

GENERAL GUIDELINES FOR POSTING OF TECHNICAL STAFF FOR THIS WORK AT SITE.

1. It is anticipated that the work at site shall continue 24 x 7 with various activities of various discipline.
2. A minimum set of Supervisor Staff/Tech. team required at site for supervision, Safety and quality compliance.
3. On award of work, Contractor to submit an organogram highlighting site team as well as Head/Project office staff. Nevertheless, a minimum technical team staff as detailed below is required at site failing which suitable recovery shall be made.:

Sr. No	Designation Technical Staff	Total No's	Qualifications	Minimum Experience (Years)	Duration	Rate at which recovery shall be made from the contract or in the event of not fulfilling
1	2	3	4	5	6	7
1	Project Manager with degree in Civil Engineering.	1	Graduate Engineer.	20 (having experience of similar nature of work)	Throughout project duration	Rs. 60,000/- Per Month.
2	Deputy Project Manager with degree in 2 no's- Civil Engg.	2	Graduate Engineer Or Diploma Engineer.	5 or 10 (having experience of similar nature of work)	Throughout project duration	Rs. 25,000/- Per Month.
3	Deputy Project Manager with degree in Mechanical/Electrical Engg.	1+1	Graduate Engineer Or Diploma Engineer.	5 or 10 (having experience of similar nature of work)	12 months as per MDL requirement	Rs. 25,000/- Per Month.
4	Quality Engineer- 1 no- Civil. 1 no- MEP	1+1	Diploma Engineer.	8	Throughout project duration	Rs. 15,000/- Per Month.
5	Project Planning/Billing	1	Graduate	6	Throughout project duration	Rs. 20,000/- Per Month.
6	Safety Executive	1	Degree or Diploma in Safety	03	Throughout project duration	Rs 15,000/- Month.

- Note:** i. Monthly deployment of staff means a minimum work for 25 days at site.
ii. Contractor to maintain attendance register, duly endorsed by EIC.

1. Progress Report:

Contractor has to submit Daily Progress Report (DPR) in an approved format by e-mail/ print copy. Further, Monthly Progress Report (MPR) in approved format which include site progress photograph to be submitted by e-mail and also 2 nos print copy.

2. Similar Work:

Similar work shall mean “Construction of multi-storied (Min. Four Storeys) Office Building/Commercial Complex/Training Centre/Residential Building’s with RCC framed Structure, External Façade, finishing work, Internal and external electrical work, Firefighting work, HVAC works, Interior works, Lift and site development works”.

***Further**, the bidder to demonstrate having experience of Lift installation work and MEP Work of value not less than **Rs. 04 Crore** either in above similar completed works or in any other work or various works put together (maximum 3 Nos Works).*

3. Technical Specifications:

Technical specification shall be as per Central Public Work Dept. Specification and relevant IS Code.

In case IS code for any activities are not available, the same shall be executed as per relevant others codes with approval of Consult/Engineer In charge.

Further, if any items not covered in IS Code, shall be done as per Manufacturer’s specification.

The specifications as specialised/detailed in BOQ supersedes others.

4. ADDITIONAL SPECIAL CONDITIONS OF CONTRACT

a. PROGRESS OF WORK

The Contractor shall carry out the work as per the programme approved by the EIC.

b. FIELD LABORATORY

1. Contractor to comply all testing of materials and work done as per relevant IS Code requirements.
2. Approval of Laboratories for carrying out such test shall be obtained by ESIC/MDL.
3. For routine testing of concrete & associated items, contractor may set up a site lab with necessary equipment’s (duly calibrated) & Technician for the same.
4. MDL reserve the right to instruct contractor to do testing of materials/items/work done through other agency/ Lab and the price quoted shall be deemed to be inclusive.

c. EXCAVATED STUFF

All the materials obtained during the process of excavation shall remain the property of the corporation and shall be disposed off as instructed by the EIC. The

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Contractor is supposed to use the selected materials for filling in plinth, pipe bedding, and providing embankment where required, filling the trenches and also filling low lying areas. All operations including loading, unloading, transportation of materials, payment of royalty where required with all leads and lifts and handling them and leveling at disposal site etc.

d. DEBRIS CHUTE

Disposal of moorum/building rubbish/ malba/ similar unserviceable, dismantled or waste material shall be removed by means of chute, bucket or other safe method & cleaned off the site on a regular basis.

e. AS BUILT DRAWINGS

The Contractor shall during the course of execution, prepare and keep updated a complete set of 'as- built' drawings recording all works on the hard copy, which shall be corrected regularly, if necessary, to show each and every change from the Contract Drawings as a approved working drawings, shop drawings and the exact 'as-built' location, sizes and kinds of work etc. This set of drawings shall be kept on the site and shall be used for record purposes. Changes recorded shall be countersigned by the Engineer and the Contractor. Copies of 'as-built' drawings shall be supplied to the Architect and the Engineer on request.

The Contractor shall submit complete 'as-built' drawings on 3 sets in form of hard copies & soft copies. for building work and all services as directed by the Engineer within 30 days of the completion of entire work by using AutoCAD facility. In case the Contractor fails to submit complete 'as-built' drawings as aforesaid [in form of hard copies [3 (Three) sets] , he shall be liable to pay a sum equivalent to 0.1 percent of the value of work subject to maximum of Rs.3 lakh and this decision shall be final and binding. Final Bill shall not be released until all the as-built drawings are submitted.

f. ENGINEER'S SITE OFFICE

The Contractor shall provide site office for the Engineer's use of area admeasuring about 100 Sq.mt. with Split Air Conditioners for entire office premises including conference hall as per the Client requirement.

Broad details about construction of office and other facilities to be provided at the minimum shall be as follows:

1. Overall size of the office shall be 10m x 10 m with one separate cabin for Engineer and conference hall and one room of 3.0 x 3.0 m for Computer.
2. All furniture, fittings, fixtures, specifications as per drawing including landscaping, etc. All as per drawing which will show fully furnished, furniture specifications, etc.
3. Pantry Equipment;

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i)	Electrical hot plate, one burner	1 No.
ii)	Cutlery, Crockery, etc. for 12 persons	1 set
iii)	Dinner set for 12 persons	1 set
iv)	Thermos, Trays	2 Set
v)	Water cooler with water purifier including water bottle	1 Set

The Contractor shall arrange to maintain this office by daily sweeping the floor and keeping the premises clean. The Contractor shall also arrange to deploy two office boys for the pantry and for EIC.

Cost of all this shall be deemed to have been included in the tender as incidentals and no separate payment shall be made for providing these facilities.

g. TIME SCHEDULE FOR COMPLIANCES

The tenderers should please note the following time schedule for various compliances and follow the same:

- a) The successful tenderer has to furnish Quality Assurance Manual along with programme within 15 days from the date of Work Order.

h. WORK TO THE SATISFACTION OF THE ENGINEER

The Contractor shall execute and maintain the works in strict accordance with the contract to the satisfaction of the Engineer and shall comply with and adhere strictly to the Engineer's instructions and directions on any matter whether mentioned explicitly or otherwise.

i. HOUSE KEEPING/CLEANING SITE

All water which may accumulate on the site during the progress of the works or in trenches and excavation, shall be removed from the site to the satisfaction of the EIC at the Contractor's cost.

Site shall be maintained free from rubbish. Proper stacking of scaffolding material, shuttering material bricks/brickbats, steel pieces, etc. needed for work on day to day basis shall be organized in proper stacks. Heaps of material lying around in unplanned manner and disorderly fashion shall not be permitted. EIC's decision in this matter shall be final.

The Contractor shall not, at any time, do cause or permit any nuisance on the site or do anything which shall cause unnecessary disturbance or inconvenience to Employer, tenants or occupiers of other properties near the site and to the public in general.

The Contractor shall install mosquito proof and accessible water storage tanks for construction and drinking water.

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The Contractor shall periodically give largasidal treatment to water storage tanks, sites of water stagnation, water collection.

Any expenditure that may be incurred by MDL to ensure that the above conditions are fulfilled by the Contractor will be debitible to Contractor's account and will be recovered from the running bills of the Contractor from time to time.

j. FIRE PRECAUTIONS

The Contractor shall comply with fire regulations of the controlling authority in force at the site of the works relating to the precautions to be taken against fire hazards.

k. USE OF SITE

The Contractor shall not use any portion of the site for purpose not connected with the works without the prior written approval of the EIC He shall maintain permanent and site access roads free of spillage and shall not interfere with the flow of traffic. Also same shall apply to terraces and other developed areas.

1. QUALITY ASSURANCE MANUAL AND SAFETY MANUAL

Successful tenderers will be required to submit Quality Assurance Manual and Safety manual for various items of work and get the same approved from Engineer-in-charge before start of work and the adhere the same during actual execution of work.

Quality Assurance Manual

An quality assurance manual constituting a base document outlining quality policy of the agency, procedures, name of action, compliance, acceptance criteria and documentation etc. Shall be prepared by the successful tenderer and submitted to the EIC for approval within 15 days from the date of receipt of work order. The document shall generally cover aspects listed below, but not limited to the same.

- a) Scope of work
- b) Planning for items to be executed including method statement and resource deployment both physical and financial.
- c) Identification of all parties involved in QA and their inter-relationship.
- d) Execution plan of Quality System giving reference – standard – frequency and acceptance criteria.
- e) Levels of cross checking / verification in case of multiple verifications / controls, including systems of inspection and audit, wherever applicable.
- f) Organization of personnel, responsibilities and lines reporting for QA purpose.
- g) Testing and statistical analysis.

- h) Inspection reports at the end and during defect liability period / maintenance period.
 - i) Items to be covered for maintenance manual.
 - j) Check list viz. Forms and formats.
- m. Water Supply: Water will not be supplied by MDL and the Contractor shall make his own arrangements. MDL will give recommendatory letter to the concerned authority if so requested by the Contractor for him to arrange the water supply at site, however, MDL shall be in no way responsible for obtaining permission and no claim on account of this will be entertained.
- n. ELECTRIC SUPPLY
- Electric power for construction and lighting shall not be made available to contractor and the Contractor shall make his own arrangements. MDL will give recommendatory letter to the concerned authority if so requested by the Contractor for him to arrange the Electric supply at site, however, MDL shall be in no way responsible for obtaining permission and no claim on account of this will be entertained.
- o. SHOP DRAWING
- Contractor shall be submitted shop drawing for Structural glazing, Aluminium windows, rolling shutter, GI Shutter, Tensile roof structure, Techlam cladding etc. MDL and /CONSULTANT giving approval of shop drawings, and samples, and permission to proceed with the work does not constitute acceptance to design, method of working, testing or certificates submitted by the CONTRACTOR.
- p. Scope of Work

A. CIVIL WORK:

Introduction

The Project consist of construction of Apprentice training centre (ATC) & associated Infrastructure which is an Intelligent Green Building located at the Gavan land Ulwe.

- i. ATC- The proposed RCC Building structure is a Ground + 7 Floors RCC framed structure of size approx 150.30 x 20.3m and height of 38.75 m; with Structural Glazing.
The works consist of Earthwork, Concrete work, Shuttering, Reinforcement, Structural glazing, Block masonry, Plastering & Painting, Flooring, Carpentry work, False ceiling, Plumbing & Sanitary, waterproofing works, Horticulture & Site development works etc. All the works shall be done as per specification, drawings and Latest version of applicable Indian standard codes; manufacturer specifications and to the satisfaction of Engineer in charge all complete as directed.
- ii. DEMOLITION WORK:

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Demolition/Removal of Existing Ground floor structures in Proposed ATS area. (The Demolition work shall be carried out using latest & less vibration tools and equipment's.)

iii. CIVIL WORK:

The work includes Earthwork, Concrete work, Shuttering, Reinforcement, Structural steel work, Block masonry, Plastering & Painting, Flooring, Carpentry work, False ceiling, Plumbing & Sanitary, waterproofing works etc. All the above construction and demolition works shall be done as per MDL construction safety rules and regulations; safety measures at construction sites.

B. Electrical Work:

C. HVAC:

- i) The Project of MDL at Ulwe to have the new air conditioning system & ventilation system to ensure flexibility of operation, installation and maintenance of the HVAC system using latest state of the art technology and also the energy efficient one.
- ii) The general character and the scope of work to be carried out under this contract is illustrated in Drawings, Specifications and Schedule of Quantities. The Contractor shall carry out and complete the said work under this contract in every respect in conformity with the contract documents and with the direction of and to the satisfaction of the Consultant / Architect/ Client.

D. FIRE FIGHTING SYSTEM:

- i) Work under this section shall consist of furnishing all labour, materials, fabrication, equipment and appliances necessary and required to completely install wet riser, fire hydrant & sprinkler riser system as required by the drawings and specified here in after or given in the Bill of Quantities.
- ii) Fire protection work shall include Yard hydrants, Landing valves, hose reels, hose cabinets, branch pipe, nozzles, valves, orifice along with orifice flanges etc, Fire Hydrant pump with motor, Diesel Engine driven pump, Sprinkler pump with motor , Jockey pump with motor, Air Vessel & Priming Tank in the Fire Pump Room, Painting, anti corrosive tape wrapping & coating, hydraulic testing at 1.5 times the working pressure for minimum 2 hrs, Electrical System for the above installation like panel with starter, control, protections & indications, pressure switches interlocking with pumps.

E. LIFTS:

- i) Design, manufacture, transport, supply at MDL Ulwe site, installation, testing, commissioning & obtaining licenses to operate the lifts from PWD Inspector of Lifts conforming to MDL Technical Specifications.