

## **TECHNICAL SPECIFICATION**

### **(Sub Estimate-01)**

**Item No. 01: Demolition including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift. (i) R.C.C. work**

**1. Workmanship:**

- Work complete as per relevant specification of Sr. No: 20.3 page No -130 in General specification R&B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Cubic Meter.

**Item No. 02: Demolition of Brick work and stone masonry including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift.(ii) In Cement Mortar.**

**1. Workmanship:**

- Work complete as per relevant specification of Sr. No: 20.11(I) page No -130 in General specification R&B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Cubic Meter.

**Item No. 03: Dismantling tiled of stone floors laid in mortar including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift.**

**1. Workmanship:**

- Work complete as per relevant specification of Sr. No: 20.23 page No -131 in General specification R & B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Sq Meter

**Item No. 04: Dismantling of sheet roofing including ridges, Hips, Valleys, Gutters etc. stacking of serviceable materials and disposal of unserviceable materials with all lead and lift.(i) Polycarbonate fabric sheet roofing.**

**1. Workmanship:**

- Work complete as per relevant specification of Sr. No: 20.27(ii) page No -131 in General specification R & B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Sq Meter

**Item No. 05: Dismantling steel work including distempering and stacking the materials with all lead and lift.**

**1. Workmanship:**

- Work complete as per relevant specification of Sr. No: 20.43) page No -132 in General specification R & B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one KG.

**Item No. 06: Removing old paint / colour from walls (interior and exterior) by hand scraping, using scrapers, wire brushes, sandpaper, or other approved manual tools, including cleaning the surface, removing loose, flaking, or peeling paint, and disposing of scrapings outside the premises, complete as per directions of Engineer-in-Charge.**

**1. Workmanship:**

- Work complete as per relevant specification of Item No: 20.002 page No -134 in General specification R & B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Square Meter.

**Item No. 07 : Clearing and grubbing road land including uprooting rank vegetation grass bushes, shrubs, sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials (C) By mechanical means in area of light jungle**

**1. Workmanship:**

- **Clearing the site:** The site on which the structure is to be built shall be cleared and all obstructions, loose stone, materials and rubbish of all kind, bush, wood and Vegetation, grass bushes, shrubs, sapling trees shall be removed as directed: The materials so obtained shall be property of the Government and be conveyed and stacked as directed within 50 M. lead. The roots of the trees coming in the sides shall be cut and coated with a hot asphalt.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of hectare.

**Item No. 08 : Excavation for foundation upto 1.5 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead. Soft soil**

**1. Workmanship:**

- Work complete as per relevant specification of Item No: 4.0.0. (A) Page No - 21 in General specification R & B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labor, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 09 : Excavation for foundation for depth from 1.5 m to 3.0 m including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead. Soft Soil**

**1. Workmanship:**

- Work complete as per relevant specification of Item No: 4.001 (A) page No - 21 in General specification R & B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labor, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter

**Item No. 10: Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. In layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering.**

**1. Workmanship:**

- Work complete as per relevant specification of Item No: 4.12 page No -27 in General specification R & B booklet for building works.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The payment shall be made for filling in plinth and trenches. No deduction shall be made for shrinkage or voids, if consolidated as instructed above.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 11: Filling in foundation and plinth with murrum or selected soil in layers of 20cm. thickness including watering, ramming and consolidating etc. complete.**

**1. Material:**

- Sand shall be used for filling as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 4.004, page No - 28 in General

specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 12 : Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete**

**1. Material:**

- Sand shall be used for filling as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 4.24, page No - 28 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 13 : Applying general insecticide pest control treatment to floors, cupboards etc including labour materials etc. complete. Using Imidacloprid 30.5 SCas Per IS 6313 part -II( 0.075% concentration by mass) is recommended 10.5ml chemical diluted with 5 liters of water application 0.5 litre chemical /Sqm of surface is recommended as per I.S. (The Product Performance Shall Carry Guarantee for 5 Years)**

**1. Material:**

- Pest control treatment shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 22.00.7 page No-137 in General specification R & B booklet for building works shall be follow except that the application as per above specification work.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Square meter.

**Item No. 14: P.C.C : Providing and laying cement concrete 1:2:4 (1-Cement : 2- Coarse sand : 4-graded stone aggregates 20 mm nominal size) and curing complete including cost of formwork in (A) Foundation and Plinth**

**1. Material:**

- Cement, sand and stone aggregate shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 5.3.13. Page No - 32 & It.No: 9.1(A). Page No - 54 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 15 : Providing and laying controlled cement concrete M.250 concrete With all lead, including all transportation, pumping, pouring, curing of concrete etc complete including the cost of formwork but excluding the cost of reinforcement for reinforced concrete work in M250 all RCC element like foundation, (A) Footing, at all floor level from below plinth and above plinth level**

**1. Material:**

- Cement, sand and stone aggregate shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No 5.8.3 (A), page No -40 &
- It.No: 9.1(A). Page No - 54 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 16 : Providing and laying controlled cement concrete M.250 concrete With all lead, including all transportation, pumping, pouring, curing of concrete etc complete including the cost of formwork but excluding the cost of reinforcement for reinforced concrete work in M250 all RCC element lik, © Slabs, landing, shelves, Balconies, Girders and Cantilever all floorlevel.**

**1. Material:**

- Cement, sand and stone aggregate shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No 5.8.3 (C), page No -40 & It.No: 9.1(B) (i). Page No - 56 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work
- Satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 17 : Providing and laying controlled cement concrete M.250 concrete With all lead, including all transportation, pumping, pouring, curing of concrete etc complete including the cost of formwork but excluding the cost of reinforcement for reinforced concrete work in M250 all RCC element lik © Slabs, landing, shelves, Balconies, Lintels, Beams, Girders and Cantilever all floorlevel.**

**1. Material:**

- Cement, sand and stone aggregate shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No 5.8.3 (C), page No - 40 & It.No: 9.1(H) (i) Page No - 56 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No.18 : Providing and laying controlled cement concrete M.250 concrete With all lead, including all transportation, pumping, pouring, curing of concrete etc complete including the cost of formwork but excluding the cost of reinforcement for reinforced concrete work in M250 all RCC element lik © Landing, Stair case, Lintels, Copping, Beams, Girders, shelves, Balconies, and Cantilever all floor level.**

**1. Material:**

- Cement, sand and stone aggregate shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No 5.8.3 (C), page No -40 & It.No: 9.1(C) Page No - 56 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.



- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter.

**Item No. 19 : Providing and laying controlled cement concrete M.300 concrete With all lead, including all transportation, pumping, pouring, curing of concrete etc complete including the cost of formwork but excluding the cost of reinforcement for reinforced concrete work in M300 all RCC element lik (D) Columns, Pillars posts and struts, all floor level.**

**1. Material:**

- Cement, sand and stone aggregate shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No 5.8.3 (D), page No -40 & It.No: 9.1(G) (1) Page No - 56 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Cubic Meter

**Item No. 20 : GRADE SLAB (M200) : Providing and laying controlled cement concrete M.200 Concrete with all lead, including all transportation, pumping, pouring, curing of concrete etc complete including the cost of formwork but excluding the cost of reinforcement for reinforced concrete work in M200 Grade Slab**

**1. Material:**

- Cement, sand and stone aggregate shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 5.8.2(C), page No -39 &
- Item No: 9.1(B)(I) Page No - 56 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect
- The rate shall be for a unit of One Cubic Meter

**Item No. 21: Constructing Under Ground water tank with Providing and laying controlled cement concrete M250 mix for R.C.C. work including reinforcement, boxing, centering, vibrating, curing and mixed with approved water proofing cement compound or "CEMWET" or "PIDICRETE LW" integral water proofing admixture as water proofing agent to be mixed with 50 kgs. bags shall be as recommended by the manufacture of the water proofing material,**

concrete work for top, bottom slab & side pardi, column, beam for under ground water tank item incl. 300mm Free Board and Necessary excavation & refilling the available earth, raft thickness 250mm & wall thickness 230mm ., Suncipn Pit size 600mmX600mmX600mm water proofing cement plaster 20mm thick Double Coat with smooth finishing & Glazes tile Dedo, vata 10cm X 10cm , 50mm thick cement concrete flooring watering etc. Comp. to all face of tank. including locking arrangement outlet, inlet, overflow and washout outlet pipe arrangement as necessary & C.I. Cover 0.60 x 0.45 weight not less then 35 kg with locking arrangement.C.I. steps etc. comp as per structural detail drawing Including thermo Mechanically treated bars (TMT BARS) Fe 500/500D as directed by Eng-in-charge.) 82,000 LITER CAPACITY. (55 Kl Fire Tank & 27 Kl UGWT)

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete including all necessary materials, tools, tackles etc. as per described above specification.
- All work should be carried out as per detailed drawing and instruction of EIC/Architect.
- Bidder shall be responsible for the any type of damage work at the time of execution.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a **unit of one Litre**.

**Item No. 22 : Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete. upto floor two level**

**1. Material:**

- TMT Fe 500 D shall be used as per approved sample and confirming to relevant IS codes and approved by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer.
- Workmanship:
- The work shall consist of furnishing and-placing reinforcement to the shape and dimensions shown as on the drawings or as directed
- Steel shall be clean and free from rust and loose mill scale at the lime of fixing in position and subsequent concreting.
- Reinforcing steel shall conform accurate to the dimensions given in the bar bending schedules shown on relevant drawings. Bars shall be bent cold to specified shape and dimensions or as directed, using a proper bar bender, operated by hand or power to attain proper radius of bends. Bars shall not be bent or straightened in a manner that will injure the material. Bars bent during transport-or handling shall be straightened before being used on the work. They shall not be heated to facilitate bending unless otherwise specified a "U" type hook at the end of each bar shall invariably be provided to main reinforcement. The radius of the bend shall not be less than twice the diameter of the round bar and the length of the straight part of the bar beyond the end of the curve shall be at least four times the diameter of the round bar. In case of bars which



are not round and in case of deformed bars, the diameter shall be taken as the diameter of circle having an equivalent effective area. The hooks shall be suitably encased to prevent any splitting of the concrete.

- All the reinforcement bars shall lie accurately placed in exact position shown on the drawings, and shall be securely held in position during placing of concrete by annealed binding wire not less than 1 mm in size, and by using stay blocks or metal chair spacers, metal hangers supporting wires or other approved devices at sufficiently close intervals. Bars shall not be allowed to sag between supports nor displaced during concreting or any other operations of the work. All devices used for positioning shall be of non-corrodible material. Wooden and metal supports shall not extend to the surface of concrete, except where shown on drawings. Placing bars on layers of freshly laid concrete as the work progresses for adjusting bar spacing shall not be allowed. Pieces of broken stone or brick and wooden blocks shall not be used. Layers of bars shall be separated by spacer bars, precast mortar blocks or other approved devices. Reinforcement after being placed in position shall be maintained in a clean condition until completely embedded in concrete. Special care shall be exercised to prevent any displacement of reinforcement in concrete already placed. To prevent reinforcement from corrosion, concrete cover shall be provided as indicated on drawings. All the bars protruding from concrete and to which other bars are to be lapped and which are likely to be exposed for a period exceeding 10 days shall be protected by a thick coat of neat cement grout.
- Bars crossing each other where required shall be secured by binding wire (annealed) of size not less than 1 mm. in such a manner that they do not slip over each other at the time of fixing and concreting.
- As far possible, bars of full length shall be used. In case this is not possible. Overlapping of bars shall be done as directed when practicable, overlapping bars shall not touch each other, but be kept apart by 25 mm. Where not feasible, overlapping bars shall be bound with annealed wires not less than 1 mm. thick twisted tight. The overlaps shall be staggered for different bars and located at points, along the span where neither shear nor bending moment is maximum.
- Whenever indicated on the drawings or desired by the Engineer-in-charge, bars shall be joined by couplings which shall have a cross-section sufficient to transmit the full stresses of bars. The ends of the bars that are joined by coupling shall be upset for sufficient length so that the effective cross section at the base of threads is not less than the normal cross-section of the bar. Threads shall be standard threads. Steel for coupling shall conform to I.S. 226.
- When permitted or specified on the drawings, joints of reinforcement bars shall be bull-welded so as to transmit their full stresses. Welded joints shall preferably be located at points where steel will not be subject to more than 75 percent of the maximum permissible stresses and welds so staggered that at any one section not more than 20 percent of the rods are welded. Only electric arc welding using a process which excludes air from the molten metal and conforms to any or all other special provisions for the work shall be accepted. Suitable means shall be provided for holding bars securely in position during welding. It shall be ensured that no voids are left in welding and when welding is done in two or three stages, previous surface shall be cleaned properly. Ends of the bars shall be cleaned of all loose scale, rust, stains, paint and other foreign matter before welding. Only competent welders shall be employed on the work. The M.S. electrodes used for welding shall conform to I.S. 814. Welded pieces of reinforcement shall be tested. Specimen shall be taken from the actual site and their number and frequency of test shall be as directed.

## 2. Measurements:

- The rate shall be consolidated for all above items.

- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Kg.

**Item No.23 : Brick work using common burnt clay building bricks having crushing strength not less than 35 kg/Sq.Cm. in foundation and plinth,in Cement Mortar 1:6 (1- Cement : 6 -fine sand) (B) Conventional**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per relevant specification of Item No: 6.13 (B), page No - 44 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one cubic meter.

**Item No.24 : White Stone Bela mesonry block in course in superstructure with stone of approved quality in Lime Mortar 1:6 (1-Cement : 6- course sand) including with precast concrete block in superstructue above plinth upto floor two level. packing the joints etc. complete.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per relevant specification of Item No: 7.0.0 (B), page No - 53 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one cubic meter.

**Item No.25 : White Stone Bela mesonry work in partition walls upto 15 cm thickness in cement Mortar 1:4 ( 1- Cement : 4- course sand). in foundation, plinth and superstructure**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per relevant specification of Item No: 7.0.0 (B), page No - 53 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.26 : Providing 10mm thick cement plaster in single coat on brick/concrete walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand),interior plastering above floor two level for every additional storey height. all type of scaffolding , tools, tackles etc complete. (For all floor) (144.21 + 21.67 = 165.88)**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 17.58.(I), page No -104 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No. 27 : Providing 20 mm thick double coat mala cement plaster on interior and external brick / concrete work for plastering comprising of base coat of 12 mm thick cement plaster in cement mortar (1 Cement : 4 coarse sand) in rough finishing and 8 mm thick top coat of cement mortar 1:2 (1 Cement : 2 Coarse sand) finished with trowel including all level, scaffolding, curing, tools, tackles etc complete. ( For all floor )**

**1. Material:**

- Cement and sand shall be used for mortar of Double coat mala plaster work as per approved sample and confirming to relevant IS codes and approved by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer

**2. Workmanship:**

- Wooden bullies, bamboos, planks, trestles and other scaffolding shall be sound. These shall be properly examined before erection and use. Stage scaffolding shall be provided for ceiling plaster which shall be independent of the walls.
- Preparation of back-ground:
- The surface shall be cleaned of all dust, loose mortar droppings, traces of algae, efflorescence and other foreign matter by water or by brushing. Smooth surface shall be Toughened by wire brushing if it is not hard and by hacking if it is hard. In case of

concrete surface, if a chemical retarded has been applied to the form work, the surface shall be roughened by wire brushing and all the resulting dust and loose particles cleaned off and care shall be taken that none of the readers if left on the surface. Trimming of projections on brick/concrete surfaces where necessary shall be carried out to get an even surface.

- Raking of joints in case of masonry where necessary shall be allowed to dry out for sufficient period before carrying out the plaster work.
- The work shall not be soaked but only damped evenly before applying the plaster. If the surface becomes dry, such area shall be moistened again.
- For external plaster, the peasting operation shall be started from top floor and carried downwards. For internal plaster, the plastering operations may be-started wherever the building frame and cladding work are ready and the temporary supports of the ceiling resting on the wall of the floor have been removed. Ceiling plaster shall be completed before starting plaster to walls.
- Application of plaster:
- The plaster about 15x15 cms. Shall be first applied horizontally and vertically at not more than 2 meters intervals over the entire surface to serve as gauge. The surfaces of these gauges shall be truly in plane of the finished plastered surface. The mortar shall then be applied in uniform surface slightly more than the specified thickness, then brought to a true surface by working a wooden straight edge reaching across the gauges with small upward and sideways movements at a time. Finally, the surface shall be finished off true with a trowel or wooden float according as a smooth or a smooth or a sandy granular texture is required Excessive troweling or overworking the float shall be avoided. All corners, arises, angles and junctions shall be truly vertical or horizontal as the case may be and shall be carefully finished. Hounding or chamfering, corners, arises junctions etc. shall be carried out with proper templates to be size required.
- Cement plaster shall be used within half an hour after addition of water. And mortar or plaster which is partially set shall be rejected and removed forthwith from the site.
- In suspending the work at the end of the day, the plaster shall be left out clean to the line both horizontally and vertically, when recommencing the plaster, the edges of the old work shall be scraped clean and wetted with cement putty before plaster is applied to the adjacent areas to enable the two to properly join together. Plastering work shall be closed at the end of the day on the body of the wall and nearer than 15 cm. to any corners or arises. It shall not be closed on the body of features such as plaster bands and cornices not at the corners or arises. Horizontal joints in plaster work shall not also occur on parapet tops and copings as these invariably lead to leakage. No portion of the surface shall be left out initially to be packed up later on.
- Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days. Moistening shall commence as soon as plaster is hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used, excessive evaporation on the sunny or windward side of building in hot air or dry weather shall be prevented by hanging matting or gunny bags oh the outside of the plaster and keeping them wet.
- Proportion and thickness and cement mortar as per above specification work.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of One Square meter.

**Item No. 28 : Providing 15mm thick cement plaster in single coat on Rough (Similar)side of single or half brick walls for interiorplastering upto floor two level and finished even and smooth in (iii) Cement mortar 1:6 (1-cement:6-sand)**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 17.61 (ii), page No -104 to 107 in General specification R & B booklet for building works. Work shall be carried out of 15mm thick plaster instead of 20mm.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No. 29 : Providing 15mm thick cement plaster in single coat on Rough (Similar)side of single or half brick walls for interior plastering upto floor two level and finished even and smooth in (iii) Cement mortar 1:6 (1-cement:6-sand) plastering on ceilings and soffits of stairs upto floor two level instead of plastering on walls. all type of scaffolding , tools, tackles etc complete. (For all floor) (141.60+20.64= 162.24)**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Item No: 17.61 (ii), page No -104 to 107 in General specification R & B booklet for building works. Work shall be carried out of 15mm thick plaster instead of 20mm.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No. 30: Providing and fixing G.I. hexagonal chickenmesh of size 16 x24 of 22 gauge at junction of concrete and brick work or between different materials after making "V" groove between two different material surface and filled with rich cement mortar and@ 100mm on each side of surfaces including necessary "U" nails / screws / washers with cleats for fixing, overlaps, scaffolding at all floors / all levels / all heights / all shapes etc. complete as per drawing / specifications and direction of Engineer-in-charge. For civil, plumbing, electrical & infrastructure works.**

**1. Material:**

- The G.I Hexagonal chicken mesh material as per approved sample by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.



**2. Workmanship:**

- Work complete including all necessary material, tools, tackles etc.
- Work should be carried out all RCC, masonry joints at any height and instruction of EIC/Architect
- All work should be carried out as per detailed drawing and instruction of EIC/Architect
- Bidder shall be responsible for the any type of damage work at the time of execution.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Square Meter

**Item No. 31 : Providing and applying external finish of average 2 to 2.5mm thick acrylic polymer based texture and pattern with standard tool and applicator as specified by manufacturer on exterior surfaces at all heights including scaffolding to give even shades including thoroughly brushing the surfaces free from mortar dropping and other foreign matter and sand paper smoothed etc. complete as per the manufacture specifications and up to the satisfaction of Engineer in-charge/ Architect. The rate includes making of grooves, pattas and finishing as directed by Architect/ EIC. Paint shall be measured and paid in separate tender item. (Item should be executed by approved applicator only.)**

**1. Material:**

- Acrylic polymer based texture and pattern shall be used as per sample approved by EIC/Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- Scaffolding: Wherever scaffolding is necessary it shall be erected in such a way that as far as possible on part of scaffolding shall rest against the surface to be color washed. A properly secured strong and well tied suspended platform (Zoola) may be used for painting. Where ladders are used, pieces of old gunny bag shall be tied at top and bottom to prevent scratches to the floors and walls. For paint of ceilings proper stage scaffolding shall be erected where necessary.
- Preparation of surface: The substrate must be sound, clean, dry, free from dust, oil, grease and laitance etc. All traces of release agents must be removed. On chalky and dusty surfaces, all loose material must be removed by stiff bristle brushing. The primer / paint application is to be done with the rollers. Rate shall be including crack filling and leveling as per manufacturer's specification.
- Application: Wall painting two coats with low VOC Jota shield Tax Ultra of Jotun or equivalent approved brand in any shades and color as directed on wall surface to give an even shade including applying of a one coat of Penetrating primer or equivalent and two coats of paint, scaffolding to at any height with all labor and material thoroughly brushing the surface free from mortar droppings and other foreign matter and sand prepared smooth etc. complete.
- Precautions: Splashes on floors etc. shall be cleaned out without delay as they will be difficult to remove after hardening. Washing of surfaces treated with Paints shall not



be done within 3 to 4 weeks of application.

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

### 3. Measurements:

- Rate shall be including crack filling and leveling as per manufacturer's specification.
- 1) Low VOC content. 2) Crack Bridging ability up to 2.6 mm. 3) 100% pure acrylic emulsion
- 4) Anti-Carbonation concrete protection 5) Very Low Flame spread 6) Superior Wash ability.
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Area shall be measured & paid in Square Meter.

**Item No.32 : Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth course of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45, 1.20 and 1.45 Kg per square metre of area respectively, second and fourth courses of roofing felt type 3 grade I conforming to IS : 1322 (Hessian based self finished bitumen felt) , sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.(The Product Performance Shall Carry Guarantee for 5 Years Against Any Leakage)**

#### 1. Material:

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

#### 2. Workmanship:

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per relevant specification of Item No: 22.8, page No -1176 in General specification DSR VOL-2 for building works.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Square Meter.

**Item No.33 : Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.(The Product Performance Shall Carry Guarantee for 5 Years Against Any Leakage)**

#### 1. Material:

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

#### 2. Workmanship:

- The whole work is to be completed as per design; sample material & any other

requirement shall be as per instruction of EIC/Architect.

- Work complete as per relevant specification of Item No: 14.21 (A), page No - 82 in General specification R & B booklet for building works. Work shall be carried out of 12mm to 20mm broken pieces of glazed tiles instead of marble chips.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No. 34 : Vitrified Flooring (Type-01): P & L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 ( 1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit**

#### 1. Material:

- 8 mm thick Vitrified tiles shall be used and as per sample approved by EIC/Architect.
- Epoxy grouting shall be used of Laticrete or equivalent approved material by EIC/Architect.
- All type of material shall be used for flooring work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

#### 2. Workmanship:

- **Bedding:**
  - Bedding shall be cleaned, wetted and mopped. The bedding shall then be laid evenly over the surface tamped and corrected to desired level and allowed to harden enough to offer a rigid cushion to tiles and to enable the monsoon to place wooden planks across and squat on it.
  - The Vitrified tiles shall be laid on cement mortar bedding of 20 mm. thick in CM.1:6. The mortar shall have sufficient plasticity for laying and there shall be no hard lumps that would interfere with the evenness of bedding. The bedding shall be cleared and well wetted. The mortar shall then be spread in thickness not less than 20 mm. at any place and average 20 mm thickness. The proportion of the cement mortar shall be as specified in the item.
- **Fixing tiles:**
  - The tiles before laying shall be soaked in water for at least two hours. Neat grey cement grout at 33 kg/Cement/Sqmt. of honey like consistency shall be spread over the mortar bedding as directed. The edges of the tiles shall be smeared with neat cement slurry.
  - The tiles shall be well pressed and gently tapped with a wooden mallet till they are properly bedded and in level with the adjoining tiles.' There shall be no hollows in bed or joints. The joints between the tiles shall be as in straight line or as per pattern as per detailed drawing.
  - The tiles shall not have staggered joints. The joints shall be true to centre line both ways. The Nahni trap coming in the flooring shall be so positioned that its grating shall replace only one tile as far as possible. Where full size tiles cannot be fixed they shall be cut (Swan) to the required size and the edges rubbed smooth to ensure straight and true joints. The joints shall be filled with laticrete grouting with wire brush or trowel to a depth of 6 mm. and loose material removed. Laticrete shall be used for pointing the joints. After fixing the tiles finally in an even plane the flooring shall be kept wet and

allowed to nature undisturbed for 7 days.

- **Cleaning:**
- The surplus grouting material that may have come out of the joints shall be cleaned off before it sets. Once the floor has set, it shall be carefully washed, cleared and dried. Proper precautions and measures shall be taken to ensure that the tiles are not damaged in any way till the completion of the construction.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in square meter for visible area of work done. The length and width of the flooring shall be measured between the faces of Skirting or dado or plastered face of wall as the case may be. The paving under dado or skirting shall not be measured. No deduction shall be made not extra paid for any opening in the floor of area Up to 0.1 sqmt. Nothing extra shall be paid for laying the floors at different levels in the same rooms. The rate shall be for a unit of one square meter.

**Item No.35 : Vitrified Flooring (Type-01) : Providing and laying Vitrified tiles 8 to 10 mm thick , in skirting risers of steps and dado on 10mm thick cement plaster 1:3 (1-cement : 3-coarse sand) and jointed with white cement slurry**

#### 1. Materials:

- Vitrified tiles shall be used as per sample approved by EIC/Architect.
- Epoxy grouting shall be used of Laticrete or equivalent approved material by EIC/Architect.
- All type of material shall be used for flooring work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

#### 2. Workmanship:

- The relevant specifications of item No. 14.32 page no. 84 shall be followed except that the tiles shall be fixed for risers of steps, dado or skirting in C.M. 1:3 shall be done.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured and paid in one square meter.

**Item No. 36 : Providing and applying Tactile Polyurethane (PU) Flooring system of approved shade and design over the existing finished surface, including surface preparation, cleaning, grinding, and removal of dust, oil, or loose particles. The system shall comprise application of primer coat, base coat, and tactile PU topcoat with anti-slip finish to form tactile indicators (warning and directional tiles) for visually impaired persons, as per approved pattern and sample. Work includes all necessary surface levelling, repairing of undulations, masking, layout marking, and application using manufacturer's recommended tools and techniques to achieve a seamless, uniform, and durable tactile flooring.**

**1. Materials:**

- Tactile shall be used as per sample approved by EIC/Architect.
- All type of material shall be used for flooring work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Square meter.

**Item No.37 : Providing and laying Granite slab (16 to 18 mm thick) one side polished flooring over 20 mm (average) base of cement mortar 1:6 ( 1 cement : 6 coarse sand) or L.M. 1:1.5 laid and jointed with grey cement slurry including rubbing & polishing complete, for all floors.**

**1. Material:**

- **+18 mm** thick Granite with finish shall be used as per sample approved by EIC/Architect.
- Matching Pigment shall be used of approved material by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes 1134- 1974 **and approved by EIC/Architect.**

**2. Workmanship:**

- **Dressing of slabs:** stone shall be cut to require size and fine chisel dressed to give a smooth and even surface on all sides to full depth. A straight edge laid along the sides of the stone shall be fully in contact with it Chisel dressing shall also be done on top surface to remove any waviness. The sides and top surface of Granite slabs shall be machined rubbed or table rubbed with coarse sand before using. All angles and edges or slabs shall be true, square and free from chipping. The thickness of stone shall be 18 mm. The allowable tolerance shall be 2 mm. allowable. The tolerance shall + 5 mm. in length and breadth.
- **Bedding:** Granite slab shall be laid on Bedding of cement mortar 1:6 (1 cement: 6 coarse sand) of including 20 mm thick as given in description of item.
- **Laying:** The surface of sub-grade shall be cleared, wetted and mopped. Mortar of specified mix and thickness shall then be spread on an area sufficient to receive one slab. The slab be washed clean before laying. It tie laid on top pressed and tapped gently to bring it in level with other slabs. It shall then be lifted and a side. The top surface of the mortar shall then be corrected by adding fresh mortar at hollows, or depressions. The mortar shall then be allowed to harden it over this surface cement slurry or honey like consistency at 4.4 Kg. of cement per sq. meter. The edges of slabs already paved shall be buttered with gray cement. The slab shall then be gently placed in position and tapped with wooden mallet till it is properly bedded in level with and close to the adjoining slab. The joints shall be as fine as possible. Surplus cement on the surface of the slab shall be removed. The slab fixed in the floor adjoining the walls shall enter not less than 10 mm. under the plaster skirting or dedo. The junction between the walls and floors shall be finished neatly. The finished surface shall be true to level and slopes as directed. The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in square meter for visible area of work done. The length and width of the flooring shall be measured between the faces of Skirting or dado or plastered face of wall as the case may be. The paving under dado or skirting shall not be measured. **The rate shall be for a unit of one square meter.**

**Item No. 38: Providing and laying 16 to 18 mm thick polished Granite stone slab machine cut in single piece in risers of steps, dado, pillar, sill and jambs or dado laid on 10 mm thick cement mortar 1 : 3 ( 1 cement: 3 coarse sand ) laid over and jointed with grey cement slurry incl. rubbing and polishing etc complete. The rate includes loding, unloading, scaffolding, wastage, making hole, cutting/ chasing, rounding champhering, edge polishing of edges. The work shall be carried out as per the approval of architect and engineer-in-charge. for all floors**

**1. Material:**

- 16 to 18 mm polished thick Granite with finish shall be used as per Basic rate and sample approved by EIC/Architect.
- Epoxy adhesive shall be used of approved material by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes 1134 - 1974 and approved by EIC/Architect.

**2. Workmanship:**

- **Bedding: Granite slab shall** be laid on Bedding on 16 to 18 mm thick cement mortar 1:3 (1 cement: 3 Fine sand) as given in description of item. The mortar shall have sufficient plasticity for laying and there shall be no hard lumps that would interfere with the evenness of bedding. The bedding shall be cleared and well wetted. The mortar shall then be spread in thickness not less than 10 mm. at any place and average 10 mm thickness. The proportion of the cement mortar shall be as specified in the item.
- **Laying:** The surface of sub-grade shall be cleared, wetted and mopped. Mortar of specified mix and thickness shall then be spread on an area sufficient to receive one slab. The slab be washed clean before laying. It tie laid on top pressed and tapped gently to bring it in level with other slabs. It shall then be lifted and a side. The top surface of the mortar shall then be corrected by adding fresh mortar at hollows, or depressions. The mortar shall then be allowed to harden it over this surface cement slurry or honey like consistency at 3.3 Kg. of cement per sq. meter. The edges of slabs already paved shall be buttered with gray cement. The slab shall then be gently placed in position and tapped with wooden mallet till it is properly bedded in level with and close to the adjoining slab. The joints shall be as fine as possible. Surplus cement on the surface of the slab shall be removed. The slab fixed in the floor adjoining the walls shall enter not less than 10 mm. under the plaster skirting or dado. The junction between the walls and floors shall be finished neatly. **The finished surface shall be true to level and slopes as directed. The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.**

**3. Measurements:**

- **The** rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.



- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one **square meter**.

**Item No. 39: Vitrified Flooring (Type-02) : Providing and laying Lapato / Glossy/Matt/Rustic finish Vitrified tiles flooring using minimum 10 mm thick tiles as per approved make list or selected by Architect , tile size (1200 mm X 600 mm,900 x900,600x600 ) including preparing base for leveling with 20mm thick cement mortar 1:6 (1 cement : 6 coarse sand ) and jointed with 3mm thick laticrete grouting of approved shade and colour in proper line and level as per detailed drawing / instruction and approval by architect.The rate shall be inclusive of protecting the flooring by plaster of Paris and plastic and/or bubble top sheets. (At all floor area)**

**1. Material:**

- 10 mm thick Vitrified tiles shall be used and as per sample approved by EIC/ Architect.
- Epoxy grouting shall be used of Laticrete or equivalent approved material by EIC/Architect.
- All type of material shall be used for flooring work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- Bedding:
- Bedding shall be cleaned, wetted and mopped. The bedding shall then be laid evenly over the surface tamped and corrected to desired level and allowed to harden enough to offer a rigid cushion to tiles and to enable the monsoon to place wooden planks across and squat on it.
- The Vitrified tiles shall be laid on cement mortar bedding of 20 mm. thick in CM.1:6. The mortar shall have sufficient plasticity for laying and there shall be no hard lumps that would interfere with the evenness of bedding. The bedding shall be cleared and well wetted. The mortar shall then be spread in thickness not less than 20 mm. at any place and average 20 mm thickness. The proportion of the cement mortar shall be as specified in the item.
- Fixing tiles:
- The tiles before laying shall be soaked in water for at least two hours. Neat grey cement grout at 33 kg/Cement/Sqmt. of honey like consistency shall be spread over the mortar bedding as directed. The edges of the tiles shall be smeared with neat cement slurry.
- The tiles shall be well pressed and gently tapped with a wooden mallet till they are properly bedded and in level with the adjoining tiles.' There shall be no hollows in bed or joints. The joints between the tiles shall be as in straight line or as per pattern as per detailed drawing.
- The tiles shall not have staggered joints. The joints shall be true to centre line both ways. The Nahni trap coming in the flooring shall be so positioned that its grating shall replace only one tile as far as possible. Where full size tiles cannot be fixed they shall be cut (Swan) to the required size and the edges rubbed smooth to ensure straight and true joints. The joints shall be filled with laticrete grouting with wire brush or trowel to a depth of 6 mm. and loose material removed. Laticrete shall be used for pointing the joints. After fixing the tiles finally in an even plane the flooring shall be kept wet and allowed to nature undisturbed for 7 days.
- Cleaning:
- The surplus grouting material that may have come out of the joints shall be cleaned off before it sets. Once the floor has set, it shall be carefully washed, cleared and dried. Proper precautions and measures shall be taken to ensure that the tiles are not



damaged in any way till the completion of the construction.

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in square meter for visible area of work done. The length and width of the flooring shall be measured between the faces of Skirting or dado or plastered face of wall as the case may be. The paving under dado or skirting shall not be measured. No deduction shall be made not extra paid for any opening in the floor of area up to 0.1 sqmt. Nothing extra shall be paid for laying the floors at different levels in the same rooms.
- The rate shall be for a unit of **one square meter**.

**Item No 40:Tile (Type-02) : Providing and laying Lapato /Glossy finish vitrified tiles in skirting using minimum 10 mm thick vitrified tiles of approved make list or as selected by Architect of premium quality fixed in skirting on 10 mm thick Cement plaster 1:3 (1 cement : 3 coarse sand) and jointed with 3 mm thick-min. 75 mm height laticrete grouting of approved shade and color in proper line and level for average 125 mm height as per detailed drawing /instruction and approval by architect. (At all floor area)**

#### 1 Material:

- 10 mm thick Vitrified tiles shall be used and as per sample approved by EIC/Architect.
- Epoxy grouting shall be used of Laterite or equivalent approved material by EIC/Architect.
- All type of material shall be used for flooring work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

#### 2 Workmanship:

- **Bedding:**
- Bedding shall be cleaned, wetted and mopped. The bedding shall then be laid evenly over the surface tamped and corrected to desired level and allowed to harden enough to offer a rigid cushion to tiles and to enable the monsoon to place wooden planks across and squat on it.
- The Vitrified tiles shall be laid on cement mortar bedding of 20 mm. thick in CM.1:3. The mortar shall have sufficient plasticity for laying and there shall be no hard lumps that would interfere with the evenness of bedding. The bedding shall be cleared and well wetted. The mortar shall then be spread in thickness not less than 20 mm. at any place and average 20 mm thickness. The proportion of the cement mortar shall be as specified in the item.
- **Fixing tiles:**
- The tiles before laying shall be soaked in water for at least two hours. Neat grey cement grout at 33 kg/Cement/Sqmt. of honey like consistency shall be spread over the mortar bedding as directed. The edges of the tiles shall be smeared with neat cement slurry.

- The tiles shall be well pressed and gently tapped with a wooden mallet till they are properly bedded and in level with the adjoining tiles.' There shall be no hollows in bed or joints. The joints between the tiles shall be as in straight line or as per pattern as per detailed drawing.
- The tiles shall not have staggered joints. The joints shall be true to centre line both ways. The Nahni trap coming in the flooring shall be so positioned that its grating shall replace only one tile as far as possible. Where full size tiles cannot be fixed they shall be cut (Swan) to the required size and the edges rubbed smooth to ensure straight and true joints. The joints shall be filled with laticrete grouting with wire brush or trowel to a depth of 6 mm. and loose material removed. Laticrete shall be used for pointing the joints. After fixing the tiles finally in an even plane the flooring shall be kept wet and allowed to nature undisturbed for 7 days.
- **Cleaning:**
- The surplus grouting material that may have come out of the joints shall be cleaned off before it sets. Once the floor has set, it shall be carefully washed, cleared and dried. Proper precautions and measures shall be taken to ensure that the tiles are not damaged in any way till the completion of the construction.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect

### 3 Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in square meter for visible area of work done. The length and width of the flooring shall be measured between the faces of Skirting or dado or plastered face of wall as the case may be. The paving under dado or skirting shall not be measured. No deduction shall be made not extra paid for any opening in the floor of area up to 0.1 sqmt. Nothing extra shall be paid for laying the floors at different levels in the same rooms.
- The rate shall be for a unit of one square meter.

**Item No.41 : Providing and fixing pre-cast Rubber Dye / steel Dye inter locking concrete block 60mm thick with grade of concrete M300 pneumatic compressed / vibrated mechanically and as per approved design Confirming to IS 15658 : 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC : SP 63-2018 etc. Complete.**

#### 1. Material:

- **Rubber Dye/Steel Dye** inter locking concrete block shall be used and sample approved by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by **EIC/Architect**.

#### 2. Workmanship:

- **The sub** base, either PCC or other shall be properly cleaned, leveled and prepared to lay the paver blocks.

- The blocks shall be fixed as per approved design, pattern and detailed drawing.
- The interlocking blocks shall be fixed by the skilled and experience laborers' only.
- Necessary cutting of blocks as required shall be done without any extra cost at edges, ends of walls as per site conditions.
- No extra cost shall be paid for wastage.
- After laying the blocks the finished job shall be thoroughly compacted/vibrated by means of mechanical vibration.
- If any settlement /dislocation is found after vibration, the same will be got rectified without any extra cost.
- After completion of the work the pavements shall be made neat and clean.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per **instruction of EIC/Architect**.

### 3. Measurements:

- **The rate** shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Square meter. Any opening /chamber whose area is more than 0.25 square meter shall be **deducted**.

**Item No.42 : Providing and laying polished Kota stone slab flooring over 20mm (Average) thick base of cement mortar 1:6 (1-cement : 6-coarse sand) or L.M. 1:1.5 (1-Lime putty :1.5 - coarse sand) laid over and jointed with grey cement slurry mixed with pigment to match the shade of slab including rubbing and polishing etc. complete. (A) 25mm thick**

#### 1. Materials:

- 25 mm thick Polished Kota stone slab of yellow/brown shall be used as per sample approved by EIC/Architect.
- Epoxy Grouting shall be used as per approved material by EIC/ Architect.
- Work complete as per relevant specification of Item No: 14.43, (A) page No -86 in General specification R & B booklet for building works
- All type of material shall be used as per approved make list and confirming to relevant IS codes 1134- 1974 and approved by EIC/ Architect.

#### 2. Workmanship:

- **Stone Slab:**
- Each slab shall be cut to the required size and shape and fine chisel dressed at all the edges. The sides thus dressed shall have a full contact if a straight edge is laid along. The sides shall be table rubbed with coarse and before paving.
- All angles and edges of the slabs shall be true square and free from clippings and giving a plane surface. The thickness shall be 25 mm. as specified in the item but not less than 20 mm. at any place of the slab.
- **Bedding:**
- For the kotah stone slabs shall be cement mortar 1:6 (1 cement; 6 coarse sand) of thickness 20 mm. & jointed with 12 mm thick laticrete grouting as given in the description of the item.
- Sub grade shall be cleaned, wetted and mopped. Mortar of the specified mix and thickness shall be then be spread on an area sufficient to receive one kotah stone slab. The slab shall be washed clean before laying.
- It shall be laid on top pressed, tapped gently to bring it in level with the other slabs. It shall then be lifted and laid aside.
- Top surface of the mortar shall then be corrected by adding fresh mortar at hollows or

depressions. The mortar shall then be allowed to harden bit. Over this surface, cement slurry of honey like consistency shall be applied.

- The slab shall then be gently placed in position and lapped with wooden mallet till it is properly padded in level with and close to the adjoining slab.
- The joint shall be as fine as possible. The slabs fixed in the floor adjoining the wall shall enter not less than 10 mm. under the plaster, skirting or dado. The junction between the wall floors shall be finished neatly.
- The finished surface shall be true to levels and slopes as directed.
- The floor shall be kept wet for a minimum period of 7 days, so that bedding and joints set properly.
- Polishing shall be normally commenced after 14 days of laying the stone slab. Polishing shall be done as per suggestion of EIC/Architect. Water shall be properly used during polishing. The stone shall then be washed clean with water.
- The holes required for Nahni traps, pipes any other fittings shall be made without any extra cost.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Square meter for visible area of work done. The rate shall be for a unit of one Square meter.

**Item No. 43 : Providing and laying polished kota stone slab 25mm thick in risers of steps,skirting Dedo and pillars laid on 10mm thick cement mortar 1:3 (1- Cement : 3 coarse sand) and jointed with gray cement slury mixed with pigment to match the shade of slab including rubbing and polishing etc. complete.**

#### 1. Material:

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

#### 2. Workmanship:

- **The whole work** is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per relevant specification of Item No: 14.44, page No -87 in General specification R & B booklet for building **works**

### 3. Measurements:

- **The rate shall be** consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square **meter**.

**Item No.44 : Kerb Stone : Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length,30cm height and 15cm thick of M250 grade concret as per approved design and including excavation for fixing in proper line and level,filling the joint with C:M 1:3 (1cement:3fine sand) etc complete.**

#### 1. Material:

- Kerb stone shall be used and sample approved by EIC/Architect.
- All type of material shall be used for work as per approved make list and confirming to

relevant IS codes and approved by EIC/Architect.

## 2. Workmanship:

- The sub base, either PCC or other shall be properly cleaned, leveled and prepared to lay the paver blocks.
- The blocks shall be fixed as per approved design, pattern and detailed drawing.
- The Kerb Stone shall be fixed by the skilled and experience laborers' only.
- Necessary cutting of Kerb Stone as required shall be done without any extra cost at edges, ends of walls as per site conditions.
- No extra cost shall be paid for wastage.
- After laying the blocks the finished job shall be thoroughly compacted/vibrated by means of mechanical **vibration**.
- **If any settlement** /dislocation is found after vibration, the same will be got rectified without any extra cost.
- After completion of the work the pavements shall be made neat and clean.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of **EIC/Architect**.

## 3. Measurements:

- **The** rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Running Meter.

**Item No.45 : Basin Counter/Granite Platform (All Floor : Width - 600 mm ) : Providing and constructing approved shade and sample of Mirror finish granite platform, 600mm width 25 mm thick Machine polished kotah stone as vertical supports at sides,including cutting granite & kotah as per required shape , dado 1'6" ht & size to fit kitchen sink, moulding, tiles adhesive nosing, chamfered front edges,fixing, disposal of debris etc complete with all labour and materialsand as per detailed drawings / architects instruction and approval by Engineer-in-charge. This sample mock shall be approved from EIC.**

### 1. Material:

- Granite shall be used as per Basic rate is Rs. 1347.46/Sqmt and sample approved by EIC/ Architect.
- Granite adhesive and Pigments shall be used of as per approved by EIC/ Architect.
- All type of material shall be used for basin counter work as per approved make list and confirming to relevant IS codes 1134- 1974 and approved by EIC/ Architect.

### 2. Workmanship:

- **Two** layers of wash basin counter, first layer using 25mm thick Kotastone of approved shade and second layer using approved shade and sample of Mirror finish Granite, joined together with 1:4 Cement mortar bedding / approved tile adhesive ,to true plane & level or to slopes, or close jointed with cement slurry with pigment of matching shade and colour and finishing with the same,
- Work including dado 1'6" ht , cutting kotahas per required shape & size to fit Wash basin,& 3" to 9" fascia with moulding, nosing, chamfered front edges, fixing disposal of debris etc.
- Work complete including all type of joining material, tools, tackles, with finishing, proper even surface etc. as per specification and suggestion.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect



**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Square Meter.

**Item No.46 : Urinal partition :** Providing & laying 16 to 18 mm thick both side mirror polished granite of approved shade and quality, selected and sorted for uniform color for urinal partition/ division plate as per design and in required sizes and shapes after chasing /cutting of dado with cutter machine fixing shall be carried out in white cement sand mortar (1:1) with matching pigment and/ or necessary adhesive. (Only finished granite work shall be measured). All exposed edges shall be chamfered and polished. The rate includes making hole, cutting/ chasing, rounding chamfering, edge polishing of edges. The work shall be carried out as per the approval of architect and engineer-in-charge.

**1. Material:**

- 16 to 18 mm thick both side mirror polished Granite shall be used as per sample approved by EIC/Architect.
- Epoxy adhesive shall be used of approved material by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes 1134- 1974 and approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.47: False ceiling :** Providing and fixing eco-friendly light weight calcium silicate false ceiling tiles having Tegular edge & 15 mm Thick Densified edges on the Tile Periphery for Extra Strength The Light weight calcium silicate ceiling tiles shall have , light reflection 85% non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity 0.043° w/m KC. for the best thermal Insulation . The Light weight calcium Silicate tile shall be of approved texture Fine fissured/Spintone/Cosmos having NRC value of 0.5 & Globe having NRC value of 0.75 NRC or equivalent of size 595 X 595 mm to be laid on true horizontal level suspended inter locking metal grid of hot dipped galvanized steel sections (galvanizing @120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and size of 24X38mm made from 0.30 mm thick (minimum) sheet, 1200mm centre to centre, and cross 'T' of size 24X28mm made out of 0.33mm (Minimum) sheet spaced 1200mm along spaced between main 'T' at 600mm centre to centre to form a grid of 1200X600mm and secondary cross 'T' of length 600mm and size 24x28mm made of 0.30 mm thick (Minimum) sheet to be interlocked at middle of the 1200X600mm panel to form grid of size 600X600mm resting on periphery walls/partitions on a perimeter wall angle pre-coated steel of size (24X24X3000mm made of 0.40mm thick (minimum) sheet with the help of rawl plugs at 450mm centre to centre with 25mm long dry wall screws @ 230mm interval and laying 15mm thick Densified edges light weight calcium silicate ceiling tiles of approved texture (Fine Fissured/Cosmos/Spintone) in the grid including, cutting /making opening for



services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required, Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25X35X1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm G.I. adjustable rods with galvanized steel level clips of size 85X30X0.8mm, spaced at 1200mm centre to centre long main 'T' bottom exposed with 24mm of all T-sections shall be prepainted with polyester baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge. Note:- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tiles shall have NRC. Value of 0.50 (Minimum) for Fine fissured/Spintone/Cosmos and 0.75 NRC for Globe, light reflection 85% noncombustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity. 0.043° w/m KC. for the best thermal Insulation

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per relevant specification of Item No: 16, page No -102 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.48: Providing and fixing in position collapsible steel shutters with vertical channels 20 x 10 x 2 mm braced with flat iron diagonals 20 x 5 mm size with top and bottom rails of T\_rin 40x 40 x 6 mm with 38mm dia, steel pulleys complete with bolts, nuts, locking arrangements, stoppers handles including applying a priming coat of red lead paint.**

**1. Material:**

- Vertical Channels: Must be 20x10x2 mm mild steel channels, spaced at a maximum of 100 mm to 120 mm centers when fully extended.
- Diagonal Braces: Flanged or flat iron diagonals must be 20x5 mm, connected to channels with rivets.
- Top & Bottom Rails: Heavy-duty T-irons measuring 40x40x6 mm to guide the shutter smoothly.
- Pulleys: 38 mm diameter steel ball-bearing pulleys fixed to the top/bottom lines for effortless sliding.
- Fixtures: Complete with built-in locking arrangements, handles, stoppers, bolts, and nuts.
- Primer: One coat of approved red lead or zinc chromate anti-corrosive primer after fabrication.

**2. Workmanship:**

- Fabrication: Channels must be perfectly vertical, and diagonals must form uniform diamond patterns when open.
- Fixing Rails: The top T-rail is secured to the lintel or beam using holdfast bolts. The

bottom T-rail is embedded flush into the floor finish to avoid tripping hazards.

- Assembly: The shutter framework must collapse smoothly into a compact bunch on one or both sides without jamming.
- Fixing Position: Must be fixed plumb inside the masonry jambs, behind the door frames, or directly onto the structural concrete wall.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- Height: Taken from the bottom of the lower rail to the top of the upper rail.
- Width: Measured as the clear distance between the masonry jambs or frames.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one qnt meter.

**Item No.49: Flush DoorWithWPC frame (37 MM) : Providing and fixing in position 35mm thick solid core wooden flush doors of approved make having fire retardant ply facing on both sides and finished with 1 mm thick laminate as approved , WPC frame size - 125 X 63 MM Well Quality Hardware system ofHinges, Boxer type door closer , Door handle , Euro profile ,lock ,Door stop.work complete including all type of hardware, fittings , fixtures etc complete as per detailed drawings and specifications, sample mock shall be approved from EIC.**

#### 1. Material:

- 35 mm thick flush door shall be used as per sample approved by Employer's representative/employer
- Waterproof ply shall be used for door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- WPC frame (125 x 63 mm) shall be used as per approved sample by Employer's representative/employer 8 mm thick milky glass shall be used as per approved sample by Employer's representative/employer
- 1 mm thick laminate shall be used for finish of door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer Hardware shall use of as per approved by Employer's representative/employer
- All type of material shall be used for Door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer.
- Flush door shall confirm M-30 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

#### 2. Workmanship:

- Fixing of 35 mm thick solid core wooden single leaf flush doors of approved make having Waterproof ply facing on both sides as per approved sample.
- Fixing of WPC frame (125 x 63 mm) shall be used as per approved sample by Employer's representative/employer
- Fixing of Both side 1 mm thick laminate finishes as per selection.
- Fixing of Hardware system of Geze/Dorma like Hinges, Concealed door closer, Door handle, Euro profile, lock, Door stop as per selection work complete.
- All doors should be properly leveled without any sagging and with smooth opening and closing. There should be no variation or deviation of any kinds.
- The whole work is to be completed as per design; sample material & any other requirement **shall be as per instruction of Employer's representative/employer**

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the

whole work satisfactorily as per instruction of Employer's representative/employer

- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square meter.

**Item No.50: Flush Door with frame and finish with 1mm thick Laminate (37MM): Providing and fixing in position 35 mm thick solid core wooden flush doors of approved make having fire retardantply facing on both sides and finished with 1mm thick laminate as approved ,Indian Teak Wood Frame size - 125 X 75 MM, Single rebet , Well Quality Hardware system of Hinges, Boxer type door closer , Door handle , Euro profile ,lock ,Door stop.work complete including all type of hardware, fittings , fixtures etc complete as per detailed drawings and specifications, sample mock shall be approved from EIC.**

**1. Material:**

- 35 mm thick Single leaf flush door shall be used as per sample approved by Employer's representative/employer
- Teak wood frame shall be used as per approved sample by Employer's representative/employer
- Waterproof ply shall be used for door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Teak Veneer shall be used for finish of door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Hardware shall used of as per approved by Employer's representative/employer
- All type of material shall be used for Door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Flush door shall confirm M-30 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

**2. Workmanship:**

- Fixing of 35mm thick solid core wooden single leaf flush doors of approved make having Waterproof ply facing on both sides as per approved sample.
- Fixing of Teak wood frame (125 x75mm) shall be used as per approved sample by EMPLOYER'S REPRESENTATIVE/EMPLOYER/Architect
- Fixing of Both side veneer as per selection.
- Fixing of Hardware system of Geze/Dorma like Hinges, Concealed door closer, Door handle, Euro profile, lock, Door stop as per selection work complete.
- All doors should be properly leveled without any sagging and with smooth opening and closing. There should be no variation or deviation of any kinds.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc. for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square meter.

**Item No. 51 : Double Leaf Flush Door with frame and finish with 1mm thick Laminate (37MM): Providing and fixing in position 35 mm thick solid core wooden flush doors of approved make having fire retardantply facing on both sides and finished with 1mm**

**thick laminate as approved, Indian Teak Wood frame size - 250 X 75 MM double rebet, Well Quality Hardware system of Hinges, Boxer type door closer, Door handle, Euro profile, lock, Door stop. work complete including all type of hardware, fittings, fixtures etc complete as per detailed drawings and specifications, sample mock shall be approved from EIC.**

**1. Material:**

- 35 mm thick Single leaf flush door shall be used as per sample approved by Employer's representative/employer
- Teak wood frame shall be used as per approved sample by Employer's representative/employer
- Waterproof ply shall be used for door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Teak Veneer shall be used for finish of door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Hardware shall be used as per approved by Employer's representative/employer
- All type of material shall be used for Door as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Flush door shall confirm M-30 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

**2. Workmanship:**

- Fixing of 35mm thick solid core wooden single leaf flush doors of approved make having Waterproof ply facing on both sides as per approved sample.
- Fixing of Teak wood frame (250 x 75mm) shall be used as per approved sample by EMPLOYER'S REPRESENTATIVE/EMPLOYER/Architect
- Fixing of Both side veneer as per selection.
- Fixing of Hardware system of Geze/Dorma like Hinges, Concealed door closer, Door handle, Euro profile, lock, Door stop as per selection work complete.
- All doors should be properly leveled without any sagging and with smooth opening and closing. There should be no variation or deviation of any kinds.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc. for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square meter.

**Item No.52: Window : Providing and fixing factory made upvc fenesta wooden colour sliding glazed window with Mosquito net and Approved sample by Architect/Client/EIC. all height dimension comprising of upvc multi chambered frame with in built roller track and sash extruded profiles duly reinforced with 1.60 + 0.2 mm thick galvanizd mild steel section made from roll forming process of required lenth ( shape & size according to upvc profile ), appropriate dimension of upvc extruded glazing beads and upvc extruded interlocks, epdm gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), g.i. fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. after fixing frame the gap between frame and adjacent**

finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of engineer-in-charge. Threetrack Three panels sliding window of 5 mm thick toughen glass and series 2000 frame 65 x 58 mm & sash 45 x 90 mm both having wall thickness of 1.9+ 0.2 mm and single glazing bead of appropriate dimension.

### 1. Material:

- Upvc section shall be used as per sample approved by EIC/Architect.
- 5 mm thick transparent bronze color tinted float glass shall be used as per sample approved by EIC/Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.
- Aluminum window shall confirm M-31 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.
- Frame and sash: Specify dimensions, such as 60mm×58mm 60 mm cross 58 mm
- for the frame and 78mm×60mm 78 mm cross 60 mm for the shutter.
- Multi-chambered design: For improved thermal and acoustic insulation.
- Reinforcement: A galvanized mild steel section of a specified thickness  $1.9 \pm 0.2$  mm 1.6 plus or minus 0.2 mm must be used to reinforce the uPVC profiles.
- Gaskets: EPDM gaskets are standard.
- Fasteners: Stainless steel fasteners (SS 304 grade) for frames, typically 100×8mm
- Rollers: For sliding windows, specify stainless steel rollers with a high load-bearing capacity 40kg.
- Locks: Specify the type of lock, e.g., a multi-point locking system with a zinc alloy handle and a crescent lock on extreme panels.
- Screws: Stainless steel screws should be used for all fixings.

### 2. Workmanship:

- Work complete as per as described above specification.
- Profile finishing: Frames and sashes are to be mitred cut and fusion welded at all corners.
- Sealing: The gap between the frame and the finished wall must be filled with approved weatherproof silicon sealant over a backer rod.
- Drilling: Ensure holes for hardware and drainage are correctly drilled as per the design.
- Other materials: Include the use of plastic packers and caps as needed for proper installation.
- Work should be properly leveled without any sagging and with smooth opening and closing. There should be no variation or deviation of any kinds.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc. for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square meter.

**Item No.53 : Providing and fixing S.S. bird net jali (Invisible Grill)- using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete**



With Aluminium equal angle frame or 12 mm mild steel U beading work at required opening and at any height with all labour & material etc. complete. and fitting with necessary nuts, bolts, machine screws etc fixing/c fixing with necessary accessories and dash / Anchor fasteners of required size. on the top of floors, concretes, wood, walls, sides of slab with suitable arrangements. etc complete for all floors and at all levels

**1. Materials:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.
- S.S bird net jali shall be used as per approved make and sample by Employer's representative/employer
- Aluminum section shall be used as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Grade: Commonly specified grades are SS 304 or SS 316 (marine grade, for enhanced corrosion resistance).
- UV Stabilization/Weather Resistance: The material, even if S.S., and any associated coatings or fixings must be UV-stabilized and all-weather proof to prevent degradation from sunlight and outdoor elements.
- Breaking Strength: The net must have adequate strength to withstand impact and environmental factors.
- Aluminum section shall confirm M-31 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Fixings : The system must include secure attachment methods like SS hooks, wire rope (straining wire), and turnbuckles, all made from a compatible stainless steel grade (e.g., SS 304 or 316) to prevent galvanic corrosion.
- Framework: Sometimes a supporting framework of aluminum or SS box sections is requirement shall be as per instruction of EIC/Architect.
- S.S. Bird net machine made net that is all weather proof as well as using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm, allows for zero maintenance, are easy to install or as per sample approved with fittings, Aluminium frame work, screw, fixtures fastners.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.54: Providing and fixing standard extruded of aluminium section of size 63mm x 38.10mm x 1.2mm (Jindal Section:2434, @ Wt. 0.643 Kg/mt) with colour Powder Coated aluminium frame for ventilation with 5mm thick frosted glass as details etc complete for Ventilation. All Level**

**1. Material:**

- Aluminum section shall be used as per sample approved by EIC/Architect.
- 5 mm thick frosted glass shall be used as per sample approved by EIC/Architect.
- Hardware and accessories shall be used as per sample approved by EIC/Architect
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.



- Aluminum ventilation shall confirm M-31 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

**2. Workmanship:**

- Work complete as per as described above specification.
- Work should be properly leveled without any sagging and with smooth opening and closing. There should be no variation or deviation of any kinds.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square Meter.
- The rate shall be for a unit of Square meter.

**Item No.55: Providing and fixing M.S. grills of required pattern to wooden frames of windows etc. with M.S. flats at required spacings and frame around, square or round bars with round headed bolts and nuts or by screws (A) Plain Grill.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per relevant specification of Item No: 10.100 (A), page No -66 in General specification R & B booklet for building works

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for unit of one Kg.

**Item No.56: Applying two coats of putty & two coats of primer of approved brand and manufacture on new wall surface to give an even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand papered smooth.**

**1. Material:**

- Birla or Asian acrylic putty shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- Work complete as per relevant specification of Sr. No: 19.59 page No -124 in General specification R & B booklet for building works except that the Putty work.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labor, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rates all be for a unit of One Square Meter.

**Item No.57:Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.**

**1. Material:**

- Wall paint shall be used as per sample approved by EIC/Architect.
- Work complete as per relevant specification of Item No: 18.57, page No -120 in General specification R & B booklet for building works.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- Scaffolding: Wherever scaffolding is necessary it shall be erected in such a way that as far as possible on part of scaffolding shall rest against the surface to be colour washed. A properly secured strong and well tied suspended platform (Zoola) may be used for painting. Where ladders are used, pieces of old gunny bag shall be tied at top and bottom to prevent scratches to the floors and walls. For paint of ceilings proper stage scaffolding shall be erected where necessary.
- Preparation of surface: The substrate must be sound, clean, dry, free from dust, oil, grease and laitance etc. All traces of release agents must be removed. On chalky and dusty surfaces, all loose material must be removed by stiff bristle brushing. The primer
- / paint application is to be done with the rollers. Rate shall be including crack filling and levelling as per manufacturer's specification.
- Application: Applying two coats of Acrylic co-polymer Stucco putty of Jotun or equivalent on a one coat of PVA primer/Decoprime or equivalent and two coats of paint, scaffolding to at any height with all labour and material thoroughly brushing the surface free from mortar droppings and other foreign matter and sand prepared smooth etc. complete.
- Precautions: Splashes on floors etc. shall be cleaned out without delay as they will be difficult to remove after hardening. Washing of surfaces treated with Paints shall not be done within 3 to 4 weeks of application.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

**3. Measurements:**

- Rate shall be including crack filling and leveling as per manufacturer's specification.
- Low VOC content. 2) Crack Bridging ability upto 1 mm. 3) Ability to resist bacteria/fungus 4) APEO(Alkyl Phenol Ethoxylate) and Formaldehyde free 5) Very Low Flame spread 6) Superior Washability.
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Area shall be measured & paid in Square Meter.
- The rate shall be for a unit of Square meter.

**Item No.58:Finishing wall with weather proof exterior emulsion paint on wall surface (two coats) to give an required shape even shade after thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials. etc complete**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per relevant specification of Item No: 18.51, page No -119 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.59: Applying priming coat over new steel and other metel surface after and including preparing the surface by throughly cleaning, oil, grease, dirt and other foreign matter and scoured with brushes fine steel wood, scrapers and sand paper with ready mixed priming paint brushing red lead.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per relevant specification of Item No: 19.2, page No -123 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.60: Painting two coats (excluding priming coat) on new steel and other metal surface with enamelPaint, brushing, interior to give an even shade including cleaning the surface an even shade including cleanicn the surface of all dirt, dust and other foreign matter.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- Oil paints / Enamel Paints shall confirm M-44 of GTS Booklet for building works.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other

requirement shall be as per instruction of EIC/ Architect.

- Work complete as per relevant specification of Item No: 19.19, page No -123 in General specification R & B booklet for building works.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.61: Steel work, welded in built up sections framed work including cutting, hoisting, fixing in position and applying a priming coat of red lead paint. (A) In beams and joists, channels angles Tees, flats, with connecting plates or angle cleats as in main and cross beams. Hip and jack rafters, purlins conneted to common rafters and the like**

#### 1. Material:

- Material brackets shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- Oil paints / Enamel Paints shall confirm M-44 of GTS Booklet for building works.

#### 2. Workmanship:

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per relevant specification of Item No: 11.4 (a), page No -70 in General specification R & B booklet for building works.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The rate shall be for a unit of one quintal.

**Item No. 62 : Fencing : Providing and fixing 'Y' shaped barbed wire fencing on compound wall top with vertical angle of 50x50x6mmx0.50 mt. height, two cross angle 50x50x6mmx0.45mt. Length, having 3 horizontal and two diagonal rows of barbed wire (9.38 kg/100 rmt) on vertical angle and three horizontal and two diagonal barbed wire rows on each cross angle incl. cost of barbed wire, necessary GI stappings, fixing on top of compound wall, painting angle with one coat of anticorrosive primer and two coats of enamel paint of approved quality, necessary scaffolding etc. complete as per the direction of the Engineer in charge.**

#### 1. Materials:

- Vertical and cross members shall be Mild Steel angles of size 50 × 50 × 6 mm, conforming to IS:2062 or latest relevant Indian Standard.
- Barbed wire shall be galvanized steel barbed wire, weighing 9.38 kg per 100 running metres, conforming to IS:278 (Part 1) or latest revision.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- GI staples, bolts, nuts, washers, clamps, and other fixing accessories shall be of approved quality and corrosion-resistant.

- One coat of approved anticorrosive primer and two coats of synthetic enamel paint of approved brand and shade, conforming to relevant IS standards

**2. Workmanship:**

- 'Y'-shaped MS angle posts shall be fabricated accurately to the required dimensions and securely fixed on the top of the compound wall at approved spacing using bolts, grouting, or welding, as directed by the Engineer-in-Charge.
- Each vertical angle shall carry three horizontal and two diagonal rows of barbed wire.
- Each cross angle shall also carry three horizontal and two diagonal rows of barbed wire.
- Barbed wire shall be tightly stretched, uniformly aligned, and properly fastened using GI staples to prevent sagging.
- All MS surfaces shall be cleaned of rust, oil, grease, and scale before painting.
- One coat of anticorrosive primer shall be applied, followed by two coats of enamel paint, ensuring uniform finish and adequate drying time between coats.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- All work shall be executed strictly in accordance with the drawings, specifications, and directions of the Engineer-in-Charge.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Running Meter.

**Item No. 63:Expansion Joint Edge Repairing Treatment : Repairing and profiling of the existing joints line with help of polymer modified mortar to be fixed in alignment and straight line as per the joint design width and joint design complete .**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete including all necessary materials, tool, tackles etc.
- All work should be carried out as per detailed drawing and instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Rmt.



**Item No. 64: Providing and fixing of 1.2mm thick EPDM/PVC water barrier membrane over the joint profile with help of special adhesive and necessary loop throughout the joint profile before fixing of the joint system to ensure water tight joints, complete.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete including all necessary materials, tool, tackles etc.
- All work should be carried out as per detailed drawing and instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Rmt.

**Item No. 65: Horizontal Internal: Floor to Floor & wall to floor FF & WF: The work shall consist supply and installation of 3R joints and seals -expansion/seismic joint system model 3R MSDSZJ /3R MSD -QZJ or as approved by client or equivalent in accordance with the contract drawings and requirements of the specifications below. The joints are proprietary design utilizing extruded aluminum base members, self-aligning / centering arrangement and support plates. The material shall be such that it provides watertight flat joint cover expansion control system that is capable of accommodating multidirectional seismic movement without stress to its components. System shall consist of metal profile that incorporates a universal aluminum base member designed to accommodate various project conditions and floor/roof treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self-centering arrangement that freely rotates / moves in all directions. The self - centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. The joint system shall resist damage or deterioration from the impact of falling ice, exposure to UV, airborne contaminants and occasional foot traffic from maintenance personnel. Provision of Moisture Barrier Membrane in th Joint System to have watertight joint is mandatory requirement. Material to confirm to properties of ASTM 6063.movement design for system shall be heavy duty loading as per the DIN 1055 load rated and material conforming to ASTM T6063 standards and cover concealment having floor finish and seismic movement including preparing of necessary block out in PCC or non-shrink grout over the joint profile as per the joint manufacturer speciation and the joint design and drawing ,complete.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

- Work complete including all necessary materials, tool, tackles etc.
- All work should be carried out as per detailed drawing and instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Rmt

**Item No. 66: External - vertical :** The work shall consist supply and installation of 3R Joints and seals - expansion/seismic joint system model 3R MSNGZ/3REM or equivalent as approved in accordance with the contract drawings and requirements of the specifications below. The joints are proprietary design utilizing extruded elastomeric seals and aluminum base members. The material shall be such that it provides an Expansion Joints System suitable for Vertical wall to wall flat application, both new and existing construction in structure & complexes with no slipping down tendency amongst the components of the Joint System. the Joint system shall utilize lightweight aluminum profiles exhibiting required exposed aluminum surface mechanically snap locking to facilitate joint movement throughout the normal movement cycle, the system shall demonstrate the movement ability to remain flat at all times and provide a flush transition to maintain the aesthetic look between opposing and adjacent finish construction. Providing and fixing of 3R EM / 3R MSNG system designed for exterior wall finishes with expansion movement of +/- 25mm design for external application on wall to wall /wall to corner where exposed metal plate is desired as per the joint design and design width over the joint profile as per the joint manufacturer speciation and the joint design and drawing ,complete.

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete including all necessary materials, tool, tackles etc.
- All work should be carried out as per detailed drawing and instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Rmt

**Item No. 67: Internal - vertical :** The work shall consist supply and installation of 3R Joints and seals - expansion/seismic joint system model 3R MSNSK /QSK or equivalent as approved in accordance with the contract drawings and requirements of the specifications below. The joints are proprietary design utilizing extruded elastomeric seals and aluminum base members. The material shall be such that it provides an Expansion Joints System

suitable for Vertical wall to wall flat application, both new and existing construction in structure & complexes with no slipping down tendency amongst the components of the Joint System. the Joint system shall utilize lightweight aluminum profiles exhibiting required exposed aluminum surface mechanically snap locking to facilitate joint movement throughout the normal movement cycle, the system shall demonstrate the movement ability to remain flat at all times and provide a flush transition to maintain the aesthetic look between opposing and adjacent finish construction. Providing and fixing of 3R MSNSK/ 3R IL2 system designed for interior wall finishes with expansion movement of design for internal application on wall to wall /wall to corner where concealed /flush metal plate is desired as per the joint design and design width over the joint profile as per the joint manufacturer specification and the joint design and drawing ,complete.

**1 Material:**

- All type of material shall be used as per approved make list and confirming to relevant approved by EIC/ Architect.

**2 Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete including all necessary materials, tool, tackles etc.
- All work should be carried out as per detailed drawing and instruction of EIC/ Architect.

**3 Measurements:**

- The rate shall be Consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one rmt

**Item No 68:Providing in position PVC pipe sleeves of 6Kg/cm2 and length as per design for following diameters for services wherever pipes pass through walls/ slabs/ beam in mtrs length. All pipes shall be accurately cut to the required sizes, laid as per drawing, kept in the position while concreting, and burrs removed before laying. Open ends of the pipe shall be closed as the pipe is installed to avoid clogging while concreting. Rate shall be inclusive of removal of sleeves before water proofing or grouting. For all floors / all levels / all heights. (a) 50mm Diameter**

**1. Material:**

- All type of material shall be used as per approved make & Sample and confirming to relevant IS codes and approved by EIC/ Architect.
- 50mm Dia PVC pipe sleeves shall be used as per approved by EIC/ Architect/Client.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- The piping system must be clamped properly as required, pipes passing through walls, beams, slabs, columns should pass through sleeves which are padded with insulation material internally (between pipe and sleeve) covering the pipe to avoid transfer of body and structural borne sounds (refer manufacturer's installation guide lines). The piping must not touch any wall, structure, paneling, false ceiling etc..
- Cut-outs in the floor slab for installing the various pipes area are indicated in the

drawings. Contractor shall carefully examine the cut-outs provided and clearly point out wherever the cut-outs shown in the drawings, do not meet with the requirements.

- Pipe sleeves, larger diameter than pipes, shall be provided wherever pipes pass through walls and slab and annular space filled with fiberglass and finished with retainer rings

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, scaffolding, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured and Paid in Running meter for visible area of work done.
- The rate shall be for a unit of one Running meter.

**Item No.69:Providing in position PVC pipe sleeves of 6Kg/cm<sup>2</sup> and length as per design for following diameters for services wherever pipes pass through walls/ slabs/ beam in mtrs length. All pipes shall be accurately cut to the required sizes, laid as per drawing, kept in the position while concreting, and burrs removed before laying. Open ends of the pipe shall be closed as the pipe is installed to avoid clogging while concreting. Rate shall be inclusive of removal of sleeves before water proofing or grouting. For all floors / all levels / all heights. (a) 75mm Diameter**

#### 1. Material:

- All type of material shall be used as per approved make & Sample and confirming to relevant IS codes and approved by EIC/Architect.
- 75mm Dia PVC pipe sleeves shall be used as per approved by EIC/Architect/Client.

#### 2. Workmanship:

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- The piping system must be clamped properly as required, pipes passing through walls, beams, slabs, columns should pass through sleeves which are padded with insulation material internally (between pipe and sleeve) covering the pipe to avoid transfer of body and structural borne sounds (refer manufacturer's installation guide lines). The piping must not touch any wall, structure, paneling, false ceiling etc..
- Cut-outs in the floor slab for installing the various pipes area are indicated in the drawings. Contractor shall carefully examine the cut-outs provided and clearly point out wherever the cut-outs shown in the drawings, do not meet with the requirements.
- Pipe sleeves, larger diameter than pipes, shall be provided wherever pipes pass through walls and slab and annular space filled with fiberglass and finished with retainer rings

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, scaffolding, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured and paid in Running meter for visible area of work done
- The rate shall be for a unit of one Running meter.

**Item No.70:Providing in position PVC pipe sleeves of 6Kg/cm2 and length as per design for following diameters for services wherever pipes pass through walls/ slabs/ beam in mtrs length. All pipes shall be accurately cut to the required sizes, laid as per drawing, kept in the position while concreting, and burrs removed before laying. Open ends of the pipe shall be closed as the pipe is installed to avoid clogging while concreting. Rate shall be inclusive of removal of sleeves before water proofing or grouting. For all floors / all levels / all heights. (a) 110mm Diameter**

**1. Material:**

- All type of material shall be used as per approved make & Sample and confirming to relevant IS codes and approved by EIC/Architect.
- 110mm Dia PVC pipe sleeves shall be used as per approved by EIC/Architect/Client.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- The piping system must be clamped properly as required, pipes passing through walls, beams, slabs, columns should pass through sleeves which are padded with insulation material internally (between pipe and sleeve) covering the pipe to avoid transfer of body and structural borne sounds (refer manufacturer's installation guide lines). The piping must not touch any wall, structure, paneling, false ceiling etc.
- Cut-outs in the floor slab for installing the various pipes area are indicated in the drawings. Contractor shall carefully examine the cut-outs provided and clearly point out wherever the cut-outs shown in the drawings, do not meet with the requirements.
- Pipe sleeves, larger diameter than pipes, shall be provided wherever pipes pass through walls and slab and annular space filled with fiberglass and finished with retainer rings

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, scaffolding, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured and paid in Running meter for visible area of work done
- The rate shall be for a unit of one Running meter.

**Item No.71 :Providing in position PVC pipe sleeves of 6Kg/cm2 and length as per design for following diameters for services wherever pipes pass through walls/ slabs/ beam in mtrs length. All pipes shall be accurately cut to the required sizes, laid as per drawing, kept in the position while concreting, and burrs removed before laying. Open ends of the pipe shall be closed as the pipe is installed to avoid clogging while concreting. Rate shall be inclusive of removal of sleeves before water proofing or grouting. For all floors / all levels / all heights. (a) 160mm Diameter**

**1. Material:**

- All type of material shall be used as per approved make & Sample and confirming to relevant IS codes and approved by EIC/Architect.
- 160mm Dia PVC pipe sleeves shall be used as per approved by EIC/Architect/Client.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- The piping system must be clamped properly as required, pipes passing through walls,



beams, slabs, columns should pass through sleeves which are padded with insulation material internally (between pipe and sleeve) covering the pipe to avoid transfer of body and structural borne sounds (refer manufacturer's installation guide lines). The piping must not touch any wall, structure, paneling, false ceiling etc.

- Cut-outs in the floor slab for installing the various pipes area are indicated in the drawings. Contractor shall carefully examine the cut-outs provided and clearly point out wherever the cut-outs shown in the drawings, do not meet with the requirements.
- Pipe sleeves, larger diameter than pipes, shall be provided wherever pipes pass through walls and slab and annular space filled with fiberglass and finished with retainer rings.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, scaffolding, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured and paid in Running meter for visible area of work done.
- The rate shall be for a unit of one Running meter.

**Item No.72: Core cutting : Providing and wet drilling accurate and clean holes of specified diameter in RCC walls, slabs, beam or any other RCC member without vibration by core cutting (diamond drilling) machine including scaffolding, safety majors, disposing the debris, cleaning for all levels/ all height as per structural consultant's drawing, after approval of engineer in charge etc compete. Rate shall be inclusive of filling the hole with non shrink grout/Chemical Anchoring in good manner. Measurement shall be taken for the depth of holes in running meter for specified diameter. Holes shall made by authorised approved agency. (a) holes from 100 dia.**

#### 1. Material and Workmanship:

- Marking of holes is to be approved by Employer's representative/employer Holes in RCC walls, slabs, beams or any other RCC member by Core cutting machine of HILTI or as per approved list of make is to be done.
- RCC surface is cleaned after drilling including disposing of debris as specified in the disposal item. Necessary platform for the machine location and electrical wire management shall be adhere to safety standards. Bidder shall be responsible for the any type of damage work at the time of execution.
- The work include for epoxy based waterproofing compound for sealing the joints around the pipes at all heights as per instruction of Employer's representative/employer
- All work should be carried out as per detailed drawing and instruction of EMPLOYER'S REPRESENTATIVE/EMPLOYER/Architect
- Bidder shall be responsible for the any type of damage work at the time of execution.
- The whole work is to be completed as per design & any other requirement shall be as per instruction of Employer's representative/employer

#### 2. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, fixtures, joineries, labour, scaffolding, etc.to complete the whole work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Numbers.

**Item No.73: Core cutting :** Providing and wet drilling accurate and clean holes of specified diameter in RCC walls, slabs, beam or any other RCC member without vibration by core cutting (diamond drilling) machine including scaffolding, safety majors, disposing the debris, cleaning for all levels/ all height as per structural consultant's drawing, after approval of engineer in charge etc compete. Rate shall be inclusive of filling the hole with non shrink grout//Chemical Anchoring in good manner. Measurement shall be taken for the depth of holes in running meter for specified diameter. Holes shall made by authorised approved agency. (b) holes from 150 dia.

**1. Material and Workmanship:**

- Marking of holes is to be approved by Employer's representative/employer Holes in RCC walls, slabs, beams or any other RCC member by Core cutting machine of HILTI or as per approved list of make is to be done.
- RCC surface is cleaned after drilling including disposing of debris as specified in the disposal item. Necessary platform for the machine location and electrical wire management shall be adhere to safety standards. Bidder shall be responsible for the any type of damage work at the time of execution.
- The work include for epoxy based waterproofing compound for sealing the joints around the pipes at all heights as per instruction of Employer's representative/employer
- All work should be carried out as per detailed drawing and instruction of EMPLOYER'S REPRESENTATIVE/EMPLOYER/ Architect
- Bidder shall be responsible for the any type of damage work at the time of execution.
- The whole work is to be completed as per design & any other requirement shall be as per instruction of Employer's representative/employer

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, fixtures, joineries, labour, scaffolding, etc.to complete the whole work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Numbers.

**Item No. 74: Providing and fixing anchor fastener system chemical based of Hilti or equivalent make for connections in concrete as per design and drawings and/or as directed by engineer in charge. (Rate shall include cost of bolts, labour, all material including chemical cartridge (wherever required). T & P for power drilling, cleaning the drilled holes of loose dust by blowing air, insertion of chemical from cartridge with plastic nozzles as may be required, placing internally threaded sleeve, driving of bolts, 2 nos-4 mm thick (hot dip galvanized coated) washer, fastening screw and tightening with nuts and check nuts etc may be required. Work complete including all type of tools, tackles, scaffolding etc complete at any level and height. Work complete as per the instruction of EIC/Client/Architect. 12 mm dia.**

**1. Materials:**

- Anchor fastener system with chemical base shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Anchor fastener system chemical based of Hilti or equivalent make for connections in concrete as per design and drawings and/or as directed by engineer in charge.

- Rate shall include cost of bolts, labour, all material including chemical cartridge (wherever required). T & P for power drilling, cleaning the drilled holes of loose dust by blowing air, insertion of chemical from cartridge with plastic nozzles as may be required, placing internally threaded sleeve, driving of bolts, 2 nos-4 mm thick (hot dip galvanized coated) washer, fastening screw and tightening with nuts and check nuts etc may be required.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Area shall be measured & paid in Numbers.

**Item No. 75: Providing and fixing anchor fastener system chemical based of Hilti or equivalent make for connections in concrete as per design and drawings and/or as directed by engineer in charge. (Rate shall include cost of bolts, labour, all material including chemical cartridge (wherever required). T & P for power drilling, cleaning the drilled holes of loose dust by blowing air, insertion of chemical from cartridge with plastic nozzles as may be required, placing internally threaded sleeve, driving of bolts, 2 nos-4 mm thick (hot dip galvanized coated) washer, fastening screw and tightening with nuts and check nuts etc may be required. Work complete including all type of tools, tackles, scaffolding etc complete at any level and height. Work complete as per the instruction of EIC/Client/Architect. 16 mm dia.**

#### 1. Materials:

- Anchor fastener system with chemical base shall be used as per approved sample by EIC/Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

#### 2. Workmanship:

- Anchor fastener system chemical based of Hilti or equivalent make for connections in concrete as per design and drawings and/or as directed by engineer in charge.
- Rate shall include cost of bolts, labour, all material including chemical cartridge (wherever required). T & P for power drilling, cleaning the drilled holes of loose dust by blowing air, insertion of chemical from cartridge with plastic nozzles as may be required, placing internally threaded sleeve, driving of bolts, 2 nos-4 mm thick (hot dip galvanized coated) washer, fastening screw and tightening with nuts and check nuts etc may be required.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at **all** heights and for all floors. Area shall be measured & paid in Numbers.

**Item No. 76: Providing and fixing anchor fastener system chemical based of Hilti or equivalent make for connections in concrete as per design and drawings and/or as directed by engineer in charge. (Rate shall include cost of bolts, labour, all material including chemical cartridge (wherever required). T & P for power drilling, cleaning the drilled holes of loose dust by blowing air, insertion of chemical from cartridge with plastic nozzles as may be required, placing internally threaded sleeve, driving of bolts, 2 nos-4 mm thick (hot dip galvanized coated) washer, fastening screw and tightening with nuts and check nuts etc may be required. Work complete including all type of tools, tackles, scaffolding etc complete at any level and height. Work complete as per the instruction of EIC/Client/Architect. 20mm dia.**

**1. Materials:**

- Anchor fastener system with chemical base shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- Workmanship:
- Anchor fastener system chemical based of Hilti or equivalent make for connections in concrete as per design and drawings and/or as directed by engineer in charge.
- Rate shall include cost of bolts, labour, all material including chemical cartridge (wherever required). T & P for power drilling, cleaning the drilled holes of loose dust by blowing air, insertion of chemical from cartridge with plastic nozzles as may be required, placing internally threaded sleeve, driving of bolts, 2 nos-4 mm thick (hot dip galvanized coated) washer, fastening screw and tightening with nuts and check nuts etc may be required.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height.

**2. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Area shall be measured & paid in Numbers.

**Item No.77 :SS RAILING : Providing & Fixing Stainless steel 304 grade pipe railing Horizontal 50 mm dia. 2 Nos. and Supprt pipe from wall 16mm Dia. at every max 0.90mtr C/C including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts, Plates and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., fixed on Concrete or brick work . Rate including of all materials.labour, fixing & polishing etc. comp. as per Drawing and Approve by Engineer In Charge**

**1. Material:**

- SS 304 grade element for railing work shall be used as per approved make and sample by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Railing shall be made with Stainless steel seamless tube of grade 304, continuously welded and grinded smooth polished smooth/ rough, bend/ curved at turning as per design, fixed/ welded with the Stainless steel balusters complete as per architectural

drawing.

- All members of railing shall be machine cut, machine polished to get the best finishing. The balusters to be fixed with floor/wall as the case may be with hidden type metal fasten of approved make and approved size.
- Base of baluster shall be covered with 2mm thk SS covering as per design
- All the work complete as per the detailed drawing and instruction of EIC/ Architect.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- Area shall be measured in Running Meter.

**Item No.78: SS RAILING : Providing and fixing stainless steel (Grade 304) railing Horizontal top pipe of 50mm dia., verticle Sq pipe 32X32 mm900 mm c/c and 16 mm Dia. 3 Nos. Horizontal Pipe equval Spacing Hollow Pipes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts, Plates and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in charge, (for payment purpose only weight of stainless steel members shall be considered including fixing accessories such as nuts, bolts, fasteners etc.). as per Drawing and Approve by Engineer In Charge**

#### 1. Material:

- SS 304 grade element for railing work shall be used as per approved make and sample by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

#### 2. Workmanship:

- Railing shall be made with Stainless steel seamless tube of grade 304, continuously welded and grinded smooth polished smooth/ rough, bend/ curved at turning as per design, fixed/ welded with the Stainless steel balusters complete as per architectural drawing.
- All members of railing shall be machine cut, machine polished to get the best finishing. The balusters to be fixed with floor/wall as the case may be with hidden type metal fasten of approved make and approved size.
- Base of baluster shall be covered with 2mm thk SS covering as per design
- All the work complete as per the detailed drawing and instruction of EIC/ Architect.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.



- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- Area shall be measured in Running Meter.

**Item No.79 : Roller blind :** Providing and fixing of approved quality roller blinds using phifer or equivalent fabric of premium grade,with roller tube, bottom bar leveller made of extruded aluminium alloy an Idler, Insert Type- Brackets, PVC chain etc. all complete at all floor and heights as per approved specification. Roller Tube Control, Clutch, Idler Side by side or single Roller Tube of extruded Aluminium 38mm inner dia - 41mm outer dia minimum wall thickness of 1.6mm. Roller blind - roller blind fabric should be made up of 35% Fibreglass, 65% PVC,it should have specific low emissivity treatment and lead free with Greenguard gold certification. It should have 3% to 5%openness, fabric thickness should be 0.43 mm, mesh weight approx 400 gms/ sqmtr. It should cut UV rays, with antimicrobial properties preferably with Microban. The fabric should be Flame retardant and Lead Free. It should be GreenGuard certified with Gold Standard for low chemical emissions for indoor use. including all accessories, material, labour,installation etc..and complete the work satisfactorily as per instruction of architect or Engineer-in charge

**1. Material:**

- Phifer fabric of premium grade as per selection of EIC/Architect.
- Roller tube, bottom bar leveller made of extruded aluminium alloy an Idler, Insert Type- Brackets, PVC chain etc.
- Roller Tube Control, Clutch, Idler Side by side or single Roller Tube of extruded Aluminium 38mm inner dia - 41mm outer dia minimum wall thickness of 1.6mm. Roller blind

**2. Workmanship:**

- Entire work to be carried out as per drawings,instructions and supervision of the architect
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction EIC/Architect.
- The relevant specification for this item shall be followed as per Item Description and instruction given by Engineer in charge.

**3. Measurements:**

- The rate shall be for a unit of One Square Meter.

**Item No.80 : Ply palmet work:** Providing and fixing wooden pelmets of upto 150mm/950 mm x 150 to 600 mm L shape made of 19mm thick ply as per IS 710 MR Grade and beading of 1.0 mm thick Laminate for curtains/ blinds/ projection screen of openings. Rate to be inclusive of lipping, cutting, wastages, necessary fixtures, nails, adhesives,necessary scaffolding, fixing at all heights and for all floors as per drawing and approved sample etc finish with veneer semi gloss PU finsh. (Mode of Measurements: Only the palmet length shall be measured & paid for the items in which palmet work is not inclusive in item description)

**1. Material:**

- 19 mm thick IS 710 MR Ply shall be used as per approved make and sample by EIC/Architect.
- Ghana teak wooden beading shall be used as per approved make and sample by EIC/Architect
- Veneer shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- Plywood shall confirm M-37 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

**2. Workmanship:**

- Wooden pelmet made by IS 710 MR 19 mm thick ply as per drawing.
- Beading of 4mm thick and 25mm wide Ghana Teak wood for curtains/blinds/projection screen of openings.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height
- The whole work is to be completed as per design; sample material & any other requirements shall be as per instruction of EIC/ Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in running meter for area of work done.
- The rate shall be for a unit of one Running meter

**Item No.81: Soft Board : Providing and fixing on wall 12mm thick approved quality soft board with cotton cloth/fabric of approved make and shade on 12mm thick IS 710 MR Grade ply with 19mm x 25 mm thick Ghana teakwood beading all around including semi glossy PU polish, as approved sample and as directed by Architect. The work shall be measured & paid in Sqm. for all floors, all level and at all heights including all costs, The rate shall be inclusive of lacquer polish to all the exposed wooden members. Only the clear elevation area of the cloth/fabric shall be measured and paid.**

**1. Material:**

- 12 mm thick soft board shall be used as per approved make and sample by Employer's representative/employer
- 12 mm thick IS 710 MR Grade ply shall be used as per approved make and sample by EMPLOYER'S REPRESENTATIVE/EMPLOYER/ Architect
- Teak wood beading shall be used as per approved make and sample by EMPLOYER'S REPRESENTATIVE/EMPLOYER/ Architect
- Adhesive shall be used as per approved make and sample by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- Plywood shall confirm M-37 of GTS Booklet for building works.
- Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.
- Teak wood shall confirm M-29 of GTS Booklet for building works.

**2. Workmanship:**

- Installation: 12 mm thick soft board shall be used as per selection
- Frame: Ghana Teak wood beading all around shall be used as per drawing.
- Covering: 12 mm thick IS 710 MR Grade ply as per drawing.
- Finish: Frame shall be finished with Matt PU polish.
- Exposed wooden surface shall be finished with Lacquer polish.

- Work should be in complete level without any variation and deviation. There shall be no tolerance in regard to wall finish.
- Item including open able shutter wherever required area and finish with the same material.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole
- Work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- Only the clear elevation area shall be measured and paid.
- The work done shall be measured in square meter for area of work done. The rate shall be for a unit of one Square meter.
- The rate shall be for a unit of one square meter.

**Item No.82: GRC WORK : Providing & fixing architectural moldings profiles and other decorative elements made out of GRC (Glass Fibre reinforced Cement) in required shape,size & thickness all as per manufacturers specifications, such as all decorative articles should be made by using high power spray machine, using AR Glass fiber with minimum ZrO<sub>2</sub> 16% including necessary scaffoldings for all heights, as per approved drawings and reference images. GRC elements thickness shall be 12-15 mm. fixing edges will be 40 TO 50 MM GRC Elements shall be fixed on RCC Structure/Brick Work/ Primary Steel Structure (MS with protective coat of Red oxide/Zinc Primer Shall be Used). Hilti make GI Screw Fastners or equivalent, GI Thread Rods and MS cleats shall be used for fixing of GRC elements on RCC/MS Primary fabricated structure. Joints shall be filled with PU sealants/ base material of GRC as and where required.The quote rate shall be inclusive of all design,& shop drawingand sample mock of all elements approval from Architect & consultant.Rate shall be inclusive of all required fabrication work for fixing only primary strcure shall be provided as base structre only as per requirement. Mode and method of measurement shall be in accordance with IS: 1200.a ) GRC JALI-As per above specification work.(Elevation area)**

#### 1. Material:

- GRC Work (Glass Fibre reinforced Cement) used as per sample approved by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes 1134- 1974 and approved by EIC/Architect.

#### 2. Workmanship:

- Work complete as per as described above specification.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- GRC Element Thickness is 12-15mm.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to

complete the whole work satisfactorily as per instruction of EIC/Architect.

- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square Meter

**Item No.83:Convex Mirror is a curved mirror :Providing and supplying Convex Mirror as per references image, detail and approved sample by Architect/EIC. The Convex Safety Mirror is structured with a polycarbonated front and acrylic back which makes it lighter and easy to place on any exterior. It also looks like a bubble mirror that has a curvature of the 130-degree view. The Convex Mirror comes with a protective film coating that makes the traffic mirror scratch-resistant, break-resistant, and tear-proof.The Polycarbonate Lens reflects a crystal clear and bright image of the view which can be seen from a long distance. It also magnifies the opposite fronts that help the drivers to locate small things clearly. The contractor shall Convex Mirrorwith Installation Kit, Nuts & Bolts Included support, Location, any Height and all complet installation work asper site condition. This Item includes cost of all labour,transfort etc. as required for completing the work in all respects. All works are carried as per approval and instructions of the architect. Rate shall inclusive ofsample, all materials, loading, unloading, all taxes, transportation, placing at all floors and for all leads,all accessories as described in item description.**

**1. Material:**

- Convex Mirror shall be used as per approved sample by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Towel ring square shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in each for area of work done.
- The rate shall be for a unit of Each.

**Item No. 84: Direct Bought Out Item : Providing and placing in position SS brush finish (12 LTS PEDAL BIN/ STEP BIN -) ofKich , Dorma ,etc Square Pedal bin 10x15 Stainless Steel Dustbin or Equivalent as per images and as selected by the Architect.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.
- SS brush finish (12 LTS pedal bin/ step bin) shall be used as per approved make and sample By Employer's representative/employer

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level

and Height

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Number.

**Item No.85 :Providing and supplying of Dustbin of Approved Brand Sintex or equivalent of 40-50 Liters capacity.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- Sintex or equivalent of 40-50 liters capacity shall be used as per approved make and sample By Employer's representative/employer

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level and Height

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of Number.

**Item No. 86 : Providing and fixing in position Dual (2 No) of Dustbin for wet and dry garbage, of suggested size, material (corrosion resistance), finish (PU painted/ polyester powder coated), with logo of client and type/ function of dustbin and as per sample approved by Architect. The rate shall be for dual dustbin or two separate dustbin (min 40 Lit each capacity) as per selection. Rate shall be inclusive of fixing of dustbin with all required civil work, anchor fasteners of approved make and required capacity and making good.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- corrosion resistance or equivalent of 40 liter each capacity shall be used as per approved make and sample By Employer's representative/employer approved make and sample By Employer's representative/employer

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level and Height

**3. Measurements:**



- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a Set of dust (2 No) dustbin

**Item No. 87 : Providing and fixing Wall art/Photoframes of size 2ftx2ft with wooden frame of size 2in x 1in consisting 6mm thick ply in back with digital vinyl printing and 5mm thick glass on top if required.**

**1. Material:**

- Wall Art/Photo frame shall be used as per approved make and sample by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS Codes and approved by Employer's representative/employer

**2. Workmanship:**

- Wall art/Photoframes of size 2ftx2ft with wooden frame of size 2in x 1in consisting 6mm thick ply in back with digital vinyl printing and 5mm thick glass
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level and Height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole Work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Number.

**Item No. 88: Natural Plant: Providing and supplying planters as per site requirement. The contractor shall cater for planter with plant as per selection made by Architect. The Architect shall recommend worth Rs. 4000/-piece maximum or as requirement. The contractor shall be paid 15 % of the incurred cost on producing the bills / vouchers for the same. Item includes cost of all labour, transport etc. as required for completing the work in all respects. All works are carried as per approval and instructions of the architect. Rate shall inclusive of sample, all materials, loading, unloading, all taxes, transportation, placing at all floors and for all leads, all accessories as described in item description. As approval of architect.**

**1. Material:**

- Natural plant shall be used as per approved sample by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer

**2. Workmanship:**

- Natural plant shall be used as per approved sample.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Number for area of work done. The rate shall be for a unit of one Number.

**Item No.89: Providing and fixing Sainless steel signage plate of 1.5mm thick with laser print/ etching and filled with duco paint of approved make including fixing to the wall or door with required acessories and as specified type including fixing etc complete as directed by engineer in charge**

**1. Material:**

- Signages shall be used as per approved make and sample by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Work complete as per above manufacturer's specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Square Meter for area of work done.
- The rate shall be for a unit of one Square Meter

**Item No.90:DOOR MAT : 3M Nomad - Wiping technology - Heavy Duty 7150 - or equivalent approved make Grey Colour: Open Contraction Loop Matting with Crush Resilient Vinyl with backing. Matting Should be durabe shouldn't Flatten ove time. Thickness Should be 13mm Min.Suitable for heavy traffic areas, where traffic is upto 4 lakh people per year. work complete as per approved sample.**

**1. Material:**

- Heavy traffic area door mat (Type -1: Wiping technology) shall be used as per approved Make and sample by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS Codes and approved by Employer's representative/employer

**2. Workmanship:**

- Heavy Duty 7150 - or equivalent approved make Grey Colour: Open Contraction Loop Matting with Crush Resilient Vinyl with backing. Matting should be durable shouldn't Flatten over time.
- Thickness should be 13mm.
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level and Height.

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole Work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Square Meter for area of work done.
- The rate shall be for a unit of one Square Meter.

**Item No.91:Providing & placing in position DIGITAL CLOCK - WALL MOUNTED as per architect selection Ajanta Digital Wall Clock(Brown, Black, With Glass)**

**1. Material:**

- Digital clock – wall mounted shall be used for as per approved make and sample by EMPLOYER'S REPRESENTATIVE/EMPLOYER/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS Codes and approved by Employer's representative/employer

**2. Workmanship:**

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level and Height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole Work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a Unit of one Number.

**Item No. 92: Signages: Providing and fixing of the following signages using make of cosign or equivalent approved make by architect.All the detailed work out as per the detailed drawing and instruction of EIC., specifications and drawings as indicated there in to all heights and elevation including necessary scaffoldings / supports /permanant fixing with cement mortar if fixed to ground etc complete in all respects.The Signage cost should be inclusive of panels,hanging system,bridges,primary & secondary fixings,vinyl,painting,powder coating self glowing mateial as directed etc.All shop drawings and coordination with other services is in scopeof contractor.( At all floor) Size (150 x 600mm) - FACE /WALL MOUNTED NAME PLATES/SIGNAGES/INFORMATION SIGNAGES (with back lit)**

**1. Material:**

- Signage's shall be used as per approved make and sample by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS Codes and approved by Employer's representative/employer

**2. Workmanship:**

- Work complete as per above manufacturer's specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level

and Height.

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole Work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The work done shall be measured in number for area of work done.
- The rate shall be For a unit of number.

**Item No.93:Inauguration Plate : Providing & fixing inauguration plate (Takhti)made from +18 mm thick Granite with embossed/engraved text lettersmade from SS 304 grade of various sizes1. The fonts and letters shall be as per the reference drawing made from SS 304 with national Emblem Logo The work shall be done as per the approved shop drawing (to be prepared by contractor), specifications, sample approved and as directed by the Architect and Engineer-in-charge. The rate shall be for complete item inclusive of all material, labour, wastages, necessary tools & tackles,approved make for all floors, all heights, all levels and all places within campus. Contractor shall do all the needful and shall fulfill Architect's design intent. No additional claims will be entertained for this.**

#### 1. Material:

- Granite foundation stone / inauguration plaque shall be of approved quality, uniform colour, free from cracks, veins, or defects.
- Lettering and matter shall be as provided / approved by the Engineer-in-Charge.
- Engraving shall be done neatly and uniformly to adequate depth for durability.
- Engraved letters shall be filled with approved golden colour enamel / epoxy paint, ensuring long-lasting finish and legibility.
- Wooden frame shall be made from seasoned, termite-treated wood, of approved design and finish.
- Frame shall be polished / painted as approved.
- Necessary screws, clamps, adhesives, fasteners, and backing supports shall be of approved quality.

#### 2. Workmanship:

- Lettering shall be sharp, evenly spaced, properly aligned, and as per approved layout.
- Granite plate shall be properly mounted on wall / pedestal / stand, as directed by the Engineer-in-Charge.
- Golden colour filling shall be smooth, uniform, and free from stains or smudges.
- Wooden frame shall be fixed firmly around the granite plate with clean joints and good finish.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one square meter.

**Item No.94:Providing and Fixing the S.S. 304 Letterswith back light of given size as per Architect's drawings and approved sample or make (Approx Height of each letter 18 to 24 inches) along with all necessary hardwares, scaffolding, Alu/MS Back support, hanging**

support and accessories, The rate shall be for complete item inclusive of all material, labour, wastages, necessary tools & tackles, for all floors, all heights, all levels and all places within campus. Contractor shall do all the needful and shall fulfill Architect's design intent. No additional claims will be entertained for this.(Consider Letter : VADNAGAR STUDY HALL )

**1. Material:**

- S.S. 304 Letters shall be used as per approved make and sample by Employer's representative/employer
- Letters Height should be of each letter 18 to 24 inches approx.
- All type of material shall be used as per approved make list and confirming to relevant IS Codes and approved by Employer's representative/employer

**2. Workmanship:**

- Work complete as per above manufacturer's specification.
- Work complete including all types of tools, tackles, labour etc. complete at any level and Height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole Work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Each for area of work done.
- The rate shall be For a unit of Each.

**Item No.95:Providing and fixing Goddess Saraswati idol (Material- Fibre) 5 ft tall, with proportionately base dimension as per approved design by client andcomplete as per instruction of engineer-in charge and consultant.**

**1. Materials:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.
- Idol shall be made of high-quality Fibre Reinforced Plastic (FRP), weather-resistant and durable.
- Height of idol shall be 5 feet, excluding crown unless otherwise specified.
- Idol shall be of approved design, posture, and finish, with fine artistic detailing.
- Colouring shall be done using weather-proof, non-fading paints of approved make.
- Base shall be integral or separate, proportionately designed as per the idol and approved by the client.
- Base shall be of FRP / RCC / MS frame with suitable cladding, as approved by the Engineer-in-Charge.
- Anchor bolts, clamps, fasteners, adhesives, and grouting materials shall be of approved quality and suitable for permanent installation.

**2. Workmanship:**

- Idol shall be cast and finished by skilled artisans.
- Surface shall be smooth, free from cracks, bubbles, or defects.
- Facial expressions, ornaments, and symbolic elements shall be proportionate and aesthetically pleasing.
- Painting shall be neat and uniform, with proper shading and detailing.
- Final finish shall be glossy / matt as approved.
- Idol shall be safely transported to site, including loading, unloading, and handling



without damage.

- Idol shall be erected in correct position, level, and alignment on the approved base.
- Proper anchoring and fixing shall be done to ensure stability and safety.
- All works shall be carried out strictly as per instructions of the Engineer-in-Charge and Consultant.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work
- Satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one Number.

**Item No.96: PLUMBING FIXTURE: Providing, fixing, jointing and testing in position of various Bathroom C.P. Fixtures with hydraulic testing complete as per design, drawing and instruction of site incharge. 25mmDia Control Valve**

#### 1. Material:

- Control Valve shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

#### 2. Workmanship:

- Control Valve shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.
- The whole works is to be completed as per design, sample material, and any other requirement shall be as per instruction of EIC/ Architect.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number

**Item No.97:Providing and fixing screw down bib taps of following size. (B) Brass chromium plated screws down Bib Tap. (i) 15mm dia.**

#### 1. Material:

- Bib tap shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- A BIB cock shall confirm M-57 of GTS Booklet for building works

#### 2. Workmanship:

- Bib tap shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.
- The whole works is to be completed as per design, sample material, and any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per relevant specification of Item No: 23.92.(A),(I) page No - 150 in

General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number.

**Item No.98 :Providing and fixing health faucet with 1 m PVC tube and swivel hook including all fittings complete.**

**1. Material:**

- Health faucet with 1mt PVC tube and swivel hook shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- Health faucet with 1mt PVC tube and swivel hook shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.
- The whole works is to be completed as per design, sample material, and any other requirement shall be as per instruction of EIC/ Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number.

**Item No.99 :Providing, fixing, jointing and testing in position of various Bathroom C.P. Fixtures (Angle Cock) with hydraulic testing complete as per design, drawing and instruction of site incharge. Urinal stop cock.**

**1. Material:**

- C.P. fixture Angle cock shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- A angle cock shall confirm M-57 of GTS Booklet for building works

**2. Workmanship:**

- C.P. fixture Angle cock shall be fixed with necessary fittings, accessories etc. complete as per detailed drawing.
- The whole works is to be completed as per design, sample material, and any other requirement shall be as per instruction of EIC/ Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number

**Item No.100 :Providing and fixing white glazed vitreous china wall mounting type (European type) water closet with C.P. bolts, nuts, C.I. Chair or other hanging arrangement, white solid plastic seat with lid, C.P. brass hinges and rubber buffers, Metropole flush valve regular 40mm size (concealed body) with exposed shut off provision , C.P. brass screws and washers complete, including cutting and making good the walls floors where required. Wall hung EWCmatching white plastic seat with lid & CP brass hinges & CP push plate .**

**1. Material:**

- Wash down water closet (European type, W.C. Pan) with integral P or S trap as per approved make and sample by EIC/Architect.
- Metro pole flush valve as per approved make and sample by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.
- European type water closet/ with low level flushing shall confirm M-60 of GTS Booklet for building works.
- Work complete as per relevant specification of Item No: 23.112.(A),(I) page No - 146 in General specification R & B booklet for building works.

**2. Workmanship:**

- jointing the trap with soil pipe in Cement Mortar 1:1 (1-Cement : 1-fine sand) (Seal and cover to be measured and paid for separately)
- Work complete as per above specification.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number.

**Item No.101 :Providing and fixing White glazed vitreous Wash Basin Round Over-Counter, size 450 mm dia., with supporting in stone flooring, 1 no, 32 mm CP Bottle trap with extension piece to wall flange with rubber adopter for waste connection,1.2m Flexible Pipe [1No] and waste coupling. Etc complete. Wash Basin Table Top - 420x420x155 mm**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

- The white glazed vitreous wash basin round over-counter shall be of best quality.
- The white glazed vitreous wash basin round over-counter shall be above description.
- Wash Basin Table Top - 420x420x155 mm
- Wash Basin shall confirm M-59.1 of GTS Booklet for building works.

**2. Workmanship:**

- The White glazed vitreous Wash Basin Round Over-Counter, size 450 mm dia. shall be fixed as per drawing or as directed.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per relevant specification of Item No: 23.127 page No-148 in General specification R & B booklet for building works.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in number for visible area of work done.
- The rate shall be for a unit of one number.

**Item No.102:Providing & fixing in position 15 mm C.P. brass angle cock of best quality with 1.2 Rmt Long pvc Tube and accessories with necessary fittings etc. complete.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.
- 15 mm C.P. Brass angle cock shall be used as per approved sample by EIC/ Architect.
- A angle cock shall confirm M-57 of GTS Booklet for building works

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- 15 mm C.P. Brass angle shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number.

**Item No.103:Providing & fixing in position 15 mm C.P. brass pillar cock of best quality with necessary fittings etc. complete.**

**1. Material:**

- C.P. Brass Pillar cock shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- C.P. Brass Pillar cock shall be fixed with necessary fittings, accessories etc complete as

per detailed drawing.

- The whole works is to be completed as per design, sample material, and any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per relevant specification of Item No: 23.95.(A) Page No-151 in General specification R & B booklet for building works.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number.

**Item No.104:Providing and fixing TOWEL RING SQUARE , as approved by the architect. Work complete including all type of fittings, etc complete as per suggestion of Architect/EIC.**

#### 1. Material:

- Towel ring square shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

#### 2. Workmanship:

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Towel ring square shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number.

**Item No.105:Providing and fixing SOAP DISH HOLDER as approved by the architect. Work complete including all type of fittings , etc complete as per suggestion of Architect/EIC.**

#### 1. Material:

- Soap Dish Holder shall be used as per approved sample by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

#### 2. Workmanship:

- Soap Dish Holder shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.
- The whole works is to be completed as per design, sample material, and any other requirement shall be as per instruction of EIC/ Architect.

#### 3. Measurements:

- The rate shall be consolidated for all above items.



- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The rate shall be for a unit of one number.

**Item No.106:Supply, Installation, Testing & Commissioning vitreous matrix set (For Handicap) including matrix EWC (European type water closet) with cistern, wall hung matrix wash basin,lever arm faucet for ease of operation, centre pre-punched tap hole, grab bar with slightly lower height for added convenience & fixed to wall with brackets including cutting and making good the wall and floors as required. Colour Star White.**

- Where specified, in washroom facilities designed to accommodate physically disabled, accessories shall be provided as directed by the Owner's Site Representative
- Stainless steel garb brass of required size suitable for concealed or exposed mounting and preened non-slip gripping surface shall be provided in all washroom. The flushing cistern/ valve shall be provided with chromium plated long handles.

#### **1. Material:**

- Supplying, Installation of floor mounted water closet for disabled people. The distance of p trap is 180 mm. Features:
- Increased height for convenient
- Cistern with raised soft-push button for convenience access
- Flushes with 6ltr
- Grab and hinged rails for support
- Easy to install and maintain
- Conversion Bend available to convert 'P' to 'S' Trap
- Supplying, Installation of wash basin for differently able people. The distance of p trap is 180 mm. The size of wash basin is 460x 360 mm
- Features:
- Wall hung compact basin
- Optional lever arm faucet for ease of operation
- Centre pre punched tap hole
- Recommended for installation at a slightly lower height for added convenience
- Fixed to wall with bracket

#### **2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Matrix Set shall be fixed with necessary fittings, accessories etc complete as per detailed drawing.

#### **3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour,etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number

**Item No.107: Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 100 mm diameter with jali of the following nominal diameter of self cleansing design with C.I screed down or hinged grating including the cost of cutting and making good the walls.**

**1. Material:**

- PVC SWR Nahni trap IS 14735 for drain - 100 mm diameter with jail by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- PVC SWR Nahni trap IS 14735 for drain - 100 mm diameter with jail by EIC/ Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one number.

**Item No.108: Providing and fixing Urinal of approved quality including connection with trap and with integral longitudinal flush pipe. (A) Squating plate pattern white earthenware 550mm x 300mm.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.
- Work complete as per relevant specification of Item No: 23.124(A), page No -152 in General specification R & B booklet for building works.

**3. Measurements**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of one number.

**Item No.109: Providing and fixing Kitchen sink with C.I. Or M.S. brackets, painted white including cutting holes in walls and making good the same but excluding fittings. (C) Vitreous China Sink. (i) 600mm x 450mm x 150mm size**

**1. Material:**

- Kitchen sink with C.I. or M.S. brackets shall be used as per approved sample and confirming to relevant IS codes and approved by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.

- Work complete as per relevant specification of Item No: 23.130 (C), page No -148 in General specification R & B booklet for building works

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Number for area of work done.
- The rate shall be for a unit of one number.

**Item No. 110: Providing and fixing 600mm x 450mm bevelled edge mirror of superior glass mounted on 6mm thick A.C. sheet or plywood sheet and fixing to wooden pluge with C.P. brass screws and washers.**

**1. Material:**

- The 600 x 450 mm. size mirror shall be of superior glass with edge rounded off or bevelled as specified. It shall be free from flaws specks, or bubbles and its thickness shall not be less than 6 mm. The glass for the mirror shall be uniformly silver plated at the back and shall be free from silvering defects. Silvering shall have a protective uniform covering of red-lead paint.
- The 6 mm. thick plywood shall conform to M-37 of GTS Booklet for building works
- The 6 mm. thick A. C. Sheets shall conform to M-24 of GTS Booklet for building works

**2. Workmanship:**

- The mirror of 600 mm x 450mm. size mounted on A.C. sheet or plywood 6mm. Thick with. C.P.brass clips shall be fixed as directed, by fixing wooden plugs in wall and C. P. brass screws and washers. The work shall be carried out in best workman like manner.
- Work complete as per relevant specification of Item No: 23.143, page No -150 in General specification R & B booklet for building works

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.
- No extra payment will be given for any of the reasons.
- The work done shall be measured in Each for area of work done. The rate shall be for a unit of Each.

**Item No. 111: Providing erecting and fixing double coated ISI water tank of required capacity each with all necessary fittings and connection etc. complete on terrace.**

**1. Material:**

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

**2. Workmanship:**

- Water storage tank shall be as per IS 12701, this material should be light Weight, non toxic all fitting materials shall be H.D.P.E. indicating the BIS license No
- The P.V.C. tank shall be of I.S.I. mark and approved quality and brand like infra or Sintex or equivalent. It shall be approved by Architect / Consultant & Engineer in charge.

- The thickness of P.V.C. materials shall be as per Company's specification. The size of tank shall be decided by Engineer in charge.
- The fixtures as shown in items of work shall be of IS approved.
- Water tank shall be installed on perfectly planed and smooth surface.
- Outlet pipe shall be 7.5 cm high then bottom surface.
- Diameter of overflow pipe shall be bigger then inlet pipe diameter
- Unions shall be used in inlet and outlet pipe.
- For connection in water tank required washer, and check-nuts shall be used. Fitting shall be done by G.I. / P.V.C. (Grade & Quality as per prescribe in tender or detailed by Architect / Consultant & directed by EIC.) pipes as per instruction of Engineer in charge in each tank. All joints shall be leak proof.

**3. Measurements:**

- This shall be measured in litters and rates are as per litters of tank for the provided capacity of the water tank.
- Rate shall be inclusive of providing, placing, lifting, storing and making connection for fixtures as shown in item of work, inlet, outlet, overflow pipe, out pipe with all necessary plumbing work and material. For complete work.
- The rate shall be for a unit of one Litre.

## TECHNICAL SPECIFICATION

### (Sub Estimate: 02 Furniture Work)

**ItemNo. 01: Reading Table / Work Station :Providing & fixing work station / tablehaving ht of 750 mmTop, with MS Pipe Structure of Frame as per Architect/ Engineer Design or Selection and Back and side Ply of table is also made up of 19mm Thick. Top of Table is 19mm thk ply with laminate Finish Per Requirement and All internal & external Joints finished with teakwood beading Patti. Common or front Part of Table is Sectationized with MS Perforated Sheet. All exposed and internal surfaces covered with Laminate Finish of approved shade & Complete as per detail drawings & as instructed by Architect/consultant/ Engineer In charge. Complete with all necessary hardware like nails, ss screws, table chain, Key board tray, TDS channel, adhesives etc. Contractor has to provide all necessary cut outs for Electrical works & no extra payment shall be made for it. All ply should follow IS 710**

**1. Material:**

- IS 710 ply shall be used as per approved make and sample by Employer's representative/employer
- Laminate shall be used as per approved make and sample by Employer's representative/employer
- Hardware's shall be used as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Employer's representative/employer.

**2. Workmanship:**

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

**3. Measurements:**

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Employer's representative/employer
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers for area of work done.
- The rate shall be for a unit of Square Meter.

**ItemNo. 02: Supplying and providing reading chairs with PP arms with soft PU pads, Seat and back upholstered with PU cushioned and MS powder coated frame and cantilever legs. Overall dimension 590 L x 600 W x 915 H(Or as specified) complete as directed by architect and product as per given specification. Complete as per architectural design and concept and approved by Architect & Client.**

**1. Material:**

- Reading Chair shall be used as per approved make and sample by EIC/ Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

**2. Workmanship:**



- PP arms with soft PU pads, Seat and back upholstered with PU cushioned and MS powder coated frame and cantilever legs
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate shall be inclusive of all materials, loading, unloading, all taxes, transportation, placing at all floors and for all leads, polishing and all accessories as described in item description.
- The work done shall be measured in Numbers for area of work done.
- The rate shall be for a unit of one Numbers.

**ItemNo. 03: Gang Chair (3 Seater) : Providing and Fixing 3 Seater (moulded foam seat and back In PU upholstery ) Pero Cross Beam made of powder coated regular MS ERW tube having 8.0+/-0.03 cm x 4.0 +/- .03 cm x 0.2 +/- 0.014 cm size. Legs to be chrom plated made of rolled steel with 0.12 +/- 0.013 cm thickness.Seat and Back Shell to be perforated made from cold rolled M.S. Sheet (DIN 1623 Part 1 ST -12 Grade), 0.14 +/- 0.013 cm thickness. The side Bar is made of chrome Plate solid steel 3.0 cm +/- 0.03cm x 1.2 cm +/- 0.03 cm with fluting and plastic inserts. The Shell to be assembled on the cross beam with help of M8 Bolts.**

#### 1. Material:

- Waiting Area Chair shall be used as per approved make and sample by EIC/ Architect.
- Black powder coated regular MS ERW (Electric Resistance Welded) tube
- Legs: Chrome plated rolled steel, Thickness: 0.12 cm with a tolerance of  $\pm 0.013$  cm
- Seat and Back Shell: Material: Perforated cold rolled M.S. (Mild Steel) sheet, conforming to DIN 1623 Part 1 ST "-12" Grade or IS 513 and moulded foam seat and back In PU upholstery
- Thickness: 0.14 cm with a tolerance of  $\pm 0.013$  cm.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect.

#### 2. Workmanship:

- Work complete as per standard Manufacturers specification.
- Finish (MS Components):All MS components shall be epoxy polyester powder coated using a multi-chamber pre-treatment process (e.g., 7 or 8 tank process). The dry film thickness (DFT) of the powder coating must be a minimum of 50 microns (range 50-60 microns).
- Fasteners : The shell is to be assembled on the cross beam using M8 bolts. (A specific quantity per seat.)
- MS ERW tube having 8.0+/-0.03 cm x 4.0 +/- .03 cm x 0.2 +/- 0.014 cm size.
- Legs to be chrom plated made of rolled steel with 0.12 +/- 0.013 cm thickness.
- Seat and Back Shell to be perforated made from cold rolled M.S. Sheet (DIN 1623 Part 1 ST -12 Grade), 0.14 +/- 0.013 cm thickness.
- The side Bar is made of chrome Plate solid steel 3.0 cm +/- 0.03cm x 1.2 cm +/- 0.03 cm with fluting and plastic inserts.
- The Shell to be assembled on the cross beam with help of M8 Bolts.
- Model Similar to the picture attached

- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/ Architect.

### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/ Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers for area of work done. The rate shall be for a unit of one Numbers

**ItemNo. 04: Supplying and Placing Folding Wheel Chair with Overall dimension: (L) 790 x (W) 600 x (H)870mm** Frame structure Foldable frame structure is made of section 22x1.2mm A3 carbon steel with chrome finish. Cross bar are made of A3 carbon steel with section 25.4 x 1.2mm. Rear wheel 24 inch Solid mag wheels with alloy in the rim Hand rim Integrated hand rim provide to drive the wheel chair of section 16x1.2mm A3 carbon steel with chrome finish Front wheel 8 inch HUB made of PA polymer and outer with solid rubber Arm rest PU molded arm rest & base is made of ABS for better arm support Calf rest & seat Leatherette strap for calf rest & leatherette cushion for seat Footrest Adjustable alluminium die cast foot rest with updown & swivel type mechanism Push handle Handles are made of moulded rubber grip to push the wheelchair Brakes Hand brakes are provided to lock the wheelchair at desired location. Foot press Extended base with molded plastic for better grip Finish Anti rust chrome finish safe working load 100kg.etc.complete as per drawings and design supplied by architect and instruction given by authority and E.I.C.

#### 1. Material

- The folding wheelchair shall be manufactured from high-quality A3 carbon steel unless otherwise specified, suitable for long-term institutional use.
- Frame:
  - Foldable frame made of A3 carbon steel section 22 × 1.2 mm.
  - Cross bars made of A3 carbon steel section 25.4 × 1.2 mm.
  - All steel components shall be treated with anti-rust chrome finish.
- Rear Wheels:
  - 24-inch solid mag wheels with alloy rim.
  - Integrated hand rim made of A3 carbon steel section 16 × 1.2 mm, chrome finished.
- Front Wheels:
  - 8-inch hub made of PA polymer with solid rubber outer.
- Arm Rest:
  - PU molded arm rest with base made of ABS plastic for durability and comfort.
- Seat & Calf Rest:
  - Seat cushion made of leatherette material.
  - Calf rest provided with leatherette strap.
- Foot Rest:
  - Adjustable aluminum die-cast footrest, up-down and swivel type mechanism.
- Push Handles:
  - Handles fitted with molded rubber grips for ease of handling.
- Brakes:
  - Hand-operated brakes to lock the wheelchair securely at the desired position.
- Load Capacity:

- Safe working load shall be minimum 100 kg

**2. Workmanship:**

- All components shall be manufactured with sound engineering practice, accurate dimensions, and smooth operation.
- Welded joints shall be neat, strong, uniform, and free from cracks, sharp edges, or burrs.
- Folding mechanism, wheels, brakes, and footrests shall operate smoothly without excessive play, noise, or obstruction.
- Chrome finish shall be uniform, corrosion-resistant, and free from peeling, blistering, or surface defects.
- The wheelchair shall be assembled, adjusted, and tested before delivery to ensure stability, safety, and comfort.
- The complete unit shall conform to the drawings, design details, and instructions issued by the Architect, Authority, and Engineer-in-Charge (E.I.C.).

**3. Measurements:**

- The rate shall be consolidated for all above items.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The rate shall be for a unit of one Number.