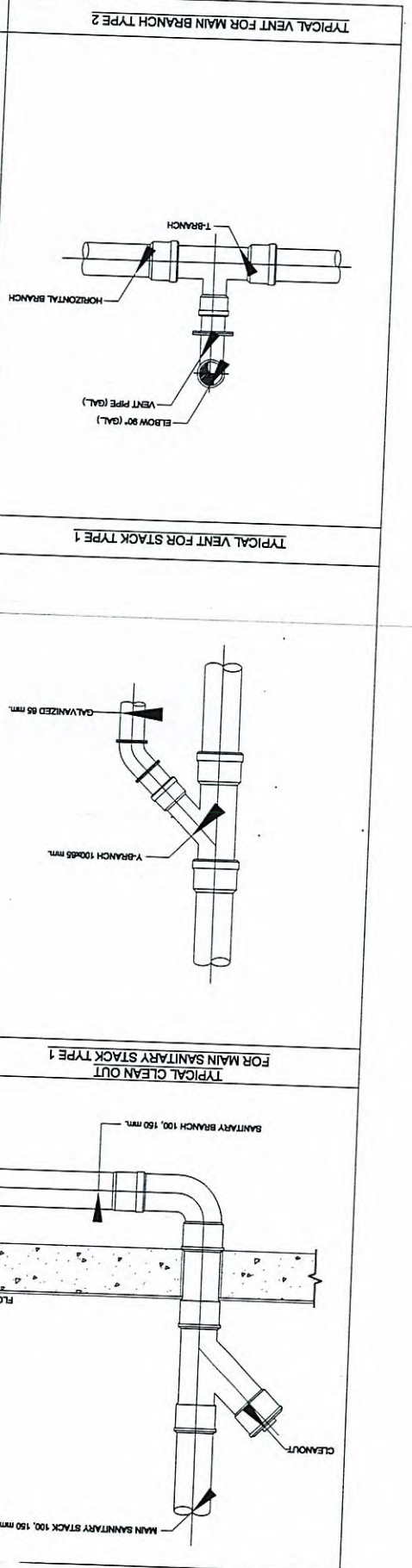
REV.	DATE	DESCRIPTION	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	APPROVED
02			CHD/VER.
03			DRAWN BY
04			CHECKED BY
			DESIGNED BY



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 ALLIED ENGINEERING CONSULTANTS (PVT.) LTD

PROJECT: WOMEN UNIVERSITY OF SWABI (CAFETERIA BUILDING)
 TITLE: PLUMBING FIXTURES, PIPES, JOINTS INSTALLATION DETAILS

JOB NO.	DWG. NO.	DATE:
N.T.S.	MEP - WSD - 104	APRIL, 2025
SCALE		



Project Director
 WOMEN UNIVERSITY SWABI

REV.	DATE	DESCRIPTION	APPROVED	APPROVED
01	14/04/2025	FOR REVIEW & APPROVAL	CHD/VER	APPROVED
02			DRAWN BY	SALEEM KHAN
03			CHECKED BY	ENGR. HIKMAT KHAN
04			DESIGNED BY	ENGR. HIKMAT KHAN



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19 - A, GULBERG-II, LAHORE PH: 5758433 / 5756752

PROJECT:

WOMEN UNIVERSITY OF SWABI (CAFETERIA BUILDING)

TITLE:

PLUMBING FIXTURES INSTALLATION DETAILS

DATE:

APRIL, 2025

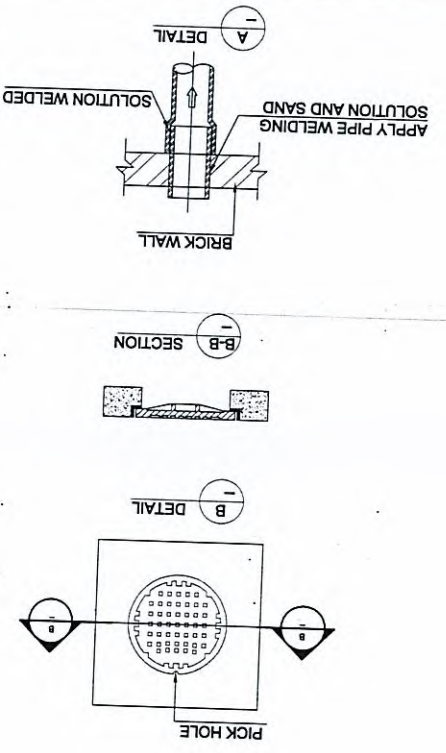
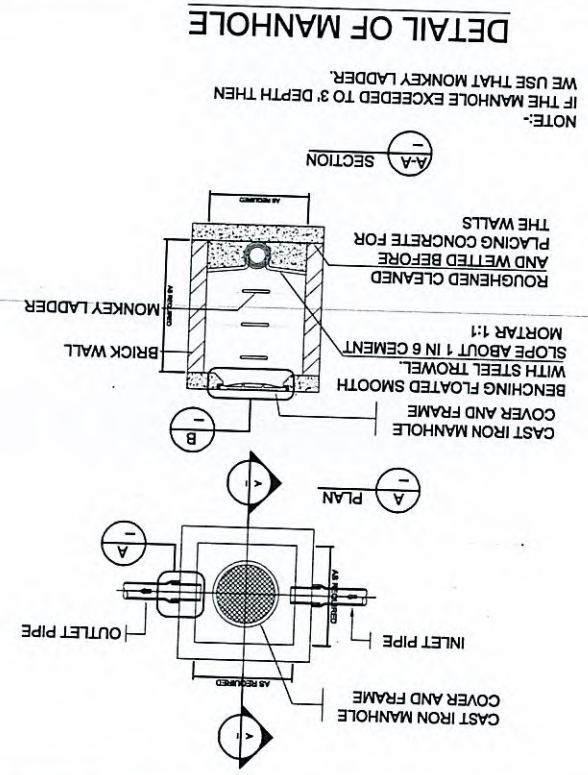
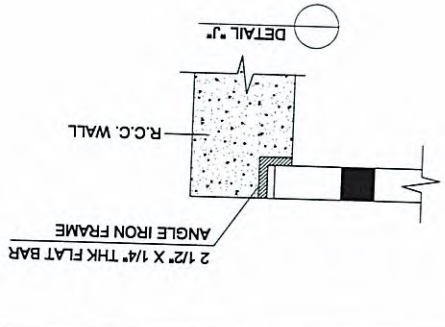
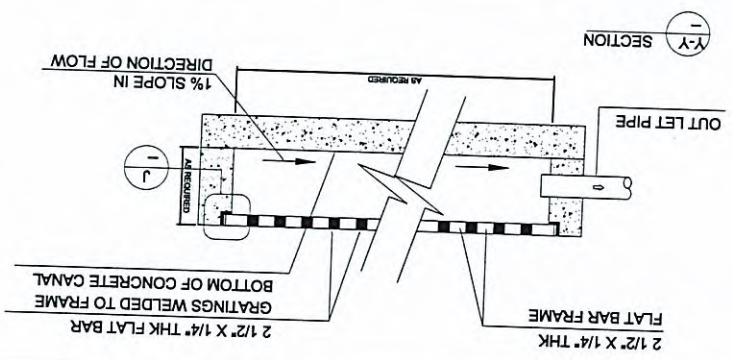
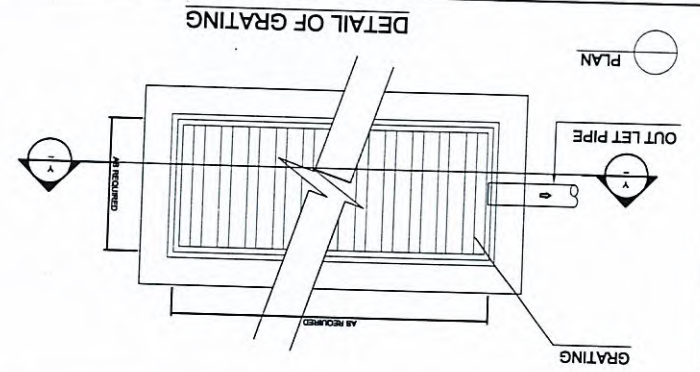
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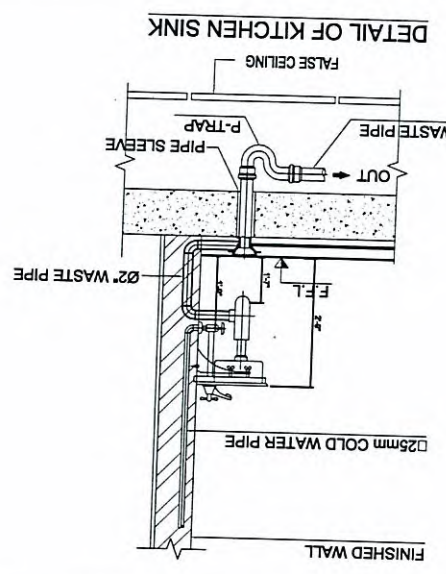
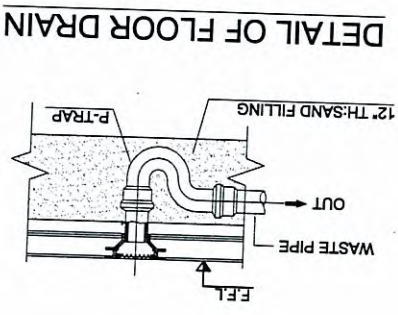
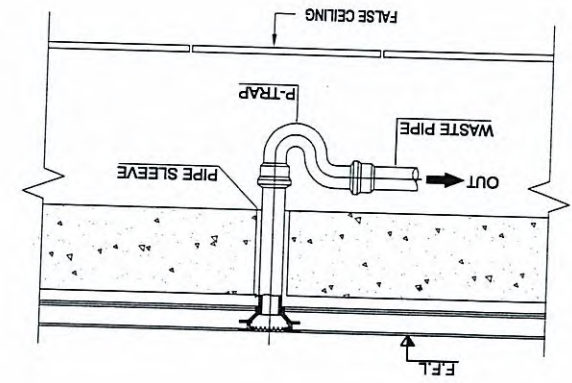
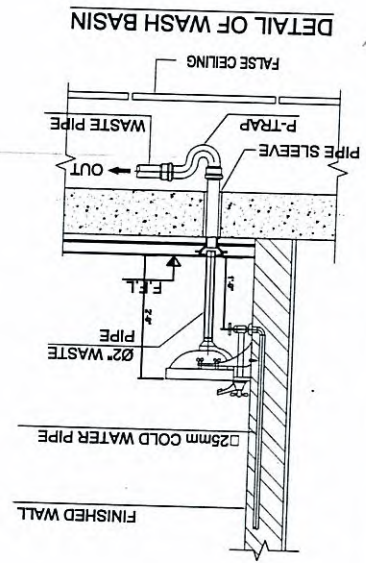


CAST IRON MANHOLE

(HEAVY DUTY-TEST LOAD-10 TON) SUITABLE FOR USE IN INSTITUTIONAL, COMMERCIAL AREAS, CARRIAGE, CITY TRUNK ROADS, BUS TERMINALS WITH HEAVY DUTY VEHICULAR TRAFFIC OF WHEEL LOADS BETWEEN 5 TO 10 TON.

(LIGHT DUTY-TEST LOAD-2.5 TON) SUITABLE FOR USE WITHIN RESIDENTIAL AND INSTITUTIONAL COMPLEXES, AREAS WITH PEDESTRIAN BUT OCCASIONAL LIGHT MOTOR VEHICLE TRAFFIC. THESE ROUND AND SQUARE MANHOLE COVERS ARE ALSO USED FOR INSPECTION CHAMBERS.

MANHOLE SIZE (INCHES)	MANHOLE COVER SIZE (INCHES)	DIMENSION (INCHES)	REMARKS
36x36	Ø24	24 1-3/4 22	
24x24	Ø18	18 1-3/4 16	
18x18	Ø15	16 1-3/4 13	
12x12	Ø6	6 1-3/4 4	
		A B C	



Project Director
WOMEN UNIVERSITY SWABI

WOMEN UNIVERSITY SWABI

EXTERNAL DEVELOPMENT

PROJECT NO.

DRAWING NO.

ARCHITECT

BAQIR ALI

DRAWN

ASIM

CHECKED

MRS. SHAHINE KHAN

SCALE

DATE

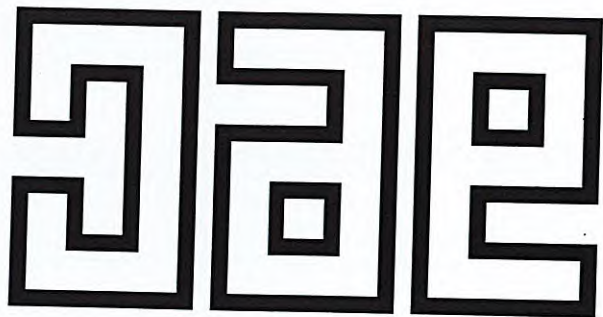
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ARCHITECTS.

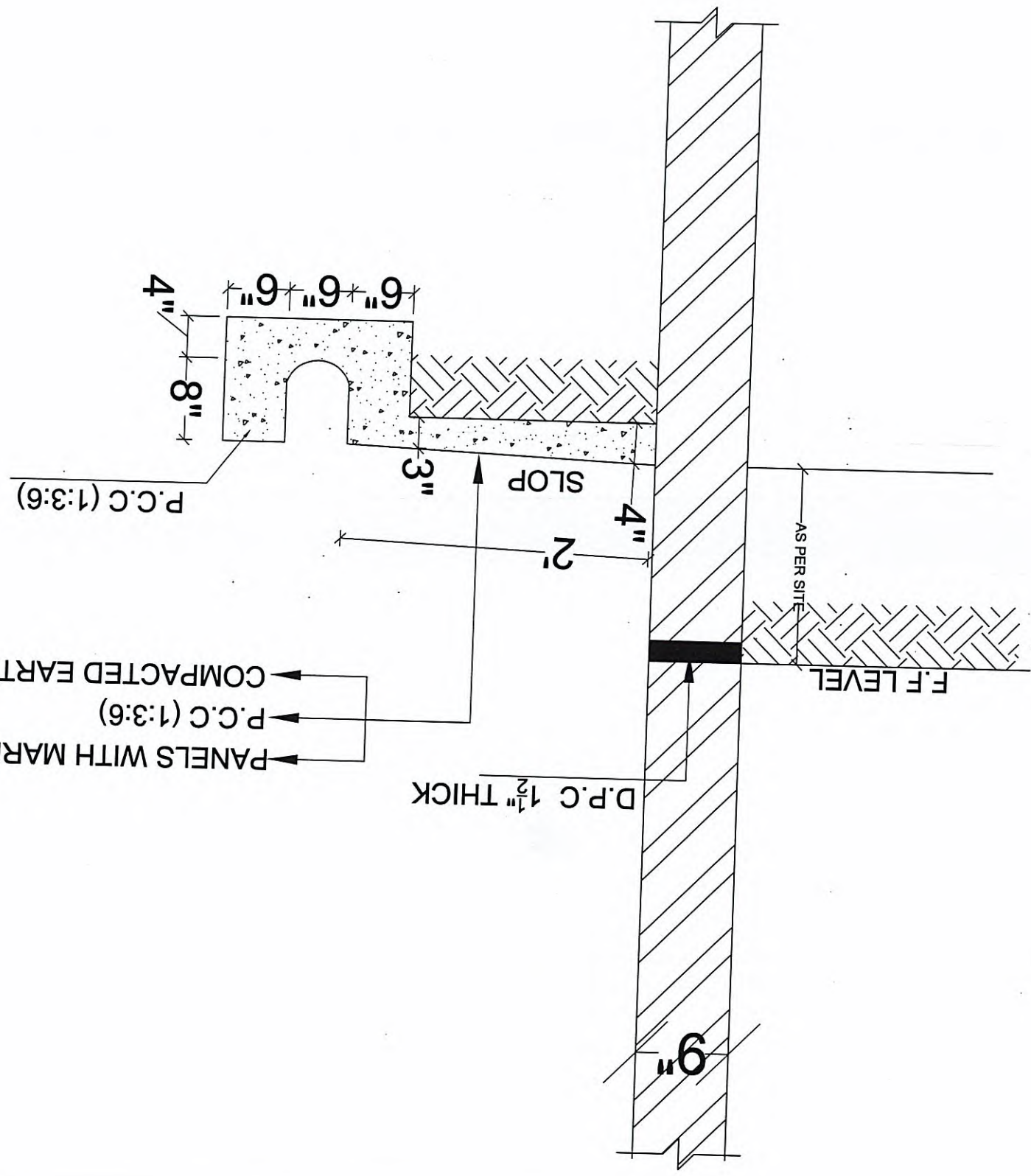
ENGINEERS.

PLANNERS.

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PLINTH PROTECTION DETAIL

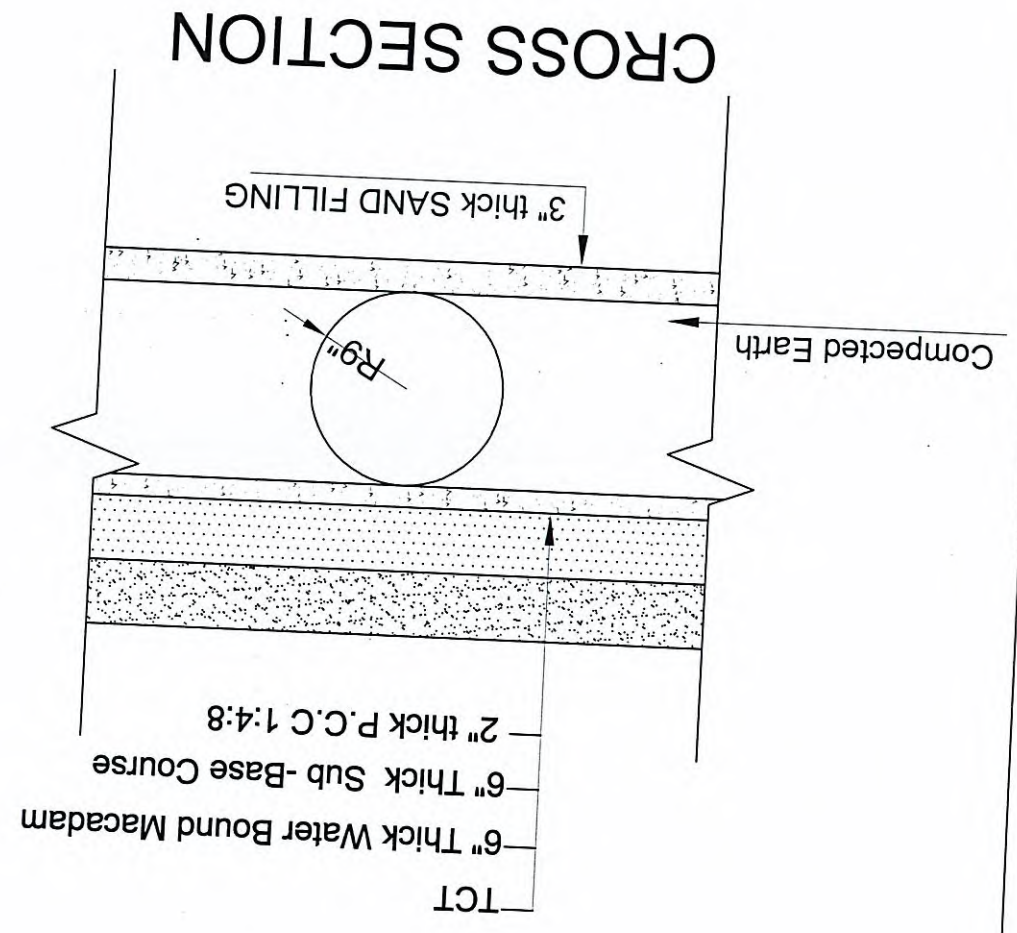


PANELS WITH MARBLE STRIPS
P.C.C (1:3:6)
COMPACTED EARTH

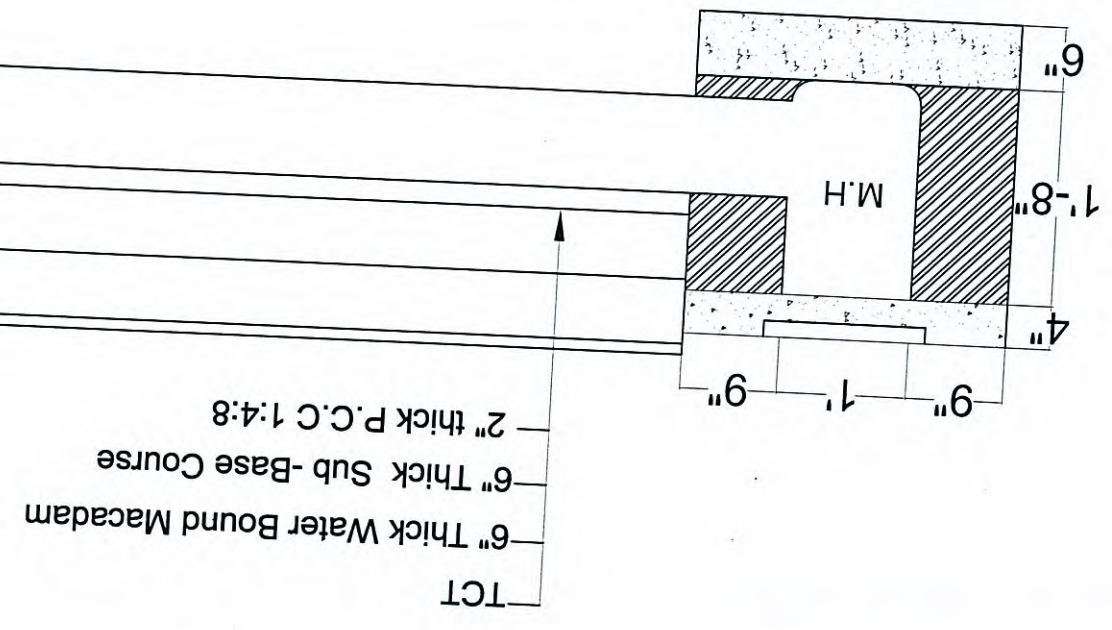
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DRAWING		PROJECT NO.	
ARCHITECT		DRAWING NO.	
ARCHITECT	CHECKED BY	DATE	
BAQIR ALI	MRS. SHAHINE KHAN	DATE	
ASIM	SCALE	AS SHOWN	
DRAWN		DATE	
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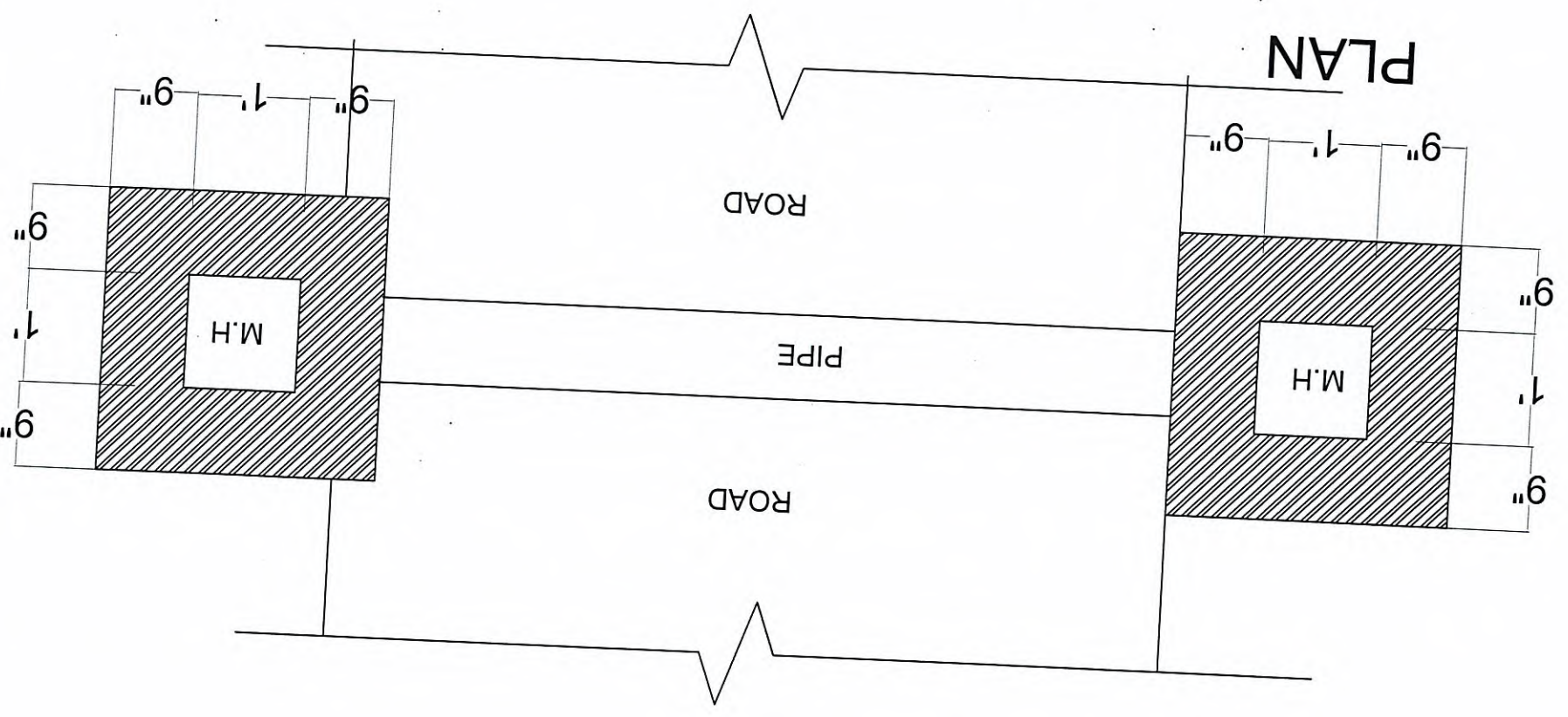
Project Director
WOMEN UNIVERSITY SWABI



LONG SECTION



PLAN

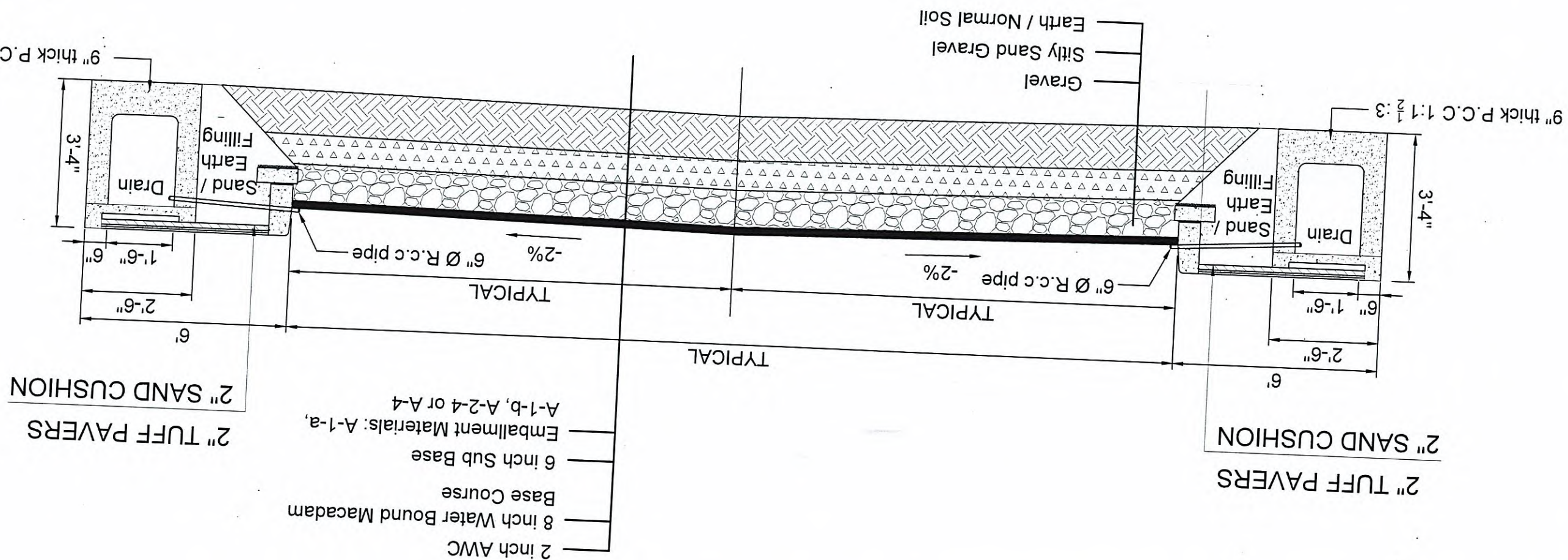


PROJECT NO.		CULVERT DETAIL	
DRAWING NO.		CHECKED	
ARCHITECT		BAOIR ALI	
DRAWN		MRS. SHAMINE KHAN	
DATE		SCALE	
DRAWN		DATE	
10-A, GULBERG-II, LAHORE PH. 3599111/3599112 ALLIED ENGINEERING CONSULTANTS (PVT.) LTD. ARCHITECTS, ENGINEERS, PLANNERS.			

Project Director
 WOMEN UNIVERSITY SWABI

WOMEN UNIVERSITY SWABI

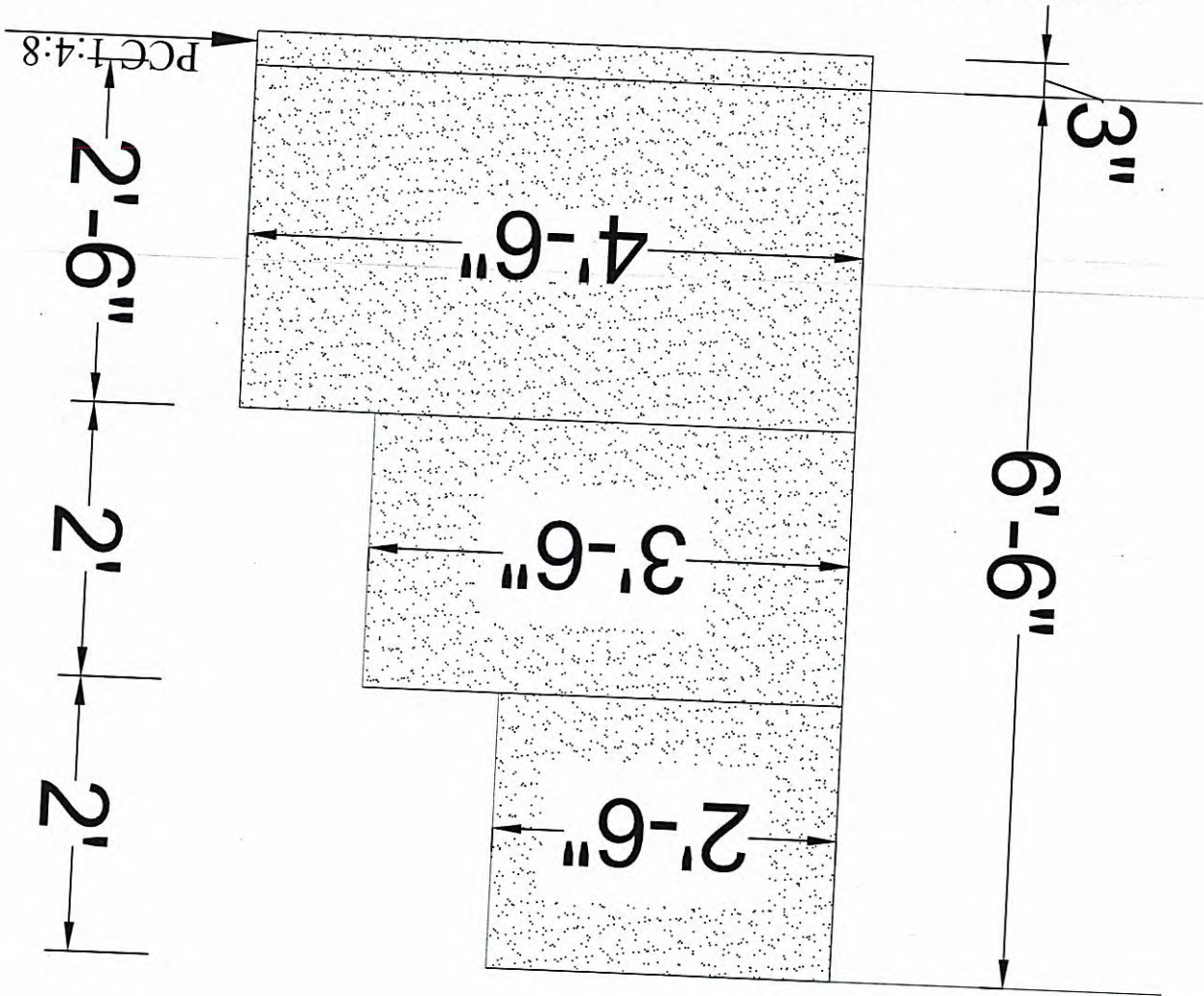
TYPICAL SECTION



Project Director
WOMEN UNIVERSITY SWABI

WOMEN UNIVERSITY SWABI		PROJECT NO.	
ASPHALT ROAD DETAIL		DRAWING NO.	
ARCHITECT	BAGIR ALI	CHECKED	MRS. SHAHINE KHAN
SCALE	AS SHOWN	DATE	APRIL 2025
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PROTECTION WALL DETAIL



Project Director
WOMEN UNIVERSITY SWABI

PROJECT NO.		DRAWING NO.		CHECKED		MRS. SHAHINE KHAN		DATE		AS SHOWN		SCALE		ASIM		DRAWN									
PROTECTION WALL																ARCHITECT		BAQIR ALI		DATE		APRIL 2025		ALLIED ENGINEERING CONSULTANTS (PVT.) LTD.	
WOMEN UNIVERSITY SWABI																ARCHITECTS.		ENGINEERS.		PLANNERS.		19-A GULBERG-II, LAHORE PH. 5756433 / 5756752			