

**SHAHEED BENAZIR BHUTTO UNIVERSITY, SHAHEED
BENAZIRABAD (SAKRAND ROAD LANDHI STOP
NAWABSHAH) SINDH”**

BIDDING DOCUMENTS

FOR

**SUPPLY, INSTALLATION, FIXING AND
COMMISSIONING OF 400 KW SOLARIZATION
PROJECT**

AT

**SHAHEED BENAZIR BHUTTO UNIVERSITY, “SHAHEED
BENAZIRABAD (SAKRAND ROAD LANDHI STOP NAWABSHAH) SINDH”**

VOLUME – I

AUGUST-2024

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INVITATION FOR BIDS

INVITATION FOR BIDS

Date: _____ 2024
Bid Reference No.: _____

1. The “Vice Chancellor” through the Executive Engineer/consultant Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh” (the “Employer”) Utilized the Funds from HEC Islamabad and university own resources towards the cost of “Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh” and it is intended that part of the proceeds will be applied to eligible payments under the Contract for the “Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”.
2. The Tender Documents is issued to Bidders for the “Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”.
- 3.
4. Bidders may obtain further information, inspect and acquire the Bidding Documents from the Office of the Employer, at

Executive Engineer/Consultant
Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand Road landhi stop Nawabshah) Sindh”

Ph. No. 0244-9370523,0244-9370520

Fax No. 0244-9370521

5. A complete set of Bidding Documents may be purchased by an interested bidder on submission of a written application to the above office and upon payment of a non-refundable fee of **Rs.3,000/- (Rupees Three Thousands only)**. in the form of Bank Draft in favor of Security Deposit of Shaheed Benazir Bhutto University Shaheed Benazirabad.
6. All bids must be accompanied by the Bid Security 3% of total Bid **in form of pay order/ Call Deposit** in the favor of VC SBBU Security deposit of Shaheed Benazir Bhutto University, Shaheed Benazirabad along with Bidding documents and must be delivered to Executive Engineer/Consultant at or before **10:30 am**, on **06-08-2024**. Bids will be opened at **11:00 am** on **same day**, in the presence of bidder’s representatives who choose to attend at the following address:-

Executive Engineer/Consultant
Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand Road landhi stop Nawabshah) Sindh”

Ph. No. 0244-9370523,0244-9370520

Fax No. 0244-9370521

7. All bidders must fill in check list before submission of bids in their own interest and quote all items of the BOQ which is a mandatory requirement.

**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 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 utilized a amount indicated in the Bidding Data Sheet in various currencies towards the cost of the Supply, Installation, fixing and commissioning of 400 KW Solarization Project specified in the Bidding Data Sheet and it is intended that part of the proceeds of the amount 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 qualified bidders

IB.4 One Bid per Bidder

- 4.1 Each bidder shall submit only one bid. A bidder who submits or participates in more than one bid (other than alternatives pursuant to Clause IB.16) will be disqualified.

IB.5 Cost of Bidding

- 5.1 The bidders shall bear all costs associated with the preparation and submission of their respective bids and the 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 repair of the Works. They are to certify in a letter submitted with his tender that he has done so. 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.

7.1.1 Volume - I

1. Instructions to Bidders.
2. Bidding Data Sheet.
 - a – General Conditions of Contract (G.C.C)
 - b – Particular Conditions of Contract (P.C.C)
3. Bill of Quantities
4. Specifications – Special Provisions.
5. Appendices to Bid.
6. Form of Bid Security.
7. Forms of Performance Security
7. Form of Contract Agreement.
8. Mobilization Advance Guarantee/Bond and Form of Indemnity Bond for Secured Advance.
9. Addenda or Corrigenda issued by Employer

7.1.2 Volume – II

1. Specifications & Technical Provisions.

7.1.3 Volume – III

1. 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 earlier than 10 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 the Price Bid, containing the documents listed in Bidding Data Sheet under the heading of IB 11.1 A respectively. Each bidder shall furnish all the documents as specified in Bidding Data Sheet 11.1 A.
- 11.2 The Bidder shall furnish, as part of the Financial Bid, a Financial Proposal including a statement of work methods, equipment, Construction 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.

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- 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 their bids such other supporting information as required under the said Clause.
- 12.5 All discounts offered by the bidders should be as per the procedure given in the Bidding Data Sheet accompanying the instructions to bidder

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.
- 13.2 The rates of exchange to be used by the bidder for currency conversion shall be the TT&OD Selling Rates published or authorized by the State Bank of Sindh 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.

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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 Sindh or from a foreign bank duly counter guaranteed by a Scheduled Bank in Sindh 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; or
 - (ii) sign the Contract Agreement.
 - (iii) Furnish the required JV agreement within 7 days of the receipt of letter of acceptance.

IB.16 Alternate Proposals by Bidder

- I6.1 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.

- 16.2 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.

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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 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 Price Bid comprising the Bid as described in Bidding Data Sheet against IB 11 and clearly mark it "ORIGINAL - PRICE BID". In addition, the Bidder shall submit One (1) copy of the Bid and clearly mark as "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.

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

D. SUBMISSION OF BIDS

IB.19 Sealing and Marking of Bids

- 19.1 Each bidder shall submit his bid as under:
- (a) ORIGINAL and each copy of the Bid shall be separately sealed and put in separate envelopes and marked as such.
 - (b) The envelopes containing the ORIGINAL and copies will be put in one sealed envelope and addressed / identified as given in IB 19.2 hereof.
 - (c) The Financial bid should comprise of documents listed in Bidding Data Sheet (BDS) 11.1 (A)
- 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.

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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

- 21.1 (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.

- 22.2 The modification, substitution, or notice for withdrawal of any bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked “MODIFICATION”, “SUBSTITUTION” or “WITHDRAWAL” as appropriate

IB-10

- 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

IB. 23 Bid Opening

- 23.10 The Employer shall conduct the opening of Price Bids of all Bidders who has been Pre-qualified, 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 Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with the IB 23.5 and 23.11.

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-11

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 clarification 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.
- 26.1 A Substantially responsive bid is one (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 Document, 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 evaluation.
- 26.3 If a bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

IB.27 Correction of Errors

- 27.1 Bids determined to be substantially responsive will be checked by the 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.

IB-12

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 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 Sub-Clause 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;

IB-13

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, however, Employer may have clarification meetings to get clarify any item in the bid evaluation report.
- 31.3 The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the Employer and the bidder till signing of the formal Contract Agreement.
- 31.4 Upon furnishing by the successful bidder of a Performance Security and signing of contract agreement, 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 and the Conditions of Contract within a period of 14 days after the receipt of Letter of Acceptance.

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

IB-14

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, inter-alia, reject his bid and/or refer the case to the Sindh 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 Pact

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 and will cease to have effect once the Contract is signed.

BIDDING DATA SHEET

Bidding Data Sheet

The following specific data for the Works to be bidden 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.

Instructions to Bidders

Clause Reference

1.1 Name and Address of the Employer:

**Shaheed Benazir Bhutto University
Shaheed Benazir Abad (Sakrand Road landhi stop Nawabshah) Sindh**

1.2 Name of the Project & Summary of the Works:

i. Name of the Project:

“Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”.

ii. Summary of works:

The works comprise **“Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”.**

Following execution and completion of above stated works, the Contractor shall be obliged to remedy defects therein in accordance with the provisions of Contract.

A more detailed Scope of Work is provided in the Bill of Quantities, Specifications and the Drawings.

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

The employer has a amount for Supply, Installation, fixing and commissioning of 400 KW Solarization Project in SBBU SBA to be executed under this Contract.

3.1 Bid language:

English shall be used in bidding.

4.1 Documents Accompanying the Bid.

5.1(A) The Bidder shall submit with its Price Bid the following documents:

- (a) Letter of Price Bid
- (b) **Bid Security**
- (c) Written confirmation authorizing the signatory
of the Bid to commit the Bidder
- (d) Special Stipulations (as filled by the Employer) (appendix –A)
- (e) Price Adjustment under Clause 70 (appendix –C)

(f) Bill of Quantities	(appendix –D)
(g) Proposed Schedule	(appendix –E)
(h) Method of Performing the Work	(appendix –F)
(i) Availability of Critical Equipment	(appendix –G)
(j) Construction Camp and Housing Facilities	(appendix –H)
(k) List of Sub-contractors (as required)	(appendix –I)
(l) Estimated Progress Payments	(appendix –J)
(m) Organization Chart for Supervisory Staff	(appendix –K)
(n) Integrity Pact	(appendix –L)

6.1 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.

7.1 Currency of Bid & Payment

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

8.1 Period of Validity:

90 days from the opening of Financial Bid.

9.1 Amount of Bid Security:

3% of Bid Amount in favor of employer in form of Bank Guarantee from a Scheduled Bank in Sindh.

10.1 Venue, Time and Date of the Pre-bid Meeting:

If any query regarding the tender please feel free to contact the below mentioned numbers.

Executive Engineer/Consultant
Shaheed Benazir Bhutto University
Shaheed Benazir Abad (Sakrand road landhi stop Nawabshah) Sindh.
 Ph. No. 0244-9370523,0244-9370520
 Fax No. 0244-9370521

11.1 Number of Copies of the Bid to be Completed and Returned:

Original with duly stamp of every page.

12.1(a) Employer's Address for the Purpose of Bid Submission:

**Executive Engineer/Consultant
Shaheed Benazir Bhutto University
Shaheed Benazir Abad (Sakrand road landhi stop Nawabshah) Sindh.
Ph. No. 0244-9370523,0244-9370520
Fax No. 0244-9370521**

12.1(b) Name and Identification Number of the Contract:

1. Bid for “Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”.

12.1(c) Warning:

Do not open before the time and date of Bid Opening intimated through invitation letter / invoice.

13.1(a) Deadline for Submission of Bids:

At 10:30 am, on 06/08/2024

14.1 Venue, Time and Date of Bid Opening:

**Executive Engineer/Consultant
Shaheed Benazir Bhutto University
Shaheed Benazir Abad (Sakrand Road landhi stop Nawabshah) Sindh.
Ph. No. 0244-9370523,0244-9370520
Fax No. 0244-9370521**

At 11:00 am on 06/08/2024

15.1 Award:

In addition to the provisions of Sub-clause 29.2, the criteria given in clause IB-11 will be applied for award.

16.1 Form and Amount of Performance Security:

Time for furnishing Performance Security shall be 14 days after issuance of Letter of Acceptance. The successful bidder shall furnish to the Employer in the form of unconditional on demand bank guarantee, (Standard Form prescribed in the Bidding Documents) from a Schedule Bank in Sindh. The amount of guarantee shall be equal to **5% of the Total Contract Price** stated in the Letter of Acceptance.

PART – I

GENERAL CONDITIONS OF CONTRACT

CONDITIONS OF CONTRACT

PART 1

GENERAL CONDITIONS

(BASED ON FIDIC)

PUBLISHED BY

SINDH ENGINEERING COUNCIL ISLAMABAD

(also available on PEC website www.pec.org.pk)

LATEST EDITION

BE READ, REFERRED AND FOLLOWED

IN CONJUNCTION WITH

PART II

PART – II

PARTICULAR CONDITIONS OF CONTRACT

PART II - PARTICULAR CONDITIONS OF CONTRACT

1.1 Definitions

- (a) (i) The “Employer” is **Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh**” or their appointed representative in writing.
This definition of employer applies everywhere in the documents & substitutes the other definitions if mentioned anywhere else.
- (a) (ii) Add the following text at the end:
“and who is duly registered with Sindh Engineering Council in the appropriate category possessing valid registration.”
- (a) (iii) “Engineer” means the Engineer Designated as such here below or other Engineer appointed from time to time by the employer and notified in writing to the Contractor to act as the Engineer for the purpose of the Contract in place of the Engineer so designated. Pursuant to and subject to the foregoing the Engineer.
- (a) (iv) “Bidder or Tenderer” means any person or persons, company, corporation or firm 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) (ii) Add the following at the end of the paragraph:
The word “Tender” and its derivatives are synonymous with “Bid” and the word “Tender Documents” with “Bidding Documents”.
- (b)(iii): The words between brackets “if any” are deleted.
- (b)(iv): Amend Part – I to read as under:
“Appendices to Tender” means Appendices A through N 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)(v) “Programme” means the programme to be submitted by the Contractor in accordance with Sub-Clause 14.1 and any approved revisions thereto.
- (c)(i) “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.
- (c)(ii) Delete the text and substituted with the following:
“Contract Price” means the sum stated in the Letter of Acceptance as payable to the Contractor for the execution, completion and maintenance 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.

- (d) “Project” means “**Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh**”.

2.1 Engineer's Duties and Authority

- a. With reference to Sub-Clause 2.1(b), the following provisions shall also apply;
- b. 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 extension in time under sub clause 12.2 (a) “Not foreseeable physical obstruction or conditions”.
 - (iii) Any action under clause 10”Performance Security” and Clauses 21,23,24 & 25 “insurance” of sorts.
 - (iv) Any action under Clause 40 “Suspension”
 - (v) Any action under Clause 44 “Extension of Time for completion”.
 - (vi) Any action under Clause 47 “Liquidated Damages for Delay”
 - (vii) Issuance of “Taking Over Certificate”
 - (viii) Issuing a Variation Order under Clause 51
 - (ix) Fixing rates or prices under Clause 52.1.
 - (x) Release of Retention Money to the Contractor under Sub-Clause 60.3 “Payment of Retention Money”.
 - (xi) Issuance of “Final Payment Certificate” under Sub-Clause 60.8.
 - (xii) Issuance of “Defect Liability Certificate” under Sub-Clause 62.1.
 - (xiii) Certifying additional payment under Sub Clauses 65.3 & 65.5.
 - (xiv) Release from performance under the law under Sub Clause 66.1
 - (xv) Certifying additional cost under clause – 70.

(Note: Any other acts directed by Employer)

- 2.1(c)** The following words are added at the end of this Sub Clause.
“or to order any works 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 Sindh Engineering Council Act 1975 (V of 1976)

Add the following Sub-Clauses:

2.3 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.

Add the following Sub Clause:

2.4 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.”

3.1 Subcontracting

The words “the Engineer” in the third line are deleted and the words “the Employer” are substituted thereof.

4.1 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 applicable law shall be the law in force from time to time in country of the Employer i.e Sindh.

5.2 Priority of Contract Documents

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

- (a) The Contract Agreement;
- (b) The Letter of Acceptance;
- (c) The completed Form of Bid; including Appendices A to N except Appendix D to Bid (i.e Prices Bill of Quantities);
- (d) The Particular Conditions of Contract – Part II;
- (e) The General Conditions – Part I;
- (f) The Specifications
- (g) The Drawings;
- (h) The Priced Bill of Quantities (Appendix D)

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:

6.1.1 Contract Agreement

2nd line be read as

Agreement to be prepared and **completed at the cost of Contractor.**

7.1 Performance Security

Delete the text 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 5% of the Contract Price stated in the Letter of Acceptance and valid up to completion period. Such Security shall be in the form of unconditional on demand bank guarantee from any Scheduled Bank in Sindh.

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

Add the following Sub Clause:

8.1 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.

9.1 Inspection of Site

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 before 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 or affect his Tender.

10.1 Sufficiency of Tenders

After the word “Quantities” and the comma appearing in the third line, the following words are inserted:

“and the schedule of rate and prices, if any”,

11.1 Not foreseeable Physical Obstructions or Conditions

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 to 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.

12.1 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.

12.2 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 Work to be in Accordance with Contract

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

Delete the text in entirety and replace with

The programme shall be submitted within 14 days from the date of receipt of Letter of Acceptance. The Contractor shall submit two copies of the Programme of Works referred to Clause 14.1 before start of the works in the mobilization period at site after detailed survey of the Site. The programme 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 payments expected to be made to the Contractor by the Employer.

The programme 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 to become critical to the Progress of Works, along with proposal on how the Contractor intends to alleviate the situation. This record of revised programmes shall also be one of the bases of consideration for time extension if and when requested by the Contractor.

14.2 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

Add the following Sub-Clause:

14.3 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) Labor Employment;
 - (3) Local Material Procurement;
 - (4) Material Imports, if any; and

- (5) Other details as required by the Engineer.
- (b) During the period of the Contract, the Contractor shall submit to the Engineer not later than the 8th day of the following month, 5 copies each of Monthly Progress Reports covering:
- (1) A Construction Schedule indicating the monthly progress in percentage;
 - (2) Description of all work carried out since the last report; the actual work compared to the original approved 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.

Add the following Sub-Clauses:

15.1 Language Ability of Contractor's Representative

The Contractor's authorized representative shall be fluent in the English language. Alternately an interpreter with ability of English language shall be provided by the Contractor on full time basis.

15.2 Contractor's Representative

The Contractor's authorized representative and his other professional Engineers working at Site shall register themselves with the Sindh Engineering Council. All key staff Cvs to be provided to Engineer for formal approval.

The Contractor's authorized representative at Site shall be authorized to exercise adequate administrative and financial powers on behalf of the Contractor so as to achieve completion of the Works as per the Contract.

16.1 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.

16.2 Employment of Local Personnel

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

17.1 Setting out

Para 2 be read as under:-

If, at any time during the execution of the Works, any error appears in the position, levels, dimensions or alignment of any part of the Works, the contractor, on being required so to do by the Engineer, shall, at his own cost, rectify such error to the satisfaction of the Engineer.

18.1 Boreholes and Exploratory Excavation (Not Applied)

The following text of Sub-Clause is deleted

The building has been designed **as per Soil Investigation Report** 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.

19.1 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 Sindh 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.

19.2 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.

20.1 Responsibility to Rectify Loss or Damage

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 to drawings and specifications."

20.2 Employer's Risks

Delete the text and substitute with the following:

The Employer's risks are:

- (a) Insofar as they directly affect the execution of the Works in Sindh:
 - (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 Sub-Contractors 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

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 Scope of Cover

- (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 to any consequent loss of or damage to any other part of the works.

21.3 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 (i) to (iv)

22.1 Minimum Amount of Insurance

Such insurance shall be for at least the amount stated in the Appendix to Tender.

23.1 Cross Liabilities

Last line be read as Shall apply to the Contractor and to the Employer as separate insured’s **the cost will be borne by the Contractor.**

The following sub-clause 25.5 is added:-

24.1 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 approved Insurance Companies acceptable to the Employer.

Costs of such insurances shall be borne by the Contractor.

Add following Sub-Clause:

25.1 Fossil

The words “by the Contractor or any of his Sub-Contractors” are inserted after the word “Site” in the second line.

26.1 Transport of Material or Plant

The Text is deleted and substituted with the following:-

If, notwithstanding Sub – Clause 30.1, any damage occurs to any bridge or road communicating with or on the routes to the Site arising from the transport of materials or Plant, the Contractor shall notify the Engineer with a copy to the Employer, as soon as he becomes aware of such damage or as soon as he receives any claim from the authority entitled to make such claim. Where under any law or regulation the hauler of such materials or Plant is required to indemnify the road authority against damage the Employer shall not be liable for any costs, charges or expenses in respect thereof or in relation thereof and if in the opinion of the Engineer, due to any failure on the part of the Contractor to observe and perform his obligations under Sub-Clause 30.1, then the amount determined by the Engineer, after due consultation with the Employer and the Contractor, to be due to such failure shall be recoverable from the Contractor by the Employer and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Provided also that the Employer shall notify the Contractor whenever a settlement is to be negotiated and, where any amount may be due from the Contractor, the Employer shall consult with the Contractor before such settlement is agreed.

27.1 Facilities for other Contractors

- (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.

28.1 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. Add the following Sub-Clauses:

29.1 Rates of Wages and Conditions of Labor

The Contractor shall pay rates of wages and observe conditions of labor 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 labor so established, the Contractor shall pay rates of wages and observe conditions of labor 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.

30.1 Employment of Persons in the Service of Others

The Contractor shall not recruit his staff and labor from amongst the persons in the services of the Employer or the Engineer; except with the prior written consent of the Employer.

31.1 Housing for Labor

Save insofar as the Contract otherwise provides, the Contractor shall provide and maintain such housing accommodation and amenities as he may consider necessary for all his labor, employed for the purposes of or in connection with the Contract including all fencing, electricity supply, sanitation, cookhouses, fire prevention, water supply and other requirements in connection with such housing accommodation or amenities. On completion of the Contract, 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.

32.1 Health and Safety

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

33.1 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.

34.1 Supply of Water

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

34.2 Alcoholic Liquor or Drugs

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

34.3 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.

34.4 Festivals and Religious Customs

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

34.5 Disorderly Conduct

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

34.6 Compliance by Subcontractors

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

34.7 Contractor shall also provide site office. The site office with water borne sanitary and electrical facilities shall be arranged and erected by the contractor at his own cost for construction of the project for, his own and Employer use. This office will also be provided with a telephone. On completion of the work, the contractor shall remove the structure, when asked by the Employer and Engineer-in-charge, and clear the site without any claim for compensation for construction and removal of the same.

Add the following Sub – Clauses:

35.1 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.

35.2 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.

Add the following Sub-Clauses:

36.1 Cost of Tests not Provided for

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”.

36.2 Engineer's Determination where Tests not provided for

Of the general conditions in Part I is renumbered as Sub-Clause 36.6. A new Sub-Clause 36.5 is inserted as follows:

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:

36.3 Use of Sindhi 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 Sindh and services, available in Sindh provided such materials, supplies, plant, equipment and services shall be of required standard.

37.1 Uncovering and Making Openings

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 from time to time instruct and shall reinstate and make good such part or 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 costs 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, shown his intention in writing to Engineer and the Employer to claim such expenses. In any other case all costs shall be borne by the Contractor.

38.1 Suspension lasting more than 84 Days

(1) The words "a period of 91 days" are substituted for the words "a period of 84 days" in the third line of Sub-Clause 40.3.

(2) The words "an event of default" appears in the 11th line of the Sub-Clause are deleted and the words "a repudiation of the Contract" are substituted therefore.

39.1 Commencement of Works

Delete the text and substitute with 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

40.1 Failure to Give Possession

The text is deleted and substituted with following

If the Contractor suffers delay from failure on the part of the Employer to give possession in accordance with the terms of Sub-Clause 42.1, the Engineer shall, after due consultation with the Employer and the Contractor, determine extension of time to which the Contractor is entitled under Clause 44, and shall notify the Contractor accordingly.

41.1 Time for Completion

The whole of the Works and, if applicable, any Section required to be completed within a particular time as stated in the Appendix to Tender, shall be completed, in accordance with the provisions of Clause 48, within the time stated in the Appendix to Tender for the whole of the Works or the Section (as the case may be), calculated from the Commencement Date, or such extended time as may be allowed under Clause 44.

42.1 Liquidated Damages for Delay

If the Contractor fails to comply with the Time for Completion in accordance with Clause 48, for the whole of the Works or, if applicable, any Section within (109) the relevant time prescribed by Clause 43, then the Contractor shall pay to the Employer the relevant sum stated in the Appendix to Tender as liquidated damages for such default and not as a penalty (which sum shall be the only monies due from the Contractor for such default) for every day or part of a day which shall elapse between the relevant Time for Completion and the date stated in a Taking-Over Certificate of the whole of the Works or the relevant Section, subject to the applicable limit stated in the Appendix to Tender. The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under the Contract.

43.1 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 refundable if the progress again matches with the approved works schedule any time during the currency of the contractor”.

44.1 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”.

45.1 Taking Over of Sections or Parts

(110) similarly, in accordance with the procedure set out in Sub-Clause 48.1, the Contractor may request and the Engineer shall issue a Taking-Over Certificate in respect of:

- (a) Any Section in respect of which a separate Time for Completion is provided in the Appendix to Tender,
- (b) any substantial part of the Permanent Works which has been both completed to the satisfaction of the Engineer and, otherwise than as provided for in the Contract, occupied or used by the Employer, or
- (c) Any part of the Permanent Works which the Employer has elected to occupy or use prior to completion (where such prior occupation or use is not provided for in the Contract or has not been agreed by the Contractor as a temporary measure).

Defects Liability

46.1 Defects Liability Period

In these Conditions the expression "Defects Liability Period" shall mean the defects liability period named in the Appendix to Tender, calculated from:

- (a) the date of completion of the Works certified by the Engineer in accordance with Clause 48, or
- (b) in the event of more than one certificate having issued by the Engineer under Clause 48, the respective dates so certified, and in relation to the Defects Liability Period the expression "the Works" shall be construed accordingly.

Alterations, Additions and Omissions

47.1 Variations

The Engineer shall make any variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion, be appropriate, he shall have the authority to instruct the Contractor to do and the Contractor shall do any of the following:

- (a) Increase or decrease the quantity of any work included in the Contract,
- (b) Omit any such work (but not if the omitted work is to be carried out by the Employer or by another contractor),
- (c) Change the character or quality or kind of any such work,
- (d) Change the levels, lines, position and dimensions of any part of the Works,
- (e) Execute additional work of any kind necessary for the completion of the Works, or
- (f) Change any specified sequence or timing of construction of any part of the Works.

No such variation shall in any way vitiate or invalidate the Contract, but the effect, if any, of all such variations shall be valued in accordance with Clause 52. Provided that where the issue of an instruction to vary the Works is necessitated by some default of or breach of contract by the Contractor or for which he is responsible, any additional cost attributable to such default shall be borne by the Contractor.

48.1 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 to the 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.

49.1 Valuation of Variations

The Text is deleted and substituted with the following:

All variations referred to in Clause 51 and any additions to the Contract Price which are required to be determined in accordance with Clause 52 (for the purposes of this Clause referred to as “varied work”), shall be valued at the rates and prices set in the Contract if, in the opinion of the Client or Engineer, the same shall be applicable. If the Contract does not contain any rates or prices applicable to the varied work, the rates and prices in the Contract shall be used as basis for valuation so far as may be reasonable. If the Contract shall not contain any rates applicable to the extra or additional Works/Non Schedule Work, then the Contractor shall be allowed a **premium of 20% (twenty percent) to cover his overheads**, contingencies, taxes, profits etc, over the actual cost of material, labor at SITE, etc, for which the Contractor shall submit detailed breakup of the variation item and purchase vouchers of the material and labor cost involved for checking and fixing the actual cost. The Contractor shall not hold or delay the progress of the Works on account of such fixation of the prices of the variation by the ENGINEER AND EMPLOYER.

50.1 Power of Engineer to Fix Rates

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 of the original billed quantity by more than **Fifteen (15) percent**”.

51.1 Variations Exceeding 15 Percent (Deleted)

52.1 Failure to Comply

Delete this Sub-Clause in its entirety.

53.1 Customs Clearance

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

“All duties, Taxes and custom clearness is the responsibility of Contractor.”

54.1 Conditions of Hire of Contractor’s Equipment

Add the following paragraph:

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- Clause 59.4 & 59.5 are added:

55.1 Payments to Nominated Subcontractors

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

56.1 Certification of Payments & Nominated Subcontractors

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

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

Then the Employer may (at his sole discretion) pay direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deduction) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the employer, the amount which the nominated subcontractor was directly paid by the Employer.

57.1 Monthly Statements

In the first line after the word "shall", add the following:
"on the basis of the joint measurement of work done under Clause 56.1".

58.1 Monthly Payments

The Engineer shall, within 28 days of receiving such statement, deliver to the Employer an Interim Payment Certificate stating the amount of payment to the Contractor which the Engineer considers due and payable in respect of such statement, subject: (a) firstly, to the retention of the amount calculated by applying the Percentage of Retention stated in the Appendix to Tender, to the amount to which the Contractor is entitled under paragraphs (a), (b), (c) and (e) of Sub-Clause 60.1 until the amount so retained reaches the Limit of Retention Money stated in the Appendix to Tender, and

- (b) Secondly, to the deduction, other than pursuant to Clause 47, of any sums which may have become due and payable by the Contractor to the Employer. Provided that the Engineer shall not be bound to certify any payment under this Sub-Clause if the net amount thereof, after all retentions and deductions, would be less than the Minimum Amount of Interim Payment Certificates stated in the Appendix to Tender. Notwithstanding the terms of this Clause or any other Clause of the Contract no amount will be certified by the Engineer for payment until the performance security required under the Contract, has been provided by the Contractor and approved by the Employer.
- (c) Add the following at the end of last paragraph:

“Provided further that no amount under Monthly Statement will be certified by the Engineer for payment until the Contractor has submitted all acceptable insurance policies or action initiated in compliance with Clause 25.3 of the Condition of Contract and has also submitted and got approved by the Engineer, Programme of Works in accordance with Sub-Clause 14.1 of Conditions of Contract”

59.1 (a) (Not applicable)

(b) Upon the expiration of the Defects Liability Period for the Works full Retention Money shall be certified by the Engineer for payment to the Contractor. Provided that, in the event of different Defects Liability Periods having become applicable to different Sections or parts of the Permanent Works pursuant to Clause 48, the expression "expiration of the Defects Liability Period" shall, for the purposes of this Sub-Clause, be deemed to mean the expiration of the latest of such periods. Provided also that if at such time there shall remain to be executed by the Contractor any work instructed, pursuant to Clauses 49 and 50, in respect of the Works, the Engineer shall be entitled to withhold certification until completion of such work of so much of the balance of the Retention Money as shall, in the opinion of the Engineer, represent the cost of the work remaining to be executed.

60.1 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 30 days after such Interim Payment Certificate has been jointly verified by Employer and Contractor: and Final Payment in 60 days after Final Payment Certificate is delivered to the Employer.

The following Sub-Clause 60.11 is added:

60.2 Secured Advance on Materials

- (1) the materials are in accordance with the Specifications for the Permanent Works and material brought at site should be such that should be consumed within 3 month as per work schedule;
- (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 therefore;
- (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.

60.3 Financial Assistance to Contractor

Financial assistance shall be made available to the Contractor by the Employer as payment of mobilization advance as under:-

- (a) **Mobilization Advance (with 10% markup per annum) up to 10% 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 Sindh.
 - 1. First part within 14 days after signing of the Contractor Agreement or date of receipt of Engineer's Notice to Commence, whichever is earlier; and
 - 2. Second part within 90 days from the date of payment of the first part, subject to the satisfactory Construction of RCC Raft and Ground Floor roof slab.
- (b) This Advance shall be recovered in **four** equal installments; out of each subsequent bill paid to contractor for the work done.

61.1 Default of Contractor

Add the following para 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 Sindh Engineering Council for punitive action under the Construction and Operation of Engineering Works Bye-Laws 1987, as amended from time to time.

62.1 Special Risks

Delete the text and substitute with the following:

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

63.1 Damage to Works by Special Risks

The text is deleted

64.1 Projectile, Missile

The Text is deleted

65.1 Increased Cost arising from Special Risks

The Text is deleted.

65.2 Payment if Contract Terminated

The text with heading is deleted and is substituted as follows:

65.3 Termination

1) If the Contractor shall become bankrupt or have a receiving order made against him, or shall present his petition in bankruptcy, or shall make an arrangement with or assignment in favor of his creditors, or shall agree to carry out the Contract under a Committee of Inspection of his creditors, or (being a corporation) shall go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or if the Contractor shall assign the Contract without the consent in writing of the Employer first obtained, or shall have an execution levied on his goods, or if the Engineer shall certify in writing to the Employer, or if it appears to the Employer that the Contractor:-

- a) Has abandoned the Contract/ work at site, OR
- b) without reasonable excuses has failed to commence the WORKS
- c) Has suspended the progress of the WOKRS for 7 days after receiving from the Engineer written notice to proceed, OR
- d) Has failed to remove materials from the SITE or to pull down replace WORKS for 7 days after receiving from the Engineer written notice that the said materials or Works have been condemned and rejected by the Engineer under these conditions, OR
- e) Is not making reasonable and satisfactory progress, to the satisfaction of the Employer and / or the Engineer, OR
- f) Is not executing the Works in accordance with the Contract or is neglecting to carry out his obligations under the Contract,

In any such case, the Employer may after giving 15 days notice in writing to the Contractor, expel the Contractor from the Site of the Works without thereby avoiding the Contract or releasing the Contractor from any of his obligation or liabilities under the Contract, or affecting the rights and powers conferred on the Employer or the Engineer by the Contract at the **risk and cost of the original contractor**. The Employer may opt:-

- (i) To himself complete the Works or may employ any or other Sub-Contractor to complete the Works or part of works. To supply labor paid by the Employer and to supply materials to carry out the works or part of the works and debt the Contractor with the cost (as hereinafter specified) of labor or material etc. and crediting with the value of the work done in all respects under same manner and at the rates as if it had been carried out by the Contractor under the terms of his contract. The Employer or such Sub-Contractor on
- (j) direction of the Employer may use the construction Plant/ machinery, Temporary Works and materials which have been deemed to be reserved exclusively for the construction and completion of the Works under the provisions of the Contract. For the purpose of this clause, cost of labor and material including all other expenses shall be actual expenditure plus 15% to cover overhead charges besides penalties etc and shall be charged to the Contractor. OR

To engage any other Contractor/Contractors by floating tenders for the remaining works. Any extra cost to be paid to the new contractor/ contractors along with 10% overhead

charges shall be chargeable to the original contractor besides penalties etc. The Employer or such other Contractor may use for such completion of the constructional Plant, Temporary Works and materials which have been deemed to be reserved exclusively for

(i) the construction and completion of the Works under the provisions of the Contract, as he or they may think proper, and the Employer may at any time sell any of the said Constructional Plant, Temporary Works and unused, materials and apply the proceeds of sale in or towards the recovery of any sums due or which may become due to the Contractor under the Contract.

(iii) Even a wrongful termination of the Contract by the Employer will be no excuse or reason for the Contractor to remain and / or enter upon the Site and / or to hamper or obstruct in any manner whatsoever, the Works to be carried on by the Employer himself or through another Contractor. The remedy of the Contractor in respect of the termination of the Contract by the Employer for whatever reason and howsoever wrongful, shall be way of

peculiar damages only. In the event of any differences between the Contractor and the Engineer, the decision of the Employer shall be and final and binding on the Contractor.

(iv) In the event of any of the above courses being adopted by the Employer or the Engineer, the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or labor or for entering into engagement or having made any advance on account of or with a view to executing the works or the performance of the Contract.

(v) The Employer shall not be liable to pay to the Contractor any money on account of the contract until the losses, liquidated damages, penalties and all other payable amounts are certified by the Engineer or the Employer, if the sums on account of losses, liquidated damages, compensation for delays in completion of works, maintenance and other charges exceed the sum due to the Contractor, the amount of such excess shall be deemed a debt payable by the contractor to the Employer and shall be recoverable accordingly.

ii) Valuation at date of forfeiture

The Engineer shall, as soon as may be practicable after any such entry and expulsion by the Employer, fix and determine ex-parte or by or after reference to the parties, or after such investigation or inquires as he may think fit to make or institute, and shall certify what amount (if any) had at the time of such entry and expulsion been reasonably earned by or would reasonably accrue to the Contractor in respect of the Works then actually done by him under

the Contract, and what was the value of any of the said unused or partially used materials, any Constructional Plant, and any Temporary Works which have been deemed to become the Property of the Employer under the provisions of the Contract.

66.1 Amicable Settlement

The Employer, Consultant/Engineer and Contractor may agree to constitute *Dispute Adjudication Board* (DAB) as per FIDIC guidelines prior to arbitration proceeding on a particular dispute on

Ad-hoc basis or for dispute(s) permanently with the mutual consent of both parties.

67.1 Arbitration

The Text is deleted in its entirety and replaced as under:

Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably within twenty eight (28) days after receipt by one Party or the other Party's request for such amicable settlement may be submitted by either Party for settlement to the Dispute Adjudication Board (DAB) comprising the following, whose decision shall be final and binding on the Parties.

Services under the Contract shall, if reasonably possible, continue during the above proceeding and no payment due to or by the Client shall be withheld on account of such proceedings.

In case of any litigation between the parties arising out of or in connection with this agreement the _____ shall have the exclusive jurisdiction.

68.1 Notices to Contractor

Add the following paragraph:

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 purpose of this Sub-Clause, the respective address are:

- a) The Employer:
- b) **The "Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand Road landhi stop Nawabshah) Sindh"**
- c) The Engineer:

69.1 Payment on Termination

The text is deleted and substituted as under:-

If the Employer shall enter and expel the Contractor under Clause 65.8 hereof he shall not be liable to pay to the Contractor any money on account of the Contract until the expiration of the Period of Maintenance and thereafter until the cost of completion, maintenance and damage for delay in completion (if any), and all other expenses incurred by the Employer have been ascertained and the amount thereof certified by the Employer Representative. The Contractor shall then be entitled to receive only such sum or sums (if any), as the Employer's Representative may, in consultation with the Employer, certify would have been due to him

upon completion by him after deducting the said amount But, if such amount shall exceed the sum which would have been payable to the Contractor on due completion by him, then the amount of such excess shall be deemed a debt payable by the Contractor to the Employer and shall be recoverable accordingly.

69.2 Contractor's Entitlement to Suspend Work

The Text is deleted and substituted as under:-

The contractor may, if the Employer fails to pay the Contractor the amount due under any certificate of the Engineer within 28 days after the expiry of the time stated in Sub-Clause 60.10 within which payment to be made, subject to any deduction that the Employer is entitled to make under the contract, after giving 28 days' prior notice to the Employer, with a copy to the Engineer, suspend work or reduce the rate of work.

If the Contractor suspends work or reduces the rate of work in accordance with the provisions of this Sub-Clause and thereby suffers delay or incurs costs the Engineer shall, after due consultation with the Employer and the contractor determine any extension of time to which the Contractor is entitled under Clause 44, and shall notify the Contractor accordingly, with a copy to the Employer.

69.3 Resumption of Work

The Text is deleted and substituted as under:-

Where the Contractor suspends work or reduces the rate or work, having given notice in accordance with Sub-Clause 69.4, and the Employer subsequently pays the amount due, the

Contractor's entitlement under Sub-Clause 69.1 shall, if notice of termination has not been given, lapse and the Contractor shall resume normal working as soon as is reasonably possible.

70.1 Increase or Decrease of Cost (Not applicable)

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

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

29.2 (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.

29.3 (b) Adjustment Formula

Applicable on cement, steel, brick, labor and POL only & for the period after six months from the construction commencement date subject to satisfactory progress of work by the contractor. i.e. Construction up to roof of Second Floor. Also refer Appendix C to Bid Pages 86 and 87.

The adjustment to the monthly statement in respect of changes in cost shall be determined based on the consumption of materials (Cement, Steel and Bricks) and difference of cost indicated by Federal Bureau of Statistics.

29.4 (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.

29.5 (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.

29.6 (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.

29.7 (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.

71.1 Currency Restrictions

Clause is deleted

72.1 Rates of Exchange

Not applicable deleted

72.2 Currency Proportions

Not applicable deleted

72.3 Currencies of Payment for Provisional Sums

Not applicable deleted

73.1 Payment of Income Tax

The Contractor, Subcontractors and their employees shall be responsible for payment of all their income tax, super tax, Professional Tax, Stamp Duty and other taxes on income arising out of the Contract and the rates and prices stated in the Contract shall be deemed to cover all such taxes. Tax deduction at source will be done by the Employer in accordance with prevailing rates of the Govt. of Sindh.

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.

Add the following 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.

Add the following Sub-Clause:

76.1 Liability of Contractor

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

Add the following Sub-Clause:

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.

Add the following Sub-Clause:

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.

79.1 Unit Price

The unit price rates quoted by the Contractor shall also include all additional costs and provision required for the correct execution and performance of the Contract in compliance with the specifications, Construction schedule and Completion Time. The quoted prices shall also include, besides the basic cost of supply and fixing of materials and equipment and other Works specified, cost of all transport, photographs, labor, wastages, keeping the SITE clear, Contactor's profit, the cost of all other things necessary for the completion of the Contract and shall include but not be limited to the cost of following:

- a) Furnishing and maintenance of the complete plant necessary for the execution of the Works equipment for transportation, temporary approach and access roads, way leaves, SITE offices and sheds, furnishing and maintenance of Workshop storage areas and of SITE.
- b) The required electric light, power and water, fuels, lubricants and connected personnel of all categories.
- c) All additional costs due to any kind of difficult working conditions due to frequent dislocation and interruptions in various SITE operations due to various reasons, difficulty in approach and access to SITE, difficulty in transportations, congested

traffic, water and weather conditions such as flood, rain and storm, sand dunes, underground water or running water.

- d) Separate allowances, ambulances, expenses for medical treatment, traveling allowances, hotel and traveling.
- e) Overhead costs of Contractor's administration and execution including the following:
 - i) Costs of setting measurements including all instruments tools materials and labor.
 - ii) Costs of samples and testing load testing including all instruments, material labor and personnel.(i-e Cubes, Cylinder etc)
 - iii) The costs of setting out and dismantling of all installations, stores, offices of the Contractor and maintenance of these stores, offices, etc.
 - iv) All labor indemnity costs or corresponding insurance costs.
 - v) Cost of provision of potable water for workers and others on SITE and for constructional plant for the Works.
 - vi) The cost of installing lighting, fencing, hoarding protection, guarding and maintenance of signals for Works in progress including the cost of moving the same as and when necessary.
 - vii) The cost of all temporary WORKS, construction and maintenance of access road as necessary, steel scaffolding, steel shuttering all protection WORKS shoring, strutting sheeting and dewatering, temporary casing removal and disposal of al surplus earth, debris, slush, rubbish etc.
 - viii) The cost of insurance policy premiums, bonds guarantees etc, to be kept in force till issue of Maintenance Certificate, including for extended Contract.
 - ix) All payment in connection with patents rights and royalties, manufactures trademarks, commercial names, permit and their renewals, liabilities or other protected rights in Sindh.
 - x) All duties, fiscal stamps, charges and expenses in conformity with any Local Laws and Regulations, whatsoever.
 - xi) All expenses for licenses, liabilities and the like in connection with the WORKS.
- f) Incidental expenses, head office costs and local agent's indemnity.
- g) All taxes, income and sales-tax and octroi charges etc, payable to the Federal and Provincial Governments and Local Bodies.
- h) Other special WORKS, arrangements and provision not mentioned here but necessary for the proper and complete execution of the WORKS including transportation, port handling, transshipment etc.

- i) All expenses for designing and the preparation of Shop drawings and As Built Drawings.
- k) All costs of producing documentation of all types as required under CONTRACT including Construction Schedule, reports, etc.
- l) Profits

PART II –PARTICULAR CONDITIONS OF CONTRACT

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SPECIFICATIONS
SPECIAL PROVISIONS

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

3. The Employer intends to carry out the **“Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”**.

CONTRACT NO: _____

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 defined 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.

4. 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	-	Sindh 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.

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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 in accordance with a Site testing and quality control programme to be established by the Contractor and approved by the Engineer/Employer. The Engineer may however, require certain tests to be performed in any other laboratory designated by Employer.

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 & Employer shall be deemed to be included in the price quoted by the Contractor and no separate claim for payment on this account shall be entertained by the Engineer. Further more 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.

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

9.2 Surveying Equipment Required

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

- a) Electronic distance measuring device - 01 No.
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 and materials required in surveying. - As directed by the Engineer

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 finishes, the Contractor shall deliver samples of all related items to the Engineer at one time. Samples of such materials will not be approved until all related samples have been submitted.

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 at all times and in all states of completion both off-Site and on-Site. The Contractor shall furnish promptly without additional charge, all facilities, labor and materials reasonably needed for performing such inspection and testing as may be required by the Engineer.

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 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 Sub-Clause 12.2 hereof.

12.2 Construction Drawings, Supplementary Drawings

After award of Contract, 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.

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The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall follow these drawings. When additional information regarding the geological formations or other conditions becomes available, the Engineer may find it desirable to change dimensions or design of one or more of the features of the Works to conform to the newly disclosed conditions. The Engineer reserves the right to make such reasonable changes, and the Contractor's operations shall be conducted so as to accommodate any such reasonable changes in the Works.

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 Contractor 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 dates of all revisions. The Shop Drawings shall be complete and shall show the design dimensions, proposed materials to be used, finishes, type of shop paint and all other details in connection thereto.

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

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

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

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

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

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 Contractor shall do regular cleaning and clear away all rubbish and excess materials that may accumulate from time to time on completion and before handing over. Upon completion of the works he shall obliterate all signs of temporary construction facilities such as work areas, structures, foundations of temporary structures, stock piles of excess or waste materials, or any other vestiges of construction, as directed by the Engineer. All buildings shall be cleaned; floors and paving scrubbed and the works and site shall be left in a clean and satisfactory state for immediate use and occupation. Care shall be taken not to use any cleaning materials, which may cause 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 free on completion. Application of pest control agents shall not commence until the specific product, name, method and extent of application have been submitted to and approved of by the Engineer.

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

15.1 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. Labor 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 and Employer.

The Contractor shall make arrangements for his own camp, workshops, yards, storage areas and areas of erection of equipment and offices inside the site area and all approvals & permissions in this regard from the concerned authorities for all such facilities shall be the responsibility of the Contractor.

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

15.2	Site office requirement for Client / Consultants.	Facilities

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 Set at Site and maintain the generating set in perfect working condition through-out the duration of Contract. The generating power of the set shall be sufficient to operate all plant and equipment as well as the camps and offices of the Contractor 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/s 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 around 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.

15.3.5 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.

15.4 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 Labor Camps and Staff Residences

The Contractor shall provide, operate and maintain labor camps and staff residences. For the purposes of operation and maintenance of the Camps and Residences, the Contractor shall comply with the rules of Sindh Labor Camp Rules 1960 and all other applicable provisions of the Sindh Labor 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 labor camps, staff residences and offices. The Contractor shall pay all fees, and charges (including bills) of whatsoever nature to the concerned departments (if any) in order to procure connections of the above facilities and thereafter using these facilities. 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. 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 Sindh 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 labor 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 next 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 warning of the overhead work.

All warning signs shall be in two languages, English and Urdu, and shall at all times be maintained in a clean and legible 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 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 labor for checking if required of the survey control by the Engineer. Slope stakes will be set by the Contractor before commencement of excavation and will be re-established as required during progress of work using established 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 from point to point, except where tighter tolerances are required.
- (b) Cross-section points shall be located within 0.10 foot, horizontally and 0.01 foot vertically.
- (c) Permissible closing error for a leveling line meant for establishing Temporary Bench Mark (TBMs) shall not exceed $0.045 \times \sqrt{M}$ foot, where 'M' is in miles. The permissible closing error shall be duly adjusted.

The Contractor shall provide all materials, equipment and labor required for surveying work, including, but not limited to, instruments, stakes, spikes, steel pins, templates, platforms, and tools, and except as required to be incorporated in the work 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 labor required for surveys for the Works and quantity surveys required by this clause shall be deemed to be included in the rates and prices of the various items in the Bill of Quantities and no separate measurement and payment in their respect shall be made.

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

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.

SPECIFICATIONS

TECHNICAL PROVISIONS (SEPARATE VOLUME - II)

APPENDICES TO BID

SPECIAL STIPULATIONS

Clause

Conditions of Contract

1	Engineer's Authority to issue Variation in emergency	2.1	3% of the Contract Price stated in the Letter of Acceptance. Subject to approval from the competent authority. (max variation limit 15%)
2	Variation	2.1(b) (viii) (b)	All variations to be approved from the competent Authority
3	Law applicable	5.1 (b)	The law to be applied is the law of Islamic Republic of Sindh
4	Amount of Performance Security	10.1	5% of Contract Price stated in Letter of Acceptance.
5	Time for Furnishing Program	14.1	Within 14 days from the date of receipt of Letter of Acceptance.
6	Minimum amount of Third Party Insurance	23.2	Rs 500,000/- per occurrence with number of occurrences unlimited.
7	Time for Commencement	41.1	Within 14 days from the date of receipt of Engineer's Notice to Commence which shall be issued within Fourteen (14) days after signing of Contract Agreement.
8	Time for Completion	43.1, 48.2	03 Months from the date of receipts of Engineer's Notice to Commence.
9	(a) Amount of Liquidate Damages	47.1	Rs. 10,000/- 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 Bonus	47.3	Not applicable
10	Defects Liability Period	49.1	(12 Months) from the effective date of Taking Over Certificate.
11	Percentage of Retention Money	60.2	10% of the amount of Interim Payment Certificate.
12	Limit of Retention Money on total amount	60.1,2 ,3	5% of contract Price stated in the Letter of Acceptance.
13	Minimum amount of Interim Payment Certificates (Running Bills)	60.2	5% of Contract Price depending on completion period of the Works.
14	Time of Payment from delivery of Engineer's interim payment Certificate to the Employer.	60.10	15 days in case of local currency
15	Mobilization Advance (with 10% markup per annum) N/A	60.12	10% of Contract Price to be paid in two parts as stated in the Letter of Acceptance. shall be recovered in 4 equal installments along with 10% markup per annum; out of each subsequent bill paid to contractor for the work done

FOREIGN CURRENCY REQUIREMENTS
(If required and only in case of International Bidding)

1. The Bidder may indicate here in below his requirements of foreign currency (if any), with reference to various inputs to the Works.
2. Foreign Currency Requirement as percentage of the Bid Price excluding Provisional Sums %.
3. Table of Exchange Rates.

Unit of Currency	Equivalent in Pak. Rupees
Australian Dollar	-----
Euro	-----
Japanese Yen	-----
U.K Pound	-----
U.S Dollars	-----
-----	-----
-----	-----

NOT APPLICABLE

PRICE ADJUSTMENT UNDER CLAUSE 70 OF CONDITIONS OF CONTRACT
(NOT APPLICABLE)

BILL OF QUANTITIES**A. Preamble**

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract.
3. The rates and prices entered in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labor, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
4. 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. Complete description of items of works in the Bill of Quantities, general directions, conditions and limitations of works, location and place of works, applicable methods, means to be adopted, type and quality of materials, use of tools, plant, and machinery are not necessarily repeated not summarized in the Bill of Quantities. Reference to the relevant sections of the Technical Specifications and Drawings 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.
8. The "Ref Spaces" mentioned in the Bill of Quantities indicates, the Technical Specifications section number(s) which are to be followed during execution of item of work in accordance with the applicable drawings.
9. Notwithstanding provisions of Clause 51 of Part - I, General Conditions, no claim for extra payment will be admissible on account of anticipated profit or variation in overhead expenditure for the works not actually performed nor will any adjustment in the unit rate set

forth in the Bill of Quantities be made because of any increase or decrease in the quantities indicated therein.

10. Unless otherwise stated in the text of the priced Bill of Quantities, the quantities have to be measured and paid in accordance with the Measurement and Payment Clauses given in the relevant Technical Specifications or in accordance with implied meaning of the specifications. Any special method of measurement stated in the text of priced Bill of Quantities is limited to the concerned item only.
11. The following abbreviations for the Units have been used in the Bill of Quantities.

Unit		Abbreviations
Running Feet	-	Rft. / Ft.
Running Meter	-	M
Square Feet	-	Sft.
Cubic Feet	-	Cft.
Metric Ton	-	M. Ton.
Per Number	-	No. / Each
Lump Sum Job	-	Job
Kilogram	-	Kg

BILL OF QUANTITIES

B. Works Items

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

Day Work Schedule - Not Used

Summary Bill of Quantities

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

BILL OF QUANTITIES

C. Day work Schedule

NOT USED

BILL OF QUANTITIES

BILL OF QUANTITIES

1. **Rs.** _____

2. **Rs.** _____

3. **Rs.** _____

4. **Rs.** _____

BID PRICE **Rs.** _____

Note: All Provisional sums are to be expended in whole or, in part at the direction and discretion of the Engineer in accordance with Sub-Clauses 52.4 and 58.2 of the General Conditions of Contract - Part-I.

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 his Construction Schedule in the Bar Chart form 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 issue of Engineer’s Notice to Commence (Bidder to attach sheets as required for the specified form of Construction Schedule):

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

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 Sindh, 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.

Note:-

- 1- Use extra pages where required.***

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 equipments which shall be in sufficient details 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 must demonstrate that it has the key equipment listed hereafter:

No.	PLANT/EQUIPMENT				
	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	Steel Shuttering				
2	Steel Scaffolding				
3					
4					
5					
6					

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 services of the Contractor 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 (areas required, type of construction and layout).
- c- Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc).

4- Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).

5- Other Items Proposed (Security services, etc.) 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.

LIST OF SUBCONTRACTORS

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

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

Part of Works (Give Details)	Subcontractor (With Complete Address)
1	2

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 Sindhi Rupees:

Quarter/ Year/ Period	Amounts (1,000 Rs.)
1	2
1st Quarter	
2 nd Quarter	
3 rd Quarter	
4 th Quarter	
5 th Quarter	
6 th Quarter	
7 th Quarter	
8 th Quarter	
9 th Quarter	
10 th Quarter	
11 th Quarter	
12 th Quarter	
Bid Price	

ORGANIZATION CHART
FOR THE
SUPERVISORY STAFF AND LABOR

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

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

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

Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees, etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Sindh either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever from GoS, except that which has been expressly declared pursuant hereto.

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

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

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

Name of Employer:.....

Name of Contractor:.....

Signature:.....

Signature:

FORMS

- | | | |
|-----------|--|----------------------|
| 1. | BID SECURITY | - ANNEX – I |
| 2. | FORM OF PERFORMANCE SECURITY | - ANNEX – II |
| 3. | FORM OF CONTRACT AGREEMENT | - ANNEX – III |
| 4. | MOBILIZATION ADVANCE GURANTEE/ BOND | ANNEX – IV |
| 5. | INDEMNITY BOND FOR SECURED ADVANCE | - ANNEX – V |
| 6. | LETTER OF PRICE BID | - ANNEX-VI |

BID SECURITY**(Only in form of Pay Order / Deposit at call)****The following Text is deleted**
(Bank Guarantee)Security Executed on _____
(Date)Name of Surety (Bank) with Address: _____
(Scheduled Bank in Sindh)

Name of Principal (Bidder) with Address _____

Penal Sum of Security Rupees . _____ (Rs. _____)

Bid Reference No. _____

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

(hereinafter called the '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 Bidder furnishes a Bid Security in the above said sum from a Scheduled Bank in Sindh or from a foreign bank duly counter-guaranteed by a Scheduled Bank in Sindh, 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:

1. _____

Corporate Secretary (Seal)

2. _____

Name, Title & Address

Signature _____

Name _____

Title _____

Corporate Guarantor (Seal)

FORM OF PERFORMANCE SECURITY
(Bank Guarantee)

Guarantee No. _____
Executed on _____
Expiry date _____

[Letter by the Guarantor to the Employer]

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

Name of Principal (Contractor) with address: _____

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

Letter of Acceptance No. _____ **Dated** _____

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

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

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the 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 defenses under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments and without requiring the Employer to prove or to show grounds or reasons for such demand any 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.

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

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

	_____ Guarantor (Bank)
Witness:	
1. _____	Signature _____
_____	Name _____
Corporate Secretary (Seal)	Title _____
2. _____	
_____	_____
Name, Title & Address	Corporate Guarantor (Seal)

FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT is made at _____ on the _____ between:-

1. **The** _____ through _____, the _____, who has been authorized by the Employer to sign this Contract (Hereinafter called the “Client”)

AND

2. _____, through _____, who has been authorized by a Resolution of the board of Director of this Company to sign this contract on behalf of this Company (hereinafter called the “Contractor”).

1. Whereas the client requires the **“Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”**.

and

1. Whereas all the necessary details regarding the **“Supply, Installation, fixing and commissioning of 400 KW Solarization Project of Shaheed Benazir Bhutto University Shaheed Benazirabad (Sakrand road landhi stop Nawabshah) Sindh”** are mentioned in the **Tender Documents**.

Whereas under the Tender Document it was required that Qualified Contractor should submit bids for the Supply, Installation, fixing and commissioning of 400 KW Solarization Project, and

Whereas the Contractor is a Qualified Contractor and the Contractor submitted a bid in the amount of _____ and this Bid being the Most Advantageous was accepted.

Now therefore, it is agreed between the parties as follows:

1. In this Agreement words and expressions shall have the meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) Tender Notice
 - (b) Instruction to Tenderers
 - (c) The Contract Agreement;
 - (d) The Letter of Acceptance;
 - (e) The completed Form of Bid;

- (f) Special Stipulations
- (g) The Particular Conditions of Contract – Part II;
- (h) The General Conditions – Part I;
- (i) The priced Bill of Quantities
- (j) The completed Appendices to Bid

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- (k) The Drawings;
- (l) The Specifications.
- (m) Addenda or Corrigenda issued by Employer.

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 no advance payment shall be made, 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 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/BOND
(NOT APPLICABLE)**

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Employer') has entered into a Contract for

(Particulars of Contract)
with _____ (hereinafter called the 'Contractor').

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

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

AND WHEREAS, _____
(Scheduled Bank in Sindh)
(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 _____ (Rs _____).

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

GUARANTOR

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

WITNESS

1. _____

Corporate Secretary (Seal)

2. _____
(Name Title & Address)
- _____ Corporate Guarantor (Seal)

INDEMNITY BOND FOR SECURED ADVANCE
AGAINST MATERIAL BROUGHT AT SITE

(ON RS 100 NON – JUDICAL STAMP PAPER)

This deed of indemnity is issued by M/s. _____
 _____ (Name of the Contractor) in favour of
 M/s. _____ (Name of Employer)

WHEREAS _____ (hereinafter called Employer) has paid the Secured Advance against the cost of material through any Bank or like Agency by any other method virtue of the terms of Contract existing between the parties. The details of the material and their price for which Secured Advance is being sought for the period from _____ till consumption of 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. _____ |

THEREFORE, THIS DEED OF INDEMNITY WITNESSETH AS FOLLOWS:-

I/We _____ of M/s. _____ do hereby indemnify M/s. _____ for all losses due to thefts, arson, pilferage, loss due to flood and inundation, shortages deterioration and depreciation etc. through any act of man or God or slump in the market, of, any or all materials financed or paid by the Employer on our request for _____ financing payment against material.

I/We _____ shall indemnify _____ against any or all claims, action damages arising out of or resulting to the said material.

I/We _____ further declare that we will faithfully abide by the above declaration and solemnly affirm that we will not remove, sell, pilfer, damage and of the materials against which M/s. _____ has paid us such a secured advance and will not pledge the same with any Bank, Finance Corporation, Firm company, Individual or like the Agency or create any charge their on, in any form whatsoever.

I/We _____ do hereby also declare that in the event of my/our infringement of the declaration made above _____ will be entitled to forfeit all such material and also proceed against me/ us according the relevant clause pertaining to breach of contract and further invoke the power of seek any remedies secured of _____ under the Contract Agreement signed with us or otherwise available under law.

Place _____ Date _____

Contractor _____

Letter of Price Bid

Date:
Bid Reference No:
(Name of Contract/Works)

To:

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB)9;
2. The total price of our Bid, excluding any discounts offered in item (c) below is:
3. The discounts offered and the methodology for their application are:
4. Our Bid shall be valid for a period of 120 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;
5. If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;
6. 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.
7. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
8. 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 Pre-qualification Documents which comprises all documents enclosed herewith in accordance with IB.11.3 of the Bidding Data Sheet.
9. If awarded the contract, the person named below shall act as Contractor's Representative.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Address.....

**Supply, Installation, Fixing and Commissioning of 400 KW Solarization Project of
SBBU, SBA Nawabshah, Sindh**

Eligibility Criteria for Bidders

S.#	Description	Mandatory
1	Registration with Income Tax & Active Taxpayer status	Mandatory
2	Sales Tax (GST) Registration & Active Taxpayer status	Mandatory
3	Registration with SRB & Active Taxpayer status	Mandatory
4	Tender Fees (Tender Rs. 3,000/-). DD / PO	Mandatory
7	Valid registration Certificate with PPIB/AEDB Category C-2 or C-1 (Solar).	Mandatory
8	Authorization from Manufacturer (Solar Panels [Tier-1] & Inverters)	Mandatory
9	Affidavit on Judicial / Stamp Paper of Rs. 100/- or above, duly attested by Notary Public that the firm would supply / installation Brand New / Original equipment for the project	Mandatory
10	Affidavit on Judicial / Stamp Paper of Rs. 100/- or above duly attested by Notary Public that they have never been blacklisted by any Government/ Semi Government Organization	Mandatory
11	Certificate that Bid Security has been attached to the financial proposal without showing the amount of bid security in technical proposal.	Mandatory

The bidder(s) will be declared as responsive for Technical Evaluation of Bid(s) upon submission of all above mentioned mandatory documents for eligibility. In case of NOT meeting any single requirement, the Bid shall be declared NON- RESPONSIVE, No Documents will be considered after the opening of Technical Bid.

TECHNICAL EVALUATION

Passing marks 70%

Participants will be evaluated as per criteria defined below. Bidders with complete documents (as list mentioned above) will be considered for evaluation. All technical qualified bidders will be called for financial bid opening.

- | | | |
|----|-------------------------|------------|
| a) | General Capabilities | (20 Marks) |
| b) | Financial Health | (20 Marks) |
| c) | Technical Experience | (40 Marks) |
| d) | Personal capabilities | (10 Marks) |
| e) | Technical System Design | (10 Marks) |

a. GENERAL CAPABILITIES (20 Marks)

a. GENERAL CAPABILITIES			
S No	Description	Marks Assigned	Criteria for Marks Obtained
1	Valid Registration Certificate of ISO-14001 or ISO 50001 or ISO-9001	5	<ul style="list-style-type: none">5 marks will be assigned in case of any of three valid certificate produced.No marks will be given if certificate is not attached.
	Original Equipment Manufacturer (OEM) Authorization	5	<ul style="list-style-type: none">5 marks will be assigned in case of valid licence produced.No marks will be given if license is not attached
2	Company Incorporation for 10 years	10	<ul style="list-style-type: none">10 marks will be given for 10 years or above incorporation certificate.5 marks will be given for 5 to 9 years old incorporation certificate.3 marks will be given for below 5 years old incorporation certificate
	Total Marks Allocated	20	

b. FINANCIAL HEALTH (20 Marks)

b. FINANCIAL HEALTH			
S No	Description	Marks Assigned	Criteria for Marks Obtained
1	Annual Turnover	5	<ul style="list-style-type: none">5 marks will be assigned in case of Average Annual turnover of last three years > PKR 150 Millions3 marks will be assigned in case of Average Annual Turnover of last three years > PKR 100 Millions1 marks will be assigned in case of Average Annual Turnover of last three years < PKR 100 Millions

2	Tax Returns	9	<ul style="list-style-type: none"> • 3 marks will be assigned on each year tax returns • No marks will be given if tax return is not attached
3	Annual Audited Financial Statements	6	<ul style="list-style-type: none"> • 2 marks will be assigned on each year Annual Audited Financial Statements • No marks will be given if Annual Audited Financial Statements is not attached
	Total Marks Allocated	20	

c. TECHNICAL EXPERIENCE (40 Marks)

c. TECHNICAL EXPERIENCE			
S No	Description	Marks Assigned	Criteria for Marks Obtained
1	Solar Power Project of 400 KW	10	<ul style="list-style-type: none"> • 5 marks will be assigned for each completed project of 400 KW. Award of work and satisfactory completion certificate issued by the concerned where applicable must be produced and must be verified during technical evaluation. • No marks will be given if documents are not attached.
2	Solar Power Project of 100 KW or above	10	<ul style="list-style-type: none"> • 5 marks will be assigned for each completed or work in progress project of 100 KW or above. Award of work and satisfactory completion certificate issued by the concerned where applicable must be produced and must be verified during technical evaluation. • No marks will be given if documents are not attached.
3	Public Sector Solar Power Projects of 50 KW or above	15	<ul style="list-style-type: none"> • 5 marks will be assigned for each completed or work in progress project of 50 KW. Award of work and satisfactory completion certificate issued by the concerned where applicable must be produced and must be verified during technical evaluation. • No marks will be given if documents are not attached.
4	Cumulative Installed Capacity of one MW	5	<ul style="list-style-type: none"> • If the cumulative installed capacity successfully completed is of 1 MW or above supported by the relevant documents, 5 marks shall be assigned.

	Total Marks Allocated	40	
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d. PERSONAL CAPABILITIES (10 Marks)

d. PERSONAL CAPABILITIES			
S No	Description	Marks Assigned	Criteria for Marks Obtained
1	B.Sc. Electrical Engineer registered with Pakistan Engineering Council (PEC). One Engineer (Attach Copy of Valid membership of PEC & 2 years of solar experience)	2.5	<ul style="list-style-type: none"> • 1.25 Marks will be given if Attached Valid PEC Membership & 1.25 Marks on Solar Experience. • 0 Marks will be given if membership & experience certificate is Expired/Not Provided
2	B.Sc. Electronics Engineer registered with Pakistan Engineering Council (PEC). One Engineer (Attach Copy of Valid membership of PEC & 2 years of solar experience)	2.5	<ul style="list-style-type: none"> • 1.25 Marks will be given if Attached Valid PEC Membership & 1.25 Marks on Solar Experience. • 0 Marks will be given if membership & experience certificate is Expired/Not Provided
3	B.Sc. Mechanical Engineer registered with Pakistan Engineering Council (PEC). One Engineer (Attach Copy of Valid membership of PEC & 2 years of solar experience)	2.5	<ul style="list-style-type: none"> • 1.25 Marks will be given if Attached Valid PEC Membership & 1.25 Marks on Solar Experience. • 0 Marks will be given if membership & experience certificate is Expired/Not Provided
4	B.Sc. Civil Engineers registered with Pakistan Engineering Council (PEC). One Engineer (Attach Copy of Valid membership of PEC & 2 years of solar experience)	2.5	<ul style="list-style-type: none"> • 1.25 Marks will be given if Attached Valid PEC Membership & 1.25 Marks on Solar Experience. • 0 Marks will be given if membership & experience certificate is Expired/Not Provided
	Total Marks Allocated	10	

e. TECHNICAL SYSTEM DESIGN (10 Marks)

d. TECHNICAL SYSTEM DESIGN			
S No	Description	Marks Assigned	Criteria for Marks Obtained
1	Solar Panels 3D Design & Simulation Report	2	<ul style="list-style-type: none"> • Attached As Per Required Design • No Marks will be given if design is not as per the required standard
2	Single Line Diagram (SLD)	2	<ul style="list-style-type: none"> • Attached As Per Required Design • No Marks will be given if design is not as per the required standard

3	Annual Production Report (Real time Simulation Report & Load Flow Studies)	2	<ul style="list-style-type: none"> • Attached As Per Required Report • No Marks will be given if report is not as per the required standard
4	Shadow Analysis Report	2	<ul style="list-style-type: none"> • Attached As Per Required Report • No Marks will be given if report is not as per the required standard
5	Structure Analysis Report (Must Include Wind Test Report)	2	<ul style="list-style-type: none"> • Attached As Per Required Report • No Marks will be given if report is not as per the required standard
	Total Marks Allocated	10	

Final Selection:

Technical Proposal Weightage **70%**

Financial Proposal Weightage **30%**

The final selection shall be made on the basis of 70% Technical Evaluation weightage and 30% Financial Proposal weightage, the highest ranked bid shall be declared as Most Advantageous Bid and shall be recommended for the award of work.

CONTRACTOR

PROCURING AGENCY

BOQ OF SOLARIZATION OF ACADEMIC BLOCK-I&II

SHAHEED BENAZIR BHUTTO UNIVERSITY NAWABSHAH						
BOQ - Installation of 400kW Grid Tied System						
S. No	Product Description	Brand	Specs	Qty	Unit Price	Amount
1	PV Modules	Longi, Canadian Solar JINKO or Equivalent (A Grade/ Tier-1) N-Type, Mono Perc	Providing, Installing, testing and commissioning of solar panels 585 Watt or above N-Type Mono facial Technology with all accessories. Module Efficiency 22% or higher. 10 years product replacement warranty power output within 10 years shall not fall below 90%Power output within 25 years shall not fall below 80% With Flash Report QCA Stamp (Verifiable QR Code) to be submitted as per Engineer Incharge requirement	400 KW		
2	On Grid Inverters	Huawei, Sunways/Sungrow/Solis/SMART/Equivalent	On Grid Inverter 100 KW or above with communication Wi-Fi Dongle Data Logger for remote monitoring and all allied accessories. , IP66 or above. 5 years Replacement warranty. Short Circuiting, Surge Protection, PV reverse polarity protection, Anti-Islanding Protection, Leakage current protection, High Insulation Input, Over voltage (PV)(if built-in), Harmonics filters as per IEC standards Output, Over voltage (C)	04 Nos		
3	Data Logger	Huawei or inverter brand matching/Equivalent		02 Nos		

4	PV Mounting Structure	Aluminum/GI - Mountings	PV mounting structure GI/ Aluminum (minimum 2.5mm) for solar panels including RCC foundations . Mounting structure to support the module must be made of durable material, resistant to sand storm, high wind speed upto 50m/s. Corrosion (passing the salt spray test IEC 61701, among other verification), and UV induced degradation. .	For 400 KW		
5	Civil Work	As per Solar Standard	Structure should support the ground mounting the design shall be able to with stand the maximum wind loading requirements of 40m/s design shall be supported with proper calculations. The stability of the supporting structure after installation shall be guaranteed by the bidder	As per actual		
6	A/C Combiner box	As per Solar Standard	GI 14 guage Powder coated. All exposed wiring (with the possible exception of the module interconnects) must be covered in conduits/duct. Wiring through roofing must form a waterproof seal (applicable for wiring only)	02 Nos		
7	A/C Breakers	Original Schnieder/Terasaki/ABB/Equivalent	400A- Control tripping mechanism	02 Nos		
8	A/C Breakers	Original Schnieder/Terasaki/ABB/Equivalent	200A Placed in IP 65 Box	04 Nos		
9	D/C Combiner box	As per Solar Standard	GI 14 guage Powder coated - All exposed wiring (with the possible exception of the module interconnects) must be covered in conduits/duct. Wiring through roofing must form a waterproof seal (applicable for wiring only)	02 Nos		

10	D/C Breaker	Original Schnieder/ Terasaki/ABB Equivalent	20A Placed in IP65 box	80 Nos		
11	A/C Surge Protection device-SPD	Original Schnieder/ Terasaki / Equivalent	Type II - 40KA	04 Nos		
12	A/C Cable Inv-Combiner	Original Fast/Pakstan with company certified / equivalent	95sqmm-4C - , CU Voltage drop less than 2%, 99.9% pure copper fire resistive insulation	~50m		
13	A/C Cable Combiner-Main	Original Fast/Pakstan with company certified/ equivalent	185Sqmm-4C , CU Voltage drop less than 2%, 99.9% pure copper fire resistive insulation	~20 M		
14	DC Cables	Original Fast/Pakstan/Imported Tinned Copper Cables equivalent	6sqmm PVC/PVC , CU Voltage drop less than 2 % tin cotted (stranded and flexible), 99.9% pure copper fire resistive insulation	12000m		
15	Weather Station	Seven Sensor/ equivalent	Irradiance and ambient temperature	01 Nos		
16	PV Genset Controller	Haiwell/ELUM /ECOMBI/TRICOMMECOMBI /TRICOMM/ equivalent	Must have load flow and control for generators	01 Nos		
17	Installation accessories (MC4, Flexible pipe, cable ties etc)	Popular or Adam G or equivalent	All cable joints should be covered	01 Lot.		
18	Cable Trays	Local (Rust Free)	GI 16 guage, GI 300x100mm	~1080RFT		
19	Complete Earth Pits AC, DC & Lightning Arrestor(25 mm rod, 25mm bare conductor, PVC pipe with pit cover)	As per Solar Standard	Depth should be 50'. Less than 2 Ohm (NEC codes) 99% Pure Copper plate/rod. Size and weight of plate/rod varies from site to site	06 Nos		
20	Lightning Protection System	ESE-TOBAS/STRONG/ Equivalent	Imported with protection radius 85m or above at 5m height	02 Nos		

	(Lightning arrestor)					
21	PVC Piping (Adamjee/ Equavelant, Nut bolts (SS) & Rawal bolts (GI) Local & LS complete in all aspects for 400KW	As per Solar Standard	-	01 lot		
22	Installation & Commissioning of Solar Panels, Structure, and all allied accessories in all aspects	As per Solar Standard	-	01 Job		
23	Successful bidder will make and provide the green metering file in complete in all respect to the department whenever required after the completion of the project, procuring	As per Solar Standard		1Job		
Total Amount Rs.						

Note: After completion of the Project the Contractor shall provide services for operation of the project for one year.

Name of Bidder _____ Name of Client _____

Signature _____ Signature _____