



**BALMER LAWRIE & CO LIMITED**  
**(A Government of India Enterprise)**  
**Engineering & Projects**  
**21, Netaji Subhas Road**  
**Kolkata 700 001**

**CIVIL, STRUCTURAL & ALLIED WORK**

**FOR**

**PROPOSED TEMPERATURE CONTROLLED WAREHOUSE**

**AT**

**IDCO INDUSTRIAL ESTATE PLOT NOS. 5 &13(P),**  
**CHHATABAR, DIST-KHORDA, ODISHA**

**TENDER NO : EP/ TCW/ BHU/ CIV/ 04**

**PRICED BID (PART II)**

**NOTES:**

- 1.0 Details of the items under this Schedule shall be read in conjunction with the corresponding Specifications, Drawings and other Tender Documents.
- 2.0 The work shall be carried out as per approved drawings, Specifications and the description of the items in this Schedule and/or Engineer's instructions. Drawings enclosed with these documents are only preliminary for giving some idea of the work involved.
- 3.0 Items of work provided in this Schedule but not covered in the Specifications shall be executed strictly as per instructions of the Engineer-In-Charge.
- 4.0 Unless specifically mentioned otherwise in the Contract, the Tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, Constructional Plant, Temporary Work, labour, materials, levies, taxes, transport, layout, re-pairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the contract.
- 5.0 The Quantities of the various items mentioned in the Schedule of Items are approximate and may vary up to any extent or be deleted altogether. The Contractor, in his own interest, should get an indication of the probable extent of the work to be executed under any particular item in this Schedule before undertaking any preliminary and enabling work or purchasing bought out components related to the work.
- 6.0 Rates shall be quoted both in figures and in words in clear legible writing. No over writing is allowed. All scoring and cancellations should be countersigned by the Tenderer. In case of illegibility, the interpretation of the Engineer-In-Charge shall be final. All entries shall be in English language.
- 7.0 Engineer's decision shall be final and binding on the Contractor regarding clarification of items in this Schedule with respect to the other sections of the Contract.
- 8.0 For extra items, rates shall be derived from similar item rates included in the schedule of work. Where there is no such similar item available in the schedule, rate shall be analyzed as follows:

Rate for extra item = Cost of material (a) + cost of labour inclusive of all necessary tools, tackles, equipment, machinery and consumable (b) required to carry out the work + 15% of (a+b) towards profit and overhead + taxes, duties etc.

**SCHEDULE OF WORK**

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
1.0	<b>EARTHWORK</b>				
1.1	<b>Earthwork in excavation</b> in all types of soil in foundation, trenches, drain, etc. and site development work up to a depth of 3M from existing formation level, grade and dressing complete as per specification and directions of Engineer-in-Charge both dry and wet conditions including dewatering, slush removal, necessary shoring for side stabilisation during subsequent work etc. complete, stacking of good excavated material to be reused and disposal of unused excavated materials in spoil dumps / fill area upto a lead of 150M or outside the premises at contractor's place				
a)	Excavation in all types of soil other than soft rock as per specification	CuM	<b>2480</b>		
b)	Excavation in all types of soil for soft decomposed rock as per specification	CuM	<b>1500</b>		
c)	Excavation in all types of soil for hard rock as per specification	CuM	<b>20</b>		
1.2	<b>Backfilling in foundation</b> , trenches, plinth, under floors and in site development work, with good excavated soil in layers not exceeding 200mm in depth with selected excavated materials, watering, compacting and dressing the top surface to correct grade and level, all materials and labour complete with soil to be reclaimed from heaps kept elsewhere within 150M lead ((relative density to be achieved 90% or Modified Proctor Density 95%)	CuM	<b>2850</b>		
1.3	Supplying and laying locally available best quality <b>Coarse sand</b> under road/pavement and plinth filling, land development work etc. consolidated in layers not exceeding 200 mm in thickness including watering, compacting, rolling with 10-12 MT mechanical / vibratory roller with static or vibro rolling as appropriate or with mechanical compactor where roller cannot reach, dressing the top surface to correct grade, level, camber and slope with mechanical compactors all materials and labour complete (relative density to be achieved 90% or Modified Proctor Density 95%).	CuM	<b>7000</b>		
	<b>Sub-Total</b>				

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
<b>2.0</b>	<b>PLAIN &amp; REINFORCED CONCRETE</b>				
2.1	Providing, mixing, compacting laying in position and curing ordinary <b>lean concrete</b> at all depths below foundations, rafts, pavement, warehouse floor etc. including shuttering complete as per specifications and as directed by Engineer-in-Charge				
a)	Mix 1:4:8 (with 40mm & down stone aggregates)	CuM	<b>40</b>		
b)	Mix 1:3:6 (with 40mm & down stone aggregates) or M10 ready mix concrete for bulk usage	CuM	<b>590</b>		
c)	Mix 1:2:4 (with 20mm & down stone aggregates)	CuM	<b>20</b>		
2.2	Providing and laying <b>damp proof course</b> 40mm thick with concrete in proportion of 1:2:4 (1 cement 2 coarse sand & 4 stone chips 10mm & down) with approved water proofing compound such as 'CICO' or equivalent @ 3% by weight of cement. All labour and material complete.	SqM	<b>50</b>		
2.3	Supplying & Laying <b>Design Mix or Ready Mix concrete of M30 grade</b> in footing, equipment foundations, pedestals, walls, beams, columns, pavement and other structure including forming pockets for fixing bolts, providing grooves, holes etc with well graded stone chips of maximum size 20mm containing designed quantity of cement with flyash content per CuM of wet concrete produced in computerised batching plant under controlled condition using approved super plasticizer designing concrete mix following IS 10262 and IS 456, transporting the mix with agitation in transit mixer to work site, depositing the mix on a platform erected for the purpose at required levels of concreting and then placing the mix in its final location of formwork, compacting & curing the same complete as per specification and direction of Engineer-in-charge with all accessories, vibrators etc inclusive of all other incidental charges in this connection complete with all material, labour etc.				
a)	For sub-structures upto plinth level (max 1.3M from FGL)	CuM	<b>925</b>		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
2.4	Supplying & laying <b>Design Mix or Ready Mix Concrete of M30 grade</b> in columns, beams, floor / roof slab, pedestals, walls, lintel, chajja, staircase slab and any other structures with well graded stone chips of maximum size 20mm containing designed quantity of cement with flyash content produced in computerised batching plant under controlled condition using approved super plasticizer designing concrete mix following IS 10262 and IS 456, transporting the mix with agitation in transit mixer to work site, depositing the mix on a platform erected for the purpose at required levels of concreting using concrete pump if required and then placing the mix in its final location of formwork, compacting & curing the same complete as per specification and direction of Engineer-in-charge with all accessories, vibrators etc inclusive of all other incidental charges in this connection complete with all material, labour etc.				
a)	For super-structures above plinth level	CuM	<b>415</b>		
2.5	Providing, placing, compacting and curing <b>M35 grade Design Mix or Ready Mix concrete</b> as per above description <b>for RCC warehouse floor slab</b> (at elevation of 1.3M from FGL), ramp, etc, to be cast over PCC, of width not more than 4M with <b>vacuum dewatering process</b> , including MS channel shuttering at sides. Topping shall be done on green concrete finishing with power float after spreading non-metallic dry shake hardener SIKA CHAPDUR or equivalent (minimum 4 kg/sqm floor area) as approved.. Rate shall be inclusive of all materials and labour, formwork etc complete. (Reinforcement to be paid separately against relevant item). Concrete shall be produced in the same manner as discribed in previous item.				
a)	Upto 200mm (approx) compacted slab thickness	CuM	<b>340</b>		
b)	Upto 150mm (approx) compacted slab thickness	CuM	<b>40</b>		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
2.6	Providing, mixing, placing, compacting and curing <b>nominal mix reinforced concrete</b> in mix proportion of 1:1.5:3 with 20mm & down stone aggregate (minimum 28 days cube crushing strength shall be 20N / mm <sup>2</sup> ) <b>in trench, drain, hume pipe encasing, pit, boundary wall and misc structures</b> at all levels with all materials and labour as per specification, drawing and as per direction of Engineer-in-Charge.	CuM	<b>365</b>		
2.7	Providing and mixing of " <b>CICO</b> " or equivalent approved liquid water proofing admixture as per the manufacturer's specification including cost of material , complete, with all byeworks as per drawing and instruction of the Engineer.	LTR	<b>1000</b>		
2.8	Supply, transport and fixing in position <b>precast concrete</b> elements with nominal mix (1:1.5:3) concrete (with 20mm & down stone aggregate and characteristics strength of 20 N/mm <sup>2</sup> ) for trench / drain cover, slabs etc. including formwork, curing, preparation of casting yard etc. complete with all materials, labour, lead and lift. (Reinforcing steel shall be paid separately against relevant item rates included in the tender)				
a)	100mm thick slab	SqM	<b>60</b>		
b)	150 mm thick slab	SqM	<b>20</b>		
2.9	Supply, fixing in position <b>Steel Reinforcements</b> at all levels and positions including the cost of transport, straightening, cutting, cranking, bending, binding, welding. provision of necessary chairs and spacers, preparation of bar bending schedule drawings, getting the same approved etc; as per drawings and specifications and including cost of binding wire, labours etc; all complete for reinforced concrete with TMT bars. The chairs and spacer bars provided will not be measured for payment.				
a)	<b>Ribbed Tor TMT HYSD</b> bar of Fe500 grade or higher of approved make	MT	<b>179</b>		
2.10	Providing, erecting and removing <b>formwork</b> of approved quality at all elevations for concrete work including shuttering, propping/scaffolding, removal of formwork and rendering of surface as per specification.				

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
a)	Ordinary formwork using plywood or steel plate below plinth level (approx. 1.3M from FGL) for footings, raft, wall, beam, column, pedestal, drain, trench etc	SqM	3760		
b)	Ordinary formwork using plywood or steel plate above plinth level for slab, beam, column, chajja, lintel staircase etc with scaffolding etc upto maximum height of 4M floor to floor)	SqM	5450		
2.11	<b>Extra for additional height in centering</b> , shuttering wherever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 4M, <b>(volume to be measured)</b>	CuM	90		
2.12	Providing, fabricating and installation complete, true to line and level, in cement concrete or masonry, misc. <b>Mild Steel Inserts</b> , pipe sleeves. lugs, including all templates. The outer faces of inserts to be made clean to the satisfaction of the Engineer. Applying two coats of bituminous paint over two coats of zinc phosphate primer on exposed surface.	MT	1		
2.13	Providing, mixing and <b>Grouting</b> below bases of structure, equipment and in pockets with free flowing cement concrete grouting (1:1:2) with 6 mm & down stone aggregates including chipping off and cleaning of surfaces and pockets to receive grout, finishing of exposed surfaces and curing complete.	CuM	2		
2.14	Providing, fabrication and embedding medium grade <b>MS conduits</b> with GI pullwire in concrete for ground floor slab etc. with all material and labour complete.				
a)	25 NB Pipes (medium)	RM	50		
b)	50 NB Pipes (medium)	RM	25		
2.15	Providing, fabricating and fixing in position <b>MS edge protection angles</b> to trenches, loading platforms and ramps, etc. with holdfasts as detailed in drawings and as directed by Engineer-In-Charge. Applying two coats of bituminous paint over two coats of zinc phosphate primer on exposed surface.	MT	1		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
2.16	<b>Installation of holding down bolts</b> (supplied by other agency) including template, to be made embedded during casting of pedestal to true line and level as per direction of the Engineer-in-Charge.	MT	3		
	<b>Sub-Total</b>				
<b>3.0</b>	<b>MASONRY WORK</b>				
3.1	Providing & laying in position <b>Flyash brick pitching/soling</b> under plinth protection or paving including filling interstices with cement sand mortar (1:8) with all materials and labour complete as per drawing and specification and as directed by the Engineer-in-Charge.				
a)	Single layer brick flat soling	SqM	2024		
b)	Single layer brick on edge pitching	SqM	100		
3.2	Supplying and laying in position <b>Flyash brick work</b> , one brick thick or more with approved quality <b>below plinth level</b> at all depths in cement and coarse sand mortar (1:6) of compressive strength 5-7.5 N/sqmm and size approx. 230x115x75mm including necessary scaffolding, mixing mortar, laying bricks, raking out joints, curing etc. with all materials and labour complete as per drawing and specification.	CuM	85		
3.3	Supplying and laying in position <b>Flyash brick work</b> , one brick thick or more with approved quality <b>above plinth level</b> at all elevations in cement & coarse sand mortar (1:6) of compressive strength 5-7.5 N/sqmm and size approx. 230x115x75mm including necessary scaffolding, mixing mortar, laying bricks, raking out joints, curing etc. with all materials and labour complete as per drawing and specification.	CuM	500		
3.4	Supplying and laying in position brick work with approved quality <b>Flyash bricks in half brick</b> thick walls of compressive strength 5-7.5 N/sqmm and of approx. size 230x115x75mm at various elevations upto 2nd floor height in cement & coarse sand mortar (1:4) with H.B netting at every third layer including necessary scaffolding mixing mortar, laying bricks, racking joints, water curing etc. with all materials and labour complete as per drawing and specification	SqM	170		



Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
3.5	Providing and laying <b>precast cement concrete solid block</b> of approx. size 400x200x200mm made up from 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) in single or multiple layer for <b>boundary wall, retaining wall</b> etc including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete. The item also include flash or deep ruled pointing on either side of wall with 1:2 cement mortar (1 cement and 2 fine sand), making necessary holes of required sizes for carrying through service lines etc. complete with all material, labour as per direction and satisfaction of Engineer-in-Charge.	CuM	132		
	<b>Sub-Total</b>				
<b>4.0</b>	<b>FINISHING, PAINTING &amp; FLOORING</b>				
4.1	Providing, mixing and laying <b>cement-sand plaster</b> with fine sand to masonry and concrete surfaces at all elevations including curing and necessary scaffolding, making grooves, drip molds etc. complete as per specification and as per direction of Engineer-In-charge.				
a)	Avg. 15mm thick 1:4 cement-sand mortar	SqM	6100		
b)	Avg. 6mm thick 1:3 cement-sand mortar	SqM	490		
c)	Avg. 12mm thick 1:4 cement-sand mortar with floating of neat cement finish.	SqM	1100		
4.2	Providing and laying average 18mm thick <b>cement plaster skirting</b> and 'DADO' at all elevations with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement including water curing, finishing, rounding the corners and joints etc. as per specification and direction of Engineer-in-Charge	SqM	37		
4.3	Providing and laying average 40mm thick <b>cement concrete flooring (IPS)</b> to be cast in panels of approximately 3M x 3M with under bed of 1:2:4 cement concrete using 10mm and down stone chips. finished with a floating coat of neat cement, including fixing 1.5mm thick aluminium/glass strip for adequate depth, providing slope, water curing finishing, rounding corners and joints etc. as per specification and direction of Engineer-in-Charge	SqM	370		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
4.4	Supplying, fitting & fixing 600 x 600 <b>vitrified tiles</b> of premium quality of approved colour & shade for flooring & skirting (cut from floor tile) on existing/ new concrete surfaces as per approved pattern to proper line, level set in average 20mm thick cement mortar (1:4) including chipping off floor, cutting of tiles wherever required, pointing the joints in neat white cement with matching pigment, cleaning, washing, curing, etc., complete as per specification and direction of the engineer for ground floor & 1st floor. <b>Min basic rate of tile Rs 900/- per sqm</b>	SqM	308		
4.5	Providing and laying 1st class quality glazed/matt ceramic tiles for <b>skirting and "DADO"</b> with approx. 5.6mm thick tiles of size approx. 300mm x 300mm, 300mm x 450mm or 300mm x 600mm of approved colour, shade & make including laying the underbed 12mm thick CM (1:3) with all special like cutting the tiles making the corner pieces and finishing the joints with white cement & cleaning the finished surfaces with HCL acid, and materials, labour and approved pattern complete as per specification and direction by Engineer-in-Charge. <b>Basic rate of tile is Rs 700/- per sqm (min)</b>	SqM	130		
4.6	Providing and laying 1st. class quality <b>anti-skid ceramic tiles for flooring</b> with approx. 9mm thickness of approved colour, shade and make of size approximately 300mm x 300mm including laying the underbed (25mm thick average) with 1:3 CM with all special like cutting the tiles making the corner pieces and finishing the joints with white cement & cleaning the finished surfaces with acid, material and labour complete as per specification and direction by Engineer-in-Charge. <b>Basic rate of tile Rs 800/- per sqm (min)</b>	SqM	36		
4.7	Providing and laying polished <b>Granite stone flooring</b> in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge				

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
a)	Polished granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent	SqM	120		
4.8	Providing and laying approx. 15mm thick <b>polished Granite Stone skirting</b> of approved quality and shade including all specials, corners, nosing, polishing etc. to be laid on average 20mm thick undebed of cement sand mortar 1:4 (1 cement and 4 coarse sand) and neat cement float and filling joints with white/coloured cement as per specifications				
a)	Polished granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent	SqM	20		
4.9	Providing and applying two or more coats of <b>acrylic emulsion paint of exterior grade</b> of approved quality and shade, at all locations over and including a priming coat over external wall surface, bands, parapet etc., including preparation of surface complete with all bye works complete as per specification and satisfaction of the Engineer.	SqM	4000		
4.10	Providing and applying two or more coats of <b>oil bound washable distemper</b> of approved quality and shade at interior walls of utility buildings and including a coat of approved primer for wall surfaces, ceilings, etc., including preparation of base, scaffolding complete with all bye works, specification and satisfaction of the Engineer	SqM	1850		
4.11	Providing and applying two(2) or more coats of <b>interior grade acrylic emulsion paint</b> of approved brand or make for office building, over one coat of approved primer including preparation of surface, providing and laying plaster of paris punning (average 2mm thick) as per specification complete with all materials and labour and as per satisfaction of the Engineer.	SqM	1000		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
4.12	Providing and laying integral cement based <b>water proofing treatment</b> including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: (a) Applying a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand )admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs	SqM	800		
	After two days of proper curing applying a second coat of cement slurry using 2.75kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep. (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge : <b>With average thickness of 120mm and minimum thickness at khurra as 65 mm</b>				
	<b>Sub-Total</b>				
5.0	<b>DOORS AND WINDOWS</b>				

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
5.1	Providing and fixing 1mm thick <b>MS sheet door</b> welded with frame of 40x40x6mm angle iron and 3mm MS gusset plates at the junctions and corners, with non-friction projection type hinges, glazing clips, lugs, locking plate, peg stays, brass door handle with minimum 4 levers mortice lock operable with key both from inside and outside together with a locking bolt on the inside face, including hoisting in position, straightening, if required, fixing lugs in cement concrete (4:2:1) with stone chips 20mm size cutting holes and mending good damage to match with the existing surface, with two coats of synthetic enamel paint over two coats of zinc phosphate primer complete in all respects.	KG	<b>500</b>		
5.2	Providing & fixing <b>Door Shutters</b> with SAL WOOD frames size 125 mm x 65 mm including hold fast and jambs, erection of frame, painting back of frame with two (2) coats of wood preservative paint, all necessary fixtures, fastenings and hardware of approved make and quality as per drawings and including two (2) coats of approved synthetic enamel paints over two (2) coats of approved primer etc. complete as specified, as detailed and instructed by Engineer-in- Charge. Frames, mortice locks, latches, stoppers, teakwood surrounds etc. will not be paid separately. (Only door closures will be paid separately if provided).				
a)	For standard proprietary <b>solid core flush door</b> shutters of approved quality (commercial finish on both faces), prelaminated with 1mm thick laminated sheet, 30mm nominal thick single leaf.	SqM	<b>10</b>		
5.3	Providing & installing 30mm-35mm thick fire retardent <b>FRP Door</b> with 1.5mm thick skin moulded with the core material forming a sandwich panel. Necessary wooden supports to be provided for fixing the handles, locks, stoppers and other accessories. The door shall be self-pigmented and of approved colour, shade and texture. The cost shall also include providing & fixing FRP frames of approx size 4" x 2.5" with wall and SS hinges, polished teakwood surrounds complete as per the direction of the Engineer-in-Charge.	SqM	<b>13</b>		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
5.4	Providing and installing <b>Rolling Shutters (chain type)</b> of 18 gauge CRC slats, concave corrugated complete with one piece construction, 3 inch rolling centres interlocked with heavy CI clips, pressed steel channel guides made out of 10G sheets with 75mm guide width supported heavy section angle iron, 10G thick bottom rail, brackets with sockets, special iron cage type door suspension shafts fitted with necessary Ball bearings for easy and smooth operation, top rolling springs specially hardened and tempered for rolling shutters, locking arrangement from inside and outside, including 16G thick CRC hood cover, all surfaces painted with two(2) coats of zinc phosphate primer and two (2) coat of synthetic enamel paint inclusive of all fittings/fixtures with all material and labour, plant and machinery etc. along with mending and repainting of masonry/concrete surfaces. <b>Shutters should have approx. 20% grill/ ventilation.</b>				
a)	Hand operated	SqM	<b>25</b>		
b)	Mechanical gear operated	SqM	<b>30</b>		
5.5	Providing and fixing in position <b>polyester powder coated aluminium glazed window / ventilator</b> (min 50 micron thick coating) of "JINDAL" / "HINDALCO" standard extruded section or approved equivalent make in single or composite units, both fixed and openable type comprising standard aluminium extruded sections and float glass including fixing the frames with lugs and glass with aluminium glazing beads and mastic, to shutter and frames, with all fittings such as stays, locking arrangements, handles, etc. including providing 2 mm thick approved quality rubber sealing around window/ventilator all complete as per specifications and drawings and directions of the Engineer. (Glass panel & mortice lock shall be paid separately)				
a)	partly fixed & partly openable	KG	<b>280</b>		
b)	partly fixed & partly sliding	KG	<b>20</b>		
c)	adjustable louvred	KG	<b>20</b>		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
5.6	Providing and fixing <b>polyester powder coated aluminium glazed door</b> (min 50 micron thick coating) with standard aluminium JINDAL / HINDALCO extruded frame (size 101.5mmx44.5x2.5mm) and standard JINDAL/ HINDALCO shutters with sheet glass of approved quality fixed with standard glazing bead inside and outside including all fittings such as handles, 6 lever lock, bolts, 2mm thick rubber gaskets around, etc., as per specifications, drawings and directions of the Engineer. The payment for floor spring shall be made under relevant item: (Glass panel to be paid separately under relevant item)				
a)	Fixed and openable shutter	KG	<b>92</b>		
5.7	Providing and fixing in position overhead medium duty <b>Hydraulic Door Closer</b> as per IS 3564 of approved make, quality and design, for fixing to doors including necessary screws, adjustable spanners etc. with all labor and materials complete, as per drawing, specification and direction of Engineer-in charge.	Nos	<b>7</b>		
5.8	Providing and fixing <b>glazing</b> in aluminium door, window, ventilator shutters and partitions etc with EPDM rubber / neoprene gasket etc complete as per the architectural drawings and direction of the Engineer-in-Charge.				
a)	With float glass panes of 4mm thickness	SqM	<b>68</b>		
a)	With float glass panes of 5.5mm thickness	SqM	<b>14</b>		
	<b>Sub-Total</b>				
<b>6.0</b>	<b>SANITARY FITTINGS, WATER SUPPLY AND DRAINAGE</b>				
	<b>NOTE:</b>				
i)	Contractor shall prepare Detailed Piping & Routing Drawings for all water supply plumb-ing and drainage installations based on the scheme drawing furnished to them and get the same approved from Engineer before carrying out the work.				
ii)	All water supply, plumbing and drainage instal-lations shall be carried out by a licensed plumber only.				

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
iii)	If desired by Engineer-in-Charge all water supply, plumbing & drainage drawings & installations shall be got approved by the Contractor from local Municipal, Town Planning or Industrial Development Corporation.				
6.1	Providing and fixing Indian type ' <b>ORISSA' pattern water closet</b> Hindustan Sanitaryware (Cat. no. 20070) / Parryware (Ref. C0117) or approved equivalent of size 580mm x 430mm approx. in white vitreousware with integral foot rests with low level white dual (3/6 lit) PVC flushing cistern with manual controlled device conforming of Hindware / Parryware including necessary connection pipe etc. 32mm flush pipe (ITC LIGHT OR PVC) of required length, one 15mm dia PVC/ CP connector pipe with brass coupling nut and washer at both ends of required length, painted two coats of approved colour and brand over a coat of priming on CI bracket all complete.	Set	<b>2</b>		
6.2	Providing and fixing white vitreousware standard <b>European pattern wash down water closet (EPWC)</b> Hindustan Sanitaryware (Cat. no. 20011) / Parryware (Ref. C0297) or approved equivalent of approx size 530 x 385mm with P or S Trap with low level white dual (3/6 lit) PVC cistern of same make, syphon & standard double flush fittings, flush valve including necessary connection pipe 40mm dia CP flush bend, rubber joints, white double solid plastic seat cover with lid, hinges, buffets, brackets etc. fitted and fixed on floor with brass screws and finished with white cement all complete.	Set	<b>4</b>		
6.3	Providing and fixing of Pedestal type <b>Wash hand basin</b> in white vitreousware of approx. size 550mm x 450mm from Hindustan Sanitaryware (Cat no. 10032)/ Parryware (Ref. C0405) or approved equivalent fitted with CI brackets, 32mm dia CP waste fittings, one 15mm dia CP pillar cock, CP chain with rubber plug, 32mm dia x 1200 mm PVC waste pipe with CP nut, PVC connector with CP nut 300mm long including mending good damages and painting the brackets two (2) coats of approved paints over a coat of priming all complete.	Set	<b>6</b>		



Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
6.4	Providing and fixing white glazed vitreous china flat back, front lipped standing <b>Urinal</b> from Hindustan Sanitaryware (Cat no. 60002) / Parryware (Ref. C0583) or approved equivalent of approx. size 600mm x 400mm x 375mm with 15mm dia spader of JAQUAR/CASCADE make with necessary fixtures, fittings etc. 32mm dia CP waste and PVC connector including cutting through walls and in floors fitted and fixed in position all complete and as directed.	Set	5		
6.5	Providing and fixing <b>Half round channel</b> with or without corner end and stop end as required set in cement concrete (1:3:6) with stone/jhama aggregate of size 600mm x 150mm in white vitreous ware.	RM	15		
6.6	Providing and fixing bevel edge <b>mirror 8mm thick</b> 450mm x 600mm of Modiguard/ Saint Gobin above wash basin with 1" SS finished Stud complete all as per direction.	Nos	6		
6.7	Providing and fixing 150mm x 150mm recessed type <b>toilet paper holder</b> in white glazed vitreous ware with wooden roller including cutting walls and mending good damages all complete.	Nos	6		
6.8	Providing and fixing 20mm dia x 600mm long stainless <b>steel towel rail</b> with end brackets (heavy type) with brush CP brown head screws and TW plugs, all complete.	Nos	6		
6.9	Providing and fixing of 12mm thick frosted toughened glass <b>Urinal Divider</b> of approx. size 400mm x 700mm with patch fittings complete in all respects	Nos	4		
6.10	Providing & fixing <b>Chlorinated Polyvinyl Chloride (CPVC) pipes</b> having thermal stability for hot & cold water supply including all CPVC plain and brass threaded fittings, bends, tees etc including fixing of pipes with clamps at one metre spacing. This includes jointing the pipes and fittings with one step CPVC solvent cement and the cost of cutting chase and making good the same including testing the joints complete as per direction of Engineer-in-Charge. <b>Internal concealed work:</b>				
a)	15mm nominal outer dia	RM	40		
b)	20mm nominal outer dia	RM	20		
c)	25mm nominal outer dia	RM	10		
d)	32mm nominal outer dia	RM	5		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
6.11	Providing & fixing <b>Chlorinated Polyvinyl Chloride (CPVC) pipes</b> having thermal stability for hot & cold water supply including all CPVC plain and brass threaded fittings, bends, tees etc including fixing of pipes with clamps at one metre spacing. This includes jointing the pipes and fittings with one step CPVC solvent cement trenching, refilling and testing the joints complete as per direction of Engineer-in-Charge. <b>External work:</b>				
a)	25mm nominal outer dia	RM	50		
b)	32mm nominal outer dia	RM	10		
c)	40mm nominal outer dia	RM	30		
d)	50mm nominal outer dia	RM	100		
6.12	Providing and fixing 100 x 75 mm <b>PVC Floor/Nahani trap</b> with CP hinged heavy brass grating to be fixed in PCC M15 with 20mm down size aggregate and to be made water tight	Nos	8		
6.13	Providing <b>yard gully trap</b> 150x100mm with CI grating 150 x 150mm and water tight light weight CI covers conforming to IS:1726 of size 300x300mm including half-brick masonry in CM (1:4) plastered neatly with CM (1:4) on both faces, 100mm thick PCC bed of mark M-10, necessary excavation, complete as per direction of the Engineer.	Nos	10		
6.14	Providing & fixing <b>Unplasticized Polyvinyl Chloride (UPVC) / PVC pipes</b> having thermal stability for hot & cold water supply including all UPVC/ PVC plain and brass threaded fittings, bends, tees etc with earthwork in excavation upto 1.5M from ground level in all sorts of soil and backfilling complete as per specification and instruction of Engineer-in-Charge. <b>For Sewer line</b>				
a)	110mm dia	RM	25		
b)	160mm dia	RM	25		
6.15	Providing and fixing brass <b>CP concealed type stop cock</b> (ordinary / angular type) all materials and labour complete.				
a)	15mm dia	Nos	10		
b)	20mm dia	Nos	1		
6.16	Providing and fixing brass <b>CP standard head bib cock</b> with all materials and labour complete.				

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
a)	15mm dia	Nos	10		
b)	20mm dia	Nos	1		
6.17	Providing and fixing 15mm dia. <b>brass angle valve</b> with CP copper connection pipe, 37cm long union and nuts complete.	Set	3		
6.18	Providing and fixing brass <b>full way gate valve</b> with CI wheel of approved quality (screwed end) complete				
a)	25 NB	Nos	10		
b)	40 NB	Nos	4		
6.19	Providing and fixing of <b>PVC cowls</b> 100mm dia of approved pattern with mosquito proof caps all as per specifications and direction of Engineer.	Nos	3		
6.20	Providing and fixing brass <b>CP standard pillar cock</b> with all materials and labour complete.				
a)	15mm dia	Nos	6		
b)	20mm dia	Nos	2		
6.21	Providing, & installing, fixing vertical <b>PVC water tanks</b> including all required fittings like ball valve, GI overflow with mosquito proof coupling, GI inlet and outlet connection with necessary supports with concrete and steel etc. complete. Rotational moulded PVC tank shall be of following capacities.				
a)	1 kl capacity	Nos	2		
b)	2 kl capacity	Nos	4		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
6.22	Construction of <b>inspection pit</b> , inside measurement 600 x 600 x 750mm deep (max.) with 230 mm thick brick work in cement mortar (1:4) on all sides, bottom of the pit consisting of 100mm thick cement concrete (1:2:4) with clean graded granite or trap jelly 20mm and down size using clean sieved approved sand over a layer of brick flat soling 12mm thick (1:4) cement plaster to inside walls and 19mm thick (1:4) cement plaster to bottom of the pit providing necessary invert with cement concrete (1:2:4) with stone chips as per direction, neat cement finishing to entire internal surface to the top of the pit covered with 100mm RCC slab (1:2:4) with necessary reinforcement upto 1% and shuttering including 6mm thick (1:4) cement plaster on all external and internal surface of the slab and one 450mm dia. CI manhole cover of approved make fitted and fixed in the slab with necessary fittings, necessary earth work in excavation in all sorts of soil and removing spoils after work is complete in all respect.	Nos	4		
6.23	Construction of <b>septic tank</b> as per drawing with brick masonry in cement mortar(1:4), 20mm thick inside cement plaster both floor and walls, bottom of chamber consisting of 75mm brick flat soling, 150mm thick cement concrete(1:2:4) using clean graded granite or trap jelly 20mm and down size using clean sieved approved sand 20mm down plaster with neat cement finish with necessary sloped holes in the wall top of chambers covered with 100mm holes in the wall top of chambers covered with 100mmthick RCC slab with necessary reinforcement upto 1% and shuttering, with 6mm thick plaster and with necessary connection of inlet, outlet with 150mm HCl tees, CI manhole cover(2 Nos., 450mm dia complete with earthwork in excavation, backfilling, bailing out water and clearing of site.				
a)	50 users (inside dimensions = 4M x 1.4M x 1.5M liquid depth)	Nos	1		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
6.24	Construction of soak pit 1500 mm inside diameter upto 3000 mm deep with brick masonry 230mm thick in cement mortar (1:4) in wall including filling the pit with local burnt brick bats complete, top with 100mm thick RCC Cover with CI manhole cover (1 No. 450mm dia.) and excavation of earth as necessary including 12mm thick cement sand plaster (1:6) to inside surface including shoring, dewatering and removing the earth from trenches etc. all complete as per the drawing and as directed by the Engineer.	No.	1		
6.25	Providing and fixing <b>CP standard head shower</b> of approved make with all materials and labour complete.	Nos	2		
	<b>Sub-Total</b>				
<b>7.0</b>	<b>STRUCTURAL STEEL WORK</b>				
7.1	Supply, fabrication and erection of <b>1M high hand rail</b> made out of 32NB medium grade MS pipes with 32NB vertical post spaced @ max 1.5m c/c along with 32NB knee rail, 100mmx6mm thick plate as toe guard and 75x75x10mm thick base plate including two (2) coats of synthetic enamel paint over two (2) coats of zinc phosphate primer.	RM	25		
7.2	Supply, fabrication, erection and fixing of <b>25/ 50mm thick MS grating</b> made out of MS flat for walkways, drain etc with all materials and labour, tools and tackles, plant and machinery complete with two (2) coats of black bituminous paint over two (2) coats of epoxy zinc phosphate primer.	MT	0.5		
7.3	Supply, fabrication, erection and fixing of <b>5 o/p chequered plate</b> for walkways, platform, staircase etc with two coats of black bituminous paint over two(2) coats of zinc phosphate primer.	MT	1		
7.4	Supplying, fabricating and fixing <b>MS ornamental grill</b> made out of MS flats, rods, square bars etc. @ apprx. 15-18 kg/sqm to window openings including fixing with wall, mending good of damages and finished with two coats of synthetic enamel paint over two coats of zinc phosphate primer all complete as per drawing/approved designs, specifications and directions of the Engineer.	MT	0.5		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
7.5	Supply, fabrication and fixing in position true to line & level, <b>'Y' shape MS angle iron</b> including drilling holes, cutting notches etc including preparation of pockets of size 150x150x250mm at approx. spacing of 2.5M c/c, on top of boundary wall and grouting the angle with 1:1:2 concrete all materials, labour complete. The item also includes surface preparation by scrapping, cleaning and applying painting with two coats of zinc phosphate primer followed by two coats of aluminium paint complete.	MT	1		
	<b>Sub-Total</b>				
<b>8.0</b>	<b>MISCELLANEOUS</b>				
8.1	Providing and fixing approved <b>UPVC rain water down comer</b> with bends and all accessories including clamps etc. complete as specified and as directed.				
a)	110 mm dia.	RM	34		
b)	160 mm dia.	RM	82		
8.2	Providing and fixing <b>MS fan Hook</b> with 16mm dia, MS bar to be inserted with ends embedded in RCC slabs during casting including painting the exposed portion of loop, all complete as per specification	Nos	20		
8.3	<b>Dismantling work</b> with all labour, tools and tackles complete as per direction of Engineer-In-Charge including cleaning the area of all spoils and carting away debris outside the plant area contractor's place with loading, unloading, transportation complete				
a)	Plain Concrete	CuM	2		
b)	Reinforced concrete including cutting of steel bars	CuM	2		
c)	Brick/ stone work including plastering	CuM	2		
8.4	Supplying, laying of <b>RCC Hume pipes</b> including earthwork in trenches, fittings, fixing in position, grouting the joints with 1:2 cement sand mortar with all materials, labour, transportation complete. (PCC bedding to be paid under relevant item)				
a)	300 mm dia. (class NP-3)	RM	70		
b)	500 mm dia. (class NP-3)	RM	10		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
8.5	<b>Antitermite treatment to the top surface</b> of the consolidated earth within plinth walls with chemical emulsion by admixing chloropyrefos emulsifiable concentrates (1% concentration ) with water by weight at the rate of 5 litres per square meter of the surface before sand bed or sub-grade is laid. Holes upto 50mm to 75mm deep at 150mm center to center both ways shall be made with 12mm diameter mild steel rod on the surface to facilitate saturation of the soil with the chemical emulsion. The work shall be carried out as per specification described in para 6.4 of Code IS-6313 (Part-II)- 1981. (Mode of measurement will be per sqm of plan area of plinth treated.	SqM	3630		
8.6	Supply and fixing 600mm dia. <b>CI medium duty manhole</b> cover with frame, fittings and fixtures complete.	Set	9		
8.7	Providing construction joint by making <b>grooves</b> of 10 mm wide & 20 mm deep by saw-cutting on floor slabs filling the grooves with approved <b>polysulphide sealant</b> including all byeworks complete as per drawing and as directed by engineer	RM	550		
8.8	Supplying and fixing in position approved <b>PVC water stop</b> dumbel shaped with central bulb and ribs of width 230mm as per drawings, specifications and directions of the Engineer-in-Charge, in expansion /contraction joints of RCC structures at all heights and depths above and below plinth level, all materials, tools and labour complete.	RM	70		
8.9	Providing and fixing <b>Concertina Coil Fencing</b> with required dia 600 mm upto 3M height of wall with existing angle iron 'Y' shaped placed 2.5M or 3M apart and with 6 horizontal R.B.T. stud tied with G.I. staples and G.I. clips to retain horizontal including necessary bolts or G.I. barbed wire tied to angle iron all complete as per direction of Engineer-in-charge with reinforced barbed tape (R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm. with tape (0.52 mm thick) of Supreme make or equivalent and weight 43.478gm/ metre (cost of MS angle, C.C. blocks shall be paid separately)	RM	300		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
8.10	<b>Fencing with angle iron post</b> placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of <b>barbed wire</b> 9.38 kg per 100 m (minimum) between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately):- Payment to be made per metre cost of total length of barbed wire used. With G.I. barbed wire	RM	<b>2000</b>		
8.11	Supply, fabrication, transportation, installation and commissioning of <b>Automated Sliding Gate</b> of required size made up from rectangular MS pipe and sheet as per specifications and approved drawing, with all necessary fixtures and accessories in best workmanship with polyurethane paint over a coat of grey epoxy primer complete. The item also includes supply, transportation, installation and commissioning of Electromechanical Actuator comprising rugged and powerful drive unit, integral electronic control unit & in-built contactless magnetic limit-switch with imported galvanized rack (duly hardened and tempered) and key selector from DITEC or approved equivalent brand as per specifications, with all necessary fixtures, accessories, photo cells, flashing light etc. The gate shall be sliding on one side. All civil work excluded, however the bottom rail included.				
a)	clear width approx. 7.5M and clear height 2M (TWIN)	Set	<b>2</b>		
b)	clear width approx. 6M and clear height 2M	Set	<b>1</b>		
c)	clear width approx. 4.5M and clear height 2M	Set	<b>1</b>		
8.12	Providing and fixing G.I. <b>chain link fabric fencing</b> of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge, made of G.I. wire of dia 4 mm	SqM	<b>30</b>		



Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
8.13	Providing and fixing bright finished brass 100 mm <b>mortice latch and lock</b> , ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete.	Nos	5		
8.14	Providing & fixing in position <b>stainless steel balustrades</b> of approved design (Ozone or approved equivalent make ) placed @ 900-1200 mm c/c distance, 50 mm dia stainless steel pipe as hand rail including 12 mm thick toughend glass wall to be fixed between balustrades with stainless steel fittings) , including grouting to the floor /steps all complete as per drawing and direction of site in charge. (Catalogue No. OZBF-ED-11-GHST or similar)	RM	20		
8.15	Providing and laying <b>PVC weep holes</b> of diameter 75mm of maximum length 300mm, in masonry or concrete retaining wall as per direction of the Engineer-in-Charge	Nos	100		
8.16	Providing and fixing <b>16mm dia metal anchor fasteners bolts</b> in concrete wall with tools & tackles as per direction of the Engineer-in-Charge	Nos	25		
	<b>Sub-Total</b>				
<b>9.0</b>	<b>ROAD / PAVEMENT WORK</b>				
9.1	Preparation of <b>sub-grade</b> maintaining proper gradient camber / cross falls, dressing, watering / drying (as required) consolidating / compacting using 10-12T capacity vibro-roller with static or vibro rolling as appropriate as per specifications and / or directions of the Engineer-in-Charge and to achieve minimum 4% unsoaked field CBR.	SqM	2200		
9.2	Providing and laying <b>boulder/ stone soling</b> under road/ pavement/ floor etc with graded material (of maximum size 200mm) and binders including transportation, breaking, laying in regular lines and levels, filling in the interstices with stone chips, coarse murrum, compacting with mechanical reamers or with manual tamping only where mechanical reamers cannot be used, watered, consolidated and preparation of the top smooth surface as specified and as directed by the Engineer-in-Charge.				

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
a)	230mm nominal thickness	SqM	4000		
9.3	Providing & constructing <b>water bound macadam</b> of finished consolidated thickness of 100mm in one layer with crushed stone aggregate of <b>grading I</b> , applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density complete with all materials, transportation, labour and rolling with 8 to 10T power roller etc. as per specifications, drawings and instructions of the Engineer-in-Charge.	CuM	375		
9.4	Providing and constructing <b>water bound macadam</b> of finished compacted thickness 100mm in one /two layer with crushed stone aggregate of <b>grading II</b> , applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density complete with all materials, transportation, labour and rolling with 8 to 10T vibro roller etc. as per specifications, drawings and instructions of the Engineer-in-Charge	CuM	375		
9.5	Providing and laying at or near ground level factory made <b>kerb stone of M-25 grade</b> cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge)	CuM	40		

Item no.	Description of Items	Unit	Qty	Rate (Rs)	Amount (Rs)
9.6	Providing and laying precast machine made <b>interlocking pressed concrete block (M50)</b> for paved yard of overall size 200mm x 100mm x 100mm (approx.) with minimum crushing strength of 50 N/mm <sup>2</sup> , dimensional tolerance of ± 3mm, maximum water absorption limit of 3% to 5% and dry density 2.2 T/CuM to 2.3 T/CuM. Blocks to be laid on coarse sand bed of average 50mm thick properly leveled by machine vibration, sealing interstices with sand complete with all materials and labour as per direction of Engineer-in-Charge.	SqM	1850		
	<b>Sub-Total</b>				
	<b>TOTAL (Basic)</b>				
	<b>Add for GST @ 18%</b>				
	<b>GRAND TOTAL</b>				