

Govennment to Platistan Pirimed Whitister's Office National Disaster Management Multipority



INVITATION FOR BIDS

National Disaster Management Authority, Islamabad intends to invite Sealed Bids from reputed firms for Civil and IT works as following:-

	Description of item/ product
1	Centre of Excellence – Climate Change & Disaster Management (CoE – C2DM) Single Story Hybrid Structure, Size 124 x x 53 ft - (Civil, MEP & IT)
2	External Works – Approach road, Boundary Wall, Car Parking etc

- 2. National Competitive Bidding (NCB) will be conducted in accordance with Bidding Procedure.
- 3. Interested firms must be registered with Pakistan Engineering Council (C3 and above) with Income and Sales Tax Departments. Specialized in Steel frame / prefab structures. Companies having their own fabrication facility of steel structure will be given preference.
- 4. The bidding documents, specifications, instructions / terms & conditions may be downloaded from NDMA (www.ndma.gov.pk). Pay order / Cheque of Rs. 10,000/- (Non-refundable) in favor of Director (Admin), NDMA should be deposited at the time of submission of documents / bids as tender fee.
- 5. All bids must be accompanied by a Bid Security in the amount of **5% of total contract value** or an equivalent amount in a freely convertible currency in the form of bank guarantee on bid security form or in the form of deposit at call or from a foreign bank duly counter guaranteed by a scheduled bank of Pakistan or an insurance company at least AA rating from PACRA/JCR in favor of Employer.
- 6. Employer reserves the right to accept or reject any tender as per PPRA rules or accept the whole or part of tender or increase or decrease the quantity.
- 7. The documents must be reached the undersigned before 1000 hours on 15 August, 2025. The technical bids will be opened in the presence of bidders on same day at NDMA, HQ at **1100 hours.**

Director Admin
National Disaster Management Authority (NDMA)
Main Murree Road
Islamabad
051-9030907



Govennment to Plakistan Pirimed Whirister's SOffice National Disaster Management (Authlority)



Bidding Document

Construction of Center of Excellence (CoE) – Climate Change & Disaster Management C2DM



National Disaster Management Authority



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Director Admin
National Disaster Management Authority (NDMA)
Main Murree Road
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Instruction to Bidders

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

(Note: These Instructions to Bidders along with Bidding Data Sheet 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 Employer as defined in the Bidding Data Sheet hereinafter called "the Employer" wishes to receive bids for the construction and completion of works as described in these Bidding Documents, and summarized in the Bidding Data Sheet 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.

IB.2 Source of Funds

2.1 The Employer has applied for/received a loan/credit from the source (s) indicated in the Bidding Data Sheet in various currencies towards the cost of the project specified in the Bidding Data Sheet and it is intended that part of the proceeds of this loan/credit will be applied to eligible payments under the Contract for which these Bidding Documents are issued.

IB.3 Eligible Bidders

- 3.1 This Invitation for Bids is open 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.

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 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 Employer 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 agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents 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 Bidding Documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9.
 - 1. Instructions to Bidders.
 - 2. Bidding Data Sheet.
 - 3. General Conditions of Contract, Part-I(GCC).
 - 4. Particular Conditions of Contract, Part-II(PCC).
 - 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 Contract Agreement.
 - 11. Forms of Performance Security and Mobilization Advance Guarantee/Bond and Form of Indemnity Bond for Secured Advance
 - 12. 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 Bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the Bidding Documents will be rejected.

IB.8 Clarification of Bidding Documents

8.1 Any prospective bidder requiring any clarification (s) in respect of the Bidding Documents may notify the Employer in writing at the Employer's address indicated in the Invitation for Bids. The Employer will respond to any request for clarification which he receives three 03 days prior to the deadline for submission of bids.

Copies of the Employer's response will be forwarded to all purchasers of the Bidding 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 Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by issuing addendum.
- 9.2 Any addendum thus issued shall be part of the Bidding Documents pursuant to IB 7.1 hereof and shall be communicated in writing to all purchasers of the Bidding Documents. Prospective bidders shall acknowledge receipt of each addendum in writing to the Employer.
- 9.3 To afford prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may extend the deadline for submission of bids in accordance with Clause IB.20

C. PREPARATION OF BIDS

IB.10 Language of Bid

10.1 The bid and all correspondence and documents related to the bid exchanged by a bidder and the Employer shall be in the bid language stipulated in the Bidding Data Sheet and Particular Conditions of Contract. Supporting documents and printed literature furnished by the bidders may be in any other language provided the same are accompanied by an accurate translation of the relevant parts in the bid language, in which case, for purposes of evaluation of the bid, the translation in bid language shall prevail.

IB.11 Documents Comprising the Bid

11.1 The Bid shall comprise two envelopes submitted simultaneously, one called the Technical Bid and the other the Price Bid, containing the documents listed in Bidding Data Sheet under the heading of IB 11.1 A & B respectively. Both envelopes to be enclosed together in an outer single envelope called the Bid. Each bidder shall furnish all the documents as specified in Bidding Data Sheet 11.1 A & B.

- 11.2 Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed agreement. The role to be played by each partner to be specified therein. Bids submitted by a joint venture of two (2) or more firms shall comply with the following requirements:
 - (a) In case of a successful bid, the Form of JV Agreement shall be signed so as to be legally binding on all partners within 7 days of the receipt of letter of acceptance failing which the contract and the letter of acceptance shall stand void and redundant.
 - (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 Employer regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of JV Agreement 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 JV Agreement (in case of a successful bid); and
 - (e) A copy of JV agreement shall be submitted before signing of the Contract, stating the conditions under which JV 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. The JV Agreement shall be made part of the contract. No amendments / modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partners without prior written consent of the Employer.
- 11.3 The Bidder shall furnish, as part of the Technical Bid, a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements 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 IB 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. Items against which no rate or price is entered by a bidder will not be paid for by the Employer when executed and shall be deemed covered by rates and prices for other items 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 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 bidders shall furnish the prescribed information for the price adjustment formulae in Appendix C to Bid and shall submit with the 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 Employer'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.
- 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 Sheet 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 Employer 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.

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 Sheet in Pak Rupees or an equivalent amount in a freely convertible currency.
- 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 favor of the Employer 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 Employer 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 will be returned when the bidder has furnished the required Performance Security and signed the Contract Agreement.
- 15.6 The Bid Security may be forfeited:
 - (a) If the bidder withdraws his bid except as provided in IB 22.1;
 - (b) If the bidder does not accept the correction of his Bid Price pursuant to IB 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;
 - (ii) Sign the Contract Agreement, or
 - (iii) Furnish the required JV agreement within 7 days of the receipt of letter of acceptance.

IB.16 Alternate Proposals by Bidder

- 16.1 Should any bidder consider that he can offer any advantages to the Employer 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 Bidding 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 Letter of Price Bid shall be that which represents complete compliance with the Bidding Documents. The technical details and financial implication involved are to be submitted in two separate sealed envelopes as to be followed in main bid proposals.
- Alternate Proposal(s), if any, of the lowest evaluated responsive bidder only may be considered by the Employer as the basis for the award of Contract to such bidder.

IB.17 Pre-Bid Meeting

- 17.1 The Employer may, on his 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 Bidding Documents. The date, time and venue of pre-bid meeting, if convened, is as stipulated in the Bidding Data Sheet. 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 Employer not later than seven (7) 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 purchasers of the Bidding Documents. Any modification of the Bidding Documents listed in IB 7.1 hereof, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum 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 Letter of Price Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.
- 18.2 All appendices to Bid are to be properly completed and signed.

- 18.3 No alteration is to be made in the Letters of Price and Technical Bids 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 The Bidder shall prepare one original of the Technical Bid and one original of the Price Bid comprising the Bid as described in Bidding Data Sheet against IB 11 and clearly mark it "ORIGINAL TECHNICAL BID" and "ORIGINAL PRICE BID". In addition, the Bidder shall submit two (2) copies of the Bid and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 18.5 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the Bidding Data Sheet and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid, except for unamended printed literature, shall be signed or initialed by the person signing the bid.
- Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.
- 18.7 Bidders shall indicate in the space provided in the Letter of Technical and Price Bids, 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 FOR SINGLE STAGE TWO ENVELOPE BIDDING PROCEDURE

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 IB 19.2 hereof.
 - (c) The technical bid should comprise of documents listed in IB11.1 (A) & the price bid should comprise of documents listed in IB 11.1 (B) which shall be placed in separate envelopes in accordance with IB 11.1.

- 19.2 The inner and outer envelopes shall:
 - (a) Be addressed to the Employer at the address provided in the Bidding Data Sheet;
 - (b) Bear the name and identification number of the contract as defined in the Bidding Data Sheet; and
 - (c) Provide a warning not to open before the time and date for bid opening, as specified in the Bidding Data Sheet.
- 19.3 In addition to the identification required in IB 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 Employer will assume no responsibility for the misplacement or premature opening of the Bid.

IB.20 Deadline for Submission of Bids

- 20.1 (a) Bids must be received by the Employer at the address specified no later than the time and date stipulated in the Bidding Data Sheet.
 - (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 Employer 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 Employer and the bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

IB.21 Late Bids

21. (a) Any bid received by the Employer 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 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 Employer prior to the deadline for submission of bids.
- 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 IB 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 FOR SINGLE STAGE TWO ENVELOPE BIDDING PROCEDUR

IB. 23 Bid Opening

- 23.1 The Employer will open the Technical Bids in public at the address, date and time specified in the Bidding Data Sheet in the presence of Bidders` designated representatives and anyone who choose to attend. The Price Bids will remain unopened and will be held in custody of the Employer until the specified time of their opening.
- 23.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding Withdrawal Notice contains a valid authorization to request the withdrawal and is read out at bid opening.
- 23.3 Second, outer envelopes marked "SUBSTITUTION" shall be opened. The inner envelopes containing the Substitution Technical Bid and/or Substitution Price Bid shall be exchanged for the corresponding envelopes being substituted, which are to be returned to the Bidder unopened. Only the Substitution Technical Bid, if any, shall be opened, read out, and recorded. Substitution Price Bid will remain unopened in accordance with IB 23.1. No envelope shall be substituted unless the corresponding

Substitution Notice contains a valid authorization to request the substitution and is read out and recorded at bid opening.

- 23.4 Next, outer envelopes marked "MODIFICATION" shall be opened. No Technical Bid and/or Price Bid shall be modified unless the corresponding Modification Notice contains a valid authorization to request the modification and is read out and recorded at the opening of Technical Bids. Only the Technical Bids, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Price Bids, both Original and Modification, will remain unopened in accordance with IB 23.1. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.
- 23.5 Other envelopes holding the Technical Bids shall be opened one at a time, and the following read out and recorded:
 - (a) the name of the Bidder;
 - (b) whether there is a modification or substitution;
 - (c) the presence of a Bid Security, if required; and
 - (d) Any other details as the Employer may consider appropriate.

No Bid shall be rejected at the opening of Technical Bids except for late bids, in accordance with IB 21.1. Only Technical Bids read out and recorded at bid opening, shall be considered for evaluation.

Preliminary Examination of Technical Bids

- 23.6 a) The Employer shall first examine qualification and experience Data as per appendix M and N submitted by the Bidder. The technical proposal examination of those bidders only shall be taken in hand who meet the minimum requirement as mentioned in appendix M and N. Only substantially responsive qualification shall be considered for further evaluation.
 - b) The Employer shall examine the Technical Bid to confirm that all the documents have been provided, and to determine the completeness of each document submitted.
- 23.7 The Employer shall confirm that all the documents and information have been provided for evaluation of Technical bid as required under these bidding documents.
- 23.8 At the end of the evaluation of the Technical Bids, the Employer will invite only those bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids.

- The date, time, and location of the opening of Price Bids will be advised in writing by the Employer. Bidders shall be given reasonable notice for the opening of Price Bids.
- 23.9 The Employer will notify Bidders in writing who have been rejected on the grounds of their Technical Bids being substantially non-responsive to the requirements of the Bidding Document and return their Price Bids unopened before inviting others, who are determined as being qualified, to attend the opening of Price Bids.
- 23.10 The Employer shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids, publically in the presence of Bidders' representatives who choose to attend at the address, date and time specified by the Employer. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.
- 23.11 All envelopes containing Price Bids shall be opened one at a time and the following read out and recorded:
 - (a) The name of the Bidder;
 - (b) Whether there is a modification or substitution;
 - (c) The Bid Prices, including any discounts and alternative offers; and
 - (d) Any other details as the Employer may consider appropriate.

Only Price Bids and discounts, read out and recorded during the opening of Price Bids shall be considered for evaluation. No Bid shall be rejected at the opening of Price Bids.

23.12 If this Bidding Document allows Bidders to quote separate prices for different contracts, and the award to a single Bidder of multiple contracts, the methodology to determine the lowest evaluated price of the contract combinations is that which is most economical to the Employer.

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 bid evaluation report which shall be done at least ten 10 days prior to issue of Letter of Acceptance. 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 Employer's processing of bids or award decisions may result in the rejection of such bidder's bid. Whereas any bidder feeling aggrieved may lodge a written complaint not later than fifteen (15) days after the announcement of the bid evaluation report. However mere fact of lodging a complaint shall not warrant suspension of the procurement process.

IB.25 Clarification of Bids

- 25.1 To assist in the examination, evaluation and comparison of bids, the Employer 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 Employer in the evaluation of the bids in accordance with Clause IB.28.
- 25.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its bid may be rejected.

IB.26 Examination of Bids and Determination of Responsiveness

- 26.1 Prior to the detailed evaluation of bids, the Employer will determine whether each bid is substantially responsive to the requirements of the Bidding Documents.
- 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; (iv) Includes signed Integrity Pact where required as per clause IB.35 and (v) conforms to all the terms, conditions and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one (i) which affect in any substantial way the scope, quality or performance of the Works; (ii) which limits in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the bidder's obligations under the Contract; (iii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids. Only substantially responsive bid shall be considered for further evaluation.
- 26.3 If a bid is not substantially responsive, it may not subsequently be made responsive by correction or withdrawal of the non-conforming material deviation or reservation. The Employer may, however, seek confirmation/ clarification in writing which shall be responded in writing.

IB.27 Correction of Errors

- 27.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer 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 Employer 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 Letter of Price Bid will be adjusted by the Employer 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 IB.15.6 (b) hereof.

IB.28 Evaluation and Comparison of Bids

- 28.1 The Employer 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 Employer 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.
- 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 Employer's estimate of the cost of work to be performed under the Contract, the Employer may require the bidder to produce detailed price analyses 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 Employer 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 Employer against financial loss in the event of default of the successful bidder under the Contract.

F. AWARD OF CONTRACT

IB.29 Award

29.1 Subject to Clauses IB.30 and IB.34, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the Bidding 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 IB 29.2.

29.2 The Employer, at any stage of the bid evaluation, having credible reasons for or prima facie evidence of any defect in bidder's capacities, may require the bidders 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 in writing. They shall form part of the records of that bid evaluation report.

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

30.1 Notwithstanding Clause IB.29, the Employer reserves the right to accept or reject any Bid, and to annul the bidding process and reject all bids, at any time prior to award of Contract, 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 Employer, the Employer will notify the successful bidder in writing ("Letter of Acceptance") that his Bid has been accepted. This letter shall name the sum which the Employer 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.
- 31.3 The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the Employer and the bidder till signing of the formal Contract Agreement.
- 31.4 Upon furnishing by the successful bidder of a Performance Security, the Employer 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 Employer a Performance Security in the form and the amount stipulated in the Bidding Data Sheet and the Conditions of Contract within a period of 28 days after the receipt of Letter of Acceptance.

32.2 Failure of the successful bidder to comply with the requirements of IB.32.1 or IB.33 or IB.35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.

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 Employer will send the successful bidder the Contract Agreement in the form provided in the Bidding Documents, incorporating all agreements between the parties.
- 33.2 The formal Agreement between the Employer and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the Employer.

IB. 34 General Performance of the Bidders

The Employer reserves the right to obtain information regarding performance of the bidders on their previously awarded contracts/works. The Employer may in case of consistent poor performance of any Bidder as reported by the employers of the previously awarded contracts, interalia, reject his bid and/or refer the case to the Pakistan Engineering Council (PEC). Upon such reference, PEC 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 Pact0

The Bidder shall sign and stamp the Integrity Pact provided at Appendix-L to Bid in the Bidding Documents for all Federal Government 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 SHEET

Bidding Data Sheet

The following specific data for the Works to be bidded 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.

1.1 Name and address of the Employer:

NDMA

NDMA HQ Opposite Margalla Town Murree Road, Islamabad.

1.2 Name of the Project & Summary of the Works:

Project: Construction of Center of Excellence – Climate Change & Disaster Management (CoE-C2DM)

Summary of the Works:

S.N	Description of item/ product
1	CoE – Single Story Hybrid Structure, Size 124 x x 53 ft - (Civil, MEP & IT)
2	External Works – Approach road, Boundary Wall, Car Parking etc

2.1 Name of the Borrower/Source of Financing/Funding Agency:

Department Fund

2.2 Amount and type of financing:

Local

3.1 Eligible Bidders

- a. Duly licensed by Pakistan Engineering Council (PEC) in the category C3 & above with specialization code CE10, BC 01, EE 11.
- 8.1 Time limit for clarification:

Minimum number of days to seek clarification by the prospective bidder may be inserted as two (02) days.

BDS-2

10.1 Bid language:

English should be used in bidding.

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

(a)	Letter of Technical Bid	
(b)	Bid Security	(IB.15)
(c)	Written confirmation authorizing the signatory	
	of the Bid to commit the Bidder	(IB.18.5)
(d)	Pending litigation information	
(e)	Special Stipulations (as filled by the Employer)	(appendix –A)
(f)	Proposed Construction Schedule	(appendix –E)
(g)	Method of Performing the Work	(appendix –F)
(h)	Availability of Critical Equipment	(appendix –G)
(i)	Construction Camp and Housing Facilities	(appendix –H)
(j)	List of Sub-contractors (as required)	(appendix –I)
(k)	Organization Chart for Supervisory Staff	(appendix –K)
(l)	Integrity Pact	(appendix –L)
(m)	Financial Competence and Access to financial	(appendix –M)
	Resources	
(n)	Past Performance, Current Commitment,	
	Qualification and Experience	(appendix –N)

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

(a) Letter of Price Bid

(b) Foreign Currency Requirements (appendix –B) (If required and only in case of International Bidding)

(c) Price Adjustment under Clause 70 (appendix -C)
 (d) Bill of Quantities (appendix -D)
 (e) Estimated Progress Payments (appendix -J)

12.5 **Discount Offered by the Bidder**

Any discount offered by the Bidder on its quoted prices, shall only be considered if such discount is either shown on the duly filled-in, signed and stamped Form of Bid or on the Summary Page of the Priced Bill of Quantities (BOQ). In case of any discrepancy or difference in the rate or amount of discount mentioned on the Form of Bid (as duly filled-in and signed), and on the Summary Page of the Prices BOQ, the discount shown on the Priced BOQ shall prevail.

Discount, if offered, through a separate letter of discount submitted with the Bid, will not be entertained and shall be considered null & void.

13.1 Delete the text of Sub-clause 13.1 and replace with the text; "Bidders are required to quote entirely in Pak. Rupees".

14.1 **Period of Bid Validity:**

60 days.

15.1 Amount of Bid Security:

5% of Contract Amount.

15.2 **Bid Security:**

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 an insurance company at least AA rating from PACRA/ JCR in favour of Employer valid for a period 28 days beyond the Bid Validity date.

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

NDMA HQ Opposite Margalla Town Murree Road, Islamabad.

Date: Announce upon request.

In case of any change the same shall be intimated through invitation letter/notice/fax or through telephone.

17.2 Not latter then 02 days

18.4 Number of copies of the Bid to be completed and returned:

One original and two copies

There shall be no discrepancy between ORIGINAL & COPY

19.2(a) Employer's address for the purpose of Bid submission:

NDMA HQ Opposite Margalla Town Murree Road, Islamabad.

19.2(b) Name and Number of the Contract:

Construction of Center of Excellence – Climate Change & Disaster Management (CoE-C2DM)

20.1(a) **Deadline for submission of bids:**

Deadline for Submission of bid 15 August 2025. at 1000 hours, in case of any change the same shall be intimated through invitation letter/notice.

23.1 Venue, time, and date of Bid opening:

Venue:NDMA HQ Opposite Margalla Town Murree Road, Islamabad. Date & Time: 16 August, 2025 at 11:00 hours

29. Award:

In addition to the provisions of Sub-clause 29.2, the criteria given in clause IB-11 will be applied for award. Further, the scope of project may be reduced or increases keeping in view the availability of funds.

32.1 Standard form and amount of Performance Security acceptable to the Employer:

The successful bidder shall provide Performance Security to the Employer in the prescribed form. The said Security shall be furnished or caused to be furnished by the successful bidder 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 or (c) an insurance company having atleast AA rating from PACRA/JCR from its office situated in Islamabad.

Letters of Technical/ Price Bid & Appendices to Bid

Letters of Technical Bid/ Price Bid, and Appendices to Bid

(as applicable).

LTB-1

Letter of Technical Bid

	Date:
Bid 1	Reference No: COE-C2DM-005
	struction of Center of Excellence –Climate Change & Disaster Management E-C2DM)
То:	
We,	the undersigned, declare that:
(a)	We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB) 9;
(b)	We offer to execute and complete in conformity with the Bidding Documents the following Works:
(c)	Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period of 30 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
(d)	As security for due performance of the under takings and obligations of our bid, we submit here with a Bid security, in the amount specified in Bidding Data Sheet, which is valid (at least) 28 days beyond validity of Bid itself.
(e)	We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process, other than alternative offers submitted in accordance with IB16

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(f) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bidding Data Sheet.

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

Letter of Price Bid

	Date:
Bid R	Reference No.: COE-C2DM-005
Cons C2DI	truction of Center of Excellence –Climate Change & Disaster Management (CoE-M)
То:	
We, t	he undersigned, declare that:
(a)	We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB)9;
(b)	The total price of our Bid, excluding any discounts offered in item (c) below is:
(c)	The discounts offered and the methodology for their application are:
(1)	
, ,	Our Bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
(e)	If our Bid is accepted, we commit to obtain a performance security in accordance
	with the Bidding Documents;

- (f) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed and we do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.
- (g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (h) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bidding Data Sheet.
- (i) If awarded the contract, the person named below shall act as Contractor's Representative.

Name
n the capacity of
Signed
Ouly authorized to sign the Bid for and on behalf of
Oate
Address

Appendix-A to Bid: <u>Special Stipulations</u> Clause Conditions of Contract

1.	Engineer's Authority to issue Variation in emergency	2.1	15% of the Contract Price stated in the Letter of Acceptance.
2.	Law applicable	5.1(b)	The law to be applied is the law of Islamic Republic of Pakistan
3.	Amount of Performance Security	10.1	10% of Contract Price stated in the Letter of Acceptance.
4.	Time for Furnishing Programme	14.1	Within 07 days from the date of receipt of Letter of Acceptance.
5.	Minimum amount of Third Party Insurance	23.2	Rs.30,000 per occurrence with number of occurrences unlimited.
6.	Time for Commencement	41.1	Within 07 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.
7.	Time for Completion	43.1, 48.2	180 days (6 months) from the date of receipt of Engineer's Notice to Commence.
8.	a) Amount of Liquidated Damages	47.1	0.1% for each day of delay in completion of the Works subject to a maximum of 10% of Contract Price stated in the Letter of Acceptance.
	b) Amount of interim Liquidated Damages	47.3	Half of provision of clause 47.1
9.	Defects Liability Period	49.1	365 Days from the effective date of Taking Over Certificate.
10.	Percentage of Retention Money	60.2	5 % of the amount of Interim Payment Certificate.
11.	Limit of Retention Money	60.2	5 % of Contract Price stated in the Letter of Acceptance.
12.	Minimum amount of Interim Payment Certificates (Running Bills)	60.2	Rs. 5.00 Million
13.	Time of Payment from delivery of Engineer's Interim Payment Certificate to the Employer.	60.10	15 days
14.	Mobilization Advance	60.12	20 % of Contract Price as stated in the Letter of Acceptance.

Appendix-B to Bid: Foreign Currency Requirements

NOT USED

Appendix-C to Bid: <u>Price Adjustment under Clause 70 of Conditions of Contract</u>

Not Applicable/ Clause Deleted

Appendix-D to Bid: 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 in accordance with provisions of 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, labour, 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. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered 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. General directions and description of work and materials are not necessarily repeated nor summarised in the Bill of Quantities. References to the relevant sections of the Bidding Documents shall be made before entering prices against each item in the priced Bill of Quantities.
- 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.

Appendix-D to Bid

BILL OF QUANTITIES

B. Work Items

1. The Bill of Quantities contains the following Bills and Schedule:

Summary Bill of Quantities

SN	Description of item/ product
1	CoE – Single Story Hybrid Structure, Size 124 x x 53 ft - (Civil, MEP & IT)
2	External Works – Approach road, Boundary Wall, Car Parking etc

2. Bidders shall price the Bill of Quantities in Pakistani Rupees only.

(Separate Volume-II)

Appendix-E to Bid: 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 programme for completion of the whole of the Works and parts of the Works may meet Employer'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):

Desc	<u>cription</u>	Time for Completion
a)	Whole Works	days
b)	Part-A (Civil Work)	days (If applicable)
c)	Part-B (Plumbing Work)	days (If applicable)
d)	Part-C (Electrical Work)	days (If applicable)
e)	Part-D (External Work)	days (If applicable)

Appendix-F to Bid: 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.
- 4. Quality control / Quality assurance measures to be adopted including procedures to be followed for carrying out all tests required under specifications.

Appendix-G to Bid: List of Major Equipment – Related Items

The Bidder will provide 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.

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						

Equipment:

The bidder shall plan the concrete work using batching plant. The Bidder must demonstrate that it has the batching plant which shall be made available at project site.

The bidder must demonstrate that it has the key equipment listed hereafter:

	PLANT/EQUIPMENT							
No.	Equipment Type and Characteristics	Total Nos. available	Under Utilization on other projects, if applicable	Nos. waiting to be shifted to new project(s)	Min. Number Required for this Project			
1								
2								
3								
4								
5								
6								

Appendix-H to Bid: 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).

A-11

Appendix-H to Bid

- 5. Other Items Proposed (Security services, etc.). The Contractor should mention here what are his proposed environmental measures for the project as per EPA rules like treatment of wastewater and water quality etc. The Contractor shall submit a detailed EMP (Environmental Management Plan) to describe how materials are removed from site and disposed off at a safe location, prevention for the contamination of ground and surface water in neighboring areas etc. including remedial measures for adoption.
- 6. Detail of testing Lab with testing equipment etc.

Appendix-I to Bid: <u>List of Subcontractors</u>

Not Applicable

Appendix-J to Bid

ESTIMATED PROGRESS PAYMENTS

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

Quarter/ Year/ Period	Amounts
	(Rs.)
1	2
Ist Month	
2 nd Month	
3 rd Month	
Bid Price	

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 $\begin{array}{c} \textbf{Appendix-K to Bid: } \underline{\textbf{Organization Chart for the Technical, Supervisory Staff and}} \\ \underline{\textbf{Labour}} \end{array}$

Appendix-L to Bid: Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS. 300 MILLION OR MORE

Contract No Dated Contract Value: Contract Title:	
	, privilege or other obligation or benefit ive subdivision or agency thereof or any
Without limiting the generality of the foregoing, [name it has fully declared the brokerage, commission, fees etc or agreed to give and shall not give or agree to give to directly or indirectly through any natural or juridica associate, broker, consultant, director, promoter, sh commission, gratification, bribe, finder's fee or kickbac or otherwise, with the object of obtaining or inducin interest, privilege or other obligation or benefit in whats has been expressly declared pursuant hereto.	paid or payable to anyone and not given anyone within or outside Pakistan either al person, including its affiliate, agent, areholder, sponsor or subsidiary, any k, whether described as consultation fee g the procurement of a contract, right,
[Name of Supplier] certifies that it has made and will marrangements with all persons in respect of or related taken any action or will not take any action to circumvor warranty.	to the transaction with GoP and has not
[Name of Supplier] accepts full responsibility and strict not making full disclosure, misrepresenting facts or taking of this declaration, representation and warranty. It a privilege or other obligation or benefit obtained or processor to any other rights and remedies available to GoP under voidable at the option of GoP.	ng any action likely to defeat the purpose grees that any contract, right, interest, ured as aforesaid shall, without prejudice
Notwithstanding any rights and remedies exercised by agrees to indemnify GoP for any loss or damage incurre practices and further pay compensation to GoP in an a any commission, gratification, bribe, finder's fee or king aforesaid for the purpose of obtaining or inducing the proprietiege or other obligation or benefit in whatsoever for	d by it on account of its corrupt business mount equivalent to ten time the sum of ickback given by [name of Supplier] as ocurement of any contract, right, interest,
Name of Employer:	Name of Contractor:
[Seal]	[Seal]

Appendix-M to Bid: <u>Financial Competence and Access to Financial</u> <u>Resources</u>

The financial position of the bidder shall be checked as per following details:

1. <u>SOUNDNESS AND ACCESS TO FINANCIAL RES</u>OURCES:

"The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credits, and other financial means, other than any contractual advance payments, to meet the financial requirements of the contract in the amount of his bid. As a minimum the Bidder must show that his resources, in term of at least his latest years working capital and line of credits, will be adequate to cover an amount equivalent to his bid price and current work commitments i.e.

[5 x working capital + Project specific lines of credit*- 40% of current contract commitments] > Bid price.

Working capital is the difference between current assets and current liabilities and measures the firm's ability to generate cash in the short term."

*Any line of credit indicated for this (tendered) project needs to have been certified by the Bank and the said certificate is enclosed with this Appendix.

2. AVERAGE ANNUAL CONSTRUCTION TURNOVER

Criteria	Bidders' to list their certified yearly turnover for last 3 years
Minimum average annual construction turnover of Pak Rupees 1500 Million. Calculated as total certified payments received for contracts in progress or completed, within the last 3 years.	

Appendix-N to Bid: <u>Past Performance, Current Commitment, Qualification And Experience</u>

1) General Construction Experience

Requirement	Bidder to Provide details	Role
Fast track working (90 days > PKRs 300 Million) experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least the last 3 years prior to the bid submission deadline.		

2) Contracts of Similar Size and Nature

Requirement	Bidder to provide specific details	Role
Participation as contractor, management contractor, or subcontractor, in at least one (1) Contract within the last 3 years, with a value of at least Rs. 200 Million that has been successfully or is substantially completed on fast track basis and that are similar to the proposed works. The similarity shall be based on the physical size, complexity, methods, technology or other characteristics as indicated in these Bidding Documents.		

3) **Personnel**

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

No.	Name	Position /Post	Time work with your firm	Total Work Experience [years]	CV (Enclosed)	Appointment Letter	Professional credits points*
1							
2							
3							
4							
5							

Appendix-N to Bid

4) Data regarding past performance and present commitment of the Bidders:

		ļ	Date of		Progress			Satisfactory
Sr No. ongoin	Name of ongoing project(s)	Name of Employer	Start	Completion	%Age as planned	%Age at actual	Remarks regarding delays if applicable	performance certificate from employer (Minimum requirement)
1.								
2.								
3.								
4.								
5.								
6.								

Number of projects that a bidder can undertake to construct as per PEC works by laws is aggregate Professional Credit Points (PCPs) authorized for a category of licensee divided by the PCP of construction and capital cost of single project under consideration.

For example C-3 category contractor should have a minimum of 15 PCPs as per table 'A' below from the Bye Laws/S.R.O. 568(I)/87 at all times and the PCP of individual project (costing say 100 million rupees) is 5 calculated on the basis of 1 PCP for every 20 million project cost. It means the contractor can have ongoing projects up to 3 (15 \div 5) number of this size.

Table A:-

Contractor's Category	Limit of Construction Cost of Project (Million rupees)	Average annual value of work for last 3 years (million rupees)	Largest project value during last 5 years (Million rupees)	Paid up capital or net/capital worth (million rupees)	Minimum requirement of professional credit points (PCP credit)
C-3	Up to 300	10	20	5	15

The evaluation of the personnel shall be carried out as per PEC Engineering Bye Laws 1987 and review his qualification accordingly. PCP/ minimum requirement of staff required for the contractor's works in hand should be in accordance with the provisions of PEC's works byelaws. For example, subject to the other conditional points and limits, a single registered Engineer is given 1 PCP for each year of experience in the construction and operation of engineering works (subject to a minimum of 10 PCPs and maximum of 30 PCPs). The contractor setup has to meet the minimum PCP requirements all time during the currency of the

contract for engineering staff to be deployed/ already deployed.

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Appendix - O to Bid: List of Approved Manufacturers

(The manufacturer references provided here below are indicative of minimum quality and specifications required for such materials. Any other manufacturer items having at least the same quality and specifications are acceptable subject to the approval of the Employer/Engineer).

The Contractor should note that only material from those manufacturers specified in the list of approved manufacturers shall be allowed to be used on this Project. The Contractor shall submit literature/catalogue/samples etc. of all the items from each of the specified manufacturer to the Engineer who shall then decide and approve the sample and the manufacturer. Where the item involves any finishes such as paints, external coasting, etc. The Contractor shall erect mock-up samples of the specified manufacturers for the selection and approval of the Engineer.

The responsibility lies with the Contractor for establishing the genuineness of any material/product/item for its make and origin as specified below:-

Sr.No.	Item	Manufacturer(s) / Supplier(s)			
<u>CIVIL</u>	WORKS				
1.	Sand		Lawarancepur		
2.	Crushed Stone / Aggregate		Margalla		
3.	PCC Blocks		Source as approved by the "Engineer".		
4.	Steel Reinforcement		The Contractor must provide a certification from the concerned Steel Mill that the steel reinforcement has been manufactured from Pakistan Steel Mill Billet and should conform to the Technical Specifications.		
5.	Paints & Varnish	i. ii.	ICI Dulux Burger Robbialac		
6.	Hardware Stays and Handles	i. ii. iii.	Pistol Sitara Milas		
7.	Glass for Doors or Windows		Ghani or best quality locally available as approved by the Engineer.		
8.	False Ceiling		DONG FENG BOARD (DFB Gypsum) or Approved Equivalent.		
9.	Porcelain / Ceramic Tiles		Master, Sonex		
10.	Vitrified Tiles		National Tiles or as approved by the Engineer.		

Sr.No.	Item	Manufacturer(s) / Supplier(s)				
PLUM	BING WORKS					
1.	G.I PIPES	i. ii.	IIL Jamal			
2.	Pipes and Fitting in Polypropylene Random (PPR)	i. ii.	Dadex (Polydex), Beta			
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. ii.	Dadex Ravi			
7.	UPVC Pipes and Fittings	i. ii.	Dadex, Beta			
8.	RCC Pipes		As per Technical Specifications and as approved by the Engineer.			

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Sr.No.	Item	Manufacturer(s) / Supplier(s)			
ELECT	TRICAL WORKS				
1.	Light Fixture	i. ii. iii.	Philips Fast Sun Light		
2.	Cables and Wires	i. ii. iii.	Pakistan Cables Newage Cables Fast Cables		
3.	PVC Conduit Accessories	i. ii.	Dadex Beta		
4.	Steel Conduit & Accessories	i. ii. iii.	Hilal Industries IIL Victory		
5	Fans	i. ii. iii	Pak Yunas Asia		
6	MCCB, MCB's	i.	Schneider, Fuji (imported)		

Letters of Technical/ Price Bid & Appendices to Bid

		ii. iii. iv. v. vi. vii. viii.	Marlin Gerlin (France) Mitsubishi (Japan) Bosch (Germany) Legrand (France) Siemens (Germany) Teraski (Japan) Hager (France)
7	Distribution Boards, Main and Sub-Main Panel Boards	i. ii. iii. iv. v. vi. vii. viii. ix. x.	Elmetec Techman ITC Electrech JEI Fico PEL Siemens Alsthom Electromech
8	Switches, Sockets etc.	i. ii. iii. iv.	Bosch Legrand Clipsal PPI

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9	Back Boxes, Pull Boxes etc.	i. ii. iii. iv.	Bosch Beta Legrand Clipsal	
 Authori	zed Signature and official Seal:			•
Name:				-
Date:				

FORMS

BID SECURITY PERFORMANCE SECURITY CONTRACT AGREEMENT MOBILIZATION ADVANCE GUARANTEE AND INDEMNITY BOND FOR SECURED ADVANCE

BID SECURITY (Bank Guarantee)

Name of Surety (Bank) with Address:
Name of Principal (Bidder) with Address
Penal Sum of Security Rupees
Bid Reference No KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and a the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto (hereinafter called the 'Employer') in the sum stated above for the payment of which sum well
Bid Reference No KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and a the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto (hereinafter called the 'Employer') in the sum stated above for the payment of which sum well
KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and a the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto (hereinafter called the 'Employer') in the sum stated above for the payment of which sum well
unto (hereinafter called the 'Employer') in the sum stated above for the payment of which sum well
(hereinafter called the 'Employer') 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 Employer; and
WHEREAS, the Employer has required as a condition for considering said Bid that the Bidde
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 Employer, 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 Employer, notice of which extension(s) to the Surety is hereby waived;
- (2) that the Bid Security of unsuccessful Bidders will be returned by the Employer 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 Employer 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 therefore, on the prescribed form presented to him for signature enter into a formal Contract with the said Employer 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 Employer for the faithful performance and proper fulfilment 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.

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

PROVIDED ALSO THAT the Employer 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 Employer 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	

FORM OF PERFORMANCE SECURITY (Bank Guarantee)

No	Guarantee
140	Executed on
	Expiry date
[Letter by the Guarantor to the Employer]	
Name of Guarantor (Bank) with address:	
Name of Principal (Contractor) with address:	(Scheduled Bank in Pakistan)
Penal Sum of Security (express in words and figures)	<u> </u>
Letter of Acceptance No	Dated
KNOW ALL MEN BY THESE PRESENTS, that Documents and above said Letter of Acceptance (he request of the said Principal we, the Guarantor above	ereinafter called the Documents) and at the
in the penal sum of the amount stated above for the made to the said Employer, we bind ourselves, successors, jointly and severally, firmly by these pres	payment of which sum well and truly to be our heirs, executors, administrators and
THE CONDITION OF THIS OBLIGATION IS SUC the Employer's above said Letter	
(Name of Pro	iect).

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 Employer, 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.

We,	(the Guarantor), waiving all objections and
defences under the Contract, do hereby irrevo	cably and independently guarantee to pay to the
Employer unconditionally, within twenty fou	ir hours without delay upon the Employer's first
written demand without cavil or arguments an	d without requiring the Employer to prove or to
show grounds or reasons for such demand an	ry sum or sums up to the amount stated above,
against the Employer'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 Employer's
designated Bank & Account Number.	
	be the sole and final judge for deciding whether
the Principal (Contractor) has duly performed h	nis 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 Employer within twenty four hours, unconditionally 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.

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.

Guarantor (Bank)
Signature
Name
Title
Corporate Guarantor (Seal)

FORM OF CONTRACT AGREEMENT

THIS	CONT	RACT A	AGREEMEN day	NT (hereinafte of			Agreement") 20	made on betw	
(herea	fter	called	the	"Employer") (he		the	one "Contractor	part r") of the of	and ther
part.									
execut	ted by t	the Contra	actor and h	rous that certa as accepted a remedying of a	Bid by th	e Contr	actor for the	should execution	
NOW	this Ag	reement v	vitnesseth as	s follows:					
1.		_		and expression in the Condition				•	are
2.	otherw	vise, if any	, except the	after incorpor ose parts relating rued as part of t	g to Instru	ctions to		_	
	(a)	The Co	ntract Agree	ement;					
	(b)		tter of Acce						
	(c)	The co	mpleted For	m of Bid;					
	(d)	Special	Stipulation	s (Appendix-A	to Bid);				
	(e)	The Pa	rticular Con	ditions of Cont	ract – Part	t II;			
	(f)	The Ge	neral Condi	tions – Part I;					
	(g)	The pri	ced Bill of (Quantities (App	endix-D t	o Bid);			
	(h)	The co	mpleted App	pendices to Bid	(B, C, E)	to O);			
	(i)	The Dr	awings;						
	(j)	The Sp	ecifications.						
	(k)				(any ot	her)			
3	In oor	reidoretion	of the pay	yments to be	mada bu	tha Em	ployer to th	a Contractor	r oc

- 3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.
- 4. The Employer 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.

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

Signature of the Contactor	Signature of Employer	
(Seal)	(Seal)	
Signed, Sealed and Delivered in the presence of:		
Witness:	Witness:	
(Name, Title and Address)	(Name, Title and Address)	

MOBILIZATION ADVANCE GUARANTEE/BANK GUARANTEE

(Particulars of Contract) with	Guarantee No	Da	te		
AND WHEREAS, the Employer has agreed to advance to the Contractor, at the Contractor's request, an amount of Rupees	WHEREAS	(hereinafter called	the 'Employer')	has entered into	a Contract for
AND WHEREAS, the Employer has agreed to advance to the Contractor, at the Contractor's request, an amount of Rupees		(Particulars	of Contract)		
request, an amount of Rupees	with	`	,		
AND WHEREAS,	request, an amount	of Rupees	(F	Rs)	
(Scheduled Bank in Pakistan) (hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Employer 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 fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount. Notice in writing of any default, of which the Employer shall be the sole and final judge, on the part of the Contractor, shall be given by the Employer 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		ž •			
(hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Employer 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 fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount. Notice in writing of any default, of which the Employer shall be the sole and final judge, on the part of the Contractor, shall be given by the Employer 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	AND WHEREAS, _				
for the purpose of above mentioned Contract and if he fails and commits default in fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount. Notice in writing of any default, of which the Employer shall be the sole and final judge, on the part of the Contractor, shall be given by the Employer 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	(hereinafter called the	he "Guarantor") at the reques			
part of the Contractor, shall be given by the Employer 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	for the purpose of ab any of his obligation	pove mentioned Contract and as for which the advance pay	l if he fails and c yment is made, t	commits default the Guarantor sl	in fulfilment of
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	part of the Contracto demand, payment sh	or, shall be given by the Empl hall be made by the Guaran	loyer to the Guar tor of all sums	rantor, and on su then due under	uch first written
The Guarantor's liability under this Guarantee shall not in any case exceed the sum of Rupees		Payment Certificates	of the	Contractor	
	The Guarantor's liab	pility under this Guarantee sl	•		

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.

GUARANTOR

		1. 2. 3.	Signature Name Title	
WIT	NESS			
1.				
	Corporate Secretary (Seal)			
2.				
	(Name Title & Address)		Corporate Guarantor(Se	eal)

INDEMNITY BOND FOR SECURED ADVANCE

AGAINST MATERIALS BROUGHT AT SITE

(ON RS.40 NONJUDICIAL STAMP PAPER)

This Deed of Indemn			
		(Name of the	e Contractor) in favour of
<i>M/s</i>		(Name of the Empl	oyer).
Whereas		(hereinafter called th	e Employer) has paid the
Secured Advance against	the cost of mater	rial through any Bank or	like agency by any other
			parties. The details of the
			sought for the period the material is as under:-
1	at Rs	per	=Rs.
2	at Rs	per	= Rs.
3	at Rs	per	= Rs.
4	_ at Rs	per	=Rs.
do hereby indemnify M/s flood and inundation, sho God or slump in the Mark request for financing payn I/We	of	M/s	rson, pilferage, loss due to brough any act of Man or id by the Employer on our against any
			idual or the like agency or
create any change whereo	*		
I/We		do hereby also declare the	hat in the event of my/our
material and also proceed contract and further invo	against me/us acc ke the power or s	ording to the relevant clar seek any remedies secure	
under the contract Agreem	nent signed with us	s or otherwise available un	ider law.
Place	Dated		
Contractor			

Particular Conditions of Contract
PART I: GENERAL CONDITIONS OF CONTRACT

[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 contract, 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 Employer 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.*

"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/book

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



FEDERATION INTERNATIONAL DES INGENIEURS-CONSEILS

CONDITIONS OF CONTRACT FOR WORKS OF CIVIL ENGINEERING CONSTRUCTION

PART-I GENERAL CONDITIONS OF CONTRACT

WITH FORMS OF TENDER AND AGREEMENT

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

Particular Conditions of Contract
PART II: PARTICULAR CONDITIONS OF CONTRACT

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PART II - PARTICULAR CONDITIONS OF CONTRACT

1.1 Definitions

- (a) (i) The Employer is: NDMA, Address: NDMA HQ Opposite Margalla Town Muree Road, Islamabad.
- (a) (ii) Add the following text at the end:

"and who is duly registered with Pakistan Engineering Council in the appropriate category possessing valid registration."

(a) (iv) The Engineer is: Director General (NEOC), NDMA, Address: NDMA HQ Opposite Margalla Town Muree Road, Islamabad.

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 Engineers is to formulate his certifications/ recommendations in relation to all outstanding matters, disputes and claims relating to the execution of the Works during his tenure.

The following paragraph is added:

- (a) (vi) "Bidder or Tenderer" means any person or persons, company, corporation, firm or Joint venture submitting a Bid or Tender.
- (b) (i) The words "if completed" appearing in the third line and at the end of the paragraph are deleted.
- (b) (v) The following is added at the end of the paragraph:

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

The following paragraph is added:

- (b) (vii) The words between brackets "if any" are deleted.
- (b) (viii) Amend Part I to read as under:

"Appendices to Tender" means Appendices A through M annexed to the Tender and forming part thereof.

Through Part - I, the term 'Appendix to Tender' wherever appears in the text shall be replaced by the term "Appendices to Tender".

- (b) (ix) "Programme" means the programme to be submitted by the Contractor in Accordance with Sub-Clause 14.1 and any approved revisions thereto.
- (d) (iii) "Defects Liability Certificate" means the final certificate of completion of the Works issued by the Engineer certifying that the works have been completed and any defects therein have been remedied by the Contractor.
- (e) (i) The text is deleted and substituted with the following:

"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.

Add the following expression:

(h) "Project" means Construction of Center of Excellence – Climate Change & Disaster Management (CoE-C2DM)

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 Employer 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 6.4, 12.2 & 42.2
- (iii) Any action under Sub-Clause 10.1, 10.3 and Sub-Clause 21.1, 21.2, 22.3 & 25.1 "Insurance".
- (iv) Any action under Sub Clause 40.2.
- (v) Any action under Clauses 44.1, 44.2 and 44.3.
- (vi) Any action under Clause 47.1 "Liquidated Damages for Delay" interim liquidated Damages for delay Clause 47.3.
- (vii) Issuance of "Taking Over Certificate" under Sub Clauses 48.1, 48.2 and 48.3.
- (viii) Issuing a Variation Order under Clause 51 except:
 - a) In an emergency* situation, as stated here below, if such variation would increase the Contract Price by the amount stated in the Appendix-A to Bid.
 - (ix) Fixing rates or prices under Sub Clause 52.2.
 - (x) Extra payment as a result of Contractor's claims under Sub Clauses 53.4 &53.5, including notifying acceptance of any principle relating to a particular claim by the contractor.
 - (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) Certifying additional payment under Sub Clauses 65.3 & 65.5.
- (xv) Release from performance under the law under Sub Clause 66.1
- (xvi) Certifying additional clause under clause -70.

* (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.)

2.1(c) The following words are added at the end of this Sub Clause.

"or to order any words involving delay or any extra payment by the Employer or to make any variation of or in the Works or the Contract."

2.2 Engineer's Representative

Add the following paragraph:

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 Employer intends to replace the Engineer, the Employer 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 Employer shall not replace the Engineer with a person against whom the Contractor raises reasonable objection by notice to the Employer, with supporting particulars."

4.1 The words "the Engineer" in the third line are deleted and the words "the Employer" are substituted thereof.

4.3 Approval of Sub - Contractors

Prior approval of Engineer shall be obtained for employment of sub-contractors if need for which full details of sub-contractor would be needed including resources available, key staff and past experience of the firm before accord of such an approval. In the event of dispute between sub-contractor and main contractor, the contractor shall indemnify the Employer and Engineer against such dispute and resulting litigation. Also contractor shall not nominate employer and Engineers as "respondents" or "witness" in courts of law in process of their litigations.

5.1 Language(s) and Law

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

5.2 Priority of Contract Documents

The documents listed at (1) to (6) of the Sub-Clause are deleted and substituted with the following:

- (1) The Contract Agreement;
- (2) The Letter of Acceptance;
- (3) The completed Form of Bid;
- (4) Special Stipulations (Appendix-A to Bid):
- (5) The Particular Conditions of Contract Part II;
- (6) The General Conditions Part I;
- (7) The completed Appendices to Bid (B, C, E to L);
- (8) The Specifications;
- (9) The priced Bill of Quantities (Appendix-D to Bid);
- (10) The Drawings;

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:

6.1 The words "Unless otherwise provided by the Contract" are added before the words "the Drawings" at the beginning of the Sub-Clause."

6.6 Shop Drawings

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.

7.2 Permanent Works Designed by Contractor

The following Para is added:

(c) The design and construction drawings shall be provided by the Employer/Engineer. However., in case of any changes required in the design to meet the specific site requirements, the Contractor shall submit his proposal for such changes in the design, which will be implemented after necessary approval from the Employer/Engineer.

10.1 Performance Security

The text is deleted and substituted with the following:

The Contractor shall provide Performance Security to the Employer 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 or (c) an insurance company having atleast AA rating from PACRA/JCR.

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

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.

11.1 This Sub-Clause is deleted and the following is substituted thereof:

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and to have satisfied himself submitting his Tender as to:

- (i) the nature of the hydrological and climate conditions,
- (ii) the grounds and sub-surface conditions (so far as it is practicable) and having taken into account any information in connection therewith which may have been provided by or on behalf of the Employer, provided the Contractor shall make his own interpretation thereof,
- (iii) the form and nature of the Site,
- (iv) the extent and nature of the work and materials necessary for the completion of the work including their factual availability and reached at site costs at the bid submission stages,
- (v) the means of communication and access to the Site.
- (vi) the accommodation he may require, and, in general, shall be deemed to have obtained for himself all necessary information, subject as above mentioned, as to risks, contingencies and all circumstances which may influence of affect his Tender.
- **12.1** After the word "Quantities" and the comma appearing in the third line, the following words as inserted: "and the schedule of rate and prices, if any",
- **12.2** This Sub-Clause is deleted and the following is substituted therefore:
 - If however during the execution of the works, the Contractor encounters artificial obstructions or physical conditions, other than climatic conditions or conditions due thereto, on the site, which obstructions or conditions could not, in his opinion, have been reasonably foreseen by an experienced contractor, the Contractor shall forthwith give notice thereof to the Engineer with a copy of the Employer, and if the Contractor is of the opinion that additional costs will be incurred as a result thereof, he shall, if he intends to make any claim for additional payment, give notice to the Employer as well as the Engineer specifying the artificial obstructions or physical conditions encountered, details or the anticipated effects thereof, the measures he is taking or proposing to take, together with an estimate of the costs thereof and the extent of the anticipated delay or interference with the execution of the works. Following receipt of such notice, the Engineer may, inter alia:
 - (a) Approve in writing such measures with or without modification, give written instructions as to how the artificial obstructions or physical conditions are to be dealt with.
- 12.3 No claim for additional costs in respect of artificial obstructions or physical conditions shall be entertained unless notice as above mentioned has been served within the time specified in Clause 53.1.

- 12.4 To the extent that the Engineer is of the opinion that the whole or part of the aforesaid physical conditions or artificial obstruction could not reasonably have been foreseen by an experienced Contractor, the Engineer shall, after due consultation with the Employer and the Contractor, determine:
 - (a) Any extension of time to which the Contractor is entitled under Clause 44, and the amount of any costs which may have been reasonably incurred by the Contractor by reason of encountering such conditions or obstructions and to which the Contractor is entitled.
- 13.1 The words between brackets "or his delegate" are deleted and the following is substituted therefore:
 - "or, subject to the limit of the authority conferred on them in accordance with Sub-Clause 2.3 and 2.4, the Engineer's Representative and his Assistants:
- 13.2 If the contractor is of the opinion that any instruction by the Engineer under the Clause is such as would entitle him to additional payment on the grounds that such instruction is not within the purview of the Contract cannot be reconciled with its expressed or implied terms unless it is considered as a variation of the Contract, then, without prejudice to the obligation of the Contractor to comply with such instruction, the Contractor shall, immediately upon receipt of same, give notice to the Employer and the Engineer of his intention to claim additional payment and furnish, within 28 days from the date of issue of the instruction in question, particulars of such claim. Should the Contractor fail to comply with these requirements, he shall be deemed to have waived any claim arising from such instruction of the Engineer.

14.1 Programme to be Submitted

The Contractor shall submit two copies of the Program of Work referred to Clause 14.1 before start of the works in the Mobilization period at site after detailed survey of site. The program shall be reviewed every three (3) months or earlier as required by Engineer and should include a chart of the principal quantities of the Works forecast for execution monthly, and an update schedule of payment expected to be made to the Contractor by the Employer.

The program should be computerized and drawn on the critical path method identifying all items of work including the Temporary Works. Progress reporting by the Contractor should be supported on the monthly basis with an update analysis of the progress including a statement on items which are or are about become critical to the Progress of Works, along with proposal on how the Contractor intends to alleviate the situation. This record of revises program shall also be one of the bases of consideration for time extension if and when requested by the Contractor. The contractor shall provide a licensed copy of the approved software with training of the staff and the Engineer for reviewing the submitted program within 28 days of award of the work at no extra cost.

14.3 Cash Flow Estimate to be Submitted

The detailed Cash Flow Estimate shall be submitted within 14 days from the date of receipt of Letter of Acceptance

The following Sub-Clause 14.5 is added:

14.5 Detailed Programme and Monthly Progress Report

- a) For purposes of Sub-Clause 14.1, the Contractor shall submit to the Engineer detailed programme for the following:
 - (1) Execution of Works;
 - (2) Labour 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 8th day of the following month, 10 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; The actual work compared to the original approval programme including production rate or other data to interpret the actual progress
 - (3) Description of the work planned for the next 56 days sufficiently detailed to enable the Engineer to determine his programme 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.
 - (7) Record of unexpected events, accidents etc. including the points that contractor ask or hope that Engineer to give explanation, decision or definition for relevant items.
 - (8) Description of all construction material, plant and equipment available at site and then provide details of receipts for the month for these items.
- (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 authorised 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.

15.3 Contractor's Representative

The Contractor's authorised representative and his other professional engineers working at Site shall register themselves with the Pakistan Engineering Council.

The Contractor's authorised representative at Site shall be authorised 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.

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:

18.1 Borehole and Exploratory Excavation

The text of Sub-Clause is deleted and substituted by the following:

The building has been designed with assumed bearing capacities for various types of soil. These values should be verified by the Contractor before placement of foundation. The Contractor shall investigate the bearing capacity through the confirmatory geotechnical investigations and intimate the Engineer for review of the design, if required. All costs incurred in this regard be borne by the Contractor and cost thereof shall be deemed to have been included in the total price quoted by the Contractor.

Add the following Sub-Clause.

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 with such modifications thereto as the Engineer may authorise 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.

20.2 The words "rectify such loss or damages so that the Permanent Works conform" appearing in the fourth and fifth lines, are deleted and the following is substituted therefore.

"Repair and make good the same, so that, at completion ,the Permanent Works shall be in good order and condition and in conformity."

20.4 Employer's Risks

The Employer'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 Employer 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.
- (h) Any operation of the forces of nature which could not reasonably have been foreseen by an experienced contractor or against which such contractor could not be reasonably expected to provide by taking precautionary measures or by way of insurance.

21.1 Insurance of Works and Contractor's Equipment

Add the following para (d) at the end:

- (d) Automobile liability insurance of all licensed vehicles owned and operated on the Contract for a sum sufficient to provide their replacement at the Site.
- 21.2 (a) The Employer and the Contractor, from the start of work at the Site until the date of issue of the relevant Taking Over Certificate in respect of the works or any section or part thereof, as the case may be, against all loss or damages from whatsoever cause arising, other than the risks stated in Clause 24, provided, however, that with respect to the Employer's risk defined in Paragraph (g) of Sub-Clause 20.4, such exclusion shall be limited to loss of or damage to any part of the works resulting from a cause solely due to a faulty design thereof provided by the Engineer, but shall not extend so any consequent loss of or damage to any other part of the works.

21.4 Exclusions

The text is deleted and substituted with the following:

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 paras (a) (i) to (iv).

The following Sub-Clause 25.5 is added:

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 Employer.

Costs of such insurances shall be borne by the Contractor.

The following Sub-Clause 31.3 is added:

- 27.1 The words "by the Contractor or any of his Sub-Contractors" are inserted after the word "Site" in the second line.
- 31.2 (1) The words "other contractor, or to the Employer or such authority as aforementioned" are inserted after the words "by any such" in the first line of Sub-paragraph (b) of Sub-Clause 31.2.
 - (2) The words "other contractor or for the Employer or such authority aforementioned" are inserted after the words "any such" at the end of sub-paragraph (c).
 - (3) The last three lines of Sub-Contractor 31.2 are deleted and the following is substituted therefore:

"The Engineer shall determine an addition to the Contract Price in accordance with Clause 52 after consultation with the Employer and the Contractor.

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 Employer 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 Labour

The Contractor shall pay rates of wages and observe conditions of labour not less favourable 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 labour so established, the Contractor shall pay rates of wages and observe conditions of labour which are not less favourable than the general level of wages and conditions observed by other employers whose general circumstances in the trade or in 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 labour from amongst the persons in the services of the Employer or the Engineer; except with the prior written consent of the Employer or the Engineer, as the case may be.

34.4 Housing for Labour

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 labour, 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, these facilities shall be handed over to the Employer or if the Employer so desires, 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 labour 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 labour.

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 labour.

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 labour have due regard to all recognised 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 labour and for the preservation of peace and protection of persons and property in the neighbourhood 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.

- **36.4** Sub paragraph (a) of this Sub-Clause is amended to read as follow:
 - (a) "not so intended by or provided for in the Contract or reasonably required as aforesaid in sub-paragraph (a) of Sub-Clause 36.3".
- **36.5** Of the general conditions in Part I is renumbered as Sub-Clause 36.6. A new Sub-Clause 36.5 is inserted as follows
- 36.5 If the Engineer suspects that any materials, plant workmanship incorporated in any part or parts of the works may not be in accordance with the provisions of the Contract, he may require the contractor to carry out any test which in the opinion of the Engineer is necessary to verify the quality of such part or parts of the works and the cost of such test so required shall be borne by the Contractor if it shows that such part or parts of the

works are not in accordance with the provisions of the Contract. But if otherwise, Sub-Clause 36.6 shall apply.

The following Sub-Clause 36.6 is added:

36.6 Use of Pakistani Materials and Services

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 provided such materials, supplies, plant, equipment and services shall be of required standard.

38.2 This Sub-Clause is deleted and the following substituted therefore:

The Contractor shall uncover any part or parts of the works, or make openings in or through the same as the Engineer may form time to time instruct and shall reinstate and make good such part of parts to the satisfaction of the Engineer. If any such part or parts have been covered up or put out of view after compliance with the requirements of Sub-Clause 38.1 and are found to be executed in accordance with the Contract, the Engineer shall, after consultation with the Employer and the Contractor, determine the amount of Contractor's cost s in respect of such uncovering, making openings in or through, reinstating and making good the same, provided that the Contractor has, upon receipt of the Engineer's order, and in any Engineer and the Employer of his intention to claim such expenses. In any other case all costs shall be borne by the Contractor.

39.2 Add the following Para at the end of the Sub-Clause:

The employer may initiate the case of encashment of performance guarantee with consultation of the Engineer to execute the remaining work on Risk and Cost of the Contractor.

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:

47.2 Reduction of Liquidated Damages

Delete and replace the contents of Clause 47.2 with following: In case of non-compliance of actual progress achieved at site when compared with approved program, the contractor may be liable to pay in that case interim liquidated damages under this clause at the rate of half the Liquidated damages as mentioned in clause 47.1 which are re-fundable

47.3 (Regarding Interim Liquidated Damages)

Add this additional clause for interim liquidated damages. It states,

"The Contractor is to carry out work at site according to approved clause 14 programme & may have to be updated as per requirement of the Engineer. If the contractor is found to be consistently behind the schedule in the two consecutive quarters, he is liable for recovery of

interim liquidated damages at half rate as liquidated damages as under clause 47.1 which may be refunded if the progress again matches the approved work schedule any time during the currency of the works. Alternately he is liable for action under clause 63 of condition of contract, as per normal provisions of the Contract".

51.2 Instructions for Variations

This Sub-Clause is deleted and the following is substituted therefore:

No such variation shall be made by the Contractor without an instruction in writing by the Engineer with a copy of Employer. Provided that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this Clause, but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities. Provided also that if for any reason the Engineer shall consider it desirable to give any such instruction verbally, the Contractor shall comply with such instruction and any confirmation in writing of such verbal instruction given by the Engineer, whether before or after the carrying out of the instruction, shall be deemed to be an order in writing within the meaning of this Clause. Provided further that if the Contractor shall within seven days of his receipt of verbal instruction confirm the content thereof in writing to the Engineer, with a copy to the Employer, and such confirmation is not contradicted in writing within fourteen days by the Engineer, the verbal instruction so confirmed shall be deemed to be an order in writing by the Engineer.

52.1 Valuation of Variations

This Sub-Clause is deleted and the following is substituted therefore:

All extra or additional work done or work omitted by the order of the Engineer shall be valued at the rates and prices set out in the Contract if, in the opinion of the Engineer, the same shall be applicable. If the Contract does not contain any rates or prices applicable to the extra or additional work, then suitable rates and prices, based so far as may be reasonable on the Contract rates and prices, shall be agreed, after due consultation with the Employer, by the Engineer with the Contactor. Failing such agreement, the Engineer shall fix such rates and prices as are, in his opinion, appropriate. The mark-up for profit, overhead and taxes etc. are to be considered as 25% of the costs pertaining to assessed labour, material and / or equipment rental in rate break-up for approval.

52.2 Add the following to the first paragraph of Sub-Clause 52.2:

"Provided that no change in the unit rates or prices quoted shall be considered for items included in the Schedule of Day Work Rates notwithstanding the quantity of work performed under such Schedule. Provide further that no change in the unit rates or prices quoted shall be considered for any item in the Schedule to the Bill of Quantities, unless

such item individually accounts for an amount of more than 2 percent of the sum named in the Letter of Acceptance, and the actual quantity of work performed under the item exceeds or falls short of the original billed quantity by more than twenty five (25) percent".

52.3 Variations Exceeding 15 Percent

Delete the text of the heading and replace with the text "Variation Exceeding 25 Percent".

Delete the text "in excess of 15 percent" in the second line of third paragraph and replace with the text "in excess of 25 percent".

53.4 Failure to Comply

This Sub-Clause is deleted in its entirety.

54.3 Customs Clearance

Add the following at the end, before the full stop:

"but shall no be liable to the Contractor for any loss resulting from clearance being delayed or refused".

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. Delete Clause 59 in its entirety.

60.1 Monthly Statements

In the first line after the word "shall", the following is added:

"on the basis of the joint measurement of work done under Clause 56.1,"

60.2 Monthly Payments

In the first line, "28" is substituted by "14".

60.10 Time for Payment

The text is deleted and substituted 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 42 days after such Interim Payment Certificate has been jointly verified by Employer and Contractor, or, in the case of the Final Certificate referred to in Sub Clause 60.8, within 60 days after such Final Payment Certificate has been jointly verified by Employer and Contractor; Provided that the Interim Payment shall be caused in 42 days and Final Payment in 60 days in case of foreign funded project. In the event of the failure of the Employer to make payment within the times stated, the Employer shall pay to the Contractor compensation at the 28 days rate of KIBOR+2% per annum for local currency and LIBOR+1% for foreign currency, upon all sums unpaid from the date by which the same should have been paid. The provisions of this Sub-Clause are without prejudice to the Contractor's entitlement under Clause 69.

The following Sub-Clause 60.11is added:

60.11 Secured Advance on Materials

- a) The Contractor shall be entitled to receive from the Employer Secured Advance against an indemnity bond acceptable to the Employer of such sum as the Engineer may consider proper in respect of non-perishable materials brought at the Site but not yet incorporated in the Permanent Works provided that:
 - (1) The materials are in accordance with the Specifications for the Permanent Works:
 - (2) Such materials have been delivered to the Site and are properly stored and protected against loss or damage or deterioration to the satisfaction of the Engineer but at the risk and cost of the Contractor;
 - (3) The Contractor's records of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records shall be available for inspection by the Engineer;
 - (4) The Contractor shall submit with his monthly statement the estimated value of the materials on Site together with such documents as may be required by the Engineer for the purpose of valuation of materials and providing evidence of ownership and payment therefor;
 - (5) Ownership of such materials shall be deemed to vest in the Employer and these materials shall not be removed from the Site or otherwise disposed of without written permission of the Employer; and

- (6) The sum payable for such materials on Site shall not exceed 75 % of the (i) landed cost of imported materials, or (ii) ex-factory / ex-warehouse price of locally manufactured or produced materials, or (iii) market price of other materials.
- (b) The recovery of Secured Advance paid to the Contractor under the above provisions shall be effected from the monthly payments on actual consumption basis.

60.12 Financial Assistance to Contractor

- (a) An interest-free Mobilization Advance up to 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 acceptable to the Employer:
 - (1) First part within 14 days after signing of the Contract Agreement or 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/Employer as to the state of mobilization of the Contractor.
- (b) This Advance shall be recovered in equal installments; first installment at the expiry of third month after the date of payment of first part of Advance and the last installment two months before the date of completion of the Works as per Clause 43 hereof.

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 Employer against the Contractor under this Clause, the Employer 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.

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).

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 Islamabad, Pakistan.

Both parties (Employer/Contractor) will abide to follow course of action give under clause 67 in case of dispute and will not approach court before completion of proceeding under clause 67.1, 67.2 & 67.3.

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 Employer 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 Employer and Engineer

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

a) The Employer:

NDMA through its designated Project Director Opposite Margalla Town, Main Muree Road, Islamabad.

b) The Engineer:

Director General (NEOC), NDMA

70.1 Increase or Decrease of Cost

Sub-Clause 70.1 is deleted in its entirety:

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:-

$$Pn = A + b \underbrace{ULn}_{ULo} + c \underbrace{Bn}_{Bo} + d \underbrace{Cn}_{Co} + e \underbrace{Sn}_{So} + f \underbrace{Dn}_{Do}$$

Where:

Pn 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 daywork are not otherwise subject to adjustment;

A is a constant, specified in 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 (labour, 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;

Ln, Mn, En, 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 Appendix-C to Bid, as approved by the Engineer. As the proposed basis for price adjustment, the Contractor shall have submitted with his bid the tabulation of Weightages and Source of Indices if different than those given in Appendix-C to Bid, which shall be subject to approval by the Engineer.

(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. Current indices or prices shall be those prevailing on the day 28 days prior to the last day of the period to which a particular monthly statement is related. If at any time the current indices are not available, Provisional indices as determined by the Engineer will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available.

(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 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.

The following Sub-Clauses 73.1, 73.2, 74.1, 75.1, 76.1, 77.1 and 78.1 are added:

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 applicable in Pakistan 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 Customs Duty & Taxes

The Contractor shall pay all customs duty & taxes payable by him under the Contract. Such duties and taxes shall be deemed included in the rates & prices in the Bill of Quantities.

Add the following Sub-Clause:

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 Employer 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 Employer 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 Employer under Sub-Para (a) and (c) of this Sub-Clause.

75.1 Termination of Contract for Employer's Convenience

The Employer shall be entitled to terminate the Contract at any time for the Employer'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 Employer 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 labour laws including the Workmen's Compensation Act and the Employer shall be fully indemnified for all claims, damages etc. arising out of any dispute between the Contractor, his Subcontractors or assigns and the labour employed by them.

77.1 Joint and Several Liability

If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfilment 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 Employer.

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 Employer 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.

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SPECIFICATIONS – SPECIAL PROVISIONS

1. **GENERAL**

- 1.1 Specifications Special Provisions shall form an integral part of Bidding & Contract Documents.
- 1.2 The Contractor shall notify all sub-contractors of the provisions of these Special Provisions

2. DESCRIPTION OF PROJECT, WORK INVOLVED AND SITE

The Employer intends to Construction Center of Excellence - Climate Change & Disaster Management (CoE-C2DM)

The works comprise Civil, Plumbing, Electrical and related Ancillary Works lying within the lines, boundaries and limits shown on the Drawings and any such additional areas adjacent to 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.

The Employer will give to the Contractor possession of the area designated and defied as the Site and shown on the drawing as may be required to implement as much of the Works, when the Engineer's Notice to Commence the Works is given.

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:-

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 - Code of Practice (UK)
PS - Pakistan Standards (Pak)

SSPC - Steel Structures Painting Council (USA)

UBC - Uniform Building Code (USA)

USBR - United State Bureau of Reclamation (USA)

If the Contactor, 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 material 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 submission 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 manufactures supplying products and materials for the project.
- c) The Contractor shall provide manufacturer's or supplier's materials which must meet the requirements of the specific code or standard as stated in these Specifications.

4. MANUFACTURER'S RECOMMENDATIONS

Installation of manufactured items shall be in accordance with procedures recommended by the manufacturer or as approved by the Engineer.

5. UNITS OF MEASUREMENTS

Both FPS and MKS System of Unites shall be used throughout the Project, as mentioned.

6. 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.

7. 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.

8. FIELD LABORATORY AND TESTING

8.1 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 personal accordance with a Site testing and quality control programme 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 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.

8.2 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/ material shall be supplied by the Contractor as and when required by the Engineer to perform any specified test, at not additional cost to the Employer.

8.3 Testing Laboratory Certificates

The Engineer may accept a certificate from a commercial 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.

8.4 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 not 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.

9. SURVEYING INSTRUMENTS

9.1 General

The minimum quantity of survey equipment is stated below which shall be available with the Contractor at site of works alongwith 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.

9.2 Surveying Equipment Required

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

01 No.

- a) Electronic distance measuring device complete with (400 grades) Universal Theodolite with data logger, aiming head and standard equipment supplied by the manufacturer, including tripod, control unit stand, batteries, charging unit, pole reflector, single prism reflector, three, six and nine prism reflectors complete with tripods and Traverse Equipment for Theodolite.
- b) Automatic Levels with tripods and Staff. No. of Sites x 2
- c) Steel measuring tapes 50 m long No. of Sites x 2
- d) Steel measuring tapes 20 m long No. of Sites x 2
- e) All other miscellaneous tools, equipment As directed by the Engineer and materials required in surveying.

10. APPROVAL OF MATERIALS AND PLANT

10.1 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, 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.

10.2 Submission of Samples and Data

10.2.1 The Contractor shall furnish for approval of the Engineer with reasonable promptness all samples as directed by the Engineer or specially 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.
- 10.2.2 Samples shall be furnished so as not to delay fabrication, allowing the Engineer reasonable time for consideration of the sample submitted.
- 10.2.3 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 Specification Article number to which the sample refers.
- 10.2.4 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.
- 10.2.5 Samples shall be of adequate size to permit proper evaluation of the material by the Engineer. Where variations in colour, 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.
- 10.2.6 In order to permit coordinated selection of colours and finished, 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.
- 10.2.7 If both Shop Drawings and samples are required for the same items, the Engineer may require both to be submitted before approving either.
- 10.2.8 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.
- 10.2.9 No acceptance or approval of any Shop Drawings or sample, or any indication or request by the Engineer on any Shop Drawings shall constitute and authorization for any increase in the Contract Sum.

10.3 Inspection

All material and plant furnished and all work performed under this Contract will be subject to inspection by the Engineer & Employer while the Employer decision shall final 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, labour and materials reasonably needed for performing such inspection and testing as may be required by the Engineer.

10.4 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 & Employer while Employer decision shall be final as and when required.

11. 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.

12. DRAWINGS

12.1 Bid Drawings

Bid Drawings issued with the Bidding 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 Sun-Clause 12.2 hereof.

12.2 Construction Drawings, Supplementary Drawings

After award of Contact, the Bid Drawings will automatically become Construction Drawings after approval of the Engineer, until and unless any necessary modification is required to be made by the Engineer.

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 exaction 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 accommodated any such reasonable changes in the Works.

12.3 Definition of Term Drawings

The term Drawings as used in the Specifications means the Drawings referred in Clause 12.1 and 12.2 above.

12.4 Checking of Drawings

The Contactor shall check all drawings carefully as soon as practicable after receipt thereof, and shall promptly notify the Engineer of any errors discovered.

12.5 Copies of Drawings

Drawings will be issued to the Contractor as described below:

10.5.1 Bid Drawings (at Construction Stage)

Three (3) sets of the Bid Drawings will be issued to the Contractor at the time of Construction free of charge. Additional sets will be provided at cost of reproduction to be borne by the Contractor upon written request of the Contractor.

10.5.2 Supplementary Drawings

Three (3) prints of each Supplementary Drawing will be issued to the Contractor free of Charge. Additional sets will be provided at cost of reproduction to be borne by the Contractor upon written request of the Contractor.

12.6 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.

12.6.1 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.

12.6.2 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. The Engineer may notify the Contractor that a drawing fails to comply with the relevant requirement of the Contract, in which case the drawing shall be rectified and resubmitted for approval at the Contractor's cost. Fabrication of 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 that 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 dated 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.

12.6.3 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 progress. The Sub-Contractor(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 Contactor 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.

13. PROTECTION OF THE WORKS

The Contractor shall whenever necessary cover up and protect the works from weather and damaged 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.

14. RESTORATION AND CLEARING

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

The Contactor shall do regular cleaning and clear away all rubbish and excess materials that may accumulate form 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 paying 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 damages 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 fee 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.

15. SITE OFFICE AND TEMPORARY FACILITIES

15.1 SITE OFFICE AND TEMPORARY FACILITIES TO BE PROVIDED BY THE CONTRACTOR

15.1.1 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 utilities services. The facilities shall not be limited to the Contractor's Site Office. Labour campus, work yard and storage areas, temporary water supply, waste water disposal, temporary electricity, medical unit, temporary roads, fire protection and fire fighting 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 member 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 make arrangements for his own camp, workshops, yards, storage areas and areas of erection of equipment, offices & offices for the Engineer and the Employer outside the site area and all approvals & permissions in this regard form the concerned authorities for all such facilities shall be the responsibility of the Contractor.

The Contractor shall facilitate the Engineer in use of his site office if and when required by the Engineer in performance of his duties regarding the supervision of project.

15.1.2 Engineer's Representative Site Office, Facilities etc.

The contractor shall arrange and maintain for Engineer's Representative fully furnished site office.

15.2 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.

15.3 Temporary Services

15.3.1 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.

15.3.2 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. If the Contractor is un-able to arrange a temporary electrical connection then he shall arrange and furnish an Electric Power Generating Se 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.

At completion of construction work, temporary electricity services shall be removed by the Contractor at his own expense.

15.3.3 Waste Disposal

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 off as directed by the Engineer and replaced with suitable fill material compacted and finished with topsoil all at the expense of the Contractor.

15.3.4 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 abut 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.

15.4 SIGN BOARD

The Contactor shall erect and maintain at the Site in a location to be approved by the Engineer one (01) 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.

15.5 NOT USED

15.6 SITE FACILITIES TO BE PROVIDED BY THE CONTRACTOR

15.6.1 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.

15.6.2 Labour Camps and Staff Residences

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

15.6.3 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.

15.6.4 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.

15.6.5 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 labour 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. If the Contractor is un-able to arrange a temporary electrical connection then he shall arrange and furnish an Electric Power Generating Set (with sufficient generating capacity to meet the required demand of electricity) at site and maintain the generating set in perfect working condition through-out the duration of Contract.

15.6.6 Medical Care

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

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 Aid treatment at all times free of charges 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 Contractor" published by the Employer, and shall be subject to approval by the Engineer.

15.6.7 Other Facilities

The Contractor shall also be responsible for providing at his own cost other facilities for his own staff and labour such as educational, recreational, transport, telephone and catering if required.

16. NOT USED

17. CONSTRUCTION PROCEDURES

The Contractor shall advise the Engineer of proposed construction procedure 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.

18. NOTIFICATION TO ENGINEER

The Engineer shall be notified weekly in writing of the nature and location of the Works the Contractor intends to perform the nest week 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.

19. NIGHT WORK

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

20. 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.

21. 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 programme 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 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.

22. 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 provision.

The Contractor shall provide and maintain 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.

The Contractor shall also provide and maintain all false work, scaffolding and handrails which 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 waning 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 conditions, to the satisfaction of the Engineer.

As the work at site is expected to be carried out round the clock, the Contractor shall keep and maintain at all times a transport facility to move the patients to the hospital in case of an emergency.

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

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

23. SETTING OUT OF WORK AND SURVEY

23.1 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 labour 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 bench-marks and reference points.

23.2 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 bases on original ground levels determined by the Contractor and agreed by the Engineer.

The Contractor shall notify the Engineer at least one week 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 form 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.
- (c) Permissible closing error for a leveling line meant for establishing Temporary Bench Mark (TBMs) shall not exceed $0.045 \text{ x} \sqrt{\text{M}}$ foot, where 'M' is in miles. The permissible closing error shall be duly adjusted.

The Contractor shall provide all materials, equipment and labour 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 of left in place, all such materials and equipment, shall remain the property of the Contractor. Surveying instruments shall be in perfect working conditions 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 fixed 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 of 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 labour 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.

23.3 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.

24. 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 the 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 to 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 area shall be smoothed and graded in a manner to conform to the natural appearance of the landscape. Where unnecessary destruction, scarring, damage of 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.

25. 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 Bill of Quantities or herein.

The cost thereof shall be deemed to have been included in the total price quoted by the Contractor.

DRAWINGS

(Separate Volume-III)

SUMMARY OF COST

Center of Excellence - Climate Change & Disaster Management (CoE - C2DM) NDMA



Tender Bill Of Quantities(BOQ)

S.N	DESCRIPTION	AMOUNT(Rs.)
A-1	Steel Structure	
A-2	Civil Work	
A-3	Furniture	
A-4	Electric Work	
A-4.1	SECTION - A WIRING / WIRING ACCESSORIES	
A-4.2	SECTION - B CABLE CONTAINMENT	
A-4.3	SECTION - C SWITCHES & SOCKETS	
A-4.4	SECTION - D MAIN / SUB-MAIN CABLES	
A-4.5	SECTION - E DISTRIBUTION BOARDS	
A-4.6	SECTION - F LIGHTING FIXTURES	
A-4.6	SECTION - G VOICE & DATA COMMUNICATION SYSTEM	
A-4.7	SECTION - H CONVENTIONAL FIRE ALARM SYSTEM	
A-4.8	SECTION - I CCTV SYSTEM (IP BASED)	
A-4.9	SECTION - J EARTHING / GROUNDING SYSTEM	
A-4.10	SECTION - K HVAC	
В	Boundary Wall	
C	20' Wide Road & Parking	
D	Parking Shed 113' x 36' & 161' x 20'	
Е	Security Checkpost	
	Total (A+B+C+D+E)	
	Total In Words	

CoE Building BOQ



				BOQ	
Sr.No	Description	Unit	Rate	Quantity	Amount (Rs.)
A-1	Steel Structure				
1	Steel Structure				
	Design, Manufacturing and Supply of Pre engineered Steel Shed having including, primary structural steel rafters, columns, Connection plates, Base plates, Roof Purlins, Pre-painted roof sheet, Trims, gutters, Down take Pipes and cross wire bracing, anchor bolts for anchorage and Other Necessary hardware fixing screws complete in all respects.	Sft		7,041.09	-
2	Glass Wool Insulation				
	Supply & Installation of Roof area only Glass Wool Insulation 100mm Thick with Mesh Density (10 – 12) Kg/m3.	Sft		7,111.50	-
	TOTAL AMOUNT CARRIED TO SUMMARY	(PKR)			-
A-2	Civil Work				
1	Dismantling				
0	Dismantling of existing concrete Floor including the removal of surplus debris, unused material and by products as directed by the Engineer complete.	Sft		13,530.00	-
2	Excavation Excavation for foundation of columns, walls, etc. upto any depth and lead including back filling of excavated earth in foundation trenches and spreading the surplus earth in plinth area and/or depressions where required including making provision for shoring of loose soil if required and removal of excavated earth upto 5'-0" from edge of excavation complete as per drawing and as directed by the Consultants.	Cft		8,866	
3	Earth Filling				
	Providing Earth filling with off site material (brought from out side source)including compaction upto 95% in plinth, depression and where ever required laid in 12" layer well watered, consolidated and compacted with mechanical means complete as per drawing and as directed by the Consultants.	Cft		16,410	-
4	1:4:8 in Foundation				
	Providing C.C. 1:4:8 bed concrete using graded screened bajri 3/8" and down gauge as fine aggregate and stone ballast 1" to 2" size as coarse aggregate in foundation over well compacted earth including levelling and curing etc. complete as per drawing and as directed by the Consultants	Cft		2,102	-
5	Reinforced Cement Concrete 1:2:4				
	Providing Reinforced cement concrete 1:2:4 (mix design) using graded screened bajri 3/8" and down gauge as fine aggregate and crushed stone 3/4" and down gauge as coarse aggregate with machine mixing including the cost of form work and its removal, vibrating using mechanical vibrator, curing and cube testing etc. having min. works cube crushing strength of 3,000 psi after 28 days curing but excluding the cost of reinforcement bars complete as per drawing and as directed by the Consultants.	Cft		3,032	-
6	Brick Masonry				
	Providing brick masonry using 9" x 4 1/2" x3" best approved quality burnt bricks the bricks used should be well-burnt without being vitrified and shall be uniform in colour, regular in shape and size with sharp and square corners and parallel faces, free from flaws and crackes, to be laid in mortar 1:4 with curing, scaffolding, racking out the joints, courses shall be kept in time plumb as per drawing, standard specificaiton and as directed by the Consultants Up To 12ft Height.	Cft		4,708	-
7	Gypsum Board Ceiling.				

NDMA

CoE Building BOQ



				BOQ		
Sr.No	Description	Unit	Rate	Quantity	Amount (Rs.)	
	Providing fabrication and instllation in position 12mm of gypsum board sheet (gypsum board approved company) including cuttong of opening for lights ifixture/ diffusers with making of light pelmet fiber tape on joints icluding 3 coats of mat enamel paint fininsh pemerr coat filing if required with all other hardwares, wastage scaffolding, making access panel (where required)etc as per design & drawing complete.	Sft		6,337.00	-	
8	WPC Wall Cladding					
	Providing placing and installation of WPC cladding on walls including preparation of all required arrangments and access work to be complete as per quality & interior finishes aspects in accordance with the specification complete in all respect.	Sft		546.00	-	
9	Glass Doors					
	Providing and fixing powder coated or anodized aluminum, glazed door of aluminum sections, tinted glass, rubber gaskets, double action floor mounted concealed type pivot hinge mechanism, hydraulic door closer, handles & locking arrangement, screws/expansion bolts and other aluminum accessories etc. complete in all respects as approved by the Engineer.	Sft		496.00	-	
10	Sliding Door With Sensor					
	Sliding Door With Sensor Providing and fixing powder coated or anodized aluminum, glazed door of aluminum sections, tinted glass, rubber gaskets, double action floor mounted concealed type pivot hinge mechanism, hydraulic door closer, handles & locking arrangement, screws/expansion bolts and other aluminum accessories etc. complete in all respects as approved by the Engineer.	Job		1.00	-	
11	Aluminum Windows					
	Providing and fixing powder coated or anodized aluminum, glazed- window of aluminum sections, tinted glass, rubber gaskets latch lock arrangement, screws/expansion bolts and other aluminum accessories etc. complete in all respects as approved by the Engineer.	Sft		464.00	-	
12	Plaster Work					
	Providing and laying 1/2" thick cement sand plaster (1:4) to Internal Ceiling, Walls, Stairs, Columns, & etc making edges and corners, preparation of surface plaster with mesh, including finishing, scaffolding, curing and etc. Complete in all as per drawing & instruction of the Consultant.	Sft		8,577	-	
13	Internal Paint Providing and applying 2 coats of Plastic Emulsion paint (Mat finish) of					
	approved quality, color and shade (approved company) over 2 coats of Primer of approved manafacturer and quality on Ceiling, Columns, Walls, & etc including surface preparation, Wall putty filling, cutting, surfacing, scaffolding, scraping, sanding, & etc. Complete in all as per drawing & instruction of the Consultant.	Sft		25,561	-	
14	Weather Shield Paint					
	Providing and applying 2 coats of weather shield paint of approved quality, color and shade (approved company) over 2 coats of Primer of approved manafacturer and quality on Walls, & etc including surface preparation, Wall putty filling, cutting, surfacing, scaffolding, scraping, sanding, & etc. Complete in all as per drawing & instruction of the Consultant.	Sft		0	-	
15	Reinforcement Bars					

CoE Building BOQ



				BOQ			
Sr.No	Description	Unit	Rate	Quantity	Amount (Rs.)		
	Providing Reinforced steel bars using minimum Yield Strength of 60 KSI confirming to ASTM A-615, as per design including cutting, bending, binding and placing in position on c.c precast spacers and steel chairs, tying with binding wire 20 SWG complete with the cost of chairs, binding wire etc. complete as per drawing and as directed by the Consultants.(Rate should include the cost of westage of steel, also note that All Reinforcing steel shall be adequately protected from rust and corrosion before and during concreting)	Ton		13.21	-		
17	TILES 195mm x 1200m & 600mm x 1200mm				-		
	Providing and installation of locally produced Porcelain tiles on floor, Wall & skirting with cement motar 1:4 and complete with screening, grouting, filling, finishing and etc. complete in all respects, as per drawing & instruction of the consultant or Engineer.	Sft		7,876.21	-		
18	Marble						
40	Providing and fixing of Pre Polished Granite Sills / Thresholds under windows and doors respectively, of approved origin, color/shade / thickness fix with cement sand mortar	Sft		569.34	-		
19	ACP Cladding				-		
	Provide and install Aluminum Composite Panel overall 4mm thick with 0.5mm skin thickness with mineral-filled core of approved sample & metallic/solid colour of approved shades including making grooves, champhered edges, joint details, sealant, backing rod, fixing & framing system, protection of panels, etc. all as per manufacturer's specifications and instructions, fixing arrangement, etc. complete in all respect as per drawings & specifications.	Sft		7,112.00	-		
20	LGS Partition Wall				-		
	Matel Framing With Gypsum Board Cladding on both side and Rock Wool Insulation	Sft		4,512.41	-		
21	Glass Partion wall				-		
	Providing and fixing cleared toughened glass partition,10mm thick, fixed with LGS Stud framing including harware complete in all aspectsa	Sft		1,720.00	-		
22	Plinth protection Providing and making at site Plinth Protection around the building area 3'-0" wide comprising of brick masonry, back filling, compaction, pcc 1:2:4 complete in all respects.	CFT		6,900.00	-		
23	Washroom Accessories						
	Plumbing Works (1 nos of washroom with all accessories.Pipe for inlet/outlet and connection with service water tank included; internal suigas connectivity for any kitchen; conclealed service water tank included; suigas submeter,	No		9.00	-		
24	WPC Ceiling			-	-		
	WPC Panel Ceiling Providing placing and installation of WPC Ceilings on Cantiliver portions including preparation of all required arrangments and access work to be complete as per quality & interior finishes aspects in accordance with the specification complete in all respect	Sft		420.00	-		
25	Installation of Blind Curtain			-	-		
	Installation of Blind Curtain Providing placing and installation of Blind curtain including preparation of all required arrangments and access work to be complete as per quality & interior finishes aspects in accordance with the specification complete in all respect	Sft		726.00	-		



CoE Building BOQ



				I	BOQ	
Sr.No	Description	Unit	Rate	Quantity	Amount (Rs.)	
26	Carpet tiles 25cm x 100cm			-	-	
	Carpet tiles 25cm x 100cm Providing and installation of locally produced Carpet Tiles with screening, grouting, filling, finishing and etc. complete in all respects, as per drawing & instruction of the consultant or Engineer.	Sft		2,288.00	-	
	TOTAL AMOUNT CARRIED TO SUMMARY	(PKR)		•	-	
A-3.1	Furniture					
3.1	Single chair for Class Room	No		54	-	
3.2	Single chair for Labs	No		83	-	
3.3	Single chair for Faculty Room	No		17	-	
3.4	3 Seater	No		3	-	
3.5	Single work station table	No		6	-	
3.6	Double Work station table	No		2	-	
3.7	Executive office chair	No		1	-	
3.8	class Room Desk	No		18	-	
3.10	Executive office desk	No		1	-	
3.11	Computer lab desk 2' Wide	RFT		180	-	
3.12	Computer Labs desk 4' Wide	RFT		80	-	
	TOTAL AMOUNT TO DATE (CARRIED TO SU	MMARY)			-	





SNo.	DESCRIPTION	Brands	QTY.	UNIT	Rate	TOTAL AMOUNT (Rs.)
	SECTION-A WIRING/WIRING ACCESSORIES					
	Supply, installation, testing & commissioning of following items including all material, tools, labor & accessories required for completion of work as per description & drawings. Complete in all respects.					
1	Circuit wiring from DB to switch board including any wiring from switch board to switch board with 2x2.5 Sq.mm + ECC 1x2.5 Sqmm, 1-core PVC wires in 25mm dia of pvc conduit exposed / concealed as shown on drawings. Complete in all respects.		9	No.		
2	Circuit wiring from switch board to switch board with 2x2.5 Sq.mm + ECC 1x2.5 Sqmm, 1-core PVC wires in 25mm dia of pvc conduit exposed / concealed as shown on drawings. Complete in all respects.		8	No.		
a	Wiring for light point from switch board/ Dimmer board to first light point with 2.5 Sq.mm common neutral of 2.5 Sq.mm and common ECC of 2.5 Sq.mm + wires in 25mm dia of exposed / concealed PVC conduit as shown on drawings.		90	No.		
b	Same as above item but wiring from light point to point .		177	No.		
2	Wiring for Group Control Emergency & Exit Light fixtures from DB to first light point with 2x1.5 Sq.mm + ECC 1x1.5 Sq.mm in 25mm dia PVC Conduit as exposed / concealed shown on drawings. Complete in all respects.		1	No.		
a	Same as above item but wiring from light point to point.		7	No.		
3	Wiring of 13A/15A Switch Socket unit from DB to first outlet with following size of wires in 25mm dia PVC conduit of exposed / concealed as shown on drawings. Complete in all respects.					
a	2x4 Sq.mm Cu/PVC + ECC 1x4Sq.mm Cu/PVC		22	No.		
b	Same as item above but wiring from outlet to outlet		91	No.		
3	Emergency Wiring of 13A/15A Switch Socket unit from DB to first outlet with following size of wires in 25mm dia PVC conduit of exposed / concealed as shown on drawings. Complete in all respects.					
a	2x4 Sq.mm Cu/PVC + ECC 1x4Sq.mm Cu/PVC		22	No.		
b	Same as item above but wiring from outlet to outlet Wiring of 20A DP Switch unit for split AC from DB to first outlet with following		50	No.		
4	size of wires in 25mm dia size PVC conduit of exposed / concealed as shown on drawings. Complete in all respects.					
a	2C-4 Sq.mm Cu/PVC + ECC 1x4 Sq.mm Cu/PVC		13	No.		
	TOTAL RS. SEC - A					
	(CARRIED FORWARD TO SUMMARY)					
	SECTION - B CABLE CONTAINMENT					
	Supply and installation of following size of PVC / UPVC conduit including all accessories such as junction box, bend, socket etc. Complete in all respect.		1=00	_		
2	25mm dia PVC Conduit 32mm dia PVC Conduit		1700 100	Rm. Rm.		
3	100mm dia UPVC Conduit (Class-D)		350	Rm.		
2	Supply & Installation of following sizes of 16 SWG Perforated Cable Tray with 18 SWG Solid Cover (4 feet covers) including all installation accessories such as rawal bolts, supporting hangers, brackets, elbows, tee & mounting accessories etc.					
a	200mm v 100mm Horizontal		110	Dm		
u	300mm x 100mm Horizontal Total Rs. Section- B (CARRIED FORWARD TO SUMMARY)		110	Rm.		
	SECTION - C SWITCHES & SOCKETS					
	Supply and Installation of following 10 Amps, gang type switches & switch socket outlets Legrand/Clipsal/Pakistan Cables make including back boxes, recessed on					
1	wall or column as per design drawings. 10A, 220V One Gang Switch Unit		10	No.		
2	10A, 220V Two Gang Switch Unit		8	No.		
3	10A, 220V Three Gang Switch Unit		11	No.		
4	10A, 220V Four Gang Switch Unit		8	No.		
6 7	13A, International Switch Socket Unit 13A, Flat Pin simplez Switch Socket Unit		113	No.		
8	15A, Round Switch Socket Unit		75 6	No. No.		
9	20A DP switch Unit for AC		13	No.		1
	Total Rs. Section- C (CARRIED FORWARD TO SUMMARY)					
	SECTION -D MAIN / SUB-MAIN LV CABLES					





SNo.	DESCRIPTION	Brands	QTY.	UNIT	Rate	TOTAL AMOUNT (Rs.)
	Supply, installation, testing, commissioning and termination of following size of CU/PVC/PVC Cables for Distribution Board in already installed PVC conduit / Cable tray, including all accessories, Complete in all respect as shown on drawing.					
1	From MDB to DBLP-M 4C-70 Sq.mm Cu/PVC/PVC + ECC 1Cx35 Sq.mm Cu/ PVC		500	Rm.		-
	Total Rs. Section- D					_
	(CARRIED FORWARD TO SUMMARY) SECTION - E DISTRIBUTION DOADDS					
	DISTRIBUTION BOARDS Supply, installation, testing and commissioning of following LV Panels and Distribution Boards made with 14/16 SWG sheet steel housing (14 SWG for floor standing & 16 SWG for wall mounted) with approved color and having specified circuit breakers as shown on drawing. (Refer Single Line Diagram) Note:					
1	LPDB Total Rs. Section- E		1	No.		-
	(CARRIED FORWARD TO SUMMARY) SECTION - F LIGHTING FIXTURES					
	Supply and installation of following lighting fixtures complete with ballast, starter p.f.i capacitor and specified lamps. (Subject to approval of Architect / Consultant) Note: Color temperature will be as per Architect.					
1	Recessed Mounted LED Panel Light 600x600mm , 4000K		30	No.		-
2	SURFACE/ RECESSED MOUNTED 15W LED DOWN LIGHT		115	No.		-
3	SURFACE/ RECESSED MOUNTED 15W LED LASER BLADE LIGHT		80	No.		-
4	LED ROPE LIGHT		260	Rm		-
3	Wall MOUNTED 10W Decorative LIGHT		5	No.		-
4	EMERGENCY LIGHTING					-
a	LED base self contained recessed ceiling / wall mounted emergency light fixture rectangular / round shape (non maintained) with 1x3W LED 2 hours battery backup. (Pierlite Type SSR or equivalent)		6	No.		-
6	EXIT LIGHTING					-
a	Ceiling Mounted Emergency Exit Sign in Green Color with 8W LED, including Battery Backup		2	No.		-
	Total Rs. Section- F (CARRIED FORWARD TO SUMMARY)					-
	SECTION - G VOICE & DATA COMMUNICATION SYSTEM					
	Supply, installation, testing and commissioning of following items for voice and data communication system including all material, labor, tools, accessories etc. Complete in all respects. Quantities for cables shown in BOQ are estimated and taken from drawings. Contractor is advised to take measurement at site before commencement of works. Different colors of voice and data cables shall be used. (Selected Series for Simplex / Duplex Face plates is (D-Link or equivalent)					
1	Simplex Face plate having 1 Gang Cat-6 RJ-45 I/O for Data, white / off white finish, complete with shuttered click-ins, labels and all accessories including back box, recessed on wall or column as per design drawings.		46	No.		-
2	Duplex Face plate having 2 Gang Cat-6 RJ-45 I/O for Voice, white / off white finish, complete with shuttered click-ins, labels and all accessories including back box, recessed on wall or column as per design drawings.		42	No.		-
3	Simplex Face plate having 1 Gang RJ-7, white / off white finish, complete with shuttered click-ins, labels and all accessories including back box, recessed on wall or column as per design drawings.		0	No.		-
5	CAT-6, UTP Cable for Data/Voice/Wifi Communication System from Communication Rack to each workstation / outlet as per drawings including Cost of PVC Duct 60mm * 600mm termination and tagging at both ends. Complete in all respects.		134	Point		-
6	Following CAT-6, factory certified Patch Cords of specified color having RJ-45 connectors at both ends for Data Communication .					-
6.1	3 meter long.		80	No.		-
6.2	1 meter long.		140	No.		-
7	24-Port Patch Panel		6	No.		-
8	Front Cable Organizer for Voice & Data patch panels / wiring blocks with		6	No.		-
	complete labeling and dressing for incoming cable management.		6			





SNo.	DESCRIPTION	Brands	QTY.	UNIT	Rate	TOTAL AMOUNT (Rs.)
10	Wireless Dual Band Multi-Gigabit Ceiling Mount Access Point (EAP620HD)		4	No.		-
11	Wireless Access Point Controller OC200		2	No.		-
12	RJ-7 Coaxial Cable from Communication Rack to outlet as per drawings including termination and tagging at both ends. Complete in all respects.		15	Point		-
13	42U 19" Floor Stand Audio Rack with Electric Fan 19" standard design, comply with international standards, Built-in 2-6 plates, convenient for use, Excellent cooling design, with 2 electric cooling fans, Tempered explosion proof glass, safe and reliable, Equipped with 19" power electric outlets, well grounded, Rear door and sidedoor openable for convenient checking, Easy assembly and convenient for moving.		2	No.		-
15	Supply and Wiring of Single Core * 2,7/0.29.mm Power Cable for Computer Power Point with 2* 13AMP Light Plug with PVC Back Box including 40mm * 40mm PVC Duct with all Respact.		146	Point		-
16	Supply & Installation of Wall Mounted Power DB with Brackers, Volt Meters, Phase Lights & Main Bracker with all Respact.		1	No.		-
17	All-in-One Desktop PC Core i7 13th Generation or above 16 GB Ram, 512 GB SSD, 4GB Graphic Card, 24" Touch Display, Brand New, 1 Year Warranty		102	No		
18	Interactive Board For Class Rooms 98"		4	No.		
19	H2 Controller		3	No.		
20	SMD (15'x8') With Frame ,Complete in all aspects		300	Sft		
21	Smart LED 65"		8	Nos		_
22						
	Testing and commissioning of all above items termination and connectivity at both ends, including submission of detailed test report from the Principals.		1	Job.		-
	Note: Contractor is advised to confirm the cable running lengths and termination as per site conditions before commencement of work. Total Rs. Section-G					-
	(CARRIED FORWARD TO SUMMARY)					-
	SECTION - H CONVENTIONAL FIRE ALARM SYSTEM					
	Supply, installation, testing and commissioning of following items for Conventional Fire Alarm System comprising of following equipments including all accessories required for the completion of the system in all respects.					
1	Conventional Fire Alarm Control Panel of 2-Zone The FACP shall be self powered with built in 12V batteries for 24 Hrs backup with charging unit. Complete in all respect.		1	No.		-
2	Conventional Smoke Detectors		24	No.		-
3 5	Conventional Multi Detectors Conventional Break Glass Type Manual Call Point		2	No.		<u>-</u>
6	Conventional Type Indoor Loop Powered electronic sounder		2	No.		
8	Supply and wiring for complete Fire Alarm System using 2C, 1.5 sqmm fire resistance cable in 25mm dia PVC conduit from Fire Alarm Control Panel to all sensors & devices including all installation accessories, complete in all respect.		470	Rm.		-
9	Programming, testing and commissioning of the complete system as per client's requirements permissible for the FACP.		1	Job		-
	Fire Extinguisher Balls		90	Nos		+
	Total Rs. Section-H (CARRIED FORWARD TO SUMMARY)					-
	SECTION - I CCTV SYSTEM (IP BASED)					
	Supply, installation, testing and commissioning of following items for CCTV System (IP Based) including but not limited to the description given here under including all power and communication accessories, housings, mounting brackets, suspension rods etc. required for completion of the system.					
1	Surface/Recessed Ceiling mounted Dome fixed type PoE I.P camera with day and night feature with 720p resolution 1280 x 1024 @ 25/30fps pixels with live and recording quality of minimum 15 fps, along with all mounting accessories complete in all respect.		13	No.		-





SNo.	DESCRIPTION	Brands	QTY.	UNIT	Rate	TOTAL AMOUNT (Rs.)
2	Wall bracket box Camera, type PoE I.P camera with day and night feature having 720p Resolution 1280 x 720 @ 25/30fps pixels with live/recording quality of min 15 fps, along with all mounting accessories complete in all respect.		6	No.		-
2	CAT-6, UTP Cable for Voice Communication System from Communication Rack to each workstation / outlet in 25 mm PVC conduit / channel as per drawings including termination and tagging at both ends. Complete in all respects.		3	Coil		-
5	Network Video Recorder (NVR) with 32 channel Video input. The NVR shall be equipped with LAN / WAN facility. NVR should have 10 Tb HDD, RW CD Drive. Complete with all connecting cords, accessories, software for Integration with		1	No.		-
6	24-Port Patch Panel		1	No.		-
8	24-Port Giga Bit POE Ethernet Switch with SFP Module 42" LED Color Monitors to be installed with all connecting cords and		3	No.		-
13	mounting stands.		1	No.		-
16	Mouse		1	No.		-
21	Programming, testing and commissioning of the complete system as per the Client requirement. Note:		1	Job		-
	Contractor is advised to confirm the cable running lengths and termination as per site conditions before commencement of work. The Bidder shall provide the complete Technical Literature for the system offered.					
	Total Rs. Section-I (CARRIED FORWARD TO SUMMARY)					-
	SECTION - J EARTHING / GROUNDING SYSTEM					
	Supply, installation, testing and commissioning of following items for Earthing / Grounding System for lightning protection and grounding of other systems including all material, boring, labor, tools, transportation, accessories etc. Complete in all respects with detailed test reports.					
1	Chemical Enhanced Earth using 38 mm dia copper pipe filled with soil conditioning material including 6" dia, 11' deep boring and back filled chemical to enhance conductivity. Complete with termination clamps, 12" dia heavy duty tin plated round cover as per details given in drawings.		2	No.		-
2	Earth Connecting Point (ECP) or Equipotential bar made with 200mm wide, 75mm high and 5mm thick tin plated Copper, as shown in drawings. Bar shall be provided with holes suitable for installation of 4 No. 70 sqmm bare copper conductor. ECP shall be enclosed in appropriate size of powder coated metal enclosure with front		2	No.		-
5	accessible cover. Stranded bare copper conductors of following sizes in appropriate size of UPVC conduit laid in floor/raft from Earth Station to ECP to as shown in					-
b	drawings. Complete in all respects including termination at ECP. 70 Sq.mm Bare Copper Conductor		40	Rm.		_
6	Supply, installation, testing & commissioning of following size of single core PVC cables in appropriate size of exposed / concelled PVC conduit from ECP to several equipments as per details given below, including all material, labor, tools, transportation, accessories etc. Complete in all respects with detailed test reports.					-
b	1C, 35 Sq.mm PVC (Green)		20	Rm.		_
С	1C, 16 Sq.mm PVC (Green)		35	Rm.		-
	Note: Contractor is advised to confirm the cable running lengths & termination as per site conditions before commencement of work.					-
	TOTAL RS. SEC - J (CARRIED FORWARD TO SUMMARY)					-
	SECTION - K HVAC System					
	Heating, Ventilating and Air Conditioning System Supply of All DC Inverter Controlled Veriable Refrigerent Flow (VRE). Heat Rump		Ton	46.6		
	Supply of All DC Inverter Controlled Variable Refrigerant Flow (VRF) Heat Pump Type Multi Split A/c System complete with built-in auto control system & Central Controller with display (Table) including, unloading, Lifting, placing and Fixing at foundation at locations shown on drawing					
1	Outdoor Condensing Units		+ -	N-		
1. a 1. b	AVWT-232HKFSE AVWT-232HKFSE		1 1	No.		
1. c	AVWT-96HKFSE		1	No.		
2	Indoor Units					
2. a-i	Mini 4-Way Cassette		1	No		
2. b 2. b-i	AVC-19HJFA 4-Way Cassette		1	No.		+

Electrical & IT CoE Building

BOQ



SNo.	DESCRIPTION	Brands	QTY.	UNIT	Rate	TOTAL AMOUNT (Rs.)
	AVBC-24HJFKA AVBC-27HJFKA		1	No.		
2. b-iii	AVBC-30HJFKA		1	No.		+
2. b-iii	AVBC-38HJFKA		2	No.		
2. c	AVBC-48HJFKA		4	110.		
2. c-i	Wall Mounted					
2. c-ii	AVS-24HJFTDD		2	No.		
2. d	Ducted HSP Type					
2. d-i	AVD-48HCFCH		2	No.		
3	Branch Pipe					
3. a	Y-Joints		1	Lot		
4	Receiver Kit					
4. a	HYRE-T03H		10	No.		
4. b	HYRE-Z01H		1	No.		
5	Wireless Controller HYXE-VD01		11	No.		
7	Wired Controller HYXE-VC01		2	No.		
8	Central Controller HYJM-RA10D		1	No.		
10	Supply, Fabrication and Installation of G.I. ducting & Sheet Metal work complete					
10	with hangers, bracings, splitter dampers etc			00		
10. a	US Gauge 22		50	Sft Sft		
10. b 10. c	US Gauge 24 US Gauge 26		670 200	Sft Sft		
11	Supply & Installation of 2" thick washable aluminum filters fabricated with min. 12 mesh layers as specified.		6	Sft		
12	Supply & Installation of 18 gauge G.I. Sheet dampers as specified					
12. a	Volume Control Damper		20	Sft		
12. a	Non- Return Damper		8	Sft		
13	Supply & Installation of Aluminum air devices as specified and scheduled			Oit		
13. a	Fresh / Exhaust Air Louvers		20	Sft		
13. b	4D Diffuser		28	Sft		
	Round Diffuser					
13. c	8" Dia		2	No		
13. d	12" Dia		2	No		
14	Supply & Installation of Mild Steel Sheet welded Type for kitchen 14 guage exhaust ductwork complete with hangers, dampers, clean-out access panels etc.		135	Sft		
15	Supply & Installation of 3" thick rock wool insulation for Kitchen Grease Exhaust Ducts & HWG Flue duct		135	Sft		
16	Supply & Installation of pre-assembled flexible duct connectors factory fabricated with coated woven fabric and G.I. Collars both by means of double lock seam on each side as specified and scheduled.		65	Rft		
17	Supply & Installation of Built-in Microban Elastomeric/Epdm Closed Cell FM Approved with Green Guard certificate, anti fungus, anti microbial Foam Type insulation of density 65 Kg/m3 and thermal conductivity 0.035 W/M at 24 deg C of fire performance conforming to UK building regulation of Class-0 rating protected with fire retardent type high density closely woven fiberglass cloth as specified manufactured by Armacell, Durkflex or Aeroflex complete with adhesives and sealers					
·	1/2" (13mm) thick for indoor installed ducts		1900	Sft		
18	Supply & Installation of 16 guage MS Perforated type Cable tray of below mentioned size with solid cover of 14 guage or as mentioned in drawings (Only use for out side of Building Area for copper piping)					
	300mm x 100mm with cover		75	Rft		
19	Supply & installation of Ventilation fans as specified and scheduled including unloading, lifting, placing and fixing at locations as shown on the drawings.					
19. a	EF-1		2	No.		
19. b	EF-2		1	No.		
20	Supply and Installation of Gas & Liquid Copper Piping for indoor & outdoor units Complete with insulation (9mm for indoor & 19mm for outdoor) Built-in Microban Elastomeric/Epdm Closed Cell FM Approved with Green Guard certificate, anti fungus, anti microbial Foam Type insulation of density 65 Kg/m3 and thermal conductivity 0.035 W/M at 24 deg C of fire performance conforming to UK building regulation of Class-0 rating protected with fire retardent type high density closely woven fiberglass cloth as specified manufactured by Armacell or Durkflex complete with adhesives and sealers, gas charging, accessories, clamping and other related material for installation purpose, complete in all respect.		1	Job		





SNo.	DESCRIPTION	Brands	QTY.	UNIT	Rate	TOTAL AMOUNT (Rs.)
21	Supply, Fabrication & installation of Refrigerant Distributer (Y-Type) Pipe Joints at locations as shown on drawings		1	Lot		
22	Supply, fabrication and installation of PVC. piping & fittings, including hangers, anchor bolts, rubber vibration mounts etc.		1	Lot		
23	Supply & installation of 1/4" thick polyethylene insulation (Jumbolon) covered with PVC taping for condensate drain piping		1	Lot		
24	Recessed in false ceiling 8 inch dia exhaust fan with pure copper windings, (Voldam/Air Guard Model AFWS6) including 6 inch dia PVC Pipe as exhaust duct , and exhaust air grill as shown in the drawings					
24. a	PF-1		1	No.		
24. b	PF-2		1	No.		
25	Supply & Installation of Decorative wall mounted cabinet type Air Curtain with centrifugal fan with display (Table) including, unloading, Lifting, placing and Fixing at foundation at locations shown on drawing		1	No		
26	Conduiting and communication wiring of all HVAC equipment(indoor &outdoor) complete with cables/wires, cables glands, cable ties, G.I./PVC conduits etc. control wiring from units to central controller and all other items to complete the Job.		1	Lot		
27	Painting of metal hangers and metal structures where installed as specified		1	Job		
28	Shop drawings and As-built drawings		1	Job		
29	Inspection, testing, Gas Charging, Commissioning and Air Balancing of of Complete system		1	Job		
30	WIRING/WIRING ACCESSORIES					
31	Supply, installation, testing & commissioning of following items including all material, tools, labor & accessories required for completion of work as per description & drawings. Complete in all respects.					
32	Wiring of AC Indoor Units from DB to first outlet with following size of wires in 25mm dia size PVC conduit of exposed / concealed as shown on drawings. Complete in all respects.					
33	2x2.5 Sq.mm Cu/PVC + ECC 1x2.5 Sq.mm Cu/PVC		15	NO		
34	1 x 50 sq mm Cu/PVC from main DB to HVAC DB		5	Mtr		
35	MAIN / SUB-MAIN LV CABLES					
36	Supply, installation, testing, commissioning and termination of following size of CU/PVC/PVC Cables for Distribution Board in already installed PVC conduit / Cable tray, including all accessories, Complete in all respect as shown on drawing.					
37	From DB-HVAC to VRF Outdoor 4C-6 Sq.mm Cu/PVC/PVC + ECC 1Cx6 Sq.mm Cu/ PVC		20	Rm		
38	From DB-HVAC to VRF outdoor 4C-10 Sq.mm Cu/PVC/PVC + ECC 1Cx10 Sq.mm Cu/ PVC		40	Rm		
39	Supply, installation, testing and commissioning of following LV Panels and Distribution Boards made with 14/16 SWG sheet steel housing (14 SWG for floor standing & 16 SWG for wall mounted) with approved color and having specified circuit breakers as shown on drawing. (Refer Single Line Diagram)					
40	DB- HVAC		1	No	+	
	TOTAL RS. SEC - K (CARRIED FORWARD TO SUMMARY)		1	110		-



Boudary Wall BOQ ABSTRACT OF COST

ABSTRACT OF COST								
Ser	Description	Unit	Rate	Quantity	Amount			
1	Dismantling							
	Dismantling dry brick masonry including the removal of surplus debris, unused material and by products as directed by the Engineer complete.	Sft		4372				
2	Excavation							
	Excavation for foundation of columns, walls, etc. upto any depth and lead including back filling of excavated earth in foundation trenches and spreading the surplus earth in plinth area and/or depressions where required including making provision for shoring of loose soil if required and removal of excavated earth upto 5'-0" from edge of excavation complete as per drawing and as directed by the Consultants.	Cft		21125				
3	Earth Filling							
	Providing Earth filling with off site material (brought from out side source)including compaction upto 95% in plinth, depression and where ever required laid in 12" layer well watered, consolidated and compacted with mechanical means complete as per drawing and as directed by the Consultants.	Cft		17752.45				
4	1:4:8 in Foundation							
	Providing C.C. 1:4:8 bed concrete using graded screened bajri 3/8" and down gauge as fine aggregate and stone ballast 1" to 2" size as coarse aggregate in foundation over well compacted earth including levelling and curing etc. complete as per drawing and as directed by the Consultants	Cft		836.55				
5	Reinforced Cement Concrete 1:2:4							
	Providing Reinforced cement concrete 1:2:4 (mix design) using graded screened bajri 3/8" and down gauge as fine aggregate and crushed stone 3/4" and down gauge as coarse aggregate with machine mixing including the cost of form work and its removal, vibrating using mechanical vibrator, curing and cube testing etc. having min. works cube crushing strength of 3,000 psi after 28 days curing but excluding the cost of reinforcement bars complete as per drawing and as directed by the Consultants.	Cft		1188.28125				
6	Brick Masonry							
	Providing brick masonry using 9" x 4 1/2" x3" best approved quality burnt bricks the bricks used should be well-burnt without being vitrified and shall be uniform in	Cft		6,885.00				
7	Plaster Work							
	Providing and laying 1/2" thick cement sand plaster (1:4) to Internal Ceiling, Walls, Stairs, Columns, & etc making edges and corners, preparation of surface plaster with mesh, including finishing, scaffolding, curing and etc. Complete in all as per drawing & instruction of the Consultant.	Sft		16900				
8	Weather Shield Paint							
	Providing and applying 2 coats of weather shield paint of approved quality, color and shade (approved company) over 2 coats of Primer of approved manafacturer and quality on Walls, & etc including surface preparation, Wall putty filling, cutting, surfacing, scaffolding, scraping, sanding, & etc. Complete in all as per drawing & instruction of the Consultant.	Sft		16,900				
9	Reinforcement Bars							
	Providing Reinforced steel bars using minimum Yield Strength of 60 KSI confirming to ASTM A-615, as per design including cutting, bending, binding and placing in position on c.c precast spacers and steel chairs, tying with binding wire 20 SWG complete with the cost of chairs, binding wire etc. complete as per drawing and as directed by the Consultants.(Rate should include the cost of westage of steel, also note that All Reinforcing steel shall be adequately protected from rust and corrosion before and during concreting)	Ton		14				
10	Razer Wire							
	Providing and Installation of Concertina Wire / Razor wire, single coil, 12 gauge galvanized wire, loop dia 0.452 to 0.990M, complete, all as specified.	RFT		1670				
	TOTAL AMOUNT CARRIED TO SUMMARY (PKR)							



20'Ft Wide Road & Parking BOQ <u>ABSTRACT OF COST</u> 20' Wide Road & Parking

S.N	Discription	Unit	Rate	BOQ	
1	Cleaning and grubbing of the area.	Unit	Kate	Quantity	Amount (Rs.)
	Cleaning and grubbing of the area.	sft		24,898.9	
2	Excavation				
	Excavation as in Ordinary Soil upto 1.5 M depth, in foundation and pipe trenches upto 1.5 M wide, in shafts, wells and independent holes upto 30 sqm each and throw earth clear of edges of excavation within 10m. Timbering to be paid extra (Foundation and Trench over 1.5 M widths will be treated as Areas).	Cum		-	
3	Granular backfill				
	Providing and laying 6" Granular Fill Material of approved quality and size in foundation including Compaction, complete in all respects.	Cum		533.000	-
4	PCC (1:4:8)				
	Providing and laying of lean concrete using crushed or broken stone graded; 1:4:8,	Cum		311.000	-
5	Backfilling				
	Providing and filling earth in foundation including compacting complete in all respects. (Back Filling)	CFT		94,788.0	-
6	Tuff paver 80mm for parking extension				
	Provide and lay 80mm thick 7000 psi cube strength precast Concrete Pavers of approved sample over 2" thick well compacted sand bed , Including the cost of 3" thick approved quality graded aggregate sub base and compacted upto 98% FDD. The subgrade must be well compacted upto 98% compaction.	Sft		23,241.7	,
7	Kerbstone				
	Precast PCC Kerb-stone, size 300 x 300 x 150 mm including setting, jointing and pointing in CM 1:4 all as specified.	RFT		977.0	-
	Total Amount Carried To Summary (PKR)				-

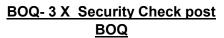


Parking Shed

BOQ

					BOQ	
Sr#	Description	Unit	Rate	Quantity	Amount (Rs.)	
1	Car Parking Shades					
а	Design, Manufacturing and Supply of Pre engineered M.S parking shades with Tensile Fabric Covering, including construction of Foundations with Steel Reinforcement (60 grade) and 3000 PSI Concrete, primary frame structure, columns, connection plates, Base plates, pipe bacings, anchor bolts for anchorage, Paint work which include 2 coats of enamel paint on Red or grey oxide surface supply & fixing of tensile fabric and Other Necessary hardware fixing screws complete in all respects.	SFt		4,068.0	-	
b	Design, Manufacturing and Supply of Pre engineered M.S parking shades with Tensile Fabric Covering, including construction of Foundations with Steel Reinforcement (60 grade) and 3000 PSI Concrete, primary frame structure, columns, connection plates, Base plates, pipe bacings, anchor bolts for anchorage, Paint work which include 2 coats of enamel paint on Red or grey oxide surface supply & fixing of tensile fabric and Other Necessary hardware fixing screws complete in all respects.	SFt		3,220.0	-	
	Total Amount Carried To Summary (PKR)				-	

NDMA





					BOQ
Sr#	Description	Unit	Rate	Quantity	Amount (Rs.)
1	Excavation				
	Excavation as in Ordinary Soil upto 1.5 M depth, in foundation and pipe trenches upto 1.5 M wide, in shafts, wells and independent holes upto 30 sqm each and throw earth clear of edges of excavation within 10m. Timbering to be paid extra (Foundation and Trench over 1.5 M widths will be treated as Areas).	Cum		44.15	-
2	Granular backfill				
	Providing and laying 6" Granular Fill Material of approved quality and size in foundation including Compaction, complete in all respects.	Cum		3.03	-
3	PCC (1:4:8)				
р	Providing and laying of lean concrete using crushed or broken stone graded; 1:4:8,	Cum		3.03	-
4	Brick Masonary				
	Brick Masonary Providing brick masonry using 9" x 4 1/2" x3" best approved quality burnt bricks the bricks used should be well-burnt without being vitrified and shall be uniform in colour, regular in shape and size with sharp and square corners and parallel faces, free from flaws and crackes, to be laid in mortar 1:4 with curing, scaffolding, racking out the joints, courses shall be kept in time plumb as per drawing, standard specification and as directed by the Consultants Up To 12ft Height.	CFt		2,328.75	-
5	Plaster Work				
	Providing and laying 1/2" thick cement sand plaster (1:4) to Internal Ceiling, Walls, Stairs, Columns, & etc making edges and corners, preparation of surface plaster with mesh, including finishing, scaffolding, curing and etc. Complete in all as per drawing & instruction of the Consultant.	Sft		6,204.38	-
6	Concrete 1:2:4				
	Concrete (1:2:4) Providing and laying of RCC with 3000 psi compressive cylindrical strength in different structural elements (foundation etc.) including form work all as specified.	Cum		24.25	-
7	Weather shield paint				
	Providing and applying 2 coats of weather shield paint of approved quality, color and shade (approved company) over 2 coats of Primer of approved manafacturer and quality on Walls, & etc including surface preparation, Wall putty filling, cutting, surfacing, scaffolding, scraping, sanding, & etc. Complete in all as per drawing & instruction of the Consultant.	sft		3,483.00	-
8	Reinforcment Bar				
	Reinforcement Bars Providing Reinforced steel bars using minimum Yield Strength of 60 KSI confirming to ASTM A-615, as per design including cutting, bending, binding and placing in position on c.c precast spacers and steel chairs, tying with binding wire 20 SWG complete with the cost of chairs, binding wire etc. complete as per drawing and as directed by the Consultants.(Rate should include the cost of westage of steel, also note that All Reinforcing steel shall be adequately protected from rust and corrosion before and during concreting)	Ton		14.10	-
9	Door				
	Providing And installation OF Door for checkpost	Nos		3.00	-
10	Windows				
	Providing and fixing powder coated or anodized aluminum, glazed-window of aluminum sections, tinted glass, rubber gaskets latch lock arrangement, screws/expansion bolts and other aluminum accessories Size 3'X4' etc. complete in all respects as approved by the Engineer.	Nos		12.00	-
	Total Amount Carried To Summary (PKR)				-
	1				

GENERAL NOTES

Fabrication shall be in accordance with standard practices and in compliance with the applicable section, relating to design requirements and allowable stresses of the latest edition of the "AWS Structural Welding code D 1.1 and D 1.3

MATERIALS	ASTM DESIGNATION	MIN. YIELD STRENGTH
Web Plate (Built-up Sections)	A572	Fy = 50KSI
Flange Plate (Built-up Sections)	A572	Fy = 50KSI
Hot rolled Steel Shapes	A36	Fy = 36KSI
Bracing Cable	A475	
Cold Form Light Gauge	A653	Fy = 50KSI
Roof and Wall Sheets	A792	
Sag Rod/Rod Brace	A36	Fy = 36KSI
Flange Bracing	A36	Fy = 36KSI
Pipe	A53 Gr B	Fy = 35KSI
CONNECTION PLATES		
Upto 16mm	A572	Fy = 50KSI
Thickness Greater than 16mm	A36	Fy = 36KSI
		MIN. TENSILE STRENGTH
Machine Bolts & Nuts	A307/F1554	Fy = 60KSI
High Strength Bolts (1" Dia & Less)	A325-Type 1	Fy = 120KSI
High Strength Bolts (>1" to 1-1/2")	A325-Type 1	Fy = 105KSI
Anchor Bolts (if supplied)	A36/A307/F1554	Fy = 60KSI

PRIMER COAT ON PRIMARY MEMBER

Shop Primer paint is a rust inhibitive primer, which meets the end performance of building and is Grey Oxide color. This paint is not intended for long-term exposure to the elements. RECO is not responsible for any deterioration of the shop primer paint as a result of improper handling and/or storage. (Section 6.5 AISC Code of Standard Practice 9th Edition). Normal thichness of primer Shall be 1 mil unless otherwise specified in Contract Documents.

GALVANIZED SECONDARY MEMBER

All Roof Purlins and Wall Studs and Tracks shall be galavanized member as per ASTM A653 specifications.

A325 BOLT TIGHTENING REQUIREMENTS

All high strength bolts are A325-N unless noted otherwise

Structural bolts shall be tightened by the turn-of-the-nut method in accordance with 9th Edition AISC "Specification for Structural Joints" using ASTM A 325.

All bolted connection unless noted are desigend as bearing type connection with threads not excluded from the shear plane.

WELD CONNECTIONS

One side of web to flange welds is continuous and other is intermittent SMAW fillet weld in accordance with requirements of the latest edition of the "AWS Structural Welding code" using E70xx Electrodes and AISC-360 respectively.

FOUNDATIONS

0.75 T.S.F Gross bearing capacity assumed for the design of

Use Portland Cement Concrete 1:2:4 having minimum cylindrical strength of 3000 Psi at 28 days.

Use deformed steel reinforcement bars with minimum yield strength of 60,000 Psi as per ASTM specifications.

Following clear concrete covers to the bars will be provided.

1-40mm for Pedestals 2-RCC Footing Top Cover: 50mm

3-RCC Footing Bottom Cover: 75mm (if directly rested on ground),

s-RCC Fooling Bottom Cover: 75mm (if directly rested on ground), otherwise 50mm

4-Concrete Cover for beams and columns: 40mm

NOTE:-

Footing May Vary as per Bearing Capacity.

National Disaster Management Authority Headquarter, Islamabad

APPROVAL DRAWINGS.

CENTER OF EXCELLENCE (53'-10" x 122'-8" x 15'-6")

BUILDING SPECIFICATION

The structure under this contract has been Desigened and Detailed for the Loads and Conditions stipulated in the contract and shown on these Drawings. Any alterations to the structural system or removal of any component parts, or the additions of other construction materials or loads must be done under the advise of a Registered Architect, Civil or Structural Engineer. RECO Building Systems will assume no responsibility for any Loads not indirected.

DESIGN SOFTWARE

"CSI SAP2000"









DETAILING SOFTWARE'S





CUSTOMER/END USER INFORMATION

BUILDING NAME: CENTER OF EXCELLENCE CLIENT: NDMA LOCATION: ISLAMABAD

DESIGN SPECIFICATIONS

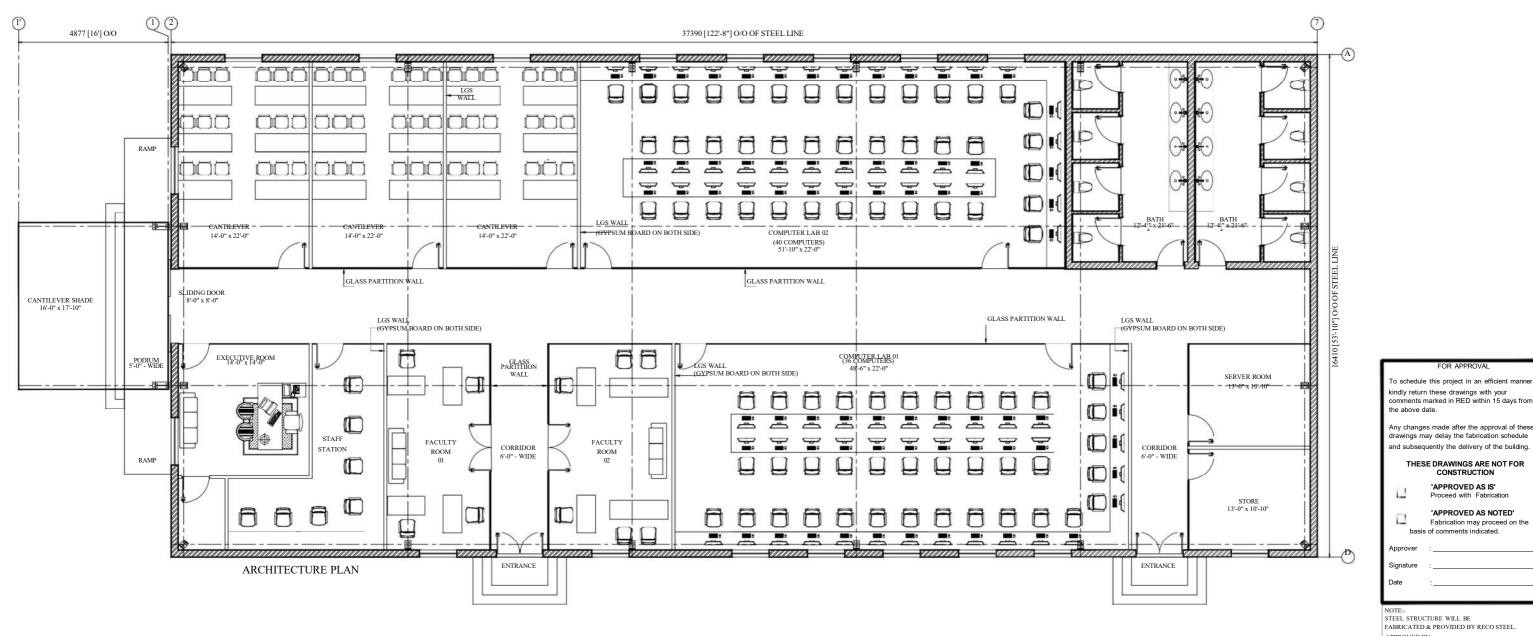
DEAD LOAD: COLLATERAL LOAD: ROOF LIVE LOAD: WIND SPEED: ENCLOSURE TYPE: WIND EXPOSURE: BUILDING CLASS: SEISMIC ZONE 0.15 km/m² + SELF WEIGHT 0.15 km/m² 0.57 km/m² 160 km\h Enclosed C

BUILDING CODES

MBMA 2006 AISI 2007 ASCE-7-16 UBC 1997 ACI 318-05 AISC 360-05/IBC 2006



DRAWING INDEX						
SR . #	TITLE			REV.	DATE	
CD00#	INDEX PAGE			00	18-07-2025	
CD01#	ARCHITECTURE PLAN			00	18-07-2025	
CD02#	ANCHOR BOLT PLAN			00	18-07-2025	
CD03#	FOOTING PLAN			00	18-07-2025	
CD04#	# FOOTING DETAILS			00	18-07-2025	
CD05#	# CIVIL DETAILS			00	18-07-2025	
CD06#	6# TYP. FRAME SECTION @ GRID - 2 & 7 3 TO 6			00	18-07-2025	
CD07#	# TYP. FRAME SECTION @ GRID - 1			00	18-07-2025	
CD08#	SPLICE PLATES			00	18-07-2025	
CD09#	ROOF FRAMING PLAN			00	18-07-2025	
CD10#	ROOF SHEETING PLAN			00	18-07-2025	
CD11#	WALL SHEETING @ G	RID - 1 & 7		00	18-07-2025	
CD12#	# WALL SHEETING & PORTAL BRACING ELEVATION @ GRID - A			00	18-07-2025	
CD13#	CD13# WALL SHEETING & PORTAL BRACING ELEVATION @ GRID - D			00	18-07-2025	
DA	DATE: 18.07.2025 QTR-25100-055					



	APPROVAL

To schedule this project in an efficient manner, kindly return these drawings with your comments marked in RED within 15 days from the above date.

drawings may delay the fabrication schedule and subsequently the delivery of the building.

THESE DRAWINGS ARE NOT FOR CONSTRUCTION

'APPROVED AS IS'

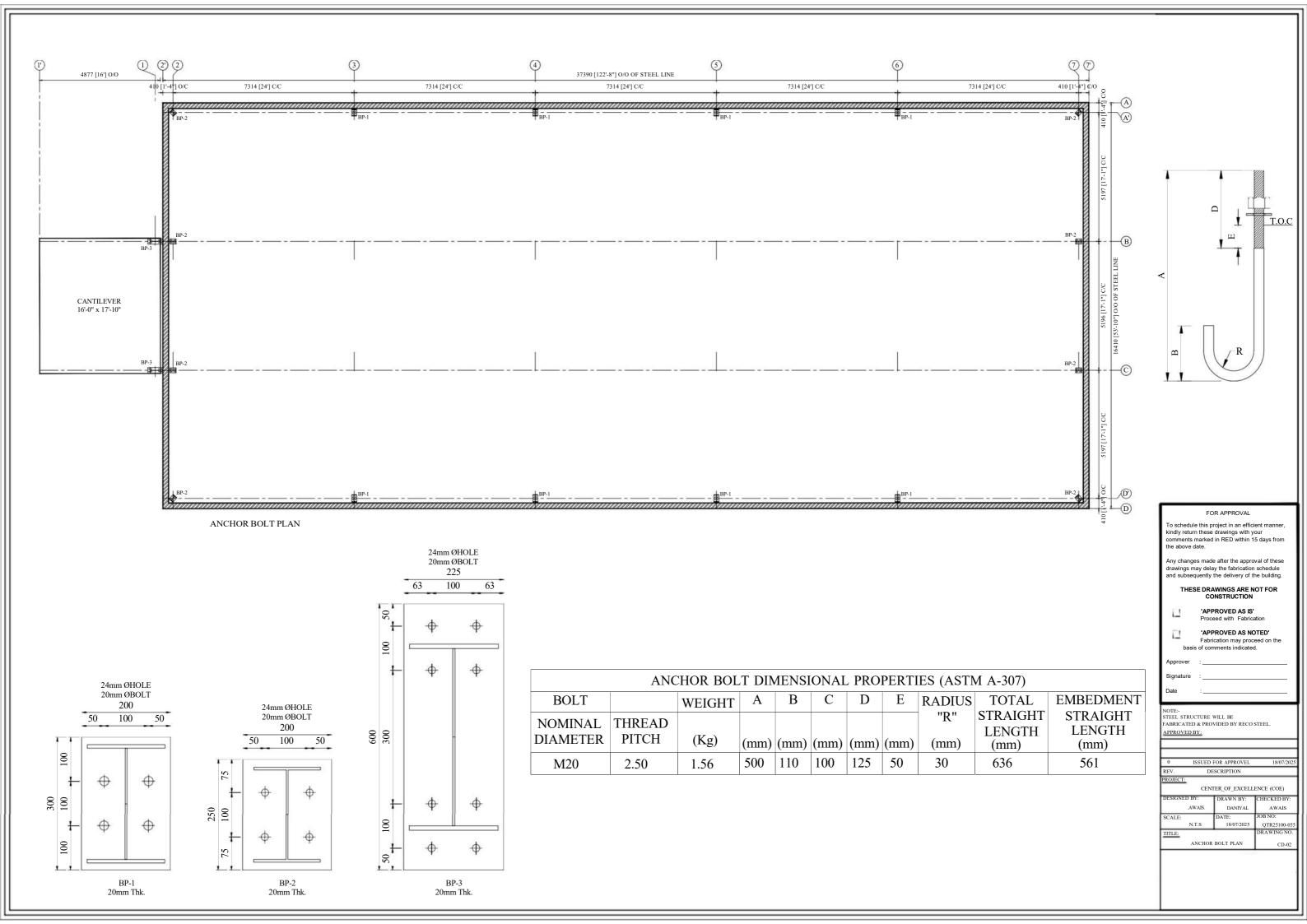
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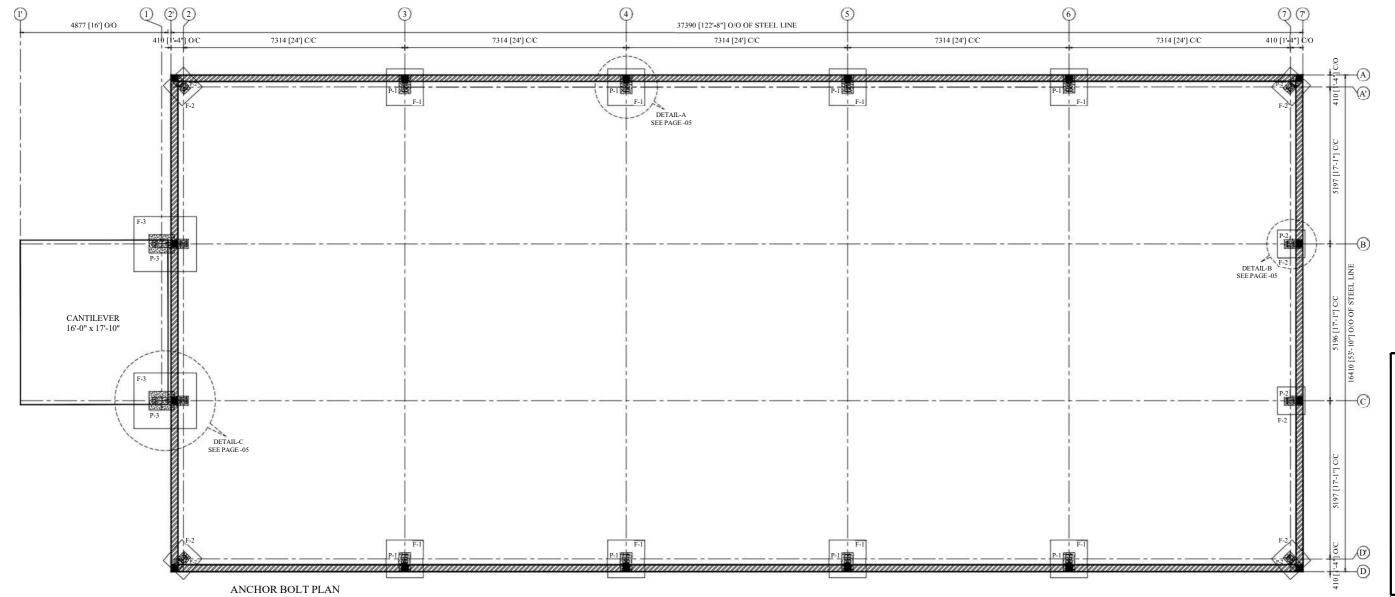
STEEL STRUCTURE WILL BE FABRICATED & PROVIDED BY RECO STEEL. APPROVED BY:

> ISSUED FOR APPROVEL DESCRIPTION

> > CENTER OF EXCELLENCE (COE)

DANIYAL N.T.S 18/07/2025 QTR25100-0 DRAWING NO TITLE: ARCHITECTURE PLAN





FOR APPROVAL

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Proceed with Fabrication

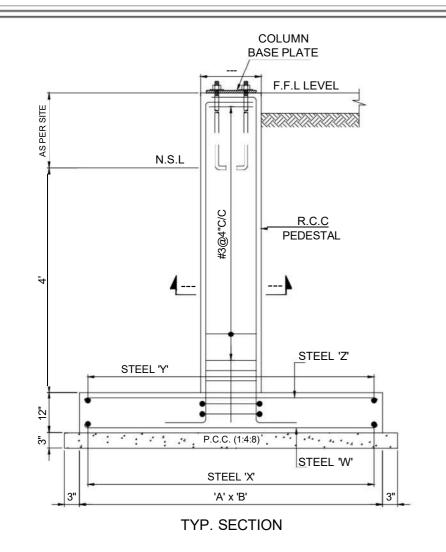
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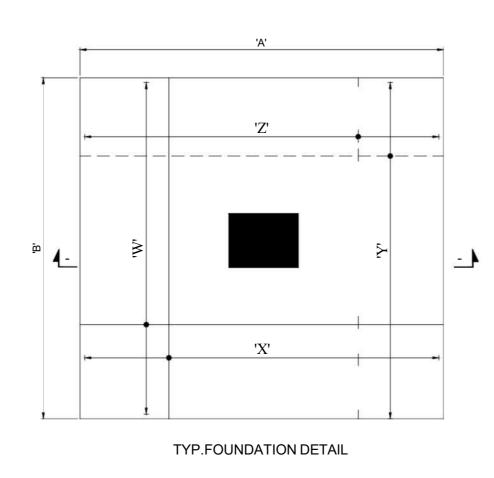
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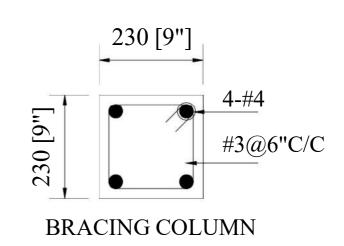
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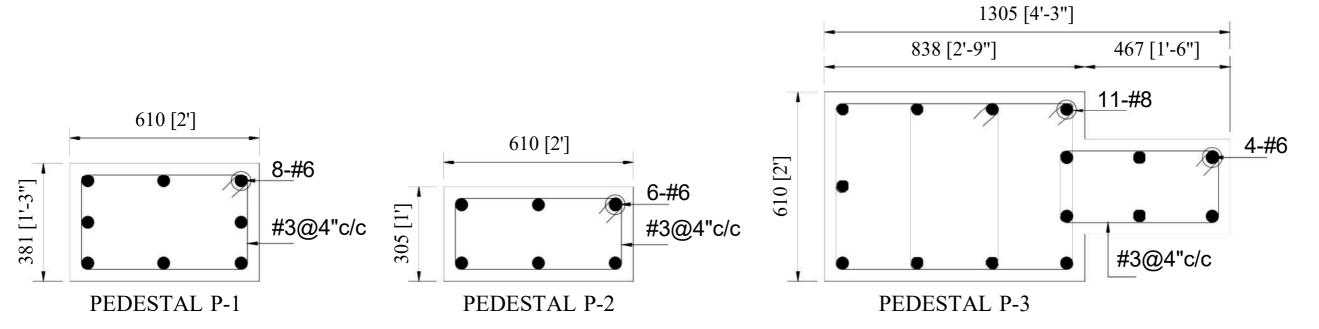
CENTER_OF_EXCELLENCE (COE) DESIGNED BY: DRAWN BY: CHECKED BY:

.AWAIS. AWAIS DANIYAL JOB NO: SCALE: QTR25100-055 DRAWING NO. N.T.S 18/07/2025 TITLE: FOOTING PLAN



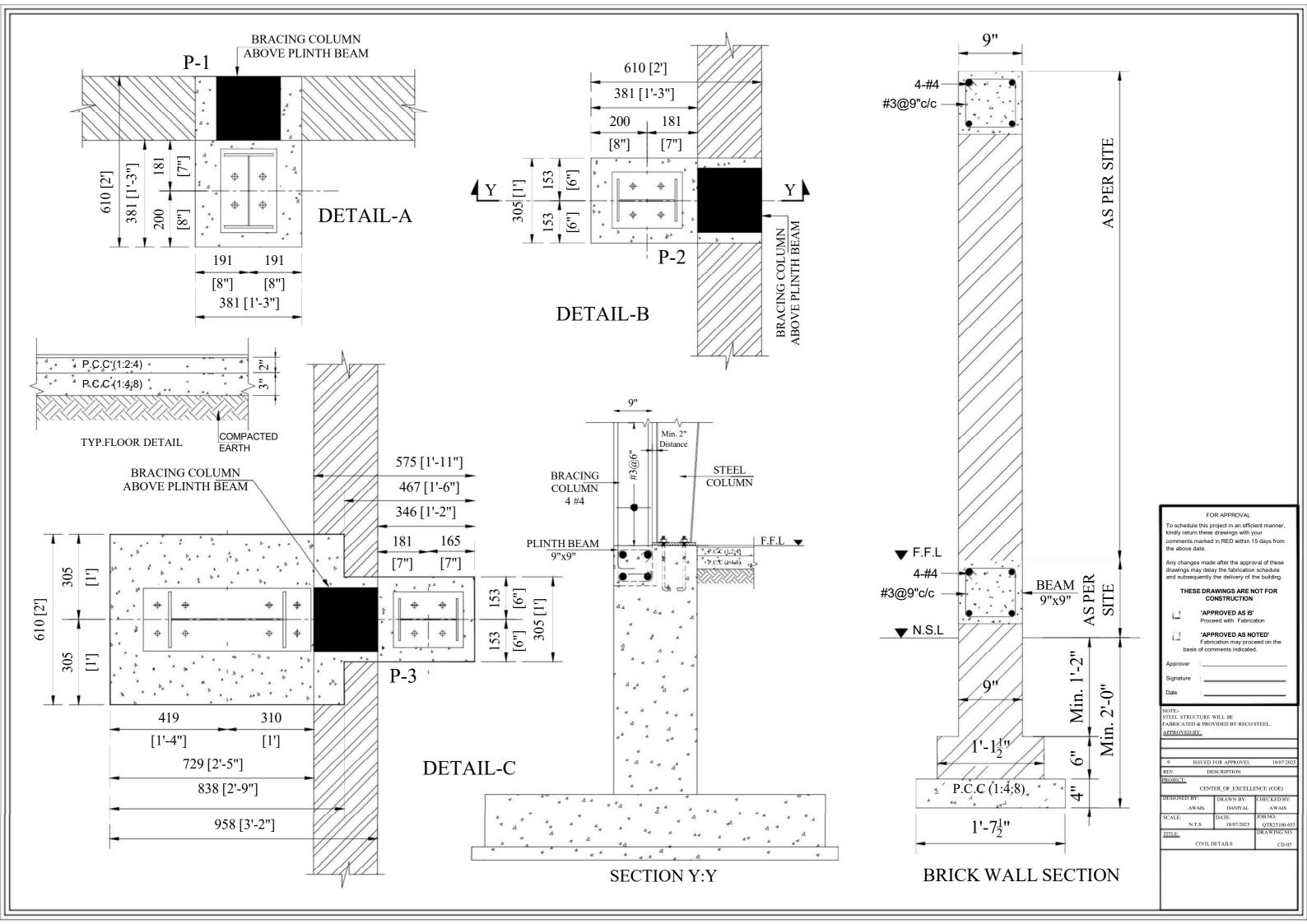


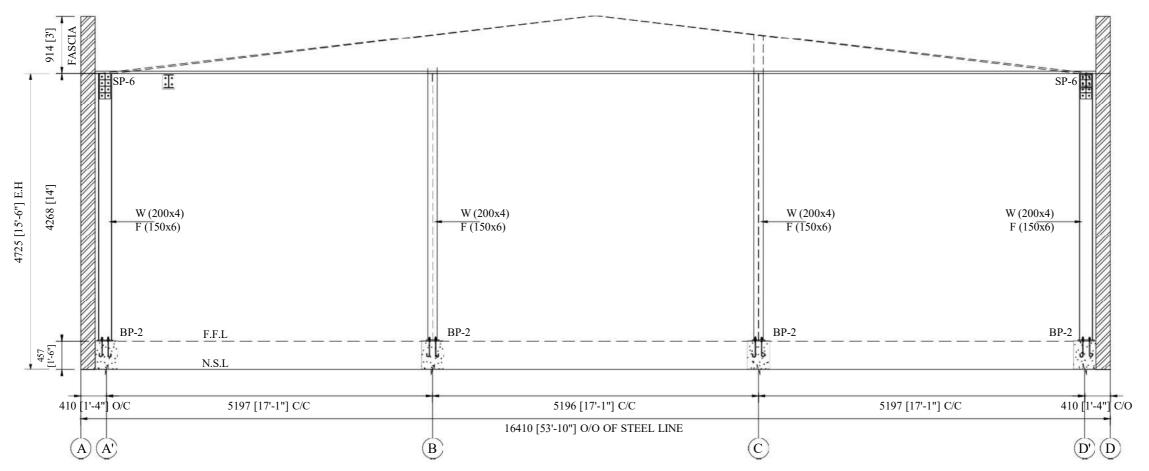




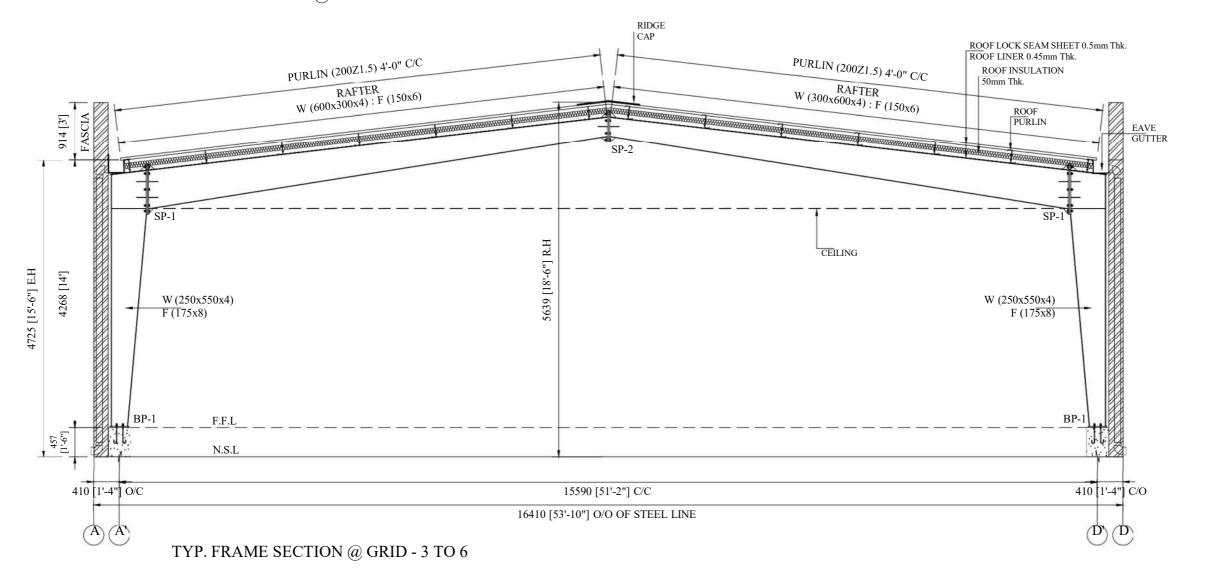
SCHEDULE OF FOOTING								
FOUNDATION	DIMENSION 'A'	DIMENSION 'B'	DIMENSION 'T'	DIMENSION 'D'	DIMENSION 'W'	DIMENSION 'X'	DIMENSION 'Y'	DIMENSION 'Z'
F-1	4'-0"	4'-0"	12"	4'-0"	#4@8"C/C	#4@8"C/C	#4@8"C/C	#4@8"C/C
F-2	3'-0"	3'-0"	12"	4'-0"	#4@8"C/C	#4@8"C/C	#4@8"C/C	#4@8"C/C
F-3	6'-0"	6'-9"	12"	4'-0"	#4@6"C/C	#4@6"C/C	#4@8"C/C	#4@8"C/C

FOR APPROVAL To schedule this project in an efficient manner,						
kindly return these drawings with your comments marked in RED within 15 days from the above date.						
Any changes made after the approval of these drawings may delay the fabrication schedule and subsequently the delivery of the building.						
THESE DRAWINGS ARE NOT FOR CONSTRUCTION						
'APPROVED AS IS' Proceed with Fabrication						
'APPROVED AS NOTED' Fabrication may proceed on the basis of comments indicated.						
Approver :						
Signature :						
Date :						
NOTE:- STEEL STRUCTURE WILL BE FABRICATED & PROVIDED BY RECO STEEL. APPROVED BY:						
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0 ISSUED FOR APPROVEL 18/07/202	25					
REV. DESCRIPTION PROJECT:						
CENTER_OF_EXCELLENCE (COE)						
DESIGNED BY: DRAWN BY: CHECKED BY:						
.AWAIS. DANIYAL AWAIS						
SCALE: DATE: JOB NO:	Ī					
N.T.S 18/07/2025 QTR25100-05						
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FOOTING DETAILS CD-04						



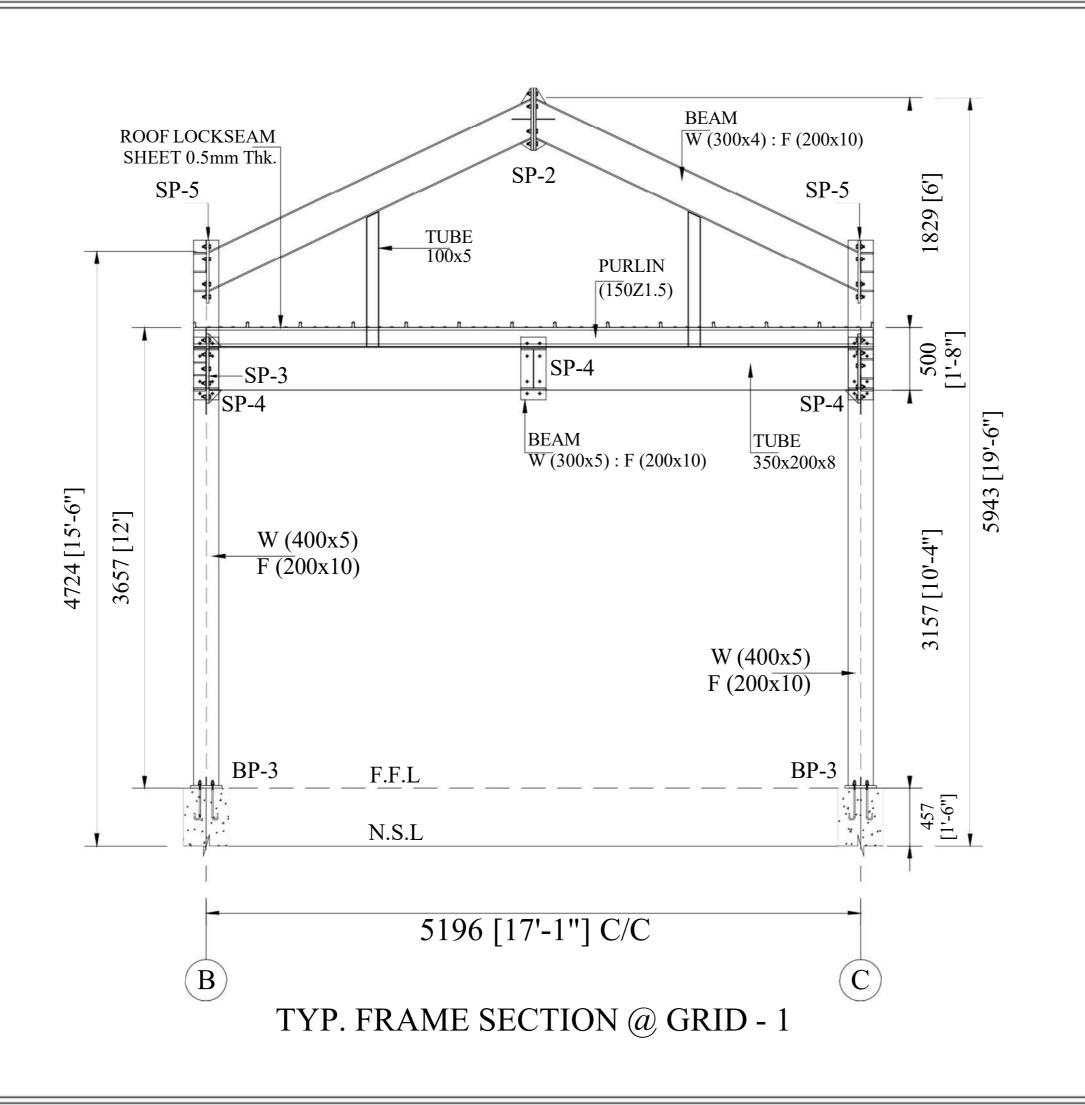


TYP. FRAME SECTION @ GRID - 2 & 7



FOR APPROVAL							
To schedule this project in an efficient manner, kindly return these drawings with your comments marked in RED within 15 days from the above date. Any changes made after the approval of these drawings may delay the fabrication schedule and subsequently the delivery of the building.							
123	PROVED AS IS' eed with Fabrica	ation					
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Approver :							
Signature :							
Date :							
NOTE:- STEEL STRUCTURE FABRICATED & PRO APPROVED BY:		STEEL.					
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DESIGNED BY: .AWAIS.	DANIYAL DATE:	CHECKED BY: AWAIS					
SCALE: N.T.S	18/07/2025	JOB NO: QTR25100-0					
DP A WING							

TYP. FRAME SECTION @ GRID - 2 & 7 / 3 TO 6



	n these drawings with your marked in RED within 15 days from late.
drawings m	es made after the approval of these ay delay the fabrication schedule uently the delivery of the building.
THES	SE DRAWINGS ARE NOT FOR CONSTRUCTION
1.3	'APPROVED AS IS'
-	Proceed with Fabrication
	'APPROVED AS NOTED'
-	Eabrication may proceed on the

FOR APPROVAL

Approver : _______Signature : ______

Date :_____

NOTE:
STEEL STRUCTURE WILL BE
FABRICATED & PROVIDED BY RECO STEEL
APPROVED BY:

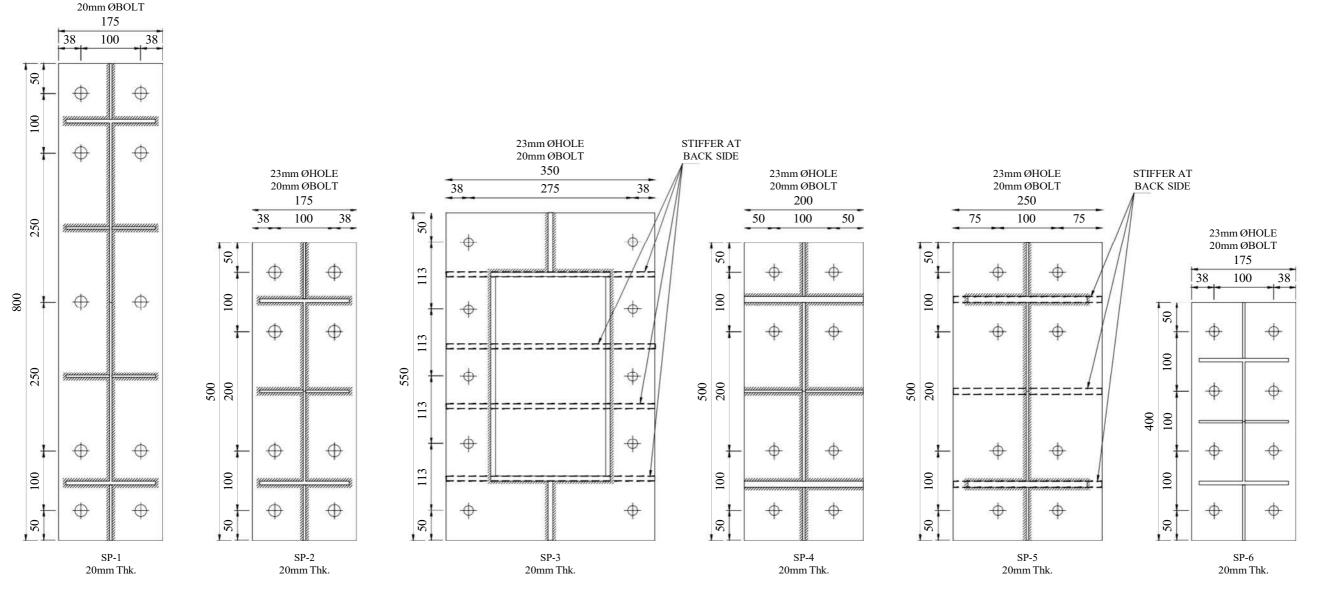
0 ISSUED FOR APPROVEL

REV. DESCRIPTION

PROJECT:

CENTER_OF_EXCELLENCE (COE)

- 1	DESIGNED BY:	DRAWN BY:	CHECKED BY:
	.AWAIS.	DANIYAL	AWAIS
	SCALE:	DATE:	JOB NO:
	N.T.S	18/07/2025	QTR25100-055
	TYP. FRAM	E SECTION @ RID - 1	DRAWING NO. CD-07



23mm ØHOLE

FOR APPROVAL

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'APPROVED AS NOTED'

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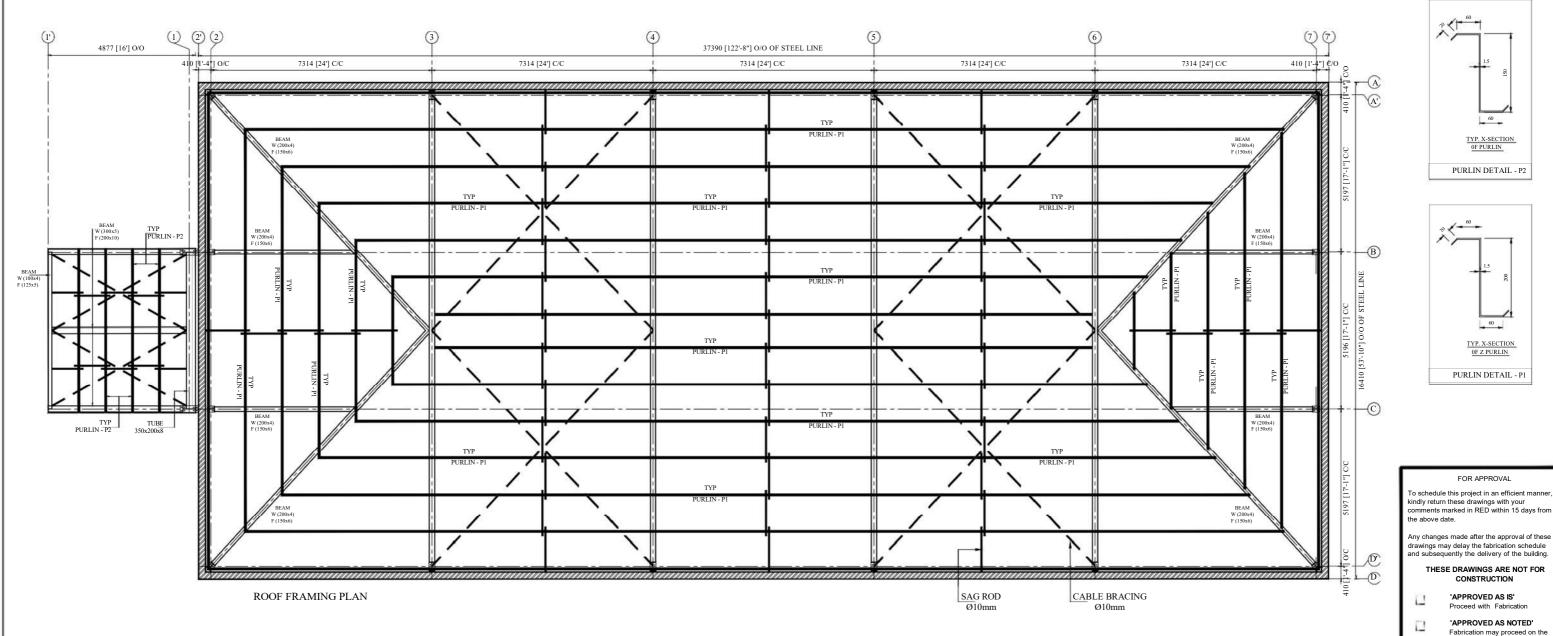
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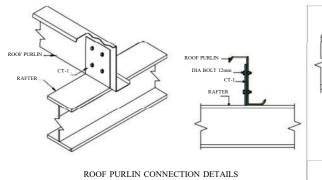
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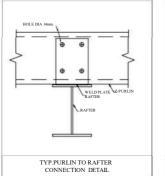
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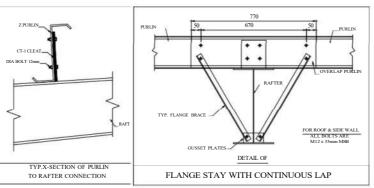
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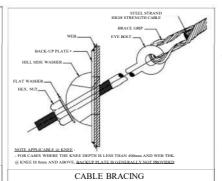
HECKED BY: AWAIS DANIYAL SPLICE PLATES

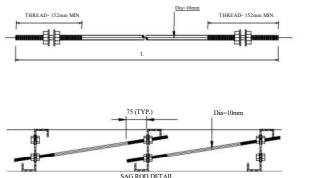
















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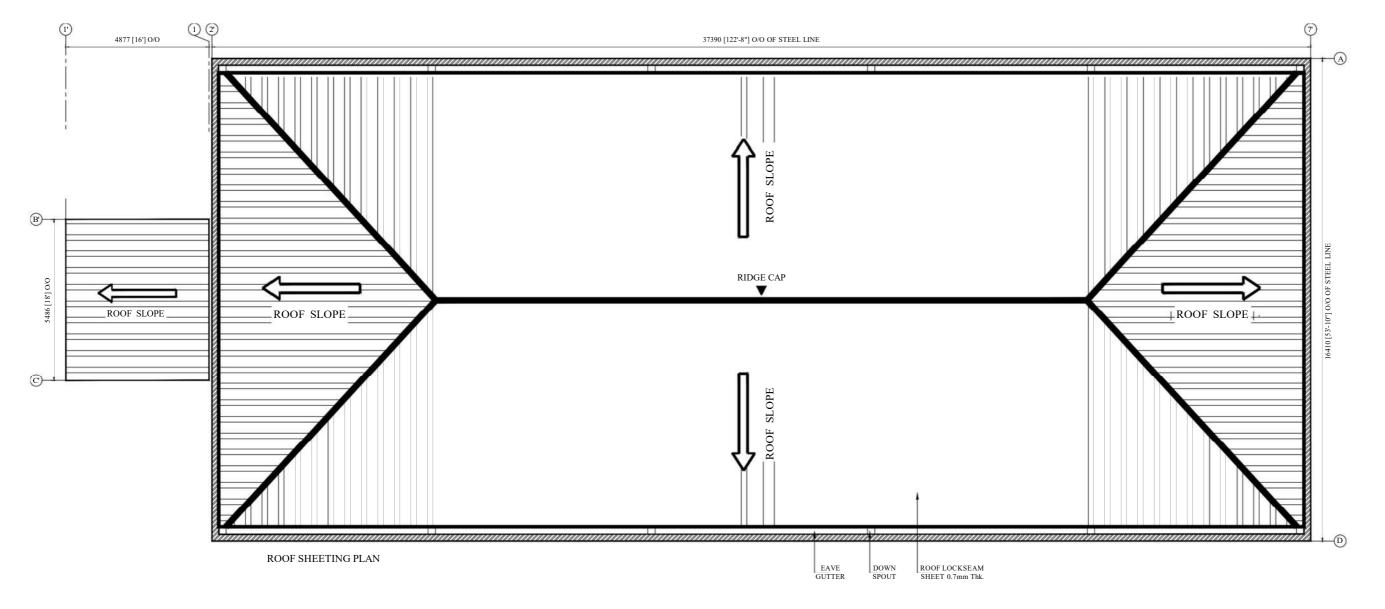
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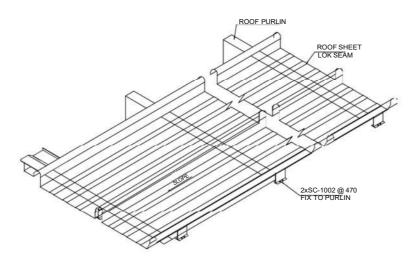
NOTE:-STEEL STRUCTURE WILL BE FABRICATED & PROVIDED BY RECO STEEL. APPROVED BY:

CENTER_OF_EXCELLENCE (COE)

N.T.S QTR25100-05

ROOF FRAMING PLAN





LOCK SEAM & ROOF PURLIN 3D VIEW DETAIL

FOR	APPROV	Ά

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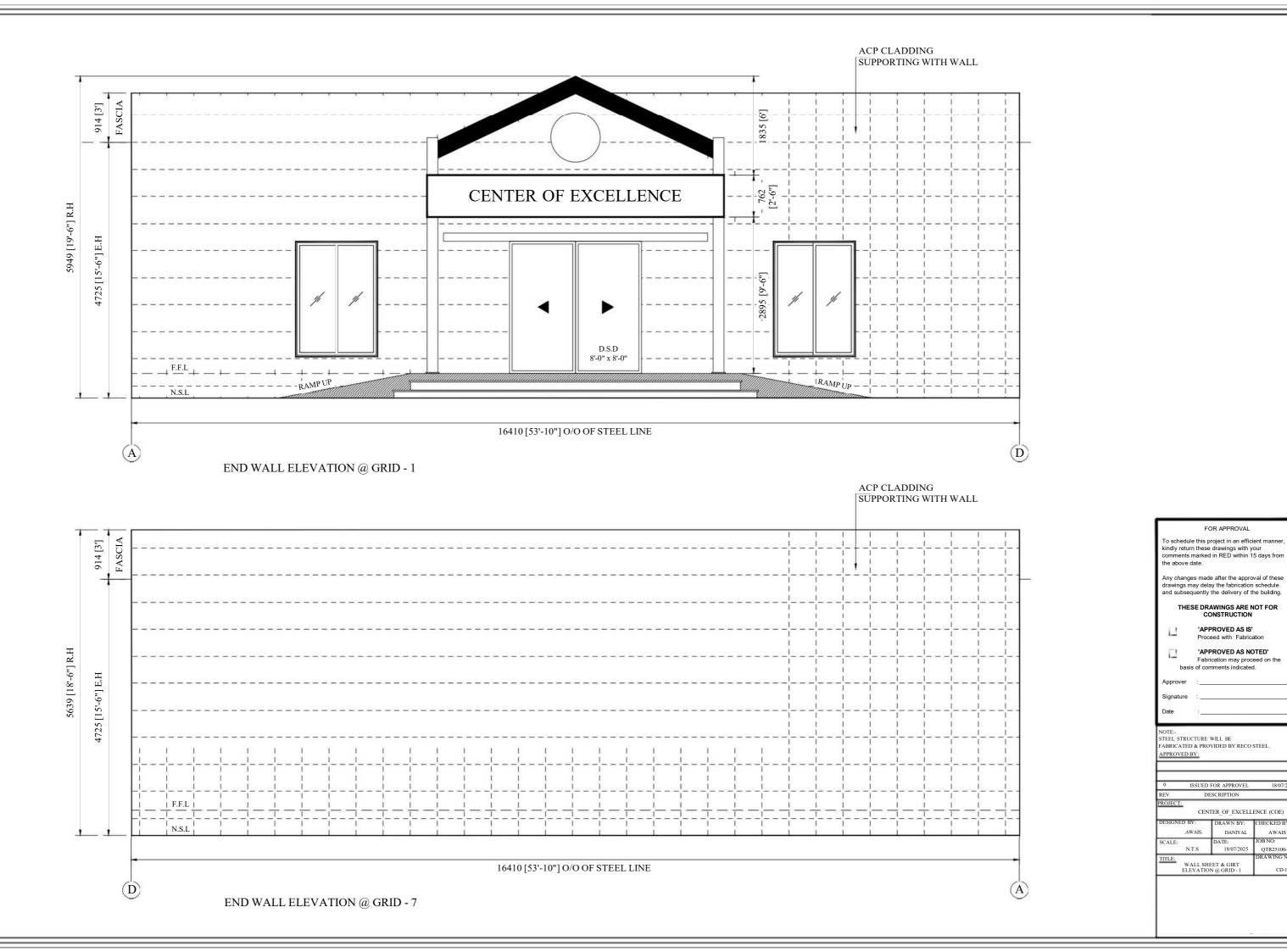
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Proceed with Fabrication

'APPROVED AS NOTED'
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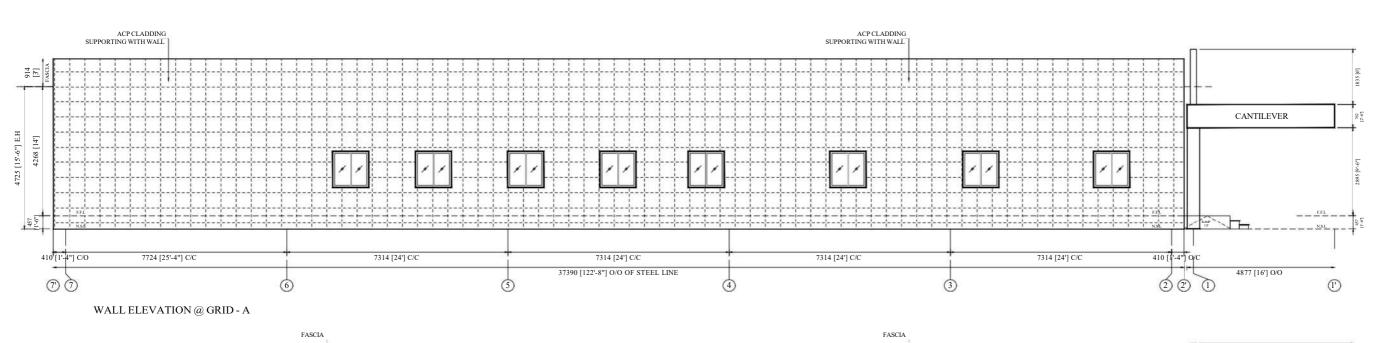
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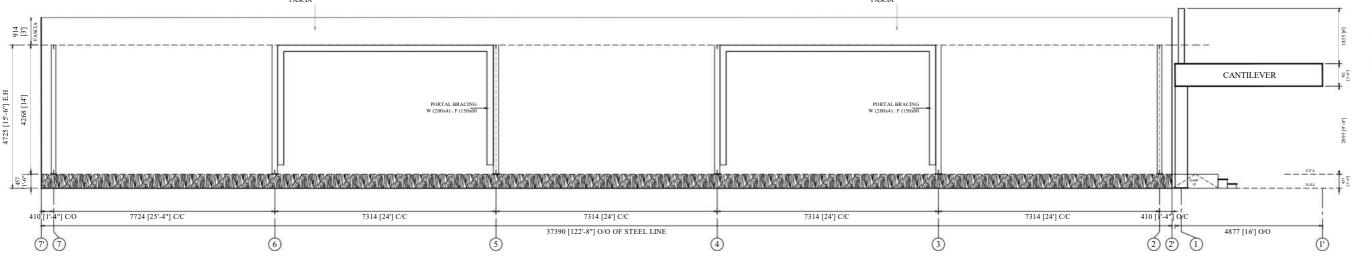
DESCRIPTION

AWAIS ROOF SHEETING PLAN



AWAIS





WALL PORTAL BRACING ELEVATION @ GRID - A

FOR	APPROVAL

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'APPROVED AS IS'
Proceed with Fabrication

'APPROVED AS NOTED' basis of comments indicated.

NOTE:-STEEL STRUCTURE WILL BE FABRICATED & PROVIDED BY RECO STEEL.

ISSUED FOR APPROVEL DESCRIPTION

CHECKED BY AWAIS DANIYAL N.T.S 18/07/202 WALL SHEET & PORTAL BRACING ELEVATION @ GRID - A

