Tender for External Fire Fighting Works at PDEU Campus, Gandhinagar

Part – B

General, Special Conditions & SOQ

HCP DESIGN, PLANNING AND MANAGEMENT PVT. LTD.
Paritosh, Usmanpura, Ahmedabad – 380 013, Phone: 2755 0875, Fax: 2755 2924.

Tender for External Fire Fighting Works at PDEU Campus, Gandhinagar

Employer	**:**	**Pandit Deendayal Energy University**
Correspondence	**:**	**Pandit Deendayal Energy University, Village - Raysan District - Gandhinagar – 382 426.**
Site	**:**	**Pandit Deendayal Energy University, Village - Raysan District - Gandhinagar – 382 426.**
Issued on	**:**	**18.08.2022**
Pre-Bid Queries	**:**	**25.08.2022**
Date of submission	**:**	**01.09.2022**

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NOTICE INVITING TENDERS

1.	Employer	:	**Registered office address:** As per item no 1 of appendix
		:	**Correspondence address:** As per item no 1 of appendix
	Architects	:	As per item no 2 of appendix
	Site	:	As per item no 3 of appendix

2. Item rate tenders are invited on behalf of the Employer for **Tender for External Fire fighting works at PDEU campus at Gandhinagar.** The total works are required to be completed as mentioned in item no 6 of Appendix of this document.

3. **Information about Tender document:** As per item no 7 of appendix of this document.

4. Tenders for the work shall remain open for the acceptance for a period of **120** days from the date of **submission** of the tenders.

5. Before quoting the rates, every tenderer is expected to inspect the site of the proposed work and to have satisfied himself as to the nature of all works, all existing roads, water-way and other means of communication and access to and from the site and work and the building that may be required for temporary purposes in connection with the construction, completion and maintenance of the works and must make his own inquiries as to work, yard sites and depot and dumps and as to acquisition of such additional sites and areas as may be necessary for temporary purpose for constructing, completing and maintaining the works. He must ascertain the availability of space for storage of construction materials, water supply, electricity, means of access to the work, nature of work and acquaint himself with all local conditions. A tenderer shall be deemed to have full knowledge of all the relevant documents, samples, site, etc. whether he inspects them or not before submitting the tender.

6. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specification of the work to be done and of local conditions and other factors bearing on the execution of the works.

7. Persons tendering are informed that no erasures or alterations by them in the text of the document sent herewith shall be allowed and any such erasures or alterations shall be disregarded. If there is any error in writing, no overwriting should be done, the wrong word or figure should be struck out and the correct one written above or neat it in unambiguous way. Each correction should be initialled.

8. **CONTRACTORS TO PLEASE READ THIS CAREFULLY**

a. The rate for items in **Schedule of Items/Quantities** must be given in words and figures. Amount of each item must also be entered in column and grand total of amount must be struck out by the tenderer.
b. If the tender is taken in favour of the company, a power of attorney in favour of the person who may have signed the tender for the company must accompany the tender.
c. The tender document should be initialled by the Contractor.
d. All corrections, erasures and overwriting should be initialled by the Contractor.
e. Discrepancies and Adjustment of Errors:

Any error in quantity or amount in **Schedule of Items/Quantities** showing item or work to be carried out shall be adjusted in accordance with the following rules:

a) In the event of a discrepancy between description in words and figures quoted by a tenderer in the rates column, lowest shall prevail.
b) In the event of an error occurring in the `amount column of the **Schedule of Items/Quantities** showing items of work, as a result of wrong multiplication of the unit rate and quantity, the unit rate shall be regarded as firm and multiplication shall be amended on the basis of the rate.
c) All errors in totalling in `amount' column in carrying forward total shall be corrected.
d) Any rounding of amount against `items' or in `totals' shall be ignored.
e) Tenderer should go through the whole document and any apparent discrepancy or mistake in the same should immediately brought to the notice of the employer and get the clarification before filling the tender. If the apparent discrepancy is found out at a later stage, Employer's decision will be binding to the contractor.

The tendered sum so altered shall for the purpose of the tender be substituted for the sum originally tendered and considered for acceptance.

9. Employer/Architects reserve the right to reject any or all tenders without giving any reasons, and to waive any deviations which do not constitute a material modification in the tenders received. They also reserve the right to accept any tender and not only the lowest without giving any reasons. Not more than one tender shall be submitted by a Contractor or by a firm of Contractors. No two or more concerns in which an individual is interested as a proprietor and/or partner shall tender for the execution of the same works. If they do, all such tenders shall be liable to be rejected. A tenderer shall submit the tender which satisfies each and every condition laid down in this notice and tender documents, failing which, the tender shall be liable to be rejected.

In addition to the above, the tender shall also be liable to be rejected outright, if:

i) The tenderer proposes any alteration in the work specified or in the time allowed for carrying out the work or any condition or correction made in any code or mode of Schedule of Items/Quantities or Specifications, Conditions of Contract.
ii) Any of the page or pages of the tender is/are removed or replaced.
iii) All corrections, additions or pasted slips are not initialled by the tenderer.
iv) Any erasure is made by him in the tender, and

v) The tenderer or in the case of a firm, each partner or the person holding the power of attorney thereof does not sign or signature/s is/are not attested by a witness on the Articles of Agreement of the tender, in the space provided for the purpose.

10. This is an item rate tender only. **Quantity variation shall be unlimited**. A tenderer should quote in figures as well as in words the rate(s) tendered. The amount for each item should be worked out and the requisite total given. Special care shall be taken to write rates in figures as well as in words, and the amounts in figures only and in such a way that interpolation is not possible.

11. The tender documents shall have to be filled in and submitted via E-mail..

12. **Contractors have to submit the bar chart for the project, List of the Equipments to be deployed on site, List of Key Personnel along with Organization chart, Projected Cash flow, Quality Assurance and Quality Control Plan along with the bid document.**

13. This notice of tender shall form part of the contract documents.

For and on behalf of the Contractor

Date _____ Signature _____

Designation _____

FORM OF TENDER

Dear Sir,

Having examined the Contract conditions, specifications, designs and schedule of items/quantities relating to the works specified in the memorandum hereinafter set out and having visited and examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto as effecting the tender, I/We hereby offer to execute the works specified in the said memorandum within the time specified in the said memorandum at the rates mentioned in the attached schedule of items/quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in conditions of tender, the Articles of Agreement, Special Conditions, Schedule of Items/Quantities and conditions of Contract and with such materials as are provided for, by and in all other respects in accordance with such conditions so far as they may be applicable.

Memorandum

1. a) Description of works : **Tender for External Fire fighting works at PDEU campus at Gandhinagar.**

   b) Earnest money : **Rs. 3,00,000/- in form of DD / Pay order in favour of Pandit Deendayal Energy University payable at Gandhinagar.**

   c) Time of completion : **As per item no 6 of appendix**

   d) Defect liability period : **As per item no 8 of appendix.**

2. Should this tender be accepted, I/We hereby agree to abide by and fulfil the terms and provisions of the said conditions of Contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to **Pandit Deendayal Energy University** the amount mentioned in the said conditions.

3. I/We have deposited a sum **of Rs. 3,00,000/- (Rs. three Lakhs only) in** the form of DD/Pay order in favour of Pandit Deendayal Energy University, Payable at Gandhinagar. Which amount shall not bear any interest. Should I/We fail to execute the contract when called upon to do so, I/We do hereby agree that thissum shall be forfeited by me/us to PDEU.

4. Till formal Agreement is executed, this tender together with written acceptances thereof, shall constitute a binding contract between the Employer and the Contractor.

5. We accept and agree to the fact that you are not bound to accept the lowest or any tender you may receive.

6. If our tender is accepted we shall obtain Performance bank guarantee of approved Nationalised Bank to jointly and severely bound with us amounting 10% of the contract value (including earnest money deposit) of the above named sum or any modification thereof as may be mutually decided at the time of signing the contract, being called the contract price, for the due performance of the contract under the terms of a Bond.

7. Our Bankers are:

i)

ii)

The names of Partners of our firm are:

i)

ii)

Name of the Partner of the firm OR

Person having Power of Attorney to sign the contract. (Certified true copy of the Power of Attorney should be attached.)

Yours faithfully

Signature of tenderer

Witnesses:

1) Name: Signature:

Address:

2) Name: Signature:

Address:

PLACE:

DATE:

ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT made on the ___ day of ___ between **Pandit Deendayal Energy University** having its registered office at Registrar_____ in Dist- Gandhinagar. (Here in after called "the Employer") of the one part and _____ (hereinafter called "the Contractor") of the other part.

WHEREAS the Employer is desirous of constructing new building and has caused drawings and specifications describing the works to be prepared by **HCP Design Planning and Management Pvt. Ltd.**, `Paritosh', Usmanpura, Gandhinagar - 382 426 - 380 013, its Architects.

AND WHEREAS the said specifications and the schedule of items/quantities have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractors has agreed to execute upon and subject to the conditions set forth herein and to the conditions set forth in the Special Conditions and in the schedule of items/quantities and conditions of contract (all of which are collectively hereinafter referred to as "the, said conditions") the works shown upon the said drawings and/or described in the said specification and included in the schedule of items/quantities at the respective rates therein set forth amounting to the sum as therein arrived at or such other sum as shall become payable there under (hereinafter referred to as "the said contract amount")

NOW THIS DEED WITNESSETH and it is hereby agreed and declared as follows:

1. In consideration of the said contract amount to be paid at the times and in the manner set forth in the said conditions the Contractor shall upon and subject to the said conditions execute and complete the work shown upon the said drawings and described in the said specifications and the schedule of items/quantities.
2. The Employer shall pay the Contractor the said contract amount or such other sum as shall become payable, at the times and in the manner specified in the said conditions.
3. The term `the Architect' in the said conditions shall mean the said **HCP Design Planning and Management Pvt. Ltd.**, `Paritosh', Usmanpura, Ahmedabad - 380 013, or, in the event of their ceasing to be the Architect for the purpose of this contract for whatever reason, such other person or persons as shall be nominated for that purpose by the Employer, not being a person to whom the Contractor shall object for reasons considered to be sufficient by the Employer PROVIDED ALWAYS that no person or persons subsequently appointed to be Architect under this contract shall be entitled to disregard or overrule any previous decisions or approval or direction given or expressed in writing by the Architect for the time being.
4. The said conditions and Appendix thereto shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by, submit themselves to the said conditions and perform the Agreements on their part respectively in the said Conditions contained.
5. The agreement and documents mentioned herein shall form the basis of this contract.
6. This contract is neither a fixed lump sum contract nor a piece work contract but is a contract to carry out the construction work in respect of **PDEU** to be paid according to actual measured

quantities at the rates contained in the schedule of items/quantities and probable quantities or as provided in the said conditions.

7. The Contractor shall afford every reasonable facility for the carrying out of all works relating to civil works, installation of sanitary work and fittings, permanent water supply, electrical installations, fittings, lifts, telephone, air conditioning, and other ancillary works in the manner laid down in the said conditions, and shall make good any damages done to walls, floors, etc., after the completion of such works.

8. The Employer reserves to itself the right of altering the drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.

9. Time shall be the essence of this contract and the Contractor hereby agrees to commence the **work soon after the site is handed over to him or from seventh day after the date of issue of formal works order / LOI as provided for in the said conditions** whichever is later and shall faithfully and honestly do, provide, perform, execute, fulfil, keep, discharge, carry out and complete the entire work upon the terms and conditions herein contained and those contained in Contract Documents – as mentioned in item no 6 of Appendix of this document, subject nevertheless to the provisions for extension of time.

10. All payments by the PDEU under this contract shall be made only at **Gandhinagar**.

11. All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at **Gandhinagar** and only courts in **Gandhinagar** shall have jurisdiction to determine the same.

12. PDEU shall not be liable for damages for breach of contract or otherwise to the contractor and the contractor shall not be entitled to any claims, compensation, and damages for breach of contract by the PDEU.

13. That the several parts of this contract have been read by the Contractor and fully understood by the Contractor.

"IN WITNESS WHEREOF the Employer and the Contractor have set their respective hands to these presents and two duplicates hereof the day and year first hereinabove written.	If the party is a partnership or an individual.
IN WITNESS WHEREOF the Employer has its hands to these presents through its duly authorised official and the Contractor has caused its common seal to be affixed hereinto and the said two duplicates/has caused these presents and the said two duplicates hereof to be executed on its behalf, the day and year first hereinabove written.	If the contractor is a company.

SIGNED, SEALED AND DELIVERED FOR THE EMPLOYER BY the hand of Shri

(name and designation)

in the presence of

1)

2)

If the party is a Partnership firm or an individual should be signed by all or on behalf of all the Partners.

SIGNED, SEALED AND DELIVERED FOR THE CONTRACTOR by

in the presence of

1)

2)

THE COMMON SEAL OF _____ was hereunto affixed pursuant to the resolutions passed by its Board of Directors at the meeting held on
In the presence of

1)

2)

If the contractor signs under its common seal, the signature clause should tally with sealing clause in the Articles of Association. If the Contractors signing by the hand of power of attorney whether a company or individual.

Directors who have signed these tender present in token thereof, in the presence of

1)

2)

in the presence of,

1)

2)

SPECIAL CONDITIONS OF CONTRACT

1. General:

The following special conditions of contract shall supplement the General Conditions of Contract, whenever there is a conflict, the provision herein shall prevail over those in the general conditions of contract.

2.	Amount of Bid Security (EMD)	:	**As per item no 9 of Appendix**
3.	Period for Completion of the Works	:	**As per item no 6 of appendix.**
4.	Value of works of interim certificates	:	**As per item no 19 of appendix.**
5.	Period of honouring certificates	:	**As per item no 21.2 of appendix.**
6.	Period for Final Measurement	:	**As per item no 21.3 of appendix**.
7.	Defects Liability Period	:	**As per item no 8 of appendix.**

8. Equipment & Machinery on Work Site

(a) The Contractor must install fully automatic RMC Batching plant for capacity more than 15 cum/hour with computerized operated system on site all grade of the PCC/Concrete shall be produce by Batching plant and transported to the site.

(b) If at all contractor opts for providing and laying controlled concrete using RMC from Vendor, the contractor shall have to get the mix design approved by EIC. The design shall be based on using PPC of Ambuja, Ultratech or Birla brand using recommended proportion of admixture as specified in IS-456-2000 for making the concrete pumpable. No additional fly ash / cementecious material shall be added or replaced at plant while using PPC. No extra cost shall be paid for providing RMC.

(c) The contractor shall install material hoist way, passenger hoist way, tower crane and required concrete and material transporting equipment's, etc.

(d) Following quality control measures shall have to be taken by the contractor :

d.1 Only approved quality mould releasing agent shall have to be applied on the formwork, no oil or grease of any type shall be allowed to apply to the form work to facilitate the smooth release of formwork during de- shuttering.

d.2 Concrete surfaces like slabs shall have to be covered with plastic sheet as the laying of concrete progresses.

d.3 Specified quantity of plasticizer is to be considered in the mix design. The company of the plasticizer and its proportion is to be specified by the agency who is giving the mix design.

d.4 All types of cement mortars produced for the work shall be machine mixed (Smaller capacity mixer machines shall have to be arranged for this.)

(e) Mechanically operated hoists or lift, JCB Hydra, electrically operated Winch, welding machines, Oxy-Acetylene cutting sets, and Mobile Tower Crane of required boom radius and capacity, for erection and fabrication of steel structures and materials to reach the highest level of building, powered by suitable machinery capable of lifting.

(f) Immersion type and surface type vibrators for consolidation of concrete of any grade and at all stages.

(g) Sufficient quantity of metal scaffolding material and requisite steel adjustable props having required spans of required strength adjustable clamps, turnbuckles etc.

(h) Sufficient quantity of steel plates or plywood shuttering material as well as wooden/steel rafters having required spans of required strength, adjustable clamps, turn buckles etc. Contractor shall have to submit the shop drawings for the enabling structures like staging, formwork etc. and get the approval thereof before execution.

(i) Testing equipments for testing to concrete / sand, aggregate, gravel, mortar, embankment, welds, etc. as required is including small compression testing machine. Adequate nos. of moulds for concrete and cement.

(j) Water pumps for dewatering from pits, trenches and equipments for supplying curing water during at high level portions of buildings.

(k) Compressor, jack hammer, drilling bits, welding machine, loader for excavated materials, dumpers, caterpillar, bulldozer, road roller etc.

(l) Vacuum dewatering system equipment for Grade R.C. floor, roads etc. with necessary equipment for floating and finishing coat. This must not be subcontracted.

(m) Or any other tools / tackles / equipment necessary for the satisfactory and successful execution and timely completion of the project, if necessary for the statutory requirements.

9. Schedule of Materials

9.1 Rates including cost of cement and reinforcement steel

Cement and Reinforcement Steel will be supplied by the contractor at site. **Rates to be quoted by the contractor shall be inclusive of the cost of cement, reinforcement and structural steel for the respective items.**

The total responsibility of unloading, storage, safe custody, accountability, testing etc. will be of the contractor. On completion of the work contractor will have to submit a detailed reconciliation statement of cement & steel. Allowable wastage considerations and penalties for the reconciliation of cement and reinforcement steel shall be applicable as follows:

a) Cement

On completion of work the theoretical consumption shall be worked out. If the actual consumption of cement exceeds the theoretical by more than 2.5%, then the excess of the cement consumed above 2.5% shall be recovered at an enhanced rate, i.e. double the prevailing market rate. If the actual consumption of cement is less than the theoretical up to 2.5%, then contractor shall adequately explain with proper reasons. The contractor is advised to analyse the cement consumption co-efficient during initial stages of work, so that the variation from the theoretical consumption can be adopted for the balance work. However, if no such analysis is done and adequate reasons for negative consumption are not found, the penalty shall be imposed on the contractor, i.e. prevailing market rate shall be recovered for each bag negatively consumed than the theoretical up to 2.5% and double the prevailing market rate for each bag negatively consumed than the theoretical by more than 2.5%.

b) Mild steel & Tor steel

Maximum wastage permitted will be 2% of the theoretical consumption. If the wastage is more than 2% of the steel billed for, then the excess wastage above 2% limit shall be recovered at an enhanced rate i.e. double the market rate.

Rolling margin if recorded by the contractor by testing all categories of reinforcement and structural steel for all supply lots then **only considered for the reconciliation**.

10.3 Following rates are to be considered as basic rates (Excluding GST) for arriving at the tender rates to be quoted by the bidder.

1)	**Cement**	**: Rs. 350 Per Bag**
2)	**Reinforcement Steel**	**: Rs. 70 Per Kg**
3)	**Structural Steel, Hollow Section and Plates**	**: Rs. 70 Per Kg**
4)	**Vitrified tiles**	**: Rs. 60 per Sq. Ft.**
5)	**Kotah Stone**	**: Rs. 50 per Sq. Ft.**

Given basic rates are inclusive of all types of taxes (except GST), levies, loading, transit insurance, transportation, unloading and delivery at site.

Contractor shall have to inform and get approval of PDEU in writing about the purchase rates and source of supply of the items listed under basic rate items well in advance / at least 15 days before placing the order. Material to be procured from manufacturer or its authorised suppliers/ Authorised vendor only.

PDEU reserves the right to negotiate and finalise the rates of the items listed under basic rate items directly with the supplier company. The rates thus finalized shall be termed as **negotiated rates** (inclusive of all types of taxes(except GST), levies, loading, transit insurance, transportation, unloading and delivery at site.) and the same shall be binding to the contractor for further process of execution. Contractor has to execute the relevant item considering the negotiated rates as final rate and during execution of such item the contractor has to prepare the statement of basic rate difference **(as prescribed in Annexure-A below)** which shall be supported by the authentic documents as required.

The difference of basic rate and negotiated rate of the items listed under basic rates only shall be considered for the payment or recovery as per **Annexure – A (below).** No other component shall be considered for payment or recovery, except the component of material listed under basic rate item

ANNEXURE – A

Sr. No	Item	Unit	Basic Rate as per tender (a)	Negotiated rates (b)	Rate Difference c = b-a	% difference with basic rate d = c / a	Total executed quantity as per RA or Final bill (Theoretical or actual consumption whichever is less shall be considered) e	Amount of basic rate difference payable or recoverable +ve or –ve f= c * e
1								
2								
3								
4								
Total								

10. Contractor shall also provide Lockable temporary office for the Owner's staff/representative (PMC) at site having at least 75 400 Sq.ft of total area consisting of staff area with one Meeting room and also provide other facilities like common toilet, wash basin & water cooler. The Office shall be well illuminated, air conditionally ventilated and necessary electrical points and fittings etc. as per drawing. The office shall have desks, chairs, drawers for keeping drawings and files, White boards for displaying details. Also provide printer and stationary facility at no additional cost till end of project. After completion of the project, all the materials used for the same, shall be contractor's property. The design of the same shall be provided by the consultant.

11. Adequate number of security personnel to be deployed at site by the contractor.

12. Site illumination will be in scope of contractor with no extra cost.

13. Project Information board with all details of PDEU, Architect, PMC, contractors and other stake holders if any shall be displayed at the entrance by Contractor.

14 Testing of Cement / Steel supplied by Contractor

For the supply of materials by PDEU/contractor, it shall be contractor's duty to arrange for the test samples of cement & steel for every separate consignment that shall be received by the contractor at site or as directed by the Engineer-in-Charge. Contractor will not be reimbursed amount of such bills of test reports carried out at recognised technical institute or laboratories. Other sundry expenditure like transport, handing over of samples, packing and getting test results, even by deputing his special personnel will also be borne by the contractor.

15. The quantity for measurement will be actual quantity used in construction (which will be calculated on the basis of standard steel weight). **Rolling margin, invisible loss and wastage shall not be paid or billed.**

I) The contractor shall bear all incidental charges for the storage and safe custody of the materials at site at his own responsibility.

II) The contractor shall make arrangement at the site of works for safe custody of materials to protect from damage by rain, dampness, fire, theft etc.

III) In case any materials get damaged the contractor shall replace the same at his own cost.

IV) The contractor shall furnish to Engineer-in-Charge sufficiently in advance a statement showing his requirements of quantities of materials to be supplied by Owner if any and the time when the same will be required by him.

V) A day to day account of the material supplied by Owner/Contractor shall be maintained by the contractor in the prescribed Performa.

VI) Only that quantity of steel and reinforcing steel, which is shown in the drawings as finished/fabricated steel, will be measured. Wastage, cutting margins, Chairs & Spacers, materials used as laps etc. Shall not be measured for payment. However, approved laps in reinforcing steel be measured.

VII) Rate of formwork shall be inclusive of desired size and shape. Rates are also inclusive of forming grooves of required size and shape, forming pattas, patterns, rendering etc. Exposed shuttering also includes finishing, rendering of the same, including making, fixing tie rod assembly for retaining wall / water retaining structures / underground structures (made out of 8mm 2nos tor steel bars with spring and PVC cone) & 25 mm deep PVC cones on either side of heavy quality pvc pipe for structures other then mentioned above to act as a spacer and filling and finishing the holes using cement and sand mortar(1:1) with polymer bonding agent, as directed by EIC after deshuttering.

16. Dewatering.

Rate quoted for various items in schedule of quantities, should include cost of dewatering by any means and at all stages, which may be from underground or surface water sources. Contractor will not be paid anything extra for dewatering.

17 Application codes for Specification of Civil Works.

The following codes, standards are part of the specifications mentioned/covered under this contract. All standards, tentative specifications, codes of practice referred to herein shall be the latest edition including all applicable official amendments and revisions.

In case of discrepancy between tender and those referred to herein, IS Specification shall govern.

IS 1077- Common burnt clay-building bricks.
IS 2502- Code of practice for bending & fixing of concrete reinforcement.
IS 1905- Structural safety to building.
IS 1786- Specification for cold twisted steel bars for concrete reinforcement.
IS 3495 - Methods of sampling & testing clay building bricks. (Part I to IV)
IS 2212- Code of practice for brickwork.

IS 2394- Code of practice for application of lime plaster finish.
IS 1443- Code of practice for laying and finishing of cement concrete flooring tiles.
IS 4021- Timber door, window and ventilator frames.
IS 2202- Wooden flush door shutters (solid care) Type Part I
IS 1003- Timber panelled and glazed shutters part I&II
IS 4020- Methods of tests for wooden flush doors, the test.
IS 1081- Code of practice for fixing and glazing of metal (steel & aluminum) doors, windows and Ventilators.
IS 2338- Code of practice for finishing wood and wood base materials (part-I)
IS 2395- Code of practice for painting concrete, masonry and plaster surface.
IS 1346- Code of practice for water proofing of roofs with bitumen felts.
IS 783 - code of practice for laying concrete pipes.
IS 1200- Method of measurement of building works.
IS 3764- Safety code for excavation work.
IS 2720- Part-II- Determination of moisture content.
-Part-VII-Determination of moisture content dry density relation using light compaction.
-Part-VIII-Determination of moisture content dry density relation using heavy compaction.
-Part- XXVIII-Determination of dry density of soils, in place by the said replacement method.
-Part-XXIX-Determination of dry density of soils in place by the core cutter method.
IS 383 - Specification for coarse and fine. Aggregates from natural sources for concrete.
IS 23856 - Parts I to VIII- methods of test for aggregates.
IS 516 - Methods of test for strength of concrete.
IS 1199- Methods of sampling and analysis of concrete.
IS 3025- Method of sampling and test for water.
IS 432 - Part I & II- Mild and Medium tensile steel bars and hard drawn steel wire, for concrete Reinforcement.
IS 4990- Specification for plywood for concrete shuttering work.
IS 2645- Specification for integral cement waterproofing compounds.
IS 2505- Specification for concrete vibrators, immersion type.
IS 2750- Specification for steel scaffoldings
IS 3370- Part I to IV- code of practice for concrete structures for storage of liquids.
IS 456 - Code of practice for plain & reinforced cement concrete.
IS 9013- Specification for admixtures for concrete.
IS 3414- Code of practice for design and installation of joints in buildings.
IS 4014- Parts I & II –code of practice for steel tubular scaffolding.
IS 2571- Code of practice for laying in site cement concrete flooring.
IS 3385- Code of practice for measurement of civil Engg. Works.
National Building code of India- 1970. (All Parts).
IS 73 - Specification for paving bitumen.
IS 226 - Specification for Structural Steel.
IS 460 - Specification for test sieves.
IS 10262 – Code for concrete mix design.

18 Clearance of site on completion.

On completion of the works, the contractor shall clear away and remove from the site, all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole site and works clean and in workman like condition to the satisfaction of Owner at his own cost. If the contractor fails to clear the site within 7 days after virtual completion/ submission of final bill whichever is earlier, it shall forfeit all his claims and the owner may get the site cleared at contractor's cost.

17 **Scope of work: As per item no 05 of appendix.**

18 Site in Charge – PDEU, will provide operative instructions on regular basis related to project during contract execution period, which are not covered in this tender document. Contractor and his staff at site shall comply all these instructions.

19. **Taxes:** The rates shall also be firm and not subject to exchange variations, labour conditions, fluctuations in freights or any conditions whatsoever. It shall also include for sales tax, excise duty, VAT, octroi and any other taxes/duty or other levy levied by the Central or State Governments or local authorities, sales tax on works contract (if applicable), Royalties payable on the material and equipment forming part of the work as on the date of signing of the tender document. No claim in respect to the variation in above mentioned taxes/duties/royalties except GST shall be considered for payment, by the Employer, as an extra amount till the work is completed. **The rates of the items to be quoted shall be exclusive of GST and the same shall be mentioned separately as mentioned in the summary.**

20. Owner reserves the right, at its sole discretion, to offer the same contractor, at the same rates and on the same terms and conditions, additional work. If the owner and the contractor agree for the same terms and conditions, the owner may award to the same contractor and the contract shall be in writing and signed by both the owner and contractor.

21. "Owner / Employer" and "Contractor" may very/alter/modify/rescind/waive any terms and condition of this contract by mutual consent. The mutual consent shall be in writing and signed by both "Employer" and "Contractor".

22. **Barricading:** Contractor has to barricade the area with GI corrugated sheets for the complete safety of the persons using the adjacent campus and surrounding areas. If required, the contractor has to shift the barricading after completion of the specific work as per the instruction of Engineer in Charge. The indicative drawing for the same is attached with the tender document.

23. **Land for Contractor's Office, Store, Workshop, etc.**

The Engineer-in-Charge shall at his discretion and convenience and for the duration of execution of the Contract make available at site, free of charge land for construction of Contractor's field office, workshop, stores, etc. required for execution of the Contract. Levelling and dressing of site, any construction of temporary roads, office, godowns, workshop, site illumination etc. and maintenance there of shall be done by the Contractor at his own cost. The office at site shall be open at all reasonable hours to receive instructions, notice or other communications, etc.

On completion of the work, the Contractor shall hand over the land duly cleaned to the Engineer-in-Charge. Until and unless the Contractor has handed over the vacant possession of land allotted to him for the above purpose, the payment of his final bill shall not be made. In the event of the Contractor

failing to vacate the Site, the Engineer-in-Charge at its discretion shall get the Site vacated at the cost of the Contractor. The Contractor shall not allow his workmen to put up any unauthorized hutments, canteen or tea shops etc., on the PDEU's property

25. **Action in case of insolvency** : If the Contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings , or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the Contractor, or any of his servants or agent to any employee of **PDEU or Engineer in charge appointed by him** in anyway relating to his office or employment, or if any such officer or person shall become in anyway directly or indirectly in the contract, the Engineer In Charge shall have power to adopt the course specified in the Tender hereof . In the event of such course being adopted the consequences specified in Tender shall ensue.

26. PDEU may ask for justification of rates for any of the item quoted before and after award of contract. The same shall be used for reference purpose and shall be used for other evaluation within the scope of the Contract.

GENERAL CONDITIONS

1. Interpretations:

In constructing these Conditions, the Specifications, Schedule of Items/Quantities and Contract Agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise requires.

a) "Owner/Employer" Shall mean **PDEU** and shall include its successors, legal representatives and assigns.

b) "Contractor" "Contractor" shall mean the tenderer (person or persons, firm or company), selected by the Owner for the performance of the work and shall include the successors, legal representatives and permitted assigns of the Contractor.

c) "Site" shall mean the site of the contract works including any building and erections thereon and any other land (inclusively) as aforesaid allotted by Employer for the Contractor's use.

d) "This Contract" shall mean the Articles of Agreement the General and Special Conditions, the Appendix, the Annexure, the Schedule of Items/Quantities and Specifications attached hereto and duly signed.

e) "Notice in Writing "or written notice shall mean a notice in written, typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.

f) "Act of Insolvency"shall mean any Act of Insolvency as defined by the Presidency Towns Insolvency Act or any Act amending such original.

g) "Net Prices" If in arriving at the contract amount the Contractor shall have added to or deducted from the total of the items in the Tender any sum either as a percentage or otherwise then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the Tender as the price of that item a similar percentage or proportionate sum provided always that in determining the percentage or proportion of the sum so added or deducted by the Contractor the total amount of any Prime Cost items and provisional sums of money shall be deducted from the total amount of the tender. The expression "net rates" or "net prices" when used with reference to the contract or accounts shall be held to mean rates or prices so arrived at.

h) "Time limit/ shall mean the period in which the construction work is stipulated to be completed.

Stipulated time/

Stipulated date"

i) The Engineer-in-charge – means the Engineer officer who shall supervise and be in – charge of the work.

j) Excepted Risk are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Institute, damages from air-crafts, acts of God, such as earth-quake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or which a certificate of completion has been issued or a cause solely due to Institute's faulty design of works.

k) Market Rate shall be rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed, all overheads and profits.

l) Tendered Value means the value of the entire work as stipulated in the LOI.

2. General:

a. In the specifications "as directed"/"approved" shall be taken to mean "as directed"/"approved" by the Engineer-in-charge and Architects.

b. Wherever a reference to any Indian Standard appears in the specifications, it shall be taken to mean as a reference to the latest edition of the same in force on the date of agreement.

c. The distance which constitutes lead shall be determined along the shortest practical route and not necessarily the route actually taken. The decision of the Engineer-in-charge and Architects in this regard shall be taken as final. Where no lead is specified, it shall mean "all leads".

d. Lift shall be measured from plinth level.

e. Reference to specifications of materials as made in the detailed specification of the item of works is in the form of a designation containing the number of the specification of the material and prefix `M' e.g. `M-5'.

f. No materials shall be stored prior to, during and after execution of a structure in such a way as to cause or lead to damage or overloading of the various components of the structure.

g. All works shall be carried out in a workman like manner as per the best techniques for the particular item.

h. The mode, procedure and manner of execution shall be such that it does not cause damage or over-loading of the various components of the structure during execution or after completion of the structure.

i. Special modes of construction not adopted in general Engineering practice, if proposed to be adopted by the Contractor, shall be considered only if the Contractor provides satisfactory evidence that such special mode of construction is safe, sound and helps in speedy construction and completion of work to the required strength and quality. Acceptance of the same by the Engineer-in-charge shall not, however absolve the Contractor of the responsibility of any adverse effects and consequence of adopting the same in the course of execution for the completion of the work.

j. All installations pertaining to water supply and fixtures thereof as well as drainage lines and sanitary fitting shall be deemed to be completed only after tests of their satisfactory functioning have been carried out by the Contractor and the same have been approved by the Engineer-in-charge.

k. The Contractor shall be responsible for observing the rules and regulations imposed under the "Minor Minerals Act" and such other laws and rules prescribed by Government from time to time.

l. The testing charges of all materials shall be borne by the Contractor. Unless recovery at one percent towards testing charge is separately made.

m. Approval to any of the executed items for the Work does not in any way relieve the Contractor of his responsibility for the correctness, soundness and strength of the structure as per the drawings and specifications.

3. **Competency of the Tenderer:** No contract shall be awarded except to responsible bidders capable of performing the class of work contemplated. Before the award of the contract, any bidder may be required to show that he has the necessary facilities, experience, ability and financial resources to perform the work in satisfactory manner within the time stipulated. **Contractor may be required to furnish to the Employer, with a statement, as to their experience and their financial status.**

4. Total Retention including Security Deposit :

Total Retention Money : As per item no 12 of appendix.

Release of Retention Money **:** As per item no 13 of appendix.

Total Retention : As per item no 14 of appendix

The amount retained by the Employer shall not bear any interest. All compensation or other sums of money payable by the Contractor to the Employer under the terms of this contract may be deducted from his Earnest Money and Security Deposit. Unless such deposit has become otherwise payable, the Contractor within ten days shall make good in cash the amount so deducted.

5. Conditional tender shall not be OPENED / ACCEPTED.

6. Scope of Contract: The Contractor shall carry out and complete all the work strictly, in every respect, in accordance with the Contract, drawings, specifications, details and with the directions of and to the satisfaction of the Architect and their Associate Consultants. The Architect may in his absolute discretion and from time to time issue further drawings as per the requirement of the execution and/or written/verbal instructions, details, directions and explanations which are hereafter collectively referred to as "Architect's Instructions" in regard to.

a. The variation or modification of the design, quality or quantity of works or the addition or omission or substitution of any work.

b. Any discrepancy in the Drawings or between the Schedule of Items/Quantities and/or Drawings and/or Specification.

c. The removal from the site of any materials brought thereon by the Contractor and the substitution of any other material there for.

d. The removal and/or re-execution of any defective works and opening up for inspection of any covered work executed by the Contractor.

e. The dismissal from the works of any persons employed thereupon.

f. In case of verbal instructions, directions and explanations given to the Contractor or his representatives upon the works by the Architect shall, if involving a variation, be confirmed in writing by the Contractor within Seven days, and if not dissented from in writing within a further seven days by Architect's such shall be deemed to be Architect's Instructions, within the scope of the Contract.

All work shall be in compliance with the requirements of the local public authorities. If in the opinion of the Architect and the Consultants, changes have to be made, the Contractor shall carry out the same without any extra charges. The Architect's decision in such cases shall be final and shall not be open to arbitration. No change in the drawings is permitted without Architect's written consent. The Contractor shall carry out and complete the said work in every respect in accordance with this Contract.

7. **Tender document, Schedule of items/quantities and drawings :** The Contractor shall be entitled to the certified copy of the accepted tender along with the work order, free of cost and shall also be entitled to receive, on request, two sets of contract and working drawings according to the progress of work as and when needed, free of cost. The Contractor shall keep one copy of all the drawings on the works and the Architect or his representative shall have, at all times, access to the same.

The several documents forming the contract are essential parts of the contract and requirements occurring in one are a binding as through occurring in all. They are intended to be mutually explanatory and complementary and to describe and provide for a complete work. The contract shall remain in the custody of the Employer.

In the event of any discrepancy in the several documents forming the contract or in any one document, the following order of precedence should apply:

Dimension and quantities: (i) Drawings (ii) Schedule of Items/Quantities of the Tender form (iii) Specifications. On drawings, figured dimensions, unless obviously incorrect, shall be followed in preference to scaled dimensions.

Description: (i) Schedule of Items/Quantities of the Tender form; (ii) Drawings (iii) Specifications. In the case of defective description or ambiguity or any discrepancy in the item specifications or in absence of specifications for any items, the Architect and Engineer-in-Charge is entitled to issue further instructions directing in what manner the work is to be carried out or work shall be carried out as per specifications in the latest IS code. The Contractor cannot take any advantage of any apparent error or omission in drawings or specifications and the Architect and Engineer-in-Charge shall be entitled to make corrections and interpretations as necessary to fulfil the plans and specifications.

Before the issue of the final certificate to the Contractor, the Contractor shall forthwith return to the Architect, all documents, drawings and specifications.

8. **Contractor to provide everything necessary :** The Contractor shall provide at his cost everything necessary for the proper execution of the works according to the intent and meaning of the

Drawings, Schedule of Items/Quantities and Specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can reasonably be inferred there from, and if the Contractor finds any discrepancy in the Drawings or between the Drawings, Schedule of Items/Quantities and Specifications he shall immediately and in writing refer same to the Architect who shall decide which is to be followed.

9. **Work not to be sublet:** The Contractor shall not assign or sublet any portion of the contract except with the written consent of the Employer/Architect/PMC. In case of breach of these conditions, the Employer/PMC may cause to serve a notice in writing to the Contractor rescinding the contract whereupon the security deposit shall stand forfeited to the Employer/PMC, without any prejudice to his other remedies against the Contractor. Contractor has to take prior approval in case of subletting any part of the work from Employer/PMC/Architect.

10. No alteration, omission or variation shall vitiate this contract but in case the Architect thinks proper at any time during the progress of the works to make any alterations in, or additions to, or omissions from, the works or any alteration in the kind or quality of the materials to be used therein and shall give notice thereof in writing under his hand to the Contractor, the Contractor shall alter, add to, or omit from, as the case may, in accordance with such notice, but the Contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the Conditions of the contract, stipulation, specifications, Schedule of Items/Quantities or contract drawings without the previous consent in writing of the Employer and the value of such extras, alterations, additions or omissions shall in all case be determined by the Architect with the prior approval in writing of the Employer in accordance with the provisions of relevant clause, and the same shall be added to, or deducted from, the contract amount, as the case may be, accordingly.

    Any error in description or in quantity or in omission of items from the Schedule of Items/Quantities shall not vitiate this contract but shall be rectified and the value thereof, as ascertained under relevant clause, shall be added to, or deducted from the contract amount (as the case may be) provided that no rectification of errors, if any, shall be allowed in the Contractor's schedule of rates.

11. A schedule of probable quantities in respect of each work and specifications accompany these special conditions. Quantities indicated in the Form of Schedules of Rates with respect to various items are only approximate and are intended merely as information without undertaking as to the correction thereof and without any obligation upon the Owner. This schedule is liable to alteration by omission, deductions or additions at the discretion of the Employer/Architect and not subject to any discussions. The Contractor shall carry out any such items with variations in the quantities at the tender quoted rate. Each tender should contain not only the rates but also the value of each item of work entered in a separate column and all the items should be totalled in order to show the aggregate value of the entire tender. Every `blank' in the form of the tender and in the schedule must be filled up by the tenderer and must return the document sent herewith. There will no extension of time to the quantity variation.

12. The tenderer must obtain for himself at his own responsibility and expense all the information which may be necessary for the purpose of making a tender, for entering into a contract, examining the drawings and all matters appertaining thereto. The Contractors shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the

works and of the prices stated in the Schedule of Items/Quantities, which rates and prices shall cover all his obligations under the Contract, and all matters and things necessary for the proper completion of the works.

The information given in the tender documents and the Plans and Drawings forming part thereof is merely intended as a general information without undertaking on the part of the Employer as to their accuracy and without obligation relating thereto upon the Employer. The tenderers are expected to conducted their own surveys and investigations prior to tendering.

The Contractor shall confirm to the provisions of any Act of the legislature relating to the works, and to the regulations and bye laws of any authority, and of any water, electric supply, other companies and/or authorities with whose systems the structure is proposed to be connected, and shall, before making any variations from the Drawings or Specifications that may be necessitated by so conforming, give to the Architect written notice, specifying the variation proposed to be made and the reason for making it and apply for instructions thereon. In case the Contractor shall not within ten days receive such instructions he shall proceed with the work confirming to the provisions, regulations, or bylaws in question, and any variation so necessitated shall be dealt with under relevant clause.

The Contractor shall bring to the attention of the Architect all notices required by the said Acts, regulations or bylaws to be given to any authority and pay to such authority, or to any public office all fees that may be properly chargeable in respect of the works, and lodge the receipts with the Architect.

The Contractor shall indemnify the Employer/Architect/ Consultants against all claims in respect of patent rights, and shall defend all actions arising from such claims, and shall himself pay all royalties, license fees, damages, cost and charges of all and every sort that may be legally incurred in respect hereof.

13. **Supply of plants, equipment, formwork, centering, temporary roads, lighting etc. :** The rates quoted in the tender shall include for cleaning of the site before commencement and after completion of the works, for the proper fencing, lighting, grading and taking of the necessary safety measures for all works comprised in the contract and for the proper provision of temporary road, way, foot-ways, guards, fences, caution notices etc., also for the accommodation of workmen, foot passenger or other traffic and of Employer/s and occupiers of adjacent property and the public and shall remain responsible for any accidents that may occur on account of his failure to take proper & timely precautions.

The Contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permit from the Architect, Engineer-in-Charge and Forest officer. When such permit is given, and also in all cases when destroying cut or dug up trees, brushwood, grass etc. by fire, the Contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property.

Contractor shall supply at his own cost all materials (except such special materials if any, as may, in accordance with the contract to be supplied by the Employer), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and any temporary works which may be required for the proper execution of the work whether in the original, altered or substituted from and whether included in the specifications, or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or

complying with requirements of the Architect and Engineer-in-Charge as to any matter or to which under these conditions he is entitled to be satisfied or which he is entitled to required together with carriage therefore to and from the work.

Erection of all formwork, staging, timbering, shoring etc. as well as taking down and removal of the same when ordered to do so shall be included. The rates quoted shall be inclusive of fully reinstating and making good all matters and things disturbed during the execution of the work and to the satisfaction of the Architects.

All the arrangements made for fencing and lighting shall be maintained by the Contractor throughout the execution of the contract till the physical taking over of the work by Employer.

14. **Setting out the works:** The Contractor shall supply without additional charges the requisite number of persons with the means and material necessary for the purpose of setting out works and checking, weighing and assisting in the measurement or examination at any time and from time to time, of the work or the materials. Failing this, the same may be provided by the Architect and Engineer-in-Charge at the expense of the Contractor and the expenses may be deducted from any money due to the Contractor under the contract or from his security deposit, or proceeds of sale thereof, or of a sufficient portion thereof.

The Contractor shall then set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and for provision of all necessary instruments, appliances and labour in connection therewith. The Contractors shall submit to the Employer and Architects on the site plan recorded levels, contours, margins and the verifications of layout within seven days from the date of getting site layout from Architects/Employers.

If at any time any error in this respect shall appear during the progress of the works or within a period of one year from the completion of the works, the Contractor shall, if so required, at his own cost rectify such error to the satisfaction of the Architect. If however, such error is based on incorrect data supplied in writing by the Architect and Engineer-in-Charge, the expenses of rectifying the same shall be borne by the PDEU.

The checking of any setting out or of any line or level by the Architect and Engineer-in-Charge or their representative shall not in any way relieve the Contractor of responsibilities, for the correctness thereof. The Contractor shall carefully protect and preserve all bench-marks, site nails, pegs and any other things used in setting out of the work.

Necessary trial pits, of size 5' x 5' x 5', at minimum two locations on the entire site, shall be done by the Contractors at their own expense and the report thereof showing different strata with respective bearing capacities and the same shall be submitted to Employers/ Architects/ Consultants. No extra charges shall be paid for the same.

15. **Item rate tender :** The Contractor should note that unless otherwise stated the tender is strictly on item rate basis and his attention is drawn to the fact that the rates for each and every item should be correct, workable and self supporting. **Quantity variation shall be unlimited**. The rates shall also be firm and not subject to exchange variations, inflation, labour conditions, fluctuations in transportation freights or any conditions whatsoever. It shall also include for sales tax, excise duty, octroi and any other taxes/duty or other levy levied by the Central or State Governments or

local authorities, sales tax on works contract if applicable. No claim in respect to the above mentioned shall be entertained by the Employer.

16. **Time limit:** Time shall be the essence of the contract. Time allowed for carrying out the work as mentioned in the memorandum shall be strictly observed by the Contractor and it shall be reckoned from the **date of** written order to commence the work is issued. The tenderer shall, before commencing work, prepare a detailed work schedule in Microsoft project, which shall be approved by the Architect/PMC and the Employer. This schedule shall be strictly followed by the Contractor.

If the CONTRACTOR s commits default in commencing the execution of the work as aforesaid**, PDEU** shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money and security deposit absolutely.

17. **Liquidated damages / Penalty :** If the Contractor fails to complete the works by the date stated in the Appendix or within any extended time under relevant clause and if the Architect certifies in writing that in his opinion the same could be reasonably completed, the Contractor shall pay the Employer the sum named in the Appendix as "Liquidated Damages/ Penalty for delayed" for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any moneys due to the Contractor, in the following manner :

Penalty for delay in completion of time: As per item no 20.1 of appendix.

If in the opinion of the Architect/Employer the works are delayed

(a) By force majeure or

(b) Due to exceptionally inclement weather or

(c) due to delay in proceedings or any dispute with adjoining owners or public authorities arising otherwise than through the Contractor's own fault or

(d) By delay in works of other Sub-contractors or tradesmen engaged/nominated by the Employer or the Architect and not referred to in the Schedule of Items/Quantities and/or Specification or

(e) By reason of Architect's instructions as per relevant Clause or

(f) By reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or

(g) In case of the Contractor not receiving in due time necessary instructions from the Architect for which he has specifically applied in writing or

(h) in the event, the value of the work exceeds the value of the priced Schedule of Items/Quantities owing to variation,

(i) Due to delay in supply of materials by the Employer (if applicable).

The Architect and Engineer in charge (EIC) may, with the previous approval in writing of the Employer make a fair and reasonable extension of time for completion of the contract works without rate alteration. In case of such strike or lockout the Contractor shall give written notice to the Architect immediately. But the Contractor shall nevertheless constantly use his endeavours to

prevent delay and shall do all that may be reasonably required to the satisfaction of the Architect to proceed with work.

18. The Contractor shall furnish, within three days (unless extended by the Architect and Engineer-in-Charge) of the confirmation/order to start the work, the progress schedule in quadruplicate indicating the date of starting, the monthly progress expected to be achieved and the anticipated completion date of each major item of work to be done by him also indicating dates of procurement and setting up the materials, plants and machinery. The Schedule should include a statement of proposed general and detailed arrangements for carrying out works, and of time, order and manner in which it is proposed that these shall be executed. Necessary reports endorsed by the Site Engineers consisting of the labour strength and the materials shall be regularly furnished to the Employer and Architects every week. The Contractor shall include the programme for the forth-coming week in the same report.

The schedule should be formed keeping in view the time limit and the achievement towards completion of the work within the time limit and of the particular items on the dates specified in the contract and shall have the approval of the Architect and Engineer-in-Charge. Further, the dates for the progress, as in this schedule shall be adhered to.

In case it is found necessary, at any stage, to alter the schedule, the Contractor shall submit in good time, a revised schedule incorporating necessary modifications proposed and get the same approved from the Architect and Engineer-in-Charge. No revised schedule shall be operative without such acceptance in writing. The Architect and Engineer-in-Charge in further empowered to ask for more detailed schedule or schedules, say, week by week, for any item or items and the Contractor shall supply the same as and when asked for.

The Architect and Engineer-in-Charge shall have, at all times, the right, without in any way vitiating this contract forming grounds for any claim, to alter the order of the work or any part thereof and the Contractor shall after receiving such direction, proceed in the order directed. The Contractor shall also revise the progress schedules accordingly and submit four copies of the revised schedule to the Architect and Engineer-in-Charge within seven days of the said Engineer's direction to alter the order of works.

The Contractor shall furnish sufficient plant, equipment and labour and shall work such hours and shifts as may be necessary to maintain the progress of the work as per approved progress-schedule. The working and shift hours shall comply with all Government regulations in force and shall be such, as may be approved by the Architect and Engineer-in-Charge and the same shall not be varied without the prior approval of Architect and Engineer-in-Charge.

The Contractor shall from time to time, as may be required by the Architect and Engineer-in-Charge, furnish the Architect and Engineer-in-Charge with a statement in writing of the arrangements he proposes to adopt for the execution of this contract and the Architect and Engineer-in-Charge may, if he considers necessary at any time advise alteration in the same, which the Contractor shall adopt on notice thereof.

The progress-schedule(s) shall be in the form of CPM/PERT, forms, statements and/or reports as may be approved by the Architect and Engineer-in-Charge. The Contractor shall submit four copies showing the progress of the work in the form of a chart etc. at periodical intervals as may be specified by Architect and Engineer-in-Charge.

The approval of the progress-schedules by the Engineer-in-Charge shall not relieve the Contractor of any of his duties and responsibilities under the contract. The adoption of any modification in the schedule required by the Architect and Engineer-in-Charge shall not entitle the Contractor to any extra payment.

Also three sets of black & white/colour photographs every month showing the progress of work duly endorsed by the site Engineer should be submitted with the report. On completion of the work 5 sets of colour photographs or as directed by the Architects should be submitted.

19. If the Contractor after receipt of written notice from the Architect requiring compliance within ten days fails to comply with for further drawings/ instructions the Employer may employ and pay other persons to execute any such work that may be necessary to give effect thereto. All costs incurred in connection therewith shall be recoverable from the Contractor by the Employer on the certificate of the Architect as a debt or may be deducted by him from any moneys due to the Contractor.

20. **Default by Contractor :** If, the Contractor shall neglect or fails to proceed with the work with due diligence or if he violates any of the provisions of the Contract, the Architect and Engineer-in-Charge shall give the Contractor a notice, identifying deficiencies in performance and demanding corrective action. Such notice shall clearly state that it is given under the provision of this clause. After service of such notice, the Contractor shall not remove any plant, equipment and material from the site. The Employer shall have a lien on all such plant, equipment and material from the date of such notice till the said deficiencies have been corrected as mentioned in the said notice.

If the Contractor fails to take satisfactory corrective action within ten days after receipt of such notice, the Architect and Engineer-in-Charge on behalf of the Employer shall terminate the contract in whole. In case, the entire contract is terminated, the amount of Performance bank guarantee and Retention amount, if any, together with the value of the work done but not paid for, shall stand forfeited to the PDEU. The plants equipment and material held under this clause shall then be at the disposal of the Employer to recover the amount equivalent to the liquidated damages and registration of the Contractor shall be kept in abeyance for three years from the date as fixed in all such cases.

The Architect and Engineer-in-Charge if necessary shall direct that a part or the whole of such plant, equipment and material be removed from the site within a stipulated period, if the Contractor fails to do so, the Architect and Engineer-in-Charge shall cause them or any part of them to be sold holding the net proceeds of such sale to the credit of the Contractor. After settlement of accounts, the lien by the Employer on the Contractors remaining plant equipment and balance of material shall be released.

If the Contractor being an individual or a firm or a incorporate company, commits any "act of insolvency", or shall be adjudged as an insolvent or being an Incorporated Company shall have an order for compulsory winding up, made against it or passed as an effective resolution for winding up voluntarily or subject to the supervision of the court and the official Assignee or the Liquidator in such acts of insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so, to show up giving a satisfactory reason to the Architect that he is able to carry out and fulfil the contract and to give security there for, if so required by the Architect.

Or if the Contractor (whether an individual, firm or incorporate Company) shall suffer execution or other process of court attaching property to be issued against the Contractor.

Or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the Contractor.

Or shall assign or sublet this contract without the consent in writing of the Employer first had and obtained.

Or shall charge or encumber this contract or any payments due or which may become due to the Contractor hereunder.

Or if the Architect shall certify in writing to the Employer that the Contractor

i) Has abandoned the contract, or

ii) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for fourteen days after receiving from the Architect notice to proceed, or

iii) Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or,

iv) Has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the Architect written notice that the said materials or work were condemned and rejected by the Architect under these conditions, or

v) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same.

Then and in any of the said cases the Employer may, notwithstanding any previous waiver, after giving seven days notice in writing to the Contractor, terminate the contract, but without thereby affecting the powers of the Architect or the obligations and liabilities of the Contractor, the whole of which shall continue in force as fully as if the Contract had not been so terminated, and as if the works subsequently executed had been executed by or on behalf of the Contractor, And further, the Employer by his agents or servants may enter upon and take possession of the works and all plants, tools, scaffolding, sheds, machinery, steam and other power utensils and materials laying on the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other Contractor or other person or persons to complete the works, and the Contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other Contractor or other person or persons employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or as soon thereafter as convenient the Architect shall give a notice in writing to the Contractor to remove his surplus materials and plant, and should the Contractor fail to do so within a period of fourteen days after receipt thereof by him the Employer may sell the same by [Public auction], and give credit to the Contractor for the net amount realised. The Architect shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to, or by the Employer, for the value of the said plant and materials so taken possession of by the Employer and the

expenses or loss which the Employer shall have been put to in procuring the works to be completed, and the amount, if any, owing to the Contractor and the amount which shall be so certified shall thereupon be paid by the Employer to the Contractor or by the Contractor to the Employer, as the case may be, and the certificate of the Architect shall be final and conclusive between the parties.

If, at any time, after the acceptance of the tender, the Employer shall for any reasons whatsoever not require the whole or any part of the works to be carried out, the Architect shall give notice in writing to the Contractor who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the execution of the whole works.

Without prejudice to any of the rights or remedies under this contract, if the Contractor, being an individual, dies, the Employer shall have the option of terminating the contract without incurring any liability for such termination.

Termination of the contract in whole shall be an adequate authority for the Architect and Engineer-in-Charge to demand discharge of the obligations from the guarantors of the security for the performance.

21. The Contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work due to modifications, delays in connected subcontracts, procurement of government controlled or other building materials, obtaining water and power connections or for any other reasons whatsoever. The Employer shall not be liable for any claim in respect thereof nor accept any liability for any sum provided for therein.

22. **Extra works:** The Contractor may, when authorised, and shall, when directed, in writing by the Architects with the approval of the Employer add to, omit from, or vary the works shown upon the drawings, or described in the specification, or included in the Schedule of Items/Quantities, but the Contractor shall make no addition, omission or variation without such authorisation or direction. A verbal authority or direction by the Architects shall, if confirmed by them in writing within seven days, be deemed to have been given in writing.

No claim for an extra shall be allowed unless it shall have been executed under provisions of its relevant clause or by the authority of the Architects with the concurrence of the Employer as herein mentioned. Any such extra as herein mentioned, is referred to as authorised extra and shall be made in accordance with the following provisions.

a) i. The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.

ii. Rates for all items, wherever possible, should be derived out of the rates given in the priced Schedule of Items/Quantities, i.e. on pro-rata basis as far as possible.

b) Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omissions or additions relative to the amount of the whole of the contract works or to any part thereof shall be such that in the opinion of the Architect the net rate of price contained in the Priced Schedule of Items/Quantities or tender or for any items of works involves loss or expense beyond that reasonably contemplated by the Contractor or is by

reason of such omission or addition rendered unreasonably or inapplicable, the Architect shall fix such other rate or price as in the circumstances he shall think reasonable and proper, with the prior approval in writing of the Employer, on the basis of prevailing market rate of materials which includes all type of taxes & duties (except GST), labour and profit including overheads(including tools, plant and machinery) at **10%.**

c) Where extra work cannot be properly measured or valued the Contractor shall be allowed day work prices as per the net rates considered at the time of quoting the tender or, if not so considered, then in accordance with the local day work rates and wages for the district; provided that in either case vouchers specifying the daily time (and if required by the Architect, the workmen's names) and materials employed be delivered for verification to the Architect or his representative at or before the end of the week following that in which the work has been executed.

d) There cannot be any additional work to be undertaken without prior approval of the PDEU. Only those works shall be paid where prior approval of PDEU shall be obtained.

The measurement and valuation in respect of the Contract shall be completed within the "Period of final measurements" stated in the Appendix or if not stated then within six months of the completion of the Contract works as defined in relevant clause.

23. The Contractor shall submit in advance a statement of extra items with necessary authentic supporting documents / vouchers for Architect's approval. Only on approval he is bound to carry out any extra items of work, necessary for the completion of the job even though the items may not be included in the Schedule of items/quantities. Schedule of instructions in respect of such additional items and their approximate quantities shall be issued in writing by the Architects.

24. **Sub-contracts:** For the provisional items/sums indicated in the tender, if the work is awarded directly/separately to a specialised agency. All Specialists, Merchants, Tradesmen and others employed thus to execute any work of provisional items/sums included in the Schedule of Items/Quantities and/or Specifications who may be nominated or selected by the Architect/PMC are hereby declared to be Sub-Contractors employed by the Contractor and are herein referred to as nominated Sub-Contractors.

No nominated Sub-Contractors shall be employed in connection with the works against which the Contractor shall have reasonable objection or (save where the Architect/PMC and Contractor shall otherwise agree) who shall not enter into a Contract providing:

a) That the nominated Sub-Contractor shall indemnify the Contractor against the same obligations in respect of the Sub- Contract as the Contractor is under in respect of this contract.

b) That the nominated Sub-Contractor shall indemnify the Contractor against claims in respect of any negligence by the Sub-Contractor, his servants or agents or any misuse by him or them of any scaffolding or other plant, the property of the Contractor or under any workmen's compensation Act in force.

c) Payment shall be made to the nominated Sub-Contractor within fourteen days of his receipt of the PMC/Architect's certificate. Also, before any such certificate is issued the Contractor shall upon request furnish proof to the Architect/PMC that all nominated Sub-Contractors accounts included in previous certificates have been duly discharged; in default whereof the Employer

may pay the same upon a certificate of the Architect/PMC and deduct the amount thereof from any sums due to the Contractor. The exercise of this power shall not create privity of contract as between Employer and Subcontractor.

The general main Civil Contractor shall be responsible for close co-ordination, follow-up and general assistance in timely completion of work with all other agencies like landscaping agency, HVAC works, Furniture works, etc. and its connected work to be completed by the General Contractor. Main civil contractor shall not be paid any charge for co-ordinated work of other agencies as co-ordination charges. The Contractor shall not directly or indirectly transfer, assign or under let the contract or any part share thereof or any interest therein without the prior written consent of the Employer; and no undertaking shall relieve the Contractor from the full and entire responsibility of the contract or from active superintendence of the works during their progress.

25. The Contractor must co-operate with other Contractors appointed by the Employer so that the work shall proceed smoothly with the least possible delay and to the satisfaction of the Architects.

26. **Materials, its sample approval, its procurement and storage:** The Contractor should make his own arrangement to obtain all materials required for the work, except otherwise stated. All materials shall, so far as procurable, be of the respective kinds described in the Schedule of Items/Quantities and/or specifications and in accordance with the Architect's instructions, and the Contractor shall upon the request of the Architect furnish him with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials which the Architects may require.

The Contractor shall submit, samples of all the finishing materials, to the Architects/ Consultants, for approval, as directed by the Architects/Consultants much in advance, so as to avoid any complications regarding availability. Also, whenever samples are to be prepared for approval the same shall be prepared immediately on receipt of the drawings and got approved by the Architect.

Approval of the samples of various materials given by the Engineer-in-charge and Architects shall not absolve the Contractor from the responsibility of replacing defective material brought on site or materials used in the work found defective at a later date. The Contractor shall have no claim to any payment or compensation whatsoever on account of any such materials being rejected by the Engineer-in-charge and Architects. No collection of material shall be made before it is approved by the Engineer-in-charge and Architects.

The Architect shall, during the progress of the works, have to order in writing from time to time the removal from the works, within a period specified in the order, of any materials which in his opinion are not in accordance with the specifications or his instructions, the substitution of proper materials, and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the drawings, specifications or instructions; and the Contractor shall forthwith carry out such order at his own cost. In case of default on the part of the Contractor to carry out such order, the Employer shall have the power to employ and pay other persons to carry out the same; and all expenses consequent thereon, or incidental thereto, as certified by the Architect shall be borne by the Contractor, or may be deducted by the Employer from any moneys due, or that may become due, to the Contractor.

27. **Advance material payment:**

Deleted

28. **Authorised permissions:** The Contractor shall approach, directly to the Municipal and other authorities for obtaining the type of permission required by law.

All fees for the supply of good quality water, including obtaining municipal connection and drainage connection for his labour shall be borne by the Contractor and fees if any payable for permanent connections shall be initially paid by the Contractor and the Employer shall reimburse the amount on production of the receipts.

29. **Electricity: As per item no 22.1 of appendix**.

The Contractor shall be responsible for providing and maintaining the whole of the installation on the load side of supply, as well as all safety aspects covered under I.E. act/I.E. rules, National Electric Code etc. All necessary/safety precaution must be taken and the Contractor's electrical installation shall be subject to the approval by the Owner/Engineer in-charge and must comply with the requirement of the appropriate statutory authorities. Contractor shall not use welding sets for cutting works. Three phase welding machine is preferred.

Contractor shall not increase the electrical load unless it is approved by Engineer-in-charge. Contractor is responsible for safety of his personnel, and the third party, working in the area of Contractor's work site.

Owner shall have right to disconnect, the power supply for any irregularities observed in the above conditions, and no claim of the Contractor for cost overrun shall be entertained, for loss of time due to the same.

Contractor shall provide licensed Electrical Supervisor/ Electrician for operation and maintenance of his electrical installation.

30. Water supply: As per item no 22.2 of appendix

The Contractor shall not have any claim whatsoever on account of failure of water supply at any time.

The Contractor's rates and prices shall be deemed to be inclusive of all such charges and costs.

The Contractor shall arrange for sufficient storage of water to ensure continuity of work. If municipal water is not available and should it be necessary to bore a well or to bring water from outside by tankers, the Employer shall not be liable to pay any charges in connection therewith.

If water supply from statutory authorities is available, then all charges towards temporary connection shall be paid by the contractor and same shall not be reimbursed. All charges towards permanent connection shall be initially paid by the contractor and the Employer shall reimburse

the amount on production of the receipts. The Contractor has to make payment for the consumption of electric power consumed towards operation of bore well as per actual consumption of electrical power. The contractor shall be solely responsible for the operation and maintenance of the bore well during the contractual period. At the end of the contract, contractor shall hand over the bore well in fully functional condition to the PDEU, as it was given originally for operation. This includes change or repair of submersible pump, if it is required.

31. **Adhere to the Safety code:** The Contractor shall strictly comply with the provisions of safety code annexed hereto as well as all laws pertaining to labour etc.

32. **Insurance:** The Contractor has to take full insurance for Workmen's compensation, Third party and Contractor's all risks indemnifying the Employers, Architects and Consultants against all losses and damages arising out of any mishap on site, or any claims whatsoever. Necessary warning signs shall have to be put up by the Contractor.

33. **Rolling margin for steel:** For rolling margin of steel bars, no allowances shall be given to the Contractor and the steel bars shall be measured as per standard weight.

34. **Testing:** Necessary cube tests, mix design and steel tests shall be done by the Contractors at their own expense and the report thereof showing different strength, compressive and tensile respectively, shall be submitted to Employer, Architect & Consultants. No extra charges shall be paid for the same.

    While submitting the material for mix design, the exposure condition of concrete shall be specified in two parts-below plinths and above plinth. Design mix should specify minimum cement content and if required shall also specify a specific plasticizer for vertical elements.

    Contractor has to arrange for cube testing machine at site for regular cube tests as per the requirements of consultant and I.S. specifications. A Register in the prescribed Performa showing test result of materials and work tests shall be maintained at the site of work by the Contractor and every entry thereof shall invariably be signed by the Contractor or his authorised representative in token of its correctness.

35. **Project-in-charge:** The Contractor shall employ full-time technically qualified staff during the execution of the work.

    The staff employed for the work must have sufficient experience to handle the work independently. They shall have to stay at the site of work and shall not be entrusted with any other duty except of this work.

    The Contractor shall inform the Employers/ Architects/ Consultants about the name of the such qualified Project - in - charge for necessary co-ordination, discussions, site meetings, and smooth execution of the job.

36. **Measurements:** All works shall be measured net by standard measure and according to the rules and customs of the Mode of Measurement, IS: 1200, without reference to any local custom unless specified in the SOQ Specifications.

    The Architect from time to time shall intimate the Contractor and the Employer that he requires the works to be measured. The Contractor shall forthwith attend to or send qualified personnel to assist, in all respects, the Architect's personnel and Employer's Site Engineer, in taking such measurements and calculations.

In "Mode of Measurement" in the specifications wherever a dispute arises in the absence of specific mention of particular point or aspect, the provisions on these particular points or aspects in the relevant Indian Standards shall be referred to.

All measurements and computations, unless otherwise specified, shall be carried out nearest to the following limits;

1) Length, width and depth (height/thickness) ----------0.01 m.

2) Areas----------0.01 m^2

3) Cubic Contents----------0.01 m^3

In recording dimensions of work, the sequence of length, width and height (depth) or thickness shall be followed.

37. **Billing for the entire work shall be in the Computerised form in soft copy or in pendrive and a conventional hard copy with all the supporting documents. The format for the same shall be given by the Architects.**

A bill, on a computerised form soft copy or in pendrive along with a hard copy, signed by the Engineer-in-charge/Site Engineer/PMC, on each page, shall be submitted by the Contractor each month on or before the date fixed by the Architect and Engineer-in-Charge/PMC for all works executed as per milestone achieved in the previous month and the PMC and Engineer-in-Charge shall take requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from presentation of the bill.

The value of the monthly bill shall be minimum 5% of the contract value.

The Contractor shall, on submitting a monthly bill therefore, is entitled to receive payment proportionate to the part of the work then approved and passed by the Architect/PMC and Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the Contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Architect/PMC and Engineer-in-Charge from required bad, unsound, imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected, nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the accruing of any claims, nor shall it conclude, determine, or affect in any way the power of the Architect and Engineer-in-Charge as to the final settlement and adjustment of the accounts or otherwise or in any other way very or effect the contract.

The rates for items of works shall be valid only when the item concerned is accepted as having been completed fully accordance with the sanctioned specifications. In cases where the items of work are accepted as not so completed, the Architect and Engineer-in-Charge may make payment on account of such items at such reduced rates as he may consider reasonable in preparation of final or `on account bill'. The charges to be made in the bills shall always be entered at the rates specified in the agreement or at the part/reduced rates subject to the approval by the Architect and Engineer-in-Charge in case of items not completed/ executed as per agreements or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender, at the rate hereinafter provided for such work. The copy of the corrected and certified

bill, on the floppy diskette and in hard copy wherever changes/errors are indicated shall be returned to the Contractor, for his own scrutiny and record. The changes/errors indicated, shall be highlighted in the hard copy, for easy pinpoint of the same.

The Contractor shall be paid by the Employer from time to time by instalments under Interim certificates issued by the Architect to the Contractor on account of the works executed in accordance with this contract. The certificates, in the opinion of the Architect, works to an approximate value named in the Appendix as "Value of work for Interim certificates" (or less at the reasonable discretion of the Architect) has been executed, subject however, to a retention of the percentage of such value named in the Appendix hereto as "Retention percentage for Interim certificates" until the total amount retained shall reach the sum named in the Appendix as "Total Retention Money" after which the Instalments shall be up to the full value of the work subsequently so executed and fixed in the building. The Architect may in his discretion include in the Interim certificate such an amount as he may consider proper on account of materials delivered upon the site by the Contractor for use in the works. Once the works have been virtually completed and the Architect have certified in writing that they have been completed, the Contractor shall be paid by the Employer in accordance with the certificate issued by the Architect specifying the sum of money named in the Appendix as "Instalment after Virtual Completion" being a part of the said Total Retention Money. The Contractor shall be entitled to the payment of the Final Balance in accordance with the Final Certificate issued in writing by the Architect at expiration of the period referred to as "the Defects Liability Period" in the Appendix hereto from the date of virtual completion or soon after the expiration of such period as the works shall have been finally completed and all defects made good according to the true intent and meaning hereof whichever shall last happen. The issue of such a certificate by the Architect during the progress of the works or at or after their completion shall not relieve the Contractor from his liability under relevant clauses nor relieve the Contractor of his inability in cases of fraud, dishonesty, or fraudulent concealment relating to the works or materials or to any matter dealt with in the certificate, and in case of all defects and insufficiencies in the works or materials which a reasonable examination would not have disclosed. No certificate of the Architect shall of itself be conclusive evidence that any works or materials to which it relates are in accordance with the contract neither shall the Contractor have a claim for any amounts which the Architect might have certified in any interim bill and paid by the Employer and which might subsequently be discovered as not payable and in this respect the Employer's decision shall be final and binding.

The Architect / Employer shall have power to withhold any certificate if the works or any parts thereof are not being carried out to his satisfaction.

The Architect / Employer may in any certificate make any correction, may it be a certificate, previously certified and issued by him.

No certificate of payment shall be issued by the Architect / Employer if the Contractor fails to insure the works and keep them insured till the issue of the Virtual Completion Certificate.

Payments upon the Architect's certificate shall be made within the periods named in the Appendix as "Period for honour of certificates" after such certificates has been delivered to the Employer.

If payment of the amount payable by the Employer certified by the Architect shall be in arrears and unpaid for thirty days even after a notice in writing requiring payment, have been given by the Contractor to the Employer, or if the Employer interferes with or obstructs the issue of any such

certificate, or if the Employer shall repudiate the contract, or if the works be stopped for three months under the order of the Architect or the Employer or by any injunction or other order of any court of law, then in any of the said cases the Contractor shall be at liberty to determine the contract by notice in writing to the Employer, through the Architect, and he shall be entitled to recover loss he may sustain upon any plant or materials supplied or purchased or prepared for the purpose of the contract.

In arriving at the amount of such payment the net rates contained in the Contractor's original tender shall be followed, or where the same may not apply, valuation shall be made in accordance with relevant clause.

The final bill shall be submitted by the Contractor within forty five days of the completion of the work, otherwise the Architect and Engineer-in-Charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

The Employer shall have a right to cause a technical examination of the works and the final bill of the Contractor including all supporting vouchers, abstracts, etc. to be made at the time of payment of the final bill. If as a result this examination or otherwise any sum is found to have been overpaid or over certified it shall be lawful for the Employer to recover the sum.

38. **As built drawings:** Contractor has to prepare the as built drawings, for all the works under the scope of execution, incorporating all the changes / amendments executed at site till handing over of the project to PDEU. The as built drawings shall have to be prepared in required Auto cad format and Four sets of hard copy along with a soft copy is to be submitted to the Architect . For preparing as built drawings, Architect shall furnish the required drawing in soft copy.

38. **Escalation and mobilisation:** No escalation on any material and/or labour shall be given on any grounds shall be considered even if the extension of time limit on any reasonable grounds is permitted. Under no circumstance shall any Contractor be entitled to claim enhanced rate for any items in this contract.

Mobilization advance: As per item no 15 of appendix

The recovery of the advance: As per item no 16 of appendix.

A bank guarantee from a Nationalised Bank shall have to be produced for the amount of advance applied for. The responsibility of the Contractor for the refund of the advance is absolute and not dependent on the completion of the work. The Contractor shall have to refund the advance with accrued interest, irrespective of the fact whether the contract is breached by either party or abandoned or finalised prematurely.

39. **Work to be covered up:** As soon as the work is completed, the Contractor shall give a notice of such completion to the Architect / Employer and on receipt of such notice, the Architect / Employer shall inspect the work and if he is satisfied that the work is completed in all respects then:

(i) For all works costing up to Rs. 50 lakhs (amount put to tender), the final measurements shall be recorded within 15 days from the date of physical completion of the work and the final bill shall be prepared, by the Contractor, within 15 days, from the date of recording the final measurements. The completion certificate shall be issued within one month, from the date of recording final measurements. The completion certificate shall be issued within one month

from the date of final measurements subject to the Contractor fulfilling his obligation as provided in the contract and subject to the work being complete in all respects.

(ii) In respect of works costing more than Rs. 50 lakhs (amount put to tender), the final measurements shall be recorded within 30 days, from the date of physical completion of the work and the final bill shall be prepared, by the Contractor, within 30 days from the date of recording final measurements. The completion certificate shall be issued within two months, from the date of final measurements subject to the Contractor fulfilling his obligations as provided in the contract and subject to the work being complete in all respects.

When separate periods of completion have been specified for items or groups of items, the Architect and Engineer-in-Charge shall issue separate completion certificate for such items or groups of item.

“Neither certificate of completion shall be issued nor works shall be considered as a complete” till the Contractor has removed from the premises, on which the work has been executed, all scaffolding, sheds and surplus materials, except such, as are required for rectification of defects; rubbish and all huts and sanitary arrangements required for his workmen on the site in connection with the execution of the work, as shall have been erected by the Contractor for the workmen and cleared all dirt from all parts of building(s) in, upon or about which the work has been executed or of which he may have had possession for the purpose of the execution thereof and cleared floors, gutters and drains, cased doors and sashes, oiled locks and fastenings labelled keys clearly and handed them over to the Architect and Engineer-in-Charge or their representative and made the whole premises fit for immediate occupation or use to the satisfaction of the Architect and Engineer-in-Charge. If the Contractor shall fail to comply with any of the requirements of these conditions as aforesaid, on or before the date of completion of the works, the Architect and Engineer-in-Charge may, at the expense of the Contractor, fulfil such requirements and dispose of the scaffolding, or surplus materials and rubbish etc. as he thinks fit and the Contractor shall have no claim in respect of any such scaffolding or surplus materials except for any sum actually realised by the sale thereof less the cost of fulfilling such requirements is more than the amount released on such disposal as aforesaid, the Contractor shall forthwith, on demand pay such excess. The Architect and Engineer-in-Charge shall also have the rights to adjust the amount of excess against any amounts that may be payable to the Contractor.

The works shall not be considered as completed until the Architect has certified in writing that they have been virtually completed. The Defects Liability Period shall commence from the date of such Certificate.

40. **Defects Liability :** Any defect, shrinkage, settlement or other faults which may appear within the "Defects Liability Period" **stated in the Appendix here-to** or, if non stated, then within **twelve months** after the virtual completion of the works, arising in the opinion of the Architect from materials or workmanship not in accordance with the contract, shall upon the directions in writing of the Architect, and within reasonable time as shall be specified therein, amended and made good by the Contractor, at his own cost and in case of default the Employer may employ and pay other persons to amend and made good such defects, shrinkage, settlements or other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the Contractor and such damage, loss and expenses shall be recoverable from him by the Employer or may be deducted by the Employer, upon the Architect's certificate in writing from any

money due or that may become due to the Contractor, or the Employer may in lieu of such amending and making good by the Contractor, deduct from any moneys due to the Contractor, a sum, to be determined by the Architect equivalent to the cost of amending such work and in the event of the amount retained under relevant clause being insufficient, recover the balance from the Contractor, together with any expenses the Employer may have incurred in connection therewith. Should any defective work have been done or material supplied by any Sub- Contractor employed on the works who has been nominated or approved by the Architect as provided in relevant Clause, the Contractor shall be liable to make good in the same manner as if such work or material had been done or supplied by the Contractor and been subject to the provisions of this Clause and relevant clause. The Contractor shall remain liable under the provisions of this Clause notwithstanding the signing of any certificate or the passing of any accounts, by the Architect.

41. **Damages:** The Contractor shall provide all necessary fencing and lights required to protect the public form accident and shall also be bound to bear expenses of defence of every suit, action or other legal proceeding at law that may be brought by any person for all injury to persons, animals or things & for all structural and decorative damage to property arising out of negligence/ carelessness, accident or any other cause by the Contractor or any of the nominated Sub-Contractor or any employee of either. Any damages and costs which may be awarded in any such suit, action or proceedings to any such person, or which may, with the consent of the Contractor, be paid, on any claim put up by any such persons, shall be borne by the Contractor.

This clause shall also include for any damage to buildings, whether immediately adjacent or otherwise, any damage to roads, streets, footpaths, bridges or ways as well as all damage caused to the buildings and works forming the subject of this contract by frost, rain, wind or any other adverse weather conditions.

The Contractor shall indemnify the Employer/ Architect/ Consultants and not hold against for any expenses arising from injury or damage to persons or property as aforesaid, for any claim made in respect of injury or damage under any Acts of any legislature or otherwise and also in case of any award of compensation or damages consequent upon such claim.

The Contractor shall reinstate all damages of every sort mentioned in this clause, so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

The Contractor shall indemnify the Employer against all claims which may be made against the Employer by any member of the public or other third party in respect of anything which may arise in connection to the works or in consequences thereof and shall at his own expense arrange to effect and maintain until the virtual completion of the contract, with an approved office a policy of insurance in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with the Architect from time to time during the currency of this contract.

The Contractor shall be responsible for any liability which may be excluded from the insurance policies above referred to and also for all other damages to any person, animal or property arising out of the incidental to the negligent or defective carrying out of this contract. He shall also indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings and also in respect of any award of compensation or damages, arising there from.

The Employer shall with the concurrence of the Architect be entitled to deduct the amount of any damage, compensation, costs, charges and expenses arising or accruing from, or in respect of, any

such claims or damage from any or all sums due or to become due to the Contractor, without prejudice to the Employer's other rights in respect thereof.

Compensation for all damage done intentionally or unintentionally by Contractor's labours whether in or beyond limits of the Employer's property including any damage caused by the spreading of fire mentioned in the relevant clause, shall be estimated by the Architect and Engineer-in-Charge, and the estimates of the Architect and Engineer-in-Charge shall be final and the Contractor shall be bound to pay the amount of the assessed compensation of demand, failing which the same shall be recovered from the Contractor, as damages, deducted by the Architect and Engineer-in-Charge from any sums that may be due or become due to the Employer, of the Contractor under this contract or otherwise.

The Contractor shall bear the expenses of defending any action or other legal proceedings that may be brought by any person for injury sustained by him owing to neglect of precautions to prevent the spread of the fire and he shall also pay the damages and cost that they may be awarded by the court in consequence.

The Contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Government, the same shall be recoverable from the Contractor forthwith and be deducted, without prejudice to any other remedy of Government, from any amount due or that may become due to the Contractor.

The Contractor shall provide all necessary personal safety equipment and first-aid apparatus available for the use of the persons employed on the site and shall maintain the same in suitable condition for immediate use at any time and shall comply with the following regulations in connection therewith.

(a) The workers shall be required to use the equipment so provided by the Contractor and the Contractor shall take adequate steps to ensure proper use of the equipment by those concerned.

(b) When works is carried out in proximity to any place where there is a risk of drowning, all necessary steps shall be taken for the prompt rescue of any person in danger.

(c) Adequate provision shall be made for prompt first-aid treatment of all injuries likely to be sustained during the course of the work.

42. **Workmen's Compensation Act:** If, for any reason, the Employer is obliged, by virtue of the provisions of the workmen's compensation Act, 1923 or any statutory modification or re-enactment thereof to pay compensation to a workmen employed by the Contractor in execution of the works, the Employer shall be entitled recover from the Contractor the amount of compensation so paid, and without prejudice to the rights of the Employer under the said Act. The Employer shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Employer to the Contractor under this contract or otherwise. The Employer shall not be bound to contest any claim made against it under the said Act, except on the written request of the Contractor and upon his giving to the Employer full security to the satisfaction of the Employer for all costs for which the Employer might become liable in consequence of contesting such claim.

The Contractor shall also similarly indemnify the Employer against all claims which may be made upon the Employer whether under the workmen's compensation Act or any other statue in force during the currency of this contract or at common law in respect of any employee of the Contractor or any Sub-Contractor and shall at his own expense effect and maintain, until the virtual completion of the contract, with an approved office a policy of insurance in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with the Architect from time to time during the currency of the contract.

43. **Arbitration :** The decisions, opinion, direction, certificate (except for payment) with respect to all or any of the matters under relevant clause (which are herein referred to as the excepted matters) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other decision, opinion, direction, certificate or valuation of the Architect or any refusal of the Architect to give any of the same, shall be subject to the right of arbitration and review under clause 34 hereof in the same way in all respects (including the provision as to opening the reference) as if it were a decision of the Architect.

All disputes and differences of any kind whatever arising out of or in connection with the Contractor the carrying out of the works (whether during the progress of the works of after their completion and whether before or after the determination abandon or breach of the contract) shall be referred to and settled by the Architect who shall state his decision in writing. Such decision may be in the form of a final certificate or otherwise. The decision of the Architects with respect to any of the excepted matters shall be final and without appeal as stated in relevant clause. Bit if either the Employer or the Contractor be dissatisfied with the decision of the Architect on a matter, question or dispute of any kind (except any of the excepted matters)or as to the withholding by the Architect of any certificate to which the Contractor may claim to be entitled, then in any such case either party(the Employer or the Contractor) may within 28 days after receiving notice of such decision give a written notice to the other party through the Architect requiring that matters in dispute be arbitrated upon. Such written notice shall specify the matters which are in dispute or difference of which such written notice has been given and no other shall be and is hereby referred to the arbitration and final decision of an arbitrator to be agreed upon and appointed by both the parties or, in case of disagreements as to the appointment of a single arbitrator, to the appointment of two arbitrators, one to be appointed by each party, which arbitrators shall, before taking upon themselves the burden or reference, appoint an Umpire. The venue for such arbitration shall be at **Gandhinagar.**

The Arbitrator or Arbitrators, as the case may be, shall have power to open up, review and revise any certificate, opinion decision requisition or notice, save in regard to the excepted matters in dispute which shall be submitted to arbitration and of which notice shall have been given as aforesaid.

The Arbitrator or Arbitrators, as the case may be, shall make his or their award within one year (or such further extended time as may be decided by him or them as the case may be with the consent of the parties) from the date of entering on the reference. In case, during the arbitration proceedings, the parties mutually settle, compromise or compound their dispute or difference, the reference to arbitration and the appointment of the Arbitrator or Arbitrators, as the case may be, shall be deemed to have been revoked and the arbitration proceedings shall stand withdrawn or terminated, with effect from the date on which the parties file a joint memorandum of settlement thereof, with the Arbitrator or the Arbitrators, as the case may be.

Upon every or any such reference, the cost of, incidental to the reference and award respectively, shall be in the discretion of the Arbitrator or Arbitrators, as the case may be who may determine the amount thereof, or direct the same to be taxed as between attorney and Employer or as between party and party and shall direct by whom and to whom and in what matter the same shall be borne and paid. This submission shall be deemed to be a submission to arbitration within the meaning of the Indian Arbitration Act, 10 or any statutory modification thereof. The Award of the Arbitrator or Arbitrators, as the case may be, shall be final and binding on the parties. It is agreed that the Contractor shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all diligence and shall, until the decision of the Arbitrator or Arbitrators, as the case may be, is given, abide by the decision of the Architect and no award of the Arbitrator or Arbitrators, as the case may be, shall relieve the Contractor of his obligation to adhere strictly to the Architect's instructions with regard to the actual carrying out of the works. The Employer and the Contractor hereby also agree that arbitration under this clause shall be a condition precedent to any right of action under the contract.

44. The Contractor shall on the request of the Architect/PDEU immediately dismiss from the works any person employed thereon by him who may, in the opinion of the Architect, be incompetent or misconduct himself and such persons shall not be again employed on the works without the permission of the Architect.

45. **Site open for inspection:** The Employer, Architect and their respective representatives shall at all reasonable times have free access to the work and/or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall give every facility to the Employer, Architect and their representatives necessary for inspections and examination and test of the materials and workmanship. No person not authorised by the Employer or Architect except the representatives of public authorities shall be allowed on the works at any time.

All works under or in course of execution or executed in pursuance of the contract shall, at all times, be open to the inspection and supervision of the Architect and Engineer-in-Charge and his subordinate and the Contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intimation of the Architect and Engineer-in-Charge or his subordinate to visit the works shall have been given to the Contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing present for that purpose. Orders given to the Contractor's duly authorised agent shall be considered to have the same force and effect as if they had been given to the Contractor himself.

46. The term **"Site Engineer/C.O.W."** shall mean the person appointed and paid by the Employer and acting under the orders of the Architect to inspect the works in the absence of the Architect. The Contractor shall afford the Site Engineer/ C.O.W. every facility and assistance for inspecting, checking and measuring the works and materials. Neither the Site Engineer/C.O.W. nor any representative of the Architect shall have power to set out works or to revoke, alter, enlarge or relax any requirements of the contract, or to sanction any day work, additions, alterations, deviations or omissions, or any extra work whatever except that such authority may be specially conferred by the order of the Architect with the prior concurrence in writing of the PDEU.

The Site Engineer/C.O.W. or any representative of the Architect, or the PDEUs shall have power to give notice to the Contractor or to his representative of non approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Architect is obtained. The work shall from time to time be examined by the Architect, the Site Engineers/C.O.W. or the Architect's representative but such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed. Subject to the limitation of this clause the Contractor shall take instructions only from the Architect.

48. **Treasure trove :** In the event of the discovery by the Contractor or his employees during the progress of the work, of any treasure trove, fossils, minerals or other articles or things of interest, the Contractor shall immediately give notice thereof, to the Architect and Engineer-in-Charge and forthwith hand over the same to them. Such treasure or other things shall be the property of the Department.

49. **Material to be supplied by the PDEU :** If the specification of the work provides for the use of any special description of materials to be supplied by the PDEU or if it is required that the Contractor shall use certain stores to be provided by the PDEU (such materials and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the Contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed) the Contractor shall be supplied with materials and stores as may be required from time to time to be used by him for the purpose of the contract only, and the value of the full quantity of materials and stores so supplied shall be deducted from any sum then due, or thereafter to become due to the Contractor under the contract, or otherwise, from the security deposit, or the proceeds of sale thereof; if the deposit is held in National Bank, the same or a sufficient portion thereof, shall, in that case, be sold for the purpose. All materials supplied to the Contractor shall remain the absolute property of the PDEU and shall, on no account, be removed from the site of the work, and shall at all time, be open to inspection by the Architect and Engineer-in-Charge. Any such materials, unused and in perfectly good condition at the time of completion or termination of the contract, shall be returned to the PDEU, if the Architect and Engineer-in-Charge so requires by a notice in writing given under his hand, but the Contractor shall not be entitled to return any such materials except with the consent in writing of the Architect and Engineer-in-Charge and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage in or damage thereto.

The Contractors shall co-operate with the PDEU/his representative for stacking/storing the materials in a proper manner with necessary protection as instructed. The same shall be provided by the Contractor.

All stores and materials such as cement, if the total consumption of which exceeds [25 tons]; and steel etc. shall be kept by the Contractor in separate godown provided with a double lock. The key of one of the lock shall remain with the Engineer-in-Charge or his representative and the stores shall be accessible to the Architect and Engineer-in-Charge or his representative at all times. No materials shall be allowed to be removed from the site of the work, and any material required for

the execution of the work shall be taken out from the godown only in the presence of a daily authorised representative of the Architect and Engineer-in-Charge.

The Contractor shall inspect the material supplied to him at the time `of taking the delivery thereof and satisfy himself of the quantity, quality, and condition thereof prior to taking delivery and the Owner shall not be liable for any claims or complaints whatsoever in respect of quality, quantity or conditions of said materials once the Contractor has taken delivery thereof.

The Contractors shall immediately inform and ensure the PDEU for variation in weight of the materials, if any, with respect to the standards and necessary records with PDEU/representatives shall be made, if supplied by the PDEU. The Contractor shall make his own arrangement for weighment of the materials before taking delivery and joint records shall be maintained with the PDEU. Adequate size of godown for storage shall be constructed and maintained and under no circumstances the Contractor shall refuse on any grounds for accepting the delivery.

Notwithstanding anything contrary to the contents of any/all of the clauses of this contract, when, any material for the execution of the contract, is procured with the assistance of the PDEU by purchases made under orders or permits or licenses issued by Government, the Contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the prior written permission of the PDEU and return it to the PDEU, if required by the PDEU at the price to be determined by the Architect having due regard to the condition of the materials, the price to be determined shall not exceed the purchase price thereof inclusive of sales tax, octroi and other such levies paid by the Contractor in respect thereof. In the event of breach of the aforesaid condition, the Contractor shall, in addition to being liable to action for contravention of the terms of licenses or permit and/or criminal breach of trust, be liable to PDEU for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

50. **Priority List:** The priority list for approval of the materials for all the items of works shall be as follows:

a. As approved by the Architect.

b. ISI marked.

c. Conforming to IS.

d. As per the make specified in the relevant item of work.

e. Equivalent to the make specified.

51. **Project Control**

The timely and proper completion of project is important. In order to ensure this the contractor shall ensure the following

Schedule Control

For controlling and monitoring of schedule the contractor shall carry out following:

Prepare construction schedules in Microsoft project and Monitor site activities reports (Daily progress report, weekly project reports, monthly project reports) as required by PMC referring latest approved schedules

Liaison with AU, as required by **PDEU** during the development of the design and the construction of the Project.

Establishment of a Project Control Group, comprising representatives of PDEU and to discuss and review aspects of the Project.

Delivery to The PDEU at the date of the Contract of a Contract Program which shows the manner and the date(s)by which Contractor intends to bring the Project to Practical Completion.

Notify PDEU of events and circumstances which are likely to delay Practical Completion as soon as practicable after Contractor becomes aware of their effect. Periodically and regularly update the Contract Program to take account of such events and to take timely, practical and appropriate corrective measures in consultation with PDEU.

Keep a duly updated copy of the updated contract Program on Site for inspection and use by PDEU.

Prepare a program (the Contract Program) to integrate the work performed by PDEU's other contractors ensuring completion of the Project by the Date of Practical Completion. Obtain PDEU's approval of the Program in advance.

Quality Control

For controlling Quality the contractor shall carry out following

Implementation of a quality control plan as approved by PDEU before start of work.

Set up of Quality laboratory at site with all the required equipments and perform regular checking.

PDEU quality formats (Inspection sheets), issued by PDEU for regular monitor and record quality of work in PDEU's approved format. These filled up format shall be submitted along with bill.

Safety / Environment Monitoring

Ensure adherence to safety plans and procedures including those mentioned in SHE conditions in this Tender.

Monitor adherence to safety procedures during constructions.

Display and availability of Information at site

The contractor shall display following information at site office and update it daily.

Total plot plan in A1 size; Architectural drawing in A1 size; detailed schedule in A1 size

Site manpower data in compiled from updated on daily basis; Site safety chart

Coloured perspective view of the building in A1/A2 size

Besides above, following updated documents should always be available at site for PDEU review.

Measurement book (MB) signed by PDEU's in-charge

Bill Summary sheet

Inspection report of all incoming material

Quality reports/checklist of ongoing works in the prescribed format

Worker proficiency /acceptance training report for special jobs like welding etc.

Accident report

Design data & report

Soil testing data

Final work inspection report as enclosed with each bill (No bill shall be passed without inspection report which is duly signed by PDEU's engineer).

Cost Control

If any deviation in quantity is expected is more than 10% of BOQ Qty then it is responsibility of contractor that an approval for the same shall be obtained before the execution of excess quantity with proper justification.

52. **TECHNICAL EXAMINATION AND AUDIT**

In case there is a technical examination even after 12 months of completion of work, the Contractor shall be liable for inferior quality of the Work and consequences thereof.

The Engineer-in-Charge shall have the right to cause and audit and technical examination of the Work and the final bills of the Contractor including all supporting vouchers, abstract, etc. to be made after payment of the final bill and if as a result of such audit and/or technical examination any sum is found to have been overpaid, the Contractor shall be liable to refund the amount of over payment and it shall be lawful for the Engineer-in-Charge to recover the same from him in any manner legally permissible; and it is found that the Contractor was paid less than what was due to him under the Contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by PDEU to the Contractor.

Provided that PDEU shall not be entitled to recover any sum overpaid, nor the Contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between PDEU and the Contractor in any form of the Contract.

53. FORECLOSURE / RESTRICTION OF CONTRACT: If any time after acceptance of the tender, PDEU decides to abandon or reduce the scope of Work for any reason whatsoever, the Engineer-in-Charge shall give notice in writing of the fact the foreclose or restrict the Contract, to the Contractor and the Contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any loss of profit or advantage which he might have derived from the execution of the Work. Further, the Contractor shall not have any claim for compensation by reason of an alteration having been made in the original specifications, drawings, designs, and instructions which shall involve any curtailment of the Work as originally contemplated.

In the event of foreclosure of the Contract an amount as certified by the Engineer-in-Charge for the items hereunder mentioned shall be paid.

a. Portion of expenditure, if any, incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site offices, storage accommodation and water storage tanks.

b. The Engineer-in-Charge shall have the option to take over Contractor's materials or any part thereof brought to the Site. For materials taken over to be taken over by the Engineer-in-

Charge, cost of such materials shall, however, take into account purchase price, cost of transportation, (less for deteriorated\damaged materials in the custody of the Contractor).

c. For Contractor's materials not retained by the Engineer-in-Charge, reasonable cost of transporting such materials and tools and plants from Site to Contractor's permanent stores or to his other Works, whichever is less, shall be payable.

d. The Contractor shall furnish to the Engineer-in-Charge books of account, wage books, time sheets and other relevant documents as may be necessary to enable him to assess and certify the amount payable.

The reasonable amount of above items (a) (c) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the Contractor and less the cost of Contractor's materials at site taken over by the Engineer In Charge as per Item (b) above. Provided always that against any payment due to the Contractor on this account or otherwise, the Engineer In Charge shall be entitled to recover or be credited with any outstanding balances due from the Contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Engineer In Charge from the Contractor under the terms of the contract.

54. **TERMINATION OF CONTRACT ON DEATH:** If the Contractor is an individual or a proprietary concern, and the individual or the proprietor dies and his successors express their inability to complete the remaining work or if the Contractor is a partnership concern and one of the partners dies and the firm is wound up as per partnership deed then the Engineer-in-Charge shall close the Contract for the uncompleted part without PDEU being in any way liable for payment of any compensation to the estate of the deceased Contractor and/or to the surviving partners of the Contractor's firm on account of the closure of the Contract. In the event of such closure, the Engineer-in-Charge shall not hold the estate of the deceased Contractor and/or the surviving partners of the Contractor's firm liable for damages for not completing the Contract notwithstanding other provisions of the Contract.

55. **COMPENSATION NOT RELATABLE TO ACTUAL LOSS:** All sums payable to PDEU by the way of compensation under any of the conditions shall be genuine pre-estimated loss, which shall be considered as reasonable compensation without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

56. **EXCEPTED RISKS :** The work (whether fully constructed or note) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the Contractor until the Work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the Site for incorporation in the Work being damaged or destroyed in consequence of hostilities or war-like operations, the Contractor shall, when ordered in writing by the Engineer-Contractor shall, when ordered in writing by the Engineer-in-Charge, remove any debris from the Site, collect and properly remove or/and stack in store all serviceable material salvaged from the damaged work and shall be paid at the Contract rates in accordance with the provision of this Contract for the work of cleaning the site of debris, stacking removal of serviceable materials and for the reconstruction of all works ordered by the Engineer-in-Charge,

such payment being in addition to compensation up to the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for the compensation shall be assessed by the Engineer-in-Charge. The Contractor shall be paid for the damage/destruction suffered and for the restoring the material at the rates based on the analysis of rates tendered for in accordance with the provisions of the Contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to the Contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or war-like operations.

a. Unless the Contractor had taken all such precautions against Air Raid as are deemed necessary by the A.R.P. Officers on the Engineer-in-Charge.

b. Or any materials etc. not on the site of the work or for any tools and plant, machinery, scaffolding temporary buildings and other things not intended for the work.

In the event of the Contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Engineer-in-Charge.

In the event of any loss or damage to the Work or any part thereof from any of the Excepted Risks, the following provision shall have effect:

a. The Contractor shall, as may be directed in writing by the Engineer-in-Charge, to remove from the Site any debris and so much of the work as shall have been damaged.

b. The Contractor, shall as may be directed in writing by the Engineer-in-Charge, proceed with the erection and completion of the Work under and in accordance with the provisions and conditions of the Contract and payment for additional works, if any, shall be made as per terms of the Contract.

PROVIDED always that the Contractor shall not be entitled for payment under the above provisions in respect of such loss of damage as has been occasioned by any failure on his part to perform his obligations under the Contract or not taking precautions to prevent loss or damage.

57. **SETTING OUT OF WORKS, LEVELS & ALIGNMENT:** The Engineer-in-Charge shall furnish to the Contractor the sector boundary limits (i.e. the four corners of the work site) and a level bench mark. The Contractor shall set out the work, and shall be solely responsible for the accuracy of such setting out Before starting the work the Contractor shall at his own cost, provide all necessary reference and level posts, pegs, bamboo's, flags, ranging rods, strings and other materials for proper lay out of the Work in accordance with the scheme acceptable to the Engineer-in Charge. The centre, longitudinal, faces and cross line shall be marked by means of small masonry pillars. No work shall be started until all these points are checked and approved by the Engineer-in-Charge, but such approval shall not relieve the Contractor of any of his responsibilities. The Contractor shall also provide all labour, materials and other facilities, as necessary, for the proper checking of layout and inspection of the points during construction.

The Contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment, the level and correctness of every part of the Work & shall rectify effectively any

errors or imperfections therein at his own cost.

58. **SITE DRAINAGE, NUISANCE, ETC.:** All water which may accumulate on the Site during the progress of the Work, in trenches, excavations or from any other source, excepting the Risks; shall be removed from the Site at his own cost to the satisfaction of the Engineer-in-Charge.

The Contractor shall not at any time do, cause or permit any nuisance on the Site or do anything which shall cause unnecessary disturbance or inconvenience to occupants of other properties near the site and to the public generally. The Contractor shall at his own expense make necessary arrangements for undertaking Anti-Malaria measures and shall comply with the directions of the Engineer-in-Charge.

Contractor shall maintain dust free condition in and around the project site, by cleaning and avoiding large stack of earth and regularly sprinkling water on the earth during the project duration at his own cost.

59. **PROTECTION OF TREES:** Trees designated by the Engineer-in-Charge shall be protected from damage during the course of the Work and earth within a meter radius of each such tree shall not be excavated. Where necessary, such trees shall be protected by providing temporary fencing without any extra cost

60. **WATCH & WARD:** The Contractor shall provide and maintain caution boards, warning signs, all lights, guards, fencing and watch and ward when and where necessary or required by the Engineer-in-Charge for the protection of the Work or for the safety and convenience of those employed on the Work or the public at his own expense. No hindrance shall be caused to the traffic during the execution of the Work.

61. **SUPERVISION OF WORKS:** The Contractor shall be entirely responsible for executing the work covered under the Contract in a workman like manner as per time schedule, specification and drawings etc.

The Contractor on award of the Work shall agreed number of Graduate Civil Engineer, to whom instruction for the work shall be given. The Contractor shall also provide sufficient supervisory staff, in consultation with and to the satisfaction of the Engineer-in-Charge, to supervise different sub-groups and in such manner as well ensure best quality, expeditious and efficient execution of the work.

In case the Contractor fails to employ sufficient Engineers / supervisors, the Engineer-in-Charge may deduct charges for the period for which the required technical staffs was not employed by the Contractor. The decision of Engineer in charge shall be final & binding on the Contractor.

Removal of workmen If any of the Contractor’s foremen or employee, in the opinion of the Engineer-in-Charge be found guilty of any misconduct or be incompetent they will be substituted by qualified and competent persons. Should any of the Contractor’s men be negligent in the performance of their duties or that in the opinion of the Engineer-in-Charge, be undesirable for administrative or any other reasons, such person(s) so removed from the Work, shall not be employed again in connection with the Work without the written permission of the Engineer-in-Charge. Vacancy so created shall be immediately filled at the expenses of the Contractor.

62. **WORK DURING NIGHT OR ON SUNDAYS AND HOLIDAYS:** No work shall be carried out during night or on Sundays or on declared holidays without the permission in writing of the Engineer-in-Charge or his representative.

63. **INSTRUCTIONS AND NOTICES:** Subject to otherwise provided in the Contract, all notices to be given and all other actions to be taken on behalf of PDEU may be given or taken by the Engineer-in-Charge.

All instructions, notices and communications, etc. under the Contract shall be given in writing and if sent by registered post to the last known place of abode or business of the Contractor shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him.

The Contractor or his representative shall be in attendance at the site(s) during all working hours and shall superintend execution of the Work with such additional assistance in each group as the Engineer-in-Charge may consider necessary. Order given to the Contractor's representative shall be considered to have the same force as if they had been given to the Contractor himself.

The Engineer-in-Charge shall communicate or confirm the instructions to the Contractor in respect of the execution of work in a Site Order Book for the Work maintained in the office of the Engineer-in-Charge and the Contractor or his authorized representative shall confirm receipt of such instructions by signing the relevant entries in this book. If required by the Contractor, a copy of such instruction(s) shall be supplied by the Engineer-in-Charge.

64. **INSPECTION AND APPROVAL:** The Engineer-in-Charge or his representative shall have powers at any time to inspect and examine any part of the work and the Contractor shall at his own cost, give such facilities as may be required for such inspection and examination. The Contractor or his authorized representative shall at all times during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer-in-Charge etc. to visit the work shall have been given to the Contractor, be present to receive orders and instructions.

All works embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice to the Engineer-in-Charge or his authorized representative when each stage is ready. In default of such notice, the Engineer-in-Charge shall be entitled to appraise the quality and extent thereof.

No work shall be covered up or put out of view (concealed) without the approval of the Engineer-in-Charge or his authorized representative and the Contractor shall afford full opportunity for examination and measurement of any work which is about to be covered up or put out of view. The Contractor shall give due notice to the Engineer-in-Charge or his authorized representative whenever any such work or foundation work is ready for examination and the Engineer-in-Charge or his representative shall without unreasonable delay attend for the purpose of examining and measuring such works. In the event of the failure of the Contractor shall, if required by the Engineer-in-Charge, uncover such work for verification and shall reinstate and make good such part to the satisfaction of Engineer-in-charge at his own cost.

65. **DELEGATION OF POWER BY ENGINEER-IN-CHARGE:** The Engineer-in-Charge may from time to time, in writing, nominate his representatives who shall inspect and supervise the work, examine and test materials to be used and its workmanship. The Contractor or his

representative shall receive instructions from the representatives of the Engineer-in-Charge on his behalf.

The representative(s) of Engineer-in-Charge shall not be authorized to order any extra item, substituted item or deviations from the Contract.

Failure of the Representatives of the Engineer-in-Charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-Charge thereafter to disapprove such work or materials and to order the pulling down, breaking & removal thereof without any extra cost.

If the Contractor shall be dissatisfied with any decision of the Representatives of the Engineer-in-Charge he shall be entitled to refer the matter to the Engineer-in-Charge who shall there upon confirm, reverse or vary such decision without any liability of PDEU.

66. **WORK COMPLETION CERTIFICATE:** As soon as the Work is completed, the Contractor shall give notice of such completion to the Engineer-in-Charge and within TEN DAYS of receipt of such notice the Engineer-in-Charge shall inspect the work and if in the opinion of Engineer-in-Charge there are no structural defects or other major defects and the building/works is habitable and can be usefully/functionally occupied, albeit some minor defects need rectification, shall furnish the Contractor with a certificate of completion indicating (a) date of completion (b) defects to be rectified by the Contractor if any and/or (c) items for which payment shall be made at reduced rates. The defects shall be rectified by the Contractor within a period of one month.

No certificate or completion shall be issued nor shall the work be considered to be complete till the Contractor shall have removed from the Site all scaffolding, temporary works, surplus materials, rubbish and all huts and sanitary arrangements required for his workmen on the Site in connection with the execution of the Work, as shall have been erected by the Contractor or his workmen and cleaned all dirt from the parts of works in upon or about which the work has been executed or of which he may have had possession for the purpose of the execution thereof and cleaned floors, gutters and drains, eased doors and sashes, oiled locks and fastenings labelled keys clearly and handed them over to the Engineer-in-Charge and made the whole premises fit for immediate occupation or use to the satisfaction of the Engineer-in-Charge. If the Contractor fails to comply with any of the requirements of these conditions as aforesaid, on or before the date fixed for completion of the work, the Engineer-in-Charge may at the expense of the Contractor, fulfill such requirements and dispose of the scaffoldings, surplus materials and rubbish, etc. as he thinks fit and the Contractor shall have no claim in respect of any such scaffolding or surplus materials etc. except for any sum actually realized by the sale thereof less the cost of fulfilling the requirements is more than the amount realized from such disposal as aforesaid, the Contractor shall forthwith on demand pay such expense, failing which same shall be realized from any other sum due to the Contractor.

67. **CONTRACTOR'S LIABILITY:** Without prejudice to other provision of the Contract, the Contractor shall be responsible for taking precautions from commencement to actual completion of the Work, to prevent loss or damage that may happen to the Work or any part thereof from any cause whatsoever save and except the Excepted Risks and shall at his own cost repair and make good the same so that the completed Work shall be in good order and condition.

All liability arising out of any default / non compliance by the Contractor during or after

completion of Work shall be the responsibility of the Contractor. In case of any claim by government after closure of contract, PDEU shall inform to the Contractor in writing all such dues as are payable by the contractor.

In case of failure of payment of such dues within 15 days of information to the Contractor, than same shall be paid by PDEU and shall be recovered with interest from the contractor.

68. **DEFECT LIABILITY PERIOD:** If the Contractor or his workmen or employees shall break, deface, injure or destroy any part of the building in which they may be working or any building, road, fence, road kerbs, enclosures, water-pipe, cables, drains, electric or telephone posts or wires, grass, grassland or cultivated ground continuous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the Work while in progress from any cause what-so-ever or if any defect, shrinkage or other faults appear in the Work within One Year after the issue of the completion certificate arising out of defective or improper materials or workmanship, the Contractor shall, on receipt of a notice in writing on that behalf from Engineer-in-Charge, make good at his own cost, or in default the Engineer-in-Charge cause the same to be made good by other agencies and deduct the expenses from any sum that may be due or because due to the Contractor or from his Security Deposit and performance guarantee.

If any defect as detailed above shall occur, the Engineer-in-charge shall inform the Contractor thereof stating in writing the nature of the defect. If the Contractor replaces or renews any portion of the work the provisions of this clause shall apply to the portion of the work so replaced or renewed as if that portion had been taken over on the date of replacement or renewal, for defect liability period.

The Contractor shall, if required by the Engineer-in-Charge in writing, identify under the directions of the Engineer-in-Charge for the cause of any defect, shortcomings/imperfection or fault appearing during the progress of the Work or in the defect liability period. Unless such defect, shortcoming/imperfection or fault shall be one for which the Contractor is liable under the Contract, the cost of the works carried out by the Contractor in searching/identifying as aforesaid shall be borne by the PDEU. If such defect, shortcoming/imperfection or fault shall be one for which the Contractor is liable as aforesaid, the cost of the work carried out in searching/identifying as aforesaid shall be borne by the Contractor and he shall, in such case, repair, rectify and make good such defect, shortcoming/imperfection or fault at his own expense.

Certificate at expiry of Defect Liability Period upon the completion of the Defect Liability Period and subject to the Engineer-in-Charge being satisfied that the Work have been duly maintained by the Contractor as herein provided and that the Contractor has in all respect duly made up all subsidence and performed all his obligation under the Contract, the Engineer-in-Charge shall (without prejudice to the right of the PDEU to retain the provisions of relevant clause here of) otherwise give a certificate, to the effect. The Contractor shall not be considered to have fulfilled the whole of his obligations under the Contract until this certificate shall have been given by the Engineer-in-Charge not withstanding any previous entry upon the Work and work in possession, working or using of the same or any part thereof by the PDEU. The portion of the Performance Guarantee retained in accordance with relevant clause shall be released thereafter.

69. **INSURANCE:** Without limiting the Contractor's obligations and responsibilities stated elsewhere in the Contract, the Contractor shall at his own cost arrange, secure and maintain Insurance in the joint names of PDEU in such a manner that PDEU and the Contractor are covered for all time during the period of Contract i.e. the time period allowed for completion of work, extended period and the defect liability period. The Insurance's shall be affected in accordance with terms approved by PDEU and the Contractor shall submit the Insurance policies to the Engineer-in-Charge within one week of signing of the Agreement along with the receipt of premium. The Contractor shall timely pay and submit the receipts of payment of premiums for extensions of policies, if any. The Insurance's shall cover the following:-

a. Contractor's All Risks Insurance: The Contractor shall insure the work for a sum equivalent to the Contract value or such additional sums as specified and the interests of PDEU against ALL RISKS, claims, proceedings, loss or damages, costs, charges and expenses from whatsoever cause arising out of or in consequence of the execution and maintenance of the work for which the Contractor is responsible under the Contract.

b. Workman Compensation & Employers Liability Insurance: This Insurance shall be affected for all the Contractor's employees engaged in the performance of the Contract. PDEU shall not be liable in respect of any damages or compensation payable at law in respect of or in consequence of any accident or injury to any workman or any other person in the employment of the Contractor and the Contractor shall indemnify and keep indemnified PDEU, against all such damages and compensation and against all claims, demands, proceeding, costs, charges and expenses, whatsoever in respect or in relation thereof.

c. Third Party Insurance: The Contractor shall be responsible for making good to the satisfaction of the Engineer-in-Charge any loss or any damage to all structures and properties belonging to PDEU or being executed or procured or being procured by PDEU or of the other agencies within the premises of all work of PDEU, if such loss or damage is due to fault and/or the negligence or willful acts or omissions of the Contractor, his employees, agents, representatives.

The Contractor shall take sufficient care in moving his plants, equipment's and materials from one place to another so that they do not cause any damage to any person or to the property of PDEU or any third party including overhead and underground cables and in the event of any damage resulting to the property of PDEU or to a third equipment or materials, the cost of such damages including eventual loss of production, operation or services in any plant or establishment as estimated by PDEU or ascertained or demanded by the third party, shall be borne by the Contractor. Before commencing the execution of the work, the Contractor, shall insure and indemnify and keep The PDEU harmless of all claims, against the Contractor's liability for any material or physical damage, loss or injury which may occur to any property, including that of PDEU or to any person including any employee of PDEU or arising out of the execution of the Work or in the carrying out of the Contract, otherwise than due to the matters referred to in insurance shall be effected for an amount sufficient to cover such risks. The terms shall include a provision whereby, in the event of any claim in respect of which the Contractor, would be entitled to receive indemnity under the policy being brought or made against the PDEU, the insurer willfully indemnify PDEU against such claims and costs, charges and expenses in respect thereof.

The Contractor shall also at all times indemnify PDEU against all claims, damages or compensation under the provisions of payment of Wages Act, 1936, Provident Fund Act,

Minimum Wages Act, 1948, Employer's Liability Act, 1938, the Workman's Compensation Act, 1947, Industrial Disputes Act, 1947, and Maternity Benefit Act, 1961, Building & Other Construction Workers Welfare Cess Rules, 1998, labour cess or any modifications thereof or any other law relating thereof and rules made there under, from time to time.

Contractor shall also at his own cost carry and maintain any and all other insurance(s) which he may be required to take out under any law or regulation from time to time. He shall also carry and maintain any other insurance which may be required by the Engineer-in-Charge.

The Contractor shall prove to the Engineer-in-Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period.

The aforesaid Insurance policies shall provide that they shall not be cancelled till the Engineer-in-Charge has agreed for cancellation.

Remedy on the Contractor's failure to Insure If the Contractor shall fail to effect and keep in force the insurance referred to above or any other insurance referred to above or any other insurance which he/they may be required to effect under the terms of the Contract then and in any such case Engineer-in-Charge may, without being bound to, effect and keep in force any such insurance and pay such premium or premiums, as may be necessary for that purpose and from time to time deduct the amount so paid by the Engineer-in-Charge from any moneys due or which may become due to the Contractor or recover the same as a debt due from the Contractor.

70. **COMPLIANCE OF LAW AND REGULATIONS**: Contractor shall comply with all laws applicable to its employees / workmen / contract labor employed by it and the rules framed there under including but not limited to Workman Compensation Act, Payment of Wages Act, and Minimum wages Act etc. PDEU shall in no event and under no circumstances, be liable or responsible for any default by way of non-observance/compliance of the said law/rules Contractor part. The Contractor shall further fully indemnify PDEU and its officers and keep it harmless against any liabilities and costs/expenses from all proceedings in respect thereof. The Contractor shall also provide PDEU on a monthly basis evidence of compliance with all laws/rules including but not limited to compliance of PF, ESI and other documents relating to employees/ workmen/ contract labour employed by Contractor for the Project.

Before commencement of work on the premises, the Contractors and Sub-contractors shall comply with all Statutory Regulations covering the work they shall be carrying out including "The Building & Other Construction Workers [Regulation of Employment & Conditions of Service] Act 1996" (herein called as BOCW Act) and The Building & Other Construction Workers [Regulation of Employment & Conditions of Service] Central Rules 1998 (herein called as BOCW Central Rules) or State notified BOCW Rules and their subsequent amendment(if any) and adhere to it. All Payment towards all liabilities, labour cess, fees, charges and deposits for all compliances is the responsibility of the Contractor.

70. **WARRANTEE/GUARANTEE:** All the work carried out by the contractor shall be strictly in accordance with the specifications, drawings, data sheets, and local Govt. regulations, other attachments and conditions stated in the Tender / Contract.

In the event that the work / supply do not meet the specifications and/or are not in accordance with the drawings, data sheets or the terms of this order and rectification is required at site owner shall notify the Contractor giving full details of deficiencies. The Contractor shall attend at its own expense within three (3) days of receipt of such notice to meet and agree with representatives of PDEU, the action required to correct the deficiencies. Should the Contractor fail to attend meeting at site within the time prescribed above, PDEU shall immediately rectify the work/services and Contractor shall reimburse PDEU all costs and expenses incurred in connection with such trouble or defect. The decision of PDEU with regard to PDEU liability under this guarantee shall be final and conclusive.

71. **SUB-CONTRACTING:** No part of the Contract nor any share or interest therein shall in any manner or degree be transferred, assigned or subjected by the Contractor directly or indirectly to any person, firm or corporation whosoever provided the Contractor submits the list of sub-Contractors as mentioned above, for each individual sub-contract and the Engineer-in-Charge has given consent for engaging such agency for the work. The Contractor engaging and entering into any sub-contract prior to the consent of the Engineer-in-Charge shall be doing so at his risk & cost.

72. **Termination of sub-contracts:** If any sub-Contractor engaged upon the works at the Site executes any work which in the opinion of the Engineer-in-Charge is not in accordance with the Contract, the Engineer-in-Charge shall give written notice to the Contractor requesting him to terminate such sub-contract. The Contractor upon the receipt of such notice shall terminate the sub-contract and dismiss the sub-Contractor. The Engineer-in-Charge shall have the right to remove such sub-Contractor from the site if the Contractor fails to remove the sub-Contractor immediately.

The employment of Labour rate workers shall not be deemed as sub-contracting

73. **RIGHTS OF VARIOUS INTERESTS:** PDEU reserves the right to distribute the Work amongst more than one Contractor. The Contractor shall co-operate and afford other Contractors all reasonable opportunity for access to the Work for the carriage and storage of materials and execution of their works.

The Contractor shall, in accordance with the requirements of the Engineer-in-Charge afford all reasonable facilities to other Contractors engaged contemporaneously on separate contracts in connection with the works and for departmental labour land/or labour of any other properly authorized authority or statutory body which may be employed at the Site for execution of any work not included in the Contract **ADHERENCES TO GOVERNMENT REGULATIONS**

The Contractor shall conform in all respect with the provisions of any National or State Statutes, Ordinances or Laws or any regulations or bye-laws or orders of any local or other duly constituted authority which may be applicable to the Work and with such rules, orders and regulations of such authorities and companies whose property rights are affected or may be affected in any way by the Work and shall keep PDEU indemnified against all penalties and liability of every kind for breach of any such Statute, Ordinance of Law, regulations order or bye-law.

74. **CHANGES IN CONSTITUTION:** Where the Contractor is a partnership firm, prior approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu Undivided Family

business concern such approval as aforesaid shall likewise be obtained before the Contractor enters into any agreement with other parties, where under which the reconstituted firm would have the right to carry out the work hereby undertaken by the Contractor. If prior approval as aforesaid is not obtained, the Contract shall be deemed to have been assigned in contravention of relevant clause as per Tender hereof and the same action may be taken and the same consequences shall ensue as provided for in the said clause.

76. **Rates to cover**

a. The rates quoted shall include all incidental charges like cartage, storage, safe custody of materials cutting and wastage, etc., whatsoever, and nothing extra shall be paid.

b. The rates quoted for each item or work shall be complete including cost of materials labour and other inputs what-so-ever.

c. The rates for different items of work shall be for all heights and depths of the building except where otherwise specified in the items of work.

d. The rates for centring and shuttering for suspended floors, roofs, landing, balconies and beams shall be for floor at all heights and including floor two level wherever mentioned in nomenclature of schedule of quantities above plinth level.

77. **Taxes by Statutes**

a. Pursuant to the Constitution (Forty Sixth Amendment) Act, 1982, if any further tax or levy is imposed by Statutes, after the date of receipt of tenders, and the Contractors there upon necessarily and properly pays such taxes/levies, the Contractor shall be reimbursed the amount so paid provided such payment, if any, is not in the opinion of the Manager/D.P.M. of PDEU (whose decision shall be final and binding) attributable to delay in executing the work within the control of the Contractor.

b. The contract shall keep necessary books of account and other documents for the purpose of this conditions as may be necessary and shall allow inspection of the same by a duly authorized representative of the Government and/or the Engineer In Charge and further shall furnish such other information/documents as the Engineer In Charge may require from time to time.

c. The Contractor shall within a period of 30 days of imposition of any further tax or levy, pursuant to the constitution (Forty Sixty Amendment) Act, 1982 give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition together with all necessary information relating thereto.

78. **Taxes, duties, Octroi, etc. :** Subject to the provisions as mentioned in the Tender, the Contractor shall bear full and exclusive liability for the payment of any and all taxes, octroi, now in force or hereafter imposed, increased or modified from time to time and sales taxes, duties, in respect of Works and materials and all contribution and taxes for unemployment compensation, insurance and old age pensions or annuities now or hereafter imposed by and Central or State Government authorities which are imposed with respect to or covered by the wages, salaries or other compensations paid to the persons employed by the Contractor and the

Contractor shall be responsible for the compliance with all obligations and restriction imposed by the labour law or any other law affecting employer-employees relationship and the Contractor, further agrees to comply and to secure the compliance of all sub-Contractor with all applicable Central, state Municipal and local laws and regulations and requirements of any Central, State or local Government agency or authority. The Contractor further agrees to defend, indemnify and hold the PDEU harmless from any liability or penalty which may be imposed by the Central, State or local authority by reason of any violation by Contractor or sub-Contractor of such laws, regulations or requirement and also for all claims suits or proceeding that may be brought against the PDEU arising under growing out of or by reason of the Work provided for by this Contract, by third party, or by Central or State Government authority or any administrative sub-division thereof. The Contractor shall also obtain and pay for all permits or other privileges necessary to complete the work.

79. As such the Contractor shall bear full and exclusive liability for the payment of any and all of the following:

a. Sales taxes, or any other tax or materials in respect of this contract shall be payable by the Contractor and PDEU shall not entertain any claim whatsoever in this respect.

b. The Contractor shall deposit the royalty and obtain necessary permit for supply of the stone, kankar, filling soil etc. from local authorities.

c. Local authorities in respect of any materials used by the Contractor in the works then in such a case, it shall be lawful PDEU and it will have the right and be entitled to recover the amount paid in the circumstance as aforesaid from dues of the Contractor.

80. **Demurrage dues:** The Contractor shall pay demurrage charges incurred by the Engineer-in-Charge because of the Contractor's failure to load or unload any goods or materials within the time allowed by the Railway and/or transport agency for such loading or unloading as charges incurred by the Engineer-in-Charge on materials not removed by the Contractor within the permissible time as also charges shall be deducted from any sums which may be due or become due to the Contractor in terms of the Contract and or any other Contract.

No extra claims what so ever shall be admissible beyond the quoted rates.

81. **PATENT RIGHTS:** The Contractor shall fully indemnify PDEU against any action, claim or proceeding relating to infringement or use of any patent or design of any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or material or part thereof included in the Contract. In the event of any claims made under or action brought against PDEU in respect of any such matters as aforesaid, the Contractor shall be immediately notified thereof and the Contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from. The Contractor, however, shall not be liable to PDEU if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

82. **SAFETY HEALTH & ENVIRIONMENT POLICY:** The Contractor shall abide and follow strictly all instructions of PDEU SHE policy as applicable at the time of carrying out the Construction activity. A copy of the policy as enclosed shall also form part of the Contract

83. **ENVIRIONMENTAL PROTECTION:** The Contractor shall abide and follow strictly all instructions of PDEU Environmental policy and the guidelines as applicable at the time of carrying out the Construction activity.

The contractor shall also ensure strict compliance to all latest applicable laws, rules and regulations pertaining to Environment and amendments, some of which are listed below:

a. The Water (Prevention & Control of Pollution) Act; Amendment, 1988
b. The Water (Prevention & Control of Pollution) Rules
c. The Water (Prevention & Control of Pollution) Cess Act; Amendment, 2003
d. The Water (Prevention & Control of Pollution) Cess Rules
e. The Air (Prevention & Control of Pollution) Act; Amendments, 1987
f. The Air (Prevention & Control of Pollution) Rules
g. The Environmental (Protection) Act
h. The Environmental (Protection) Rules
i. The Public Liability Insurance Act; Amendments, 1992
j. The Public Liability Insurance Rules
k. The Environmental (Protection) Rules - Environmental Statement
l. The Environmental (Protection) Rules - Standards/Amendments 1996, 1998
m. The Environmental (Protection) Rules - Environmental Clearance
n. Noise Pollution (Regulations & Control) Rules
o. The Battery (Management & Handling) Rules
p. MoEF Authorised List of Hazardous Waste Recyclers
q. The Hazardous Wastes (Management & Handling) Rules/ Amendment 2008
r. Manufacture, Storage & Import of Hazardous Chemical (Amendment) Rules,1994,2000
s. Ozone Depleting Substances (Regulation & Control) Rules
t. Environmental Impact Assessment Notification
u. E-waste (Management and Handling)rules ,2011

Besides the above law it is suggested to adopt best practices to save environment while designing and construction.

While working inside IAR Campus, the contractor shall strictly follow the following guidelines. Failure shall result in imposition of penalty and disciplinary action as per law / company policy.

a. Strict Compliance to Environment Policy.
b. Before start of the project the site in charge shall provide necessary environment awareness training to the personnel engaged for the specified project
c. Work instruction in Hindi / regional language, pertaining to environment and the type of

environmental impact associated with the project shall be given to all the personnel.

d. Prevent Pollution

e. Ensure no spillage of oils, chemicals and any hazardous item.

   i. All the consumables (like oil, greases, fuel etc) shall be properly stored in the designated places.

   ii. Adequate containment shall be provided in the storage to prevent leakages if any.

f. Do not use polluting equipment. All construction & Allied Equipment shall strictly comply with all applicable laws/norms as specified by Government for Air Pollution, Noise Pollution, Land Pollution and Water Pollution

g. Supplier / contractor shall use only environment friendly consumables / substances. Material Safety Data Sheet (MSDS) shall be available for consumable used and all precaution shall be followed.

h. Keep scrap segregated at the site in the bins and dispose of daily to designated places.

i. Display Safety precaution at workplace.

j. Always keep adequate number of fire prevention/fighting equipment at the workplace.

k. Proper cordoning / barricading of the site shall be provided to reduce dust.

l. Energy & water conservation

   i. Avoid wastage of electricity and water

   ii. Switch off equipment when not in use

   iii. Use energy efficient equipment.

   iv. If compressed air is used, the leakage from the compressed air hoses shall be regularly checked and repaired.

a. Packing: Supplier shall use Recyclable and light packing to the extent possible.

84. **CONFIDENTIALITY OF INFORMATION:** The Tender document is the proprietary and confidential document of PDEU. The Tenderer / Contractor has agreed to acquire such part of Confidential Information as PDEU may determine in its sole discretion solely to prepare and submit Tender and keeping the Confidential Information strictly confidential.

The Tenderer / Contractor shall keep any and all part of the Confidential Information strictly confidential and shall not disclose the same to any person.

The Tenderer / Contractor Party shall use the Confidential Information only for the Purpose specified herein and shall not disclose any Confidential Information to any other party without the prior written consent of the PDEU and shall take reasonable measures, at least equivalent to those it takes to protect its own confidential information to keep confidential the Confidential Information.

Without prejudice to the rights, in the event the Tenderer / Contractor is aware that the Confidential Information is lost or stolen, or is disclosed or threatened to be disclosed to any

other party, it shall immediately notify the same to PDEU thereof.

The Tenderer / Contractor shall not duplicate, reproduce or summarize the Confidential Information.

The Tenderer / Contractor shall, at the request of PDEU or upon the expiration or termination of this Agreement, return all originals, duplicates, reproductions, summaries and other materials, of the Confidential Information, or, at the PDEU's option, destroy the same and certify such destruction under the instructions of PDEU.

The Confidential Information shall remain the property of PDEU at all times during and after the Contract.

The Tenderer / Contractor shall not, directly or indirectly, register any Confidential Information as its patents, trademarks, copyrights, trade secret or other intellectual property right or apply for such registration in any part of the world

85 **CLOSURE OF CONTRACT**

Contractor shall ensure total completion of work as per the Contract conditions

The Contract shall be treated as complete when all of the following work is completed to the satisfaction of Engineer In charge

a. Submission of Final measured bills
b. No further Claim Certificate along with Final Bill
c. As built drawing in soft and Hard copy
d. Final "Completion Certificate" as issued by Government for the work executed by the contractor
e. Restoration to the original conditions all space utilised by the contractor for Construction, storage and site office.
f. Removal of all Malba so generated during the construction.
g. Drawing and manual of all bought out items
h. Warrant & Guarantee certificate of all Bought out items
i. Performance Bank Guarantee of Water proofing
j. Bank Guarantee for Retention money
k. Third party vetting certificate for all design checking
l. Final Photo graph of all work executed.
m. Quality Inspection report
n. Snag closure report

SAFETY CODE

1. Suitable scaffolds, of sound material, having adequate strength and in proper condition, shall be provided for workmen for all works that cannot be safely done from the ground or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handhold shall be provided on the Ladder and the ladder shall be given an inclination not steeper than ¼ to 1 (¼ horizontal and 1 vertical). Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed. Before installing the lifting gear on scaffolds, special precaution shall be taken to ensure strength and stability of the scaffolds. Scaffolds shall be periodically inspected by competent person. Before allowing a scaffold to be used by his workman, the Contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that is complies fully with the regulations herein specified.

2. Scaffolding or staging more than 3.25 meters above the ground or solid construction, swung or suspended from an overhead support or erected with stationary support, shall have a guard rail properly attached, bolted, braced and otherwise secured at least 1 meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

3. Working platform, gangways, and stairways shall be so constructed that they do not sag unduly or unequally, and if height of a platform or gangway or stairways is more than 3.25 meters above ground level or solid construction, it shall be closely boarded, have adequate width and be suitably fenced, as described in 2 above.

4. Every opening in floor of a building or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of 1 meter.

5. Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 meters in length. Width between side rails in a rung ladder shall in no case be less than 30 cm. for ladders upto and including 3 meters in length. For longer ladders this width shall be increased at least 6 mm. for each additional 30 cm. of length. Uniform step spacing shall not exceed 30 cm.

   Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites shall so stacked or placed as to cause danger or inconvenience to any person or the public. The Contractor shall provide all necessary fencing and lights to protect public from accidents and shall be bound to bear expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Contractor be paid to compromise any claim by any such person.

6. **Excavation and Trenching:** All trenches, 1.5 meters or more in depth, shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of trench to at least 1 meter above surface of the ground. Sides of a trench which is

1.5 meters or more in depth shall be stepped back to give suitable slope, or securely held by timber bracing so as to avoid the danger of sides collapsing. Excavated material shall not be placed within 1.5 meters of edge of trench or half of depth of trench, whichever is more. Cutting shall be done from top to bottom. Under no circumstances shall undermining undercutting be done.

7. **Demolition:** Before any demolition work is commenced and also during the process of the work

a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.

b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by operator shall remain electrically charged;

c) All practical steps shall be taken to prevent danger to persons employed, from risk or fire or explosion or flooding. No floor, roof, or other part of a building shall be so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment as considered adequate by the Engineer – in - Charge shall be available for use of persons employed on the site and maintained in a condition suitable for immediate use; and the Contractor shall take adequate steps to ensure proper use of equipment by those concerned.

a) Workers employed on mixing asphaltic materials, cement and lime mortars/concrete shall be provided with protective footwear and protective goggles.

b) Those engaged in handling any material which is injurious to eyes shall be provided with protective goggles.

c) Those engaged in welding works shall be provided with welder's protective shields.

d) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

e) When workers are employed in sewers and manholes, which are in use, the Contractor shall ensure that manhole covers are opened and manholes are ventilated at least for an hour before workers are allowed to get into them. Manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.

f) The Contractor shall not employ men below the age of 18 and women on the work of painting with products containing lead in any form. Whenever men above the age of 18 are employed on the work of lead painting, the following precautions shall be taken:

i) No paint containing lead or lead products shall be used except in the form of paste or ready.

ii) Suitable face masks shall be supplied for use by workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scraped.

iii) Overalls shall be supplied by the Contractor to workmen and adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

9. When work is done near any place where there is risk of drowning, all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

10. Use of hoisting machines and tackle including their attachments, anchorage and supports shall confirm to the following:

    a) i. These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good repair and in good working order.

       ii. Every rope used in hoisting or lowering materials or as a means suspension shall be of durable quality and adequate strength, and free from patent defects.

    b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffold winch or give signals to operator.

    c) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all rear referred to above shall be plainly marked with safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

    d) In case of a departmental machine, safe working load shall be notified by the Engineer – in - charge. As regards Contractor's machines the Contractor shall notify safe working load of each machine to the Engineer – in - charge whenever he brings it to site of work and get it verified by the Engineer – in - charge.

11. Motors gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards; hoisting appliances shall be provided with such means as shall reduce to the minimum risk of accidental decent of load adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energised, insulating mats working apparel such as gloves, sleeves and boots as may be necessary, shall be provided. Workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

12. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.

13. These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. Persons responsible for ensuring compliance with the safety code shall be named therein by the Contractor.

14. To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the Contractor shall be open to inspection by the Engineer – in - charge or his representatives and the Inspecting Officers.

15. Notwithstanding the above conditions 1 to 14 the Contractor is not exempted from the operation of any other Act or Rule in force.

16. In addition to the above, the Contractor shall abide by the safety code provisions as per C.P.W.D. safety code framed from time to time.

17. The Contractor shall also arrange to obtain valid gate passes for his men and equipment from the concerned authorities of the project.

18. No man/material/equipment not covered by valid passes shall be permitted within the project area and no material/equipment shall be permitted to be taken out of the project area, unless the written permission of the Architect/Engineer in-charge.

19. When persons are employed on a roof where there is danger of falling from a height exceeding 3.25 m. (to be prescribed) suitable precaution shall be taken to prevent the fall of persons or material. Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffolds or other working places.

20. The Contractor shall comply with the following regulations as regards the Hoisting Appliances to be used by him:

    (a) Hoisting machines and tackle, including their attachments, anchorage and supports shall:

        (i) Be of good mechanical construction, sound material and adequate strength and free from patent defect; and:

        (ii) Be kept in good repair and in working order.

    (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.

    (c) Hoisting machines and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by Architect and Engineer-in-Charge.

    (d) Every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.

    (e) Every crane driver or hoisting-appliance-operator shall be properly qualified.

    (f) No person who is below age of 15 years shall be in control of any hoisting machine, including any scaffold, nor shall give signals to the operator.

    (g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel and pull by block used in hoisting or lowering or as a means or suspension, the safe working load shall be ascertained by adequate means.

    (h) Every hoisting machine and all gears referred to in preceding regulation shall be plainly marked with the safe working load.

    (i) In the case of hoisting machine having a variable safe working load, each safe working load and conditions under which it is applicable shall be clearly indicated.

    (j) No part of any hoisting machine or any gear referred to in regulation `g' above shall be loaded beyond the safe working load except for the purpose of testing.

    (k) Motors, gears, transmissions, electric wiring and other dangerous parts of hoisting appliance shall be provided with sufficient safeguards.

(l) Hoisting appliances shall be provided with such means as shall reduce to a minimum the risk of the accidental descent of the load.

(m) Adequate precautions shall be taken to reduce to minimum the risk of any part of a suspended load becoming accidentally displaced.

MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY CONTRACTORS:

1. **Application**: These rules shall apply to all building and construction works in charge of Institute in which twenty or more workers are ordinarily employed or are proposed to be employed on any day during the period during which the contract work is in progress.

2. **Definition**: Work place means a place where twenty or more workers are ordinarily employed or are proposed to be employed in connection with construction work on any day during the period during which the contract work is in progress.

3. **First-Aid Facilities:**

(1) At every work place there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.

(2) The first-aid box shall be distinctly marked with a red cross on white ground and shall contain the following equipment, namely:--

a) For work places in which the number of contract labour employed does not exceed 50. Each first-aid box shall contain the following equipments:

(i) 6 small sterilised dressings.

(ii) 3 medium size sterilised dressings.

(iii) 3 large size sterilised dressings.

(iv) 3 large sterilised burn dressings.

(v) 1 (30 ml.) bottle containing a two per cent alcoholic solution of iodine.

(vi) 1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.

(vii) 1 snake-bite lancet.

(viii) 1 (30 gms.) bottles of potassium permanganate crystals.

(ix) 1 pair scissors.

(x) 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.

(xi) 1 bottle containing 100 tablets (each of 5 gms.) of aspirin.

(xii) Ointment for burns.

(xiii) A bottle of suitable surgical antiseptic solution.

b) For work places in which the numbers of contract labour exceed 50. Each first-aid box shall contain the following equipments:

(i) 12 small sterilised dressings.

(ii) 6 medium size sterilised dressings.

(iii) 6 large size sterilised dressings.

(iv) 6 large size sterilised burn dressings.

(v) 6 (15 gms.) packets sterilised cotton wool.

(vi) 1 (60 ml.) bottle containing a two per cent alcoholic solution of iodine.

(ix) 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.

(x) 1 roll of adhesive plaster.

(xi) 1 snake-bite lancet.

(xii) 1 (30 gms.) bottle of potassium permanganate crystals.

(xiii) 1 pair scissors.

(xii) 1 copy of the First-Aid leaflet issued by the Director General, Factory Advice Service and Labour Institute, Government of India.

(xiii) A bottle containing 100 tablets (each of 5 gms.) of aspirin.

(xiv) Ointment for burns.

(xv) A bottle of suitable surgical antiseptic solution.

(3) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.

(4) Nothing except the prescribed contents shall be kept in the first aid box.

(5) The First-Aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.

(6) A person in charge of the First-Aid box shall be a person trained in First-Aid treatment, in work places where the number of contract labour employed is 150 or more.

(7) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance of the works, First-Aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.

(8) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or persons suddenly taken ill to the nearest hospital.

4. **Drinking water:**

(a) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.

(b) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.

(c) Every water supply of storage shall be at a distance of not less than 50 feet from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap-door which shall be dust and water proof.

(d) A reliable pump shall be fitted to each covered well, the trap-door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. **Washing facilities:**

(i). In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.

(ii). Separate and adequate screening facilities shall be provided for the use of male and female workers.

iii). Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. **Latrines and Urinals:**

(i). Latrines shall be provided in every work place on the following scale, namely:

a) Where females are employed, there shall be at least one latrine for every 25 females.

b) Where males are employed, there shall be at least one latrine for every 25 males.

Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females, as the case may be, up to the first 100, and one for every 50 thereafter.

(ii) Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and fastening.

(iii) **Construction of latrines:** The inside walls shall be constructed of masonry or some suitable heat resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. Latrines shall not be of a standard lower than bore-hole system.

(iv) a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women only" as the case may be.

b) The notice shall also bear the figure of a man or of a woman, as the case may be.

(v) There shall be at least one urinal for male workers up to 50 and one for female workers up to 50 employed at a time. Provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 or part thereof, thereafter.

(vi) a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.

b) Latrines and urinals other than those connected with a flush sewerage system shall comply with the requirements of the Public Health Authorities.

(vii) Water shall be provided by means of a tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.

(viii) Disposal of excreta: Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed off by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn into manure).

(ix) The contractor shall, at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such work on his behalf.

7. Provision of shelter during rest :

At every place there shall be provided, free of cost, four suitable sheds, two for meal, and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 meters from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 Sq.mt. per head.

8. **Creches:**

a) At every work place at which 20 or more women workers are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bed-room. The rooms shall be constructed on a standard not lower than the following.

(i) Thatched roof
(ii) Mud floors and walls.
(iii) Planks spread over the mud floor and covered with matting.

b) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.

c) The contractor shall supply adequate number of toys and games in the play rooms and sufficient number of cots and beddings in the bed room.

d) The contractor shall provide one Dai to look after the children in the creche when the number of women workers does not exceed 50 and two Dais when the number of women workers exceeds 50.

e) The use of the rooms earmarked as creches shall be restricted to children, their attendants and mothers of the children.

9. **Canteens:**

(i) In every work place where the work regarding the employment of contract labour is likely to continue for six months and wherein contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.

(ii) The canteen shall be maintained by the contractor in an efficient manner.

(iii) The canteen shall consist of at least a dining hall, kitchen, store room, pantry and washing places separately for workers and utensils.

(iv) The canteen shall be sufficiently lighted at all times when any person has access to it.

(v) The floor shall be made of smooth and impervious material and inside walls shall be lime washed or colour washed at least once in each year:

Provided that the inside walls of the kitchen shall be lime washed every four months.

(vi) The precincts of the canteen shall be maintained in a clean and sanitary condition.

(vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.

(viii) Suitable arrangement shall be made for the collection and disposal of garbage.

(ix) The dining hall shall accommodate at a time 30 per cent of the contractor labour working at a time.

(x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square meter per diner to be accommodated as prescribed in sub-rule.

(xi) a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers, in proportion to their number.

b) Washing places for women shall be separate and screened to secure privacy.

(xii) Sufficient tables, stools, chairs or benches shall be available for the number of diners to be accommodated as prescribed in sub-rule (ix).

(xiii) (a) (1) There shall be provided and maintained sufficient utensils, crockery, furniture and any other equipments necessary for the efficient running of the canteen.

(2) The furniture, utensils and other equipments shall be maintained in a clean and hygienic condition.

(b) (1) Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.

(2) A service counter, if provided, shall have top of smooth and impervious material.

(4) Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipments.

(xiv) The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.

(xv) The charges for food stuffs, beverages, and any other items served in the canteen shall be based on No profit, No loss and shall be conspicuously displayed in the canteen.

(xvi) In arriving at the price of food stuffs and other articles served in the canteen, the following items shall not be taken into consideration as expenditure, namely:--

(a) The rent of land and buildings;

(b) The depreciation and maintenance charges for the building and equipments provided for the canteen;

(c) The cost of purchase, repairs and replacement of equipments including furniture, crockery, cutlery and utensils;

(d) The water charges and other charges incurred for lighting and ventilation;

(e) The interest and amounts spent on the provision and maintenance and equipments provided for in the canteen.

(xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

14. **Anti-Malarial Precautions:**

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrow pits which may have been dug by him.

11. **Amendments:** Institute may, from time to time, add to or amend these rules and issue such directions as it may consider necessary for the purpose of removing any difficulty which may raise in the administration thereof.

CONTRACTORS LABOUR REGULATIONS:

1. **Short Title:**

These regulations may be called the "Contractors Labour Regulations".

2. **Definitions:**

i) **"Workmen**" means any person employed by the Contractor directly or indirectly through a sub-contractor, with or without the knowledge of the Institute, to do any skilled, semi-skilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person—

a) Who is employed mainly in a managerial or administrative capacity; or

b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mason or exercise either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature;

c) Who is an out worker, that is to say, a person to whom any article or materials are given out by or on behalf of the principal employer to be made up, cleaned, washed, altered, ornamental finished, repaired, adopted or otherwise processed for sale for the purposes of the trade or business of the principal employer and the process is to be carried out either in the; home of the out worker or in some other premises, not being premises under the Control and management of the principal employer,

ii) **"Fair Wages"** means wages whether for time or piece work fixed and notified under the provisions of the Minimum Wages Act from time to time.

iii) "Contractors" shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a sub-contractor.

iv) **"Wages"** shall have the same meaning as defined in the payment of wages act.

2(a) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.

2(b) when an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages. Children shall not be made to work extra hours.

2(c) (i) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules, 1960 as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.

(ii) Where a Minimum Wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

(iii) Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at over time rate.

3. **Display of Notice regarding wages etc.:**

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clean and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers, giving the minimum rates of wages fixed under the Minimum Wages Act, the actual wages being paid, the hours of work for which such wages are earned, wage periods, dates of payment of wages and other relevant information as per Annexure "A"

4. **Payment of Wages:**

(i) The contractor shall fix wage periods in respect of which wages shall be payable.

(ii) No wage period shall exceed one month.

(iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand, such persons are employed shall be paid before the expiry of the seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.

(iv) Where the employment of any work is terminated by or on behalf of the contractor. The wages earned by him shall be paid before the expiry of the second Working day from the date on which his employment is terminated.

(v) All payments of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.

(iv) Wages due to every worker shall be paid to him direct or to other person authorised by him in this behalf.

(v) All wages shall be paid in current coin or currency or in both.

(viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the payment of Wages Act, 1956.

(ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgement.

(x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Engineer-in-Charge or any other authorised representative of the Engineer-in-Charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.

(xi) The contractor shall obtain from the Engineer-in-Charge or any other authorised representative of the Engineer-in-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of wages" or the "Wage-cum-Muster Roll" as the case may be in the following form:

"Certified that the amount shown in column No._____ has been paid to the workmen concerned in my presence on _____at _____”.

5. **Fines and deductions which may be made from wages**:

(i) The wages of a worker shall be paid to him without any deductions of any kind except the following:

a) Fines.

b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.

c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.

d) Deduction for recovery of advances or for adjustment of over-payment of wages; advances granted shall be entered in a register.

e) Any other deduction which the Central Government may from time to time allow.

(ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note: An approved list of acts and omissions for which fines can be imposed is enclosed at Annexure-I.

(iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.

(iv) The total amount of fine which may be imposed in anyone wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.

(v) No fine imposed on any worker shall be recovered from him by installment, or after the expiry of sixty days from the date on which it was imposed.

(vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

6. **Labour Records:**

(i.) The contractor shall maintain a "Register of persons employed" on work on contract in Form XIII of the CL (R&A) Central Rules, 1971 (Annexure-B).

(ii.) The contractor shall maintain a "Muster Roll" register in respect of all workmen employed by him on the WI) under contract in form XVI of the CL (R&A) Rules, 1971 (Annexure-C).

(iii.) The contractor shall maintain a "Wage Register" in respect of all workmen employed by him on the work under contract in form XVII of the CL (R&A) Rules, 1971 (Annexure-D).

(iv.) Register of accidents: The contractor shall maintain a register of accidents in such form as may be convenient the work place but the same shall include the following particulars:

a) Full particulars of the labourers who met with accident.

b) Rate of wages.

c) Sex.

d) Age.

e) Nature of accident and cause of accident.

f) Time and date of accident.

g) Date and time when admitted in Hospital.

h) Date of discharge from Hospital.

i) Period of treatment and result of treatment.

j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.

k) Claim required to be paid under workmen's Compensation Act.

l) Date of payment of compensation.

m) Amount paid with details of the person to whom the same was paid.

n) Authority by whom the compensation was assessed.

o) Remarks.

(v) **Register of Fines**: The contractor shall maintain a "Register of Fines" in the form XII of the CL (R&A) Rules, 1971 (Annexure-H).

The contractor shall display in a good condition and in a conspicuous place of work the approved list of Acts and omissions for which fines can be imposed (Annexure-I).

(vi) **Register of Deductions:** The contractor shall maintain a "Register of deductions for damage or loss" in Form XX of the CL (R&A) Rules, 1971 (Annexure-J).

(vii) **Register of Advances**: The contractor shall maintain a "Register of Advances" in form XXII of the CL (R&A) Rules, 1971 (Annexure-K).

(viii) **Register of Overtime:** The contractor shall maintain a "Register of Overtime" in form XXIII of the CL (R&A) Rules, 1971 (Annexure-L).

7. **Attendance Card-cum-Wage slip:**

(i) The contractor shall issue an attendance card-cum-wage slip to each workman employed by him in the specimen format (Annexure-E).

(ii) The card shall be valid for each wage period.

(iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.

(iv) The card shall remain in possession of the worker during the wage period under reference.

(v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.

(vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

8. **Employment Card:**

The contractor shall issue an Employment Card in form XIV of the CL (R&A) Central Rules, 1971 to each worker within three days of the employment of the worker (Annexure-F).

9. **Service Certificate:**

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a service certificate in form XV of the CL (R&A) Central Rules, 1971 (Annexure-G).

10. **Preservation of Labour Records**:

All records required to be maintained under Regulations Nos. 6 and 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in-Charge, Labour Officer or any other officers authorised by the Department of Works and Housing in this behalf.

11. **Power of Labour Officers to make investigations or enquiry:**

The Labour Officer or any other person authorised by Central Government on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper, observance of the Fair Wages Clauses and the Provisions of Regulations. He shall investigate into

any complaint regarding the default made by the contractor or sub-contractor in regard to such provision.

12. **Report of Labour Officer:**

The Labour Officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the Engineer-in-Charge concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Engineer-in-Charge after the Manager (M & L) has given his decision on such appeal.

(a) The Engineer-in-Charge shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer or the Manager (M & L) as the case may be.

13. **Appeal against the decision of Labour Officer:**

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorised may appeal against such decision to the Manager (M & L) concerned within 30 days from the date of decision, forwarding simultaneously a copy of his appeal to the Engineer-in-Charge concerned but subject to such appeal, the decision of the Officer shall be final and binding upon the contractor.

14. **Prohibition regarding representation through lawyer:**

(i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by:-

a) An officer of a registered trade union of which he is a member.

b) An officer of a federation of trade unions referred to in clause (a) is affiliated.

c) Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with, or by any other workman employed in the industry in which the worker is employed.

(ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by-

a) An officer of an association of employers of which he is a member.

b) An officer of a federation of associations of employers to which association referred to in Clause (a) is affiliated.

c) Where the employer is not a member of any association of employers, by an officer of association of employer, connected with, or by any other employer engaged in the industry in which the employer is engaged.

(iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

15. **Inspection or Books and slips:**

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorised by the Central Government on his behalf.

16. **Submission of Returns:**
The contractor shall submit periodical returns as may be specified from time to time.

17. **Amendments:**
The Central Government may, from time to time, add to or amend the regulations and on any question as to the application, interpretation or effect of those regulations the decision of the Manager (M & L) concerned in that behalf shall be final.

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED:

In accordance with rule 5 of the Labour Regulations to be displayed prominently at the site of work in both English and local language.

1. Wilful insubordination or disobedience, whether alone or in combination with other.
2. Theft, fraud or dishonesty in connection with the contractors beside a business or property of Institute.
3. Taking or giving bribes or any illegal gratifications.
4. Habitual late attendance.
5. Drunkenness fighting, riotous or disorderly or indifferent behaviour.
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked.
8. Habitual indiscipline.
9. Causing damage to work in the progress or to property of the Institute or of the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving of false information regarding name, age, father's name etc.
13. Habitual loss of wage cards supplied by the employers.
14. Unauthorized use of employer's property for manufacture or making of unauthorized articles at the work place.
15. Bad workmanship in construction and maintenance by skilled workers which is not approved by the Institute and for which the contractors are compelled to undertake rectifications.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishments.
18. Any unauthorised divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the employer.
20. Holding meeting inside the premises without previous sanction of the employers.
21. Threatening or intimidating any workman or employee during the working hours within the premises.

ANNEXURE-1

BANK GUARATNEE AGAINST MOBILIZATION ADVANCED

This Deed of guarantee is made on _____of 20__ between **PDEU** with a registered office at **Pandit Deendayal Energy University** (Which expression shall unless excluded by or repugnant to the context include his successors and assignees) of the one part and _____ _____hereinafter called the Bank (which expression shall unless excluded by or repugnant of the context include his successors and assignees) of the other part.

Whereas The PDEU accepted the tender of M/s. _____ hereinafter called the contractor to execute the work of external FFTG works at PDEU campus as per letter conveyed vide PDEU letter no. _____ dt. _____ (hereinafter referred to as the said contract).

AND WHEREAS the said Contract provides that mobilization advance @5% rounded off to the nearest Rupees Thousand of Contract value, may be given against unconditional and irrevocable Bank Guarantee to be furnished by the contractor in the manner acceptable to the Engineer in charge.

AND WHEREAS as the request of the contractor the bank has agreed to execute these presents.

NOW THE DEED WITNESSED AND IT IS HEREBY AGREED AND DECLARED BY AND between the parties hereto as follows:

1. That the bank hereby agrees and undertakes that if in the opinion of PDEU, nay default is made by M/s. _____in performing any of the terms and conditions of the agreement or if in the opinion of PDEU the Contractor commits any breach to the contract or there is any demand by PDEU against M/s. _____of the said mobilization advance or part thereof has otherwise become payable at has not paid /got adjusted by the Contractor then on notice to the Bank by PDEU, the bank shall on demand and without demur and without reference to M/s. _____immediately pay to PDEU in any manner in which they may direct, the said amount of Rs. _____ (Rupees _____Only) portion thereof as may be demanded by The PDEU not exceeding the sum of this Bank Guarantee. The liability of the bank to pay is not dependent or condition on PDEU's proceedings against the contractor and the bank shall be liable to pay the aforesaid amount as and when demanded by them merely on a claim being raised by PDEU.
2. That on receipt of the demand for payment of the amount as aforesaid it will not be open to the bank to challenge the said demand on any ground whatsoever including the formation of opinion about the default and / or breach of the contact and / or liability to pay the said mobilization advance or part thereof and such opinion of PDEU shall be final and binding on the Bank. The notice of demand shall be in the form enclosed and when such notice is received, it shall be treated as notice in accordance with the terms of the Bank Guarantee.
3. That the Bank undertakes to pay the amount as may be demanded by PDEU as aforesaid within 2 (Two) days of the receipt of the demand. In case the payment is not made within 7 (Seven) days as

aforesaid, the bank shall be liable to pay 18% interest per annum, for the delay in payment and it shall be without prejudice to PDEU right for any other remedies that may be permissible under the law.

That PDEU will have full liberty without reference to bank and without affecting this guarantee, postpone for nay time or from time to time the exercise of any of the powers and rights conferred on PDEU under the contract with the said M/s. _____ which under law relating to the sureties would but for the provisions have the effect of releasing the Bank.

That PDEU to recover the said sum of Rs. _____ (Rupees _____only) from the bank in manner aforesaid will not be affected or suspended by reason of the fact that any dispute or disputes have been raised by the said M/s. _____ and / or whether any dispute / s are pending before any officer, Tribunal or court.

4. That the Guarantee herein contained shall not be determined or affected by the liquidation or winding up dissolution or change of constitution or insolvency of the said M/s._____ but shall in all respect and for all purposes be binding and operative until payment of all money due to PDEU in respect of such liability / liabilities.

5. The Guarantee herein contained shall not be affected by any change in the constitution of the seller or PDEU or the Bank and shall be continuing one.

That the Bank declares that it has power to issue this guarantee in favour of PDEU under its Memorandum and articles of Association and the undersigned has full powers to execute it under power of attorney dated _____granted to him by the bank.

That the Bank Guarantee can be invoked by any one of the following officers of the PDEU.

Managing Director

General Manager

Manager / Departmental Manager

The invocation of the Bank Guarantee by any of the above noted / defined officers of PDEU will be regarded and deemed to be invocation of the Guarantee by PDEU.

IN WITNESS WHEREOF THE parties have executed these presents the day and year there in above writing.

Signed and delivered by Signed and delivered by

The constituted attorney for and on behalf of the Bank in presence of	FOR AND ON BEHALF OF PDEU
1	1

N.B. The Bank Guarantee shall be from the State Bank of India or any Scheduled Bank of India.

ANNEXURE-2

BANK GUARATNEE FOR PERFORMANCE GAURANTEE

This Deed of guarantee is made on _____, 20__ by _____ having register office at _____, in favour of **PDEU** with a registered office at _____ _____.

Whereas M/s. _____, having its registered office at _____ _____ (hereinafter referred to as the Contractor or the said Contractor) has performed for PDEU certain civil / engineering / miscellaneous works pursuant to the work order no _____ dt. _____.

Whereas pursuant to the provisions of said Work Order, PDEU is entitled to retain an amount equivalent to 5% of the total project value i.e. Rs. _____/- (Rupees _____ _____only) from consideration payable to the contractor towards security for meeting warranty and other post project completion obligations of the contractor during the defect liability period, as provided in the said work order.

Whereas the contractor had approached requested PDEU to release the said retention money and in consideration thereof the contractor has agreed to provide bank guarantee as security for the contractors' warranty and other post project completion obligations during the defect liability period, as provided under the said work order.

Whereas PDEU has agreed to release the said retention money to the contractor on the condition that the contractor should furnish an unconditional, irrevocable, absolute and on demand guarantee from a nationalized bank for an amount equivalent to the said retention money i.e. _____ (Rupees _____only) as security for the contractor warranty and other post project completion obligation during the defects liability period, as provided under the said work order.

And where as M/s. _____have approached _____ bank and at their request and in consideration of the arrangement arrived between the said contractor and the said bank. The said bank has agreed to give such guarantee to the said company.

Now, therefore, these presents witness that we, _____Bank undertake to pay the said company a sum of Rs. _____/- (Rupees _____ _____only) on demand being made by the said company indemnified to the extent of Rs. _____/- (Rupees _____only) by virtue of this guarantee against any loss or damage caused to or suffered by the said company by reason of any breach by the aforesaid contractor of any of the terms and conditions of the said work order (the decision regarding the breach , loss, damage or payment due being solely in the discretion of the said company).

We further undertake to pay the aforesaid amount in a lumpsum on demand irrespective of the fact whether the said contractor admits or denies such claim or question its correctness in any court, tribunal or arbitration proceeding or before any authority. The aforesaid Guarantee will remain in force an dwe shall be liable under the same irrespective of any concessions for the time being granted by the said company to the said contractor in fulfilling conditions of the work order and the guarantee will remain in full force irrespective of any change of terms, conditions or stipulations or any variations in terms of the said work order irrespective of whether notice of such change and / or variation of the terms and / or

conditions of the said work order is hereby specifically waived by the said company. However, the guarantee shall be restricted of Rs. _____/- (Rupees _____ only) and valid up to (_____).

Further, we shall not be released from this guarantee by any forbearance or the exercise or non exercise of any of the powers of rights under the said work order by the said company against the contractor irrespective of whether notice of such forbearance, enforcement of any powers or rights, modifications, or any changes made in work order of concessions shown to the contractor by the company is given to us or not.

The Guarantee herein contained shall not be determined or affected by the liquidation or winding up or insolvency or change in the constitution of contractor, but shall in all respects and for all purpose remain binding and operating until all payment or all monies due or that may hereafter become due to the said company in respect of any liability or obligation of the contractor under the said work order.

We the said bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the execution of work as per work order and that shall continue to be enforceable till security amount is deposited by the contractor, as stipulated in the said work order document or till the said company certifies that the terms and conditions of the said work order document have been fully and properly carried out by the said contractor and accordingly discharges the guarantee subject however that the said company shall have not rights under this guarantee after _____.

Any claim or dispute arising under the terms of this document shall only be enforced or settled in the courts at **Gandhinagar only.**

And lastly the _____Bank undertakes not to revoke this guarantee during its currency without the previous consent of the said company in writing.

This guarantee shall be in addition to, independent of an over and above, and not as substitute for supplement to or in derogation of any other guarantee / security provided to or in derogation of, any other guarantee / security provided by the said contractor to PDEU for specifically or generally securing any of its obligation under said work orders.

Now withstanding anything contained herein before:

a) Our liability under this Bank Guarantee shall not exceed Rs. _____ of Rs. _____/- (Rupees _____only)
b) This Bank Guarantee shall be valid up to _____ (_____)
c) We are liable to pay the guarantee amount or any part thereof under this bank guarantee only and only if you serve upon us a written claim or demand on or before _____ (_____).

Dated – This of _____
For Bank _____

ANNEXURE-3

PROFORMA FOR GUARANTEE IN RESPECT OF WATER PROOFING WORKS

This agreement for the work of _____made on this day of _____20__ between M/s. _____ in the town of _____ hereinafter called the contractor on the one part and PDEU on other part.

WHEREAS THE AGREEMENT is supplementary to contract (herein after called the contract) dated _____ and made between the contractor on the one part and PDEU on the other part, where by the contractor interalia, undertook to render the building and the structure work in the said contract recited completely water and leak – proof.

AND WHEREAS THE CONTRACTOR agreed to give a guarantee to the effect that the said structure will remain water and leak-proof for ten years from the date of completion of the work.

Provided that the contractor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose.

a. Misuse of roof shall mean any operation which will damage water proofing treatment, like chopping of fire wood and things of the same nature which might cause damage to the roof.
b. Alteration shall mean construction of an additional story or a part of the roof or construction adjoining to existing roof whereby water proofing treatment is removed in part.
c. The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of Guarantee, the Contractor shall make good all defects and in case of any defect being found render the building waterproof to the satisfaction of the Engineer-in-Charge at the Contractor's cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in- Charge calling upon him to rectify the defects failing which the works shall be got done by PDEU by some other Contractor at the Contractor's risks and cost. The decision of the Engineer-in-Charge as to the cost, payable by the Contractor shall be final and binding.

That if the Contractor fails to execute the water proofing or commits breach there under, then the Contractor will indemnify PDEU against all loss, damage, cost, expenses or otherwise which may be incurred by PDEU by reason of any default on the part of the Contractor in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred, the decision of the Engineer-in-Charge will be final and binding

IN WITNESS WHEREOF M/s. _____ and PDEU by the order and under the direction of PDEU herein to set their respective hands the day month and year first written above.

Signed sealed and delivered by the Contractor in presence of	
Witness	Signature
1.	Name
2.	M/s.
	Address

Signed by the order and direction of PDEU in presence of	
Witness	Signature
1.	Name
2.	Department Manager
	Department

ANNEXURE-4

PROFORMA NOTICE OF INVOCATION OF BANK GUARANTEE

To,

The Manager

_____Bank

_____Branch

Address _____

Dt. __ / __ / 20__

Sub: Invocation of Bank Guarantee No. _____ dt. _____

Dear Sir,

You are to hereby to take notice that M/s. _____ have made default in performing terms and conditions of the agreement / has committed breach of the contract.

We accordingly invoke the above noted Bank Guarantee to the extent of Rs. _____ and demand that the said sum be released in our favour without any demur and delay at the earliest.

Thanking you,

Yours Faithfully

For and on behalf of PDEU

ANNEXURE-5

AUTHORISED REPRESENTATIVE / SIGNATURE OF CONTRACTOR

For Proprietary Concerns

Shri _____ S/o. Shri _____
R/o _____
_____
carrying on business under the name and style of _____ at
_____
(herein after called the said contractor which expression shall unless called the said contractor which expression shall unless the context required otherwise include his heirs, executors, administrators and legal representatives.

For Partnership Concerns

M/s. _____, a partnership firm having its registered office at _____
(hereinafter called the said contractor which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives). The partners of the firms are:

a) Shri_____ S/o _____ ; and
b) Shri_____ S/o _____ etc.

For Companies

M/s. _____, a company duly incorporated under the Indian Companies Act, 1956 and having its registered office at _____ in the state of _____ (hereinafter called the said Contractor which expression shall unless the context requires otherwise include its successors and assign)

APPENDIX

This appendix forms a part of tender document. The clauses mentioned herein are considered to be final. In case of discrepancy between clauses of Appendix and corresponding clauses of tender document, clauses mentioned in the Appendix shall govern.

1	Employer	:	**Register Office Address:** **Pandit Deendayal Energy University,** Village - Raysan District - Gandhinagar - 382 426 **Correspondence Address:** **Chief Campus Manager** PDEU, Gandhinagar.
2	Architect	:	**HCP Design Planning and Management Pvt. Ltd.** Paritosh, Usmanpura, Ahmedabad – 380 013.
3	Site Address	:	**Pandit Deendayal Energy University,** Village - Raysan District - Gandhinagar - 382 426
4	Name of Work	:	**Tender for External Fire Fighting works at PDEU campus**
5	Scope of Work	:	1) Construction of Underground Water tank & Pump room 2) Campus External FFTG works
6	Time Limit / Period of completion of the works	:	Overall completion time: **3 Months**
7		:	**Information about Tender Document**
7.1	Tender Fees	:	**-**
7.2	Tender Issue:	:	**Dt. 18/08/2022** in between 10:00 am to 5:00 from registered office address as mentioned in 1 above.
7.3	Pre Bid Queries	:	**Contact Ashutosh Vyas Mobile on 99246 33224 and email fma@pdpu.ac.in and hardik.baldana@hcp.co.in** for any queries or clarifications in tender document or any terms and conditions by 25.08.2022.
7.4	Tender Submission	:	**By 01.09.2022@ 03:30 pm.**
7.5	Tender Opening	:	**Will be informed** Address: At "Site Address" as specified above
7.6	Tender Validity	:	120 days from the submission of Tender
8	Defects Liability Period	:	**12 months** from the date of issue of "Virtual Completion Certificate"
9	Earnest Money Deposit	:	**Rs. 3,00,000/-** in form of DD / Pay order in favour of **Pandit Deendayal Energy University** payable at Gandhinagar.
10	Security Deposit	:	**10% of the contract value (inclusive of EMD)** to be given by the way of DD at the time of award of the contract in name of PDEU or as per the format given PDEU.

11	Release of SD	:	
11.1	2.5% (25% of 10% SD)	:	On completion of the work amounting **50% of the contract Value**
11.2	2.5% (25% of 10% SD)		On completion of the work amounting **75% of the contract value**
11.3	2.5% (25% of 10% SD)		On Architect's **Virtual completion certificate of the works.**
11.4	2.5% (Balance 25% of 10% SD)		**After rectification of the defects,** if any, pointed out during the defects liability period
12	Retention Money	:	**10 % from each running bill** (cash) subject to a **maximum limit of 5%** of the "Contract value or Project cost whichever is higher".
13	Release of retention money	:	
	1.25% (25% of retention amount)		On Architect's **certificate of virtual completion of the works**.
	3.75% (Balance 75% of retention amount)		After **rectification of the defects, if any,** pointed out during the defects liability period.
14	Total Retention	:	**Total 15% as follows:** a) **10% of contract value in form of Performance Bank Guarantee** (as specified in 10 above). b) **5% of contract value or total project cost,** whichever is higher (as specified in 12 above).
15	Mobilization Advance	:	**5% of the contract amount** of the project against submission of the bank guarantee of the equivalent amount of any of the nationalised bank in the prescribed format. **No interest shall be charged for the mobilisation advance.** Out of which, **2.5%** of the contract amount shall be released with the work order and balance **2.5%** of the contract amount shall be released only after actual mobilisation at site.
16	Recovery of Mobilization advance	:	The recovery of the advance shall commence from the **first R.A. bill and in three equal installments**.
17	Material Advanced	:	-
18	Recovery of Material Advance	:	-
19	Value of works for interim certificates	:	The Interim bills will be on completed milestone basis only. The value of the Interim bill shall be minimum 5% of the contract value or as per agreed milestone whichever is higher
20	Liquidated damages		
	Penalty for delay in completion time	:	**0.3% of contract value per day** subject to maximum limit of 10% of the "Contract value".
21	Payments:		
21.2	Period of honouring certificates and payments	:	**30 days**

21.3	Period of honouring final measurements	:	**30 days** from Virtual Completion or date of submission of final bill whichever is later.
21.4	All payment made by the Employer shall be payable at	:	**Gandhinagar**
22	Other Charges		
22.1	Charges for Electrical Power Supply	:	**Nil**
22.2	Water charges	:	Nil
22.3	Extra items	:	Contractor shall carry out work for Extra Items only with the prior written approval from EIC & Architect. In absence of the same any claim on account of Extra Item shall not be considered by PDEU for further payments. On certification of rate analysis which covers cost of material, labour, actual taxes, duties, and profit & overheads @ 10%.
22.4	Escalation	:	No escalation to be given till completion of project
23	Insurance to be covered up by the Contractor	:	1) Workmen's Compensation 2) Contractor's All Risk (CAR) policy 3) Third party 4) BOCW 5) Labour License 6) All other applicable statutory compliances
24	Tender Rate	:	The rates shall also be firm and not subject to exchange variations, labour conditions, fluctuations in Transportation freights or any conditions whatsoever. It shall also include for any other taxes/duty or other levy levied by the Central or State Governments or local authorities (except GST) on works contract (if applicable) as on the date of signing of the tender document. No claim in respect to the variation in above mentioned taxes shall be considered for payment, by the PDEU, as an extra amount till the work is completed. **The rates of the items to be quoted shall be including GST.**

Tender for External Fire fighting at PDEU campus, Gandhinagar

Tender Summary & Bill Of Quantity

Project No: 15023
Project Name: PDEU Campus Fire Fighting Works Tender
Sub : PDEU - Campus FFTG Works BOQ
Date : 30.05.2022

Section	Description	Amount (Rs)
A	**Civil Works**	
CW 01.00	Earth works	
CW 02.00	PCC & RCC works	
CW 03.00	Centering & Form works	
CW 04.00	Masonry works	
CW 05.00	Plastering & Pointing works	
CW 06.00	Waterproofing works	
CW 07.00	Paving & Floor Finishing works	
CW 08.00	Iron & steel works	
CW 09.00	Painting & Polishing works	
	Total of Civil Works	
B	**Fire Fighting Works**	
1	FFTG Works	
	Total of FFTG Works	
Grand Total of Civil Works + FFTG Works		
Rebate @....%		
GST		
Net Total Amount		

Project No: 15023
Project Name: PDEU Campus Fire Fighting Works Tender
Sub : PDEU - Campus FFTG Works BOQ
Date : 30.05.2022

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
CIVIL WORKS					
1.0 EARTH WORK					
	Earthwork in excavation by mechanical means / manual means including necessary shoring & strutting, dewatering, getting out the excavated soil, sorting and stacking of useful material, dressing of the sides, ramming of bottom and disposal of surplus excavated earth for all lead and lift within plot boundary complete as directed by engineer-in-charge. For all civil, electrical and plumbing works. For all kind of soil.Mode of measurement will be PCC area only. Rate includes disposal of soil with in plot boundary with spreading and leveling of the same.				
1.01	a) Depth upto 1.5m	Cum	384		
1.02	b) Depth upto 1.5 to 3.0m	Cum	384		
1.03	c) Depth upto 3.0 to 4.5m	Cum	384		
1.04	d) Depth upto 4.5 to 6.0m	Cum	230		
1.05	**Filling/ back filling with available** selected approved quality excavated earth (excluding rock and black cotton soil) brought from anywhere within the campus (client's earth) in plinth and plot, in layers not exceeding 30 cm. in depth with optimum moisture conditions to give at least 95% of the maximum dry density (proctor density) including watering, ramming and compacting using mechanical vibrator (stsatic/ pneumatic) of required capacity, including freight, transportation, loading, unloading, screening, passes etc. all complete as directed by the Engineer in charge (Consolidated measurements of fill shall be paid for under this item). The rates shall include for all leads and lifts/ depth including transporting using mechanical / manual means within the campus area. Note: Using excess available excavated earth from foundations and dressing of the plot area. (For all civil, plumbing and electrical works)	Cum	318		
1.06	**Disposing of the surplus excavated earth** and/or debris etc. including loading at site, transporting by mechanical or manual means & disposal, unloading and stacking outside the campus at nonobjectional place with all lead and lifts etc. complete as directed by Engineer in charge. (site shall be selected by contractor)	Cum	1,065		
	Providing and injecting Chemical emulsion for PRE - CONSTRUCTIONAL **anti-termite treatment** and creating a chemical barrier on the top surface of plinth filling, inside junction of wall and floor, on top of damp proof course or on masonry at level of plinth filling as per IS 6313 (Part-2)-1981 using chemical like Imidacloprid 30.5% SC (CIB approved) and proportion of dilution with water shall be as per manufacturer's specification. The emulsion shall be applied as mentioned below, all as per specification and directions of Engineer-in-charge. Plinth area in plan at GF shall only be measured and paid. A guarantee bond of 10 years shall be furnished in prescribed proforma. Rate shall be inclusive of material required for Anti Termite Treatment and labor and equipments required for applying all etc. complete as directed by engineer in charge. (Stage of treatment may be vary as per site condition. Contractor shall be approved by Engineer in charge before execution.) a) Treatment to soil below raft - Before laying the rubble soling and/or PCC, the compact and leveled soil shall be treated at 5 liters per sq m. OR In case of soils/sand filled above the raft, the treatment at 5 liters per sq m shall be carried out on the top surface of filled soil/sand. b) Treatment to soil along the retaining wall - The soil retained by the walls (soil coming in contact with retaining wall) shall be treated at the rate of 7.5 liter per sq m of the vertical surface in full depth. c) Treatment of soil along external perimeter of building - After the building is complete, the earth along the external perimeter of the building shall be rodded at intervals of 150 mm and to a depth of 300 mm. The rods should be moved backward and forward, parallel to the wall to break up the earth and emulsion poured along the wall at the rate of 7.5 liter per square meter of vertical surfaces. d) Top surface of the plinth filling including damp proof courses at the rate of 5 liter/sqm of internal plinth area (if required)				
1.07	e) Treatment of soil surrounding pipes, wastes and conduits - When pipes, wastes and conduits enter the soil inside the area of the foundation, soil surrounding the point of entry shall be loosened around each of such pipe, waste or conduits for a distance of 150mm and up to a depth of 75 mm before the treatment is commenced. When they enter the soil external to the foundation, they shall be similarly treatment for a distance of 300 mm, unless they stand clear of the walls of the building are about 75 mm. f) 1 litre / linear meter along the junction of wall and floor at all stages. Foot print area of Ground Floor of the building shall be considered for payment in sqm.	Sqm	2		
	Sum Carried over to summary page				

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
2.0 PCC and RCC Work					
	General Note : *All Concrete shall be machine batched, machine mixed and machine vibrated design mix fair finish/ smooth finish reinforced cement concrete. Mix design shall be carried out for environmental exposure condition as given in IS 456:2000 page 18 -table 3 according to grade for all PCC & RCC elements of all shape, all size, at all places and heights/ depths including transporting, laying of concrete to site by any means like pumping or tower crane etc., finishing and curing etc. and including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete as per direction of Engineer-in-charge. Rate shall be inclusive of providing grooves, drip moulds, ghisis, pockets, cutouts etc. and labour for insert sleeves if any wherever required while casting as per drawing and as per the instruction of the architect in charge. Rate also to include lift charges and scaffolding for all heights / depths from FFL / GL. Filtered sand must be used in all type of concrete work.* *The design mix of concrete by Contractor/ supplier has to be obtained well in time and approval of Engineer in Charge to be obtained prior to use. This approval has to be obtained whenever the design mix is changed. Minimum cement content shall be as per IS 456 for all items.* *The rate shall be for at all floor/ all heights / all level / all shapes / all elements.*				
2.01	Providing and laying in position machine mixed, machine mixed **plain cement concrete (PCC) of grade - M15** including compaction, vibration, curing, transporting and pumping wherever necessary, dewatering, form work (if required) and removal of formwork etc. complete for all level, all height/ depth and for any lead and lift as directed by the Engineer.	Cum	449		
	REINFORCED CEMENT CONCRETE				
2.02	Providing material and labour for laying in position **Ready mix concrete/ batch mix concrete** with water proofing compound of approved make for reinforced cement conctere work, using cement content as per approved Design Mix with/without Fly Ash (Min cementitious level as per latest IS 456 shall be maintained) manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lead having continuous agitated mixer, as per mix design for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying; cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; finishing, compacting, vibrating, curing etc **excluding cost of Form work** and reinforcement etc complete for all elements, all floors, any heights/depths, any lead and lift as directed by Engineer Incharge.				
2.02 a	M25 grade	Cum	Rate only		
2.02 b	M30 grade	Cum	237		
2.03	Supplying, fabricating, placing and fixing in position **TMT reinforcement bars FE-500D** as per approved make confirming to IS-1786 reinforcement for RCC structures/ items as per design including transporting steel to the work site, handling, decoiling, cutting, bending, cranking, fabricating to required shape, placing in position and binding the system with GI 18 gauge wires, welding if necessary, keeping it in position during concreting by means of stays, blocks, ties, spacers, chairs, hangars, etc. for all floors/ any levels/ any heights/depth complete as per drawings, specifications and direction of Engineer in Charge. Measurement will be paid on the length basis and converted into weight by using standard co-efficient (rolling margin's and wastage shall not be paid). The quoted rate should be inclusive of the cost of Binding wire, and the same will not be measured and paid separately.	Kg	25,476		
	Providing and **wet drilling** accurate and clean holes of specified diameter in RCC walls, slabs, beam or any other RCC member without vibration by core cutting (diamond drilling) machine of approved make for laying service lines including scaffolding, safety majors, disposing the debris, cleaning, making good, providing epoxy mortar/ micro concrete/ patch repair mortar for concrete for grouting the gaps around the pipes for all levels/ all height, after approval of engineer in charge etc compete. Measurement shall be taken for the depth of holes in running meter for specified diameter. Holes shall made by authorized approved agency. Scanning of reinforcement shall be carried out before core cutting if required and as suggested by Engineer in charge. Location of core cutting shall be approved by Engineer in charge.				
2.04	a) Up to 52 mm dia	Rmt	10		
2.05	b) Beyond 52mm dia up to 77 mm dia	Rmt	10		
2.06	c) Beyond 77mm dia up to 102 mm dia	Rmt	10		
2.07	d) Beyond 102mm dia up to 152 mm dia	Rmt	10		
2.08	e) Beyond 152mm dia up to 202 mm dia	Rmt	10		
	Providing in position **PVC pipe sleeves** of 6Kg/cm2 and length as per design for following diameters for services wherever pipes pass through walls/ slabs/ beam before concreting. All pipes shall be accurately cut to the required sizes, laid as per drawing, kept in the position while laying reinforcement and shuttering, sleeves shall not get displaced while concreting, and burrs removed before laying. Open ends of the pipe shall be closed as the pipe is installed to avoid clogging while concreting. Measurement shall be taken up to two decimal. (minimum 0.01 mt.). Rate shall be inclusive of removal of sleeves before water proofing or grouting. For all floors/ all levels/ all heights. Location of sleeve shall be approved by Engineer in charge.				
2.09	200mm Diametre	Rmt	10		
2.1	160mm Diametre	Rmt	10		
2.11	110mm Diametre	Rmt	10		
2.12	75mm Diametre	Rmt	10		
	Sum Carried over to summary page				

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
3.0 FORM WORK					
3.01	**Form Work (Centering and shuttering)** including strutting, propping, bracing etc. complete to give fair / expose finish using best quality ordinary timber planking, shuttering plywood (plain or laminated) or steel plates with MS adjustable steel props, H frames with bracing, adjustable spans, etc. including removal of forms for foundations, footings, bases of columns, walls, slabs beams, sills, lintels, coping, staircases, arches, chajjas etc. in all shapes at all levels all height etc. complete as directed by engineer-in-charge. The Height of propping and centering from supporting floor to ceiling should not exceed 4.5 meter.	Sqm	1,166		
	Sum Carried over to summary page				
4.0 MASONRY WORK					
	Note - *1) Rate shall be for all floor, all height, all level.*				
4.01	**Providing and Fixing Autoclave Aerated Concrete Blocks (AAC Block)** as per drawing and specification (IS No :2185 (Part III) - 1984) for required thickness in single or multiple layers as per drawing, fixed with polymer modified adhesive mortar as per manufacturer's specifications in true line level and plumb including curing, racking / flush jointing, finishing, scaffolding, cleaning etc complete, for all floor, all height, alllevel and as directed by Engineer In charge. Crushing strength of aerated concrete block shall not be less than 35 KG/sqcm, density in oven dry condition minimum 600 Kg/cum, thermal conductivity 0.16 w/mk, fire resistant 2 hours.	Cum	26		
	Sum Carried over to summary page				
5.0 PLASTERING AND POINTING WORK					
	Note - *1) Rate shall be inclusive of any type of groove and drip mould in all type of plaster work for all floor, all height, all level.*				
5.01	Providing and applying average **10 mm. thick single coat Mala plaster** using steel trowel in CM 1:3 (1 cement : 3 coarse river sand), on ceilings, stair soffits etc.as per instructions including hacking of concrete/ application of bonding agent, finishing, curing, scaffolding for all floor, all level, all height etc complete as directed by engineer in charge. Rate shall be inclusive of bonding agent, provision of groove/ drip mould as per drawing etc complete as directed by Engineer in charge. Chicken mesh shall be paid in relevent tender item.	Sqm	193		
5.02	Providing and laying average 12 mm thick single coat mala finish plaster in CM 1:3 (1 cement : 3 Coarse sand) on sides of brick work/ blocks wall/ RCC work at all floors, all shapes and all heights with necessary scaffolding, finishing, curing, making grooves, forming pattas,drip mould, hacking properly RCC surface etc. complete as directed by the Architect and Engineer-in-charge.Chicken mesh shall be paid in relevent tender item. **(a) Internal Plaster**	Sqm	268		
5.03	Providing & laying average 18 mm thick mala finish cement plaster in two coats on sides of masonry work / block wall / RCC wall at all heights, all shapes and all levels with 12 mm thick under coat in CM 1:4 (1 cement : 4 coarse sand) rough wired finish and 6 mm thick finishing coat in CM 1:3 (1 cement : 3 fine sand) mala finish (finished with steel trowel) including scaffolding, finishing, curing, making grooves, forming pattas and drip mould, hacking RCC surface etc. complete, as directed by Engineer in charge.Chicken mesh shall be paid in relevent tender item. **(b) External Plaster**	Sqm	82		
5.04	Note: All the waterproofing treatment shall be executed through a approved water- proofing agency approved by the Engineer in charge/ manufacturer. A written guarantee on non-judicial stamp paper shall be submitted by the Contractor for a minimum period of ten years from the certified date of completion for the satisfactory performance of the entire water-proofing system. Providing & laying average **15 mm thick water proof single coat smooth / wired finish cement plaster** on sides of masonry work / block wall / RCC wall, in CM 1:3 (1 cement : 3 fine sand) and water proofing compund of ConTech Chemicals, Fosroc, CICO or equivalent in recommended proportions in both coats, finishing the surface wired finish to receive the tiles / smooth finish with a floating coat of neat cement slurry at 2.75 Kg / sqm at all floors, all shapes and all height including hacking to RCC surface, scaffolding, curing etc. complete as directed by engineer-in-charge.	Sqm	232		
5.05	Providing material and labour for fixing **G.I. hexagonal chickenmesh** of size 20mm x 20mm of 22 gauge at junction of concrete and brick work or between different materials after making "V" grove between two different material surface and filled with rich cement mortar and @ 100mm on each side of surfaces including necessary "U" nails/ screws/ washers with cleats for fixing, overlaps, curing, scaffolding etc complete for all floors/ all levels/ all heights/ all shapes as per direction of Engineer-in-charge.	Sqm	58		
	Sum Carried over to summary page				

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
6.0 WATERPROOFING WORK					
6.01	**TERRACE WATER PROOFING** Providing and laying **conventional (India Type) cement based brickbat coba water proofing treatment** average 115mm thick and minimum thickness at khurra/ channel as 65 mm including preparation of surface as required for treatment on roofs, balconies, terraces etc. at all floors consisting of following operations and furnishing a guarantee bond in prescribe format of 10 years on Rs.100.00 stamp paper between main contractor, client and approved water proofing agency. 1) Cleaning and applying a cement slurry at the rate 2.75 Kg per sqm mixed with water proofing compound as manufacture's specification as directed by engineer-in-charge over the slab including adjoining walls upto 300mm height including testing the surface, grouting the cracks if leakage is found before the treatment . 2) Laying brick bats with mortar using broken bricks/ brick bats 25 mm to 115mm size with maximum 50% of cement mortar of mix 1:5 admixed with water proofing compound conforming to IS : 2645 in minimum 20 mm thick layer of beading cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. 3) After three days of proper curing applying a second coat of cement slurry at the rate 2.75 Kg per sqm admixed with water proofing compound conforming to IS : 2645 including laying glass fibre cloth of approved quality in top layer of plaster and finally Finishing the surface to make wired finish with average 12-20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. 4) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge. (Only plan area shall be measured, vata shall not be measured separately and paid for.)	Sqm	28		
6.02	Integral crystalline waterproofing system with barrier type coating Providing and appling barrier type integral crystalline waterproofing treatment (surface coating) of Penetron, Kryton or equivalent to basement walls/ under ground water ratining structure etc. having speed of penetration 31 Cm in 56 days and resistance to 16 bar hydrostatic water head from negative side & capable of reducing permability of concrete by more than 90 %, compared with control concrete. Rate shall be inclusive with damage and honey comb concrete, sealing any future hairline cracks because of its self healing nature as per manufacturer's specifications and as per technical specification etc complete. Work shall be carried out by approved applicator and as per method of waterproofing accepted by manufacturer. Work shall be guaranteed for 10 years against any leakages and guarantee shall be provided on Rs. 100/- stamp paper in approved proforma. Using PENETRON coating @ 0.7 Kg. per SqM per coat in two coats (within 15 to 20 days on wet concrete) or equivalent	Sqm	191		
6.03	Providing and application of swellable type water stop of Penebar - SW 45 Type A (Expansive Nature) of penetron or equivalent at all the construction joints of the raft slab, retaining wall and at the junctions of raft slab with the retaining walls, around anchor locations, pipe penetrations, etc. after cleaning the surface by air blower/ mechanical means before application of suitable Primer. The material must capable of withstanding Hydrostatic pressure of 6 bar continuous exposure for 7 days. Must show and expansion of more that 200% in potable water. Swellable bar and primer shall be of same make.	Rmt	80		
	Sum Carried over to summary page				
7.0 FLOORING WORK					
	Note - *1) Stones shall be free from cracks, lines, stains, white spots of efflorescence and even in shade for all kind of stone work.* *2) All natural stones shall be selected and sorted for uniform colour, figure and thickness and approved by Architect and Engineer in charge prior to procurement.* *3) Stone shall be from same lot and/ or source (stone quarry) for same kind of work and as approved by Architect and Engineer in charge.* *3) All type of loose and laid sample of flooring shall be approved by Architect and Engineer in charge.* *4) Stone work shall be carried out for all level, all height/ depth, all places including loading, unloading, stacking, transporting, hoisting, by any means (mechanical or manual).*				
7.01	Providing and laying **Ceramic tiles** upto 600mm in size and of required surface finish (Matt, Satin, Glossy, Non skid, Rustic) **in floor** with residue and skirting includinggrount of approved make and shade as per design laid over avaerage 40 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) **with cement based high polymer modified quick set tile adhesive** (water based) conforming to IS : 15477, in average 6 mm thickness, laid to proper slope and level etc. complete for all floor all height as directed by engineer-in-charge. Rate shall be inclusive of smooth finish cement mortar bedding, curing, cleaning with mild oxalic acid, protection of flooring until the handling of the project by covering the tile with polypropylene sheet/ bubble sheet and abrotaps and with grooves and grouting etc. complete for all floor all height as directed by Engineer-in-charge. Providing and Grouting the joints of flooring/ dado tiles having joints of 3 mm width in total thickness, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling/ grouting and finishing complete as per direction of Engineer-in-charge.	Sqm	89		

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
7.02	Providing and laying in position **Ceramic wall tiles** upto 600mm in size and of required surface finish (Matt, Satin, Glossy, Non skid, Rustic) for skirting, dado, risers of steps etc. of approved make and shade as per design and drawing. Tile is to be fixed over 12 to 15 mm thick backing coat smooth finish plaster in cement mortar 1:3 (1 cement : 3 coarse sand) with **cement based high polymer modified quick set tile adhesive** (water based) conforming to IS : 15477, in average 6 mm thickness etc. complete for all floor all height as directed by engineer-in-charge. Rate shall be inclusive of smooth finish backing coat plaster, scafolding, finishing with grooves and grouting etc complete as directed by engineer in charge. Providing and Grouting the joints of flooring/ dado tiles having joints of 3 mm width in total thickness, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling/ grouting and finishing complete as per direction of Engineer-in-charge.	Sqm	268		
7.03	Providing & laying broken **china mosaic flooring** for plain and curved surfaces, comprising of 12 to 20 mm size broken pieces of glazed tiles (one or more colours, as directed) of Somany, Asian, Johnson or equivalent, laid over cement mortar 1:3 bedding including applying cement slurry at the rate of 2.75 kg per sqm on plain or sloped surfaces. The flooring/ dado shall be tampered with wooden rammer not exceeding 2 Kg in weight to bring the mortar up to the surface, including rounding of the junctions and extending them upto 30 cm. along the parapet wall. The rate shall include any type of bands, vata, any colour, any pattern or design as per drawing, curing, cleaning with water and oxalic acid etc. complete as sample approved by Architect/ EIC. (Only plan area shall be measured and paid). Rates should be inclusive of acid washing and vata.	Sqm	28		
7.04	Providing material and labour for laying average **25mm thick machine cut polished Kota stone** slab of required size, approved quality, selected and sorted for uniform color & texture, **in flooring, otta** over 40mm (Average) thick base of cement mortar 1:5 (1-cement : 5-coarse sand) laid over and jointed with grey cement slurry mixed with pigment to match the shade of slab including curing, rubbing and polishing at all floors any heights, any lead and lift in any shape and pattern etc complete as directed by Engineer In charge. Sample shall be approved before execution. Kota stone shall be in uniform shade of reuired size. Sample and mockup shall be approved before procurement of material.	Sqm	106		
7.05	Providing and laying minimum 25mm (25 to 30 mm) thick machine cut **River wash finished green kotah stone** of approved quality, selected and sorted for uniform colour, as per sample approved by Architect, for flooring, pavement, residue etc. of required size including necessary machine - cut (uniform thickness), laid over upto 40mm thick cement mortar bedding in CM 1:3 and jointed with grey cement including rubbing, refilling/ grouting the open joints/ groves, curing, finishing, protecting uptill handling over the project for all floor all height etc complete as directed by engineer in charge. (Only finished flooring work shall be measured.)	Sqm	1,600		
7.06	Providing material and labour for laying average 25 mm thick machine cut **polished Green kota stone** slab of size **upto 2.1mt length** with uniform thickness for **tread, riser, window jambs & sills, coping** over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) laid over and jointed with gray cement slurry including pencil sharped exposed edges, polishing, rubbing, curing, finishing, buffing after final polishing, maintaining upto handling ovre the project etc complete as directed by engineer in charge. All Expose edges of stone shall be pencil sharped and in even thickness and polished at all floors any heights, any lead and lift etc complete. as directed by Engineer Incharge. Sample and mockup shall be approvd before procurement of material.	Sqm	23		
7.07	Providing **roughened strip 2.5 cm. wide to form antiskid surface** on floors & treads as per design, including forming straight deep curved gishi (groove), 6 mm. Wide & 4 mm deep on two sides of the roughened area, chiseling, polishing the edges, sides and bottom of gishis etc. complete as per sample approved. One time length od steps/ treads shall be considered foe payment.	Rmt	99		
7.08	Providing and laying shot blasted Non- interlocking Brick type Grey/ Colored paver blocks of high density 60 mm thick M-40 grade for footpath, parking areas, service lanes and other areas as mentioned in the drawing. Including providing and laying 50 to 80 mm thick average bedding layer of coarse sand below paver block as per required grading and specification. Laid paver block shall be mechanically compacted. The work of the paving blocks shall be executed in line and level by skilled mason of flooring work only. It should be laid in such a way that the no cutting of the paver block to be necessary and if required than cutting of paver block by machine cut only. The Finished surface of the Paver Block shall have Coarse Sand Texture Finish. Paver blocks shall be compacted and shall be re-laid if necessary.	Sqm	1,600		
	Sum Carried over to summary page				
8.0 STRUCTURAL STEEL WORK					

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
8.01	Structural steel work in riveted, bolted or welded in built up sections, trusses and framed work including supplying, fabricating, cutting, assembling, hoisting and fixing in position at all heights of all shapes and size with all leads and lifts as per latest IS 4923, IS 1161, IS 806 for the work of Railing, Handrail, duct platform, ladder, grill, gate, framework of GRC Jali, manhole cover, gratting cover and similar works etc. including cutting and welding the members as per detailed drawing and design. The rate shall include sand blasting, degreasing (wet cleaning) & preparation of rust free surface manually or mechanically, metal putty to make the surface even and smooth, 1 coat of epoxy primer and 2 top coats of Metal PU Paint of having DFT 40 to 50 micron of approved make and shade as per manufacture's specification over all the surfaces of the steel sections. (Only standard measurements will be paid for as actual cut length used at site). Shop drawings for the connection details shall be prepared by the contractor for the approval of the architect. Rate shall be inclusive of cutting, wastage, welding, bending (shop at site), and bolting wherever necessary, in position welding of required length, grinding, finishing edges, and filling the welded spots with metal putty. Rate shall be inclusive of 5 years guarantee against corrosion. The fabrication work shall start after approval of finished sample as per drawing by Architect. Rolled steel sections, bars, RHS, SHS, tubular hollow sections, plate, bolt etc. as approved by engineer in charge & as per drawing.	Kg	465		
8.02	Providing and fixing in position, **interlocking rolling shutter** of approved make, made of 18 gauge, 75mm wide cold rolled MS lath interlocked, including top cover (16 gauge), spring, axles (specially designed shaft), guide rails(10 gauge), tees, iron pulleys, ball bearings, handles, arrangement for inside and outside locking arrangement, with push and pull arrangement (manually operated), holding down bolts embedded in CC 1:2:4 / anchor fastener of HILTI or equivalent including 1 coat of Rustocap and 2 coat of Hi-Gloss Metal PU Paint of Asian paint over all the surfaces etc. as directed. (Measurements considered for payments shall be clear size of opening plus guide channels on both the sides for width and 450mm on top for drum height.)	Sqm	4		
	Sum Carried over to summary page				

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
9.0 PAINTING AND POLISHING WORK					
9.01	Providing and applying Easy clean, Washable INTERNAL **Plastic emulsion Paint** of approved make, color & shade in three coats (first one coat with brush and final two coats with roller), on newly dry interior plastered surface at all heights, all floors, all levels complete to give an even shade, **including required coats (minimum two coats) white cement based putty of Birla white/ Acrylic putty** of approved make after thoroughly brushing the surfaces free from mortar dropping and other foreign matter and also including preparing the surface even and sand papered smooth etc. after applying every coat of putty. Priming coat of alkali resistant cement primer (water or solvent based) is to be applied before commencement of painting etc. complete as directed by engineer-in-charge. Sample to be approved by Architect and Engineer in charge before starting of the work. The rates shall include the cost of filler for filling the cracks on surface for all floors/ any height/ any levels.	Sqm	122		
9.02	Providing & applying **External 100% Acrylic Paint** of approved make, colour & shade in minimum three coats (first coat with external primer & balance two coat of paint as per manufacturer's specification) with brush on exterior sand faced plastered surfaces/ mala plastered surfaces at all heights/ all floors/ all heights & all places including scaffolding to give even shades including thoroughly brushing the surfaces free from mortar dropping and other foreign matter and sand papered smooth etc complete as per the manufacture's specification & to the satisfaction of Engineer in charge. The rate shall also include the cost of filler for cracks on the surfaces. Actual surface area shall be measured and considered without multiplying any coefficient for payment.	Sqm	88		
9.03	Providing and applying external finish of average 2 to 2.5mm thick **acrylic polymer based texture** of approved make and pattern with standard tool and applicator as specified by manufacturer on exterior surfaces at all heights including scaffolding to give even shades including thoroughly brushing the surfaces free from mortar droping and other foreign matter and sand paper smoothed etc. complete as per the manufacture specifications and up to the satisfaction of Engineer in-charge/ Architect. The rate includes making of grooves, pattas and finishing as directed by Architect/ EIC. Paint shall be measured and paid in seperate tender item. (Item should be executed by approved applicator only.)	Sqm	88		
	Sum Carried over to summary page				
	Total Amount for Civil Works				
Fire Fighting					
1	Supply, Installation, Testing and Commissioning of **Electric driven Fire pump (Main Pump)** suitable for automatic operation and consisting of following: complete in all respect as required. a) Horizontal, centrifugal, end suction back pull out pump to ensure a minimum pressure of 3.5 kg / sq.cm. at highest and farthest outlet at specified flow of **2850 lpm at 100 m.** head conforming to IS standards. b) Casing - CI, Imperller-Bronze, Shaft - SS 410, Mechanical seal c) Squirrel cage induction motor with suitable HP with synchronous speed 2970 RPM, Suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-F insulation, Conforming to IS standards. d) Common Base plat for Pump and motor and coupling, coupling guard, rubber belows, anti-vibration arrangement, cables & other accessories as required for complete Installation of pump set. e) Suitable cement concrete foundation with cement concrete plaster complete with anti-vibration arrangement.	Set	1		
2	Supply, Installation, Testing and Commissioning of **Diesel Engine driven** fire **pump (Standby Pump)** suitable for automatic operation and consisting of following: complete in all respect as required. a) Horizontal, centrifugal, end suction back pull out pump to ensure a minimum pressure of 3.5 kg / sq.cm. at highest and farthest outlet at specified flow of **2850 lpm at 100 m.** head conforming to IS standards. b) Casing - CI, Imperller-Bronze, Shaft - SS 410, Mechanical seal c) Diesel Engine with suitable HP with synchronous speed 2300 RPM, diesel tank, battery, exhaust pipe with all required accessories. d) Common Base plat for Pump and motor and coupling, coupling guard, rubber belows, anti-vibration arrangement, cables & other accessories as required for complete Installation of pump set. e) Suitable cement concrete foundation with cement concrete plaster complete with anti-vibration arrangement.	Set	1		
3	Providing, Fixing, Testing and Commissioning of **Electric driven pressurization pump** suitable for automatic operation and consisting of following: complete in all respect as required. a) Vertical inline pump to ensure a minimum pressure of 3.5 kg / sq.cm. at highest and farthest outlet at specified flow of **180 lpm at 100 m.** head conforming to IS standards. b) Casing - SS 304, Imperller-SS 304, Shaft - SS 304, Mechnical seal c) Squirrel cage induction motor with suitable HP with synchronous speed 2900 RPM, Suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-F insulation, Conforming to IS standards. d) Common Base plat for Pump and motor and coupling, coupling guard and other accessories as required for complete installation of pump set. e) Suitable cement concrete foundation duly plastered with anti vibration pads.	Set	1		

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
4	Supply, Installation, Testing and Commissioning of **Control Panel** suitable for automatic operation of fire fighting pumps consisting (1 no. of Main, 1no. of Standby pump & 1 no. jockey pump) (a) Necessary FRLS cabling, cable tray, wiring, earthing from panel to individual equipment / pump in pump room shall be included in the quoted price. Contractor has to submit panel SLD/GA dwg for approval. (b) Facility for more selections i.e auto or manual. (c) Protection failure and control cabling. (d) interlocking of pressure switch with pumps (e) Soft starter & suitable arrangement for Diesel engine. Complete in all respect as required.	Nos.	1		
5	Supply, Installation, Testing and Commissioning of 150 mm dia. **Pressure Gauge** (for all pipes) of range 0 - 15 Kg / cm² Polished Stainless Steel Case with positive seal against weather, moisture & dust, with Glycerine filled, screwed, nipple, isolation valve, U-type stainless steel siphon tube and complete with necessary as required.	Nos.	4		
6	Supply, Installation, Testing and Commissioning of **Pressure Switches** for automation of fire pumps. Pressure switches shall be SPDT type suitable for single phase supply with diaphragm, IP 67 protection as required.	Nos.	3		
7	M.S. Above Ground Pipe Supply, Installation, Testing and Commissioning of the following sizes of flange jointed / screwed / welded, **Above ground M.S. Pipes** of Class C (Heavy class) ISI marked including accessories such as MS bracket, U clamps with Anchor fasteners, tees / elbows / reducers / couplings / unions / bends / flanges etc., and laying on the surface including painting with two coats of anticorrosive primer and two coats of approved red enamel paint after laying and testing after Installation etc. as per specifications complete as required. All fittings up to 50mm shall be forged and above 50mm shall be butt welded. a) 250 mm dia. (wall thickness 6.3 mm)	Nos.	18		
8	b) 200 mm dia. (wall thickness 6.3 mm)	Nos.	6		
9	c) 150 mm dia.	Mtrs.	24		
10	d) 100 mm dia.	Mtrs.	18		
11	e) 80 mm dia.	Mtrs.	90		
12	f) 65 mm dia.	Mtrs.	6		
13	**M.S. Under Ground Pipe** Supply, Installation, Testing and Commissioning of the following sizes of flange jointed / screwed / welded, M.S. Pipes of Class C (Heavy class) ISI marked including accessories such as MS bracket, U clamps with Anchor fasteners, tees / elbows / reducers / couplings / unions / bends / flanges / gaskets / Nut bolts / excavation-backfilling, finish with adjacent flooring etc., and laying underground including one coat of anticorrosive primer and wrapping material of 4mm thick & 150 mm width protection coating as per IS:10221 by thermo fusion process,overlap shall be maintained at 15mm as per specifications complete as required. Quantity of adjacent floor finishing material will be paid in revelant item. a)150 mm dia.	Mtrs.	3,694		
14	b) 100 mm dia.	Mtrs.	12		
15	c) 80 mm dia.	Mtrs.	84		
16	Supply, Installation, Testing and Commissioning of C.I. **Y type Strainer** with S.S. Screen/SS 304 having 1.2mm perforation with require accessories. a) 250 mm Dia.	Nos.	2		
17	Supply, installation, testing and commissioning of C.I. **Butterfly valve** (IS:13095 , PN 16) with flanges, nut bolts, gaskets complete as required. a) 150 mm dia.	Nos.	28		
18	b) 100 mm dia.	Nos.	2		
19	Supply, installation, testing and commissioning of **C.I. Gate valve** (PN 1.6) as per IS:14846 complete as required. a) 250 mm dia.	Nos.	4		
20	b) 200 mm dia.	Nos.	2		
21	c) 150 mm dia.	Nos.	2		
22	d) 80 mm dia.	Nos.	1		
23	e) 65 mm dia.	Nos.	1		
24	Supply, Installation, Testing and Commissioning of Cast iron Dual plate **Check valve** (PN 1.6) a) 150 mm dia.	Nos.	8		
25	b) 65 mm dia.	Nos.	1		
26	Supply, Installation, Testing and Commissioning of **Air vessel** of size 450 x 2000 mm long fabricated from 8 mm thick M.S Plate and installed vertically on suitable legs with required necessary valves and connection with required accessories.	Nos.	1		
27	Supply, Installation, Testing and Commissioning **S.S. Fire Hydrant Single Landing Valve with 80 mm N.B.** flanged inlet, SS spindle controlled 63 mm dia female instantaneous outlet type. SS coupling, blank cap, chain, twist release type lug & all accessories Conforming to IS:5290. Including orifice plat complete as required.	Nos.	64		
28	Supply, Installation, Testing and Commissioning of **Fire Hose Cabinet** wall mounting type 18swg **(750 mm x 600 mm x 250 mm deep**) with required accessories as per specification.	Nos.	64		
29	Supply, installation, testing and commissioning non-percolating rubber reinforced lined **Fire Hose pipe** (as per IS : 636) of 63 mm dia and **1no.x15** mtrs long. The hose shall be rated for burst pressure of 38 kg/sqcm. Hose shall be complete with ISI marked SS male & female coupling (IS:903) bound as per specification.	Nos.	128		
30	Supply, Installation, Testing and commissioning of 63 mm dia instantaneous pattern **SS short branch pipe**, 20 mm dia nozzle conforming to IS 903, suitable for inter connection to hose pipe coupling complete as required by the Local Fire Authority.	Nos.	64		

Sr. no.	Item Description	Unit	Quantity	Rate	Amount
31	Supply, installation, testing and commissioning of **First Aid Hose Reel (25 kg/cm²)** conforming to IS:884 comprising of hose reel drum, 8 mm shut off nozzle, hose reel tubing type-3 as per IS: 444 of 25 mm dia x 30 mtr. long, painting, fixed wall type with fixing bracket, anchor fastener, bolts & nuts etc. complete as required by Local Fire Authority.	Nos.	64		
32	Supply, installation, testing and commissioning of forged brass **Ball Valve**.(PN 25) a) 25mm dia	Nos.	64		
33	Supply, installation, testing and commissioning of Cast Iron **Four Way Fire Brigade Inlet** as per IS: 904 having 63 mm dia inlet with blank cap and chain with necessary fittings, flanges, nut bolts etc. complete as required.	Nos.	6		
34	Providing & fixing Gun Metal fire brigade suction hose coupling **(draw-out connection)** with 2 nos 63 mm dia instantaneous type male couplings complete as per specification/drawings and as directed by Engineer In Charge.	Nos.	1		
35	Providing and laying Brick Masonary **Valve Chamber** of inside dimension 0.9M x 0.9 M x 1.2M deep with 9" thick wall 20mm thick plastered from inside and 6mm thick MS cover with handle. Top cover to be painted with Red oxide primer and shall be capable of with stand 20 tone load.Item rate will include excavation and PCC as per the drawing and directed by EIC.	Nos.	21		
36	Providing and laying of NP3 class R.C.C **Hume pipe** (IS-458) with mortise - tension jointed with cement and with RCC collar to cover and overlap the joints laid to correct levels at below ground, with excavation & backfilling complete as required. a) Size: 350 mm dia.	Mtrs.	100		
37	Supply, installation, testing and commissioning of **Carbon Dioxide (Co2)** type Fire Extinguisher of 4.5 kg confirm to IS:15683, stored pressure, squeeze type with ISI marked fitted with required accessories including wall suspension brackets.	Nos.	1		
38	Supply, installation, testing and commissioning of **ABC (MAP 90%)** type **6 kg** stored pressure, squeeze type confirm to IS:15683, with ISI marked fitted with required accessories including wall suspension brackets.	Nos.	1		
39	Getting **Approval/NOC** of Fire protection system from local fire authority and any other relevant statutory authority at initial and various other stages of work, including preparation of report/drawings as per fire authority.	Lot	1		
	Sum Carried over to summary page				
	Total Amount for Civil Works & FFTG Works				