

SECTION VIII. GENERAL CONDITIONS (GC)

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Red Book:

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The Conditions of Contract are the “General Conditions” which form part of the “Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (“Red book”) Second edition 2017, Reprinted 2022 with amendments” published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC) and the following “Particular Conditions” which shall complement the General Conditions of the Contract.

The Contractor shall arrange and provide three (3) originals of the above FIDIC publication directly from FIDIC and shall also submit the original purchase receipts as documentary evidence to the Engineer.

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The Successful bidder after award of Works shall have to provide two (02) of such original FIDIC books to the Employer, of above said “General Conditions” for incorporation in the Contract, at his own expense

SECTION IX. SPECIAL CONDITIONS OF THE CONTRACT

Special Conditions of the Contract

The Special Conditions of Contract (SCC) complement the General Conditions of Contract (GCC) to specify data and contractual requirements of the Procuring agency/ Employer/ Employer, the engineer, the sector, the overall project, and the works. In the event of a conflict, the provisions herein shall prevail over those in the GCC.

Part A – Contract Data

Contract data of the SCC, includes data to complement the GCC in a manner similar to the way in which the Bid Data Sheet complements the Instructions to Bidders.

SCC Clause Number	GCC Clause Number	Amendments of, and Supplements to, Clauses in the GCC
General Provision (GCC 1)		
1.	1.1.27	728 days
2.	1.1.31	Employer's Representative name and address: Project Director Aviation Complex Pakistan Airports Authority (PAA)
3.	1.1.84	1,645 days for the whole Works
4.	1.3	For notices Procuring agency/Employer Authorized representatives name and address: Director P&D Pakistan Airports Authority (PAA) Terminal-1, Head Quarter PAA, JIAP Karachi, Pakistan Engineer's Authorized representatives name and address: National Engineering Services Pakistan (Pvt.) Limited – NESPAK NESPAK House, 5 th Floor, Sector G-5/2, Islamabad Contractors Authorized representatives name and address: <i>To be nominated later</i>
5.	1.4	Governing Law; The Applicable Law shall be: Laws of the Islamic Republic of Pakistan
3.	1.4	Communication Language:

		The Communication Language shall be: English
The Employer/ Procuring agency/Employer (GCC Clause 2)		
5.	2.1	Time for access to the Site: 03 days after Commencement Date
The Engineer (GCC Clause 3)		
6.	3.2	Engineer's Duties and Authority: Variations resulting in an increase of the Accepted Contract Amount in excess of 1% shall require approval of the Procuring agency/ Employer.
The Contractor (GCC Clause 4)		
7.	4.2	Performance guarantee/ security will be in the form of an unconditional and irrevocable bank guarantee from a scheduled bank in Pakistan in the amount of 10% as a percentage of the Contract Price. In case of a foreign bank, the guarantee shall be counter-signed and counter-guaranteed by a scheduled bank in Pakistan. The list of approved Scheduled Bank is attached with the Bidding Documents.
8.	4.7.2(a)	Clause 4.7 Setting out Period for notification of errors in the items of reference: <i>28 (twenty eight) days</i>
Sub-Contracting (GCC Clause 5)		
9.	5.1(a)	Maximum allowable accumulated value of work subcontracted (as a percentage of the Accepted Contract Amount): thirty percent (30%)
10.	5.1 (b)	Works for which sub-contracting is not permitted.: None
Staff and Labour (GCC Clause 6)		
11.	6.5	Normal working hours 08 (<i>eight</i>) hours.
Plant, Material and Workmanship (GCC Clause 7)		
12.	7.2	Samples as required by the Engineer.
Commencement, Delays and Suspension (GCC Clause 8)		
13.	8.3	Number of additional paper copies of program: 03 copies
14.	8.5	In the fifth line of 3 rd last paragraph the words 'ten percent (10%)' is replaced with "twenty-five percent (25%)".
15.	8.8	Delay damages shall be payable for each day of delay shall be 0.01% of the Contract Price per day, in the currency and proportions in which the Contract Price is payable. Maximum amount of delay damages is 10% of the Accepted Contract Price
16.	8.14	Clause 8.14 Applicability of Incentives for Early Completion

		Maximum 2.5% of the Contract Price.
Measurement and Valuation (GCC Clause 12)		
17.	12.2	Method of measurement shall be in accordance with the reference Technical Specifications, Bill of Quantities and/ or other applicable Schedule(s) for relevant BOQ item of work.
18.	12.3	Percentage profit, overhead and taxes: 25%
Variations and Adjustments (GCC Clause 13)		
19.	13.4 (b)(ii)	Not Applicable
20.	13.7	Adjustments for Changes in Cost: The Contract Price shall be adjustable during Contract Execution as per Appendix-C.
Contract Price and Payment (GCC Clause 14)		
21.	14.2	Total advance payment shall be 15% (fifteen percent) of the Accepted Contract Amount, excluding Provisional Sums. The advance payment shall be payable in the currency of the contract, in two equal parts. Advance Payment Guarantee shall remain valid one month beyond the stipulated date of completion of Project. The Advance Payment Guarantee shall be progressively reduced to the balance amount of Advance indicated in the IPCs certified by the Engineer. 1. First part within twenty (21) days after the Procuring agency/ Employer receives the Advance Payment Certificates from the Engineer; and 2. Second part within forty-two (42) days from the date of payment of the first part, subject to the satisfaction of the Engineer as to the state of mobilization of the Contractor, payable in the currency and proportion of the contract.
22.	14.2.3	Repayment of Advance payment: Deduction shall be made at the amortization rate of 17.5% of the value of the Works executed of each IPC as provided in paragraph (i) of Sub-Clause GCC 14.3, starting from 3 rd IPC after making second part of advance payment, provided that the advance payment shall be completely repaid prior to the time when 90% of the Accepted Contract Amount has been certified for payment. It may be more than 17.5% in the last instalment to ensure full repayment.
23.	14.3(iii)	Percentage of retention: 7% (seven percent) Limit of Retention Money: 5% (five percent)
24.	14.4	The Schedule of Payments under Sub-Clause 14.4 shall apply to the

		following Imported Plant and/ or Materials: 1. Building-Integrated Photovoltaics (BIPV) System 2. Fire-fighting Pumping Unit 3. Clean Agent 4. DG Set 5. Chiller 6. Hot Water Generator 7. Cooling Tower 8. Air Handling Unit 9. Fan Coil Unit 10. Elevator 11. Escalator The instalments for the above Plant and/ or Materials shall be in accordance with the Schedule of Payments stated in the Particular Conditions. The Contractor shall not be entitled to payment for any milestone unless all supporting documents specified in the Particular Conditions have been submitted and accepted by the Engineer.
25.	14.5(c)(i)	Plant and Materials: Plant and Materials for payment when delivered to the Site: 1. Steel Reinforcement 2. Glass 3. Doors 4. False Ceiling 5. Tile, Marble and Granite 6. Aluminum 7. Plumbing Fittings and Fixtures 8. Pipes and Conduits 9. Pumps except Fire-Fighting Pumping Set 10. Electric Cables 11. Electric Panels 12. Transformers 13. CCTV Cameras The Contractor may be certified for an advance payment of up to seventy-five percent (75%) of the Contract rate of the relevant Bill of Quantities (BoQ) item, in respect of above identified materials delivered to the Site for incorporation into the Permanent Works but not yet so incorporated. The Contractor shall seek prior approval of the Engineer for the delivery of listed items, for which the payment is to be claimed by the Contractor under this Sub-Clause. Such payment shall be certified only where the Engineer is satisfied that: (a) the materials have been delivered to the Site and are intended solely for incorporation into the Permanent Works in accordance with the Contract; (b) the quantity, quality and condition of the materials have been

		verified by the Engineer, and a Material Inspection Report (MIR) and Material Receipt Certificate have been issued accordingly; (c) the materials are properly stored and adequately protected against loss, damage, deterioration and weather, and are clearly identified and segregated, to the satisfaction of the Engineer; (d) the Contractor maintains records of the requirement, procurement, receipt and use of such materials, identifies their cost and value in its accounting system, and makes such records available for inspection by the Engineer on request; and (e) the Contractor has submitted invoices, delivery challans, manufacturer's certificates and such other documents as the Engineer may reasonably require to establish ownership and value of the materials. Title to materials so certified shall vest in the Employer in accordance with Sub-Clause 7.7 [<i>Ownership of Plant and Materials</i>], without prejudice to the Contractor's continuing responsibility for their care under Clause 17 [<i>Care of the Works and Indemnities</i>]. The Contractor shall remain solely responsible for the custody, security, preservation, and insurance of all such materials, at its own cost, until they are incorporated into the Permanent Works and taken over in accordance with relevant provision of the Contract Certification of payment under this Sub-Clause shall not constitute acceptance of the materials, nor relieve the Contractor of any obligation, liability or responsibility under the Contract, and is without prejudice to the Employer's rights under Clause 11 [<i>Defects after Taking Over</i>]. No further advance shall be certified under this Sub-Clause in respect of any material for which an advance previously certified remains outstanding, unless and until that material has been incorporated into the Permanent Works and certified as such by the Engineer. Employer's Lien: Until the advance has been fully recovered or the Plant and Materials have been incorporated into the Permanent Works, whichever occurs first, the Employer shall have a first contractual lien over the Plant and Materials to the extent of the outstanding advance. The Contractor shall not sell, remove, transfer pledge, charge or otherwise dispose of or encumber such Plant and Materials without the prior written approval of the Engineer.
26.	14.6.2	Withholding (amounts in) an IPC: 1% of the Accepted Contract Amount.
27.	14.7(a)	Period of payment of Advance Payment to the Contractor: 28 days

28.	14.7b(i)	Period for the Procuring agency/Employer to make interim payments to the Contractor under Sub-Clause 14.6 (interim Payment): 21 days
29.	14.7b(ii)	Period for the Procuring agency/Employer to make interim payments to the Contractor under Sub-Clause 14.13 (Final Payment): 56 days
30.	14.7(c)	Period for the Procuring agency/Employer to make final payment to the Contractor: 56 days
31.	14.8	financing charges for delayed payment: 5% simple interest per annum.
32.	14.11.1(b)	Number of additional paper copies of draft Final Statement: 06 copies
33.	14.15	Currencies of Payment The Contract Price shall be paid in Pakistani Rupees (PKR).
34.	14.15 (a)(i)	Local Currency: 100% Foreign Currency: 0%
35.	14.15 (c)	Local Currency: 100% Foreign Currency: 0%
36.	14.15 (f)	Local Currency: 1.00
37.	17.2 (d)	Liability for Care of the Works Nil
Insurance (GCC Clause 19)		
38.	19.1	Permitted deductible limits insurance required for the Works: 10% of the loss amount on each and every loss. insurance required for Goods: Nil insurance required for liability for breach of professional duty: Nil insurance required against liability for fitness for purpose (if any is required): Nil insurance required for injury to persons and damage to property: Nil insurance required for injury to employees: Nil other insurances required by Laws and by local practice: Nil
39.	19.2.1(b)	Additional amount to be insured: 15% of Accepted Contract Amount

40.	19.2.1(iv)	List of Exceptional Risks which shall not be excluded from the insurance cover for the Works: Nil
41.	19.2.2	Extent of insurance required for Goods: from Ex-Works to delivery at the Site Amount of insurance required for Goods: Full Replacement Value
42.	19.2.3(a)	amount of insurance required for liability for breach of professional duty: full replacement value of the Works to be designed by the Contractor
43.	19.2.3(b)	Insurance required against liability for fitness for purpose: Yes
44.	19.2.3	Period of insurance required for liability for breach of professional duty: Until the date of issuance of Performance Certificate
45.	19.2.4	Amount of insurance required for injury to persons and damage to property: Injury to person and Fata case: in accordance with Workmen Compensation Act Damage to Property: PKR 50 million without limit to the number of incidents
46.	19.2.6	Insurance <u>Other insurances required by Laws and by local practice</u> All insurances as applicable to the extent of execution of the project, under Federal and Provincial laws of Islamic Republic of Pakistan.
Dispute Avoidance/ Adjudication Board (GCC Clause 21)		
47.	21.1	Time for appointment of DAAB: Within 28 days form the Commencement Date
48.	21.1	The DAAB shall comprise <i>03 members</i>
49.	21.1	List of proposed members of DAAB [to be inserted at the time of signing of the Contract] - Proposed by Employer/ Procuring agency/Employer 1. 2. 3. - Proposed by Contractor 1. 2.

		3.
50.	21.2	Appointing entity (official) for DAAB members: Chairman Pakistan Engineering Council (PEC) from the list of PEC approved arbitrators published at its website.
51.	21.6	PEC Rules of Conciliation and Arbitration or Pakistan Arbitration Act of 1940, if the former is inactive. The place of Arbitration shall be in the Employer's country: Islamabad, Pakistan

Part-B Special Provisions

PARTICULAR CONDITIONS

Part B - Special Provisions

1.1	Definitions	<u>1.1.76 “Specification”</u> Following is added at the end: “and consists of two parts i.e., i) “Part A - Specific Provisions”; and ii) “Part B - Technical Provisions
1.1.31	Employer	Add the following at the end of Sub-Clause 1.1.31: “Employer's Representative" means Project Director Aviation Complex, Pakistan Airports Authority, or any other person duly appointed by the Employer from time to time and notified in writing to the Contractor and the Engineer. Employer's Representative, without prejudice to his authority, may delegate and distribute any or all his duties and powers to some or any officer(s) of Pakistan Airports Authority, for the convenience of the day-to-day required monitoring, administration and management of the Project and fulfilling the obligation of the Employer wherever and whenever deemed necessary under the Contract.”
1.2	Interpretation	“and” is deleted from the end of sub-paragraph (i) and added at the end of sub-paragraph (j). Sub-paragraph (k) is added: “(k) The word “tender” is synonymous with “bid” the word tenderer with “bidder”, the words “tender documents” with “bidding documents” and “Schedule of Prices” with “Bill of Quantities”, as applicable.”
1.5	Priority Documents of	The documents listed at (a) through (k) of this Sub-Clause are deleted and substituted with the following: (a) the Contract Agreement; (b) the Letter of Acceptance; (c) the Letter of Bid; (d) the Special Conditions of the Contract Part A - Contract Data; (e) the Particular Conditions Part B - Special Provisions; (f) the General Conditions;

		(g) the Specification Part A - Specific Provisions; (h) the Specification Part B - Technical Provisions; (i) Technical Proposal (j) Bill of Quantities; (k) the Drawings; (l) any other documents forming part of the Contract. The addenda/ corrigenda, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.
1.6	Contract Agreement	In the last line of the 1 st paragraph the text “shall be borne by the Employer” is substituted by “shall be reimbursed by the Employer to the Contractor”.
3.1	The Engineer	In sub-paragraph (a) the text “as defined in the Pakistan Engineering Council Act, 1975 (Act No. V of 1976)” are added after the words “professional engineer”
3.2	Engineer’s Duties and Authority	The Engineer shall obtain the consent in writing of the Employer before taking action under the following Sub-Clauses of these Conditions: (a) Consenting to the subcontracting of any part of the Works under Sub-Clause 5.1 [<i>Subcontractors</i>] (b) Any action under Sub-Clauses 8.9 [<i>Employer’s Suspension</i>] and 8.12 [<i>Prolonged Suspension</i>] (c) Issuance of “Taking Over Certificate” under Sub-Clause 10.1 [<i>Taking Over the Works and Sections</i>]. (d) Issuing the “Performance Certificate” under Sub-Clause 11.9 [<i>Performance Certificate</i>]. (e) Sub-Clause 13.1 [<i>Right to Vary</i>]: instructing a Variation, except; (i) in an emergency situation as determined by the Engineer, or (ii) if such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Contract Data. (f) Sub-Clause 13.3 [<i>Variation Procedure</i>]: approving a proposal for Variation submitted by the Contractor in accordance with Sub-Clause 13.3.2 [<i>Variation by Request for</i>

		Proposal] or 13.2 [<i>Value Engineering</i>]. (g) Certifying release of second half of the Retention Money under Sub-Clause 14.9 [<i>Release of Retention Money</i>]. (h) Issuing Final Payment Certificate under Sub-Clause 14.13 [<i>Issue of FPC</i>]. (i) Any Change in the ratio of Contract currency proportions and payment thereof under Clause 13.6 [<i>Adjustment for Changes in Law</i>]. (j) Extra payment as a result of Contractor's claims under Clause 20 [<i>Employer's and Contractor's Claim</i>]. Any such requirement shall not be applied to any action by the Engineer under Sub-Clause 3.7 [<i>Agreement or Determination</i>], as stated in Sub-Clause 3.2 [<i>Engineer's Duties and Authority</i>] of the General Conditions. Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer. Following is added after the words "the Employer's consent is required" in 4th paragraph: "stating that the Employer's consent has been obtained for that specified authority".
4.2	Performance Security	<u>4.2.1 Contractor's Obligations</u> The entity issuing the Performance Security and its form shall be as under: The Performance Security shall be, in the form of bank guarantee confirmed by a reputable local bank or, in the case of successful foreign bidder, bonded by a foreign bank as per the prescribed form included in the Bidding Documents. Following paragraph is added at the end of this Sub-

		Clause: “The amount of Performance Security shall be reduced to 50% following issue of the Taking-Over Certificate for the whole of the Works under Clause 10 of Conditions of Contract.”
4.3	Contractor’s Representative	In second paragraph the text “professional engineer as defined in the Pakistan Engineering Council Act, 1975 (Act No. V of 1976) (having temporary licence in case of foreign engineer under Section 12 of the Pakistan Engineering Council Act, 1975 (Act No. V of 1976)” are added after the words “qualified, experienced”. In the 3rd paragraph the words “28 days” are substituted by “14 days”. In 2nd line of 4th paragraph the text “or appoint a replacement” is substituted by “except appointment of a suitable temporary replacement is deployed at the Site”.
4.4	Contractor’s Documents	<u>4.4.2 As-Built Records</u> First paragraph is deleted and the text in the last paragraph is substituted with the following: “The Contractor shall furnish to the Engineer 6 copies, one reproducible and one electronic copy (Auto CAD Drawings as well as BIM-Revit Model) of all Drawings amended to conform to the Works as built. The price of such Drawings and BIM-Revit Model shall be deemed to be included in the Contract Price.” Following Sub-Clause is added: <u>4.4.4 Shop Drawings</u> The Contractor shall submit to the Engineer for review 3 copies of all shop and erection drawings applicable to this Contract as per provision of relevant Sub-Clause of the Contract. Review and approval by the Engineer shall not exceed 14 days and be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and the Engineer’s review or approval shall not relieve the Contractor of any of his responsibilities under the Contract.

4.8	Health and Safety Obligations	The following text is added at the end of this Sub-Clause: In the event of work being carried out outside the normal working hours and 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. The Contractor shall comply with the HSE manual available at the Employer's website.
4.20	Progress Reports	At the end of sub-paragraph (g) the word “and” is deleted and at the end of sub-paragraph (h) the full stop (.) is replaced with “;”, and the following new sub-paragraphs are added as: i) planned programme for the execution of the Works for next 56 days to enable the Engineer to determine its programme of inspection and testing; j) monthly summary of daily job record indicating weather conditions, deployment of Contractor's Equipment, labour employment, local material procurement and material import, if any; and k) salient contractual and project information
		The following Sub-Clause 4.24 is added after Sub-Clause 4.23:
4.24	Building Information Modelling	Autodesk Revit based Building Information Model (BIM) of the architectural building form shall be shared with the Contractor at the time of award of work. The Contractor will be responsible for submission of combined services BIM-Revit Model (minimum LOD 300) within 04 months of award of work for the review of the Engineer. The Contractor will ensure and submit fortnightly updated As-Built condition on BIM Model for progress monitoring and tracking duly vetted and approved by the Engineer. In case of failure of the Contractor to submit the fortnightly updated As-Built Conditions on BIM Model, minimum amount of Rs. 100,000/- (Pak rupees one hundred thousand) will be deducted from the Contractor's invoice for each fortnight. The Contractor will ensure and submit final As-Built BIM-Revit Model along with As-Built drawings generated from BIM-Revit Model for whole of the Works for approval of the Engineer.

		Following are the requirements in general but not limited to, which are required to be fulfilled by the Contractor all throughout the duration of the Contract: 1. Storage and File Naming Conventions a. All issued files to be stored in a cloud storage location with write access to BIM Engineer of the Contractor for progress models folder. b. A consistent naming convention must be followed to avoid any confusion as suggested/ approved by the Engineer. 2. Progress Update Mechanism i. Updation of Revit Model for inclusion of missing elements or change/ variation orders, subject to the approval of the Engineer. ii. To be used for tracking construction progress in terms of accurate quantities at fixed time intervals iii. Using phases (constructed, under construction and to be constructed) for marking the state of elements inside BIM model iv. Making a new progress model for each submission for keeping record of progress v. Frequency of update and submission = after every fortnight 3. Progress Reports a. Progress reports must be generated based on the progress BIM models (using latest Revit data) b. Include the necessary data as required by the Engineer in the progress report 4. Facility Management Data Actual product data from the vendor to be filled in corresponding generic BIM elements, wherever applicable. Preferably generic models be replaced with vendor specific BIM model, wherever available, complying to
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		COBIE requirements.
5.1	Subcontractors	The following is added at the end of the last paragraph of Sub-Clause 5.1: “All subcontracts relating to the Works shall include provisions which entitle the Employer to require the subcontract to be assigned to the Employer under sub-paragraph (a) of Sub- Clause 15.2.3 [<i>After Termination</i>]. The Contractor shall give reasonable opportunity to contractors from Islamic Republic of Pakistan for subcontracts for the Works, and endeavour to employ such contractors as Subcontractors. Notwithstanding any other provision of the Contract, the Contractor shall obtain the prior written approval of the Engineer before appointing any Subcontractor for specialty works, including but not limited to HVAC, elevators, escalators, fire detection and firefighting systems, Integrated Building Management System (IBMS), ICT systems, façade and glazing systems, specialized finishes, and any other works identified by the Engineer. The Contractor shall submit the proposed Subcontractor's qualifications, relevant experience, technical capability, financial capacity, and any other information reasonably required by the Engineer. The approval shall not relieve the Contractor of any of its obligations, responsibilities, or liabilities under the Contract. All approved Subcontractors shall remain fully under the direction and responsibility of the Contractor. The Engineer reserves the right to reject any proposed Subcontractor on reasonable grounds related to technical competence, past performance, financial capability, or failure to meet the requirements of the Contract. The Contractor shall not engage such Subcontractor until written approval has been obtained.”
5.2	Nominated Subcontractors	<u>5.2.2 Objection to Nomination</u> In sub-paragraph (c), “and” is deleted from the end of (i); “.” at the end of (ii) is replaced with: “, and”. The following is then added as (iii): “(iii) be paid only if and when the Contractor has received from the Employer payments for sums

		due under the Subcontract referred to under Sub-Clause 5.2.3 [<i>Payment to nominated Subcontractors</i>].”
6.1	Engagement of Staff and Labour	The following paragraph is added at the end of the Sub-Clause: “The Contractor shall, to the extent practicable and reasonable, employ staff (not less than 50%) and labour (not less than 85%) with appropriate qualifications and experience from sources within the Islamic Republic of Pakistan.”
6.7	Health and Safety of Personnel	The existing text is substituted with the following: “In order to provide for the safety, health and welfare of persons, and for prevention of damage of any kind, all operations for the purposes of or in connection with the Contract shall be carried out in compliance with the Safety Requirements of the Government of Pakistan with such modifications thereto as the Engineer may authorize or direct and the Contractor shall take or cause to be taken such further measures and comply with such further requirements as the Engineer may determine to be reasonably necessary for such purpose. The Contractor shall also provide all other medical services and appoint a health and safety officer at Site if stated in the Specifications. In case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means.”
6.8	Contractor’s Superintendence	Insert at the end of sub-paragraph (a) of this Sub-Clause: "or, if not, the Contractor shall make competent interpreters available during all working hours, in a number sufficient for those persons to properly perform their superintendence duties" The following text is added at the end of this Sub-Clause: “The Contractor’s authorized representative and his other engineers working at site shall possess valid registration with the Pakistan Engineering Council. The Contractor’s authorized representative at Site shall be authorized to exercise adequate administrative and financial powers on behalf of the Contractor so as to achieve completion of the Works as per the Contract.”
6.12	Key Personnel	The following is inserted at the end of the last

		paragraph: “If any of the Key Personnel are not fluent in this language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.”
	The following Sub-Clauses 6.13 to 6.26 are added at the end of Sub-Clause 6.12:	
6.13	Foreign Personnel	The Contractor may bring in to the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use all reasonable endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor’s personnel. The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.
6.14	Supply of Foodstuffs	The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor’s Personnel for the purposes of or in connection with the Contract.
6.15	Supply of Water	The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor’s Personnel.
6.16	Measures against Insect and Pest Nuisance	The Contractor shall at all times take the necessary precautions to protect the Contractor’s Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.
6.17	Alcoholic Liquor or Drugs	The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor’s Personnel
6.18	Arms and	The Contractor shall not give, barter, or otherwise

	Ammunition	dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
6.19	Festivals and Religious Customs	The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.
6.20	Funeral Arrangements	The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.
6.21	Forced Labour	The Contractor, including its Subcontractors, shall not employ or engage forced labour which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour-contracting arrangements.
6.22	Child Labour	The Contractor, including its Subcontractors, shall not employ or engage child labour in accordance with relevant law(s) in force in Islamic Republic of Pakistan.
6.23	Employment Records of Workers	The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [<i>Contractor's Records</i>].
6.24	Workers' Organizations	The Contractor shall comply with the relevant labour laws of Pakistan which recognize workers' rights to form and to join workers' organizations/Trade Union of their choosing and to bargain collectively without interference.
6.25	Non-Discrimination and Equal Opportunity	The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of

		the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, persons with disabilities, migrant workers and children (of working age in accordance with Sub-Clause 6.22)
6.26	Epidemics	In the event of any out-break of illness of 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 the purpose of overcoming the same.
7.7	Ownership of Plant and Materials	The following is added before the first paragraph: “Except as otherwise provided in the Contract,” The following is added at the end of the Sub-Clause: "No Plant and/or Materials that is the property of the Employer shall be removed from the Site. If it becomes necessary to: (i) remove any item of such Plant from the Site for the purposes of repair, the Contractor shall give a Notice, with reasons, to the Engineer requesting consent to remove the defective or damaged item off the Site. This Notice shall clearly identify the item of defective or damaged Plant, and shall give details of: the defect or damage to be repaired; the place to which defective or damaged item of Plant is to be taken for repair; the transportation to be used (and insurance cover for such transportation); the proposed inspections and testing off the Site; and the planned duration required before the repaired item of Plant shall be returned to the Site. The Contractor shall also provide any further details that the Employer may reasonably require; or (ii) replace any item(s) of such Plant and/or Materials, the Contractor shall give a Notice, with reasons, to the Engineer clearly identifying the item(s) of Plant and/or Materials to be replaced, and giving details of the due date of delivery to the Site of the replacement item(s). Where any item of Plant and/or Materials has become the property of the Employer under this Sub-Clause before it has been delivered to the Site, the Contractor shall ensure that such an item is not moved except for

		its delivery to the Site. The Contractor shall indemnify and hold the Employer harmless against and from the consequences of any defect in title or encumbrance or charge (except any reasonable restriction arising from the intellectual property rights of the manufacturer or producer) on any item of Plant and/or Materials that has become the property of the Employer under this Sub-Clause."
	The following Sub-Clause 7.9 is added after Sub Clause 7.8:	
7.9	Use of Pakistani Materials and Services	The Contractor shall, so far as may be consistent with the Contract, make the maximum use of materials, supplies, plant and equipment indigenous to or produced or fabricated in Pakistan and services available in Pakistan provided such materials, supplies, plant, equipment and services shall be of required standard.
8.1	Commencement of Works	The following is added before the first paragraph: "After signing of the Contract Agreement by both Parties," and thereafter the word "The" is replaced with the word "the".
8.3	Programme	(a) Submission of the Programme of Works on Primavera P6 for the Engineer's approval, covering all activities including mobilization, identifying the Critical Path, revised monthly, and forming the basis for Delay Damages (8.8) and Bonus (8.14), supported by cash-flow/overdraft arrangements; Contractor to supply and maintain a licensed Primavera P6 copy for its own and the Engineer's use, with manuals/training for the Contract duration; (b) two-weekly cost/quantity/progress data in computer-processable format; (c) a CPM-based, computerised programme including temporary works, with monthly progress reporting on critical/near-critical items and mitigation proposals.
8.5	Extension of Time for Completion	The following is added after paragraph (c): "for last five years".
	The following Sub-Clause 8.14 is added after Sub-Clause 8.13:	
8.14	Incentives For Early Completion	If Contract Data does not state applicability of incentives for early completion, this Sub-Clause shall not apply. The Contractor shall be entitled subject to Sub-Clause 20.2 [Claims for Payment and/or EOT] to bonus payment if the Works and/or each Section is completed earlier than the Time for Completion for the Works or Section (as the case may be). The

		amount of bonus for early completion of the Works and/or each Section shall be upto a limit prescribed in Contract Data and shall be paid for every day which shall elapse between the relevant Date of Completion of the Works or Section and the relevant Time for Completion. For the purposes of calculating any bonus payment, the applicable Time for Completion stated in the Contract Data is fixed and no adjustments of this time by reason of granting an EOT will be allowed.
	The following Sub-Clause 11.12 is added after Sub-Clause 11.11:	
11.12	Supervisory Assistance During DNP	If provided under the Schedule of Prices/ Bill of Quantities, the Contractor shall provide supervisory assistance to the Employer during the DNP for the Works. Such supervisory assistance shall be as described in the Specification for the purpose of supporting the Employer's operation and maintenance of the Plant for the period specified in the Bill of Quantities after the Date of Completion.
12.2	Method of Measurement	The following paragraph is added at the end of the Sub-Clause: “Summary of measured quantity for payment shall be delineated item-wise under four heads namely; “Price Bill of Quantity”, “Quantity Executed To-date”, “Quantity Certified Previously” and “Net Quantity Executed under this Certificate”.
12.3	Valuation of the Works	In sub-paragraph (b)(i), the percentage ‘10%’ is replaced with “15%” In sub-paragraph (b)(ii), the percentage ‘0.01%’ is replaced with “2%”. The following text is added at the end of fifth paragraph of the Sub-Clause: “Sum of overhead charges, profit and taxes for sub-paragraph (a) shall be twenty-five percent (25%). If the valuation will be carried out on the basis of actual with the application of current market rates for labour, material etc. No Price Adjustment on account of material, labour, POL etc. shall be allowed on such items if the valuation is carried out on the basis of current market rates”
13.4	Provisional Sums	Delete this Sub-Clause in its entirety.
13.6	Adjustments for Changes in Laws	The following paragraphs are added at the end of the Sub-Clause: “Notwithstanding the foregoing, the Contractor shall

		not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the Table of Adjustment Data in accordance with the provisions of Sub-Clause 13.7 [Adjustments for Changes in Cost].”
14.2	Advance Payment	<u>14.2.1 Advance Payment Guarantee.</u> The entity issuing the interest free Advance Payment Guarantee and its form shall be as under: The Advance Payment Guarantee shall be in the form of Guarantee issued by (a) a Scheduled Bank in Pakistan or (b) a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan. The Advance Payment shall be paid by the Employer to the Contractor in two equal parts upon submission by the Contractor of Advance Payment Guarantee for the full amount of the Advance in the specified form. Advance Payment Guarantee shall remain valid one month beyond the stipulated date of completion of project. The Advance Payment Guarantee shall be progressively reduced to the balance amount of Advance indicated in the IPCs certified by the Engineer. 1) First part within twenty (21) days after the Procuring agency/ Employer receives the Advance Payment Certificates from the Engineer; and 2) Second part within forty-two (42) days from the date of payment of the first part, subject to the satisfaction of the Engineer as to the state of mobilization of the Contractor.
14.4	Schedule Payments of	“Schedule of Payments: The provisions of this Sub-Clause shall apply to the imported Plant and Equipment as mentioned in Contract Data. Unless otherwise agreed, the Contractor shall be paid against Imported Items mentioned in Contract Data in the following schedule/ milestone upon submission of

		invoice by the Contractor duly certified by the Engineer: (a) Twenty-five percent (25%) of the Contract Price for the relevant imported equipment and/or materials shall be certified for payment upon: i. approval of the technical submittal of relevant equipment and materials by the Engineer in accordance with the Contract; and ii. submission by the Contractor of an unconditional, irrevocable, on-demand Bank Guarantee for an equivalent amount issued by a Scheduled Bank in Pakistan acceptable to the Employer (List of approved banks provided in the Contract). The Bank Guarantee shall be valid for a period extending not less than ninety (90) days beyond the anticipated date of shipment, and renewable by the Contractor if that date is delayed. (b) Thirty-five percent (35%) of the Contract Price for the relevant imported equipment and/or materials shall be certified for payment upon submission to the Engineer of satisfactory documentary evidence that the goods have been shipped , including, as applicable: i. negotiable Bill of Lading or Air Waybill; ii. commercial invoice; iii. packing list; iv. certificate of origin; v. insurance certificate; vi. manufacturer's inspection or factory acceptance certificates, where specified; and vii. any other documents required under the Contract. Prior to certification of this payment, the Contractor shall furnish an additional unconditional, irrevocable Bank Guarantee for the amount payable under this Sub-Clause, issued by a Scheduled Bank in Pakistan acceptable to the Employer as provided in the
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		Contract. The Bank Guarantee shall be valid for a period extending not less than ninety (90) days beyond the anticipated date of delivery at site, and renewable by the Contractor if that date is delayed. (c) Fifteen percent (15%) of the Contract Price for the relevant imported equipment and/or materials shall be certified for payment upon delivery to the Site, verification by the Engineer that the equipment and materials conform to the Contract requirements, and issuance of the Engineer's inspection and acceptance certificate. Upon certification of this payment, the Bank Guarantees submitted under Sub-Clauses (a) and (b) shall be released, provided that all obligations secured thereby have been fulfilled. (d) Twenty percent (20%) of the Contract Price shall be certified for payment upon complete installation of the relevant equipment and materials in accordance with the Contract and after inspection and acceptance by the Engineer. (e) The remaining five percent (5%) of the Contract Price shall be certified for payment upon successful completion of testing and commissioning achievement of the specified performance requirements, rectification of all deficiencies identified during commissioning, and issuance of the Taking-Over Certificate by the Engineer in accordance with the Contract. Payment under this Clause shall not constitute acceptance of the equipment or materials, nor relieve the Contractor of any obligation, responsibility, warranty or liability under the Contract. All payments shall be included in Interim Payment Certificates issued by the Engineer and shall be made by the Employer within the period stipulated in the Particular Conditions of Contract. Unless otherwise provided in the Particular Conditions, all certified amounts shall be subject to retention in accordance with the Contract. Ownership, care of the Works, allocation of risk, insurance obligations, certification procedures, time for payment, and all other matters relating to payment
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		shall be governed by the applicable provisions of the Conditions of Contract, except as expressly modified by this Clause.
14.6	Issue of IPC	<u>14.6.1 The IPC</u> In the first line of the 1st paragraph the words “28 days” are substituted by “14 days”.
14.7	Payment	The words “or through crossed cheque in favour of the Contractor or JV partners. The Payment to JV partners shall be made at the request of the Joint Ventures in the ratio of their shares specified by them” are added at the end of the Sub-Clause.
14.8	Delayed Payment	In the first paragraph, third line, the words “compounded monthly” are deleted. The text of 2nd paragraph is deleted and substituted with the following: “The Employer shall pay to the Contractor compensation at the rate stated in the Contract Data.”
14.16	Adjustment for Seriously Unbalanced Bid (Front Loaded)	Where the Contractor's Bid is found seriously unbalanced/front-loaded relative to the average of other evaluated substantially responsive bids, the Employer shall pay against measured quantities of significantly higher quoted line items at the average rate of the other lowest two evaluated substantially responsive bids for the same items; the balance to be paid against the same measured quantities at issuance of the Taking Over Certificate. The list of such line items to be stated in the Letter of Acceptance. In case the bidder is the only technically qualified bidder, in such case, the Engineer Estimate shall govern for the above purpose.
15.2	Termination for Contractor' Default	<u>15.2.1 Notice</u> Following text is added at the end of sub-paragraph (b) of this Sub-Clause: “and/or despite previous warning from the Engineer, in writing, is otherwise persistently or flagrantly neglecting to comply with any of his obligations under the Contract”. Following text is added at the end of sub-paragraph (h) of this Sub-Clause: “For the purposes of this Contract, corrupt and fraudulent practices have been defined in Public

		Procurement Rules 2004.” <u>15.2.3 After Termination</u> The word “and” at the end of sub-paragraph (ii) of paragraph (b) is deleted. The following paragraph is added after sub-paragraph (iii): “(iv) all Employer-Supplied Materials and/or Employer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 [<i>Employer-Supplied Materials and Employer's Equipment</i>], and”
15.4	Payment after Termination for Contractor's Default	The following text is added at the end of this Sub-Clause: “The Employer shall be entitled to sell any of the Contractor's Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any debt due from the Contractor to the Employer under this Clause including any outstanding payments to the Subcontractors.”
16.2	Termination by Contractor	<u>16.2.1 Notice</u> The sub-paragraph (j) is deleted in its entirety. At the end of sub-paragraph (i) “; or” is replaced with “.” and at the end of sub-paragraph (h) “;” is replaced with “; or”. In sub-paragraph (f) “84 days” are replaced with “180 days” and text “for reasons not attributable to the Contractor” is added at the end.
16.3	Contractor's Obligations After Termination	Sub-paragraph (c) is deleted and replaced with: "(c) deliver to the Engineer all Employer-Supplied Materials and/or Employer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 [<i>Employer-Supplied Materials and Employer's Equipment</i>]; and (d) remove all other Goods from the Site, except as necessary for safety, and leave the Site."
17.1	Responsibility for Care of the Works	After the two instances of “Goods” in the last paragraph, the words “Employer-Supplied Materials and/or Employer's Equipment” are added.
		The following Sub-Clause 17.7 is added after Sub-Clause 17.6:
17.7	Use of Employer's Accommodation/Facilities	The Contractor shall take full responsibility for the care of the items of the Employer's facilities and/or accommodation, if any, as detailed in the Specification, from the date of use and/or occupation

		by the Contractor until the date on which such use and/or occupation is re-vested in the Employer. If any loss or damage happens to any of the above items during a time while the Contractor is responsible for its care, arising from any cause other than a cause for which the Employer is responsible or liable, the Contractor shall promptly rectify the loss or damage at the Contractor's risk and cost.
18.1	Exceptional Events	The words "or disorder" are replaced with "disorder or sabotage" in sub-paragraph (c) of the Clause.
18.4	Consequences of an Exceptional Event	The following is added at the end of sub-paragraph (b) after deleting the "": “, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Exceptional Events, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause 19.2 [<i>Insurance to be provided by the Contractor</i>].”
18.5	Optional Termination	In sub-paragraph (c), the words "and necessarily" are added after the words "was reasonably".
19.1	General Requirements	Following text is added at the end of first paragraph: "The Contractor shall immediately after the date of the Letter of Acceptance submit the draft of insurance policies for the Employer's consent." Following text is added at the end of third paragraph: "The Contractor shall, within the respective periods stated in the Contract Data submit to the Engineer and the Employer a) evidence that the insurances described in this Clause have been effected, and b) copies of policies of the insurances described in Sub-Clauses 19.2.1, 19.2.4 and 19.2.5."
19.2	Insurance to be provided by the Contractor	<u>19.2.5 Injury to employees</u> The words "sickness, disease" are deleted in the third line of first paragraph. The following Sub-Clause is added after Sub-Clause <u>19.2.6: 19.2.7 Insurance Company</u> "The Contractor shall be obliged to place all insurances described in this Clause with insurers listed in the Contract Data with min. rating of AA by PACRA/VIS.
21.6	Arbitration	The word "international" is deleted in the sixth line of first paragraph. The text of sub-paragraph (a) is substituted with the following: "the Dispute shall be finally settled under the Rules of Arbitration, specified in the Contract Data;"

		Following text is added at the end of third paragraph (b) before word ‘and’: “The arbitrators appointed shall preferably be retired judges of the Supreme Court.”
	The following Clauses are added after Clause 21	
22	Custom Duty	The Contractor shall be liable to pay custom duty arising out of the Contract. The rates and prices as stated in the contract shall be deemed to cover all such duties.
23	Taxes	The Contractor, Subcontractors and their employees shall be liable to pay income tax, withholding tax, super tax and other taxes on income arising out of the Contract. The rates and prices as stated in the contract shall be deemed to cover all such taxes.
24	Integrity Part	If it is found and established at any stage that the Contractor or any of his Subcontractors, agents or servants have violated or involved in violation of the Integrity Pact signed by the Contractor 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, agent 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, agent or servants. The termination under sub-paragraph (b) of this Sub-Clause shall proceed in the manner prescribed under Sub-Clause 15.1 to 15.4 and the payment under Sub-Clause 15.4 shall be made after having deducted the amounts due to the Employer under sub- paragraph (a) and (c) of this Sub-Clause.

SECTION X: CONTRACT FORMS

Notification of Award

(On Procuring agency/Employer's letterhead)

Letter of Acceptance

[Date].

To: [Name and address of the contractor]

Subject: [Notification of Award Contract No.]

This is to notify you that your Bid dated [date]. for execution of the [name of the contract and identification number, as given in the Bid Data Sheet] for the Accepted Contract Amount of the equivalent of [amount in words and figures and name of currency]. . . . , as corrected and modified in accordance with the Instructions to Bidders, is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section 9 (Contract Forms) of the Bidding Document.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Form of Contract

THIS AGREEMENT made the _____ day of _____ 20____ between *[name and address of Procuring agency/Employer]* of Pakistan (hereinafter called “the Procuring agency/Employer”) of the one part and *[name of Contractor]* of *[city and country of Contractor]* (hereinafter called “the ”) of Contractor other part:

WHEREAS the Procuring agency/Employer desired that the works *[brief description of works]* should be executed by the contractor, and has accepted a Bid by the contractor for the execution and completion of these works and remedying of any defects therein, in the sum of *[contract price in words and figures]* (hereinafter called “the Contract Price”).

NOW THIS CONTRACT WITNESSETH AS FOLLOWS:

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Contract, In the event of any ambiguity or conflict between the Contract Documents listed below, the order of precedence shall be the order in which the Contract Documents are listed below:-
 - (a) This form of Contract;
 - (b) Letter of Acceptance;
 - (c) the Form of Bid and the Price Schedule submitted by the Bidder;
 - (d) the Works Requirements;
 - (e) the Technical Specifications;
 - (f) the Drawings;
 - (g) the General Conditions of the Contract
 - (h) the Special Conditions of Contract,
 - (i) the completed schedule including Bill of Quantities; and
 - (j) *[add here: any other documents]*
3. In consideration of the payments to be made by the Procuring agency/Employer to the contractor as mentioned in this contract, the contractor hereby covenants with Procuring agency/Employer to execute the works to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring agency/Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, 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 Contract to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by the _____	Signed, sealed, delivered by the _____
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(for the Procuring agency/Employer)	(for the Contractor)
Witness to the signatures of the Procuring agency/Employer	Witness to the signatures of the Contractor

Performance Guarantee Form

To: *[name of Procuring agency/Employer]*

WHEREAS *[name of Contractor]* (hereinafter called “the contractor”) has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated *[insert date]* for the execution of *[insert name of the works and its brief description]* (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the contractor shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Contractor’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractor a guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Contractor, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Contractor to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the: *[insert date]*

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date]

Advance Payment Security

Demand Guarantee

Beneficiary: _____

Date: _____

ADVANCE PAYMENT GUARANTEE No.: _____

Guarantor: _____

We have been informed that [Inset name of the Contractor] (hereinafter called “the Contractor”) has entered into Contract No. _____ dated _____ with the [insert name of the Procuring agency/Employer] (hereinafter called “the Procuring agency/Employer”) for the execution of _____ (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (_____) is to be made against an advance payment guarantee.

At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Procuring agency/Employer any sum or sums not exceeding in total an amount of _____ upon receipt by us of the Procuring agency/Employer’s complying demand supported by the Procuring agency/Employer’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

(a) has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or

(b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Contractor has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Procuring agency/Employer’s bank stating that the advance payment referred to above has been credited to the Contractor on its account number _____ at _____.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us.

The 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.

[signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

Retention Money Security Demand Guarantee

_____ [Guarantor letterhead or SWIFT identifier code]
Beneficiary: _____ [Insert name and Address of Procuring agency/Employer]
Date: _____ [Insert date of issue]
RETENTION MONEY GUARANTEE No.: _____ [Insert guarantee reference number]
Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that _____ [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Contractor") has entered into Contract No. _____ [insert reference number of the contract] dated _____ with the Procuring agency/Employer, for the execution of _____ [insert name of contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, the Procuring agency/Employer retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, payment of [insert the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and, if required, the ES Performance Security] is to be made against a Retention Money guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ [insert amount in figures] (_____) [amount in words] upon receipt by us of the Procuring agency/Employer's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified therein.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Procuring agency/Employer's bank stating that the second half of the Retention Money as referred to above has been credited to the contractor on its account number _____ at _____ [insert name and address of Contractor's bank].

This guarantee shall expire no later than the day of, 2..., and any demand for payment under it must be received by us at the office indicated above on or before that date.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

SECTION XI: SPECIFIC PROVISIONS

SPECIFIC PROVISIONS

1. GENERAL

- 1.1 Specific Provisions shall form an integral part of Bid and the Contract Documents.
- 1.2 The Contractor shall notify all sub-contractors of the provisions of these Special Provisions.
- 1.3 All the items under Special Provisions are to be provided/ arranged by the Contractor within one (1) month after award of works (during mobilization period) without any additional cost to the Employer. No payment shall be made to the Contractor for the provision of these items, and the cost shall be deemed to have been included in the quoted rates and prices of other items of BOQ.

2. DESCRIPTION OF PROJECT, WORKS INVOLVED AND SITE

The scope of work primarily includes the construction of the Aviation Complex at Blue Area Islamabad. The scope of work for the high-rise building (6 basements, ground plus 26 storeys) includes Piling and Earth Retention Works, Civil Works, Architectural finishes works, HVAC, Elevators, Escalators, Electrical, ELV Systems, Plumbing, Fire Fighting, Building Management System, Façade System, BIPV System, Metering and HT Room and infrastructure development works. Infrastructure works include PCC roads, concrete paver parking, storm water drainage, sewerage networks and fire-fighting etc. lying within the boundaries and limits shown on the Drawings and any such additional areas adjacent thereto as may be designated by the Engineer from time to time for the construction to be performed under the Contract, and all such areas and additional areas shall comprise the Site.

3. CODES, STANDARDS AND CERTIFICATES

A. Applicable Standards

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

ASCE	American Society of Civil Engineers
ASA	American Standard Association
ACI	- American Concrete Institute (USA)
AISI	- American Iron and Steel Institute (USA)
AISC	- American Institute of Steel Construction (USA)
ANSI	- American National Standard Institute (USA)
ASTM	- American Society for Testing and Materials (USA)

AASHTO	-	American Association of State Highway & Transportation Officials.
AWS	-	American Welding Society (USA)
BS	-	British Standards (UK)
CP	-	Codes of Practice (UK)
ICAO		International Civil Aviation Organization
BSICP		British Standard Institute Code of Practice
PS	-	Pakistan Standards (Pak)
PCA		Portland Cement Association
PSI		Pakistan Standard Institute
SSPC	-	Steel Structures Painting Council (USA)
UBC	-	Uniform Building Code (USA)
USBR	-	United States Bureau of Reclamation (USA)

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

B. Standards other than those Specified

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

C. Codes and Standards at Site

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

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

4. MANUFACTURER'S RECOMMENDATIONS

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

5. UNITS OF MEASUREMENTS

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

6. EXISTING CONDITION AT SITE

Drawings and information pertaining to existing project conditions are furnished for reference.

Neither the Employer nor the Engineer warrants the adequacy or correctness of these. The Contractor's are encouraged to visit the project site to assess the existing site conditions.

7. PROTECTION AND PRECAUTIONS

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

The Contractor and his sub-contractors shall afford all necessary protection to existing roads in the area. He will clear and make good at his own expense any damage to or debris on these roads through his own fault and negligence. He must at all-time ensure the free and normal flow of traffic and shall not cause obstruction to the traffic system. The Contractor and his sub-contractors shall provide and maintain necessary protection and precautionary measures to properly cordon off the worksite using barricades, fencing, warning signs, and other suitable protective measures to prevent unauthorized access, accidents and ensure public safety. The following requirements shall be adhered to:

- a) **Barricading and Signage:** The worksite shall be enclosed with durable barricades or fencing of sufficient height and strength to prevent unauthorized entry. Clear warning signs, including hazard notifications and restricted area markers, shall be placed at strategic locations.
- b) **Lighting and Visibility:** Adequate lighting shall be provided around the worksite, especially in low-visibility areas, to prevent accidents. Reflective markers and warning tape shall be used as necessary.
- c) **Access Control:** Entry to the worksite shall be restricted to authorized personnel only. The Contractor shall implement a controlled access system to monitor entry and exit points.

- d) Protection of Pedestrians and Traffic:** If construction activities affect pedestrian walkways or roads, appropriate diversions, temporary walkways, and traffic management measures shall be implemented to ensure safe movement.
- e) Regular Inspection and Maintenance:** The Contractor shall inspect and maintain all safety and protective measures regularly to ensure their effectiveness. Any damaged barricades, signage, or protective elements shall be immediately repaired or replaced.

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

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

8. SEQUENCE OF CONSTRUCTION

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

9. LINES AND LEVELS

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

10. PLANT, EQUIPMENT AND TOOLS

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

11. PARTIAL POSSESSION

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

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

However, if such use increases the cost or delays to the completion of remaining portions of work, the Contractor will be entitled to an equitable adjustment.

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

12. EXISTING SERVICES

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

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

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

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

13. CONSTRUCTION AREA AND ACCESS

The Employer will provide the Contractor possible space within or nearby the area of site of works for the storage of plant, equipment and materials and for Contractor's temporary office, during the currency of the Contract. In case the adjacent area as required by the Contractor is not available within the Project boundary for storage of plant, equipment and machines then the Contractor shall arrange at his own expense possible space for storage of plant, equipment and machines at his own cost and expense. On no account shall such temporary installations conflict/interfere with any of the permanent installations, services and any operational function of Employer. The handling and

storage of all plants, equipment and materials at site shall be the sole responsibility of the Contractor and at no risk and cost to the Employer.

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

14. CONSTRUCTION & CHECKING AT SITE

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

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

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

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

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

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

15. STORAGE & HANDLING FACILITIES

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

16. PRODUCT DATA

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

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

The Contractor shall ensure that all technical submittals are complete, accurate, and in full compliance with the Contract Documents prior to initial submission. Re-submissions shall be limited strictly to incorporating comments issued by the Engineer on the preceding submission.

The Contractor shall not make unnecessary, repetitive re-submissions of previously reviewed and accepted or rejected submittals without valid justification. Any re-submission that does not adequately address prior comments, or includes unjustified revisions, shall be liable for rejection without review.

In the event of excessive or unjustified re-submissions, the Engineer reserves the right to:

- (a) return such submittals without review; and/or
- (b) recover any additional administrative or review costs incurred.

17. PRODUCT QUALITY AND HANDLING

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

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

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

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

18. INSPECTION & TESTS REPORTS

All equipment and materials furnished under these specifications and all work performed in connection therewith will be subject to rigid inspection by the Engineer or the Engineer's Representative. Acceptance of equipment and material or the waiving off inspection thereof shall in no way relieve the Contractor of his responsibility for meeting the requirements of the Contract.

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

19. FIELD LABORATORY AND TESTING

19.1 General

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

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

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

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

All quality control and tests shall be carried out in accordance with applicable standards and codes. In addition to routine field testing, the contractor shall undertake soil studies for water storage structures etc as directed by the engineer, and furnish a report for evaluation of structural designs of hydraulic and retaining structures where applicable with no additional payment to contractor.

19.2. Field Laboratory Equipment Requirements

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

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

19.3. Testing Laboratory Certificates

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

19.4. Method of Payment

The cost of providing running and maintenance of the laboratory, equipment, materials and staff, testing charges for materials supplied by the Employer and all other tests to be performed in any other laboratory designated by the Engineer shall be deemed to be included in the price quoted by the Contractor and no separate claim for payment on this account shall be entertained by the Engineer. Furthermore, the cost of any additional laboratory, field and shop tests required through the resubmission of samples because of failure of compliance with Specifications shall be borne by the Contractor.

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

20. SURVEYING INSTRUMENTS

20.1 General

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

20.2 Surveying Equipment Required

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

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

21. APPROVAL OF MATERIALS AND PLANT

21.1 Quality of Materials

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

21.2 Submission of Samples and Data

- 21.2.1 The Contractor shall furnish for approval of the Engineer with reasonable promptness all samples as directed by the Engineer or specifically called for in the Specifications and in accordance with the time schedule provided in the schedule of submittals. The Engineer shall check and approve such samples with reasonable promptness only for conformance with the design concept of the Works and for compliance with the information given in the Contract Documents. All work shall be in accordance with approved samples.
- 21.2.2 Samples shall be furnished so as not to delay fabrication, allowing the Engineer reasonable time for consideration of the sample submitted.
- 21.2.3 Each sample shall be properly labeled with the name and quality of the material, manufacturer's name, name of the project, the Contractor's name and the date of submission, and the Specifications Article number to which the sample refers.
- 21.2.4 The manufacturer's installation directions shall be provided with each sample. The Contractor shall pay all transportation costs and deliver samples to the Engineer's office, Site or testing laboratory as directed by the Engineer.

- 21.2.5 Samples shall be of adequate size to permit proper evaluation of the material by the Engineer. Where variations in 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.
- 21.2.6 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.
- 21.2.7 If both Shop Drawings and samples are required for the same item, the Engineer may require both to be submitted before approving either.
- 21.2.8 The Contractor shall erect Mock-up samples of finished items where specifically called for in the documents or as directed by the Engineer.
- The Mock-up samples shall be preserved/protected by the Contractor till the end of the project or as directed by the Engineer.
- 21.2.9 No acceptance or approval of any Shop Drawings or sample, or any indication or request by the Engineer on any Shop Drawings shall constitute an authorization for any increase in the Contract Sum.

21.3 Inspection

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

21.4 Approved Sample at Site

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

22. BAR BENDING SCHEDULE

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

23. DRAWINGS

23.1 Bid Drawings

Bid Drawings issued with the Bid Documents, called the Bid Drawings, show scope of the work to be performed by the Contractor. The Drawings are generally in sufficient detail so as to be used as a basis for construction, fabrication and for placing orders for materials subject to corrections based on the future issue of supplementary Drawings as provided under Sub-Clause 23.2 hereof.

23.2 Construction Drawings, Supplementary Drawings

Upon commencement of the works and furnishing by the Contractor stake out survey plan & natural ground levels, the Engineer shall issue Construction Drawings to the Contractor. The Construction drawings may be issued in stages, where necessary.

The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall follow these drawings.

When additional information regarding the geological formations or other conditions becomes available, the Engineer may find it desirable to change dimensions or design of one or more of the features of the Works to conform to the newly disclosed conditions. The Engineer reserves the right to make such reasonable changes, and the Contractor's operations shall be conducted so as to accommodate any such reasonable changes in the Works.

23.3 Definition of Term Drawings

The term Drawings as used in the Specifications means the Drawings referred in Clauses 23.1 and 23.2 above.

23.4 Checking of Drawings

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

23.5 Copies of Drawings

Drawings will be issued to the Contractor as described below:

23.5.1 Construction Drawings

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

23.5.2 Supplementary Drawings

Two (2) prints of each supplementary Drawing will be issued to the Contractor free of charge. Additional sets will be provided at cost of reproduction upon written request of the Contractor.

23.6 Drawings to Be Furnished by the Contractor

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

23.6.1 Reinforcement Drawings

Reinforcement placement drawings and bar bending schedules (to be provided by the Contractor as per Clause 22 above) of all RCC work shall be prepared by the Contractor and submitted in triplicate to the Engineer for approval, sufficiently in advance of the works in which they are intended to be used.

23.6.2 Shop Drawings

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

The Works shall be executed in accordance with the drawings as approved by the Engineer. If the Contractor wishes to modify any approved drawings, he shall immediately notify the Engineer and submit revised drawings for approval. If the Engineer instructs 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.

23.6.3 As-Built Drawings

The Contractor shall, at all times, keep on Site a separate set of prints of all drawings on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. The Contractor shall also regularly update BIM-Revit Model and share with the Engineer. 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 along with BIM-Revit Model. 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 (Auto CAD Drawings as well as BIM-Revit Model of all services) within twenty-eight (28) days of receipt of drawings stated above, from the Engineer.

24. PROTECTION OF THE WORKS

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

25. RESTORATION AND CLEANING

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

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

The Contractor shall also take all necessary precautions to keep the works and site free from vermin during construction and he shall leave the works vermin free on completion.

Application of pest control agents shall not commence until the specific product, name, method and extent of application have been submitted to and approved of by the Engineer.

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

26.1 Contractor's Office, Facilities Etc.

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

The Contractor shall arrange his labour camp, work yard, storage area and site office.

26.2 Temporary Roads

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

26.3 Temporary Services

26.3.1 Temporary Water Supply

The Contractor shall supply in sufficient quantity all necessary potable and other water for construction purposes for all trades at points within a reasonable distance of any building being constructed. The Contractor shall make arrangements and pay charges for water service installation, maintenance and removal thereof, and pay the costs of water for all trades.

At completion of the work, the temporary water services equipment and piping shall be removed by the Contractor at his own expense.

26.3.2 Temporary Electricity

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

When the permanent electrical power and lighting systems are in an operating condition, they may be used for temporary power and lighting for construction purposes provided that the Contractor obtains the written approval of the Engineer and the Employer and assumes full responsibility for the entire power and lighting system and pays all costs for operation and maintenance of the system.

At completion of construction work, or at such time as the Contractor makes use of permanent electrical equipment and devices, temporary electricity services shall be removed by the Contractor at his own expense.

26.3.3 Waste Disposal

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.

26.3.4 Fire Protection

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

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

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

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

27 CONSTRUCTION SCHEDULE

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

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

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

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

28 SUBMISSION REQUIREMENTS

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

28.2 Submit Shop Drawings as per provision given in Sub-Clause 23.6.2 and number of copies of Product Data which the Contractor requires for distribution plus four copies which will be retained by the Engineer.

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

29 RESUBMISSION REQUIREMENTS

Shop Drawings:

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

30 MONTHLY PROGRESS REPORT AND PHOTOGRAPHS

- 30.1 During the continuance of the Contract, the Contractor shall submit monthly progress on forms as approved by the Engineer.

Such monthly reports shall show the actual progress completed as of date of the report plotted against the schedule as given by the Contractor at the start of work and shall be broken down so as to indicate status of all activities associated with mobilization design, material procurement, manufacture, surveys works, tests with regard to the agreed contract programme.

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

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

31 CONTRACTOR TO NOTIFY DELAYS ETC.

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

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

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

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

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

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

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

32 PHOTOGRAPHS

As soon as work commences on Site, the Contractor shall provide at least 10 to 12 photographs (along with soft copy) of the works from positions to be selected by the Engineer. Each photographic print shall not be less than 10x8 inch and shall bear a printed description, a serial number and the date when taken.

The soft copy of all photographs shall be held at the Contractor's Site Office, numbered and handed over to the Employer at the completion of the Contract.

33 SIGN BOARD

The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer three (3) Sign Boards of dimensions approved by the Employer. The Sign Boards shall be made of metal. It shall be mounted on steel posts securely anchored and braced. The Contractor shall paint on the Sign Boards, the name of the Works, and the names of the Employer, Engineer and the Contractor both in English and Urdu Language.

34 SITE OFFICE FOR ENGINEER'S STAFF/ EMPLOYER STAFF

34 SITE OFFICE FOR ENGINEER/ ENGINEER'S STAFF

The Contractor within 30 days after signing of Contract Agreement or Notice to Commence, whichever is earlier shall provide furnished, equipped and serviced site offices as per the following.

34.1 Site Offices:

- (a) Four (04) new Containers / porta-cabins forty (40) feet long, adequately furnished as mentioned below, air-conditioned (heating & cooling) office facility for Engineer's personnel at the site in the form of portable-cabins having roof and walls duly insulated. The porta-cabins shall have the provision of electrical sockets and its individual distribution boards (including associated cabling), including a backup generator set to support full electric load:

1.	Wooden office table 4'x6' including filing rack with drawers and side racks (standard size).	12 (twelve) Nos.
2.	Officer's revolving Chairs	12 (twelve) Nos.
3.	Wooden sitting visitors' chairs with arms (standard size)	12 (twelve) Nos.
4.	Wooden Table 3'x5' with revolving chairs and side racks & wooden racks behind each table	6 (six) Nos.
5.	Steel filing cabinet (standard size)	2 (two) Nos.

- (b) One (01) new Container / Porta cabin for toilets having roof and wall insulated each including WC, washbasin, sanitary fitting & fixtures with standard sanitary and its associated soaking pit and lighting, exhaust fans.
- (c) One (01) new forty (40) feet long Container / Porta cabin for record keeping, air-conditioned (heating & cooling) office facility at the site in the form of portable-cabins having roof and walls duly insulated. The porta-cabin shall have the provision of electrical sockets and its individual distribution boards (including associated cabling) including a backup generator set with one wooden table and

chair and racks/ cabinets for record keeping purpose as per the design approved by the Engineer.

- (d) Contractor shall undertake grading and preparation of the area (hard & soft landscaping) in and around the site offices.
- (e) Contractor shall maintain the Engineer site office including the repair and/or replacement of and in addition, shall supply all office supplies, including consumables/ replacements; office stationery, documents file cabinets, consumable and Petrol, Oil and Lubricants (POL) for gensets.
- (f) Contractor shall hire and maintain staff for cleaning of offices and security of office blocks.
- (g) Contractor shall provide drinking water (cold), supply of potable water for sanitation purposes, electricity power, internet facility and telephone connections (landline) including payment of utility bills of site offices.

The Contractor shall obtain approval of layout and inventory/ details of office facilities/ furniture from the Engineer. The facilities shall be provided & maintained by the Contractor till the issuance of the Performance Certificate.

Thereafter, the above containers shall become the property of the Contractor. However, the furniture and items installed therein shall become the property of the Employer and shall be handed over in serviceable condition.

34.2 Office Equipment:

The Contractor shall provide the following office equipment/ system for use of the Engineer within 30 days from the signing of the Contract Agreement. All the equipment shall be new and shall be maintained (incl. supply of consumables i.e. printer cartridges, paper and toner) up to successful expiry of Defect Notification Period:

S. No.	Description	Quantity
a)	Laptop Core i7, 15 th Gen, 16GB RAM, 1 TB SSD, Intel Graphics, Fingerprint Reader, Windows 11, 15" FHD, Genuine Windows. HP or Dell or approved equivalent.	03
b)	Desktop Computer core i7 13th Gen, 2.8GHz – 4.0GHz, 08 GB Ram, 1 TB SSD, DVD/RW, incl. 17 inch branded monitor, keyboard, mouse & original windows	10
c)	Laser Printer 3 in 1 (copier + scanner + printer) HP MFP M725 or approved equivalent. All the computers and laptops shall be connected to the printer through networking.	03

S. No.	Description	Quantity
d)	Epson Work Force DS-60000 A3 Flatbed Document Scanner with Duplex ADF or approved equivalent	01
e)	Commercial use Photocopier machine Canon Dx 6860i or approved equivalent. All the computers and laptops shall be connected with the machine through networking.	01

After Completion of the Defect Notification Period, the equipment shall become the property of Employer and shall be handed over in serviceable condition.

34.3 Transport:

The Contractor shall provide within 30 days from the signing of the Contract Agreement, the following brand new vehicles of the latest model for the exclusive use of the Employer with drivers:

Description	Quantity
a) Jetour T2 i-DM or approved equivalent	01
b) Toyota Yaris GLI CVT 1.3 (A/T) or approved equivalent	02
c) Min. 13 seater Toyota Hi-ace 2.8 Deluxe or approved equivalent	01

The Contractor shall bear all costs relating to providing, registration, tax/ duties, comprehensive insurance, petrol, oil, lubricants, maintenance/ repair (from only authorized service centers as per OEM recommended frequency) and drivers' pay throughout the Construction Period and up to issuance of the Performance Certificate. If any of the above-mentioned vehicles remain out of service for a continuous period exceeding one (01) week due to repair, maintenance, or any other reason, the Contractor shall, at its own cost and without any additional liability to the Employer, immediately provide an equivalent replacement vehicle of similar type, capacity, and condition for the exclusive use of the Engineer and Engineer's staff until the original vehicle is restored to service.

Thereafter, the above vehicles shall become the property of the Contractor after issuance of Performance Certificate.

34.4 Mess Bachelor Accommodation for Engineer and Engineer staff:

The Contractor shall provide one (01) unit of 8-Beds rented housing accommodation with household appliances and furniture for the Engineer personnel near the site (preferably in Sectors F-6,7,8 or G-6,7,8 or any other appropriate location as approved by the Engineer, as described below:

Minimum 500 sq. yards (8 to 10 rooms) fully air-conditioned (heating & cooling) accommodation shall be fully furnished and equipped, including, beds, sofas, dining

tables, chairs, curtains, linen, blankets, glassware, cutlery, crockery and kitchen utensil/ household appliances. The accommodation shall have provision for efficient drainage, sanitation, potable water, gas, internet and electricity on 24 hours basis including backup generator(s) with POL for complete electric load.

The Contractor shall bear the cost of providing four cooks, three sweepers, four helpers and six security guards. Furniture and appliances provided for the housing facility shall remain property of the Contractor

The stated facilities including payments of utility bills and rent, shall be maintained by the Contractor till completion of the Defects Notification Period.

34.5 Measurement and Payment

The cost of providing and maintenance of above facilities during the construction period and Defects Notification Period shall not be paid separately to the Contractor and all costs shall be deemed to have been included by the Contractor in rates/ amounts of other items of BOQ.

If the aforementioned facilities are not provided within the time specified above, then the Contractor shall bear all expenses, such as rents incurred by the Engineer/ Employer due to the failure of the Contractor to complete and handover the said facilities and any of their fittings, furniture, equipment and associated hiring of staff/ drivers etc.

35 Facilities for Employer/ Employer's Staff

35.1 Project Director Office

The Contractor, within 30 days after signing of the Contract Agreement or Notice to commence, whichever is earlier, shall provide furnished, equipped and serviced site offices as per the following:

- i. The Contractor shall hire/ acquire a building in the nearest possible vicinity of the project site (preferably in Sectors F-6,7,8 or G-6,7,8 or any other suitable place as approved by the Employer/ Project Director. The Project Office area shall not be less than (500 Sq. Yards/ 1 Kanal approximately), containing 6 to 7 Rooms for the Employer's personnel, adequately furnished as mentioned below, air-conditioned (heating & cooling) facility. The project office shall have the provision of electrical sockets and its individual distribution boards (including associated cabling), including a backup generator set and systems connected to UPS.

S. No.	Description	Quantity
1.	Wooden office table 4'x6' including filing rack withdrawers and side racks (standard size).	12 (twelve) Nos.
2.	Officer's revolving Chairs	12 (twelve) Nos.
3.	Wooden sitting visitors' chairs with arms (standard	24 (twenty-four) Nos.

S. No.	Description	Quantity
	size)	
4.	Wooden Table 3'x5' with revolving chairs and side racks & wooden racks behind each table	24 (twenty-four) Nos.
5.	Steel filing Almirah (Two Doors)	10 (Ten) Nos.

- ii. Contractor shall maintain the Project Office, including the repair and/or replacement of, and in addition, shall supply all office supplies, including consumables/replacements; office stationery, document file cabinets, consumables and POL for gensets/ solar system.
- iii. Contractor shall hire and maintain staff for cleaning of offices and security of office block.
- iv. Contractor shall provide drinking water (cold), supply of potable water for sanitation purposes, electricity power, internet facility and telephone connections (landline) including payment of utility bills of project offices.

The Contractor shall obtain approval of the project office facility and inventory, details of office facilities/ furniture from the Employer. The facilities shall be provided & maintained by the Contractor till issuance of Performance Certificate.

Thereafter, the above-said supplies/ office furniture provided for the Project Office, after completion of the Defects Notification Period, shall become the property of the Employer and shall be handed over in serviceable condition.

35.2 Site Office:

The Contractor, within 30 days after signing of the Contract Agreement or Notice to commence, whichever is earlier, shall provide furnished, equipped and serviced site offices as per the following:

- (a) Three (03) new Containers/ Porta cabins forty (40) feet long, adequately furnished as mentioned below, air-conditioned (heating & cooling) office facility for the Employer's personnel at the site in the form of portable-cabins having roof and walls duly insulated. The porta-cabins shall have the provision of electrical sockets and its individual distribution boards (including associated cabling) including a backup generator set/ Solar System.

S. No.	Description	Quantity
1.	Wooden office table 4'x6' including filing rack with drawers and side racks (standard size).	12 (twelve) Nos.
2.	Officer's revolving Chairs	12 (twelve) Nos.
3.	Wooden sitting visitors' chairs with arms (standard size)	12 (twelve) Nos.

S. No.	Description	Quantity
4.	Wooden Table 3'x5' with revolving chairs and side racks & wooden racks behind each table	6 (six) Nos.
5.	Steel filing Cabinet (Standard Size)	3 (three) Nos.

- (b) One (01) new Containers / Porta cabin for toilets having roof and wall insulated, each including WC, washbasin, sanitary fitting & fixtures with standard sanitary and its associated soaking pit and lighting, exhaust fans.
- (c) One (01) new Container / Porta cabin for combined conference room forty (40) feet long, air-conditioned (heating & cooling) office facility at the site in the form of portable cabins having roof and walls duly insulated. The porta-cabin shall have the provision of electrical sockets and its individual distribution boards (including associated cabling), including a backup generator set with one wooden conference table (12 to 15 members) and chairs, as per the design approved by the Employer.
- (d) Contractor shall undertake grading and preparation of the area (hard & soft landscaping) in and around the site offices.
- (e) The Contractor shall maintain the Employer site office, including the repair and/or replacement of, and in addition, shall supply all office supplies, including consumables/ replacements; office stationery, documents file cabinets, consumables and POL for gensets.
- (f) Contractor shall hire and maintain staff for cleaning of offices and security of office block.
- (g) Contractor shall provide drinking water (cold), supply of potable water for sanitation purposes, electricity power, internet facility and telephone connections (landline) including payment of utility bills of site offices.

The contractor shall obtain approval of layout and inventory/ details of office facilities/ furniture from the Employer. The facilities shall be provided & maintained by the Contractor till issuance of the Performance Certificate.

Thereafter, the above containers shall become the property of the contractor after the expiry of the Defects Notification Period. However, the furniture and items installed in the containers shall become the property of the Employer and shall be handed over in serviceable condition.

35.3 Office Equipment:

The Contractor shall provide the following office equipment/ system for use of the Employer within 30 days from the signing of the Contract Agreement. All the equipment shall be new and shall be maintained (including supply of consumables i.e. printer

cartridges, paper and toner etc.) throughout the Construction period and issuance of Performance Certificate:

S. No.	Description	Quantity
a)	Laptop Core i7, 15 Gen, 16GB RAM, 1 TB SSD, Intel Graphics, Fingerprint Reader, Windows 11, 15" FHD Genuine Windows or equivalent. HP or Dell or approved equivalent.	10
b)	Desktop Computer core i7 13th Gen, 2.8GHz – 4.0GHz, 08 GB Ram, 1 TB SSD, DVD/RW, incl. 17 inch branded monitor, keyboard, mouse & original windows.	05
c)	Laser Printer 3 in 1 (copier +scanner +printer) HP MFP M725 or approved equivalent. All the computers and laptops shall be connected with the printer through networking.	08
d)	Commercial use Photocopier machine Canon Dx 6860i or approved equivalent. All the computers and laptops shall be connected with the machine through networking.	01
e)	Commercial use Photocopier machine Canon Dx C3926i or approved equivalent. All the computers and laptops shall be connected with the machine through networking	01
f)	Epson Work Force DS-60000 A3 Flatbed Document Scanner with Duplex ADF or approved equivalent	02
g)	Apple iPad Pro 13 Apple M5 Chip 13-Inch, Apple Pencil Pro & Magic Keyboard, 512GB Space black, including charger & cable) or equivalent	02

After issuance of the Performance Certificate, the above equipment shall become the property of the Employer and shall be handed over in serviceable condition.

35.4 Transport:

The Contractor shall provide within 30 days from the signing of the Contract Agreement, the following brand new vehicles of the latest model for the exclusive use of the Employer with drivers:

Description	Quantity
a) Toyota Hilux- Revo Double Cabin 4x4 (GR) or approved equivalent	02
b) Jetour T2 i-DM or approved equivalent	02
c) Toyota Yaris GLI CVT 1.3 (A/T) or approved equivalent	05
d) Toyota Hi-ace 2.8 Deluxe or approved equivalent	01

The Contractor shall bear all costs relating to providing, registration, tax/ duties, comprehensive insurance, fuel, maintenance/ repair (from only authorized service centers

as per OEM recommended frequency) and drivers' pay throughout the Construction Period and till the issuance of Performance Certificate. If any of the above-mentioned vehicles remain out of service for a continuous period exceeding one (01) week due to repair, maintenance, or any other reason, the Contractor shall, at its own cost and without any additional liability to the Employer, immediately provide an equivalent replacement vehicle of similar type, capacity, and condition for the exclusive use of the Employer until the original vehicle is restored to service.

The above vehicles shall remain the property of the Contractor after issuance of Performance Certificate.

35.5 Mess Bachelor Accommodation for Employer:

The Contractor shall arrange, on a rental basis or any other suitable arrangements, and fully furnish two (02) accommodation units/ messes in Islamabad, minimum 500 Sq. Yards (8 to 10 rooms), in close proximity to the Project Site (preferably in Sectors F-6,7,8 or G-6,7,8 or any other suitable place as approved by the Employer/Project Director), for the exclusive use of the Employer's officers and staff. The accommodation shall be provided with all necessary furniture, fixtures, and fittings, including but not limited to beds, mattresses, wardrobes, sofas, dining tables and chairs, study tables, office furniture, curtains, carpets/rugs, linen, blankets, pillows, towels, air conditioners, refrigerators, microwave ovens, cooking ranges, washing machines, water dispensers, televisions, kitchen and household appliances, as well as complete sets of glassware, cutlery, crockery, kitchen utensils, and any other household items required to ensure that the accommodation is fully functional and ready for immediate occupancy. The Contractor shall bear the cost of providing four cooks, three sweepers, four helpers and six security guards

Each mess shall be provided with an uninterrupted power supply through a dedicated 25 kVA generator or appropriate capacity Solar System, including all associated accessories. The Contractor shall be solely responsible for the payment of monthly rent and all recurring utility charges, including but not limited to electricity, potable and drinking water, LPG/gas, internet services, and any other applicable utility charges. The Contractor shall also be responsible for providing the required POL (Petrol, Oil and Lubricants) for the generators and carrying out their operation, maintenance, and repair throughout the Contract Period till issuance of the Performance Certificate on a 24-hour basis.

Prior to installation, the Contractor shall submit the complete furnishing inventory, including details of all furniture, fixtures, appliances, equipment, and other usable items proposed to be provided in both messes, for the Employer's review and approval.

Upon issuance of the Performance Certificate, all furniture, fixtures, equipment, appliances, generators, and other items installed under this provision shall remain the property of the Contractor.

35.6 Measurement and Payment

The cost of providing and maintenance of above facilities during the construction period and Defects Notification Period shall not be paid separately to the Contractor and all costs shall be deemed to have been included by the Contractor in rates/ amounts of other items of BOQ.

If the aforementioned facilities are not provided within the time specified above, then the Contractor shall bear all expenses, such as rents incurred by the Engineer/ Employer due to the failure of the Contractor to complete and handover the said facilities and any of their fittings, furniture, equipment and associated hiring of staff/ drivers etc.

36 COORDINATION OF WORK AT SITE

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

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

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

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

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

37 SITE FACILITIES TO BE PROVIDED BY THE CONTRACTOR

37.1 General

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

37.2 Labour Camps and Staff Residences

The Contractor shall provide, operate and maintain labour camps and staff residences and are required for the proper and efficient progress of the work to house his own employees. For the purposes of operation and maintenance of the

Camps and Residences, the Contractor shall comply with the rules of Pakistan Labour Camp Rules 1960 and all other applicable provisions of the Pakistan Labour Laws.

37.3 Administrative and Field Office

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

37.4 Work yards and Storage Areas

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

37.5 Water Supply, Sewerage System and Electricity

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

37.6 Medical Care

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

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

37.7 Other Facilities

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

38. CONSTRUCTION PROCEDURES

The Contractor shall advise the Engineer of proposed construction procedures in accordance with the General Conditions of Contract.

If the Engineer shall see that the work progress is slow in such a way that the work will not be completed in the time specified, then he shall order the Contractor to work overtime or in more shifts and the Contractor shall obey these orders without any additional payments and without any objections or request for compensation.

39. NOTIFICATION TO ENGINEER

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

40. NIGHT WORK

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

41. WEATHER

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

42. CO-ORDINATION WITH OTHER CONTRACTORS

It shall be the responsibility of the Contractor to keep-up good relations with other Contractors employed on site by the Employer. The Contractor shall cooperate and coordinate his work with that of the other Contractors working at the Site, to whatever extent may be necessary to complete the Project in accordance with the approved 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.

43. ACCIDENT PREVENTION, SAFETY MEASURES AND PROTECTIVE EQUIPMENT

Contractor must plan, manage and monitor all work carried out taking into account the risks to anyone who might be affected by it (including members of the public) and the measures needed to protect them. The Contractor shall check that all workers he employs or appoints have the skills, knowledge, training and experience to carry out the work. Make sure that all workers under their control have a suitable, site-specific induction, unless this has already been provided by the Contractor. Provide appropriate supervision, information and instructions to workers under their control. Ensure they do not start work on sites unless reasonable steps have been taken to prevent unauthorized access. Ensure suitable welfare facilities are provided from the start for workers under their control, and maintain them throughout the work.

43.1 Submission of SAFETY PLANS and HSE POLICY

Contractor shall submit the following Safety Plans and Contractor HSE Policy within 7 (seven) Calendar days of the notice of commencement of Work.

- i. Fire Management Plan
- ii. Traffic Management Plan
- iii. Waste Management Plan
- iv. Occupational Health & Safety Plan
- v. Spill Response Plan

43.1.1 HSE Plan

Contractor shall submit HSE Plan in which HSE Policy, management commitment statement towards the good safety practices and compliance of HSE policy and procedures shall be adhered.

43.1.2 Procedure and Guidelines

Contractor shall provide procedures and guidelines including (Excavation work, Work at height, Façade work, Scaffolding, Electrical and Mechanical log out and tag out (LOTO), Plant and Equipment, Emergency response procedure, Adverse weather, Demolition work, Lifting operation, Hot work, Confined space work, Accident incident investigation, Welding cutting and grinding activities) and other related activities at site.

43.2 RISK Assessment:

Contractor shall conduct task-based Risk assessment for each working activity, the associated hazards and risks shall be conveyed to all workforce and mitigation process shall be in place and understood to workforce and staff.

43.3 PPE Requirements:

Contractor shall also be responsible for providing all the mandatory Personnel Protective Equipment (PPE) and necessary stock shall be maintained.

Following is minimum PPE requirement for various types of activities as per compliance of BS standard.

43.3.1 General Duties

Safety Glasses, Hard Hat, High visibility Coveralls and Vest, Safety footwear.

Note. Clear safety glasses shall be utilized for Indoor activities and Black/ white safety glasses with UV protection shall be utilized for outdoor activities.

43.3.2 Welding Activity

Goggles, Welding Hood, Hard Hat, Respiratory Mask, Flame Retardant high visibility Coveralls / use leather apron Shoulder / Arm if fire retardant coverall is not available, Welders Gloves, Safety Footwear.

43.3.3 Cutting / Grinding Activity

Goggles, Face Shield, Ear Plugs, Hard Hat, Flame Retardant high visibility Coveralls, Safety Footwear, Work Gloves, and Respiratory Protection will require where Cutting/ Grinding/ Chipping activity will be carried out in a restricted space.

43.3.4 Chemical Handling and Hazardous material handling activities

Full Face Visor or Mask with appropriate Cartridge, Hard Hat Full Chemical Suit, Chemical Handling Gloves, and Rubber type Boots (safety toe cap).

43.3.5 Working in and close to water, rainfall/ Wet Weather PPE

A supply of wet weather PPE shall be made available throughout the Project duration i.e. for predicted and unpredicted wet weather conditions. All foul weather gear shall be provided to the work force at no cost to the individual.

Wet weather PPE shall include, but is not limited to: - Waterproof storm jackets, trousers and safety gloves.

43.3.6 Any other as appropriate for required work

43.4 Continuous Improvement of Safety Culture:

Contractor shall also provide appropriate level of awareness, knowledge, education and training programs, refresher courses to improve safety culture in the workforce.

- i. Site orientation / induction training and keep evidence record for audit.
- ii. Work related indoor trainings
- iii. Safety seminars
- iv. Refresher courses
- v. Third party trainings including work at height, confined space, scaffolding, fire warden, first aid, Heat stress and other training related to work activities of the site.
- vi. Incentive programs

43.5 Emergency response plan

Contractor shall provide Emergency response plan for sites and site offices which includes Emergency on scene commander and its team, Emergency contact list, provision of firefighting equipment nearest Hospital, police, Civil defense, Fire warden, Building emergency evacuation plan with arrows leads to assembly point. Exit, Emergency Exit signs shall be posted. Availability of fire wardens with at least 3 days training course with a minimum 1 year experience and appropriate arrangements for ambulance. A drill shall be carried out quarterly. Contractor shall provide First aid facilities with clinic and nurses. For 50 or more labors, 1 first aider shall be available at day and night time if the workforce increase to 200 or more an additional nurse will be required.

43.6 Plant and Machinery

Contractor shall provide and ensure all plant machinery and equipment is fit for the purpose, adequately inspected tested and maintained.

- Ensure safe maneuvering of machineries, vehicles, workers in a busy construction site by Route Maneuvering plan for site where a designated separate routes for vehicles, pedestrian walkways for workers shall be marked signs shall be posted for clear understanding of office site and construction site. All construction vehicles shall be facilitated with yellow indicators on, reverse alarm in the construction vehicle shall be installed, used and maintained.
- Color coding of lifting gears and plant shall be followed and maintained.
- Contractor shall provide Rigging loft where all lifting gears slings, shackles, spreader beams, master link, lifting hooks etc. shall be stored.
- A quarantine area shall provide where all damaged lifting gears shall be accumulated.
- Forms and checklist shall be filled and maintained for Audit purpose.

- 3rd party Certified Tower/ mobile cranes and machinery shall be utilized.

43.7 Appointment of HSE personnel

Contractor shall get approval of Safety Officer, Engineer or Manager from the Engineer during appointment process. Minimum qualification for safety officer is OSHA/ IOSH/ NEBOSH with minimum 5 years of experience and HSE Manager with 10 years or more. Submission of CVs shall be made within 14 days of LOA.

Contractor shall deploy one safety officer over 50 workers and 2 safety officers over 100 workers and so on. (for each 50 workers 1 additional safety officer is required) and a qualified HSE Manager required for a construction site throughout the construction period.

43.8 Appointment of Environmental Officer

Contractor shall get approval of Environmental Officer or Engineer from the Engineer during appointment process. Minimum qualification for environmental officer is BS/MS in Environmental Engineering with minimum 5 years of experience or more. Submission of CVs shall be made within 14 days of LOA.

Contractor shall deploy environmental officer at construction site throughout the construction period.

43.9 Appointment of Community Liaison Officer

Contractor shall get approval of Community Liaison Officer from the Engineer during appointment process. Minimum qualification for Liaison officer is BSc Engineering with minimum 5 years of relevant experience or more. Submission of CVs shall be made within 14 days of LOA.

Contractor shall deploy liaison officer at construction site throughout the construction period.

43.10 Statistics and Reporting

Contractor shall ensure implementation of incident investigation process including near miss report, property damage report, and incident accident notification. Initial notification shall be submitted within 24 hours and full and final incident accident report shall be submitted to the Engineer within 72 hours of the incident.

Weekly and Monthly HSE reports shall be submitted to the Engineer on regular basis to evaluate HSE performance.

43.11 Electrical safety

Contractor shall ensure adequate electrical safety including

1. PDP (Power Distribution Panel) Control and earthing.
2. Safety device (ELCB, Insulation, Guard etc.)
3. Cable / Plug / Socket protection (U/G & O/H)
4. Color coding of power hand tools
5. Electric power shall be distributed through circuit breaker (ELCB), (PVC) cables and (RCD's) (30m A on each circuit).

43.12 Working at height

The Contractor is responsible for providing safe work place for work at height above (1.2) meters and needs to provide:

- i. Safety harness, life line, nets
- ii. Static working platform or mobile elevated working platform (MEWP) working platform
- iii. Access and egress (Ladder).
- iv. Tagging system and inspection.
- v. Methodology and Risk assessment
- vi. Trainings to workers for work at height
- vii. Cradle safety

43.13 Scaffolding safety

Contractor is responsible for providing safe scaffolding according to its engineering design for work at height above (1.2) meters and needs to provide:

- i. Standard tube, Aluminum tube, fittings, boards, ledgers, standards, decking, proper thickness of boards between transoms, platform, Guard rails and toe boards, bracing, ties, base plate, couplers, protection from dropped objects, access ladders, independent Tie scaffolding, Free standing scaffolding, provision of mobile scaffold, suspended scaffold, Scaffolding material storage, proper transportation of scaffolding materials, Housekeeping.
- ii. All the above materials shall be free from damage and rust.
- iii. Static working platform or mobile elevated working platform (MEWP) working platform
- iv. Access and egress (Ladder).
- v. Tagging system and inspection.
- vi. Methodology and Risk assessment
- vii. Provide training to scaffolders
- viii. Scaffolding Engineer / Supervisor

43.14 Excavation

Contractor is responsible for providing safe excavation at site. If the excavation is below 1.5 meters deep then proper benching or shoring are required. If the excavation is 1.5 meters or more deep and the contractor doesn't provide benching or shoring then Geotech sign off required. The Contractor shall ensure the following:

- i. Safe slope, Hard Barricade 2 meters away from the edge required around the excavation.
- ii. Proper Access and egress required to excavation.
- iii. Ensure underground utility services protection
- iv. Inspection (Testing & monitoring)
- v. Permit to work for excavation required.
- vi. No materials shall be stored nor vehicle be parked near the edge of the excavation.
- vii. Procedure or method statement with risk assessment shall be submitted prior to excavation.
- viii. Certified machinery shall be utilized for excavation process.
- ix. Trenches and pits shall be covered during or after excavation completed.
- x. All the trenches and pits shall be backfilled.
- xi. Access, roads shall be cleaned from dust and mud on regular basis.

43.15 Confined Space

Contractor is responsible to provide a safe workplace to workers. The space where there is a risk of serious injury or death due to the size, access to, and content of the space including dangerous conditions such as a lack of oxygen, or gas from hazardous substances. Working in excessively hot (or sometimes excessively cold) temperatures can cause physical and mental stress, as well as dangerous changes in body temperature, and so requires a strict health and safety provision. The working temperatures need to be monitored at all times with adequate thermometers to ensure safe working environments. The management must make sure that all staff wear any necessary safety protection when it comes to clothing and equipment, such as breathing apparatus. The length of time a worker can continually work within the confined space must also be managed properly, so in order to prevent problems like heat exhaustion, job rotation may be required. If the excavation, trench or pit is below 1.2 meters it will be consider as confined space if to avoid it then proper benching or shoring are required. If the excavation is 1.2 meters deep then Contractor shall ensure the following:

1. Certified and trained entrant to confined space.
2. Permit to work is required for confined space.
3. Gas test.AGI 1 to detect the LEL/UEL i.e O₂ (18.5- 23.5) H₂S Hydrogen Sulfide and Carbon monoxide

- Toxic effects of Hydrogen Sulfide H₂S:

- H2S Concentration Effect
 - 1 PPM Smell (Rotten eggs)
 - 10 PPM 8 hr. TWA (Time weighted Average)
 - 15 PPM 15 min. STEL (short term exposure limit).
 - 100 PPM Loss of smell
 - 300 PPM Loss of consciousness with time (~ 30 min.)
 - 1000 PPM Immediate respiratory arrest, loss of consciousness, followed by death
 - Toxic effects of carbon monoxide exposure:
 - Concentration Effect
 - PPM 8 hr. TWA (Time weighted Average)
 - 200 PPM Ceiling
 - 600 PPM Headache, discomfort (1 hr.)
 - 2500 PPM Unconsciousness (30 min)
 - 4000 PPM Quickly fatal
- (a) CS standby, Rescue team and supervisor should be stand and monitor the activity.
 - (b) Record all the interval of time and keep it as a record.
 - (c) Ambulance for emergency.

43.16 Welfare Facility

Contractor shall provide welfare facilities to workforce,

- i. Worker medical fitness
- ii. Smoking zones, Shaded rest areas,
- iii. Portable drinking water
- iv. Sanitation
- v. Working hours during Ramadan shall follow according to Federal Government notification

43.17 Lighting and Ventilation

1. Contractor shall provide adequate lighting and ventilation at site as necessary for safe work practices.
2. Corridors, stairs at the basement shall be lit up in day time to clear visibility.
3. Adequate lighting is required during night shift.

43.18 Lifting operation

Contractor is to ensure lifting operations are carried out in a safe manner, all associated lifting equipment is maintained, inspected and certified to the required standard and that all personnel involved in any of these activities are trained and qualified in accordance with the project requirements suitable for the tasks to which they are assigned. The Contractor shall ensure the following;

- i. Safe Lifting Plan

- ii. Lifting gears and appliances (web slings, chain slings, Shackles, slugs, spreader beams, master link etc and rigging appliances chain block, jacks and lever block etc shall be 3rd party certified (1 year) prior to use at site.
- iii. Prior to lifting operation, Contractor to ensure planning of lift, ground condition, wind speed, use of tag lines to control the lift and adverse weather conditions. No lift shall be taken in a wind speed 12.8 m/s and above. Ensure color coding of the lifting gears after 3 months to check wear and tear.
- iv. Tagging system and inspection.
- v. Risk assessment to be carried out prior to lift.
- vi. Contractor shall ensure certified riggers, banksman and operator of mobile or tower cranes
- vii. Contractor shall ensure pre use checks of lifting gears and appliances.
- viii. Monthly and Daily Crane and other Mobile Equipment Checks.

43.19 Hot Work

Contractor shall ensure to make procedures and take adequate precautions necessary to ensure that hazards and risks associated with Hot Work Activities are either eliminated or mitigated to ensure safe operations and safety of personnel, plant and equipment. Additionally Contractor shall ensure the followings;

- i. Permit to work to be open for the activity
- ii. Competent welder shall be provided for the activity
- iii. Mandatory personal protective equipment including hood or welding mask, face mask, apron, safety shoes, fire retardant gloves to be provided.
- iv. Fire extinguisher and Fire watcher must be deployed to control emergency situation.
- v. Barricade/ isolation to be provided
- vi. No chemical or flammable material shall be placed or stored near to welding activity.
- vii. Test to be provided prior to welding incase toxic gases or fumes presence (confined space)

43.20 Permit to Work

Contractor shall ensure Permit to work system at site. Permit to work shall be obtained prior to working activities below,

- 1. Hot works
- 2. Work at height
- 3. Excavation
- 4. Scaffolding and working platforms
- 5. Confined space Entry
- 6. Lifting operations
- 7. Electrical Shutdown works/ Lock out /Tag out

43.21 Environmental Protection

43.21.1 Contractor's Responsibilities

43.21.1.1 Contractor shall record the condition of roads, agricultural land and other infrastructure prior to transport of materials required for the contract works and commencement of construction. Contractor shall fully reinstate pathways, other local infrastructures and agricultural lands to at least their original conditions upon construction completion.

43.21.1.2 Protection of the environment

Contractor shall comply with all applicable national and local environmental regulations and guidelines as well as the conditions enlisted by Pak-EPA while issuing NOC/ Approval for the projects and all Environmental safeguards requirements provided in the EIA or due diligence reports.

Contractor shall (a) establish an operational system for managing environmental impacts, (b) carry out all the monitoring and mitigation measures, allocate the budget required to ensure that such measures are carried out. The Contractor shall submit to the Employer/ Engineer quarterly reports on the carrying out of such measures.

43.21.1.3 Dust control

Contractor shall take adequate measures to control Dust at construction site. Its surrounding access and road are clear from dust and mud. Contractor shall ensure proper housekeeping at daily basis.

43.21.2 Environmental Protection and Miscellaneous

43.21.2.1 Environmental Management

The Contractor shall comply with all legal duties and obligations regarding the protection of the environment as laid down Laws and Regulation of Governments of Pakistan.

43.21.2.1.1 Water Quality

The Contractor shall submit proposals for the Employer's approval for all waste water and foul effluent from offices, workshops and site accommodation to be collected and treated at a waste treatment plant prior to discharge into open water courses into ground water. Where construction methods involve pumping of ground water, the Contractor shall submit proposals for monitoring and the disposal of water discharges.

43.21.2.1.2 Waste Management

The Contractor is fully responsible for the day-to day management on waste collection & disposal. The Contractor must make arrangements for waste management for the collection and the disposal of domestic and industrial refuse, by handling, transport or storage of scheduled wastes outside the premises and its safe disposal at a location approved by the Employer.

The Contractor must ensure that all the necessary utensils such as proper storage containers or bins for refuse and kitchen wastes, special storage containers for scheduled wastes, temporary sewerage plants or toilet facilities are provided at the premises.

The Contractor must also comply with the following environmental conditions throughout the construction stage:

All effluents produced must be treated to comply Law and Regulation of Government of Pakistan before discharge into area approved by the Employer. The effluent shall never be discharged into canal without treatment;

Temporary sewage treatment for toilet facilities in accordance with the specifications as prescribe by the Law and Regulation must be provided at the Contractor's site office and worker's camps before the commencement of any works;

Open burning of solid wastes including biomass waste and construction debris is strictly not permitted;

Handling and disposal of scheduled wastes must comply with the requirements of the Law and Regulations of Government of Pakistan;

Waste oil and grease arising from the earthworks and construction activities must not be disposed into any nearby watercourse. These wastes must be stored in proper drums/containers and either reused or disposed at the site as approved/ licensed by the Director General of Environmental Quality.

43.21.2.1.3 Site Waste Management Plan and Hygiene

Contractor shall ensure safe disposal of waste by preparing site waste management plan SWMP shall be submitted 14 days prior to commencement of work for approval, maintain housekeeping, and removal, discharge of sewage water, follow environment friendly activities and avoidance of activities detriment to environment.

- i. Drinking water control

- ii. Kitchen hygiene (test, cleaning, fire blanket, storage,)
- iii. Accommodation Hygiene (Fumigation, pest control, inspection)
- iv. Classification and segregation of waste
- v. Disposal of waste and records (Agent, Quantity, cost)
- vi. Housekeeping operations and others

43.21.2.1.4 Avoidance of Nuisance

The Contractor shall take all reasonable precautions to avoid causing a nuisance with dust noise or vibrations arising from his operations during execution of any works. The patients and routine operations of hospital should not be adversely impacted in any case. This provision is in addition to but not in substitution for the provisions of the Conditions of Contract.

Contractor shall not obstruct, as far as possible, the normal rights of way of the pedestrians, patients and other users of the public pathways/roads and where this is necessary and unavoidable during any works, he shall provide barriers (hard/soft barricading), safety signs, warning lights, etc. required for proper traffic safety.

contractor shall, before entering to the project site for works, will clearly mention the area required for works, demark the possessed area through hard or soft barricading (as, when & where needed) and will segregate the work area from general public using the facility to avoid any kind of disturbance, harm or risk to general public.

Contractor shall be responsible for clearing and cleaning all existing streets, roads, drains, etc. at regular intervals, or when directed by the Employer and keep the approaches to the site clear of mud and obstruction.

Contractor shall be liable and shall indemnify the Employer in respect of any claims or proceedings arising out of his neglect in taking care to avoid creating a nuisance when carrying out the Works.

43.21.3 Borrow and Disposal of Materials

43.21.3.1 Surplus Suitable Materials

Contractor shall dispose-off all surplus suitable materials to areas designated by the Employer/ Engineer. The surplus suitable materials shall be compacted to the requirements for earthworks Specification.

43.21.3.2 Borrow Pits and Stockpiles

Contractor shall submit proposals to the Employer/ Engineer approval giving the location of borrow pits and stockpiles and proposals for their management to ensure acceptability of the materials.

Contractor shall be responsible for locating borrow pits and stockpiles, in addition to, designated borrow pits and stockpiles. Whether the Contractor obtains materials from the designated or his own borrow pit, it shall be the responsibility of the Contractor to ascertain the suitability of the pit with respect to the quantity and quality of the materials, which shall be acceptable to the Engineer. The Contractor shall pay all necessary leases, fees, taxes, levies or royalties to the appropriate authorities and observe all relevant regulations. The Contractor shall keep the borrow pits free from ponding water and the excavation neat and tidy and shall carry out necessary erosion protection and other mitigation measures as acceptable to the Engineer.

Where suitable material is stockpiled for later use the Contractor shall ensure that the formation is cleared of all vegetation unless otherwise approved by the Engineer. Stockpiled material shall be finished with a sloping, compacted surface to ensure run-off to keep the stockpile free of ponding water. Where required the Contractor shall provide a drainage ditch around the stockpile to prevent the ingress of water or other measures acceptable to the Engineer. The Contractor shall also be responsible for disposal of surplus materials to designated places as approved by Engineer.

43.21.4 Utilities and other Services

Contractor shall be responsible for locating the position of all utilities, including mains, overhead and underground cables, pipes, sewers and drains, and where necessary shall adopt such methods of excavation as may be required by the appropriate authorities or the Engineer to ensure that no damage is caused to them.

Contractor shall make good, at his own expense, any damage whatever to existing utilities to the complete satisfaction of and in accordance with the instructions of the relevant authority or Owner concerned, and shall keep the Employer indemnified at all times from all claims, costs and expenses which may be brought against or incurred by the Employer for or on account of any damage (whether permanent, temporary or recurring) to the said utilities. All utilities, which are encountered in the course of the Works, shall be adequately supported, slung up, strutted or otherwise protected from damage to the satisfaction of the persons or authority in which they may be vested.

Due allowance shall be made by the Contractor for the effect on the phasing of the Works of relocations to existing public and private mains and utilities necessitated by the Works. The Contractor shall ensure that such existing mains and utilities are not interrupted without the written consent of the relevant authority or the owner of the utilities concerned.

If any privately owned utilities for water, electricity, telephone, drainage. etc., passing through the Site are affected by the Works, the Contractor shall provide an approved equivalent alternative service in full working order to the satisfaction of

the Employer of the utility and the Employer's Representative, before the cutting of the existing utility, and until the completion of the permanent replacement of the utility.

43.21.5 Prohibition of Advertising

The Contractor shall treat the Contract and everything written as private and confidential. In particular, the Contractor shall not publish any information, advertisement, drawing or photograph relating to the Works and shall not use the site for advertising purposes, except with the written consent of the Employer and subject to such conditions as he may prescribe.

43.21.6 Explosives

The Employer shall have the power to regulate, restrict or prohibit the use of explosives, explosive powered tools, or the like in the Works if in his opinion it is necessary to do so for the safety of persons or property or to safeguard the Works.

44. SETTING OUT OF WORK AND SURVEY

44.1 Reference Points, Lines

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

44.2 Verification

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

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

The Contractor shall be responsible for maintaining all survey markers/monuments, and property corners. If any markers/monuments are destroyed by the Contractor, the Contractor shall arrange, at his own cost, to

retrace and replace them to the entire satisfaction of the Engineer. If a monument cannot be replaced in its original position, the Contractor shall install a witness corner. The Contractor shall complete and file monument reference cards on all monuments as per instructions of the Engineer.

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

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

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

The Contractor shall notify the Engineer at least 24 hours before performing a quantity survey and, unless specifically waived, quantity surveys shall be performed in the presence of an authorized representative of the Engineer.

Degree of accuracy for the survey works shall satisfy the following specified tolerances:

- (a) Structure points shall be set within 0.01 foot accuracy from point to point, except where tighter tolerances are required.
- (b) Cross-section points shall be located within 0.10 foot, horizontally and 0.01 foot vertically.
- (c) Permissible closing error for a levelling 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 labour required for surveying work, including, but not limited to, instruments, stakes, spikes, steel pins, templates, platforms, and tools, and except as required to be incorporated in the work or left in place, all such materials and equipment, shall remain the property of the Contractor. Surveying instruments shall be in perfect working condition and shall be subject to rigid inspection for proper operation at least after every two weeks of use. Defective instruments shall be promptly replaced or repaired and adjusted to the satisfaction of the Engineer.

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

45. WITNESSING OF FACTORY ACCEPTANCE TESTS

Factory acceptance tests of Plant and/ or Material procured either within or outside the country shall be witnessed by the Employer's and the Engineer's personnel. All costs in connection with witnessing of the factory acceptance tests by the Employer and the Engineer shall be borne by the Contractor. These shall include the costs of inland transportation, visa, air travel from Pakistan to place of inspection/ testing and back, hotel accommodation, boarding, lodging (as per actuals), and daily allowance @ Rs. 15,000/- per day person for inspection/ testing to be conducted within Pakistan and @ US Dollars 200 per day per person for inspection/ testing to be conducted outside Pakistan for each visit of every person to witness these tests.

46. NON-COMPLIANCE TO THE SPECIFIC PROVISIONS AND PENALTIES

If the Contractor fails to provide any facilities, services, or tests required for quality control, supervision, or contract administration as specified in the relevant Clauses of the Specific Provisions, within the period notified by the Employer or the Engineer, the Employer may arrange for such facilities, services, or tests at the Contractor's risk and expense. The costs incurred by the Employer shall be deducted from the Contractor's payments, along with 10% handling and overhead charges, without the Contractor having any claim in this regard. Such arrangements shall not absolve the Contractor of their obligations under the Contract.

In addition, failure to comply with safety and site protection requirements, including proper cordoning off of the worksite, provision of safety equipment, or implementation of protective measures, may result in penalties, suspension of work, or other remedial actions as deemed necessary by the Employer. The Employer reserves the right to conduct inspections at any stage of the project to verify compliance to Health, Safety and Environmental Standards.

This Clause shall be binding on the Contractor and all subcontractors engaged in the execution of the Works, without prejudice to any other rights or remedies available to the Employer under the Contract.

47. PAYMENT OF WORK

No payment shall be made for the works involved within the scope of this section of specification unless otherwise specifically stated in the Bills of Quantities or herein.

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