



## **PART- C: SCC**

### **SPECIAL CONDITIONS OF CONTRACT CONSTRUCTION OF BUILDING FOR AO, SBILD & OTHER OFFICE'S AT TIRUPATI in EPC Mode.**

**CLIENT**

**STATE BANK OF INDIA**

Premises & Estate Department  
Local Head Office, Amaravati, 2<sup>nd</sup> Floor,  
Gun Foundry, Abid's Hyderabad, Telangana – 500001.  
Ph. No.: 040-2338 7706/365/297  
Email: [agmpe.lhoand@sbi.co.in](mailto:agmpe.lhoand@sbi.co.in)

**ARCHITECT / PMC**

**M/S TANEJA ASSOCIATES PVT. LTD**

E-32, South Extension One, New Delhi - 110049  
Phone no: 9811140520  
Email: [staneja@tanejaassociates.com](mailto:staneja@tanejaassociates.com)

**INDEX**

<b>Sl. NO.</b>	<b>DESCRIPTION</b>	<b>PAGE NO.</b>
1.	Special Conditions of Contract - Scope of Work	1-19
2.	Special Conditions of Contract - General	20-55
3.	Special Conditions of Contract - Electrical services	56-64
4.	Special Conditions of Contract - IGBC Rating system	65-71
5.	Special Conditions of Contract - Defect Liability Period	72-81

**Seal and Signature of the**

## **Special Conditions of Contract-Scope of Work**

These Special Conditions of Contract shall be read in conjunction with General Conditions of Contract. If there are any provisions in these Special Conditions of Contract which are at variance with the provisions in the above-mentioned documents, the provisions in these Special Conditions of Contract shall take precedence.

### **1. Scope of Work:**

#### **1.1. General:**

The scope of work relates to Construction of Building for AO, SBILD & Other Office's at Tirupati. The work is to be executed on a Design, Engineering, Procurement & Construction (EPC) basis including Operation & Maintenance after completion and handing over to the expiry of the defect liability period of complete project.

The site covers an area of 1.85 acres, located within the Proposed SBI Institutional Campus at Tirupati. The nearest Seshachalam Hill is at a distance of 0.5 km approx.. from the proposed site and Tirupati Airport is at a distance of 30 km approx. from the proposed site.

The design approach intends to undertake all proposed construction in one single phase to enable development of the proposed infrastructure. The buildings shall be sustainable, energy efficient, and use space optimally.

### **Scope of Work – EPC Tender**

#### **Scope of Work Overview**

The bidders shall be provided with the following documents as part of the tender package:

- Master Plan of the SBI Enclave
- Conceptual plans of all proposed buildings
- Design Basis Report (DBR)
- Technical specifications
- Other relevant details

Based on these documents, the bidders are required to prepare detailed architectural and engineering designs in full compliance with applicable local byelaws.

Any modifications required to the Master Plan or Concept Plans for statutory compliance must be carried out with the prior approval of SBI. Furthermore, any additional components necessary for the comprehensive development of the Enclave—though not explicitly mentioned in the DBR—shall also be conceptualized and designed by the EPC Contractor, in alignment with the overarching vision and design language prepared by the Project Management Consultant (PMC). These additions shall also be submitted for approval by SBI/PMC.

#### **Project Scope Summary**

The project involves the integrated development of a 1.85-acre site (approximately 7589.50 sqm) including the following key components:

#### **1. Main Buildings:**

- Administrative Office (AO)
- SBI Learning & Development Centre (SBILD)
- Dining Hall
- Any other designated structures within the enclave

#### **2. Utility Buildings and Infrastructure:**

- Sub-Station Building
- Chiller Plant
- HSD Yard

- Pump Room
- Reticulated LPG Bank Building
- Security Cabins
- Other necessary utility structures

### **3. Site-Wide Development:**

- Roads, roundabouts, and pavements
- Pathways and planters
- Parking areas
- Landscaping and horticulture
- External boundary walls
- Internal and external signage
- Green buffer wall and WPC segregation from adjoining institutional campus
- Compound wall for all sides, including Main Gates with Entry Arches and Security Cabins (2 nos. hill side road)

### **4. MEP and Related Services**

The EPC Contractor shall execute all site-wide civil and MEP services, including:

- Water supply and plumbing
- Storm water drainage
- External electrification (except HT works till the substation)
- Site lighting
- Associated civil provisions for services excluded from EPC scope
- High Side Electrical works
- DG Sets
- High side HVAC systems
- CCTV, LAN/Wi-Fi
- Light fixtures

However, the EPC Contractor shall provide all necessary base civil provisions (sleeves, conduits, space planning, etc.) to enable future execution of low side services without rework.

### **Design Compliance and Approvals**

All works shall conform to:

- Applicable local building and development regulations
- Approved DBR, concept designs, and Master Plan
- Environmental and safety standards applicable to institutional developments

All designs shall be submitted to SBI/PMC for review and approval prior to execution.

The execution shall be done on the basis on the approved working architectural & structural drawings. CPWD Specifications, relevant IS codes, National Building Code 2016, and other standard specifications shall be followed in general except otherwise mentioned in the bid document. Samples of the materials of approved make or otherwise shall be got approved from the SBI/PMC/BANK before use in the work.

For ease of understanding the scope of work, a brief description is given below:

### **Block – I for Offices buildings (SME, RASMECC, RBO & AO, and Substation)**

- Site Survey & Geo-Technical Investigation
- Design & Detailed working drawings for Architecture, Structure, Fire Fighting & FA- PA System, MEP Services, External Development, Horticulture & Landscaping, Tree / Plantation etc.
- Planning & Design of all E&M equipment.
- Substation Equipment's
- Diesel Generating Sets

Seal and Signature of the Contractor

- Internal Electrical (Power Wiring & Plugs, Lighting Conductors, Telephone Conduits)
- BMS along with LAN, Wi-Fi servers
- Streetlight, Landscape Light & Façade Light, Solar Street Light
- Uninterrupted Power Supply
- Solar Photo Voltaic Power Generation System
- Solar Water Heating System
- Solid Waste Management System
- Fire Fighting System, Fire Alarm system & Public Address System
- CCTV System
- Access Control System
- STP&WTP
- Centralize RO System
- Electric Geysers
- Electrical Vehicle Charging Stations, DC Fast Charger & accessories, as per IGBC
- Boundary wall, Main Gates & Security Cabins.
- Internal RCC Roads, Open Pathways /Cycle Track/ Building approach /drop off.
- Car Parking in Basements
- Electrical and Water connections
- Storm Water Drains, Rainwater Harvesting (R.W.H),
- Cutting, Filling, & Leveling
- Landscaping and Horticulture works
- External Sewerage System, Water-Supply System, Drainage System, Trenches for Services.
- Under Ground RCC Water & Firefighting Tanks, RCC Tanks for STP& WTP.
- Bore wells
- Signages (Internal & External)
- Sculpture
- Lifts
- Baggage scanners
- Lighting occupancy sensor, emergency lights systems
- Mechanical ventilation systems
- Under ground water tank for all purpose

**Block – II for SBILD & Other Facilities & Hostel block:**

- Site Survey & Geo-Technical Investigation
- Design & Detailed working drawings for Architecture, Structure, Fire Fighting & FA- PA System, MEP Services, External Development, Horticulture & Landscaping, Tree / Plantation etc.
- Planning & Design of all E&M equipment (as per the scope mentioned in DBR).
- Substation Equipment
- Streetlight, Landscape Light & Façade Light, Solar Street Light
- Solid Waste Management System
- Fire Fighting System, Fire Alarm system & Public Address System
- STP&WTP
- Centralized RO System
- Electrical Vehicle Charging Stations, DC Fast Charger & accessories, As per IGBC
- Boundary wall, Main Gates & Security Cabins.
- Internal RCC Roads, Open Pathways /Cycle Track/ Building approach /drop off.
- Car Parking in Basements

- Electrical and Water connections
- Storm Water Drains, Rain Water Harvesting (R.W.H),
- Cutting, Filling, &Leveling
- Landscaping and Horticulture works
- External Sewerage System, Water-Supply System, Drainage System, Trenches for Services.
- Under Ground RCC Water & Firefighting Tanks, RCC Tanks for STP& WTP.
- Bore wells
- Signages (Internal & External)
- Sculpture
- Lifts
- Baggage scanners
- Mechanical ventilation systems

### **Block – III for Office Dining & Hostel Dining with Library:**

- Site Survey & & Geo-Technical Investigation
- Design & Detailed working drawings for Architecture, Structure, Fire Fighting & FA- PA System, MEP Services, External Development, Horticulture & Landscaping, Tree / Plantation etc.
- Planning & Design of all E&M equipment (as per the scope mentioned in DBR).
- Substation Equipment
- Streetlight, Landscape Light & Façade Light, Solar Street Light
- Solid Waste Management System
- Fire Fighting System, Fire Alarm system & Public Address System
- STP&WTP
- Centralized RO System
- Electrical Vehicle Charging Stations, DC Fast Charger & accessories, As per IGBC
- Boundary wall, Main Gates & Security Cabins.
- Internal RCC Roads, Open Pathways /Cycle Track/ Building approach /drop off.
- Car Parking in Basements
- Electrical and Water connections
- Storm Water Drains, Rain Water Harvesting (R.W.H),
- Cutting, Filling, &Leveling
- Landscaping and Horticulture works
- External Sewerage System, Water-Supply System, Drainage System, Trenches for Services.
- Under Ground RCC Water & Firefighting Tanks, RCC Tanks for STP& WTP.
- Bore wells
- Signages (Internal & External)
- Sculpture
- Lifts
- Underground water tank for all purpose
- Mechanical ventilation systems

Construction and commissioning of building(s) complete along with the above-mentioned services. Items which are not mentioned above but are essential considering functional requirements and according to Residential and office building must be executed by the Contractor.

Obtaining mandatory approvals (Pre-& Post Construction) from all local bodies/ State & Central authorities/ Municipal Corporation, EIA (Environmental Impact Assessment) clearance, fire

clearance, forest clearance etc.

**Note:**

- i. All cables passing through holes in floor or walls shall be sealed with fire retardant Sealant and shall be painted with fire retardant paint up to one meter on all joints, terminations and both sides of the wall crossings by "VIPER CABLE RETARD" or equivalent product satisfying the NBC 2016.
- ii. However, the contractor shall ensure design and provide Provision of all these services keeping in mind the future functional requirement. However, Client at its sole discretion may get it executed through EPC contractor or through separate contract. EPC contractor will not have any claim in this regard whatsoever.
- iii. Toilets, Corridor, Staircase, Front Facade etc. Typical module has to be made by the contractor for ease of approval and understanding before going ahead with mass execution.
- iv. C&D waste generated at the site must be properly managed in accordance with regulations and sent to an authorized recycling facility approved by the municipal authority.
- v. Landscaping work and road network to be taken up parallel to building work and should be completed within time limits as stipulated.
- vi. The Contractor shall obtain all Pre & all Post construction clearances/approvals from Environmental Authority, Municipal and other relevant statutory authorities/local bodies including Water supply agencies concerned, Electric Supply and inspectorate. Agencies concerned, such as, but not limited to, Police and Security Agencies, Chief Controller of Explosives, Fire Department, Civil Aviation Department, concerned in accordance to prevailing rules, Building Byelaws, tree cutting etc., as the case may be with related to/ required for Construction/Completion. All expenditure on this account will be borne by the contractor. However, statutory payment on this account will be reimbursed by the client in actual on the submission of documentary evidence of payment made. The status of applications for pre-construction clearances submitted/applied to local authorities if any; shall be provided to the contractor for obtaining clearances/approvals.
- vii. Architectural feature as matched in master plan/concept design is deemed to be included in quoted price.
- viii. Master Plan as attached may undergo changes as per State govt./ Local body/Client requirements. The contractor has to design and execute the same after doing necessary modifications without any extra cost implication.
- ix. Other Items which are not mentioned above but are essential considering functional requirements and according to Administrative Office, SBILD, Hostel, & Dining block building have to be executed by the Contractor.
- x. Minimum acceptable condition: Contractor has to design and execute items as per CPWD Specifications as covered in CPWD PAR'2025 and as per tender document. Higher Specification items and Items which are not covered in CPWD Specification/PAR' 2025 to be executed as per BOQ/ DBR/Drawing /Finishing Schedule/ Technical Specification as per Tender Documents

## **1.2. Tender drawings (Intend):**

The Tender drawings (Intend) are for e-Tender Purpose only and are intended as a guide to the Bidder / Contractor and give a general layout of buildings and general information of the structures and general positions of utilities, services and equipment. The Drawings and Specifications provide an indicative requirement of the works and general design principles and shall be developed, tested and warranted to comply with the design & drawings, specified performance criteria and requirements, and relevant statutory and project requirements.

The bidder/contractor shall prepare their designs & drawings based on the drawings and Design Basis Report (DBR) provided in the tender document. The master plan shall not be varied without approval of the SBI.

The drawings of the respective buildings/ blocks, as provided in the tender documents, shall also be followed unless there is a requirement for their modification/correction as per requirement of the

statutory bye laws, and changes, if any required, due to structural designs consideration shall also be incorporated with the approval of the SBI/PMC/BANK. This shall also hold good in respect of drawings/ SLD/ schematic/ P&I diagrams/ drawings for Services Components.

All relevant modifications/revisions as required are to be done by the contractor at his own cost, and any claim raised by the contractor in this regard shall not be valid in this contract and shall not be accepted by SBI.

### 1.3. Design

The Design Basis Report and Drawings provided to the bidders are to ensure a clear understanding of the building design standards and other associated parameters that the SBI wishes to achieve for different components of the project. While SBI is keen to see innovation, but the required standards of design must be achieved. Contractors shall outline the means by which they will ensure design quality and the design objectives which have influenced their scheme. This shall include details of how the SBI's objectives are to be achieved.

#### 1.3.1. General Standards:

The facilities shall be completed to high standards of construction and specification. The facilities shall be technically sound and functionally suitable in line with the provisions given in the DBR and to meet the SBI's objectives:

- i. The Architectural finishes shall be of such quality that will ensure better hygienic conditions, provide clean room environment in the modernized facilities as well as the new facilities.
- ii. The architectural design should take into account the required Green Building and Acoustic Parameters.
- iii. The architectural design should take into account the requirements of physically challenged persons.
- iv. All the material procured or to be used should be to the satisfaction of the SBI/PMC/ Engineer in charge before being used for the works intended to.
- v. All materials including fittings and fixtures shall be of approved make. For other materials, the same shall be as per approval of SBI/PMC/BANK.
- vi. The design should provide for borewells, underground and overhead water tanks with necessary pumping arrangements for both portable and firefighting requirements.
- vii. The design should incorporate firefighting system with hydrants, sprinklers, fire extinguishers, electrical and fire alarm system in accordance with the rules and regulations of the local fire authority, NBC 2016, NFPA, Relevant IS codes, (the Tariff Advisory Committee (TAC) of the Insurance Association of India- for guidance only), as amended up to date.
- viii. Planning and design should also incorporate the requirements with respect to the recreational & sports facilities in the project as per the requirements.
- ix. Lighting should conform to the relevant IS Code of Practice for Lighting. All electrical systems, fixtures, fittings etc. should conform to CPWD specifications, latest IS code, NBC etc.
- x. The planning should include landscaping and horticulture as per the requirements. The contractor shall create parking, approach roads, and other requirements for the building.
- xi. Provision should be made for internal and external signage's, display boards, and public address systems in the required area.
- xii. Furnishings in the room should be complete in all respects including, communication networking for Data, telephone connection, power points etc. It should also include the provisions of raceways to be laid in floors as per requirements.
- xiii. Mechanical services shall be designed and installed with provisions to contain noise and the transmission of vibration generated by moving plant and equipment schedules to achieve acceptable noise and vibration with respect to human beings specified by ISO standards
- xiv. All moving plants, machinery and apparatus shall be statically and dynamically balanced at the manufactures workplace and certificate issued.

Seal and Signature of the Contractor



xv. Space provision should be made for Furniture for General Admin Furniture etc.

xvi. BIM shall be used by the Contractor in the building projects on EPC mode. No Separate payment shall be made for this BIM services.

### 1.3.2. Statutory, Industry and Local Standards:

The following standards shall apply unless otherwise stated:

- Standards set out in National Building Code of India 2016
- Relevant Development Control Rules/Planning Act/Development Act/ Municipal Act/ any other applicable statutes and local byelaws
- National Electrical Code, 1985
- Indian Electricity Act 2003
- Requirements of the local Water Supply Company, Electricity Supply Company/Department
- Requirements of the Pollution Control Board, Fire Department, Aviation authorities and other statutory authorities, as applicable
- Requirements of any other standards and byelaws as applicable.

### 1.3.3. Preliminary & Detailed Design:

Based on the details provided, as mentioned above, the Contractor shall prepare preliminary & detailed design of all the building & services including external development and these shall be in conformity with the Detailed drawings, Technical Specifications, Design Basis Report and other standards set forth in the contract document subject to applicable statutory bye-laws/ regulations as listed below:

- a. Topographic Site Survey & submission of Site Survey Report to SBI.
- b. Geo-Technical Investigation & submission of the report for the proposed buildings.
- c. Preparation & submission of Preliminary & Detailed Architectural design/drawings of various buildings & blocks including preparation of Site Plan, Structural designs & drawings with complete services etc. in conformance with Master Plan & other concept drawings, Design Basis Report & General specifications for the work provided in the Tender Document with complete foundations and sub-structure / structure with all furnishings and interiors including acoustics treatment, as required. The Contractor shall ensure that the drawings shall meet the requirements of the local byelaws/ statutory bodies etc.
- d. The contractor shall prepare complete structural design drawings for foundations, superstructure, services, and for other structures to be provided/constructed, as per the provision contained in IS Codes / NBC2016, taking into consideration the protection against seismic forces required for earthquake resistance structures. The shear walls, due to structural requirements, shall be provided as required.
- e. The structural drawings shall be approved by SBI/PMC/ BANK. The contractor shall ensure proof checking of structural designs and drawings from IIT/NIT or other Govt. Institutes as approved by SBI. The cost for the proof checking should be borne by the EPC contractor. After approval of the structural drawings by SBI/PMC/ BANK, if any modification in design/drawing is needed, as per site conditions, the Contractor shall do/re-do without any extra cost.
- f. Scope of work shall include scheme finalization based on DBR, detailed drawings, concept designs, master plan etc. The contractor shall submit detailed room wise Heat Load Sheet of Air Conditioned Buildings, CFM sizing of ventilation/pressurization fans, detailed electrical load sheets, Equipment sizing, SLDs/Schematic for all MEP services, Technical Submittals & GA Drawings of all MEP Equipment, Lighting/Energy Simulation Reports for MEP Services, Detailed Water Requirement Sheet & Tank /Pump Sizing etc. complete as per requirement of SBI.
- g. Preparation & submission of Preliminary & Detailed Design & drawings of all internal and external

services viz. Electricals including DG Sets, Provision of different types of Lifts, Networking, LAN (for BMS in Residential only), CCTV & PA System (Residential, Fire detection, Fire Alarm & firefighting, BMS, Waste Management System, STPs & Water Treatment Plant, Solar Hot Water System etc. & all other systems as mentioned in DBR & elsewhere in this Tender.

h. Planning and designing of all external services like water supply, system for recycling of waste water, installation of tube wells, R.O plant, sewerage, drainage system, parking lots, Recreational & sports facilities, internal campus roads, pathways, and all connected sub-structures and superstructures within the premises, as per bye-laws and norms of the local bodies including making connections with the peripheral services after getting the services design approved from the local bodies/statutory bodies. SBI's role shall be limited only to signing application / drawings / documents for submission to the local bodies in the capacity of the owner for approval. In the case of water supply, sewerage and drainage, the cost of getting the scheme approved from the service provider is included in the scope of work/bid. The cost of connection of water supply lines/sewer lines from peripheral connection point/outfall sewer shall also be borne by the Contractor apart from internal and external water supply/sewerage lines to be laid to make the system of water supply and sewerage functional/complete. However, statutory charges, if levied by the service provider towards cost of laying off their peripheral services shall only be reimbursed by SBI on production of relevant payment receipts/documents by the Contractor to the satisfaction of SBI/PMC/ BANK.

i. The necessary arrangements are to be provided for supply of water through dual plumbing system i.e. recycled water duly treated pumped through underground tanks to overhead tanks and piped to flushing in each location/utility as directed by the PMC/ BANK.

j. Planning and designing bore wells, underground tanks, pump houses for water supply, for firefighting tanks, storm water collection tank including installing of pumps etc. as per approved drawings/ specifications or as directed by PMC/ BANK.

k. Planning and designing of all electrical and mechanical services including related external services for works such as HT/LT Electrical works, firefighting works, Lifts, Internal electrification, LV works, , STP/WTP etc., as per bye-laws and norms of the statutory and local bodies including making connections with the peripheral services after getting the services design approved from the local bodies/statutory bodies. SBI's role shall be limited only to signing the application / drawings / documents for submission to the local bodies in the capacity of the owner for approval. However, statutory charges, if levied by the service provider towards cost of providing services shall only be reimbursed by SBI on production of relevant documents by the Contractor to the satisfaction of PMC/ BANK.

l. Planning and designing wastewater recycling system, rainwater drainage system including laying of pipelines and construction of related structures.

m. Preparation & submission of Preliminary & Detailed design & drawings for Landscaping & Horticulture work, Main Entrance Gates, development plans showing Internal Roads, Pathways, Parking lots, Paved areas, Court Yards Landscaping, Drains, Culverts, Compound walls, External lighting arrangements, Under Ground & Overhead tanks, UG Storage Tank, Internal & external Signage's, Recreational Sports facilities (Indoor & outdoor) etc. complete in all respect.

n. Preparation of landscaping plans including parks, planters and other details etc. for the horticulture works and execution of same including providing unfiltered/recycled water supply lines, construction of pump houses and installation of pumps therein etc. complete will be responsibility of Contractor. Development of parks, construction of its boundary wall, providing MS railings (including painting), wicket gates, water hydrants, the grassing, creepers and planting trees & relocation of existing trees within campus etc. shall be completed as per the specification and drawing approved by the SBI/PMC/ BANK.

o. Planning & designing of boundary wall, MS gates, Wicket gates, Security Cabins, sign boards, guide maps, location boards, direction boards etc. all complete as per the drawing approved and direction of SBI/PMC/ BANK.

p. Planning & Design of interior design layouts / details, including furniture layouts detailed working drawings, etc. for all, rooms and other areas fixed and loose furniture items.

q. Setting up a Testing Laboratory at site equipped with the necessary apparatus needed for

Seal and Signature of the Contractor

day-to-day testing of construction materials during construction period as directed by the SBI/PMC/ BANK.

r. Obtaining approval of SBI/PMC for all the Detailed/Preliminary Architectural, Structural & Services drawings & designs.

s. Prepare and submit three-dimensional model(s) of suitable scale as and when required by the SBI/ Local authority at no extra cost.

#### 1.3.4. Scale

All drawings shall be prepared to the scale as required for proper explanation and shall indicate the size and location of all equipment's and accessories therein. The Contractor shall follow all dimensions of approved architectural drawings for the work or part concerned and check proposed drawings for any interference with the building structure or other equipment or services.

#### 1.4. Statutory Approvals:

The Contractor shall obtain all required statutory approvals including pre-construction from Municipal and other local bodies, Water supply agencies concerned, Electric Supply and Inspectorate Agencies concerned, Police and Security Agencies, Chief Controller of Explosives, Fire Department, Civil Aviation Department, in accordance to prevailing rules, Building Bye-Laws, tree re-plantation etc., as the case may be with related to/ required for Construction/ Completion. The contractor shall liaison and follow up to obtain EC approval. **All expenditure on account of liaison services will be borne by the contractor, and the approval fee will be reimbursed by the Bank on submission of original receipt. (These approvals shall include): -**

i. Obtaining approval of all the competent authorities and other statutory bodies like Ministry of Environment and forests, State Pollution Control Board, Air Force, civil aviation, railways and local development bodies etc. as applicable necessary according to the local Acts, Laws, Regulations, etc. and make any changes desired by such authorities at no extra cost.

ii. The Environment Impact Assessment (EC) is also part of the scope of work as such its clearance from Ministry of Environment and forest Department, CPCB & State PCB (CTE/CTO) as applicable is the responsibility of the contractor. If, the request for obtaining EC approval has already been submitted. The contractor shall liaison and follow up with the respective departments to obtain the EIA/EC approval.

iii. Obtaining approval of the Architectural drawings from relevant local statutory bodies & obtaining Commencement Certificate from local bodies leading to commencement of construction of the project.

iv. Obtaining NOCs (No Objection Certificates) from the Fire Department, Lift Inspector, Storm water drainage & sewerage department, Municipal Corporation / Local Bodies, Civil Aviation, Railways, EIA completion and / or occupancy certificates etc.

v. Obtaining approval of electrical drawings from Central / State Electrical Inspectorate, as applicable.

vi. Any other approval required from the appropriate Statutory Authorities/ Local Bodies.

vii. Compliance as per IGBC norms and obtaining approval and certification for Platinum, Green Building Rating from IGBC Council etc.

viii. The original documents of approval/certificates etc. shall be submitted to the SBI.

#### 1.5. Shop drawings/ Design

The Contractor shall furnish for approval of the SBI/PMC/BANK requisite sets of detailed Shop drawings as stipulated/requirements of the contract and specially for Façade work, Aluminum works, Door/Windows, Structural Glazing Work, Structural Steel work, Sanitary, Dual Plumbing, Firefighting (external & internal), Pump room, Electrical works, LV works, STP/WTP and all other works within scope of this contract.

Solar Hot Water System & all other services, equipment and materials required to complete the work as per specifications well in advance. These drawings/documents shall contain details of construction, size, arrangement, operating clearances, performance characteristics, and capacity of all items of equipment, as also the details of all related items of work of other trades. The work will be executed by the contractor based on the approved shop drawings from the SBI/PMC/ BANK/ concerned authority and accordingly contractor will be responsible for obtaining all required final NOC / clearance from concerned authorities. All shop drawings are to be made in accordance with the latest fire safety norms and building codes.

- a. All drawings necessary for assembly, erection, maintenance, repair and operation of the equipment shall be furnished and different parts shall be suitably numbered for identification and ordering of spare parts.
- b. For any amendments proposed by SBI/PMC/BANK/ concerned authority in the above drawings, the Contractor shall supply fresh sets of drawings with the amendments duly incorporated, along with the drawings on which corrections were indicated.
- c. No material or equipment may be brought to the Site until the Contractor has approved the Shop drawings for that particular material or equipment.
- d. After approval of the drawings by the SBI/PMC/BANK, the Contractor shall further furnish six sets of Shop drawings for the exclusive use of and retention by the SBI/PMC/BANK.
- e. Approval of drawings by the SBI/PMC/BANK shall not relieve the Contractor of any obligation to meet all the requirements of the Contract or of the correctness of his drawings. The SBI/PMC / BANK's approval of a specific item shall not mean the approval of the assembly of which it is a component. The Contractor shall be responsible for and is to bear the cost for all alternations of the works due to discrepancies or omission in the drawings or other particulars supplied by him, whether such drawings have been approved by the SBI/PMC/BANK or not.
- f. Where the work of the Contractor has to be installed in close proximity to, or will interfere with the work of other trades, the Contractor shall assist in working out the space conditions to make a satisfactory adjustment. If so, directed by the SBI/PMC/BANK, the Contractor shall prepare composite working drawings and sections to a suitable scale not less than 1:50, clearly showing how his work is to be installed in relation to the work of other trades. If the Contractor installs his work before coordinating with other trades, and it is cause for any interference with the work of other trades, he shall make all the necessary changes without extra cost.
- g. All shop drawings and detail drawings will be made as per the requirements of local authorities and detailed drawings incorporating all the latest regulations and requirements. No separate drawings will be issued for making shop drawings. The EPC contractor should submit the hardcopies of all the approved final drawings in appropriate scale (total 4 copies-3 copies for SBI and one copy for PMC).
- h. Unless otherwise prescribed, the contractor shall submit two sets of shop drawings/technical submittals/data sheets/any other details required for approval of the SBI/PMC/BANK. The contractor, after incorporating modifications / deletions/observations/ amendments suggested by the SBI/PMC/BANK, shall submit six corrected sets of such documents for final approval and issuance.

#### **1.6. Approved Makes:**

- a. Specification/brands names of materials/equipment to be used or supplied as per the scope of work are listed in the Part-E Technical Specifications. For all other materials /equipment the same shall conform to the relevant Indian Standards or in their absence conform to any International Standards and as approved by the SBI/PMC/BANK.
- b. The material shall be procured as per preferred to make in India policy and Government of India, Ministry of Commerce and Industry order no. p- 45021/2/2017-pp(be-11) dated 04.06.2020 and order of Govt. Of India, Ministry of Finance, Department of Expenditure (PPD) F.no.6/18/2019-PPD dated 23.07.2020 and as per Government of India, Ministry of Commerce and Industry order no. p- 45021/2/2017-pp(be-11) dated 16.09.2020 and any other guidelines issued in this regard, certificate to be furnished by agency and their specialized agency under rule 144(xi) in the General

Financial Rule 2017.

c. All material and equipment shall conform to the relevant Indian Standards/ IEC codes and bear IS marking wherever applicable. Where interfacing is involved, such equipment's shall be mutually compatible in all respects.

d. Where an item of equipment, other than as specified or detailed on the drawings, is approved by SBI/PMC/BANK, requires any re-design of the structure, partitions, foundation, piping, etc. or any other part of the mechanical, electrical or architectural layout, all such re-design, and all new drawings and detailing required therefore, shall be prepared by the Contractor at his own expense and approval obtained from the SBI/PMC/BANK.

e. The contractor shall submit to the SBI/PMC/BANK for approval details of all proposed materials, equipment, accessories, equipment characteristics and capacity details of all equipment, accessories and devices etc. as per the specifications and obtain approval of the SBI/PMC/BANK.

## **1.7. Project/ Work Execution/Construction:**

### **1.7.1. Commencement of work**

The commencement of work is to be reckoned as per Clause 5 of the General Conditions of Contract (GCC). The work is being executed as per EPC mode. It is anticipated that the Contractor shall be taking up planning and design activities, statutory approvals and mobilization for the initial three months, before any construction can commence at the site. No extension of time whatsoever shall be granted on account of planning and design & mobilization activities or delay if any, accruing on account of these activities.

### **1.7.2. Handing Over and Clearing of Site:**

a. The site of work is available. However, in case of any underground services, part of foundations of such structures are encountered during excavation or otherwise during the execution of the project, the contractor shall clear the same and maintain the operational services, without any extra cost.

b. The contractor should note that there may be some existing structures and/or operational buildings in the campus. The contractor shall ensure that the services and approach to these buildings are not hampered, without any extra cost. The work shall be carried out in such a way that the traffic, people's movement, if any, is kept operative and nothing extra shall be payable to the contractor due to restrictive working. Dedicated access corridors and roadways have been planned for allowing the movement of the inhabitants to enter and exit the buildings. The contractor is required to arrange the resources to complete the entire project within the total stipulated time. Traffic diversion, if required, is to be done and maintained as per the requirement of the traffic police and / or as per specifications, by the contractor at his own cost and the contractor shall not be entitled for any extra payment, whatsoever, in this regard.

c. There may be some services crossing the earmarked area of the project premises. The scope of work includes dismantling services, if any, falling in the construction area and

d. supporting/shifting & making functional existing services/sewerage and water supply lines etc. The contractor shall properly take care of & safeguard all the existing services in the area affected by the construction.

e. Necessary arrangements including its maintenance is to be made by the contractor for temporary diversion of flow of existing services, drain(s) and road(s) etc., as the case may be. The existing services, drain(s) and road(s) etc., would be demolished, wherever required with the progress of work under the scope of proposed project. The existing services drain(s) and road(s) etc., which are not in the alignment of the said project but are affected and / or need to demolish during execution for smooth progress of the project, shall be rehabilitated to its original status and condition (including black topping) by the contractor at his own cost. The cost to be incurred by the contractor in this regards shall be deemed to be included in the quoted rates and contractor shall not be entitled for any extra payment whatsoever in this regard.

f. The information about the public utilities (whether over ground or underground) like electrical/telephone/water supply/sewerage lines, OFC Cables, open drain etc. is the responsibility of contractor to ascertain the utilities that are to be affected by the works through the site investigation.

g. The contractor shall be responsible for obtaining necessary approval from the respective authorities for shifting/realignment of existing public utilities.

h. Any services affected by the works must be temporarily supported by the contractor who must also take all measures reasonably required by the various bodies to protect their service and property during the progress of works. It shall be deemed to be part of the contract, and no extra payment shall be made to the contractor for the same.

i. If the work is carried out in more than one shift or during the night, no claim on this account shall be entertained. The Contractor must take permission from the different statutory/ Govt. authorities, etc. if required for work during night hours. No claim / hindrance on this account shall be considered if work is not allowed during nighttime.

j. The Contractor shall be responsible for the watch and ward / guard of the building's safety, fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

k. Any utility covered under the sanctioned cost of the project shall be taken care of by the Client Department / Employer. The above-mentioned clause (a) to (i) mentioned are over & above to the sanctioned cost of utility shifting. In case of any unforeseen circumstances if the contractor claims regarding the above, it shall be considered and finalized by the employer with due diligence.

### **1.7.3. Construction of Building & Infrastructure:**

Based on the Master Plan, Concept Designs, Design Basis Report and other drawings, Technical Specifications and other documents given in the tender, approved Good for Construction Drawings/ Shop Drawings, Finishing/Flooring Schedule, approved makes of materials/equipment, Schedule of Doors / Windows fittings & fixtures, Schedule of Dual Plumbing/Sanitary Fittings/Fixtures, Scale of amenities, the Construction of all buildings/ blocks, associated infrastructure & external development work & services, Main Gates & Security Cabins shall be carried out and completed by the Contractor in a phased schedule as specified in the tender document. Scope of the Construction work shall also include but not limited to the following:

a. As per approved Architectural, Structural Drawings & Designs, Construction of foundation/sub structure & entire structure work of buildings as specified shall be executed including carrying out complete internal & external finishing work, flooring work, doors & windows, external façade work, water proofing treatment of terrace & toilets/kitchen/ pantry etc. & of all blocks & buildings to cater for the complete SBI Enclave.

b. Construction of roads along with roundabouts, pathways, dropouts at main entrances of SBI Enclave. Parking lots, recreational facilities, STP/WTP, water supply, sewerage, drainage works, horticulture & landscaping, Planters including external lighting, etc. complete as per approved drawings and design.

c. Complete leveling/dressing including filling of earth, its supply, disposal of surplus earth / debris / Malba etc. if any is to be completed as directed by the SBI/PMC/BANK.

d. Construction of External boundary wall with Main Gates, Security cabins etc., as required and complete as per approved drawings and design are included in the scope of the work.

e. Besides the scope of work as referred above, the construction of Building & Services with associated infrastructure shall include the following along with other utilities required for smooth functioning of SBI Enclave taking into consideration all statutory regulations:

i. Fire Fighting, Fire Detection & Fire Alarm System with required underground & overhead fire water tanks, storm water collection tanks, other overhead/underground domestic/flushing/irrigation/soft water tanks etc., firefighting pumps, equipment, panels, ring mains, fire & smoke detectors, fire alarm panels, PA System etc. complete including construction of Pump

- ii. Internal Electricals with all fittings & fixtures, Rising Mains, DBs & Panels etc.
- iii. LAN Network, EPABX & Telephone Network System and Centralized UPS System etc.
- iv. Electrical Substations, Transformers, DG Sets, Street Lighting, sandwich Bus ducts & sandwich rising mains, HT panels, LT Panels, Capacitor Panels etc. complete with necessary foundations and approaches etc. including required cabling & connections as required.

The 33 kV HT power shall be tapped for catering to electrical load requirements of proposed SBI Enclave.

- v. Paneling Works considering all architectural and acoustic measures and as per requirements
- vi. RO Plant Work shall consist of furnishing all labour, materials, equipment and appliances necessary and required. The Contractor is required to completely furnish all the Dual plumbing and other specialized services as described hereinafter and as specified in the schedule of quantities and/or shown on the Dual plumbing drawings for RO Plant
- vii. Supply, installation, testing & commissioning of Portable Water Purifier (RO+UV) of adequate water flow rate with sufficient storage capacity incl. RO membrane, pumps, motors, cartridge filters, interconnecting pipes, valves, cable etc. complete in all respects as per manufacturer's standards & as directed by SBI/PMC/BANK.
- viii. Planning, Designing, Construction with respect to all required Green Building Parameters and Acoustic Parameters.
- ix. All aspects of quality assurance, including testing services components of the work,
- x. Training and orientation of Client's personnel on various systems installed as part of this contract
- xi. Project Management to ensure completion of Project in Phased manner as per specified timelines.
- xii. Submission of the completion (i.e. as built) drawings and other related documents.
- xiii. Clearance of site before handing over of the facilities to fulfill after full filling all the obligations.
- xiv. Handing over of the facilities in phases and overall after completion of project after fulfilling all obligations and responsibilities as per Contract.
- xv. Making Good any defect (if any) within Defect Liability Period

**1.8.** The Contractor shall take all precautionary measures to safeguard safety measures against any accidents for the Contractor's employees, labour, public, and staff of SBI by providing all necessary safety equipment, helmets, etc. at the work site.

**1.9.** The scope of work includes cost of all materials, manpower, equipment, T&P fixtures, accessories, royalties, taxes, watch & ward, and all other essential elements for completion Any change, modification, revision etc. required to be done by SBI, CFO, local bodies, proof consultants, IGBC Council etc. in accordance with applicable standards and bid document will have to be done at Contractor's cost and nothing extra shall be payable.

**1.10.** The scope of work is only indicative and not exhaustive. In additions to the above the Contractor shall be responsible for executing all the works/ items required for completing all the building and other services in all respect to make the SBI Enclave habitable and ready for occupation as per direction of SBI/PMC / BANK.

**1.11.** Approval of Engineer of SBI/ PMC at any stage of planning, design and construction of the project will not absolve the ingrained responsibility of the Contractor to execute the construction flawless and at par excellence and, if any aspect contrary to this owning up of responsibility is glaring, the Contractor will be held liable for such gross deviation.

**1.12.** The work shall be executed in accordance with the drawings /design approved by SBI/ PMC

Seal and Signature of the Contractor

/ BANK which are prepared by the Contractor in conformity with the scope of the project & specifications, standards and statutory requirements. The Contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the SBI/PMC/BANK.

**1.13.** The SBI/PMC / BANK may in his absolute discretion and from time to time review the drawings/ designs & approve drawings/ designs and/or written instructions, details, directions and explanations, in regard to:

- a. The variation or modification of the drawings, design, quality or requirement of works or the addition or omissions or substitution of any item.
- b. Any discrepancy in the drawings or between the requirement of works and/or drawings and/or specifications.
- c. The removal from the site of any material brought thereon by the contractor and the substitution of any other material thereof.
- d. The removal and/or re-execution of any works executed by the contractor.
- e. The removal of any persons employed by the contractor on the site.
- f. The opening up for inspection of any work covered up.
- g. The amending and making good of any defects noticed during or after execution of the work.

**1.14.** The contractor shall be solely responsible for the means, methods, techniques of sequence, and procedure of construction. The Contractor shall be responsible for seeing the completed work complies accurately with the Contract requirements. The Contractor shall provide all necessary superintendence during the execution of the Works as per contractual provisions.

a. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. Contractor agrees and undertakes that the construction shall be completed within the Project Completion Schedule and any extension of time granted according to the provisions of this Agreement.

b. The Contractor shall, subject to the provisions of the Contract, and with due care and diligence, execute and complete the Works & remedy any defects therein in accordance with the Contract. The Contractor shall provide all labour, including the supervision thereof, materials, Constructional Plant and Machineries and all other things, whether of a temporary or permanent nature, required in and for such execution, completion, maintenance and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.

c. The Contractor must bear in mind that all the work shall be carried out strictly in accordance with the specifications as given in these documents and also in compliance of the requirements of the local public authorities and to the requirements/ satisfaction/ direction of the SBI/PMC / BANK and no deviation of any account will be permitted.

d. The Contractor shall have to use materials from the makes / manufacturers specified in the list of materials of approved brand and/or manufacture contained in the contract documents and as approved by the SBI/ PMC/BANK - in- Charge. Wherever different pattern/ Design/ Quality of materials with same specification/ make as specified in the contract, is available in the market, SBI/PMC/BANK will approve the pattern/ Design/ Quality of the material/ item which shall be final and binding on the contractor. The contractor shall supply samples of all the materials / fittings / fixtures proposed to be used in the work and obtain approval of the SBI/PMC/BANK - in- Charge. These samples shall be retained at site till completion of the work. If subsequently it is found that approved material upon testing does not meet the requirement as specified in the contract the contractor shall get approval of alternate material.

e. The work shall be carried out in conformity with the relevant drawings and the requirement of architectural, electrical, structural, and other specialised service drawings approved by SBI.



f. The Contractor shall make provision of hangers, sleeves, structural openings and other requirements during construction to avoid holding up progress in the construction schedule. The Contractor should ensure that the structure is designed for additional loads or cut outs. Subsequent Cutting of holes in the RCC structural members /slab shall not be allowed.

g. The contract items comprise of furnishing of all materials, equipment, labour & transportation etc. necessary to render the installation / item fully operational as per the intent of specifications and drawings, including any necessary adjustment or corrections. Further, the installation / item shall be in conformity with local laws and manufacturer's instructions applicable.

**The EPC contractor shall ensure that:**

- A detailed BIM Execution Plan (BEP), clearly establishing the methodology to implement BIM in the Project Design and Monitoring, should be submitted after award of contract.
- The BEP should also include BIM software platform, hardware, proposed BIM process

design, proposed resource plan and anticipated timelines for BIM deliverables.

- The BEP should list the agreed targets for the timely delivery, exchange, reuse and final handover to clients.
- All consultants of all streams viz Architecture, Structure, MEPF, Landscape etc appointed for the Project by EPC shall have BIM design capability for Designing exclusively on BIM.

**BIM planning and Monitoring Team:**

- Refer NIT- building information modeling 16 and 17

**1.15. Operation& Maintenance:**

Upon completion of supply, installation, testing & commissioning of all works, the Contractor shall furnish the necessary skilled/unskilled/semi-skilled personnel for operating the entire installations for a period of thirty (30) working days which is included in the completion period of respective milestones/phases.

The operation and maintenance shall be construed beyond the above period of completion of respective milestone/ phases and up to completion of the defect liability period or extended period thereof for the entire project. O&M of various works shall be carried out by EPC Contractor either himself or through respective OEM & Vendors who are involved in supply & installation of works at site. Such operation and maintenance shall commence with respect to completion/occupation and handing over of the Building/Block and up to the end of the defect liability period or extended period thereof for the entire project.

**1.16. Training & orientation of Client's Personnel**

The contractor shall provide necessary training and orientation to the technical personnel deployed by the client. The contractor shall arrange visits of the technical personnel / technicians of respective OEM/vendors involved in installation of various electrical and mechanical works under this contract. The duration of training period shall be 15 days or as directed by SBI/PMC / BANK with respect to various installed systems like electrical sub-station, STP, WTP, LV Works, Audio Video System, pumping system, and any other system installed under this contract.

**SPECIAL CONDITIONS OF CONTRACT- GENERAL****1. General:****1.1. Force Majeure:**

Any failure or delay in the performance by either party hereto of its obligations under his Contract shall not constitute a breach thereof or give rise to any claims for damages if, and to the extent that it is caused by occurrences beyond the control of the party affected, namely, acts of God, floods, explosions, wars, riots, storms, earthquakes, insurrection, epidemic or other natural disasters. The party so affected shall continue to take all actions reasonably within its power to comply as far as possible with its obligations under this Contract. The affected party shall promptly notify the other party after the occurrence of the relevant event and shall use every reasonable effort to minimize the effects of such an event and act in all good faith with due care and diligence.

**1.2. Compliance with Statutes, Regulations, etc.**

The contractor shall conform to the provisions of all statutes, ordinance, laws, acts of the legislature relating to the works, and to the regulations and by-laws of any local or other duly constituted authority and of any water, electric supply and other companies and/or authorities with whose systems the structure is proposed to be connected. The Contractor shall keep the SBI indemnified against all fines or penalties or liability of every kind for breach of any such statutory ordinance, law act of the legislation, regulations, and byelaws as aforesaid.

The contractor shall before be making any variations from the drawings or specifications that may be necessitated by such regulations, give to the SBI/PMC/BANK- in- charge written notice, specifying the variation proposed to be made and the reasons for making it and apply for instructions thereon. The contractor will not execute any work without written permission from the SBI/PMC/BANK-in- charge

The contractor shall bring to the attention of the SBI/PMC/BANK any specific requirement of the local authorities or any notice required for execution by virtue of such acts, regulations or byelaws of such authority, or public office. All fees that may be chargeable in respect of these works shall be reimbursed by the SBI on production of authorized receipts.

**1.3. Boreholes & Exploratory Excavation**

If, at any time during the execution of the Works, the SBI/PMC/BANK shall require the Contractor to make boreholes or to carry out exploratory excavation, such requirement shall be ordered in writing and shall be deemed to be an additional ordered under the provisions unless a provisional sum in respect of such anticipated work shall have been included in the schedule of items.

**1.4. Fossils, Etc.**

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the site of the works shall be the property of the SBI/ Government.

**1.5. Absence of Specifications**

If the user requirements, specifications etc., do not contain particulars of materials and works which are necessary for its proper execution, all such materials shall be supplied and item shall be executed by the Contractor without extra charge and if the Contractor requires any information, he shall request in writing well in advance to commencement of the particular work to the SBI/PMC / BANK who will clarify the issue within a reasonable time.

**1.6. Works by Other Agencies**

The SBI/PMC/BANK reserves the right to use premises and any portion of the site for the execution of any work not included in this contract which it may desire to have carried out by other persons simultaneously, and the contractor shall allow the reasonable facilities for the execution of such work, but shall not be required to provide any plant or material for the execution of such work except by special arrangement with the other agency. Such work shall be carried out in a manner so as

not to impede the progress of the works included in the contract; the contractor shall not be responsible for any damage or delay which may happen to or be occasioned by such work.

The contractor shall co-operate with other agencies working in the same project and coordinate his plans and time schedules so that there will be no interference. The Contractor shall forward to the SBI/PMC/BANK all correspondence and drawings exchanged. Failure to check plans for conditions will render the Contractor responsible for bearing the cost of any subsequent changes found necessary or damages done.

The SBI/PMC/BANK shall not entertain any claim on account of the Contractor affording necessary facilities to execute the work simultaneously with other agencies executing the works for the same project.

### **1.7. Quality Assurance**

The Contractor shall devise a quality assurance mechanism to ensure compliance with the provisions of this Agreement (the "Quality Assurance Plan" or "QAP"). The Quality Assurance Plan in detailed is specified under Clause 22.2 of Part-B, GCC

### **1.8. Additional Conditions for Tree Re-Plantation**

In line with the observations of the Hon'ble High Court, Allahabad in PIL Civil No. 14580 of 2017, the Contractor shall take all necessary steps to preserve and protect existing trees within the project site. Special emphasis shall be placed on retaining old and mature trees at their original locations, and efforts must be made to incorporate these trees into the overall layout and design of buildings, roads, services, and pathways. The Contractor shall undertake a detailed verification exercise to map the existing trees against the proposed layout and shall ensure that tree relocation is minimized to the extent possible.

In circumstances where tree relocation becomes unavoidable due to extreme technical or structural exigencies, the Contractor shall relocate the affected trees within the same premises at suitable and approved locations. The entire cost of such relocation including excavation, transplantation, and maintenance shall be borne by the Contractor, and no additional payment shall be admissible on this account. Transplantation shall be carried out using appropriate scientific methods to ensure the survival of the trees. The Contractor shall also be responsible for maintaining the relocated trees for a minimum period of two years, which includes regular watering, mulching, fertilization, and replacement in case of mortality.

Further, the Contractor shall submit a detailed Tree Preservation and Relocation Plan prior to the commencement of work, along with periodic compliance reports including geo-tagged photographs. Coordination with GHMC, the Telangana Forest Department, and other relevant authorities shall be the Contractor's responsibility to ensure adherence to applicable norms and environmental conditions. Non-compliance with these directions may attract penalties as per the contract provisions and prevailing environmental laws.

### **1.9. Additional Conditions of National Green Tribunal**

- i. The Contractor shall not store/ dump construction material or debris on the metaled road.
- ii. The Contractor shall get prior approval from SBI/PMC/BANK for the area where the construction material or debris can be stored beyond the metaled road. This area shall not cause any obstruction to the free flow of traffic /inconvenience to pedestrians. It should be ensured by the Contractor that no accidents occur on account of such permissible storage.
- iii. The Contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.

- iv. The Contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like material like cement, sand and other allied material are fully covered. The Contractor shall take every necessary precaution that the vehicles are properly cleaned and dust free to ensure that en-route their destination, the dust, sand or any other particles are not released in air/contaminate air.
- v. The Contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
- vi. The Contractor shall ensure that the C&D waste site only and due record shall be maintained by the Contractor.
- vii. The Contractor shall compulsorily use of wet jet in grinding and stone cutting.
- viii. The Contractor shall comply with all the preventive and protective environmental steps as stated in the MoEF guidelines, 2010.
- ix. The Contractor shall carry out on- Road-Inspection for black smoke generating machinery. The Contractor shall use cleaner fuel.
- x. The Contractor shall ensure that all DG set comply with emission norms notified by MoEF.
- xi. The Contractor shall use vehicles having pollution under control certificates. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 Kmph. Speed bumps shall be used to ensure speed reduction. In case where reductions speed cannot effectively reduce fugitive dust, the Contractor shall divert traffic to nearby paved areas.
- xii. The Contractor shall ensure that the construction material is covered by tarpaulin. The Contractor shall take all other precautions to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
- xiii. The paving of the path for plying vehicles carrying construction material is a more permanent solution to dust control and suitable for longer duration projects. The SBI shall carry out cost benefit ratio analysis of the same.
- xiv. It is mandatory to use wet jets in grinding and stone cutting.
- xv. Wind breaking wall around construction site.
- xvi. As per EIA Notification of 2006 and Latest Revision, sufficient green belts around the building shall be provided. Such green belts shall be in existence prior to applying for occupancy certificate and handing it over.
- xvii. The Contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and / or other similar material to ensure that no construction material dust fly outside the plot area. The SBI shall take such items in the schedule of quantity to ensure that the construction activity does not cause any air pollution during the course of construction and/or storage of material or construction activity.
- xviii. The paving of the path for plying of vehicles carrying construction material is a more permanent solution to dust control and suitable for longer duration projects. The SBI shall carry out cost benefit ratio analysis of the same. Based on the benefit ratio analysis, the SBI shall include the item of paving of path in schedule of item which can be utilized as a permanent path for client after construction of project.
- xix. It shall be ensured that C&D waste is transported from the site in after keeping due record on behalf of SBI/PMC/BANK. The C&D waste shall only be dumped at sites declared as Dumping ground and having arrangements for recycling of C& D waste in the region.
- xx. Any violation of orders of MoEF including guidelines of State Government, SPCB or any officer of any department shall lead to stoppage of work for which Contractor shall be responsible, and no hindrance shall be accounted for in this regard.

### **1.10. Intellectual Property Rights and Royalties**

- i. Insofar as the patent, copyright or other intellectual property rights in any Plant, Design Data, plans, calculations, drawings, documents, Materials, know-how and information relating to the Works shall be vested in the Contractor, the Contractor shall grant to the SBI, his successors and assignees a royalty-free, non-exclusive and irrevocable license (carrying the right to grant sub-licenses) to use and reproduce any of the works, designs or inventions incorporated and referred to in such Plant, documents or Materials and any such know-how and information for all purposes relating to the Works (including without limitation the design, manufacture, installation, reconstruction, Testing, commissioning, completion, reinstatement, extension, repair and operation of the Works).
- ii. If any patent, registered design or software is developed by the Contractor specifically for the Works, the title thereto shall vest in the SBI and the Contractor shall grant to the SBI a non-exclusive irrevocable and royalty-free license (carrying the right to grant sub-license) to use, repair, copy, modify, enhance, adapt and translate in any form such Software for his own use.
- iii. If the Contractor uses proprietary software for the purpose of storing or utilizing records the Contractor shall obtain at his own expense the grant of a license or sub-license to use such software in favour of the SBI and shall pay such license fee or other payment as the grantor of such license may require provided that the use of such software under the license may be restricted to use relating to the design, construction, reconstruction, manufacture, completion, reinstatement, extension, repair and operation of the Works or any part thereof.
- iv. The Contractor's permission referred to above shall be given, inter alia, to enable the SBI to disclose (under conditions of confidentiality satisfactory to the Contractor) programmes and documentation for a third party to undertake the performance of services for the SBI in respect of such programmes and documentation.
- v. Any software is developed under the Contract or used by the Contractor for the purposes of storing or utilizing records over which the Contractor or a third party holds title or other rights, the Contractor shall permit or obtain for the SBI (as the case may require) the right to use and apply that Software free of additional charge (together with any modifications, improvements and developments thereof) for the purpose of the design, manufacture, installation, reconstruction, testing, commissioning, completion, reinstatement, extension, repair, modification or operation of the Works, or any part thereof, or for the purpose of any Dispute.
- vi. The SBI reserves the right to use other Software on or in connection with the Works.

### **1.11. Obtaining Information's related to Execution of work:**

No claim by the Contractor for additional payment will be entertained which in consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the works, nor will any misunderstandings or the obtaining of incorrect information or the failure to obtain information relieve him from any risks or from the entire responsibility for the fulfillment of the contract.

### **1.12. Examination of work before covering up:**

- (a) The RFI (Request for Inspection) system shall be followed at the site. The RFI shall be raised to the BANK or on his behalf to the SBI/PMC/BANK. No part of the works shall be covered up or put out of view without the written RFI approval by SBI/PMC / BANK or on behalf by SBI/PMC/BANK. The contractor shall give due notice to the BANK whenever any such work is or ready or about to be ready for examination and the SBI/PMC / BANK shall, examine and measure any work before it is covered up or put out of view and to examine foundations before further work is placed thereon.

- (b) Uncovering and making openings
- (c) The contractor shall uncover any part or parts of the works or make openings in or through the same as the SBI/PMC / BANK may direct from time to time and shall reinstate and make good such part or parts to the satisfaction of the SBI/ PMC / BANK at his own cost

### **1.13.Miscellaneous:**

#### **(a.) Tax Deduction at Source**

All Taxes and surcharge as applicable on date shall be deducted from the amount due to the Contractor towards the value of the work done. The TDS certificate thereof shall be issued to the Contractor.

#### **(b.) By-Laws of Statutory Authorities**

The Contractor and his labour shall not violate municipal /sanitation /health or any other byelaws. (c.)

#### **Delay in starting the work**

No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land, encroachment or in the case of clearance of works, on account of any delay in according sanction to estimates in issue of drawings, decisions etc. However, the extension of time shall be granted as per relevant conditions of Contract.

#### **(d.) Site instruction book**

For the purpose of quick communication between, BANK, PMC/BANK and the Contractor or his representative, site instruction book shall be maintained at site as described below:

Any communication relating to the works may be conveyed through instructions in the site instruction book. Such a communication from BANK, PMC/BANK to the Contractor shall be deemed to have been adequately served in terms of the contract once the entries are made and signed by the authorized representative of the contractor. For this purpose, the contractor should authorize one of his employees on the site itself. Site instruction book shall have machine numbered pages and shall be carefully maintained and remain under custody of SBI/PMC/BANK. The contractor can also avail of the site instructions book for urgent communication with SBI/PMC/BANK. Any instruction which BANK or on behalf by PMC/BANK may like to issue to the Contractor may be recorded by the SBI/PMC/BANK or on his behalf by PMC/BANK in site instruction book.

#### **(e.) Signage's**

The Contractor shall provide at his own cost, sign board(s) at directed location(s) having overall size preferably 2 meters by 4 meters, or any other size, indicating name of the project, and a three (3)-D view of the project as well as the name of the Contractor and the CLIENT and SBI with addresses, cost of the Project, date of start & completion, as approved by SBI/PMC/BANK. The signboard should be illuminated during the night.

(f.) No idling charges or compensation shall be paid for idling of the contractor's labour, staff or P&M etc. on any ground or due to any reason whatsoever.

(g) The Contractor shall mobilize and employ sufficient resources for completion of all the works within the stipulated time period as per agreement and as indicated in the approved Bar Chart/ Network. No additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by SBI/PMC/BANK-in- charge.

## **2. Contract Price and Payments**

2.1. The bidder shall quote their rates in the prescribed format as per "Part G- FINANCIAL BID "of the tender documents. The quoted rates shall be inclusive of all costs towards site visits, planning, designing , site surveys, all material, labour, plant and machinery, tools and tackles, batching plant etc. including water & electricity, overhead charges, all taxes (excluding GST) , duties, levies statutory charges / levies applicable from time to time and others as specified etc., incidental works and all other charges for items contingent to the work, such as inspection, packing, forwarding,

insurance, freight and delivery at Site, watch and ward of all materials & successful installation, testing & commissioning at site etc., including handing over of the works to the SBI, Maintenance during Defect Liability Period etc. complete as per Scope of Work. The quoted rates shall also include the cost of all other inputs required in the execution of the item, all taxes and duties excluding Goods & Services Tax. The fee paid by the contractor for obtaining various statutory approvals shall be reimbursed to him after submission of payment receipts and other relevant documents by the contractor.

The successful bidder shall submit within 15 days from the date of Letter of Award, the breakup of total quoted amount of each item of Financial Bid as Base Rate & GST separately which shall form part of the agreement and bills for the executed work shall be raised accordingly.

i. Rates quoted shall be firm and shall not be subject to any price variations except as specifically provided in the contract.

ii. The quantities given in the Schedule of Quantities (Part -G) are liable to variations. Such variations in quantities shall not, however, vitiate the contract in any way whatsoever. The contractor shall be paid for the actual measured quantities of work executed by the bidder.

iii. Unless otherwise specified the rates tendered by the contractor shall be all inclusive and shall apply to all shapes, heights, lifts, leads and depth of the building and nothing extra shall be payable to him on any account.

iv. Royalty, whenever payable, shall be borne by the contractor on the boulders, metal, shingle, sand and bajri etc., or any other materials collected by him for the work direct to the revenue authority of the District / State Government concerned and nothing extra shall be payable on this account.

v. Royalty, as applicable, shall be paid by the contractor of the ready mix concrete (RMC) supplier as per the terms of supply between them, on all materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine sand, moorum, river sand, gravels and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Further, contractors need to submit proof of submission of full royalty to the stage of government or local authority. Any issue between the RMC supplier and the state government concerned shall be settled by the EPC contractor without any liability to the SBI. Nothing extra shall be payable on this account.

vi. The words "as specified", "as described", "as shown", "as directed", or "as approved", shall mean as described in the specifications, Schedule of Quantities and other Contract documents as shown on the drawings or as directed by SBI/PMC/BANK.

vii. The payments shall be made on the area basis with respect to each building. The area for the purpose of payment shall be the plinth area actually constructed. The tentative plinth area is as per the Schedule of Quantities. Further in addition, the following areas shall not be reckoned with for working out the plinth area and their cost shall be deemed to be included in the respective subheads / items of works.

1. The total plinth area of a building shall be the sum total of the plinth area on every floor including the basement, if any.

2. All Light weight porch with steel and polycarbonate/Tefflon fabric etc. at entrance of SBI Enclave not to be counted in the Plinth area for the calculation of EPC area calculation.

3. All Courtyards covering with steel structure and polycarbonate sheet not to be counted in the Plinth area for the calculation of EPC area calculation.

4. External Boxing, Mumty & Machine Room

5. 50% Area of refuge terrace and 50% area of Porch

**2.2.** All running / intermediate & final payments shall be made to the contractor in accordance with the following schedule and on pro-rata basis:

i. The Contractor shall submit detailed project schedule in MS Project within 15 days of ward of work, for approval by the SBI/PMC/BANK - in- Charge. All the payments shall be made based on the payment schedule.

Seal and Signature of the Contractor

ii. The SBI shall make interim payments to the Contractor as certified by the SBI/ PMC / BANK on completion of a stage, as specified and valued in accordance with the proportion of the Contract Price assigned to each item and its stage in the Contract Document.

iii. The interim payment shall be made on "Pro rata basis" and shall be worked out on the percentage of work done out of total scope of work under their activity/item.

iv. The Contractor shall base its claim for interim payment for completed till the end of the month for which the payment is claimed, valued in accordance with the above sub- Clause, supported with necessary particulars and documents in accordance with this Agreement.

v. The proportion assigned to an item will apply only to the Contract Price stated in this Agreement. It shall not apply to any additions or reductions to the Contract Price arising from the issue of any Order for Change of Scope.

vi. The Contractor shall submit an interim RA bill, within the time stipulated as per General Conditions of Contract to the SBI/PMC / BANK in the form as directed, showing the amount calculated to which the Contractor considers himself entitled for completed Works. The interim RA bill shall be accompanied with the required supporting documents including mandatory test reports.

vii. The Contractor should submit a compliance certificate, as per Appendix A attached to GCC, in every bill as per provisions of the EPF and ESI Act as amended from time to time.

viii. All running / intermediate and final payments shall be made to the contractor in accordance with the following schedule and on a pro-rata basis. The contractor shall be liable to fulfill all contractual obligations and provide all works and services covered under the contract. Any components, even if not mentioned in the payment schedule as given below, shall have to be provided by the contractor within the overall contract price as per the terms of contract.

ix. Missing items which are part of scope of work but not reflecting in payment schedule is deemed to be included in quoted price.

a. Planning, Designing, and Construction on EPC Basis of **Institutional** with support services & allied facilities by incorporating stipulated specifications, all services including handing over complete as per scope of work and directions of PMC/BANK In charge.



	Description of Item	Break up of total % payable cost		% of Total payable cost
		Item	Sub- group	
	<b>Planning, Design &amp; Engineering Works-</b> Investigation, planning, Designing and obtaining approvals for works			<b>2.00%</b>
	a. On approval of PMC / BANK, the inception report & detailed survey and architectural drawings ready for submission for approval of local bodies and statutory authorities		0.20%	
	b. On approval of structure design by the proof consultant and PMC / BANK		0.30%	
	c. On obtaining all required approvals from statutory authorities and local bodies including environmental clearance, Consent to establish from PCB, etc for commencement of construction as per requirements and directions of PMC / BANK.		0.30%	
	d. On submission of all Good for Construction (GFC) drawings as per requirements and directions of PMC / BANK:		0.40%	
	i. Architectural drawings	0.12%		
	ii. Structural design & Drawings	0.12%		
	iii. Design & Drawings for Services	0.16%		
	e. On completion of construction		0.80%	
	i. On Completion of Foundation work	0.10%		
	ii. On Completion of 100% Super structure	0.10%		
	iii. On Completion of work	0.20%		
	iv. On obtaining required statutory approvals after completion of works	0.20%		
	v. On handing over to Client	0.20%		

Note: The interim payment limit is applicable only from the construction stage.

<b>CONSTRUCTION</b>			<b>93.00 %</b>
<b>i. Civil Works</b>			
i. Foundation Work, Basement Floors up to plinth level	12.00%	<b>61.00%</b>	
ii. Structure Work RCC frame/Composite structure of the entire building from plinth level to terrace, stair roof, overhead tank, Lift machine room etc. including waterproofing, etc.	23.00%		
iii. Masonry Work including & partitioning work	4.00%		
iv. Flooring, skirting, dado, wall lining work	4.00%		
v. Doors &Windows/ Ventilators.	3.50%		
vi. External Glazing, GRC Jali, External Cladding etc.	2.00%		
Vii. External Facade work	1.00%		
vii. False Ceiling Work, Paneling	2.50%		
viii. Finishing Work i/c painting (inside & outside)	2.50%		
ix. Other Works, viz. Steel work, railing, Acoustic paneling etc.	2.50%		
x. Infrastructure Development Works: • RCC Roads (complete including sub-base, kerbs stones, joints etc. complete) • Signage's • Water-Supply System • Drainage System • STP • WTP • External Street Lighting System including High Mast Lighting, Solar & Conventional Street lighting including Cables, Panel etc. • Landscaping, Horticulture, Rain water Harvesting System& Irrigation System • Under Ground RCC Water Tanks • Boundary Wall • Any other items under external development as per scope	4.00%		
<b>ii. Services</b>			
<b>a. Mechanical Ventilation System</b>		<b>1.00%</b>	
I) Mechanical Ventilation System and related electrical work (Ventilation System comprising of Smoke Extraction System, Pressurization System complete with ducting, electrical works, fittings complete with all accessories as per scope of works and as directed by PMC / BANK.)	1.00%		
<b>b. Electrical Works</b>			<b>17.50%</b>
i. Internal Electrical Works, rising mains and DB & other related works	7.50%		
ii. Earthing & Lightning Protection System	0.50%		

iii.	LV & BMS System	1.50%	<b>32.00%</b>	
iv.	UPS System	0.50%		
v.	Light Fixtures, Fans and Occupancy Sensors, Façade Lighting, CCTV, EPABX, Boom Barriers.	1.50%		
vi.	Electrical Sub-Stations, Electrical HT/LT cabling between substations block and from sub stations to various buildings including HT ring main system on pro- rata basis. • DG Sets (250KVA -1Nos & 750KVA – 1 Nos.) complete with all accessories • Transformer 1600  KVA-3Nos complete with all accessories • HT Panels, LT Panels, Capacitor Panels and sandwich Bus Ducts complete in all respect ○ HT Panels ○ LT Panels ○ Capacitor Panels & DG Synchronization Panel ○ Sandwich Bus Ducts • HT & LT Cabling work complete in all respect ○ HT Cabling work ○ LT Cabling work • BMS complete in all respect • Electric Vehicle Charging Stations	6.00%		
	<b>c. Water Supply&amp; Sewerage System</b>	<b>5.50%</b>		
i.	Water Supply System	1.50%		
ii.	Sanitary & Sewerage System	1.50%	<b>5.00%</b>	<b>5.00%</b>
iii.	Strom/ Rainwater drainage	0.50%		
iv.	Fittings& Fixtures	2.00%		
	<b>d. Fire Protection System</b>	<b>4.50%</b>		
i.	Wet Riser System /Down Comer System	1.00%		
ii.	Automatic Sprinkler System	1.50%		
iii.	Fire Extinguishers	0.25%		
iv.	Fire Alarm System	1.50%		
iv.	Gas based fire suppression system	0.25%		
	<b>e. RO &amp; Solar Hot System</b>	<b>0.50%</b>		
	<b>f. Lifts</b>	<b>2.50%</b>		
	<b>g. Solar PV System</b>	<b>0.25%</b>		
	<b>h. Signages</b>	<b>0.25%</b>		
	<b>Completion and Handing Over</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>
i.	Testing & Commissioning	2.50%		
ii.	Handing over	2.50%		
<b>Total</b>				<b>100%</b>

### 2.3 Submission of bill Statement for Works

- a. The SBI shall make interim payments to the Contractor as certified by the SBI/PMC / BANK on completion of a stage, as specified and valued in accordance with the proportion of the Contract Price assigned to each item and its stage.
- b. The Handing Over of buildings and allied services components shall be reckoned as completed in terms of contract after the Handed Over Buildings and allied services are duly Taken Over by the Client.
- c. The interim payment shall be made on "Pro rata basis" and shall be worked out on the percentage of work done out of total scope of work under the respective activity/item.
- d. The Contractor shall base its claim for interim payment for completed till the end of the month for which the payment is claimed, valued in accordance with the above sub-Clause, supported with necessary particulars and documents in accordance with this Agreement.
- e. The proportion assigned to an item will apply only to the Contract Price stated in this Agreement. It shall not apply to any additions or reductions to the Contract Price arising from the issue of any Order for Change of Scope.
- f. The Contractor shall submit interim RA bill, within the time stipulated as per General Conditions of Contract to the SBI/PMC / BANK in the form as directed, showing the amount calculated to which the Contractor considers himself entitled for completed Works. The interim RA bill shall be accompanied with the required supporting documents.
- g. The Contractor should submit a compliance certificate, as per Appendix A attached to GCC, in every bill as per provisions of the EPF and ESI Act as amended from time to time.
- h. Goods and Services Tax (GST)
  - i. For the purpose of this Bid document, the term GST shall include Central Goods and Services Tax (CGST), State Goods and Services Tax (SGST), Integrated Good and Services Tax (IGST), Union Territory Goods and Services Tax (UTGS) and any other taxes levied under the GST related legislation in India, as may be applicable.
  - ii. Bidder should have valid GST No.
  - iii. If the Bidder has opted for a composition levy under Section 10 of CGST, he should declare the fact while bidding along with GSTIN and GST registration certificate.
  - iv. Exemption from Registration: If a bidder is not liable to take GST registration, i.e., having turnover below threshold, he shall submit undertaking/ indemnification against tax liability. Bidder claiming exemption in this respect shall submit a valid certificate from practicing Chartered Accountant (CA)/ Cost Accountant with Unique Document Identification Number (UDIN) to the effect that Bidder fulfils all conditions prescribed in notification exempting him from registration. Such bidder/ dealer shall not charge any GST and/ or GST Cess in the bill/ invoice. In such a case, applicable GST shall be deposited under Reverse Charge Mechanism (RCM) or otherwise as per GST Act by the Procuring Entity directly to concerned authorities. The bidder should note that his offer would be loaded with the payable GST under the RCM. Further, the Bidder should notify and submit to the Procuring Entity within 15 days from the date of becoming liable to registration under GST.
  - v. The break-up of different price elements, i.e., as per GST Act, shall be indicated separately, along with its associated HSN code and GST rate.
  - vi. It shall be the responsibility of Bidder to ensure that they quote the exact HSN Code and corresponding GST rate for each activity of the Services being offered by them.
  - vii. As per the GST Act, the bid and contract must show the GST Tax Rates (and GST Cess if applicable) and GST Amount explicitly and separate from the bid/ contract price (exclusive of GST). If the price is stated to be inclusive of GST, the current rate included in the price must be declared by the bidder.

viii. Ensure that outward supply return (GSTR-1 is filed correctly and shall declare correct information on the invoice raised to Company and GST, the current rate included in the price must be declared by the bidder.

ix. In the case of profiteering by the contractor relating to GST tax, the contractor shall treat it as a violation of the Code of Integrity in the contract and avail any or all punitive actions there under, in addition to recovery and action by the GST authorities under the Act.

#### **2.4 Clause on Rationalization of Payment for Change in Constructed Area**

The Contract Price quoted by the EPC Contractor shall be deemed to cover the entire scope of work as per the concept drawings, DBR, and tender documents, on a lump sum basis.

In the event of any variation in the constructed built-up area (increase or decrease) beyond that indicated in the concept drawings, the Contract Price shall be rationalized proportionately in accordance with the following principles:

1. Increase in Area: For any additional constructed area duly approved by SBI/PMC, payment shall be made to the EPC Contractor at the pro-rata rate derived from the consolidated contract amount divided by the total built-up area as per concept drawings, subject to SBI's approval.
2. Reduction in Area: In case of reduction in built-up area from the concept drawings, the Contract Price shall be reduced on the same pro-rata basis.
3. Such rationalization shall not affect the Contractor's obligations regarding design quality, specifications, or performance standards, which shall remain binding irrespective of variation in area.
4. Any variation arising solely due to statutory requirements (setbacks, height restrictions, fire norms, etc.) shall also be adjusted on the above basis, without entitlement to extra claims by the Contractor.
5. This clause shall apply only for variations in constructed area. Changes in specifications, scope, or additional facilities not forming part of the concept drawings shall be dealt with separately, subject to prior approval of SBI.

#### **2.5 Production of Records**

a. The Contractor shall, whenever required by the PMC / BANK, produce or cause to be produced for examination by the Engineer, any quotation, invoice, cost or other account books, vouchers, receipts, letters, memoranda or any copy of or extract from any such documents and also furnish information and returns, as may be required, relating to the execution of this Contract or relevant for verifying or ascertaining the cost of execution of this Contract or ascertaining the Materials supplied by the Contractor are in accordance with the Specifications laid down in the Contract. The PMC / BANK's decision on the question of relevancy of any documents, information or returns shall be final and binding on the parties.

b. If any part or item of the work is allowed to be carried out by a subcontractor, assignee or any subsidiary or allied firm, the PMC / BANK shall have power to secure the books of such sub-Contractor, assignee or any subsidiary or allied firm through the Contractor and shall have power to examine and inspect the same. The above obligations are without prejudice to the obligations of the Contractor under any statute, rules or order.

### **3. Site Management**

3.1. The contractor may construct temporary office, storage, accommodation and labour huts within the site premises where the space is available at site. In case, where surplus land is not available within the site and/or not permitted by the client, the contractor shall arrange the land for temporary

office, storage, accommodation and labour huts at his own cost and is responsible for taking the clearance of local authorities, if required, for setting up / construction for labour camp and same is deemed to be included in the rates quoted by the contractor for the works. The contractor shall check the availability of land before tendering, and no claim whatsoever in this regard shall be entertained. The contractor shall ensure that the area of labour huts is kept clean and sanitary conditions are maintained as laid down by the local authorities controlling the area. The land for the above purposes shall be so placed that it does not hinder the progress of work or access to the worksite. The vacant possession of the land used, for this purpose shall be given back by the contractor after completion of the work.

### **3.2. Contractor's Working Area**

Suitable working space will be provided by the SBI/PMC / BANK to the Contractor as per site conditions and availability. The Contractor may have to carry out some cutting / filling work for making this area workable. The cost of all such Works shall be deemed to have been included in the contract price quoted for the Works, and no payment shall be made on this account.

Before commencement of the work, the Contractor shall obtain approval of the SBI/PMC/BANK-in charge for the location of cement godown, steel stacking and fabrication yard, site office and shall from time to time take instructions from the SBI/PMC/BANK regarding collection and stacking of materials at the site.

No excavated earth or building material shall be stacked on areas where other buildings, roads, services or compound wall or any other structure are to be constructed.

### **3.3. Site Office:**

a. The Contractor shall construct/provide one site office (semi-permanent structure) for use by BANK and his subordinate staff i.e. PMC/BANK and his consisting of 2 rooms with toilets and one conference Room (15-seater) with toilet having area not less than 250 Sqm for PMC/SBI officers & staff. The location and plan shall be got approved from

SBI/PMC / BANK. Specification for the site office shall be suitable and matching for running an office which shall be got approved from SBI/PMC / BANK-in- charge. The Contractor shall provide a typical plan of site office & conference room (having light fixtures, wiring &, AC etc.) with specification within 15 days of award of work. The site office shall have a sample room, A.C conference room, staff rooms along with toilets & pantry with file storage facility, computers (6 Nos.), Broad band (2 Nos.) and printers (2 Nos.) with their consumables, a telephone, Autodesk Construction Cloud (ACC Build license-4 licenses- one for EPC, one for PMC, two for SBI; validity till the DLP) licensed version Primavera software, Auto-CAD, Revit, etc. All running cost & charges for office including electricity bill, water supply bills, RO/drinking water bills etc. shall be borne by the Contractor. The Contractor shall provide the following furniture (new) for the use of PMC/BANK /SBI officers & staff at the site office.

b.

S.No.	Articles	Quantity
1.	Executive table (wooden) with side racks	02 Nos.
2.	Executive Chair	02 Nos.
3.	Office Tables	4 Nos.
4.	Office Chairs	4 Nos.
5.	Almirah	4 Nos.
6.	Conference table with Chairs (for 15 seats)	1 Set i/c chairs
7.	Video conference room with Digital display arrangement & sound system (24 pax)	1 Set

c. IP based Video Surveillance System shall also be provided for surveillance of different locations of project site & site office. In the surveillance system, the cameras shall be provided at different locations of the project site so that the output is available at the Corporate/Regional office of SBI. The system shall be able to work on both wired as well as wireless networks. The recording shall be preferably stored for at least 30 days. Along with video surveillance system, video conference facility, complete in all respects with necessary required equipment and software shall be provided at site office for frequent/periodical interaction between project site office and Corporate/Regional office of PMC/BANK/SBI.

d. Electricity & drinking water shall also be provided by the contractor free of cost for such a period.

### 3.4. Contractor's Temporary Structures

i. The Contractor may, at his own expense and subject to the approval of the SBI/PMC / BANK and statutory authorities, as required, construct temporary structures for its site office, stores; Workshop etc. in the working area allocated to him as above and remove the same on completion of Works. The Contractor shall furnish such details of his Temporary Works as may be called for by the SBI/PMC / BANK, and the Contractor shall satisfy the SBI/PMC / BANK as to their structural safety. The Contractor shall be solely responsible for the stability and structural safety of all temporary works, including obtaining statutory approvals and payment of statutory fees, if any. Should it be necessary to shift the temporary works to some other place during the execution of the works, the Contractor shall do so, at his own cost.

#### ii. Initial and Final Clearance of site for temporary works:

The Contractor shall be responsible for the clearance of the site of all scrub, debris, rubbish, etc. to be removed off site to a location to be provided by the contractor and approved by the SBI/PMC / BANK. However, no trees shall be removed without the prior permission of the SBI/PMC / BANK. The structures, services and works required to be demolished and removed shall also be removed off site to a location as mentioned

above. The Contractor shall obtain necessary permissions and approvals from the local authorities for such disposals. The demolition shall include digging, excavating and removal of substructures, foundations, and buried works. The cost of all this shall be borne by the Contractor.

The above is applicable for all site offices, labour camps, and godowns etc., which are not required after the work is completed.

iii. **Storage, Cleaning and Dewatering**

The Contractor shall at all times during construction keep the Site clean and free from all debris and unwanted materials on a daily basis as per instructions of the SBI/PMC / BANK.

Storage of materials shall be in an organized manner and in proper compartments as directed by the SBI/PMC / BANK. Storage on suspended floors shall not be permitted unless specifically approved in writing by the SBI/PMC / BANK for specific materials in specific locations and in an approved manner. The SBI/PMC / BANK shall be furnished with load details, if requested, before seeking approval for storage.

Regular cleaning operations shall be undertaken to remove all dust, debris, waste materials, etc. A cleaning schedule shall be maintained.

The Contractor shall make his own arrangement for the storage of those materials, which can be accommodated at the site. The contractor shall be fully responsible for safe custody of the same. Materials shall be considered "Delivered at Site" only after the physical presence of materials at site are verified by the SBI/PMC / BANK-in- charge. Storage of materials / equipment elsewhere shall not be considered as "Delivered at Site."

The Contractor shall be responsible for keeping the entire site free from water due to water coming from any source at any level and shall protect all materials and works from being damaged by the water from any source. The contractor shall make proper arrangements for drainage prior to the use of water for curing, testing, cleaning, etc.

Any expenditure incurred by the Contractor in fulfillment of his obligations under this sub- clause shall be deemed to have been included in the financial bid and subsequent contract.

iv. The security deposit of the contractor shall be released only after the contractor demolishes all structures, including foundations, and gives back clear vacant possession of this land.

### **3.5. Care of Works**

From the commencement to the certified completion of the whole of works, the contractor shall be responsible for the care, safety and maintenance of the works executed under the contract thereof and of all temporary works. In case of any damage/ loss or injury shall happen to the works or to any part thereof or to any temporary works from any cause whatsoever save and except the expected risks, the contractor shall at his own cost repair and make good the same, so that on completion the works shall be in good order and condition in conformity to every respect with the requirements of the contract. The contractor shall also be liable for any damage to the works occasioned by him including his subcontractors in the course of any operations carried out by him for the purpose of completing any outstanding work and complying with his obligations under the Contract. In case of failure on the part of the contractor, the damage/ loss/ injury shall be made good by SBI at the risk and cost of the contractor.

### **3.6. Safety in Construction**

The EPC Contractor shall adhere to the safety, health, and environmental guidelines as prescribed in the tender document. The contractor shall employ only such methods of construction, tools and plant as are appropriate for the type of work or as approved by SBI/PMC/BANK in writing.

The contractor shall take all precautions and measures to ensure safety of works and workmen and shall be fully responsible for the same. Safety pertaining to construction works such as excavation, centering and shuttering, trenching, blasting, demolition, electric connections, scaffolds, ladders, working platforms, gangway, mixing of bituminous materials, electric and gas



welding, use of hoisting and construction machinery shall be governed by the Safety code, relevant safety codes and the direction of SBI/PMC/BANK

The Contractor shall be fully responsible for the adequacy, stability and safety of all site operations and methods of construction. The contractor shall ensure that all safety norms are followed as per contractual and other statutory requirements.

### 3.6.1. **Contractor's Labour Camp**

The Contractor shall make arrangements at his own expense for labour camp / accommodation for labour and staff to be employed for execution of the work and their conveyance to Site. Proper ID Cards shall be got approved /authorized by the contractor from the SBI/PMC / BANK to authorize the Contractor's staff and workers to enter the Site.

### 3.6.2. **Mobilization of Resources:**

The contractor shall not mobilize his resources in terms of materials, machinery, tools & plants, facilities required to implement the project and shall not pay any advances to any party unless he receives a letter of Award from **SBI / PMC / Authority**. The contractor shall himself be responsible for such costs incurred without receipt of notice to proceed, and no such claim of the contractor shall be entertained by SBI.

### 3.6.3. **Water Supply & Power Supply**

The Contractor shall make his own arrangement for water supply at the Site for drinking as well as construction purposes & Power Supply at his own cost. Non-availability of power supply and/or water from whatever source shall not entail any additional claims or extension of the Contract period in this account.

### 3.7. **Watch & Ward and Lighting**

The Contractor shall throughout the execution and completion of the Works and the remedying of the site and the Works and the remedying of any defects therein have full regard for the safety of all persons entitled to be on the site and keep the site and the Works in an orderly state to avoid any accident or danger and provide safety measures, lights, guards, fencing and barricades where ever necessary or required by the SBI/PMC / BANK, or by any duly constituted authority, for the execution and for the protection of the Work, and/or for the safety and convenience of the public or others and take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to person or property of the public or others resulting from pollution, noise and other causes etc. at his own cost.

### 3.8. **Temporary Barricading**

The Contractor shall at his own expense erect and maintain in good condition temporary barricades all around the working area with proper Structure Design & Vetted by Third Party as per directions of the SBI/PMC / BANK. The MS Sheet barricading shall be at least 10 meters high approx.; whichever is higher as per statutory requirement in VIP area. The specifications of barricading shall be got approved from SBI/PMC/BANK and external face of barricading to display name of CLIENS OF THE SBI.

#### a. **The contractor shall make, till completion of the project arrangements for/of:**

- i. Proper pumping for removing water from the basement or elsewhere at site.
- ii. Proper security, safety, transportation, manpower, lighting arrangement for execution of works at night.
- iii. Tower crane, batching plant and other plants & machinery, tools and tackles required for timely execution of work.
- iv. Proper barricading around site so that surrounding area is made free from disturbances.
- v. Diversion of underground services with the approval of SBI/PMC / BANK- in- charge.

#### b. **Restriction in work areas.**

- (a). The contractor must see the site of the work, its approaches carefully before tendering; no claim of any sort shall be entertained on account of any site conditions. If any

approach from the main road is required or the existing approach is to be improved and maintained, for cartage and materials by the contractor, the same shall be done by the contractor at his own cost.

(b). No Entry/exit/roads other than specified by the SBI/PMC / BANK for purpose of construction activities will be allowed to be used for construction activity purposes or movement of trucks/lorries/load-carriers and nothing extra/ delay whatsoever will be accounted for on this part.

(c). The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and waterways. He shall make good at his cost and to the satisfaction of the SBI/PMC / BANK, any damage to roads, paths, cross drainage works, or public or private property whatsoever caused thereon by the Contractor. All waste or superfluous materials shall be removed by the Contractor without any reservation entirely to the satisfaction of the SBI/PMC / BANK.

(d). In the event of any restrictions being imposed by the Security agency, SBI/Client, Traffic or any other authority having jurisdiction in the area on the working or movement of labour /material, the Contractor shall strictly follow such restrictions and nothing extra shall be payable to the Contractor on this account.

(e). In case the contractor is not permitted to erect the huts for labour at the site of work, the contractor will have to make his own arrangement to provide such accommodation elsewhere and nothing extra shall be paid on this account.

(f). The contractor shall obtain approval of the SBI to erect the hutments for labour etc. at the site of work; denial of approval shall not affect the construction activities.

(g). The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards such as day and night boards, speed limit boards, red lights, and providing barriers. He shall be responsible for all damage and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during the execution of the work.

c. **Site Data**

(a). The Contractor, with the Tender documents, has been made available such relevant data in SBI's possession on hydrological and sub-surface conditions. The accuracy or reliability of the data/studies/reports and of any other information supplied at any time by the SBI / PMC / BANK is not warranted with respect to the viability of his design and execution of Works and the Contractor shall be responsible for interpreting all such data. The Contractor shall conduct further investigations considered necessary by him at his own cost and any error, discrepancies if found in SBI's data at any stage will not constitute ground for any claim for extra time and costs.

(b). The Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works.

(c). The Contractor shall also be deemed to have inspected and examined the Site, its surroundings, the above data and other available information with respect to the viability of his design and execution of Works and to have satisfied himself before submitting the Tender, as to all the relevant matters including without limitation:

- i. the form and nature of the Site, type of soil including the sub-surface conditions;
- ii. the hydrological and climatic conditions;
- iii. the extent and nature of the work, Plant, and Materials necessary for the execution and completion of the Works and the remedying of any defects;
- iv. the applicable laws, procedures and labour practices
- v. The Contractor's requirement for access, accommodation, facilities, personnel, power,

transport, and other services.

vi. The risk of injury or damage to property adjacent to the Site and to the occupiers of such property or any other risk.

d. **Access Route**

The Contractor shall be deemed to have satisfied himself as to the suitability and availability of the access routes he chooses to use. The Contractor shall (as between the parties) be responsible for the maintenance of access routes. The Contractor shall provide at his cost signs or directions, which he may consider necessary or as instructed by the Engineer for the guidance of his staff, labour and others. The Contractor shall obtain any permission for concessions and related easement rights that may be required from the relevant authorities for the use of such routes, signs and directions.

The SBI will not be responsible for any claims which may arise from the use or otherwise of any access route. The SBI does not guarantee the suitability or availability of any particular access route and will not entertain any claim for any non- suitability or non-availability for continuous use during construction of any such route.

e. The Contractor shall pay all traffic surcharges and other royalties, license fees, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials, machine, process, systems, work methods, or Contractor's Equipment required for the Works.

f. **Traffic regulation and safety measures by the Contractor**

i. The Contractor shall take all the required measures and make arrangements for the safety of other inhabitants during the construction of the Project or a Section thereof in accordance with the provisions of Specifications as applicable.

It shall provide, erect and maintain all such barricades, signs, markings, flags, and lights as may be required by Good Industry Practice for the safety of the traffic passing through the Section under construction or maintenance.

ii. All works shall be carried out in a manner creating least interference to traffic passing through the Project Site or a Section thereof. In stretches where construction or maintenance works on the carriageway are taken up, the Contractor shall ensure that proper passage is provided for the traffic. Where it is not possible or safe to allow traffic on part width of the carriageway, a temporary diversion of proper specifications shall be constructed by the Contractor at its own cost. The Contractor shall take prior approval of the Engineer for any proposed arrangement for traffic regulation during Construction and Maintenance, of which approval shall be granted promptly and reasonably.

**4. Employment of Personnel**

Notwithstanding the provisions in the General Condition of the Contract, the contractor shall preferably employ Indian Nationals as his representatives, servants and workmen after verifying their antecedents and loyalty. He shall ensure that no personnel of doubtful antecedents and any other nationality in any way is associated with the works.

a. The Contractor shall ensure his presence at site all times during working hours throughout the course of the Contract or depute a Competent representative who shall be empowered to receive instructions from the SBI/d / BANK - in- Charge in respect of all matters likely to arise in connection with the execution & coordination of the works at the site.

b. Unless the Contractor's Representative is named in the Contract, the Contractor shall, within 7 days of issue of LOA, submit to the SBI for consent to the name and particulars of the person the Contractor proposes to appoint. The Contractor shall not revoke the appointment of the Contractor's Representative without prior information to the SBI/PMC / BANK. The Contractor's Representative so nominated shall have full authority to act on behalf of the Contractor. The Contractor's Representative shall give his whole time to directing the

preparation of the Construction and/or Manufacture Documents and the execution of the Works. The Contractor's Representative shall receive (on behalf of the Contractor) all notices, instructions, consents, no objection certificate approvals, certificates, determinations and other communications under the Contract. Whenever the Contractor's Representative is to be absent from the Site, a suitable replacement person shall be appointed, with prior consent of SBI/PMC / BANK-in- charge. Failure on the part of the Contractor to comply with these provisions shall constitute a breach of Contract leading to action under Clause 3 of General Condition of Contract.

c. The contractor should submit curriculum vitae (CV) of the key personnel proposed to be deployed at site as per Schedule "F" of GCC for supervision and execution of work.

A list of all technical and key personal staffs must be submitted to the SBI/PMC / BANK with their area of work / responsibility with verified signature and the link persons to receive the instructions at site (in case the main person was not found at site) during the inspection by representative of SBI/PMC / BANK. Any Staff of Contractor found incapable/unsuitable to execute the assigned work shall be replaced by the Contractor if desired by the SBI/PMC / BANK.

The Contractor shall ensure that the personnel engaged by it in the performance of its obligations under this Contract are at all times appropriately qualified, skilled and experienced in their respective functions.

The contractor under normal circumstances would not be allowed to replace the key personnel during the execution of the contract. However, for any reasons, due to unavoidable circumstances if it becomes necessary in the interest of the project to replace any one / all the above key personnel the contractor must submit the CV of the new personnel (having qualifications and experience as per requirement of the contract to SBI/PMC / BANK for their approval.

d. The Contractor's Representative may delegate any of his powers, functions and authorities to any competent person and may at any time revoke any such delegation. Any such delegation or revocation shall be in writing and shall not take effect until the SBI/PMC / BANK has given prior consent thereto. The Contractor's Representative and such persons shall be fluent in the language of day-to-day communication and the Contractor shall be bound by and fully liable for the acts or omissions of the Contractor's Representatives or any of his employees and/or delegates, agents or nominees.

e. In case SBI observes misconduct negligence or incompetence etc. on the part of any representative, agent, servant and workmen or employees etc. of the contractor, the SBI shall have full power and without giving any reason to the contractor, instruct the contractor to remove such engineer / staff / worker from site and provide suitable replacements. The decision of the SBI/PMC / BANK shall be final and binding on the contractor. The contractor shall not be allowed any compensation on this account.

f. Contractor's Authorized Representative shall take joint measurements and sign the measurement books / bills. Any directions, explanations, instructions or notices given by the SBI/PMC / BANK to such representative shall be held to be given to the Contractor. In case of absence of said Representative other alternative representatives should also be mentioned having the same responsibilities.

g. No unauthorized persons shall be allowed on the site. The contractor shall provide complete security arrangements for the campus during construction to avoid trespassing. The Contractor shall ensure all such persons are kept out and shall take steps to prevent trespassing. However, the contractor will make sure to provide free access at any time for SBI/PMC / BANK to the site and other working places.

h. In case the Contractor is required to employ foreign nationals for execution of work, then the employment of foreign personnel by the Contractor and/or its Sub-contractors and their sub. Contractors shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Notwithstanding anything to the contrary contained in this Contract, refusal of or inability to obtain any such permits and

approvals by the Contractor or any of its Sub-contractors or their sub-contractors shall not constitute Force Majeure Event, and shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Contract.

## **5. Safety, Health and Environment**

Over and above the provisions made in Safety Code (part of General Conditions of Contract) the following will also be applicable:

**5.1.** In respect of all workmen directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractor shall at his expense arrange for the safety provisions as per Indian Standard Safety codes shown below and shall at his own expense provide for all facilities in connection there with. In case the contractor fails to make arrangement and provide necessary facilities, he shall be liable to pay compensations prescribed under Workmen Compensation Act 1923 as amended from time to time for each default and in addition the BANK shall be at liberty to make arrangement and provide facilities as aforesaid and recover the cost incurred on that behalf from the contractor, and no claims what so ever shall be entertained.

**5.2.** Details regarding some special provisions to be followed by contractor are as follows:

a. **Usage of quality Personal Protection Equipment's (PPEs)** through approved vendors. PPEs would include amongst others the following items:

- i. Safety Helmets.
- ii. Hearing Protection.
- iii. Respiratory Protection.
- iv. Eye Protection.
- v. Protective Gloves.
- vi. Safety Footwear.
- vii. High Visibility Clothing (Jacket) with approved Logo.

All the items should be approved before issued to the use in the work. Safety Jacket should have SBI Logo as per the size approved.

The contractor shall provide all the PPE (Personnel Protective Equipment) and safety appliances required to carry out the job to all the workmen deployed by the contractor and also ensure that his workmen use those PPE and safety appliances while on the job. The contractor shall not pay any cash amount in lieu of PPE to the workers/sub-contractors and expect them to buy and use during work. If the contractor fails to ensure provision of safety appliances and its workmen do not use the PPE and safety appliances as needed for safe working, the owner may ask the contractor to stop the work and comply with safety requirements first. The contractor shall at all times maintain a minimum of 10% spare PPEs and safety appliances and properly record and show to the SBI during the inspections. Failing to do so shall invite appropriate compensations as per the provisions of under Workmen's Compensation Act 1923 as amended from time to time.

It is always the duty of the contractor to provide the required PPEs for all visitors. Towards this required quantity of PPEs shall be kept always at the security post.

### **b. Colour coding for helmets**

Safety Helmet Color Code (Every Helmet should have the LOGO affixed /painted)	Person to use
White	SBI Staffs, All Designers, Architect, Consultants, Contractor (Engineers / Supervisors) etc.

Blue	Electrician (Engineers / Supervisors)
Red	Firefighters, Emergency Responders
Green	Safety Professionals (Both Contractor and Sub-contractor)
Orange	Security Guards / Traffic marshals
Yellow	All workmen
Violet with visitor sticker	Visitors

- i) Logo shall have its outer dimension of 2"X2" and shall be conspicuous.
- ii) Logo shall be either painted or affixed.
- iii) No words shall come either on Top / Bottom of Logo.

### **c. Working at Heights**

The contractor shall ensure that work at height is properly planned for any emergencies and rescue appropriately supervised, and carried out in a manner,

which is reasonably practicable and safe. The contractor shall ensure that work at height is carried out only when the weather conditions do not jeopardize the health or safety of persons involved in the work. Guardrail, Toe-board, Barrier or similar collective means of protection shall be of sufficient dimensions, of sufficient strength and rigidity for the purposes for which they are being used, and otherwise suitable.

Working Platform shall be of sufficient dimensions to permit the safe passage of persons and the safe use of any plant or materials required to be used and to provide a safe working area having regard to the work being carried out there. Possess a suitable surface and, in particular, be so constructed that the surface of the working platform has no gap through which a person, material or object could fall and injure a person. A working platform and any supporting structure shall not be loaded so as to give rise to a risk of collapse or to any deformation, which could affect its safe use. Strength and stability calculations for scaffolding shall be carried out by the contractor. The dimensions, form and layout of scaffolding decks shall be appropriate to the nature of the work to be performed and suitable for the loads to be carried and permit work and passage in safety.

A personal fall protection system designed for use with an anchor shall be securely attached to at least one anchor, and each anchor and the means of attachment thereto shall be suitable and of sufficient strength and stability for the purpose of supporting any foreseeable loading. Suitable and sufficient steps shall be taken to prevent any person falling or slipping from a personal fall protection system. Any other steps in the opinion of SBI/PMC / BANK suggested will also be taken in Protection system

Only metal ladders shall be allowed. Any surface upon which a ladder rests shall be stable, firm, of sufficient strength and of suitable composition safely to support the ladder so that its rungs or steps remain horizontal, and any loading intended to be placed on it. A ladder shall be so positioned as to ensure its stability during use. A suspended ladder shall be attached in a secure manner and so that, with the exception of a flexible ladder, it cannot be displaced, and swinging is prevented. No interlocking or extension ladder shall be used unless its sections are prevented from moving relative to each other while in use.

### **d. Lifting appliances and gears.**

The contractor shall maintain a register for records of examinations and test details of all lifting appliances. This register should also contain a system of identification of all tools and tackles, its date of purchase, safe working load etc. Contractors can utilize the services of any competent person as defined in Factories Act, 1948 and approved by Chief Inspector of Factories with the permission of the SBI.

### **e. Automatic safe load indicators**

All lifting appliances and gears like cranes, hydras etc, if so constructed that the safe working load may be varied by raising or lowering of the jib or otherwise shall be attached with an

automatic indicator of safe working loads approved by Bureau of Indian standards/ International certifying bodies which gives a warning to the operator and arrests further movements of the lifting parts.

**f. Qualification of operator of lifting appliances and signaler etc.**

The contractor shall not employ any person to drive or operate a lifting machine like crane, hydra etc. whether driven by mechanical power or otherwise or to give signals to work as an operator of a rigger or derricks unless he is above twenty- one years of age and possesses a valid heavy transport vehicle driving license as per Motor Vehicle Act and Rules, is absolutely competent and reliable, possesses the knowledge of the inherent risks involved in the operation of lifting appliances by undergoing a formal training at any institution of national importance, is medically examined periodically.

**5.2.1. Requirements for Planning & Design Capabilities**

**5.3.** For planning and design of the Residential and office building , the bidder should have in-house design capacity to carryout comprehensive planning and design of this project as per requirements and the bidder with his in-house design capacity should have satisfactorily completed -the planning & design of at least two comprising construction of multistoried RCC framed structure including finishing works, water supply and sanitary installations, electrical works, firefighting, LV works during the last 7 years ending the previous day to the last date of submission of tender. The bidder shall submit within 7 days of issue of Letter of Award, the particulars of such in-house design capacity available with him and the documentary evidence with respect to multistoried RCC project as per the above referred criteria completed by him with his in-house design capacity.

**5.4.** In case, the bidder does not have in house capacity to carryout comprehensive planning and design of this project, then the bidder shall engage Firm/ Consultant which shall provide the required comprehensive consultancy services for planning and design from commencement to completion of the project based on the Master plan & Concept designs and DBR provided to the bidder as a part of bidding documents. In such a case the bidder shall depute Project Design Coordinator of requisite qualification and experience who shall coordinate all the required planning & design activities. The criteria for engagement of such Firm/Consultant shall be as under:

- a. The Firm/ Consultant which should be an Indian Consultancy firm and should have in-house design capabilities with minimum experience of 7 years in the field of Consultancy.
- b. The Firm / Consultant should have provided the consultancy services for -the planning & design of at least two comprising constructions of multistoried RCC framed structure including finishing works, water supply and sanitary installations, electrical works, firefighting, LV works during the last 7 years ending the previous day to the last date of submission of tender.
- c. The bidder shall, within 7 days of award of work shall submit the details with the design capabilities along with documentary evidence of the Firm/Consultant proposed to be engaged by him and meeting the criteria as given in a & b above for approval of SBI.
- d. The approved Firm/Consultant shall be associated with the project from commencement till completion.
- e. Irrespective of the approval of Firm/Consultant as proposed by the bidder and approved by SBI/PMC / BANK, the entire responsibility for all coordination and providing the required design services is sole responsibility of the Contractor.
- f. The Contractor's in house design personnel or approved Firm/Consultant design personnel (in case of outside agency) inclusive of Architects, Structural, MEP, landscaping etc. shall regularly visit the project site and other locations during execution of work for discussions, clarifications and attending various meetings with SBI etc. w.r.t the project and as per directions of SBI/PMC / BANK.

**5.5. Building Information Management:**

Refer NIT-building information modeling 16 and 17

**5.6. Design and Construction**

**5.6.1. Obligations prior to commencement of Works**

Within 7 (seven) days of the Commencement Date, the Contractor shall:

- (a) appoint its representative (the "Contractor's Representative") duly authorised to deal with the SBI PMC / Authority in respect of all matters under or arising out of or relating to this Agreement;
- (b) appoint a design head (the "Design Head") who will head the Contractor's design units and shall be responsible for surveys, investigations, collection of data, and preparation of preliminary and detailed designs;
- (c) undertake and perform all such acts, deeds and things as may be necessary or required before commencement of Works under and in accordance with this Agreement including approval from Statutory Authorities, Applicable Laws and Applicable Permits; and
- (d) Make its own arrangements for procurement of materials needed for the Project under and in accordance with the Applicable Laws and Applicable Permits.

5.6.2. Project completion Schedule is set out in the contract document. Design shall be developed in conformity with the specifications and standards set forth in the contract document.

**5.6.3. Engagement of Proof Checking Consultant**

The Proof checking consultant for vetting/proof checking of structural designs shall be engaged by the Contractor and the same shall be from any Indian Institute of Technology/National Institute of Technology as approved by SBI/ PMC / BANK for which the requisite request shall be submitted by the Contractor. The Contractor shall get the structural details / design & drawings proof checked from the approved proof checking consultant as per requirements and at his own cost. Nothing extra shall be payable to the contractor by SBI on this account.

5.6.4. The Contractor shall submit the designs and drawings duly certified by the Proof Consultant to the Engineer for review. Provided, however, that the contractor shall ensure and provide the SBI/PMC

/ BANK with additional drawings that may be required for its review in accordance with Good Industry Practice. The programme for submission of the design shall be finalized in consultation with the SBI/PMC / BANK.

5.6.5. Considering the need for specific green building parameters and to obtain the required IGBC platinum Green Building Rating Certification with respect to project the Contractor shall arrange to comply with required Green Building parameters in designs and construction of various facilities in line with the provisions of the DBR and as per scope of work.

**5.6.6. Contractor's Warranty of Design**

- (a) The Contractor shall be fully responsible for the suitability, adequacy, integrity, durability, and practicality of the Contractor's proposal.
- (b) The Contractor warrants that the Works have been or will be designed, manufactured, installed and otherwise constructed and to the highest standards available using proven up-to-date good practice. By submitting the Drawings for review to the SBI/PMC / BANK, the Contractor shall be deemed to have represented that it has determined and verified that the design and engineering, including field construction criteria related thereto, are in conformity with the Scope of the Project, the Specifications and Standards and the Applicable Laws.
- (c) The Contractor warrants that the Contractor's Proposals meet the requirements and is fit for the purpose thereof. Where there is any inadequacy, insufficiency, impracticality or unsuitability in or of the Requirements or any part thereof, the Contractor's Proposal shall take into account, address or rectify such inadequacy, insufficiency, impracticality or unsuitability at Contractor's own cost.
- (d) The Contractor warrants that the Works will, when completed, comply with enactments and regulations relevant to the Works.
- (e) The Contractor warrants that the design of the Works and the manufacture of plant have taken or will have taken full account of the effects of the intended manufacturing and installation methods, Temporary Works and Contractor's Equipment.

Seal and Signature of the Contractor



- (f) The Contractor shall also provide a guarantee from the Designer for the design for suitability, adequacy, and practicality of design for SBI's Requirements.
- (g) The Contractor shall indemnify SBI against any damage, expense, liability, loss or claim which SBI might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty set out in this Clause.
- (h) The Contractor further specifies and is deemed to have checked and accepted full responsibility 'for the Contractor's Proposal and warrants absolutely that the same meets the SBI's Requirements:

The Contractor shall be fully responsible for the Plants, Materials, goods, workmanship, preparing, developing and coordinating all design Works to enable that part of the Works to be constructed and/or to be fully operational in accordance with the Contract's requirements.

Apart from the Contractor, the above warranty shall also be applicable for his designer. This warranty shall be a part of his subcontract with the designer and should be made available at the time of signing of the Agreement.

No claim for additional payment or extension of time shall be entertained and/or no review and/or observation of the SBI/PMC / BANK and/or its failure to review and/or convey its observations on any Drawings shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Engineer or the SBI / PMC / Authority be liable for the same in any manner; and if errors, omissions, ambiguities, inconsistencies, inadequacies or other Defects are found in the Drawings, they and the construction works shall be corrected at the Contractor's cost, notwithstanding any review under this section.

5.6.7. In respect of the Contractor's obligations with respect to the design and Drawings of the Project as set forth in tender document, the following shall apply:

- (a) The contractor shall furnish design and drawings to SBI / PMC / BANK and in such sequence as is consistent with the Project Completion Schedule, required number of copies of all Drawings, to the SBI for review;
- (b) Within 7 (seven) days of the receipt of the Drawings, the SBI / PMC / BANK shall review the same and convey its observations to the Contractor with particular reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards. The Contractor shall not be obliged to await the observations of the SBI on the Drawings submitted pursuant hereto beyond the said period of 21 (twenty-one) days and may begin or continue Works at its own discretion and risk;
- (c) If the aforesaid observations of the SBI indicate that the Drawings are not in conformity with the Scope of the Project or the Specifications and Standards, such Drawings shall be revised by the Contractor and resubmitted to the SBI for review within 7 days of receipt of communication from Engineer. The SBI shall give its observations, if any, within 7 (seven) days of receipt of the revised Drawings; and
- (d) The Contractor shall be responsible for delays in submitting the Drawing as set forth in Schedule-F caused by reason of delays in surveys and field investigations and shall not be entitled to seek any relief in that regard from the SBI.

5.6.8. The Contractor's time and cost impacts of revisions arising from review by the SBI of designs caused by the Contractor's non-compliance with the requirements of this Agreement shall be borne by the Contractor, unless there is a change in the Scope of the Works.

5.6.9. The Works shall be executed in accordance with the design reviewed by the SBI / PMC / Authority and shall not thereafter be amended or altered without the prior written approval of the SBI. If SBI/ Contractor becomes aware of an error or defect of a technical nature in the design that SBI/ Contractor shall promptly give notice to the other Party of such error or defect. Such an error or defect shall be rectified by the Contractor, without any cost to the SBI.

## **6. Setting out of the Works**

The contractor shall be responsible for the true and proper setting-out of the Works in relation to original points, lines and levels or reference issued by SBI/PMC / BANK-in- charge in drawing or in writing and for the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of works and for the provision of all necessary instruments, appliances and labour in connection therewith. If, at any time during the progress of the works, and during defects liability period, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do by the SBI/PMC / BANK and/ or his authorized representative shall at his own cost, rectify such error to the satisfaction of the PMC / BANK-in- charge. The checking of any setting out or of any line or level by the SBI/PMC / BANK not in any way relieve the Contractor of his responsibility for the correctness thereof. The Contractor shall carefully protect and preserve the benchmarks; sight-rails, pegs and other things used in setting out the Works. Any rectification works required should be done by the Contractor at his own cost.

## **7. Quality of Materials & Equipment, Workmanship and Test**

7.1. All the materials used in the work shall be subjected to the mandatory tests as prescribed in the specifications detailed in Schedule F of the General Conditions of Contract and other specifications referred to in the contract and workmanship shall be the best of the respective kinds described in the Contract and in accordance with the **SBI/PMC / BANK** instructions and shall be subjected from time to time to such tests as the PMC / BANK may direct at the place of manufacture or fabrication or on the Site or at an approved testing laboratory. The source of supply and / or manufacturing within/ outside India may be inspected by the PMC / BANK or any representative as nominated by the SBI. The expenditure on this account is deemed to be included in the quoted rate.

The contractor shall, upon the instruction of the SBI/PMC / BANK's representative, furnish him with documentation to prove that the materials & goods comply with the requirements of the contract and for the requirements stated above. The SBI/PMC / BANK may issue instructions in regard to removal of material from site or any work, if these are not in accordance with the contract. The contractor shall provide such assistance, instruments, machinery, labour and materials as are required for examining, measuring, sampling, testing of material or part of work.

### **7.2. Audit Inspection/ Technical Examination/Third Party Inspection**

The SBI/ PMC / BANK shall have the right to cause Audit Inspection by Audit team under Comptroller and Accountant General of India. / Technical Examination by Chief Technical Examiner under Central Vigilance Commission, Govt. of India /Third Party Inspection of the works and the final bills of the contractor including all supporting vouchers, abstracts, etc. to be made as per payments of the final bill. The Contractor shall provide all assistance and full access to site to carry out inspection and perform tests at site, to provide samples for testing in outside laboratories and to show site records and their records as asked for by the inspecting teams. Findings of such inspection shall be notified to contractor, and contractor shall be bound to take remedial measures to the satisfaction of SBI/PMC / BANK. If as a result of such Audit Inspection/ Technical Examination/Third Party Inspection, the sum is found to have been overpaid in respect of any work done by the contractor under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over payment and it shall be lawful for the SBI/ PMC / BANK to recover the same from the Security Deposit or Performance Security of the contractor or from any dues payable to the contractor. If 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. Since the work comes under the purview of CVC, all such orders and instructions issued by CVC are applicable to this work.

In the case of any audit examination and recovery consequent on the same, the contractor shall be given an opportunity to explain his case and the decision of the **SBI/ PMC / BANK** shall be final. Payment on this account will be recovered from the contractor.

In the case of Technical Audit /Third Party Quality Assurance /Audit by an independent agency/ individual/firm/institute at any time, consequent upon which there is a recovery from the contractor,

recovery shall be made with orders of the SBI/ **PMC / BANK** whose decision shall be final.

### 7.3. Samples

- i. The SBI will not supply any materials required for execution of the Works under this Contract. The Contractor must, therefore, make his own arrangements for timely procurement of various materials including steel and cement, etc.
- ii. Prior to ordering any equipment/ material/ system, the Contractor shall submit to the SBI/PMC / BANK the catalogues, along with samples from approved list of manufacturers. No material shall be procured without written approval of the SBI/PMC / BANK.
- iii. All samples of materials and /or items of works in adequate numbers, sizes, shades & pattern as per specifications shall be supplied free of charge by the contractor without any extra charge. All other expenditure required to be incurred like conveyance for taking the samples for testing at the laboratory, packing, etc., shall be borne by the contractor. If the test results do not conform to the specifications and standards laid down, the materials shall be rejected, the contractor shall remove such materials from site. The laboratory for testing of samples shall be decided by the SBI/PMC / BANK, whose decision shall be final and binding.
- iv. Contractor shall submit Samples to the SBI/**PMC / BANK** for approval. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site, detailed literature / test certificate of the same shall be provided to the satisfaction of the SBI/PMC / BANK. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalogue numbers and the use for which intended and otherwise as the SBI/PMC / BANK may require to review the submittals for the limited purposes required by paragraph (d) below. The numbers of each sample to be submitted will be as specified in the Specifications, or as shall be specified by the SBI/PMC/ BANK.

#### v. **Submittal Procedures**

- a. Before submitting each Sample, Contractor shall have determined and verified all materials with respect to intended use, fabrication, shipping, handling, storage, assembling and installation pertaining to the performance of the Work and All information relative to Contractor's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programmes incident thereto.
- b. Each submittal will bear a specific written indication that Contractor has satisfied Contractor's obligation under the Contract Documents with respect to Contractor's review and approval of that submittal.
- c. At the time of each submission, the contractor shall give the SBI/**PMC / BANK** specific written notice of such variations, if any; that the sample submitted may have from the requirements of the contract document. Such notice shall be separate from the submittal and in addition shall cause a specific notation to be made on each sample submitted for review and approval of each such variation

#### vi. **Review and Approval:**

- a. Sample shall be reviewed and approved only to determine if the items covered by the submittals will, after installation or incorporation in the work, conform to the information given in the contract documents and be compatible with the design concept of the completed project functioning as a whole as indicated by the contract documents, drawings.
- b. Review and approval will not extend to means, methods, techniques, sequences, or procedures of construction. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make corrections required by SBI/PMC / BANK-in- charge and shall submit as required new Samples for review and approval. The contractor shall direct specific attention in writing to revisions other than the corrections called for and by the SBI/PMC /

BANK on previous submittals.

c. Above referred review and approval of Samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Document unless Contractor has in writing called the SBI/PMC / BANK-in- charge attention to each such variation at the time of submission as specified above and received written approval of each such variation by specific written notation thereof incorporated in or accompanying the Sample approval; nor will any approval by SBI/PMC / BANK relieve Contractor from responsibility for complying with the requirements of contract.

d. Only when the samples are approved in writing by the SBI/PMC / BANK, the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be signed by the SBI/PMC / BANK for identification and shall be kept on record at site office until the completion and acceptance of the work and shall be available at the site for inspection / comparison at any time. Samples approved shall be kept in the sample room till the completion of the work. The contractor shall keep with him a duplicate of such samples to enable him to process the matter.

e. For items of works where the samples are to be made at the site, the same procedure shall be followed. All such samples shall be prepared at a place where it can be left undisturbed until the completion of the project.

f. The SBI/PMC/ BANK shall communicate his comments / approval to the Contractor to the samples at his earliest convenience. Any delay that might occur in approving of the samples for reasons of its not meeting with the specifications or other discrepancies, inadequacy in furnishing samples of appropriate quality from various manufacturers and such other aspects causing delay on the approval of the materials / equipment's etc., shall be ascribable to the account of the contractor. In this respect, the decision of the SBI/PMC / BANK shall be the final.

vii. On delivery of the supplies of materials / equipment for permanent works at the site, the contractor shall specifically arrange to get the supply inspected by the SBI/PMC/ BANK and compared with the approved sample and his specific approval obtained before using the same in the work.

viii. Cost of Tests

The cost of making any test shall be borne by the Contractor as intended by or provided for the Contract or as found necessary by the SBI/PMC/ BANK for ascertaining whether the quality of materials intended to be used by the Contractor in the Works is acceptable, whether any finished or partially finished work is appropriate for the purposes for which it was intended to fulfill.

ix. Testing facilities

The Contractor shall, at his own cost, provide testing facilities as per CPWD specifications and IS Codes at site as stipulated in the General Conditions of Contract (GCC) or as directed by the SBI/PMC / BANK including staff required for testing. The tests shall be carried out jointly in the presence of PMC/ BANK or his representative and the contractor or his representative.

The contractor shall also provide suitable weighing and measuring arrangement and testing instruments and machines for testing of materials and cubes at site as per details given in GCC.

The contractor shall carry out all the mandatory tests and shall maintain records of testing & checks of material, in formats, checklists etc. to be given by SBI/PMC / BANK. All such records shall be maintained jointly by the contractor and SBI/PMC / BANK. These shall remain under the custody of the SBI/PMC / BANK.

The laboratory shall be connected to the main potable water, electricity and other Services.

Some of the mandatory tests for each item of work and /or materials shall be carried out in approved outside laboratory as directed by the SBI/PMC / BANK. The Contractor shall bear the entire cost of testing charges for samples of items of work and /or materials and also the other expenditure towards making samples, packaging, and transport etc.

The materials brought at the site of work shall not be used in the work before getting satisfactory test results as per relevant mandatory tests, detailed in the relevant CPWD specifications and BIS codes.

#### **7.4. Manufacturer's Instructions**

Where manufacturers have furnished specific instructions relating to the materials and equipment used, covering points not specifically mentioned in these documents, manufacturer's instructions shall be followed with the approval of SBI/PMC / BANK.

#### **7.5. Inspection & Testing during manufacturing of Equipment**

The SBI/PMC/ BANK shall be entitled to inspect, examine and test during manufacturing of the materials and workmanship and check the progress of manufacturing of all fabrication materials to be supplied under the contract on the contractor's premises during working hours, and if part of the said materials is being manufactured on other premises, the contractor shall obtain SBI/PMC / BANK permission to inspect the same at such premises. This inspection, examination, or testing shall not relieve the contractor from any obligation under the contract. Inspection Call for any equipment shall be given 15 days in advance from the actual date of Inspection.

Following equipment shall be invariably offered for Inspection: -

- 1) Transformers
- 2) HT & LT Panels
- 3) DG Sets
- 4) Bus Ducts & Rising Mains

In case of other equipment, the Contractor shall intimate SBI/PMC/ BANK regarding their readiness so as to decide their inspection if any.

The SBI/PMC/ BANK reserves the right to request inspection and testing at manufacturer's Works at all reasonable times during manufacture of items for this Contract.

The SBI/PMC/ BANK or his authorized representative shall have full power to inspect the materials and workmanship at the Contractor's Works or at any place from which the materials or equipment is obtained. Approval by the SBI/PMC/ BANK of any material or equipment shall in no way relieve the Contractor of his responsibility for meeting the requirements of the specifications. The cost incurred towards boarding, lodging etc. (inland/abroad) of inspection engineer/engineers deputed by SBI shall be fully borne by the contractor & all such costs shall be deemed to be included in the Bid. Nothing extra shall be paid on this account whatsoever. The inspection and testing shall cover, but not limited to, the following: -

- i. Routine and typical tests for the various items of equipment shall be performed at the Manufacturer's/ Contractor's Workshop in the presence of SBI/PMC / BANK or his authorized representative, results recorded, and test certificates issued.
- ii. After installation has been virtually completed, the Contractor shall carry out under the direction and in the presence of the representative of the SBI/PMC / BANK such tests and inspections as have been specified, or as considered necessary to determine whether or not the requirements of the item, drawings and specifications have been fulfilled. In case the work does not meet the full intent of the drawings and specifications and further tests after making the required changes and as considered necessary shall be done again, the Contractor shall carry them out and bear the expenses thereof. If tests fail to demonstrate the satisfactory nature of the installation or any part thereof, then no claims for the extra cost of modifications, replacement, or retesting will be considered. The decision of the SBI/PMC

/ BANK shall be regarded as final as to what constitutes a satisfactory test.

iii. The Contractor shall provide all necessary instruments such as Theodolite, Dumpy level, steel tapes, weighing machine, plumb bobs, spirit levels, hammers, micro-meters, thermometers, hydraulic cube testing machine, smoke test machine and labour, etc. for conducting tests. All such equipment's shall be tested for calibration by an approved laboratory. The Contractor shall make adequate records of the test procedures, readings and results to be maintained by the SBI/PMC / BANK who shall issue test certificates signed by the person authorized by him.

iv. The contractor shall arrange all necessary instruments, tools, tackles and testing facilities free of cost for such inspections. The contractor shall arrange for inspection visit(s) and bear all inspection costs including Inland/ abroad travel (Air/Rail/Road), lodging and boarding expenses etc. free of cost for the Inspection Engineer(s) deputed by SBI.

v. The above general requirements as to testing shall be read in conjunction with any particular requirements specified elsewhere

vi. Dates for Inspection & Testing

The dates of Inspection & Testing, after receipt of written request by the Contractor, shall be mutually agreed by the SBI/PMC/ BANK and the contractor.

vii. Facilities for Testing at Manufacturer's Works

Where the contract provides for tests on the premises of the contractor or of any sub- contractor the contractor shall provide such assistance, labour, materials, electricity, fuel, stores, apparatus and instruments as may be required and as may be reasonably demanded to carry out such tests.

viii. Rejection

If as a result of such inspection, examination or test of the works (other than a Test on Completion the SBI/PMC/ BANK shall decide that such material is defective or not in accordance with the contract he shall notify the contractor accordingly stating in writing his observations and reasons thereof. The contractors shall with due diligence make good the defect and ensure that the material complies with the Contract. Thereafter, if required by the SBI/PMC/ BANK, the tests shall be repeated under the same terms and conditions till satisfactory results are made available.

ix. Delivery of Materials and Equipment

The contractor shall be responsible for all materials and equipment brought at site for the purposes of the contract. Unless the SBI/PMC/ BANK directs, no material shall be brought to the site which is not required for execution of the work.

x. Inspection & Testing and Re-inspection

All deficiencies revealed by testing and inspection shall be rectified by the contractor at his own expense and to the satisfaction and approval of the SBI/PMC/ BANK. Rectified components shall be subject to re-testing till desired results are obtained.

xi. Delayed Tests

If the SBI/PMC/ BANK opines that Tests on Completion are being delayed by the Contractor, the Engineer may by notice require the Contractor to carry out such Tests within 14 (fourteen) days after the receipt of the notice. The Contractor shall carry out such Tests on such day or days as the Contractor may fix, and of which he shall give notice to the Engineer.

If the Contractor fails to carry out the Tests on Completion within 14 (fourteen) days, the Engineer may proceed with such Tests at the risk and cost of the Contractor. The Tests on Completion then shall be deemed to have been carried out in the presence of the Contractor, and the results of such Tests shall be accepted as accurate.

xii. Inspection Reports

The contractor shall provide the SBI/PMC/ BANK with five copies of reports of all inspection and tests.

## **7.6. Access for Inspection**

Persons nominated by SBI/PMC/ BANK shall at all reasonable times have free access to work and/

Seal and Signature of the Contractor

or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall extend necessary service to BANK and their representatives every facility necessary for checking measurements, inspection and examination and test of the materials and workmanship.

## **8. Time Schedules**

**8.1.** Time shall be the essence of the contract. Time allowed for carrying out the work as mentioned in the contract shall be strictly observed by the contractor and it shall be reckoned from the issue of the Letter of Award. It may be noted that the construction of Building including development of the Enclave as detailed in the detailed user requirement. The milestones shall be as detailed in schedule "F" of the General Condition of the Contract. The contractor shall before commence the work prepare a detailed work schedule. This schedule shall be strictly followed by the contractor. For completing the work in time, the contractor may have to work round the clock without interruption and no claim whatsoever shall be entertained on this account.

### **8.2. Commencement of Works**

i. The Contractor shall commence the Works on the date specified in the Letter of Award. Thereafter the Contractor shall proceed with due diligence, without delay, and in accordance with the programme or any revised or modified programme of the Works.

ii. The Contractor shall not commence the construction, manufacture or installation of the Works or of any part of the Works unless and until the Engineer has endorsed the relevant Drawings in accordance with the SBI's Requirements.

### **8.3. Time for Completion**

i. Project completion Schedule includes setting out date of completion in phases as defined under Schedule F of the GCC Part-B.

ii. Time is the essence of Contract and will remain so at all times during the pendency of the Contract including the extended period of Contract. The Contractor shall complete works as per completion schedule and ensure defect free completion and have passed the tests on the completion, including integrated testing wherever in the scope of work and commissioning of the whole of the Works and/or parts thereof before the same is taken over by the Client/SBI.

### **8.4. Milestones**

i. The time allowed for execution of the Works and Milestones shall be as specified in the Schedule F of GCC, Part-B. In case, the contractor does not achieve a particular milestone mentioned in or the re-scheduled milestone(s) by the SBI, the amount shown against that milestone shall be retained and will be adjusted against the Liquidated Damages at the final grant of Extension of Time after completion of work.

ii. On failure to achieve a milestone, retaining this amount from payments due to the contractor shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the entire retained amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be retained. However, no interest, whatsoever, shall be payable on such an amount retained by the SBI.

### **8.5. Operation & Maintenance of Buildings handed over / taken over prior to the stipulated date of completion for the complete project.**

i. The construction of Residential and office buildings involves Design, Engineering, Procurement and Construction (EPC) basis as per the Scope of work. The buildings and other services are required to be handed over in phases as per the milestones detailed in schedule "F" of the General Conditions of the Contract.

ii. In respect of the buildings handed over/taken over in phases, prior to the stipulated date of completion of the entire project, the contractor shall carry out the operation and maintenance of such buildings and services from the completion of respective phases till the completion of the defect liability period of entire project.

## **9. Completion Certificate**

### 9.1. **Provisional Completion Certificate**

For the purpose of issuing Provisional Certificate of Physical Completion on substantial completion of the phase wise work as provided in Clause 1(v) of GCC (Part-B), the work shall be deemed to have been substantially completed after fulfillment of all the following for respective phases of construction by the Contractor:

- a. The phase(s) of the work as per milestone(s)/whole of the Work are substantially completed and have satisfactorily passed required tests that may be prescribed under the Contract and ready to use. The contractor shall handover such certificates to the SBI/PMC/ BANK.
- b. Obtaining all required approvals from the statutory authorities as required for occupation and use of the works and handing over such certificates to the SBI/PMC/ BANK.
- c. Submitting As-Built Drawings, Catalogues, Brochures, Data Sheets, manuals etc. in the form as directed by SBI/PMC / BANK.

On fulfillment of the above for respective phases of construction, the contractor shall give written notice to this effect within 10 days of completion along with an undertaking to rectify any shortcoming/defects that may be found during inspection. The SBI/PMC/ BANK shall jointly inspect the work with the contractor within thirty days of receipt of such notice and see if they are in such a condition so as to be put to its proper or other intended final use and

/or occupied without any short comings and no major or minor items of works are remaining which in the opinion of the SBI/PMC / BANK will cause undue difficulties in satisfactory use/ occupation of the works and issue Certificate of substantial Completion for the respective phases of construction.

After recording of the Provisional Completion Certificate for the work by the competent authority, the 50% of total security deposit shall be returned to the contractor, without any interest

### 9.2. **Final Completion Certificate**

The contract shall not be considered as completed until a certificate of Final Completion has been issued by the SBI/PMC/ BANK stating that the works are completed in all respect to his complete satisfaction as per contract and remedying/rectifying all the defects/snags along with the submission of relevant permits/clearance from statutory bodies. It is also a prerequisite that the certificate of Final Completion shall be issued after taking over of the works by the Clients of the SBI.

The composite work shall be treated as complete when all the phases and components of the work are complete. The Certificate for Final Completion of the total work shall be recorded by the SBI/PMC/ BANK after obtaining / recording of final completion certificate of all the components/phases.

The Defect Liability Period (DLP) for complete work shall start with effect from the date of issuance of the final completion certificate(s) of the complete work.

The balance 20% of performance guarantee shall be returned to the contractor without any interest after fulfillment of all the relevant conditions & obligations of the Contract.

### 9.3. **Certificate of Overall Completion**

The PMC/ BANK shall give the Certificate for Overall Completion as per the following, whichever is later:

- Twenty-eight days after the expiration of the Defects Liability Period
- OR**
- If different Defect Liability Periods shall become applicable to different sections or parts of the Works, the expiration of the last such period
- OR**
- As soon as thereafter any works ordered during such period and have been completed to the satisfaction of the CLIENT/SBI.

Hundred percent (100%) of the security deposit of the contractor shall be retained for a period of 24 (twenty-four) months from the date of completion of work as per completion certificate issued by the SBI/PMC / BANK or till the final bill has been passed whichever is later. (Also Refer Clause 17.6 of Part-B, GCC)

Seal and Signature of the Contractor



**9.4.** The contractor shall give performance test of the entire work as per standards Specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the tests.

## **10. Handing over & Taking Over Process**

Handing over & taking over process shall be done in phases as per the scope of phased construction given in Schedule “F” of the tender document. For handing over & taking over process, in addition to clauses specified elsewhere, following services / works have to be complied with by the contractor:

- a. Submission of Guarantees in stamp paper, of appropriate value, (in prescribed format) for all waterproofing treatment and Anti termite treatment etc. executed in the works for a period of ten years. If any defects noticed within 10 years from completion of defect liability period, the contractor shall be sole responsible for the defects and same shall be rectified by the contractor as per information from SBI within a period of 10 days from the notice.
- b. Rectification of all defects shall be carried out by the contractor before the Handing over/ Taking over process.
- c. As built drawings: - 6 (six) sets for Architectural, Structural, Plumbing, Electrical, Specialized services and other required drawings as approved by SBI/PMC / BANK along with their soft copies in the required software version shall be submitted by the contractor before handing over & taking over process.
- d. All services/equipment are to be run and checked before handing over & taking over process as per requirements of SBI/PMC / BANK.
- e. Contractor has to arrange water, electricity, fuel, consumables and manpower at their own cost for the purpose of testing of services and equipments. No amount shall be payable on this account.
- f. The Contractor shall submit catalogues, brochures, operation manual, manufacturer test certificate, Guarantee/ Warranty papers, license etc. for all equipment/materials before handing over & taking over process.

## **11. Guarantees**

Notwithstanding provisions in the General Condition of the Contract and elsewhere in these Special Conditions of Contract, the contractor shall furnish the **guarantees** in the prescribed form appended herewith. These guarantees shall be provided at the stage of virtual completion of work and shall be effective from the completion of work, to be reckoned from the date after the expiry of the maintenance period prescribed in the contract. In case a specialized agency has been approved for execution of a work/system, the Contractor shall ensure that the Guarantees shall be through such agencies (Obligators/Guarantor). The guarantees shall be provided in respect of the following works (as per formats appended to this document) and any additional works, as provided for in the contract.

- i. For removal of defects after completion in respect of Water Supply and Sanitary Installations.
- ii. For Water Proofing Treatment for Basements
- iii. For Water Proofing Treatment for Roof
- iv. For Water Proofing Treatment (Under floors)
- v. For Anti-Termite Works
- vi. For Aluminum Works
- vii. For Structural Glazing / Curtain Wall System /works
- viii. For Mechanical/ Seismic Expansion Joint/ Works
- ix. For any other work, as prescribed in the tender document.

## **12. Defect after completion**

### **a) General**

Seal and Signature of the Contractor

Any defect, shrinkage, settlement or other faults that may appear within the "Defects Liability Period" which in the opinion of the SBI/PMC/ BANK are due to materials or workmanship not in accordance with the contract, shall be rectified as per the directions in writing of the SBI/PMC / BANK to the Authorized representative of the contractor within such reasonable time as shall be specified therein by the contractor, at his own cost. In case of default, the SBI/PMC / BANK may employ any persons to amend and make good such defects, shrinkage, settlements or other faults and all expenses consequent thereon or incidental thereto shall be borne by the contractor.

The scope of work shall also include operation and maintenance of various works. Operation and maintenance shall be carried out by EPC Contractor either himself or through respective OEM & Vendors who are involved in supply & installation of works at site. O&M activities shall be provided up to completion of the defect liability period and extended period thereof and shall be separately paid as per respective terms and conditions of this Contract.

**b) Execution of work of repair etc.**

Any defects, shrinkage, settlement or other faults which may appear or be noticed within the defect liability period, and arising in the opinion of the SBI/PMC/ BANK from materials or workmanship not having in accordance with the contract, shall upon the direction in writing of the SBI/PMC/ BANK's representative and within such reasonable time as shall be specified therein and without any delay, be amended and made good or replaced by the contractor at his own cost.

**c) Cost of Execution of Work of Repair, Etc.**

All such works shall be carried out by the Contractor at his own expense if the necessity thereof shall, in the opinion of the SBI/PMC/ BANK, be due to the use of materials or workmanship not in accordance with the Contract, or due to neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the Contract.

**d) Contractor's personnel to be at site**

During the defects liability period the contractor shall depute at least one of his authorized representatives at site along with required tradesmen to attend the defects to the satisfaction of SBI/PMC / BANK.

**13. Dues not paid by the Contractor**

The contractor shall pay all dues or fees to Statutory authorities and Electric and Water supply authorities & Lift licensing authority etc. within due period and indemnify the CLIENT/ SBI and the BANK from any claims or compensations or penalties or damages arising out of non- payment of any such dues or fees. However, in case some dues or fees are not paid by contractor and or claims for compensations or penalties etc. are raised by the Statutory authorities, the SBI may deposit the required amount or any or all of the above and recover or deduct the same from any money payable to the contractor by the SBI or any other means available to the SBI such as bank guarantee.

**14. Urgent Repairs**

If, by reason of any accident, or failure, or other event occurring to or in connection with the works, or any part thereof, either during the execution of the works, or during period of Defects Liability any remedial or other work or repair, shall, in the opinion of the SBI/PMC / BANK be urgently necessary for the safety of the Works and the Contractor is unable or unwilling to do such work or repair despite notice, the SBI/PMC/ BANK may employ and pay other persons to carry out such work or repair as the case may be and may consider necessary. If the work or repair so done by the other agency is the work which, in the opinion of the SBI/PMC/ BANK the Contractor was liable to do at his own expense under the Contract, all expenses incurred by Other agency in so doing shall be recoverable from the Contractor by the SBI/PMC/ BANK, or shall be deducted by the SBI/PMC/ BANK-in- charge from any monies due or which may become due to Contractor.

**15. Plant Temporary Works & Materials**

**a) Plant, etc. Exclusive use for the Works**

Seal and Signature of the Contractor

All Constructional Plant, Temporary Works and materials provided by the Contractor shall, when brought on to the Site, be deemed to be exclusively intended for the execution of the Works and the Contractor shall not remove the same or any part thereof except for the purpose of moving it from one part of the Site to another, without the consent, in writing of the SBI/PMC/ BANK, which shall not be unreasonably withheld.

#### **b) Removal of Plant etc.**

Upon completion of the Works, the Contractor shall remove from the Site all the said Constructional Plant and Temporary Works remaining thereon and any unused materials provided by the Contractor, within 10 days of obtaining the completion certificate/ Virtual completion of the work.

### **16. Reports by Contractor**

a) The Contractor shall submit CPM – PERT Chart and activity wise bar charts, indicating the duration of various subheads of the work, for the complete work within 15 days of award of work or as per Clause 5 of the GCC, whichever is earlier, for approval by the SBI/PMC/ BANK. On the basis of approved bar charts, contractor shall submit Progress Charts on or before 5<sup>th</sup> day of every month. A soft copy of the PERT chart shall be supplied whenever demanded by the SBI/PMC/ BANK.

b) The Contractor shall submit Monthly Progress Report in triplicate in format approved by SBI/PMC/ BANK. Failure to submit reports may result in holding up or delay in Payment of bills.

c) Monthly Progress Photographs: - The Contractor shall arrange at his own cost to maintain a progress record of the works by taking postcard size colour photographs (preferably digitized photographs) 6 Nos. or more per month per block as directed by the SBI/PMC/ BANK during the construction stages and after completion shall supply three sets at no extra cost. The Contractor will be required to submit monthly reports on the progress of his work as per the format approved by the SBI/PMC/ BANK.

d) The Contractor shall prepare Weekly Reports of planned and actual progress of work and subsequent week's scheduled work. These will also include material procurement status. These reports shall be submitted to the SBI/ PMC/ BANK & shall be reviewed in Weekly Co-ordination Meetings.

e) The Contractor shall file a daily category-wise labour report to the SBI/PMC/ BANK. The report shall indicate scheduled requirements against actual strength.

f) The contractor shall maintain daily weather records. Daily maximum and minimum temperature and corresponding humidity shall be recorded and charted. Rainy days shall be recorded when the rain lasting more than one hour hampers the work. Any other inclemency in weather shall be recorded. The records shall be regularly shown to the SBI/PMC/ BANK and his signature obtained.

### **17. Operations and Maintenance Manual**

g) The Contractor shall provide and submit to the SBI/PMC/ BANK with six copies of the Operation and Maintenance Instruction Manuals. The arrangement of these manuals shall be as follows:

SECTION A: Index

SECTION B: Salient features of the Project.

SECTION C: Description and details of materials, items and fittings and fixtures used for the project along with Catalogues /Brochures Operation & Maintenance Manuals etc.

SECTION D: Operation & Maintenance instructions

SECTION E: List of recommended Spare parts /consumables.

Until above mentioned documents are received and approved by the SBI/PMC/ BANK, Contract shall not be considered as complete, and payment will be withheld until such documents etc. have been submitted to and approved by the SBI/PMC/ BANK. The cost of providing such records, including proper submission thereof, is deemed to be included in the Bid.

## **18. Co-ordination Meetings**

The Contractor shall be required to attend co-ordination meetings with the SBI/ CLIENT and the other Contractors during the period of Contract as intimated by the SBI/PMC/ BANK- in- charge. All costs incidental to such interaction shall be to the Contractor's account and no claim will be entertained by the SBI/ CLIENT on this account.

## **19. Compliance of Statutory Obligations and obtaining Approvals/ Completion Certificates:**

The Contractor shall comply all the statutory obligations and obtain all required clearances to implement the project without any financial repercussions to SBI/PMC/ BANK and ensure all follow up actions with the local authorities in this respect for smooth completion of the project. The Contractor shall obtain all necessary approvals from Municipal bodies and other local bodies including, Water/Sewer supply agencies, Electric Supply and inspectorate agencies, Police and Security Agencies, Chief Controller of Explosives, Fire Department, Civil Aviation Department, Lift inspector, Pollution Control Board, , tree re-plantation, permission for bore well and for temporary structures etc. in accordance to prevailing rules, Building Bye-Laws etc., as the case may be with related to Construction/ Completion. The contractor shall liaison and follow to obtain all NOC, completion & Occupancy certificates from respective local bodies and other statutory authorities, such as:

- i) Construction Permit, if required
- ii) Pollution control Board,
- iii) Environment Clearances,
- iv) Permission for Excavation from concerned mining department
- v) Provisional & Final NOC from fire department,
- vi) Lift license i/c NOC,
- vii) Chief Electrical Inspector CEA,
- viii) Local Municipal authority.
- ix) Airport Authority/Civil Aviation
- x) Approval for temporary connection of power and water supply
- xi) Forest Department for tree replantation etc.,
- xii) Explosive Department,
- xiii) Local Municipal authority for water and sewer connection,
- xiv) Building Occupancy Certificate
- xv) Any other statutory requirement for execution of work and to occupy the buildings and run the services in all respects.
- xvi) No Time extension

Contractor shall organize all inspections of concerned authorities & obtain the NOCs within the time for completion. The SBI/PMC / BANK may, at the written request of the Contractor, liaison and follow up him in obtaining the approvals from relevant authorities. However, any such request by the Contractor shall not bind the SBI/PMC / BANK in any manner.

All expenditure on these accounts will be borne by the EPC Contractor. However, the fees paid by the contractor to these statutory authorities only for obtaining the required statutory approvals shall be reimbursed by SBI on submission of valid payment receipts from these statutory authorities.

The contractor is required to submit the relevant drawings/filled application forms as per prescribed format & any other details like completion Drawings and any other statutory documentary requirements of local bodies in copies as per requirement to obtain the above etc. at their own cost.

## **20. Training and Operating Instructions**

Seal and Signature of the Contractor

a. If required by the SBI/PMC/ BANK, the Contractor shall at his cost, train members of the maintenance staff of Client/SBI either at his or the subcontractor's workshop or at such other place or places as may be considered suitable by the SBI/PMC/ BANK.

b. Upon completion of all work and all tests, the Contractor shall furnish the necessary skilled/unskilled/semi-skilled personnel for operating the entire installation for a period of thirty (30) working days. During this period, the Contractor shall instruct and train the SBI/ CLIENT's representative(s) in operation, adjustments and maintenance of the equipment installed.

c. The Contractor shall submit to the SBI/PMC/ BANK draft comprehensive operating instructions and maintenance schedule for all systems and equipment included in this Contract. This shall be supplemented, not substituted, by manufacturer's operating and maintenance manuals. Upon approval of the draft, the Contractor shall submit to the SBI/PMC / BANK six (6) complete bound sets of operating and maintenance schedules along with manufacturers printed literature/catalogues.

## **21. Test Certificates**

The contractor shall submit test certificates for all the materials / systems issued by the SBI/PMC/ BANK approved inspection / office / manufacturer certifying the Equipment / Materials / installation and its function are in agreement with the requirements of relevant specifications and accepted standards.

## **22. Quiet Operation and Vibration**

All equipment's shall operate under all conditions of designed load without any sound or vibration, which is considered objectionable by the SBI/PMC/ BANK. Such conditions shall be corrected by the Contractor at his own expense. Decision of the SBI/PMC/ BANK shall be final in this regard.

## **23. Accessibility**

The Contractor shall locate all equipment's, which require servicing, operation or regular maintenance in fully accessible positions. The exact location and size of access panels, required for each valve or other devices requiring attendance, shall be finalized and communicated to SBI/PMC/ BANK well in time, to facilitate working by other agencies, failing this, the Contractor shall make all the necessary repairs and changes at his own expense.

## **24. Licenses and Permits**

The Contractor or the approved specialized agency engaged by them shall hold a valid license for services like plumbing, electrical, Lifts etc. & wherever required in addition, issued by the Competent Authority under whose jurisdiction the work falls.

## **25. INSURANCE**

Refer Part-B –GCC clause -42.

## **Special Conditions of Contract – ELECTRICAL SERVICES**

### **1. General**

- i. The Special Conditions of the Contract - Electrical Services shall be read in conjunction with the Special Conditions of the Contract-Scope of Work, and Special Condition of the Contract-General. In case of variations / deviations, if any, the Special Conditions of the Contract- Electrical Services shall prevail.
- ii. The electrical installations shall be in total conformity with the Shop Drawings, Single Line Diagrams (SLD), Design Basis Report, Schematic Drawings, Power & Control wiring drawings etc. prepared by the Contractor and approved by the SBI/PMC/ BANK & shall be tested & commissioned in the presence of the Contractor and the SBI/PMC/ BANK.
- iii. The responsibility for the sufficiency, adequacy and conformity to the Contract requirements of the electrical installation work lies solely with the Contractor.
- iv. The planning, design, construction and workmanship shall be in accordance with the best engineering practices to ensure satisfactory performance and service life and shall be complete in all respects. Any materials or accessories which may not have been specifically mentioned, but which are necessary for the satisfactory and trouble-free operation and maintenance of the equipment shall be provided without any extra cost. This shall also include spares, consumables, tools & tackles required for commissioning of the equipment.
- v. The Contractor shall obtain all statutory approvals (electrical loads, approval of drawing/ ESS/ D.G. / approval of meter room etc.) from the concerned statutory authorities and permits required for the HT/LT electrical installation work. All statutory fee payable in this regard will be reimbursed against production of receipts/documentary evidence. On completion of work, the contractor shall obtain NOC from SEB/ Power Distribution Company& Director of Safety of the concerned state; a copy of the same shall be delivered to SBI. The contractor shall be responsible for dealing with SEB/ Power Distribution Company and other statutory authorities till project commissioning/ handing over and getting electricity in the Enclave.
- vi. The SBI/PMC shall have full power for getting the materials or work tested by an independent agency at the electrical contractor's expenses in order to prove their soundness and adequacy. The contractor will rectify the defects/suggestions pointed out by SBI/PMC independent agency at his own expenses.

### **2. Regulations and Standards**

- i. The installation shall comply in all respects with the requirements of Indian Electricity Act 1910, Indian Electricity Rules (IER) 1956 and other related Laws and Regulations as amended up to date, there under and special requirements, if any, of the State Electricity Boards/ Power Distribution Company etc. The bidder is liable to furnish the list of authorized licensed persons/ employed/deputed to carry out the works/perform the assigned duties to fulfill the requirements of IER 1956 as amended up to date.
- ii. Wherever these Special Conditions call for a higher standard of material and/or workmanship than those required by any of the above regulations, then these Special Conditions shall take precedence over the said Regulation and Standards. All Internal & External Electrical works, LV works, Fire Fighting, Fire detection & alarm system etc. to be done as per specifications & relevant BIS codes and other applicable codes as relevant.

### **3. Conformity with Statutory Acts, Rules and Standards**

- i. All installations shall be in conformity with the Byelaws, Regulations and Standards of the local authorities as applicable. But if the specifications and drawings call for a higher standard of material and/or workmanship than those required by any of the above Regulations and Standards, then the specifications and drawings provided in the contract shall take precedence over the said regulations and standards as per the directions of the SBI/PMC/ BANK.
- ii. However, if the drawings or specifications required something which violates the Byelaws and Regulations, then the Byelaws and Regulations shall govern the requirement of this installation as per the directions of the SBI/PMC/ BANK.
- iii. Indian Electricity Act and Rules: All electrical works in connection with installations of the system shall be carried out in accordance with the provision of the Indian Electricity Act, 1910 and the Indian

Electricity Rules 1956, both amended up to date.

iv. CPWD Specifications: as at Schedule “F” of GCC.

v. Indian Standards: The system / components shall conform to relevant BIS wherever they exist and to the National Building Code-2016 and ECBC with latest amendments / Addendums.

vi. Nothing in these specifications shall be construed to relieve the Contractor of his responsibility for the design, manufacture and installation of the equipment with all its accessories in accordance with applicable Statutory Regulations and safety codes in force.

#### **4. Completeness of Bid**

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the quoted prices, whether such items are specifically mentioned in the Bid documents or not.

#### **5. Works to be done by the Contractor: -**

Unless and otherwise mentioned in the Bid documents, the following works shall be done by the Contractor, and their cost shall be deemed to be included in the contract price:

- i. Foundations for equipment and components where required, including foundation bolts
- ii. Cutting and making good all damages caused during installation and restoring the same to their original finish
- iii. Sealing of all floor openings including shafts and niches etc. provided for pipes, ducts, cables, bus bars etc. from a fire safety point of view, after laying the same.
- iv. Painting at the site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/ distribution gear items, cubicle switch board etc. damages during erection, shall however be rectified by the contractor.
- v. Testing and commissioning of complete installation.

#### **6. Cutting of structural members**

No structural member shall be chased or cut without the written permission of the SBI/PMC/ BANK.

#### **7. Drawings**

The Detailed drawings have been appended to the tender document for guidance of the contractor. The contractor shall plan and design all services and prepare shop drawings. The shop drawings shall cover, but not limited to, the extent and general arrangements of the fixtures, controlling switches, wiring system, distribution boards, panels, sub-panels etc. The Contractor shall submit requisite number of working electrical drawings based on detailed drawings including reflected ceiling plan for the SBI/PMC/ BANK's approval. **Contractor** has to make necessary changes if any as per comments given by SBI/PMC/ BANK before execution. The work shall be executed as indicated in the approved drawings; however, any minor changes found essential to co-ordinate the installation of this work with the other trades shall be made in consultation with the SBI/PMC/ BANK.

Any discrepancies noticed shall be reported to the SBI/PMC/ BANK for clarification. In case of failure to do so Contractor shall not be entitled to any cost for omissions or defects in electrical drawings due to any conflict with other services of work.

Any information/data shown/not shown in these drawings shall not relieve the contractor of his responsibility to carry out the work as per the specifications. Additional information required by the bidder/tenderer for successfully completing the work shall be obtained by him.

#### **8. Position of HT/LT Switch Boards/Transformer & DG Sets**

The recommended position of the switch boards, transformer & DG Sets as shown on the layout drawings will be adhered to as far as practicable.

The contractor shall procure such equipment/ materials as per list of the approved makes with prior approval of SBI/PMC/ BANK. For all non-specified items, approval of the SBI shall be obtained prior

to procurement of the same. SBI shall in no way be liable for rejection of the any material due to poor quality, poor workmanship, poor material etc.

## **9. Shop Drawings**

Prior to the laying of the conduits and trunking, the Contractor shall submit the shop drawings for the approval of the SBI/PMC/ BANK. The observations, if any, of SBI/PMC/ BANK shall be incorporated, and drawings shall be re-submitted for the approval of the SBI/ PMC/ BANK.

The Contractor shall prepare and submit to the SBI/PMC/ BANK for his approval detail shop drawings, General Arrangement Drawings, SLD, power/ control wiring drawing for Main & Sub Panels / Distribution Boards, special pull boxes, light & fan switchboards, telephone distribution boards, FDA system and lightning protection system and other equipment to be procured/ fabricated by the Contractor.

The contractor shall prepare detailed coordinated electrical shop drawing indicating lighting/lighting fixtures, convenience outlets, DG Sets, HT Panels, Transformers, LT Panel Boards/ Panels, PCC, DB's, Rising Mains, Cable Schedule with other relevant services and submit for approval of the SBI/PMC/ BANK before commencing the work. The shop drawings shall indicate all setting out details and physical dimensions of all components, GA Drawings, wiring and cable details for 33/ 11 KV Panel Board, LT Panels, Package Substation, D.G.'s, PCC's, MCC's, cable schedule and routes, manhole trap etc. The fixing details for conduits indicating run and size of wire/cables, outlet/pull/junction boxes etc. with fixing details etc. shall be provided. All works shall be carried out after the approval of these drawings. However, approval of these drawings does not relieve the contractor of his responsibility for providing maintenance free and fool proof system including any missing component/ accessories to meet with the intent of the specifications. The contractor will submit requisite no. of prints for preliminary approval and finally requisite sets of prints for distribution.

The Contractor shall submit and get approved the relevant drawings atleast 15 days before placing the orders with manufacturers/suppliers.

The approval of shop drawings, schedule, brochures etc. by SBI/PMC/ BANK and shall not relieve the Contractor from responsibility for any deviation from drawings or specifications unless he has in writing informed by SBI/PMC/ BANK of such deviations at the time of submission of the drawings nor shall it relieve the Contractor from any responsibility for errors or omissions of any kind in the shop drawings.

## **10. Materials & Equipment and Approval Thereof**

All the materials and equipment shall be of the approved make and design. Unless otherwise called for any approval by SBI/PMC/ BANK, only the best quality materials and equipment shall be used.

All materials and equipment shall be ISI marked, as applicable, and shall be of the make and design approved by the SBI/PMC/ BANK. Unless otherwise called for, only the best Grade of materials and equipment shall be used. The Contractor shall be responsible for the safe custody of all materials and equipment's till these are taken over by CLIENT/SBI and shall insure them against theft, damage by fire, earthquake etc. A list of items of materials and equipment, together with a sample of each shall be submitted to the SBI/PMC/ BANK for his approval and shall be kept in the sample box.

All materials used on the Works shall be new and of the approved quality, conforming to the relevant specifications. Prior approval shall be obtained in writing from the SBI/PMC/ BANK for all materials proposed and when approved, sample shall be duly identified and labeled, it shall be deposited with the by SBI/PMC/ BANK/ and shall be kept in the sample room at Site

### **10.1. Technical Submittals**

The Contractor shall submit Technical Submittals for all materials, equipment and machinery for approval in writing of the SBI/PMC/ BANK before placing orders. The material submittals shall comprise of at least the following:

- i. Manufacturer's technical catalogues and brochures giving technical data about performance and other parameters
- ii. Manufacturers drawings / sketches showing construction, dimensional and installation details
- iii. Rating charts and performance curves clarifying rating of equipment proposed.



iv. The contractor is specifically instructed to propose & use environmentally friendly construction methods and other new technologies in building construction as per “New & Innovative Technologies 2018” issued by CPWD in 2018.

## **10.2. Samples, Catalogues, Brochures and Data**

Contractor shall submit the samples & catalogue of the material, which are proposed to be used at Site as per the approved makes for obtaining approval of the SBI/PMC/ BANK.

The Contractor shall submit the number of copies, as required, of all brochures / manufacturer's description data, operation manuals with internal complete circuit diagrams and other similar literature while obtaining the approval of product from SBI/PMC/ BANK.

## **11. Inspection, Testing and Inspection Certificate**

a. The PMC/ SBI or duly authorized representative shall have at all reasonable times free access to the Contractor/ Manufacturer's premises or works and shall have the power at all reasonable times to inspect and examine the materials and workmanship of the works during its manufacture or erection, if part of the works is being manufactured or assembled at other premises or works, the Contractor shall obtain permission to inspect as if the works were manufactured or assembled on the Contractor's own premises or works. Inspection may be made at any stage of manufacture, dispatch or at site at the option of the SBI and the equipment. If found unsatisfactory due to bad workmanship or quality, material is liable to be rejected.

b. All equipment being supplied shall conform to Routine and Type Tests in accordance with relevant IS Codes requirements stipulated under respective sections. Routine and Type Tests shall be carried out at manufacturers' works/ factories. Expenditure incurred on conducting such tests shall be to the Contractor's account. Bidder shall submit the routine & type tests reports to SBI/PMC/ BANK.

c. The contractor shall inform SBI within fifteen (15) days from the date of inspection or as defined, inform in writing to the Contractor of any objection to any drawings and all or any equipment and workmanship which in his opinion is not in accordance with the Contract. The Contractor shall give due consideration to such objections and make the necessary modifications accordingly.

d. Before dispatch to site, the contractor shall offer the equipment for inspection at the premises of the manufacturer, 15 days in advance and inform SBI about the date of inspection. Subsequently, SBI shall depute its Inspection Engineer(s) for carrying out the inspection at the premises of the manufacturer on mutually agreed date(s). Contractor shall invariably depute his representative(s) for witnessing the complete inspection procedure jointly with Inspection Engineer(s) of PMC & SBI.

e. The contractor shall arrange all necessary instruments, tools, tackles and testing facilities free of cost for such inspections. The contractor shall arrange for inspection visit(s) and bear all inspection costs including Inland/ abroad travel (Air/Rail/Road), lodging and boarding expenses etc. free of cost for the Inspection Engineer(s) deputed by PMC & SBI.

f. For tests whether at the premises or at the works of the Contractor or of any Sub- Contractor, the Contractor except where otherwise specified shall provide free of charge such items as labour, materials, electricity, fuel, water, stores, apparatus and instruments as may be required by SBI or this authorized representative to carry out effectively such tests of the equipment in accordance with the Specification.

g. The inspection by PMC&SBI and issue of Inspection Certificate thereon shall in no way limit the liabilities and responsibilities of the Contractor in respect of the agreed quality assurance programme forming a part of the Contract.

h. The SBI will have the right of having at his own expenses any other tests(s) of reasonable nature carried out at Contractor's premises or at site or in any other place in addition of aforesaid type and routine tests to satisfy that the material complies with the specifications.

i. The SBI reserves the right for getting any field tests not specified in respective sections of the technical specification conducted on the completely assembled equipment at site. The testing equipment for these tests shall be provided by the Contractor.

j. SBI reserves the right to waiveoff inspection of any equipment, items etc at its sole discretion.

k. Notwithstanding approval of tests or equipment by the by SBI/PMC/ BANK, the Contractor shall

be required to perform site tests and prove the correctness of ratings and performance of equipment / machinery and materials supplied and installed by the Contractor as per the Contract specifications and conditions. The PMC/ BANK shall also have the power to order the material or work to be tested by an independent agency at the Contractor's expense in order to prove soundness & adequacy.

## **12. Testing and Commissioning**

The Contractor shall pay for and arrange without any cost to the SBI/PMC/ BANK, all necessary balancing and testing equipment, instruments, materials, accessories, power, water, fuel and the requisite labour for testing. Any defects in materials and/ or in workmanship detected in the course of testing shall be rectified by the Contractor entirely at his own cost, to the satisfaction of the SBI/PMC/ BANK. The installation shall be retested after rectification of defects and shall be commissioned only after approval by the SBI/PMC/ BANK. All tests shall be carried out in the presence of the SBI/PMC/ BANK-in- charge or his representative.

## **13. PACKAGING**

All the equipment shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at Site till the time of erection. While packing all the materials, the limitation from the point of view of availability of Railway wagon/truck/trailer sizes in India should be taken account of the Contractor shall be responsible for any loss or damage during transportation, handling and storage due to improper packing. Any demurrage, wharf age and other such charges claimed by the transporters, railways etc. shall be to the account of the Contractor. SBI takes no responsibility of the availability of any special packaging/transporting arrangements.

## **14. TESTS**

### **i. Charging**

On completion of erection of the equipment and before charging, each item of the equipment shall be thoroughly cleaned and then inspected jointly by the PMC/ SBI and the Contractor for correctness and completeness of installation and acceptability for charging, leading to initial pre-commissioning tests at Site. The pre-commissioning tests to be performed as per relevant I.S. given and shall be included in the Contractor's quality assurance programme.

### **ii. Commissioning Tests**

The available instrumentation and control equipment will be used during such tests, and the Contractor will calibrate all such measuring equipment and devices as far as practicable. However, unmeasurable parameters shall be taken into account in a reasonable manner by the Contractor for the requirements of these tests. The tests will be conducted at the specified load points and as near the specified cycle condition as practicable. The Contractor will apply proper corrections in calculation, to take into account conditions which do not correspond to the specified conditions.

All instruments, tools and tackles required for the successful completion of the Commissioning Tests shall be provided by the Contractor, free of cost.

Pre-commissioning test shall be carried out as per relevant IS and/or as specified.

The Contractor shall be responsible for obtaining statutory clearances from the concerned authorities for commissioning of the equipment. However, the necessary fee shall be reimbursed by SBI on production of requisite documents.

## **15. Performance Guarantee Certificates for Equipment**

All equipment shall be guaranteed against unsatisfactory performance and/or breakdown for a minimum period of 24 (twenty four) months or date of handing over of work to the SBI, whichever is later. The equipment or component or any other part of installation so found defective within the guarantee period shall be replaced / repaired by the Contractor free of cost to the satisfaction of the PMC/SBI. The above guarantee and/ or warrantee provided by the manufacturer will be submitted along with all the test certificates from manufacturer to PMC/ SBI.

## **16. Completion Drawings (As Built Drawings)**

On completion of the work and before issue of certificate of virtual completion, the Contractor shall

at his own cost submit to the SBI/PMC/ BANK requisite Sets of layout drawings drawn at the approved scale indicating the actual installations. These drawings shall clearly indicate the complete plant layouts, piping layouts, location wiring, exact location of all the concealed piping, valves, controls, wiring, and other services. The Contractor shall also submit requisite sets of consolidated control diagrams, technical literature on all automatic controls, and complete technical literature on all equipment and materials. The Contractor shall mount a set of all consolidated control diagrams and all piping diagrams/Single Line diagrams in a frame with glass, and display in the plant room.

Also, the contractor shall submit soft copy of 'As Built' drawings (in BIM, AutoCAD & PDF format) of the work including write up (trouble shooting, installation, operation and maintenance manual with instructions) incorporating all such changes and modifications during engineering and execution along with warrantee & guarantee certificates from manufacturers. As-Built Drawings for all buildings/ blocks/ facilities constructed shall be provided as following:

- a. Single Line diagrams showing all LT Panels, DB, Rising mains etc.
- b. Routing and locations of Conduits, inspection and junction boxes, etc.
- c. Locations and rating of Light, Power and UPS sockets and switches.
- d. Location and details of main & sub distribution boards, distribution boards indicating the circuit number controlled by them.
- e. Type of fitting, viz. fluorescent, pendants, brackets, bulkhead etc., including their rating & type of lamp, fans and exhaust fans.
- f. A complete wiring diagram as installed and schematic drawing showing all connections for the complete electrical system.
- g. Location of telephone outlets, junction boxes and sizes of various conduits and number & sizes of wire drawn.
- h. Layout of Telephone/ LAN/OFC cables.
- i. Location of all earthing stations, route and size of all earthing conductors, manholes etc.
- j. Layout and particulars of cables & sub mains.
- k. Schematic drawing for Telephone & IPABX System.
- l. Layout of conduits & locations for LAN/ Wi-Fi Points.
- m. Layout and details of Earthing Network & Lightning protection system including Insulation tests and earth test results.
- n. PA system drawings & Fire Alarm Control System Drawings.
- o. Cable TV/ Dish Antenna drawings.
- p. General Arrangement drawings for all Electrical & LV Equipment.
- q. Cable route layout of HT, LT, Control cables & other cables.
- r. External lighting drawing with road layout.
- s. Schematic Drawings for BMS.
- t. GA & Layout Drawings for Audio Video & Lighting System.
- u. Any other drawings/details as per requirements and directions of SBI/PMC/ BANK.

## **17. Checks during Defect Liability Period**

During the Defect Liability Period/ Maintenance Period, the Contractor shall monthly check all controls in various areas to ensure that these are functioning satisfactorily. This shall apply to all pressure switches and pressure gauges, contacts, relays, controller switches, high- and low-pressure cut-outs, etc.

## **18. Check List**

The Contractor shall provide to the SBI/ PMC/ BANK, 4 (four) copies of a comprehensive maintenance checklist and shall place a copy of it in the Substations & Plant Room. The checklist shall be a list of each piece of equipment in this Contract and shall provide a space for each of the

next Thirty-Six month to record the maintenance results and status of various equipment's during the maintenance period. This list shall be updated every month at the time of inspection. The Contractor shall certify on this check list that he has examined each piece of equipment and that; it is operating as intended in the contract/ by the manufacturer, and that all necessary tests have been performed.

## **19. Repairs**

All equipment that requires repairing shall be immediately serviced and repaired during the defects liability period. All spares/parts and labours shall be furnished by the contractor free of cost.

## **20. Training of Personnel**

The Contractor shall arrange for training of the SBI personnel prior to provisional takeover of the project including for the following:

- a. Substation Equipment
- b. Telephone Exchange
- c. All other Equipment like pumps, panels etc.
- d. Adjustment of setting for controls and protective devices
- e. Preventive maintenance
- f. Operation of all electrical panels including their interconnectivity and interlocking scheme
- g. All LV Works
- h. Any other specialized system as executed under this contract

## **21. Safe Custody and Storage**

Safe custody of all machinery and equipment dismantled, shifted & supplied by the Contractor shall be his own responsibility till the final taking over by SBI. The Contractor should, therefore, employ sufficient staff for watch and ward at his own expense. SBI may, however, allow the Contractor to use the building space for temporary storage of such equipment, if such space is available.

## **22. Handling, Storing and Installation**

- In accordance with the specific installation instructions as shown on manufacturer's drawings or as directed by the SBI or his representative, the Contractor shall unload, store, erect, install, wire, test and place into commercial use all the equipment included in the contract. Equipment shall be installed in a neat, workmanlike manner so that it is level, plumb, square and properly aligned and oriented.
- The contractor shall follow the unloading and transporting procedure at site, as well as storing, testing and commissioning of the various equipment being procured separately. The contractor shall unload, transport, store, erect, test and commission the equipment as per instructions of the manufacturer's Engineer(s) and shall extend full co-operation to them.
- In case of any doubt/ misunderstanding as to the correct interpretation of manufacturer's drawings or instructions, necessary clarifications shall be obtained from the SBI. Contractor shall be held responsible for any damage to the equipment consequent for not following manufacturer's drawings/instructions correctly.
- Where assemblies are supplied in more than one section, Contractor shall make all necessary connections between sections. All components shall be protected against damage during unloading, transportation, storage, installation, testing and commissioning. Any equipment damaged due to negligence or carelessness or otherwise shall be replaced by the Contractor at his own expense.
- The Contractor shall submit to the SBI every week a report detailing all the receipts during the week. However, the Contractor shall be solely responsible for any shortages or damages in transit, handling and/or in storage and erection of the equipment at Site. Any demurrage, wharfage and other such charges claimed by the transporters, railways etc. shall be to the account of the Contractor.
- The Contractor shall be fully responsible for the equipment/material until the same is handed over to the SBI in an operating condition after commissioning. The contractor shall be responsible for

the maintenance of the equipment/material while in storage as well as after erection until taken over by SBI, as well as protection of the same against theft, element of nature, corrosion, damage etc.

- The Contractor shall be responsible for making suitable indoor storage facilities, to store all equipment which requires indoor storage.
- The words 'erection' and 'installation' used in the specification are synonymous.
- Exposed live parts shall be placed high enough above ground to meet the requirements of electrical and other statutory safety codes.
- The minimum phase to earth, phase to phase and section clearance along with other technical parameters for the various voltage levels shall be maintained as per relevant IS codes.

### **23. Operation and running of entire system**

The contractor shall pay for and arrange for the operation and running of the entire electrical system and other equipment for a minimum period of three months after satisfactory completion of work as desired by SBI/PMC/ BANK. Cost of operation & running of entire system including required material e.g. consumables, tools & tackles, requisite manpower etc. shall be deemed to be included in the contract price and nothing extra shall be paid. Layout of all services, SLD/ P&I diagram, operating and maintenance instructions, DO's and Don'ts etc. for all the Substations, Plant rooms, pump room, control panels etc. must be provided along with colored prints at each floor.

**Special Conditions of Contract- IGBC PLATINUM & NET ZERO- ENERGY RATING SYSTEM**

1. This Project is to be designed and executed for achieving minimum IGBC platinum rating Certifications as per latest version stipulated by IGBC (Green Rating for Integrated Habitat Assessment) Council in respect of the buildings & blocks listed in the Design Basis Report as advised by the bank.

2. Accordingly, the contractor is required to adhere to the various environment friendly and IGBC compliance aspects of construction as well as documentation with respect to use of Materials, Manpower, Machinery and other relevant mandatory requirements. Nothing extra shall be payable over and above the quoted rates as per the financial bid to comply with such requirements.

**3. Certification of Facilities as per IGBC Standards:**

All required services from concept planning to completion, documentation including obtaining certification from the IGBC and included in the scope of work. This shall also include Energy Simulation and Modeling, Documentation & Co-ordination with IGBC Council and obtaining Provisional & Final Certification. The Contractor shall ensure that the Project shall be registered with IGBC Council after award of work. The Contractor shall be required to incorporate all the necessary provisions required for platinum IGBC Rating in the drawings, specifications etc. & to undertake the necessary documentation and submissions with IGBC Council accordingly. They will also be required to provide the various services as referred below:

**a. Feasibility:**

The Contractor will evaluate the certification levels that may be achieved by the project. The feasibility report will comprise of a report, which will divide the overall points in three categories:

- i) Points that are already planned, if any,
  - ii) Points which are possible to be planned
  - iii) Points those are not feasible (not applicable) for the project.
- b. All the design and documents prepared for Civil, Structural, MEP, HVAC, and Firefighting Systems etc. shall be in conformity with **IGBC** requirements.
- c. The Contractor, upon award of work, shall ensure registration of the Project with **IGBC** Council.
- d. The Contractor shall ensure that the materials are in conformity with the requirements to achieve platinum Rating under **IGBC** Green Building Rating Systems.
- e. The Contractor shall periodically monitor the parameters set out in the planned score card and suggest remedial measures in case of any shortcomings.
- f. The Contractor shall carry out Building Envelope Analysis, Orientation and Shading Analysis, Day lighting Studies, Energy Modeling, Water Balance Charts etc. using relevant simulation tools.
- g. Preparation, submission and documentation from initiation till completion and receipt of required Green Building Rating for the Project which amongst other requirements as per IGBC shall include collection, compilation & preparation of filled-in templates/documents, under intimation & in co-ordination with SBI, submission of complete compliance documents as required by **IGBC** Council in order to get the minimum **IGBC – Platinum Rating & Net Zero-Energy** for the Project. This shall also include all required coordination with **IGBC** Council, etc. and other relevant statutory bodies inclusive of responding to queries from these offices.
- h. Contractor shall ensure & follow necessary Guidelines, Procedures and formats for records to be maintained (at various stages of the Project) as per requirements of **IGBC** Council.
- i. The Contractor shall apprise SBI of the status with regard to implementation of provisions of IGBC periodically as per the requirements.
- j. The Contractor shall arrange to get the **IGBC** Certification (Platinum) from **IGBC** Council & nothing extra is payable on this account.
- k. The Contractor shall co-ordinate with **IGBC** Council & all other relevant statutory authorities as per requirements and nothing extra is payable on this account. However, the required statutory fee payable to the **IGBC** Council /statutory authorities, if any, will be borne by SBI. The Contractor shall

incur such expenditure after prior approval of SBI who shall pay/ reimburse the same to Contractor on submission of payment receipts and documents towards this expenditure. However, Contractor shall be responsible for all the required coordination and liaising work.

l. The contractor shall be responsible for carrying out the Orientation Workshop, Due Diligence Site Visits etc. & all expenditure on this account shall be borne by the Contractor.

m. Any suggestion/remedy indicated by **IGBC** Council shall be the responsibility of the contractor, without any extra cost.

**4.** The Contractor shall also adhere to the following during construction:

4.1. Soil excavation, soil erosion and sedimentation control etc.: - Proper site management strategies shall be followed on the site to ensure proper material staging, soil spill prevention, soil erosion and sedimentation control. The following strategies are listed below:

a) Temporary sedimentation basins shall be made on the lowest possible elevation on site during construction to manage all the storm water generated during rains at the site. Photographs of the sedimentation tank shall be submitted to the SBI/PMC/ BANK.

b) Spill prevention and control: Spill prevention and control plans to ensure so as to stop the source of the spill and dispose of contaminated material and hazardous wastes. Hazardous wastes include pesticides, paints, cleaners, and petroleum products.

c) Proper construction material staging shall be executed on the site.

d) Trenches shall be laid along the periphery of the site to carry the storm water from the various locations on the site to the sedimentation basins.

e) During the earth excavation, topsoil of 0.20m shall be stacked separately on or near the site at a maximum height of 0.40m.

f) Vegetation / mulching of the areas shall be done where the excavated topsoil is stacked.

g) The soil excavation, particularly during rainy season, shall be done in such a way to minimize site disturbance such as soil pollution due to spillage of construction material and mixing with rainwater.

h) The existing vegetation shall be protected by preventing disturbance or damage to specified areas during construction. This will minimize the amount of bare soil exposed to erosive forces. All existing vegetation shall be barricaded on site and marked on a site survey plan.

i) Stacked topsoil shall be mulched and protected by barricading as stated above and re-laid over pre-designated landscape areas post construction.

j) The contractor shall not store /dump construction material or debris on metaled road.

k) The contractor shall get prior approval from SBI/PMC/ BANK for the area where the construction material or debris can be stored beyond the metaled road. This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible conduct.

4.2. Proper site management strategies shall be followed on the site to ensure labour safety and sanitation. Some of these are listed below:

a) Display warning and safety signs all across the site. Also ensure that safety nets and harnesses are provided for construction workers working on higher floors. The walking boards and formwork shall also be stable. Workers shall be provided with safety equipment like safety helmets, jackets, boots and gloves, etc.

b) Provide fire extinguishers and barrels of water with bucket tans on the site and sufficient light for workers to work safely at night.

c) The Contractor shall provide adequate level of sanitation and safety facilities for construction workers.

d) Provide accommodation and amenities for all staff and labours, employed for the purpose of, or in connection with the contract including fencing, water (both for drinking and other uses), electricity, furniture and other such requirements. Such accommodation and amenities shall be provided by the contractor at a location specifically demarcated by the Client/ SBI, in case such space is made available by the Client/ SBI. In case the contractor makes his own arrangement, all such facilities

shall be provided in such accommodation. On completion of the contract, such accommodation shall be removed, and the site shall be cleared.

e) The contractor shall employ an officer on the site concerned solely with the safety and protection of all staff and labour against accidents. The officer shall be qualified and shall have authority to issue instructions and take protective measures to prevent accidents, or the contractor may set up a working arrangement with a local medical practitioner to handle injury in an emergency situation.

f) The contractor shall provide PPE (Personal Protective Equipment) like safety shoes, safety belt/harness, and Helmets to all workers at site.

g) The contractor shall provide suitable masks to every worker working on the construction site and is involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles. The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.

h) The contractor shall establish a fully equipped first aid centre on site to deal with accidental injuries and workers' health. The first aid box shall be marked with a red cross on a white background.

i) The contractor shall not allow an individual to work on site while his ability or alertness is impaired by fatigue, illness or some other cause which might expose him to injury.

4.3. Proper site management strategies shall be adopted on the site such as:

a) **Preparation of site:**

- i. Clear vegetation only from the areas where work will start right away.
- ii. Vegetate/mulch areas where vehicles don't ply.
- iii. Apply gravel to the area where mulching/paving is impractical.
- iv. Identify roads on site that would be used for vehicular traffic. Add surface gravel to reduce source of dust emission.
- v. Limit vehicular speed on site to 10 km/hour.

b) **During Construction and Demolition (C&D): -**

- a. Water shall be sprayed to prevent dust pollution on the following:
  - b. Any dusty materials before transferring, loading and unloading.
  - c. Areas where demolition work is being carried out.
  - d. Areas where excavation or earthmoving activities are to be carried out.
  - e. Arrangements for wheel washing should be made near the entry/exit gates to prevent air pollution.
- ii. The contractor shall ensure that C&D waste is transported to the C&D dedicated place within the site earmarked for storing and sorting construction waste side only and due record shall be maintained by the contractor.
- iii. The contractor shall compulsorily use wet jets in grinding and stone cutting.

c) **The following activities shall be carried out:**

- i. The Contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI (corrugated Galvanized Iron) sheets or plastic and / or other similar material to ensure that no construction material dust fly outside the plot area.
- ii. The Contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes / or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precaution that the vehicles are properly cleaned and dust free to ensure that enroute to their destination, the dust, sand or any other particles are not released in air /contaminate air.
- iii. Covering full stockpile of dusty material with impervious sheeting.
- iv. Transferring, handling/storing dry loose materials like bulk cement, dry pulverized fly ash inside



a totally enclosed system.

d) **Concrete Curing:** - Use of gunny bags, ponding for curing purposes. Adding admixtures to concrete which causes a reduction in the water required for curing as per directions of the **SBI/PMC / BANK**. Also construct curing tanks on the site for efficient usage of water.

e) Efficient use of available water.

f) Plan utilities efficiently and optimize on-site circulation efficiency.

g) Reduce air and noise pollution due to storage / use of materials and machinery.

h) Preservation and protection of landscape during construction.

i) Reduction in waste of construction materials.

j) Implement recycling programs as far as possible to recycle construction waste materials during construction.

k) Suitable arrangements for preventing dust and debris from entering duct work and working areas.

l) Create physical barriers between work and non-work areas.

m) Protection of materials and equipment against moisture, dust, etc.

n) Keeping work area clean and dry as possible.

o) To take safety measures to avoid damage to existing plants and trees.

p) The contractor shall comply with all the preventive and protective environmental steps as stated in the MoEF guidelines, 2010.

q) The contractor shall carry out on road- Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.

r) The contractor shall ensure that all DG sets comply with emission norms notified by MoEF CPCB.

s) The contractor shall use vehicle having a valid pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 Kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.

#### 4.4. **Materials:** -

i) The contractor shall Ensure use of materials which conform to the IGBC Rating System criteria.

ii) The contractor shall Ensure use of low emitting materials, adhesives and sealants to -

a) reduce / avoid use of materials, which are irritating and naturally cause health problems to the construction workmen and occupants.

b) achieve specified Volatile Organic Compounds (VOC) limits as per the IGBC requirements.

**5.** The Contractor shall maintain proper record of all the materials/ equipment procured with respect to their source & specifications with details of their manufacturing and recycled content etc. and submit along with all supporting documents to the SBI/PMC/ BANK.

#### **6. Construction Waste Management Plan:**

As already detailed, the broad intent is to avoid materials going to landfills during construction. It is required to develop a plan to recycle all possible waste generated during construction. Typical items would include land clearing debris, concrete, steel, ductwork, clean dimensional wood, paperboard, and plastic used in packing, etc.

#### **7. Indoor Air Quality (IAQ) Management plan.**

The HVAC works, in general, shall conform to ECBC 2017. The contractor shall be required to take the specific measures during construction with respect to following main areas of concern:

##### **a. HVAC System Protection:**

- While performing construction activities that produce dust, such as drywall sanding,

concrete cutting, masonry work, wood sawing or adding insulation, seal off the supply diffusers and return air system openings shall be completely sealed off for the duration of the task.

- Shut down and seal off the supply diffusers and return air ducts during any demolition operations
- Till the HVAC system is put into use, seal off the supply diffusers and return air system openings to prevent the accumulation of dust and debris in the duct system during construction.
- Do not use the mechanical rooms to store construction or waste materials. Keep rooms clean and neat.
- Provide periodic duct inspections during construction; if the ducts become contaminated due to inadequate protection, clean the ducts as per requirements and directions of SBI/PMC/BANK

b. **Contaminant Source Control:**

- i. Use low VOC products as indicated by the specifications required for green building IGBC rating.
- ii. Restrict traffic volume and avoid idling of motor vehicles as their emissions could be drawn into the building
- iii. Utilize electric or natural gas alternatives for gasoline and diesel run equipment where possible and practical. Use low-Sulphur diesel in lieu of regular diesel
- iv. Cycle equipment off when not being used or needed
- v. Exhaust pollution sources to the outside with portable fan systems
- vi. Prevent exhaust from re-circulating back into the building
- vii. Keep containers of wet products closed as much as possible. Cover or seal containers of waste materials that can release odor or dust.
- viii. Protect stored on-site or installed absorptive building materials, for instance, Cement, Gypsum / POP etc. from weather and moisture; wrap with plastic and seal tight to prevent moisture absorption.

c. **Pathway Interruption:**

- i. Provide dust curtains or temporary enclosures to prevent dust from migrating to other areas including existing Residential and office areas, as applicable.
- ii. Locate pollutant sources as far away as possible from supply ducts and areas occupied by workers when feasible. Supply and exhaust systems may have to be shut down or isolated during such activity.
- iii. During construction, isolate areas of work to prevent contamination of clean or occupied areas. Pressure differentials may be utilized to prevent contaminated air from entering clean areas.
- iv. Depending on weather, ventilation using 100% outside air will be used to exhaust contaminated air directly to the outside during use of VOC emitting materials.

d. **Housekeeping:**

- i. Provide regular cleaning concentrating on HVAC equipment and building space to remove contaminants from the building prior to occupancy.
- ii. All coils, air filters, fans & ducts shall remain clean during installation and, if required, will be cleaned prior to performing the testing, adjusting and balancing of the systems.
- iii. Suppress and minimize dust with wetting agents or sweeping compounds. Utilize efficient and effective dust collecting methods such as a damp cloth, wet mop, or vacuum with particulate filters, or wet scrubber.
- iv. Remove accumulations of water inside the building. Protect porous materials such as insulation and ceiling tile from exposure to moisture.
- v. Thoroughly clean all interior surfaces prior to replacing filters and running HVAC system for system balancing, commissioning and building flush-out.

e. **Scheduling and Construction Activity Sequence:**

Schedule high pollution activities that utilize high VOC level products (including paints, sealers, insulation, adhesives, caulking and cleaners) to take place prior to installing highly absorbent materials (such as ceiling tiles, gypsum wall board, fabric furnishings, carpet and insulation, for example)

**8. Green Building (IGBC) provisions for Electrical works and Materials**

The Electrical works, in general, shall conform to latest ECBC Norms. Moreover, the contractor shall be required to take the specific measures during construction with respect to following:

- i. All items shall be as per the Green Building provisions and shall adhere to **IGBC Green Building** rating system and other Green building standards. This is irrespective of whether the same have been mentioned in the technical specifications or the requirement.
- ii. The vendor to conform during negotiation meetings and before quoting that the MAKE of MATERIAL specified in the e-Tender conforms to Green Building norms and requirements and in case of any queries would clarify during the negotiation meeting. Since we are aiming for the **IGBC** Platinum rating, it is mandated that all products have to be accordingly compliant and if the contractor has not accounted for it in his cost, he **WILL NOT** be entitled for any further compensation and will have to provide in the same cost.
- iii. Minimum allowable luminous efficacy of all the lamps shall be as per latest ECBC/ NBC 2016.

**9. Photographs:**

During various stages of construction, the photographs shall be taken by the Contractor and submitted to the SBI/PMC showing details of specific requirements / measures being taken by the contractor towards above for documentary compliance and records.

**10.** Contractor shall coordinate with suppliers of various materials and equipment to be procured by him for use in works and provide all required details with respect to their manufacturing facilities; raw materials etc. as per requirements of IGBC Certification guidelines. Preference should be given to IGBC compliant products/ materials.

**Special Conditions of Contract - Defect Liability Period****1. General: -**

a. The scope of Operation & Maintenance (O&M) of various works at SBI Enclave to be executed by the EPC Contractor has been detailed in the Special Conditions of Contract- General, which may be referred to.

b. The proposed completion period for SBI Enclave is 36 months for construction plus 2 years towards defect liability period. O&M activities shall be provided from the occupation of building/completion of work and handing over of and up to the expiry of the defect liability period of complete project which shall be 24 months beyond the overall completion of the total project.

c. Contract Agreement for O&M Services shall be executed directly between SBI & EPC Contractor under a supplementary agreement to be executed at appropriate stage.

d. During the DLP all required tools, tackles, consumables and accessories like pipes, valves, fittings, fixtures etc. shall be provided by EPC Contractor for smooth functioning of MEP Services and for maintaining the Electro-Mechanical system.

**e. During the Defect Liability Period (DLP) of two (2) years from the date of completion and handing over of the project, the Contractor shall be fully responsible for the following scope of Operation and Maintenance (O&M):**

**1. Rectification of Defects:**

a. The Contractor shall promptly attend to and rectify, at their own cost and risk, any and all defects, deficiencies, or failures in the Works, including structural, architectural, finishing, and service-related issues arising out of defective workmanship, design, or materials used.

b. The rectification shall be carried out in a manner that causes minimal disruption to the functioning of the facility.

**2. Operation and Maintenance of Electrical and Mechanical (E&M) Equipment:**

a. The Contractor shall operate and maintain all Electrical and Mechanical (E&M) systems and equipment installed in the project, including but not limited to transformers, DG sets, lifts, water pumps, STP/ETP, fire-fighting systems, lighting systems, and other relevant electro- mechanical services.

b. The Contractor shall ensure smooth, safe, and uninterrupted operation of the equipment and shall undertake routine servicing, preventive maintenance, and minor repairs as required.

**3. Deployment of Staff:**

The Contractor shall deploy qualified and experienced technical personnel, operators, and maintenance staff for the efficient management of O&M activities during the DLP, as per industry standards and manufacturer's recommendations.

**4. Records and Reporting:**

The Contractor shall maintain detailed records of all maintenance and repair works carried out, including logs of equipment operation, complaints received, rectification timelines, and parts replaced. These shall be made available to the Employer/BANK upon request.

**5. No Extra Cost**

All activities under this clause, including manpower, consumables, minor spare parts, tools and tackles, and transportation for attending complaints, shall be carried out without any additional cost to the Employer.

**6. Liability for Damages**

Any damage to property, injury, or service breakdown arising from negligence, poor workmanship, or failure to attend to defects or maintenance in time shall be the sole responsibility of the Contractor.

## **2. General Requirements**

2.1 The Agencies shall deploy adequate Engineers from various engineering fields like civil, electrical, electronics, IT, computer, mechanical etc. on Part Time basis and Supervisors on full time basis who shall have individual mobile phones to enable the SBI/PMC/BANK/SBI timely communication of operational breakdowns and emergencies.

2.2 The staff employed by the O&M agencies shall be present at site as per requirements on all working days. Monthly maintenance services as per the manufacturer's Guidelines /maintenance Manuals shall be provided. In Emergency breakdown, troubleshooting to be provided and breakdown to be attended immediately & submit service report to SBI/PMC/BANK in charge/SBI.

2.3 All T&P including ladders, wire drawing equipment, chase cutting equipment, drilling machine, insulation meggers, earth resistance testing equipment, line testers etc. required for the work shall have to be arranged by these agencies. No T&P whatsoever shall be issued by the SBI/PMC/BANK/ SBI. All consumables shall be included in CMC. All spare part/material required during CMC must be of Approved make only or from original equipment manufacturer.

2.4 Staff deployed by the agencies shall be well behaved, polite, and courteous. In case of any complaint against staff, such staff shall be replaced by the agency on demand from SBI/PMC/BANK/ SBI.

2.5 The O&M agencies shall make all safety arrangements required for the labour engaged by him at his own cost. All consequences due to negligence or due to lapse of security/safety or otherwise shall remain with the agency. The department shall not be responsible for any mishap, injury, accident or death of the agency's staff. No claim in this regard shall be entertained /accepted by the department.

2.6 The agency shall take immediate action to attend to any complaint assigned to him through site order book/verbal instructions from SBI/PMC/Residents/SBI representative or on telephones/Internet from occupants.

2.7 Agency shall be fully responsible for any damage caused to Govt. property or allottee's property, by him or his labour in carrying out the work and the same shall be rectified by the agency at his own cost. Chases, holes & drilling works etc. shall be done using only power operated tools.

2.8 All the Malba or rubbish obtained from dismantling or otherwise during the execution of the work shall be brought down through the staircase and shall not be thrown to the ground directly from the floors etc. Collected Malba shall be promptly disposed off by the agency to the authorized municipal dumping ground.

2.9 The agency shall be provided with an inventory list of items in campus to be maintained. The agency shall be responsible for the watch and ward of such items. The loss, if any, shall be made good by the agency at his cost. The decision of SBI in this respect shall be final and binding on the agency.

2.10 Stores and bins shall be provided by the agency for storing the Materials.

2.11 The labour deployed for attending complaints should carry necessary tool kit, container (Tasla), required for mixing any cement sand or other material and should carry with them water bottle and waste bag for collection of minor rubbish material if received during attending the complaints, so that the site of work shall remain neat and clean.

2.12 Each worker shall maintain a complaint diary and get the feedback recorded from the allottees regarding attending the complaint. In case, it is found that the complaint has been attended unsatisfactorily, it will be considered as unattended. List of such complaint shall be submitted to the SBI/PMC or his representative in daily basis.

2.13 The agency will maintain attendance records of the staff, which may be checked by the SBI/PMC or his representative of the work.

2.14 Bad workman ship whenever noticed and conveyed to the agency shall be rectified by the agency

to the satisfaction of the SBI/PMC.

2.15 All defects and deficiencies shall have to be rectified by the agencies to the entire satisfaction of SBI/PMC failing which the work shall be got done at the risk and cost of these agencies.

2.16 The agency shall provide neat and clean uniforms to all workers as per the concurrence of SBI/PMC.

2.17 The agency shall follow all rules & regulations as prescribed by the Department of Labour concerned. Agencies shall have registration with Employees Provident Fund Commissioner and Employees State Insurance Corporation for safeguarding interest of their workmen. Agencies shall obtain all other necessary approvals from statutory bodies as per the law in force. Agencies shall provide CAR policy for all works.

2.18 No residential accommodation shall be provided to any of the staff engaged by the agency. The agency shall also not be allowed to erect any temporary set up for staff in the campus.

2.19 O&M Services for all Electrical, LV & Mechanical Works shall be provided after completion of Phase-I work as mentioned in the table above.

### **3. Scope of Maintenance**

#### **3.1 Civil Works:**

3.1.1 The Agency shall maintain all assets of Civil works created through this agreement.

3.1.2 The Agency shall be responsible for attending to all complaints that arise through any medium in the spirit of maintaining the campus and all assets in impeccable condition. Accordingly, depending upon the number of complaints, the agency shall employ the number of workers to attend to the complaint within the prescribed time for which no extra payment will be admissible. All workers shall be qualified and trained for the assigned work. In all cases the complaint shall be attended in the specified duration as mentioned below:

- a. The following complaints (Known as "No delay") shall be attended within 6 hrs. on receipt:
  - i. Removing choke of drainage pipes, manholes.
  - ii. Restoration of the water supply.
  - iii. Leakage of water supply pipes.
  - iv. Repair of overflowing cisterns/tanks.
- b. The following complaints (Known as "Minor") shall be attended within 24 hrs. on receipt:
  - i. Replacement of glass panes.
  - ii. Carpenter complaints.
  - iii. Mason complaints, such as patch plaster, corner repair, etc.
- c. Major Complaints – Complaints other than no delay and minor complaints shall be attended within shortest reasonable time in consultation with SBI/PMC/ BANK.

#### **3.2 O&M of Electrical & Mechanical Works**

The Agency shall maintain and operate all MEP assets created through this agreement and as mentioned in the Table under Clause 1 above.

##### **3.2.1 Internal Electrical Installations and Outdoor Lighting**

- i. The scope of all work includes maintenance of Electrical Installations and Solar PV System created through this agreement for Institutional, Residential & other allied buildings including street lighting etc.
- ii. **The following activities are covered under the scope of work:**
  - a. Taking steps for preventive Maintenance.
  - b. Checking of DB's, main boards and rising mains etc.

- c. Cleaning of fans and fittings once in a year or as required.
- d. Insulation test and recording the test results once a year.
- e. Earth test and recording the test result once a year.
- iii. Maintenance activities carried out as per schedule should be recorded in the Maintenance register. When tests are carried out the test result should be recorded with appropriate identification references and got authenticated by SBI/PMC/ BANK.
- iv. Maintenance of all type of wiring in all Institutional, Residential & other allied buildings including street lighting etc.
- v. Repair & replacement of all type of fittings to make the installation functional.
- vi. Repair and rewinding of A.C. ceiling fan, exhaust fan, replacement of ball bearing/ bush, capacitor etc.
- vii. Replacement of piano type/modular 6, 16,20 amps 1 way/ 2-way switch, socket, bell push, telephone socket etc. and call bell, wall bracket fitting, choke starter etc.
- viii. Replacement of faulty SP/DP/TP/FP MCB, Isolators and MCCB's etc. to keep the installation intact and functional.
- ix. Replacement of LED fittings and their driver, choke, tube, HPSV/MH lamp Halogen Lamp, CFL lamp, Igniter ,2\*2 Panels, downlights,etc.
- x. In case of wiring of any circuit or point or sub-main is burnt/ damaged the replacement of faulty wiring will be executed by the firm within the scope of this contract.
- xi. In case UG cable at feeder pillar/street light pole/near main board or en route is damaged the firm shall repair and make straight through joint to make the installation healthy and functional.

### **3.2.2 Qualification and experience**

- i. Wireman should possess class II license for wireman issued by electricity authority with 3 years' experience in maintenance and electrical installation.
- ii. Helper should be physically and mentally fit to work, should be able to read and write and three years' experience in assisting the wireman in the electrical work.

3.2.3 The agency shall take prompt action to attend any complaint assigned to him through site order book/ verbal instruction from SBI/PMC/ BANK or on telephones from occupants. In all cases agencies will attend the complaints in the specified duration as mentioned below: -

- i. Complaints of emergency nature (such as electricity not being available) shall be attended immediately.
- ii. Minor complaints will be attended within 4 hours.
- iii. Major complaints will be attended within 2 days or as decided by SBI/PMC.

### **3.2.4 Sub-Station and DG Sets**

- i. The scope of work includes operation and maintenance of Sub Station and DG Sets. The scope of work includes annual maintenance of Substation equipment i.e. servicing of HT Panels, LT Panels, PT's, calibration of IDMT relays, etc,as and when required.
- ii. Repair and replacement of MCCB/ FSU, indicating instruments, meters etc. in HT panel, LT panels/ feeder pillars etc.
- iii. Repair and replacement of internal wiring, fuses, MCB in HT/LT panel whenever required.
- iv. Carrying out B check of DG sets (replacement of all filters and lube oil, coolant corrosion

register element etc. Regular checking and maintenance of Cooling Towers, cabling and all related components for smooth operation.

- v. Replacement of battery terminals, hose pipes, V belt etc. whenever needed.
- vi. Topping of distilled water in the batteries, replacement of battery whenever required.
- vii. Cleaning DG Sets, AMF panel and making minor adjustments / repair whenever required to make the DG Set functional.

viii. **Daily Routine Checks**

- a. Keep the Substation and DG Set Room clean: wipe out dirt from the external surface of engine, generator and control panels, transformer, HT panel etc.
- b. Check the levels of diesel in daily services tank, lubricant oil, in engine crankcase, and water in radiator, Fill / Top up as necessary.
- c. Inspect the engine for leakage of diesel oil, engine (lub.) oil, and coolant in the respective system.
- d. Check that the selector in the control panel is in AUTO mode.
- e. Record the reading of voltage of supply and engine battery voltage.
- f. Run each DG Sets for a period of 5-10 minutes daily for testing and entries of these tests shall be recorded in logbooks of each DG Sets.
- g. Checking the LT panel etc. for local heating of any feeder.

ix. **Weekly Checks**

- a. Check the automatic starting of the engine by switching the main supply to the AMF panel. Run the set on load for 15 minutes. Observe for any abnormal noise. Vibration, bearing surface heating (whether warm), engine pick up, voltage level and frequency.
- b. Check the level of electrolytes in the battery of the engine. Top up with distilled water as necessary. If the battery needs charging (as can be judged by the cell voltage). Arrange for charging early and also examine whether the trickle charger is defective.
- c. Check whether all panels, lamps, fuses, and instruments are healthy in the control panel.

x. **Monthly Checks**

- a. Checks engine radiator for air restriction if any. Cleanup Check the conditions of drive belts, hose and radiator cap.
- b. Clean the battery terminals and apply grease to prevent corrosion. Check specific gravity of the electrolyte.
- c. Check the exhaust system for leakage, corrosion and vibration, see whether the exhaust smoke is not very dark.
- d. Check that there is no restriction on air flow in air cleaner.
- e. Check that oil heater is functional.
- f. Check coupling with alternator for any sign of fatigue.

xi. **Six Monthly Checks**

- a. Inspect the electrical control panel and starters to see that all power/control contacts are clean all terminations, including control cables. Tighten as required.
- b. Inspect all cable end terminations, including control cables, tighten as required.
- c. Check all safety control and alarms in the set supply system.
- d. Check and change filters of diesel oil, engine (lub.) oil, coolant and air cleaner



element of the engine after checking total hours of operation and manufacture's recommendation. Drain and change the cooling water.

- e. Check the belt tension. Tighten if required.

xii. **Annual Checks**

- a. Inspect the fuel tank for any sedimentation. Clean up.
- b. Replace the engine oil as per hours of operation and recommendation of the manufacturer, oil will be provided by department "free of cost" at site.
- c. Check shaft alignment and condition of anti-vibration mountings, in case any abnormal noise or vibration is observed.
- d. Blow through radiator core in a direction opposite to the normal flow of air (Reverse flushing). Conduct megger test on all cabling, mains and control wiring motors, and earth test, (Earth test is to be done in summer).

xiii. **Qualification and experience**

- a. Electrician cum Operator (E & M): - Electrician should possess license for supervisory competency for 33 KV and above issued by electricity authority with 3 years' experience in installation and/ or maintenance of Sub-Station/ DG sets.
- b. Helper Should be physically and mentally fit to work, should be able to read and write and three years' experience in assisting the wireman in the electrical work.
- c. Mechanic: - Should have passed ITI certificate in Trade and 3 years practical experience in a workshop/ Department dealing with operation and maintenance of DG set and mechanical plants.

**3.2.5 Water Treatment Plant/R.O/ Fire Fighting Systems/Centralized Solar Hot Water System /Heat Pump:-**

- i. The scope of work includes Operation and comprehensive maintenance of water supply pump set, firefighting pump sets, water treatment plant including filters, softeners, Solar Hot Water System, Centralized R.O, Heat Pumps etc.
- ii. Repair / rewinding of pump sets, replacement of ball bearing, impeller, gland plate etc. as per requirement to keep the system functional.
- iii. Repair/replacement of starters, MCCB, contactor, pressure switch, relay etc. for water supply and firefighting pump set.
- iv. Rectifying any leakage in the pipe line of fire fighting systems, replacement of any accessories of firefighting system whenever needed.

v. **Daily checks:-**

- a. Checking of the power supply of all the panels in Plant Rooms.
- b. Checking of the healthiness of battery and battery water/electrolyte as required.
- c. Checking of the fault indication of the panel and rectify the same.
- d. Checking of whether signals of fire and fault condition are transmitted from detector / devices on main control panel.

vi. **Weekly Checks:-**

- a. Checking of the water level in the fire tank/terrace tank and fill-up the tank.
- b. Checking of the all glands/valves at the terrace and prevent leakage, if any
- c. Checking of the healthiness of the power supply of main control / starter panel, voltage, fuses, remote starters, contactors, power, connection etc.
- d. Checking of the status of hose pipes, nozzles, sprinklers etc.

e. Check the working condition of the pump- motor set

vii. **Monthly Checks:-**

- a. Test checks auto-manual function of pressure switch of the down comer system.
- b. Check and clean the Y-strainer/stop valves flange gaskets as reqd.
- c. Conducting of fire drills. For making the users familiar with the system, Fire drill shall be carried out. Local fire service and nodal officers in charge of various parts of the building shall be involved in conducting fire drill. Operation of the system shall be demonstrated so that all users are confident of the system and aware of their duties and responsibility during fire.
- d. For DOWN COMER SYSTEM, the following work i/c tests/ checks are to be carried out as per the demand of the installation and/ are, as per direction of SBI/PMC/ BANK and proper logbook should be maintained and got test check by the SBI/PMC/ BANK or his authorized representative.

viii. **Healthiness of System:-**

- a. The Healthiness of the system shall be checked through fortnightly testing. During the fortnightly testing a particular block shall be taken up all internal hydrants and adjoining yard hydrant of all the building shall be operated and checked.
- b. During the subsequent fortnightly different blocks shall be selected so as to ensure that all the internal hydrants and yard hydrants of all the block is checked once in six months.
- c. First Aid Box shall be kept at readily accessible place.

**3.2.6 Solar Hot Water System:-**

Yearly System Inspection: Checking needs to be done as mentioned below:-

- i. Evidence of water leakage from tank, pipes, panels or relief valve. Check the pipe, tank, heat exchanger, absorber connections carefully.
- ii. Proper system operation.
- iii. Loose wires and wire connections.
- iv. Tightness of panel mounting bolts.
- v. Dirt on panels – clean if necessary.
- vi. Cracked insulation – replace or paint it, as necessary.

**3.2.7 STP /WTP:**

Scope of work shall include operation and maintenance of sewage/effluent disposal/transfer pump set, any repair of pump set, replacement of parts, rewinding of motor, repair/replacement of valves, rectification of leakage in the pipeline, welding, repair/replacement of starter etc.

Other processes to be followed during operation/maintenance are mentioned as below:-

- a. Checking of (i) pH Value (ii) COD (iii) BOD (iv) TSS (v) TDS every day, together with all chemicals required for conducting various tests, maintaining necessary registers, obtaining PCB certificate for the effluent, Aeration chamber, and treated water to be in conformity to the standards, etc.
- b. **Maintenance of pump sets:**
  - The pumps and motors required for operating the STP requires periodical maintenance with consumables like grease, packing material, bearing etc. The spares and consumables required shall be issued free of cost by Contractor.
  - Any major break downs for pumps, motors, generators, control panels, etc., is not included in the general maintenance.
  - Maintenance of sewer lines upto underground tanks in STP/WTP will be

maintained by Contractor.

- The Contractor has to ensure the operation of pumps such that, there is no overflow of sewage or idle running of pumps at any of the sumps at any period of time. Process parameters like MLSS etc. are to be maintained as per standards.

c. **For Electrical and Mechanical equipment:**

- Daily: checking of oil levels of all equipment
- Weekly: Oiling and greasing of bearings and gears of mechanical equipment's.
- Monthly: checking of nuts and Bolts of equipment's tightening of all nuts and Bolts of equipment's etc.,
- Quarterly: replacement of Gear oil and lubricants as necessary verification of section bearings, gears, motor winding, oil condition of Transformer, installation terminals of cable connections etc.

d. **For various units at STP and collection sumps:-**

- Course screen chamber: cleaning daily
- Raw sewage sump cleaning at sump side walls & bottom in every month
- Removing Grit in grit chamber, Bar screen chamber and transporting every week.
- The minimum requirement of chemicals for 15 days shall be maintained at site.

e. **Contractor shall ensure the employee fulfills the following duties in the operation of the Plant**

- Performing laboratory tests such as chlorine level and pH, analyzes results, takes or recommends necessary action.
- Maintaining lab records, equipment, orders supplies
- Cleaning and maintaining aeration basins and clarifiers.
- Determines aid adjustments to aeration basin and adjust pH as needed.
- Inspecting, flushing, and maintaining tanks and sewage lines
- Inspecting and maintaining outlying pump station to ensure standards of operation.
- Performing preventive maintenance on machinery and schedules necessary repair activities with skilled trades
- Operating wastewater treatment plant to maintain the quality of water ultimately discharged from the plant
- Performing ground maintenance and lab cleaning activities

### 3.2.8 Lifts

- i. The Annual Maintenance of Lifts should be carried out by OEM or their authorized representative.
- ii. The firm shall depute trained supervision staff for the maintenance and upkeep of the lift in safe operating conditions.
- iii. The technician/lift mechanic of the firm shall make entries in the logbook of the service and other works carried out by him. The lift mechanic of the company shall certify in the logbook that "the lift is fit for use" and that all the safety devices are working. He shall also mention his name with dates and time in the logbook.
- iv. The complaint lodged over the telephone shall be made by the officials and the same will be entered in the logbook and the said complaint must be attended within 24 hours by the firm/OEM.
- v. The maintenance, routine as well as preventive measures shall be carried out as per the

manufacturer's standard practice.

vi. The firm shall be responsible to carry out the following free of cost during maintenance contract replacement of:

vii. All parts of main control panel i.e. relay, relay coils, moving contact/fixed contact, landing locks, rectifiers, resistance, transformer, indicating light, rewinding of motor, transformer and other items covered under maintenance sheave.

viii. Replacement/repair of control board of lift, DC motor, AC motor, gear box, DC generator, safety devices of all lift's indication lamps, guide rail, steel ropes, flywheel sheave.

ix. The existing parts required to be replaced shall be replaced with existing make of the part the rates agreed for comprehensive maintenance will be dismantled material will not be returned the department.

x. In the event of mishap/accident caused not due to the user/lift operator than the firm shall stand responsible on any damage/injury to this staff and equipments.

### **3.2.9 Boom Barriers**

i. The annual Maintenance of Boom Barriers should be carried out by OEM or their authorized Agent.

ii. To maintain the perimeter automation system installed at the site

iii. This maintenance contract includes free replacement of spare parts, periodical service to the System and repairing the existing worn-out/defective part(s) or replacing the same immediately.

iv. Two periodical servicing visits per year during the period of maintenance contract along with any additional visits during the maintenance contract period, as and when required, in the event of any breakdown/malfunctioning of the equipment shall be immediately attended by the agency free of cost. No extra payment shall be made on this account.

v. All the complaints shall be attended within reasonable time after receipt of the complaint for the breakdown of the equipment within 24 hours.

vi. The agency has to provide the name of an authorized person and his contact number.

3.2.10 All LV works like CCTV /Access Control/LAN/IPABX/Information Display System/ Audio Video System/ Public Address/ Fire Alarm Control System/ BMS etc.

i. The agency should be the manufacturer /authorized Agency.

ii. T & P shall be arranged by the Agency.

iii. The Engineer/Technician deployed should have knowledge of the latest IT system/Equipment installed at site.

iv. Normal maintenance i/c cleaning of all LV equipment, checking of line devices, cameras/ panels/ detectors/ MCPs/ Hooters/ DDC controllers/ Amplifiers/ NCS central controllers/ Remotes etc. The agency shall intimate to the department for any major defect/ breakdown and shall record in the logbook accordingly.