

Indian Pharmacopoeia Commission,

GHAZIABAD, U.P.

(An Autonomous Institution of Ministry of Health & Family Welfare)

Tender No. IPC/GZB/HLL/ID/2015

Request for Proposal (RFP)

for

Construction of Laboratory Building for Indian Pharmacopoeia Commission at Raj Nagar, Ghaziabad,

Uttar Pradesh

- **Volume-IV (BOQ)**



B-14A, Sector – 62,

NOIDA (UP) -201307

Phone no: 0120-4071500, Fax no: 0120-4071513

(May 2015)

PREAMBLE TO BILL OF QUANTITIES

(These preambles apply to all the sections of the Bill of Quantities. The Contract rates shall take into account all these provisions in addition to various provisions in other parts of the Contract document)

SI No.	DESCRIPTION
1	This is an "Item Rate Tender". Rates shall include cost of materials, labour, plants & equipment taxes, duties and all necessary apparent services required for complete execution, and commissioning in accordance with relevant drawings and specification. The HLL/IPC decision on interpretation of bill of quantities and its preamble shall be final and binding on the contractor.
2	The quantities given in this Bill of Quantities are liable to variations. Such variations in quantities shall not, however, vitiate the contract in any way whatsoever and all quoted rates shall remain valid as per deviation limits provided in the contract. Contractor shall be paid for the actual measured quantities of work executed by him/them .
3	Rates quoted shall be firm and shall not be subject to any price variations except as specifically provided in the contract.
4	The contractor's quoted rate shall include surveying, making layout and demarcation of all services as required for completion of the works within the scope of this contract .
5	The words "as specified", "as described", "as shown", "as directed", or "as approved", shall mean as described in the specifications, Schedule of Quantities and other Contract documents as shown on the drawings or as directed by EIC.
6	The following notations as appearing in the Bill of Quantities and specifications shall mean :
	a) Cum = Cubic metre
	b) Sqm. = Square metre
	c) Rm/Mtr./ Metre = Running metre
	d) No./Nos./Each/Set = Numbers
	e) Kg. = Kilogram
	f) MT. = Metric Ton
7	For the general guidance of the bidders, tender drawings are available with the HLL/IPC which should be seen /consulted by the intending bidders before bidding. The detailed working drawings shall be issued to the successful bidder after start of work at site and during the execution of the work so as per requirement and progress chart prepared initially and /or modified subsequently by the contractors.
8	The bidders shall take into account all leads and lifts involved in transport of materials to site, erection and hire of T & P, sheds for materials, etc. while quoting the rates for various sub heads of the work. Similarly all taxes including Octroi, Toll or Sales Tax/VAT, Works Contract Tax or any other Taxes etc. as payable by the contractor at the time of submission of bids shall be taken in to account by the bidders before quoting their. Any claim in these matters whatsoever in this respect shall not be entertained.

<u>CONSTRUCTION OF STATE OF THE ART LABORATORY BUILDING FOR M/s INDIAN PHARMACOPOEIA COMMISSION AT RAJNAGAR, GHAZIABAD.</u>			
FINANCIAL BID SUMMARY SHEET			
Sl.No.	Description	Quoted amount in Figures (in Rs.)	Quoted Amount in words (in Rs.)
1	Civil & Plumbing Works		
2	Fire Fighting		
3	HVAC		
4	Internal & External Electrification & LV Etc. Services		
5	Lifts		
6	ETP		
7	BMS		
	Total Amount		

Sl.No.	Description	Quoted amount in Figures (in Rs.)	Quoted Amount in words (in Rs.)
SUMMARY OF CIVIL & PLUMBING WORK			
1	EARTH WORK		
2	CONCRETE WORK		
3	REINFORCED CEMENT CONCRETE		
4	BRICKWORK		
5	STONE WORK		
6	MARBLE & GRANITE WORK		
7	WOOD AND PVC WORK		
8	STEEL WORK		
9	FLOORING WORK		
10	ROOFING		

Sl.No.	Description	Quoted amount in Figures (in Rs.)	Quoted Amount in words (in Rs.)
11	FINISHING WORK		
12	ROAD WORKS		
13	WATER PROOFING WORK		
14	STRUCTURAL GLAZING AND ALUMINIUM COMPOSITE PANEL		
15	DISMANTLING AND DEMOLISHING		
16	MISCELLANEOUS & REPAIR WORK		
17	HORTICULTURE & LANDSCAPING		
18	PARTITIONS , PANELLING & FALSE CEILING		
19	PLUMBING WORKS		
	TOTAL AMOUNT CIVIL & PLUMBING WORK		

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		BOQ CIVIL WORKS						
1.0		EARTH WORK						
1.1	2.1 Modified	Earthwork in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth irrespective of lead and lift upto 1.5 m, disposed soil to be levelled and neatly dressed						
	2.1.1	All kinds of soil	5.00	100 sqm				
1.2	2.6	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, irrespective of lead and lift upto 1.5m, disposed earth to be levelled and neatly dressed.						
	2.6.1	All kinds of soil.	3420.00	cum				
1.3	2.8 Modified	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		directed, irrespective of lead.						
	2.8.1	All kinds of soil.	675.00	cum				
1.4	2.10 modified	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, irrespective of lead :						
1.4.1	2.10.1	All kinds of soil						
1.4.1.1	2.10.1.1	Pipes, cables etc, not exceeding 80 mm dia.	400.00	Metre				
1.4.1.2	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	150.00	Metre				
1.4.1.3	2.10.1.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm	132.00	Metre				
1.5	2.25 modified	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering,	3800.00	cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		irrespective of lead and lift .						
1.6	2.26	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.						
	2.26.1	All kinds of soil	1720.00	cum				
1.7	2.27	Supplying and filling in plinth with Jamuna sand under floors, including watering, ramming, consolidating and dressing complete.	850.00	cum				
1.8	2.31 Modified	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto irrespective of lead outside the periphery of the area cleared.	5.00	100 sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.9	2.33	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material and including transplantation of trees as per CPWD specifications (CPWD/Publication/Landscaping) etc complete and directions of E-I.C.						
	2.33.2	Beyond 60 cm girth upto and including 120 cm girth	23.00	each				
1.10	2.34	Supplying chemical emulsion in sealed containers including delivery as specified.						
	2.34.1	Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	950.00	litre				
1.11	2.35	Diluting and injecting chemical emulsion for POSTCONSTRUCTIONAL anti termite treatment (excluding the cost of chemical emulsion) :						
	2.35.2	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.:						
	2.35.2.1	With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration.	350.00	meter				
		EARTH WORK SUB HEAD TOTAL						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.0		CONCRETE WORK						
2.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :						
2.1.1	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	5.00	cum				
2.1.2	4.1.8	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	350.00	cum				
2.2	4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor,etc., up to floor five level, excluding the cost of centering, shuttering and finishing:						
	4.2.3	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	5.00	cum				
		DAMP - PROOF COURSE						
2.3	4.11	Providing and laying damp-proof course 50 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	80.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.4	4.12	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	1800.00	Per 50 kg cement				
2.5	4.13	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	90.00	sqm				
		PLINTH PROTECTION WORK						
2.6	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.	310.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.7	4.19	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge.						
		Note : (1) Excess/less cement used than specified in this item is payable/recoverable separately						
		(2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456 -2000 in the items of BMC and RMC.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		3)The above item shall be used judiciously where specified quality of Fly Ash is available for mixing in concrete. Also, the guidelines issued by CDO, CPWD, vide circular no. CDO/SE(RR)/Fly Ash (Main)/102 dated 9th April 2009 shall be followed in such cases.						
2.7.1	4.19.1	All works upto plinth level :						
	4.19.1.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	350.00	cum				
		CONCRETE WORK SUB HEAD TOTAL						
3.0		REINFORCED CEMENT CONCRETE						
3.1	5.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :						
	5.1.2	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	5.00	cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.2	5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	5.00	cum				
		FORMWORK						
3.3	5.9	Centering and shuttering including strutting, propping etc. and removal of form for :						
3.3.1	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete.	1750.00	Sqm				
3.3.2	5.9.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	1665.00	Sqm				
3.3.3	5.9.3	Suspended floors, roofs, landings, balconies and access platform.	4600.00	Sqm				
3.3.4	5.9.4	Shelves (Cast-in-situ)	50.00	Sqm				
3.3.5	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	3000.00	Sqm				
3.3.6	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	2450.00	Sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.3.7	5.9.7	Stairs, (excluding landings) except spiral-staircases.	580.00	Sqm				
3.3.8	5.9.16	Edges of slabs and breaks in floors and walls						
3.3.9	5.9.16.1	Under 20 cm wide	25.00	metre				
3.3.10	5.9.16.2	Above 20 cm wide	50.00	Sqm				
3.3.11	5.9.17	Cornices and mouldings.	100.00	sqm				
3.3.12	5.9.19	Weather shade, Chajjas, corbels etc., including edges.	50.00	sqm				
3.3.13	5.9.15	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	75.00	Sqm				
3.4	5.11	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured).						
	5.11.1	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	5000.00	Sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		PRE – CAST R.C.C.						
3.5	5.15	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in lintels, beams and bressumers, including setting in cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering and shuttering but excluding the cost of reinforcement, with 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	5.00	cum				
		STEEL REINFORCEMENT						
3.6	5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.						
	5.22.6	Thermo-Mechanically Treated bars	186760.00	kg				
3.7	5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.						
	5.22A.6	Thermo-Mechanically Treated bars.	403200.00	kg				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		MISCELLANEOUS						
3.8	5.18	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 6 mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete, excluding plastering of the jambs, sills and soffits.						
	5.18.1	50 mm thick	5.00	sqm				
3.9	5.30	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	1200.00	metre				
		DESIGN MIX CONCRETE						
3.10	5.33	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).						
3.10.1	5.33.1	All works up to Plinth level.	38.00	cum				
3.10.2	5.33.2	All works above plinth & up to floor V level.	38.00	cum				
3.11	5.34	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable /recoverable separately.						
3.11.1	5.34.1	Providing M-30 grade concrete instead of M-25 grade BMC / RMC. (Note:- Cement content considered in M-30 is @ 340 kg/ kg/cum)	38.00	cum				
3.11.2	5.34.2	Providing M-35 grade concrete instead of M-25 grade BMC / RMC. (Note:- Cement content considered in M-35 is @ 350 kg/ kg/cum)	38.00	cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.12	5.40	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using fly ash and cement content as per approved design mix, and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering, finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. NOTE- (1) Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately.(2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement to be ensured in accordance with clauses 5.2 and 5.2.1 of IS:456 -2000 in the items of BMC and RMC.						
3.12.1	5.40.1	All works up to Plinth level.	1640.00	cum				
3.12.2	5.40.2	All works above plinth & up to floor V level.	2650.00	cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.13	5.34	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable /recoverable separately.						
	5.34.1	Providing M-30 grade concrete instead of M-25 grade BMC / RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum)	2150.00	cum				
3.14	5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	100.00	quintal				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.15	5.44	Providing and fixing of expansion joint system related with floor location as per drawings and direction of Engineer-In-Charge. The joints system will be of extruded aluminum base members, self-aligning / self-centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor /floor to wall expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of metal profiles with a universal aluminum base member designed to accommodate various project conditions and finish floor 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.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		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. Provision of Moisture Barrier Membrane in the Joint System to have watertight joint is mandatory requirement all as per the manufactures design and as approved by Engineer -in- Charge . (Material shall confirm to ASTM 6063.)						
	5.44.1	Floor Joint of 100 mm gap	70.00	metre				
3.15	5.45	Providing and fixing of expansion joint system related with wall joint (internal/ external) location as per drawings and direction of Engineer-In- Charge. The joints shall be of extruded aluminum base members, self-aligning / centering arrangement and support plates as per ASTM B221- 02. The material shall be such that it provides an Expansion Joints System suitable for vertical wall to wall/ wall to corner application, both new and existing construction in office Buildings & complexes with no slipping down tendency amongst the components of the Joint System. The Joint System shall utilize light weight aluminum profiles exhibiting minimal exposed aluminum surfaces mechanically						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		snap locking the multicellular to facilitate movement. (Material shall confirm to ASTM 6063.)						
	5.45.1	Wall Joint of 100 mm gap	30.00	metre				
3.16	5.46	Providing and fixing of expansion joint system of approved make and manufactures for various roof locations as per approved drawings and direction of Engineer-In-Charge. The joints shall be of extruded aluminum base members with, self-aligning and self-centering arrangement support plates as per ASTM B221-02. The system shall be such that it provides watertight roof to roof/roof to corner 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 roof treatments. The cover plate shall be designed of width and thickness required to satisfy 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.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		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 the Joint System to have water tight joint is mandatory requirement. Material shall confirm to ASTM 6063						
	5.46.1	Roof Joint of 100 mm gap	25.00	metre				
		REINFORCED CEMENT CONCRETE SUB HEAD TOTAL						
4.0		BRICK WORK						
4.1	6.1	Brick work with common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 in foundation and plinth in:						
	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	85.00	cum				
4.2	6.4	Brick work with common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	150.00	cum				
4.3	6.8	Brick work 7 cm thick with common burnt clay F.P.S. (non-modular) brick of class designation 7.5 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure above plinth level and upto floor five level.	20.00	sqm				
4.4	6.12	Half brick masonry with common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 in foundations and plinth in :						
	6.12.2	cement mortar 1:4 (1 cement : 4 coarse sand)	20.00	sqm				
4.5	6.13	Half brick masonry with common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.						
	6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	550.00	sqm				
4.6	6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry/fly ash bricks.	2360.00	sqm				
4.7	6.34	Brick work with non-modular fly ash bricks conforming to IS:12894, class designation 10 average compressive strength in super structure above plinth level up to floor V						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		level in						
	6.34.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	520.00	cum				
4.8	6.44	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non-modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	310.00	metre				
4.9	6.45	Half brick masonry with non modular fly ash bricks of class designation 10, conforming to IS : 12894, in super structure above plinth and upto floor V level.						
	6.45.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	730.00	sqm				
		BRICK WORK SUB HEAD TOTAL						
5.0		STONE WORK						
5.1	7.23	Stone work (machine cut edges) for wall lining etc. (veneer work) upto 10 metre height, backing filled with a grout of average 12 mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing and the sides by						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		means of cramps and pins which shall be paid for separately) :						
5.1.1	7.23.1	Red sand stone - exposed face fine dressed with rough backing.						
	7.23.1.4	40 mm thick.	120.00	sqm				
5.1.2	7.23.3	White sand stone - exposed face fine dressed with rough backing .						
	7.23.3.4	40 mm thick.	120.00	sqm				
5.2	7.25	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases in stone and holes in walls wherever required.	144.00	kg				
5.3	7.27	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases.	2500.00	each				
		STONE WORK SUB HEAD TOTAL						
6.0		MARBLE & GRANITE WORK						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
6.1	Modified DSR 8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, door Jambs, door & window frames , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.						
6.1.1	8.2.2	Granite of any colour and shade						
	8.2.2.1	Area of slab upto 0.50 sqm (Basic Rate for Granite Rs. 1900/sq. m)	120.00	sqm				
6.1.2	8.2.2.2	Area of slab over 0.50 sqm (Basic Rate for Granite Rs. 2000/sq. m)	100.00	sqm				
6.2	8.3	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.						
	8.3.2	Granite Work	525.00	metre				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
6.3	8.4	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	525.00	metre				
6.4	8.5	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	27.00	each				
6.5	Modified 8.10	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions, <u>adjoining wash basin counters, granite barrier screens in the toilet areas</u> by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.						
	8.10.2	Granite stone of approved shade (Basic Rate for Granite Rs. 2000/sq. m)	60.00	sqm				
		MARBLE & GRANITE WORK SUB HEAD TOTAL						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.0		WOOD & PVC WORK						
7.1	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).						
7.1.1	9.1.1	Second class teak wood	5.50	Cum				
7.1.2	9.1.2	Sal wood	0.50	Cum				
7.2	9.7	Providing and fixing paneling or paneling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Paneling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :						
	9.7.7	Float glass panes						
	9.7.7.2	5.5 mm thick glass panes	5.00	sqm				
7.3	9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	61.00	sqm				
7.4	9.23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured)	61.00	sqm				
7.5	9.24	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :						
	9.24.1	Rectangular or square.	10.00	sqm				
7.6	9.33	Providing and fixing expandable fasteners of specified size with necessary plastic sleeves and galvanised M.S. screws including drilling holes in masonry work /CC/ R.C.C. and making good etc. complete.						
7.6.1	9.33.1	25 mm long	75.00	each				
7.6.2	9.33.2	32 mm long	75.00	each				
7.6.3	9.33.3	40 mm long	100.00	each				
7.6.4	9.33.4	50 mm long	75.00	each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.7	9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	108.00	each				
7.8	NDSR	Providing and fixing satin finish Stainless steel Square tower bolts of approved make with necessary screws etc. complete as directed by Engineer-in-charge:						
7.8.1		300x10 mm	20.00	each				
7.8.2		250x10 mm	16.00	each				
7.9	NDSR	Providing and fixing approved make Satin finished SS 304 grade Aldrop with necessary screws etc. complete as directed by Engineer-in-charge::						
		250x16 mm	36.00	each				
7.10	9.83	Providing and fixing aluminum die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	36.00	each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.11	9.84	Providing and fixing aluminum extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	5.00	each				
7.12	9.86	Providing and fixing bright finished brass casement stays (straight peg type) with necessary screws etc. complete :						
	9.86.1	300 mm weighing not less than 330 gms	20.00	each				
7.13	9.88	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	5.00	each				
7.14	9.90	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete.						
	9.90.3	Size 65 mm	2.00	each				
7.15	9.92	Providing and fixing chromium plated brass handles with necessary screws etc. complete:						
	9.92.1	125 mm	40.00	each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.16	9.101	Providing and fixing aluminum hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.						
	9.101.2	Twin rubber stopper	36.00	each				
7.17	9.127	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality. (NOTE: It should be preferably factory pressed laminated door shutter)						
	9.127.2	1.0 mm thick	92.00	sqm				
7.18	NDSR	Providing and fixing brass cylindrical keyless lock of 25 mm diameter and 50mm diameter outside knob on both sides including making holes etc. complete.	36.00	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.19	NDSR	Providing and fixing fully glazed UPVC windows, ventilators etc. with clear float glass made of UPVC extruded sections reinforced with galvanized M.S sections 2 mm \pm 0.2 mm thickness for main frame and with galvanized M.S. sections 1.5mm + 0.2 mm thickness for other members with UPVC section wall thickness 2.0 mm \pm 0.2 mm. The corners of the frames to be mitred and welded of plastic, galvanized brackets, to be fixed using stainless steel screws / fasteners, standard accessories such as hinges, standard handles with locking system, swinging hardware including the UPVC frames of standard dimensions, fittings, fixtures etc complete as per manufacturers specifications and directions of E-I-C.						
7.19.1	NDSR	Fixed glazed including 5.5 mm thk clear float glass	50.00	Sqm				
7.19.2	NDSR	Openable / Sliding for general areas / Louvered arrangement for toilet windows as per manufacturer 's specifications including 5.5 mm thk clear float glass	75.00	Sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.20	NDSR	Extra for the Composite double glazing consisting of clear float glass of 5.5 mm thick on inner side and 5.5mm thick toughened reflective tinted glass on the other exterior side and the two are separated by 12mm air-gap, hermetically sealed with silicon sealant of reputed manufacturer including beading of anodised aluminum on all sides etc complete as per instructions of E-I-C.	10.00	Sqm				
7.21	NDSR	Providing and fixing 12 mm thick frameless toughened glass openable doors of any sizes, single leaf or double leaf and of approved brand and manufacturer, including providing and fixing top & bottom patch fitting, patch lock, heavy duty floor spring and S.S handle and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge & TS. Designer frosted film shall be provided as per drawing or direction of Engineer-in-charge. All damages to the floor work to be reinstated without any extra cost.	378.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.22	NDSR	Providing and fixing 12 mm thick frameless toughened glass sliding doors of any sizes, single leaf or double leaf and of approved brand and manufacture, including providing and fixing top & bottom patch fitting, patch lock, heavy duty floor sliding channel arrangement, rollers etc complete as per manufacturer specification and making necessary holes for fixing required door fittings, all complete as per direction of Engineer-in-charge. Designer frosted film shall be provided as per drawing or direction of Engineer-in-charge. The rate to be inclusive of repair/ replacement of flooring work etc. complete.	6.00	sqm				
7.23	NDSR	Providing and fixing automatic operation system suitable for existing double leaf frameless glazed door made of 12 mm thick glass with opening size of about 2.4m x 2.4m consisting of solid state controller unit, heavy duty reversible motor, adjustable timer, gear for transmission, sensors on both sides, associate cabling and circuit etc., so as to provide flawless automatic operation, with all labour, material, equipment, handling, transportation, workmanship, preparation of working drawings, testing, etc., all complete, as per manufacturer specifications and instructions of the Engineer	2.00	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		The Electric operating Mechanism shall be mounted and concealed within the Stainless Steel header and the Controller Unit shall be Micro Processor Based. Weather stripping shall be provided along the edges of sliding door panels. Basic sensor system shall be of active infrared sensors type, header mounted on each side of the door and shall remain active throughout the door opening & closing cycle.						
7.24	Modified 9.136	Providing and fixing fire resistant door frame of section 143 x 57 mm having built in rebate made out of 16 SWG G.I. sheet (zinc coating not less than 120 gm/sqm) duly filled with vermiculite based concrete mix, suitable for mounting 60 minutes fire rated door shutters. The frame is fitted with intumescent fire seal strip of size 10x4 mm (minimum) around the frame and fixing with dash fastener of approved size and make, including applying a coat of approved brand fire resistant primer etc. complete as per direction of Engineer-in-charge (Dash / expandable fastener to be paid for separately).	50.00	metres				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.25	9.137 Modified	Providing and fixing 50 mm thick glazed fire resistant door shutters of 120 minutes fire rating conforming to IS:3614 (Part-II), tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, lock rail, top rail 100 mm wide, bottom rail 200 mm wide, made out of 16 SWG G.I.sheet (zinc coating not less than 120 gm/m ²) duly filled FR insulation material and fixing with necessary stainless steel ball bearing hinges of approved make, including applying a coat of approved fire resistant primer etc. all complete as per direction of Engineer-in-charge. (Paneling to be paid for separately).	30.00	sqm				
7.26	9.138	Providing and fixing glazing in fire resistant door shutters, fixed panels, ventilators and partitions etc, with G.I. beading of appropriate size, made out of 20 SWG G.I.sheet (zinc coating not less than 120 gm/m ²), fire resistant sealant, including applying a coat of approved fire resistant primer on G.I. beading etc, complete all as per direction of Engineer-in-charge.						
	9.138.1	With clear fire resistant glass panes 6mm thick of approved brand, having minimum 60 minutes fire resistance	3.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7.27	9.139	Providing and fixing panic bar / latch (Double point) fitted with a single body, Trim Latch & Lock on back side of the Panic Latch of reputed brand and manufacture to be approved by the Engineer- in- charge, all complete.	4.00	each				
7.28	NSR	Providing and fixing over glass 1.5mm thick Etching strips (film) as per design and pattern of approved make fixed as per manufacturer's specifications all complete as per direction of the Engineer-in-charge.	25.00	Sqm				
7.29	21.1 modified	Providing and fixing double glazed hermetically sealed glazing in aluminium windows. with 5.5 mm thick clear float glass in between the cabins over the brickwork partition flush with wall on both sides, having air gap between two faces of glazing including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.	30.00	sqm				
		WOOD & PVC WORK SUB HEAD TOTAL						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
8.0		STEEL WORK						
8.1	10.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	4440.00	kg				
8.2	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete	8880.00	Kg				
8.3	10.6	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.						
	10.6.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	16.00	Sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
8.4	10.7	Providing and fixing ball bearing for rolling shutters.	10.00	Each				
8.5	10.8	Extra for providing mechanical device chain and crank operation for operating rolling shutters						
	10.8.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area	16.00	sqm				
8.6	10.9	Extra for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in- charge, (area of grill to be measured).	16.00	Sqm				
8.7	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.						
	10.16.2	Hot finished seamless type tubes.	14500.00	Kg				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
8.8	10.18	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp, of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamp shall be made of 12 mm dia M.S. bar bent to shape as per standard drawing.	10.00	Each				
8.9	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.						
8.9.1	10.25.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	100.00	kg				
8.9.2	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	6680.00	kg				
8.10	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.						
	10.26.2	E.R.W. tubes.	50.00	kg				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
8.11	Modified 10.28	Providing and fixing stainless steel (Grade 304) railing including its various accessories & fixing fittings & fixtures made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts 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, Cladding for partitions with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	3630.00	Kg				
8.12	NDSR	Providing and fixing 10mm thk toughened plain glass to be fixed to the stainless steel railing on D-brackets & approved SS-Glass patch type, spider or compatible fittings & fixtures as per direction of Engineer In charge to the required shape and size.	72.00	Sqm				
		STEEL WORK SUB HEAD TOTAL						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.0		FLOORING						
9.1	11.3	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.						
9.1.1	11.3.1	40 mm thick with 20 mm nominal size stone aggregate	100.00	Sqm				
9.1.2	3.9	Cement mortar 1:4 (1 cement : 4 coarse sand).	30.00	cum				
9.2	11.4	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	100.00	Sqm				
9.3	11.6	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.						
	11.6.1	18 mm thick	100.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.4	NDSR	<p><u>Epoxy flooring</u></p> <p>Providing & laying heavy duty coloured Epoxy flooring, complying with flooring requirements as per Good Laboratory Practices norms as detailed: Providing and laying 4mm thick high density epoxy based heavy duty industrial screen flooring and topped with 1mm thick of self levelling compound to achieve total thickness of 5mm. This system will make a smooth surface and will be used to take load movements on air casters. The floor shall also offers resistance to absorb water, oil and industrial chemicals etc and shall be very easy for cleaning the surface. Maximum expected ambient temperature can be very high even more than room temperature. Flexible modified epoxy for crack bridging, impact absorption and application over substrates with high deflection or vibration. Epoxy flooring composition system shall be a resin rich composite with low viscosity, clear epoxy primer for maximum bond potential. 100% solids, top coat for final seal. Matrix coating system shall consist of prime coat, screed coat and topping coat.</p>	250.00	Sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		The primary coat shall be a two component full solid coating with excellent bonding on to concrete surface. The application is by lambskin short pile roller / screeder at a spreading rate of 0.25 to 0.75 kgs per square meter. Total buildup thickness should be 200 micron. Primary coat shall be allowed to get track free before application of heavy duty industrial screed. The Screed coating, base lining shall be done with a three component solvent free epoxy urethane urea screed to fill the post holes / dents on the base floor and level the undulation / pot holes of the base floor. The spreading rate for this is to be determined by the extent of levelling required for the base floor and thickness that is proposed to built up as per directions of Engineer in charge. The built up thickness of this screed floor shall be around 3000 microns. The screed shall be kept for curing upto 4 to 5 hours to get workable strength for next procedure. An intermediate coat (Base coat) is to be applied to avoid any pinholes, waviness etc. The Top finish coat shall comprise of Two component epoxy urethane urea coating which is applied by lambs wool roller / roller notched trowel. Total built up thickness shall be around 2000 microns. Dust & dirt has to be removed from the surface before starting the top coat.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		The colour pigment shall be added to achieve the necessary finish colour as approved and directed by Engineer in charge. The rate shall also include surface preparation such as Acid itching wherein acidic water shall be used to clean the floor by means of scrubber & washing with sufficient water, the oil, grease & foreign particles are to be cleaned properly from the surface. The process shall also include cleaning of the soaked oil to get good bonding of the epoxy floor & durability. Burning procedure shall be carried out (if required) to remove the oil till the floor become bright white / desired colours. The pot holes and expansion joints (if any) are to be filled with the suitable material. The pot holes shall be filled & levelled with pot filling compound. Similarly the cracks & expansion joints shall be filled with crack seal compound, having the expansion & compression properties as per the surrounding temperature. After final coating, it should be kept for 24 hours for functional cure. Self-leveling compound can be applied if required to make the surface smooth and levelled. The cement concrete flooring shall be however measured under item No 73A and paid for separately. The rate quoted for this item shall be only for epoxy flooring system for the operations and procedure duly mentioned herein the						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		item.						
9.5	NDSR	Providing and fixing machine cut, mirror polished, Granite stone work for wall lining (veneer work) including dado, skirting, treads & risers of steps etc., in required design and pattern wherever required, stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge a. 18 mm thick granite stone of any colour and shade etc	515.00	Sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.6	8.12	Providing and laying flamed finish Granite stone flooring 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 Engineerin- Charge : a. Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	100.00	Sqm				
9.7	11.23	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with :						
9.7.1	11.23.2	Raj Nagar plain.	25.00	sqm				
9.7.2	11.23.5	Udaipur green marble	25.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.8	11.54	<p>Providing and fixing removable raised/false access flooring with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc. all complete, as per the architectural drawings, as specified and as directed by Engineer-in-charge consisting of :a) P roviding at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mm x 100mm x 3mm at the bottom of the pedestal tube, G.I. pedestal head of size 75mmx75mmx3.5 mm welded with GI fully threaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base) through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.b) S tringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80mm thick having holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall provide adequate solid, rigid support for access floor panel, the systemshall provide a minimum clear uninterrupted clearance between the bottomof the floor for electrical conduits and wiring etc. all</p>						

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Addition -----
 Deletion -----
 Correction -----
 Overwriting -----

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S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		c) Providing and fixing Access Floor panel of 600x600x32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones. The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7 mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be Corroresist epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible Portland cementitious core mixed with lightweight foaming compound. The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1mm thickness for superior adhesion and Surface flatness within 0.75mm. The panel is to withstand a Concentrated Load of 363 kgs applied on area 25mm x 25mm without collapse in the centre of the panel which is placed on four steel blocks. The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of Engineer-in-charge. All specification must be printed on the side of						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		the panel to ensure the quality of the product.						
9.8.1	11.54.1	300 mm Finished Floor Height (FFH)	10.00	sqm				
9.8.2	11.54.2	450 mm Finished Floor Height (FFH).	80.00	sqm				
9.9	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :						
	11.26.1	25 mm thick	85.00	sqm				
9.10	11.27	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	265.00	sqm				
9.11	11.30	40 mm thick rubbed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.11.1	11.30.1	Red sand stone	5.00	sqm				
9.11.2	11.30.2	White sand stone	5.00	sqm				
9.12	11.31	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	25.00	metre				
9.13	11.32	Extra for Kota stone/ sand stone in treads of steps and risers using single length up to 1.05 metre .	135.00	sqm				
9.14	11.37	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc, complete.	200.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.15	11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	400.00	sqm				
9.16	11.38	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc., complete.	245.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.17	11.41	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.						
9.17.1	11.41.2	Size of Tile 600x600 mm	2330.00	sqm				
9.17.2	11.41.3	Size of Tile 800x800 mm	50.00	sqm				
9.18	Modified 11.46	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in Dado, skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete.						
9.18.1	11.46.2	Size of Tile 600 X 600 mm	500.00	sqm				
		Note: - The vitrified tiles for all the above items shall be from the double/multi charged range of tiles.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.20	11.53	Providing and fixing Glass mosaic tiles at finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design , fixing in customize design as per direction of Engineer-in- Charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in- Charge:	10.00	sqm				
9.21	16.86	Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.						
	16.86.1	Area less than 0.50 sqm. (Granite basic rate not to be less than Rs.1900 per sqm)	50.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.22	16.89	Providing and laying matt finished vitrified tile of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	40.00	sqm				
9.23	NDSR	Providing and laying exterior grade coloured flexi paver tiles of min. thickness 20 mm in approved colour, shade laid in pattern on an avg. 25 to 30mm thk. bed of 1:4 cement mortar in proper line and level including neat cement float, filling joints with neat cement slurry, of appropriate colour, curing and cleaning complete. The pavers shall be cleaned etc. complete as per manufacturers specifications (Basic Rate of Cement Concrete Paver tiles is Rs.807/- per sqm	1100.00	Sq.m.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.24	NDSR	Providing and fixing Vinyl flooring of 2mm thick 100% recycled PVC flexible, homogeneous antistatic calendared compacted floor covering, minimum weight 3120 g/m ² in minimum sheet of size 2mtrs. x 20 mtrs. approved pattern & colour combination with PUR Protect or equivalent surface treatment having wear minimum resistance of $\leq 4.0\text{mm}^3$ as per EN 660.2 and wear group Group P as per EN-649 and should have a minimum residual indentation of $<0.03\text{mm}$ confirming to EN-433. The laid flooring should have non-directional design, colour dyed as a raw mixture to ensure even colour throughout the thickness and its surface should be densely compacted for improving wear and ease of maintenance with Anti-bacterial and Fungicidal properties. The laid flooring shall confirm the fire rating B1 class as per EN 13501-1. The floor finish should terminate at the room perimeter passing over a concealed cove former and continuing up the wall for 100mm. The joints in the flooring should be sealed by using a PVC welding bar of matching colour to be supplied by the manufacturer, using a hot air gun for fusion of welding bar with flooring.	100.00	Sq.m.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9.25	NDSR	Providing and laying Matt finish or Rustic finish tiles (FT range Forever range of Orient Bell or equivalent) in different sizes (thickness to be specified by the manufacturer) with water absorption less than 3% of approved make, in all colours and shades,, complete in all respect & as directed by Engineer in charge.						
9.25.1	a.	For Flooring with preferred size of 600x600mm laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc.	200.00	sqm				
9.25.2	b.	For Skirting /dado lwith preferred size of 300x450mm laid on 12mm thick cement mortar 1:3 (1 cement : 3 coarse sand), including grouting the joints with white cement and matching pigments etc.	20.00	sqm				
9.25.3	Derived from item 22.14	Providing & laying Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in floor for grading levels of required thickness complete as directed by Engineer-incharge	130.00	cum				
		FLOORING SUB HEAD TOTAL						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
10.0		ROOFING						
10.1	12.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.						
	12.1.2	0.80 mm thick with zinc coating not less than 275 gm/m ²	50.00	Sqm.				
10.2	12.2	Extra for straight cutting in C.G.S. sheet roofing for making opening of area exceeding 40 sq. decimeter for chimney stacks, sky light etc. :						
	12.2.2	0.80 mm thick	25.00	Metre				
10.3	12.4	Providing ridges or hips of width 60 cm overall width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete.						
	12.4.1	0.80 mm thick with zinc coating not less than 275 gm/m ²	30.00	Metre				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
10.4	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :						
	12.21.1	In 75x75mm deep chase	50.00	metre				
10.5	12.34	Providing fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Fibre glass wool conforming to IS : 8183, density 24kg / m ³ , 50mm thick, wrapped in 200 G Virgin Polythene bags, fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5 mm x 24 gauge wire mesh, for top most ceiling of building.	1670.00	Sqm.				
10.6	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	30.00	each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
10.7	NDSR	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type-A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion, Single socketed pipes (working pressure 4 kg/sqcm) including all fittings, clamps, bend, shoe etc required complete and as directed by Engineer-in-charge.						
10.7.1		110 mm diameter	60.00	metre				
10.7.2		160 mm diameter	235.00	metre				
10.8	NDSR	Supply, Fabrication, Erection & Installation of Dome type/Pyramid type/Sloping type roofing structure / Skylight made with MS Hollow Sections Frame work with one coat of Zinc Chromater primer & two coats of Enamel Paint as per IS standards alongwith coloured Multi-cell Polycarbonate Sheets of 16mm Thk of approved colour & design as per technical specifications. The installation is inclusive of Multi-cell Rib support structure with ultra-violet protection coating with tight spacing between the ribs, fabrication, shop drawing, structure design etc complete as per the instruction of Enginner-in-Incharge. (Steel for the structure shall be paid seperately in the relevant item of structural steel works)	36.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
10.9	12.55	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 Cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner.	1600.00	sqm				
		ROOFING SUB HEAD TOTAL						
11.0		FINISHING						
11.1		PLASTERING AND POINTING						
	13.1	12 mm cement plaster of mix						
	13.1.2	1:6 (1 cement: 6 fine sand)	3000.00	sqm				
11.2	13.2	15 mm cement plaster on the rough side of single or half brick wall of mix :						
	13.2.2	1:6 (1 cement: 6 fine sand)	4000.00	sqm				
11.3	13.7	12 mm cement plaster finished with a floating coat of neat cement of mix :						
	13.7.2	1:4 (1 cement: 4 fine sand)	100.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
11.4	13.11	18mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand)	3025.00	sqm				
11.5	13.16	6 mm cement plaster of mix :						
	13.16.1	1:3 (1 cement : 3 fine sand)	5000.00	sqm				
11.6	13.21	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	300.00	Per bag of 50 kg cement used in the mix.				
11.7	13.22	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	825.00	sqm				
11.8	13.23	Extra for plastering on circular work not exceeding 6 m in radius:						
	13.23.1	In one coat	50.00	sqm				
11.9	13.24	Extra for plastering done on moulding, cornices or architraves including neat finish to line and level :						
	13.24.2	In two coats	25.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
11.10	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	5000.00	sqm				
		FINISHING WORK						
11.11	13.41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :						
	13.41.1	New work (two or more coats) over and including water tinnable priming coat with cement primer	50.00	sqm				
11.12	13.44	Finishing walls with water proofing cement paint of required shade :						
	13.44.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	2525.00	sqm				
11.13	13.45	Finishing walls with textured exterior paint of required shade :						
	13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/ 10 sqm	500.00	sqm				
11.14	13.47	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade :						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	13.47.1	New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	500.00	sqm				
11.15	Modified 13.52	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, <u>base coats</u> etc. complete.						
11.15.1	13.52.1	On steel work	3350.00	sqm				
11.15.2	13.52.2	On concrete & <u>Brick work / Other masonry surfaces</u>	1000.00	sqm				
11.16	13.55	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture, over and including a priming of ready mixed zinc chromate yellow primer on new work :						
11.16.1	13.55.1	100 mm diameter pipes	60.00	meter				
11.16.2	13.55.2	150 mm diameter pipes	235.00	meter				
11.17	13.68	French spirit polishing						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	13.68.1	Two or more coats on new works including a coat of wood filler.	175.00	sqm				
11.18	14.70	Melamine polishing on wood work (one or more coat)	50.00	sqm				
11.19	Derived from 13.45	Finishing walls with textured interior paint of required shade and approved make in design as directed by Engineer-in charge :						
11.20	Derived from 13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of interior primer applied @ 2.20kg/10 sqm	200.00	sqm				
11.21		DUCO PAINT:						
	NSR	Providing and Applying DUCO paint of approved shade as per Manufacturers specifications. The surface of the wall shall be scrapped including filling with carpage, smooth and in line, level & plumb with POP and to receive one coat of Duco primer and two coats of Duco lambi, water cutting with one coat of spray with additional touch ups and final two coats of Duco paint etc complete as per manufacturers specifications and as directed by Engineer-in-charge.	50.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
11.22	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	300.00	sqm				
11.23	13.83	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.						
	13.83.2	Two coats.	7460.00	sqm				
11.24	NDSR	Providing & laying Anti-bacterial/Anti-fungal paint having Low VOC on interior wall on new surface with two or more coats of desired shade & approved make as per manufacturers, specifications . The item rate to be inclusive of filling cracks & holes etc with approved make. Acrylic wall putty/Crack seal compound etc complete in all respect as per direction of Engineer in charge.	3250.00	sqm				
11.25	13.84	Painting with synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		achieve even shade and colour.						
	13.84.2	Two coats.	450.00	sqm				
11.26	13.85	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.						
	13.85.2	With ready mixed red oxide zinc chromatic on steel / iron works having VOC content less than 250 grams/ litre	450.00	sqm				
		FINISHING SUB HEAD TOTAL						
12.0		ROAD WORK						
12.1	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	1320	Sqm				
12.2	16.2	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	262	Cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
12.3	16.3	Supply and stacking at site						
12.3.1	16.3.1	90mm to 45mm size stone aggregate.	132	Cum				
12.3.2	16.3.2	63mm to 45mm size stone aggregate.	262	Cum				
12.3.3	16.3.6	Stone screening 13.2 mm nominal size (Type A)	46	Cum				
12.3.4	16.3.7	Stone screening 11.2 mm nominal size (Type B)	35	Cum				
12.3.5	16.3.10	Moorum	35	Cum				
12.4	16.4	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	395.00	Cum				
12.5	16.11	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	20.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
12.6	16.45	Providing and fixing in position pre-moulded joint filler in expansion joints.	4500.00	per cm depth per cm width per m length				
12.7	16.46	Providing and laying in position bitumen hot sealing compound for expansion joints etc.						
	16.46.1	Using grade 'A' sealing compound. per cm	2290.00	depth per cm width per m length				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
12.8	16.91	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc. complete as per manufacturer's specifications & direction of Engineer-in-Charge. 60mm thick C.C. paver block of M-35 grade with approved colour, design & pattern.	600.00	Sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
12.9	16.69	Providing and laying at or near ground level factory made kerb stone of M- 25 grade 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).	45.00	Cum				
12.10	16.75	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-incharge. (The panel shuttering work shall be aid for separately).						
		(Note:- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately).	400.00	Cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
12.11	NDSR	Providing and fixing steel formwork with sturdy MS channel including removal of formwork for RCC road work etc complete.	240	sqm.				
12.12	19.6	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :						
12.12.1	19.6.1	100 mm dia. R.C.C. pipe	375.00	metre				
12.12.2	19.6.2	150 mm dia. R.C.C. pipe	50.00	metre				
12.12.3	19.6.3	250 mm dia. R.C.C. pipe	50.00	metre				
12.12.4	19.6.4	300 mm dia. R.C.C. pipe	50.00	metre				
12.12.5	19.6.5	450 mm dia. R.C.C. pipe	30.00	metre				
		ROAD SUB HEAD TOTAL						
13.0		WATER PROOFING						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
13.1	NDSR	Providing water proofing treatment by chemical injection grout process on horizontal surfaces like rafts & other similar locations using 25mm dia . G.I nozzles , minimum 1/4th thickness of raft 40mm(long) whichever is more, inside the raft fixed @ 1.5m c/c in both the directions. The inunction grout which consist of injection cement slurries of different viscosities & expansive plasticizing agent (a non-shrinkage compensating grout) Flowable 50 or equivalent is to be pumped in to the nozzles under pressure with a pump . The nozzles to be sealed off after the injection operation with suitable admixture. Providing & applying two coats of two component based elastomeric, cementitious coating Master Seal 551 or equivalent taking care that the subsequent coat is applied when the previous coat is touch dry, 20mm cement plaster of mix 1:4 (1 cement :4 coarse sand) mixed with liquid waterproofing admixture MasterPal 707 or equivalent & finally embedding with 12mm size stone aggregate @ 8cudm per sqm complete as per manufacturer's specifications & as directed. (Work to be got executed through a specialized agency and covered by a 10 years guarantee by the main contractor.)	180.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
13.2	NDSR	Providing water proofing treatment by chemical injection grout process on vertical surfaces like walls & other similar locations using 25mm dia . M.S nozzles , minimum 1/4th thickness of wall or 40mm(long) whichever is more inside the walls fixed @ 1.5m c/c in both the directions and @ 0.75 m c/c along construction joints. The injection grout which consist of injection cement slurries of different viscosities & expansive plasticizing agent (a non shrinkage compensating grout)Flowcable 50 or equivalent is to be pumped in to the nozzles under pressure with a pump . The nozzles to be sealed off after the injection operation with suitable admixture. Providing & applying two coats of two component based elastomeric, cementitious coating Master Seal 551 or equivalent taking care that the subsequent coat is applied when the previous coat is touch dry , 20mm cement plaster of mix 1:4 (1 cement :4 coarse sand) mixed with liquid waterproofing admixture MasterPal 707 or equivalent complete as per manufacturer's specifications & as directed.(Work to be got executed through a specialized agency and covered by a 10 years guarantee by the main contractor.)	150.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
13.3	22.4	Providing and placing in position suitable PVC water stops conforming to IS:12200 between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc complete.						
	22.4.1	Serrated with central bulb (225mm wide, 8-11mm thick)	200.00	metre				
13.4	22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	620.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
13.5	22.7	Providing and laying integral cement based water proofing treatment 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 300 mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm 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.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/sqm of cement admixed 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 3 mm 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 Engineerin- in-Charge :						
	22.7.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	1825.00	Sqm				
13.6	NSR	Providing and laying broken Bricks in sunken portion of W.C. & kitchen. These broken Block mixed with cement mortar 1:8 (1 cement : 8 coarse sand) laid and compacted properly including supply of labour, material, and tools and plant etc. as per instruction of Engineer-in-charge.	15.00	cum				
		WATER PROOFING SUB HEAD TOTAL						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
14.0		STRUCTURAL GLAZING AND ALUMINIUM COMPOSITE PANEL						
14.1	26.1	Providing and supplying aluminum extruded tubular and other aluminum sections as per the architectural drawings and approved shop drawings, the aluminum quality as per grade 6063 T5 or T6 as per BS 1474, including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).	21000.00	kg				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
14.2	26.2	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must pass the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum extruded tubular sections and other aluminum sections as per Architectural drawing for fixing glazing panels of various thicknesses, aluminum cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)- cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalization & drainage and protection against fire hazard including:						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminum alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon separator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.						
		c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment , including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.						
		d) Providing and fixing in position flashings of solid aluminum sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with structural glazing to make it watertight.						
		e) Making provision for drainage of						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminum grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, duly approved by Engineer-in charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		the Engineer-in-Charge.						
		Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this subhead. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves) on the external face shall be measured in sqm. up to two decimal places.						
		Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately. The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		1. Performance Laboratory Test for Air Leakage Test (-50pa to – 300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr” 2. Static Water Penetration Test. (50pa to 1500pa) as per ASTM E- 331- 09 testing method for a range up to 2000 ml.” 3. Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01- 05 testing method for a range upto 2000 ml” 4. Structural Performance Deflection and deformation by static air pressure test (1.5 times desing wind pressure without any failure) as per ASTM E- 330-10 testing method for a range upto 50 mm” 5. Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test” Tests to be conducted on site 6. Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000ml”	2475.00	Sqm.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
14.3	26.3	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12-6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthned clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.26.2). For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.	2475.00	Sqm.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement. Base frame work including aluminium tubular frames, sections etc as per structural design requirements for Double glazing is payable under item no 26.2						
14.4	26.4	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineerin-Charge.	155.00	Sqm.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
14.5	26.7	Designing, fabricating, testing, installing and fixing in position Curtain wall with Aluminum Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including: a) Structural analysis & design and preparation of shop drawings for pressure equalization or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. b) Providing, fabricating and supplying and fixing panels of aluminum composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminum composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminum sheets (each 0.5mm thick). The aluminum composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.						
		c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest	1200.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing. The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
14.6	26.8	Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof. The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc. all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured. "	70.00	sqm				
14.7	NDSR	Designing, Supply & fixing of Storm Resistant Rain Defence Performance Double Bank Louvers made up of Aluminium Extrusion of 6063 T6 alloy tested by AMCA/BSRIA to maintain the pressure drop below 8 mm and the airflow co-efficient should be not more than 0.28 to provide good airflow and excellent Rain defense of Class A. The panel size should be not less than 1200mm * 1200mm and should sustain the wind pressure of 2.0 Kpa. The Elevation should be continuous line with Powder coating finish to stand a warranty of 20 years.	350	Sq.m.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
14.8	NDSR	Designing, Supply & fixing of Airfoil Projection (Elevational cantilever projection) comprising of 50mm wide Aluminium hollow circular or square pipes and for an Projection of 1000 mm, module with interconnecting 4 blades of requisite pitch as per design and blade supporting span of maximum 1800 mm to sustain a wind loading of 2.0 Kpa. The blade thickness to be minimum of 2 mm to sustain the wind load with Aluminium outrigger peripheral frame of 6 mm thickness & width of 75 mm. The coating to be in high end Powder coat as per the architectural intent and with warranty of minimum 5 years. The rate shall be inclusive of proper anchorage to the external walls / ACP or structural glazing framework including anchor fasteners, fixtures, hardware, fittings etc complete. The measurements for this items shall be considered as running metre length X total projection upto the outermost point.	130	Sq.m.				
		STRUCTURAL GLAZING AND ALUMINIUM COMPOSITE PANEL SUB HEAD TOTAL						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
15.0		DISMANTLING & DEMOLISHING						
15.1	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	5.00	Cum				
15.2	15.4	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.	20.00	Cum				
15.3	15.5	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer -in -charge.	100.00	sqm				
15.4	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.						
	15.7.4	In cement mortar	10.00	Cum				
15.5	15.12	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		lead :						
15.5.1	15.12.1	Of area 3 sq. metres and below	5.00	each				
15.5.2	15.12.2	Of area beyond 3 sq. metres	3.00	each				
15.6	15.14	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead						
	15.14.2	Of sectional area below 40 square centimetres	10.00	metre				
15.7	15.17.2	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in Channels, angles, tees and flats	500.00	Kgs				
15.8	15.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	500.00	Kgs				
15.9	15.20	Extra for dismantling trusses, rafters, purlins etc. of steel work for every additional span of one metre or part thereof beyond 10 metres	500.00	Kg per metre span				
15.10	15.23.1	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead - For thickness of tiles 10 mm to 25 mm	100.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
15.11	15.28	Dismantling roofing including ridges, hips, valleys and gutters etc, and stacking the material within 50 metres lead of						
15.11.1	15.28.1	G.S.Sheet	50.00	sqm				
15.11.2	15.28.2	Asbestos sheet	50.00	sqm				
15.12	15.36	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.	50.00	Kgs				
15.13	15.42	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead						
15.13.1	15.42.1	75 to 80 mm dia pipe	100.00	metres				
15.13.2	15.42.2	100 mm dia pipe	100.00	metres				
15.14	15.43	Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge						
15.14.1	15.43.1	Water bound macadam road	630.00	sqm				
15.14.2	15.43.2	bituminous road	630.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
15.15	15.44.1	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge - 15 mm to 40 mm nominal bore	50.00	metres				
15.16	15.45.1	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge - Up to 150 mm diameter	20.00	metres				
15.17	15.48	Taking out C.I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable aterials within 50 metres lead as per direction of Engineer-in-charge.	8.00	each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
15.18	15.49	Taking out C.I. cover with frame from R.C.C. top slab of inspection chambers of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.	25.00	each				
15.19	15.51	Dismantling of road gully chamber of various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead including refilling the excavated gap.	10.00	each				
15.20	15.54	Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead.	20.00	each				
15.21	15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	50.00	sqm				
15.22	15.59	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.	5.00	Cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
15.23	15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	100.00	Cum				
		DISMANTLING & DEMOLISHING SUB HEAD TOTAL						
16.0		MISCELLANEOUS & REPAIR WORKS						
16.1	NDSR	POLYMER MODIFIED CEMENTATIOUS MORTAR/CONCRETE						
		Carefully breaking & removing the existing damaged / corroded R.C.C. Columns, beam, slabs, chajjas, paradis, fins etc including disposal & cating away of the debris, cleaning etc in the patches or long stretches by means of light chisel upto 50mm depth, upto the level of reinforcement without damaging brickwork or plaster in the vicinity, including supplying, providing & errecting in position the necessary scaffolding, cleaning, disposing of debris etc complete & Providing and applying polymer modified cementatious mortar treatment upto 50 mm thk. comprising of following operations:						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		a) Reinforcement treatment coat						
		# Scrapping reinforcement with wire brush and cleaning the same from all sides by light tapping, wire brushing and emery paper.						
		# applying Rust passivator / Rusticidal chemicals in one or more coats as directed as per manufacturers specification, washing with water.						
		b) Bond coat						
		# Providing & applying approved Polymer and Cement (1:1.25) to exposed steel bars in two coats as per manufacturer's specifications and brushable consistency for bonding old and new concrete surfaces.						
		Providing and applying bonding coat of approved Polymer and Cement (1: 1.25) to the entire concrete surface.						
		c) Mortar application						
		Applying Polymer modified mortar/concrete treatment as per manufacturer's specifications in layers of thickness not exceeding 20 mm (applying bonding coat at every layer) upto profile of concrete in the vicinity by applying Hand pack Polymer Modified Mortar by mixing 1 part by weight of "POLMER with 5 parts by weight of cement and 15 parts by weight of well graded sand and water to achieve the desired consistency [Sand Grading IS383, Zone II, Silt content						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		<6%]						
		Including curing, scaffolding, cleaning etc. complete						
		Note:						
		If the depth of polymer modified mortar/concrete exceeds 50 mm, then quantity shall be paid by considering multiplication factor = (actual depth) / 50mm for additional thickness.						
		At a time apply mortar layer not more than 20 mm thick. The mortar should be prepared using mechanical mixers / stirrers & should be well compacted and finished using appropriate methods. The rate to include for necessary compaction with mechanical plate vibrator etc. complete to the satisfaction of the EIC.	50	Sq.m.				
16.2	NDSR	CRACK FILLING WITH PMCM Carefully removing the existing plaster / mortar / loose concrete, chasing the cracks, including supplying, providing & erecting in position the necessary scaffolding, disposal & cating away of the debris, cleaning etc & sealing the separation cracks between R.C.C. and brickwork by raking, opening the cracks by electrically operating groove cutter as directed, insertion of 20 mm downgraded aggregates by hammering as per the instructions of the Engineer in charge,	75	Metres				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		sealing with polymer modified cementitious mortar (25mm width x 25mm depth) as per the specification of item of polymer modified cementitious mortar/concrete, application of chicken mesh (200mm wide, 200mm overlapping length) along the crack by 'U' nails spaced at 300 mm c/c, including necessary washing with water, curing, cleaning etc. complete						
16.3	NDSR	INTEGRAL CORROSION INHIBITING ADMIXTURE FOR RCC MEMBERS						
		Providing and laying R.C.C. of designed grade at all heights and levels on well compacted/sound surfaces using a mechanical mixer including dewatering, shuttering, vibrating, curing and finishing as required. Admix integral corrosion inhibitor POLYALK CP293 or equivalent @ 1% by weight of cement. The rate to include for storage, handling, transportation of materials, equipments etc using appropriate methods etc. complete.	250	Kgs				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
16.4	NDSR	Providing and fixing Tor steel dowel pins / staples / shear pins including drilling holes in concrete and providing and fixing in position pins as per the directions and instructions of Engineer in charge. (This item of work shall involve inserting mechanical key of 8 to 12mm diameter tor steel rebars and anchoring the same into the existing hard concrete upto the depth of minimum 150 mm and fixing in position the steel rebars by expoxy resin mortar)	210	Nos				
16.5	NDSR	Providing and repairing the damaged core portion of RCC elements such as Columns & beams using superfluid micro-concrete including mixing, transporting, placing, compacting, curing etc complete but excluding the cost of reinforcement and formwork which shall be paid for seperately under the relevant item. (Payment on the basis of actual consumption of Micro-concrete)	250	Kgs				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
16.6	NDSR	GROUTING						
		Drilling the holes upto 12mm dia and depth upto 30mm inside the damaged or honey-combed concrete area at spacing as instructed by the Engineer in charge including cleaning the holes by blast of air or by jet of water. Inserting the PVC nipples into pre-drilled holes and seal peripherally by approved Sealant as per manufacturer's specifications. After 24, hours, injecting the polymer based stopper cementaceous slurry mix in the proportion ratio as 1 kg polymer :3 kgs cement :2 litres of water and into the nipples at a pressure of 2 kg/sq cm using gum pumps of capacity not less than 30 PSI. After two days of curing, cutting the nipples and sealing with Polymer modified mortar as per specifications of item of polymer modified cementitious mortar/concrete.	210	Nos				
16.7	NDSR	Column / Beam pre-wrap surface preparation by providing and applying average upto 25mm thick reinforced Thixotropic Mortar over the un-even RCC element surface including bonding coat, grinding the surface to make the corners round, covings, making the surface evenly smooth etc as per Manufacturer's specifications. (Measurement on the basis of finished area)	25	Sq.m.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
16.8	NDSR	Strengthening structural elements with non-metallic composite fiber wrapping system comprise of glass fiber sheet and compatible saturant, by dry/wet layup system including, Surface preparation such as : - Grinding/ moulding concrete substrate, cleaning it with wire brush removing oil, laitance if present, rounding sharp edges to min 25 mm radius etc complete. Profiling: Applying compatible primer on prepared substrate, Filling the holes and uneven surface with thixotropic putty etc including complete Wrapping: Wrapping the fiber sheet to structural element at desired orientation using tamping roller to avoid any air voids etc. Repeat the same procedure for multiple layer with the interval of 8 hrs. Sand pasting: Applying second coat of saturant after min. 12 hrs, rectify air voids if any paste the river sand on it to make surface rough to take any further finishes (Mode Of Measurement- Fiber Area of Application & not Surface Area).	10	Sq. m.				
		Providing and applying single layers uni-direction E-glass fibre wrapping (900 gsm) over the existing RCC member as per design / instruction of Engineer in charge including primer application, saturated coating using roller and stamping brushes. (Measurement on the basis of actual area of fibre cut prior to wrapping).						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
16.9	NDSR	Providing and fixing Carbon fibre shear Anchors at the specified locations as per design / instruction of Engineer in charge. (Measurement on the basis of actual no. installed)	55	Nos				
		MISCELLANEOUS & REPAIR WORKS SUB HEAD TOTAL						
17.0		HORTICULTURE & LANDSCAPING						
17.1	23.1	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	500.00	cum				
17.2	23.2	Supplying and stacking of good earth at site including royalty and carriage upto 1 Km (Earth measured in stacks will be reduced by 20% for payment)	500.00	cum				
17.3	23.3	Supplying and stacking sludge at site including royalty and carriage upto 1 Km (sludge measured in stacks will be reduced	125.00	cum				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		by 8% for payment)						
17.4	23.4	Supplying and stacking at site dump manure from approved source, including carriage upto 1 km (manure measured in stacks will be reduced by 8% for payment).						
	23.4.1	Screened through sieve of I.S. designation 20mm	125.00	cum				
17.5	23.8	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Officer-in-charge (Cost of sludge, dump manure and / or good earth to be paid separately)	1250.00	cum				
17.6	23.10	Grassing with selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the good earth shall be paid for separately).						
		In rows 5cm apart in both direction	15.00	100 sqm				
17.7	NDSR	Grassing with "mexican grass" including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supply of good earth if needed in	150.00	sqm				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		rows 5 cm apart in either directions.						
17.8	23.13	Preparation of beds for hedging and shrubbery by excavating 60cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flodding with water , filling with earth if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed , within a lead of 50m lift upto 1.5m complete (cost of sludge, manure or extra earth to be paid for separately).	250.00	cum				
17.9	23.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately).						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
17.9.1	23.14.1	Holes 1.2m dia. and 1.2m deep	110.00	each				
17.9.2	23.14.3	Holes 60cm dia. and 60cm deep	1500.00	each				
17.10	NDSR	Providing following Plants in the premises						
		Providing, supplying & erection of plants, shrubs, trees, topiary, ground covers etc on site with all necessary supports, pots, watering etc. complete as per the direction of site in charge						
17.10.1	Ht in ft.	Palm						
17.10.1.1	8'-10'	Cycas palm (with 20-30 leaves, leaf length about 20")	6	nos.				
17.10.1.2	1'-1.5'	Phoenix Palm (strong clear stem)	8	nos.				
17.10.1.3	8'-10'	Bottle Palm (with 2 rings at botton and girth more than 15")	15	nos.				
17.10.2		Topiary						
17.10.2.1	6'-7'	Golden Bottle Brush (5 to 6 balls)	5	nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
17.10.2. 2	6'-7'	Ficus Benjamina (6 to 8 balls)	8	nos.				
17.10.3		Ground Covers						
17.10.3. 1	4"-6"	Golden Duranta	50	nos.				
17.10.3. 2	4"-6"	Lalsag	50	nos.				
17.10.3. 3	4"-6"	Alternanthera	50	nos.				
17.10.3. 4	4"-6"	Badelia	50	nos.				
17.10.3. 5	4"-6"	Laltana	50	nos.				
17.10.3. 6	4"-6"	Verbena	50	nos.				
17.10.3. 7	4"-6"	Asparagus	50	nos.				
17.10.3. 8	4"-6"	Tradescantia	50	nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
17.10.3. 9	4"-6"	Syngonium	50	nos.				
17.10.3. 10	4"-6"	Satcreasia	50	nos.				
17.10.3. 11	4"-6"	Russelia Juncea	50	nos.				
17.10.3. 12	4"-6"	Zed (Succlent)	50	nos.				
17.10.3. 13	4"-6"	Ribbon Grass (Varigated)	50	nos.				
17.10.3. 14	4"-6"	Lavengera	50	nos.				
17.10.4	Ht in ft.	List of Ornamental Trees:						
17.10.4. 1	6'-7'	Ficus Benjamina	5	Each				
17.10.4. 2	7'-8'	P. Alba / Rubra	5	Each				
17.10.4.	7'-8'	Bottle Brush	5	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3								
17.10.5	Ht in ft.	List of Trees: (3" to 4" clear single stem)						
17.10.5. 1	5'-6'	Jacaranda Mimosifolia	10	Each				
17.10.5. 2	5'-6'	Gravillea Robusta	10	Each				
17.10.5. 3	5'-6'	Bauhinia Variety	10	Each				
17.10.5. 4	5'-6'	Neem	10	Each				
17.10.5. 5	5'-6'	Belpatra	10	Each				
17.10.5. 6	5'-6'	Amaltas	10	Each				
17.10.5. 7	5'-6'	Putranjiva	10	Each				
17.10.6		Big Trees: (Girth 3" to 4", clear single stem)						
17.10.6.	5'-6'	Bargad	2	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1								
17.10.6. 2	5'-6'	Peepal	2	Each				
17.10.6. 3	5'-6'	Gulmohar	10	Each				
17.10.6. 4	5'-6'	Ficus Infectoria	10	Each				
17.10.6. 5	5'-6'	Cadamb	6	Each				
17.10.6. 6	5'-6'	Erthrina Indica	6	Each				
17.10.6. 7	5'-6'	Alastonia	10	Each				
17.10.7		Shrubs :						
17.10.7. 1	3'-4'	Hamelia	10	Each				
17.10.7. 2	3'-4'	Tecoma	10	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
17.10.7. 3	3'-4'	Plumbago	10	Each				
17.10.7. 4	3'-4'	Hibiscus	10	Each				
17.10.7. 5	3'-4'	Lagerstroemia Indica	10	Each				
17.10.7. 6	3'-4'	Jatropha	10	Each				
17.10.7. 7	3'-4'	Tabernaemontana Coronaria	10	Each				
17.10.7. 8	3'-4'	Murraya exotica	10	Each				
17.10.7. 9	3'-4'	Ficus Panda	10	Each				
17.10.7. 10	3'-4'	Lantana	10	Each				
17.10.7. 11	3'-4'	Putranjiva	10	Each				
17.10.7. 12	3'-4'	Acalypha	10	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
17.10.7. 13	3'-4'	Iphonbia	10	Each				
17.10.8		HEDGES						
17.10.8. 1	1'-1.5'	C. Inerma	300	Each				
17.10.8. 2	1'-1.5'	Duranta	300	Each				
		HORTICULTURE & LANDSCAPING SUB HEAD TOTAL						
		TOTAL						

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18		PARTITIONS , PANELLING & FALSECEILING						
		<u>PARTITIONS :</u>						
		-						
18.1		<u>GLAZED PARTITION</u>						
	NSR	Providing and erecting in position full height fully glazed partition in curvature with 12mm thk bent glass in any shape fixed including patch fittings and SS floor channels including frosted film of approved make, shade & design on the glass. All damages to the floor work to be reinstated without any extra cost including the cost of other fittings & fixtures & hardware etc complete, necessary holes, joints to be sealed with silicone sealant on all sides complete in all respects etc as per directions of Engineer-in-charge.	10	Sqm.				
18.2	NSR	<u>FULLY GLAZED PARTITION:</u> - Providing and erecting in position full height fully glazed partiton in 12mm thk. toughened glass fixed on patch fittings including top patch fitting, bottom patch fitting for glass to glass contacts including frosted film of approved make, shade & design on the glass except door shutters which shall be paid seperately in the relevant of glass door. All damages to the floor work to be reinstated without any extra cost including the cost of other	1200	Sqm.				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		fittings & fixtures & hardware such as spider panels, glass to glass contactors etc complete, necessary holes, joints to be sealed with silicone sealant on all sides complete in all respects etc as per directions of Engineer-in-charge.						
18.3	9.105	<u>GYPSUM BOARD PARTITION: -</u>						
		Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120gms/sqm(both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm diameter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts,						

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre.						
		The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.						
18.3.1	9.105.1	75 mm overall thickness partition with 12.5 mm thick double skin fire rated board conforming to IS: 2095: part I	100	Sqm.				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.3.2	NSR	Extra over and above item no 9.105.1 for providing and fixing 12mm prelaminate particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, instead of 12.5 mm thick Gypsum board complete in all respect & as Directed by Engineer-in-charge	50	Sqm.				
		-						
18.4	NSR	Providing and fixing in position P.C.G.I. Wall Panels - Modular Wall Panels Made Up Of 0.8 mm GPSP GI Sheet with epoxy polyester powder coating & Insulation of PUF with density 40±2 Kg /M3 Overall thickness of the panel will be 80 mm .or approved equivalent including making cutouts / suitable factory made cutouts for providing necessary fixtures , grills, socket, outlets ,ducts, sensors , pendants, utilities ,components etc., complete as directed by Engineer in Charge	600	Sqm				
18.5	NSR	Providing and fixing in position P.C.G.I. Non Walkable Ceiling Panels Modular Wall Panels Made Up Of 0.8 mm GPSP GI Sheet on both side with epoxy polyester powder coating & Insulation of PUF with density 40±2 Kg /M3 overall thickness will be 44 mm .Panel designed to fit within each other with Self-Supported or approved equivalent etc., complete as directed by Engineer in Charge	200	Sqm				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.6	NSR	Providing and fixing in position P.C.G.I. Riser Panels Pre- fabricated insulated sandwich panels with 0.8 mm GPSP GI Sheet on both side with epoxy polyester powder coating and overall thickness Will be 80 mm with inbuilt riser duct along with perforated grill/Damper & filters or approved equivalent etc., complete as directed by Engineer in Charge	5	Sqm				
18.7	NSR	Providing and fixing in position P.C.G.I. Glazed Panels Flushed view panel with 5mm thick toughened glass of below sizes 900*1100mm or approved equivalent etc., complete as directed by Engineer in Charge	15	Sqm				
18.8	NSR	Providing and fixing in position Aluminum Coving with radius 50 mm with fastening arrangement or approved equivalent etc., complete as directed by Engineer in Charge	450	RMT				
18.9	NSR	Providing and fixing in position Aluminium Coving corner 3D & 2D or approved equivalent etc., complete as directed by Engineer in Charge	150	Nos				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.10	NSR	Clean Room Door- Providing and fixing in position Door fit to flush into the wall panels. Shutter sheet thickness will be 0.8mm and Frame will be 1.2mm thick made up of GPSP GI sheet with epoxy polyester powder coating.Leaf thickness will be 44mm and infill will be PUF with density 40±2 Kg /M3 or approved equivalent along with all necessary accessories etc., complete as directed by Engineer in Charge . The rate quoted shall be inclusive of all accessories like SS Ball bearing hinges,D handel single side, One side push plate, Door closer, SS Kick plate 0.8mm thick upto 300mm one side, Drop Seal, Door Seal, Door Stopper, Dead Lock with both side key operation Flush bolt for Double Leaf door Panic Bar With PHT Lock (in emergency Door) Double glazed Toughened glass of size 400*800mm and thickness not less than 4mm .						
18.10.1		Single leaf door 900*2100mm	22.7	sqm				
18.10.2		Single leaf Emergency door 900*2100mm including with panic bar with PHT Lock	1.9	sqm				
18.10.3		Double leaf door 1500*2100mm	25.2	sqm				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.11	9.156	Providing and fixing Pre -laminated medium density fibre board exterior grade (Grade-I) IS:14587:1998 marked, to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately)						
	9.156.1	Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick confirming to IS:14587	100	sqm				
18.12	21.10	Providing and fixing aluminium work for doors, windows, ventilators and partitions / Wall panelling with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing,paneling and dash fasteners to be paid for separately						
18.12.1	21.1.1	For fixed portion						

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	21.1.1.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	2200	kg				
18.13	21.2	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge						
	21.2.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	310	Sqm.				
18.14	NSR	Finished with soft board made out of 12 mm thk soft board on top covered with fabric. All around the board, teak wood mouldings shall be provided and shall be finished with melamine polish complete as per the detail drawing & as per the instructions of Engineer-in-charge.(Basic Price of fabric is Rs.250/- meter).	10	Sqm.				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.15	NSR	Finished with approved fabric over all around the panelling, decorative teak wood mouldings shall be provided and shall be finished with melamine polish complete as per the detail drawing & as per the instructions of Engineer-in-charge.(Basic Price of fabric Rs.300/- meter).	5	Sqm.				
18.16	NSR	Providing and fixing 5.5 mm thick broken glass sandwithed between 5.5 mm thick plain glass from both side and shall be sealed hermetically by approved sealant. The broken glass shall be fixed in second class teak wood frame. The frame shall be polished with melamine polish of approved shade as texture as directed by Engineer-in-charge. The wooden frame work shall be paid seperately in relevent item.	2	Sqm.				
		<u>FALSE CEILING: -</u>						
		-						

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.17	12.45	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction,						

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long drywall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of drywall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : .						
	12.45.3	12.5 mm thick tapered edge gypsum moisture resistant board.	300	Sqm				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.18	NSR	Extra for above items for necessary designs & patterns in curvature, paragon, sloping, domes of any type, oval, domes with fins on all sides, reverse curves & elliptical shaped etc including the necessary provisions of coved lighting scheme, necessary frame work and supporting arrangement etc complete as per the designs, drawings and instructions of the Engineer-in-charge. No extra amount on account of any shape or design shall be entertained and the quoted rate shall be inclusive of all such designs & shapes including finishing.	60	Sqm.				
18.19		Providing and fixing Armstrong or approved equivalent make of approximately 600 X 600mm Mineral fiber board panel false ceiling and making cut-outs for electrical lighting fixtures, AC diffusers, openable access etc complete as per the drawings with sillhouette profile system (Black sillhouette / white sillhouette) with 15mm wide flange incorporating 6mm central recess black main runners at 1200mm centre-centre and not greater than 600mm from the adjacent wall. The cross tees shall be provided to make a module of approximately 600mm X 600mm by fitting 600 mm long cross tees centrally placed between 1200 mm long cross tees .Cross tees shall also have 15mm wide flange in incorporating 6mm central recess white/black. The module formed above						

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		shall be anchored to the slab with channels or angles, suspenders as per manufacturers specifications including the necessary joineries, painting if required etc complete as directed by Engineer-in-charge.						
18.19.1	NSR	15 mm thk. premium tile micro perforated, finely granulated surface texture Dune RH Microlook category with black silhouette locking supporting system, axiom etc complete.	2600	Sqm.				
18.19.2	NSR	19 mm thk. fine fissured high bioguard acoustic tiles with a minimum NRC of 0.7, Class A fire rating with black/white silhouette locking supporting system, axiom etc complete.	395	Sqm.				
18.20	NSR	<p>VENEER FALSE CEILING:</p> <p>Providing and erecting false ceiling in veneer with 12 mm thk commercial ply board backing on teak wood frame to be anchored to the main ceiling with cross runners tongued and grooved. The ply to be finished with approved 4mm thk veneer & melamine polish etc. complete as per directions of the Engineer-in-charge</p>	100	Sqm.				

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
18.21	NSR	ALUMINIUM PANEL FALSE CEILING :Providing and fixing Plain Aluminium Panel Ceiling of Natural satin colour consisting of panels 150mm wide x 17mm deep x 0.6mm thick, panel length up to 6 mtrs, coil coated on a continuous Paint Line, double baked and roll formed from enameled corrosion resistance Aluminium Alloy AA 3005 (Al.Mg) for higher strength and good roll forming characteristics. Panel shall be clipped to baked enameled Aluminium Panel Carrier of 34.5mm wide x 48mm deep x 0.95mm thick in standard lengths of 5 mtrs made of double baked enameled Aluminium Alloy AA 505 (Al.Mg) colour Black with cut outs to hold the panels in a module of 150mm at a distance of 1.2 mtr c/c. The panel carrier shall be mounted by means of 4 mm G.I rod at 1.2 mtr c/c. Paint Finish: Aluminium panels are chromatised & to be of perforated type for maximum bond between metal and paint, enameled twice under high temperature, one side with a full primer and finish coat in Natural satin colour (Code 7163), the other side (inner side) with a primer coating and skin coat on a Continuous Paint Line.	78	Sqm.				
18.22	NSR	Providing and making plaster of paris cornices of required size, shape and approved pattern in the ceiling including filling the gaps with POP as per instruction						

S. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		of Engineer-in-charge.						
18.22.1		75mmx75mm size	740	meter				
18.22.2		100mmx100mm size	25	meter				
		Designing, providing and installing toilet cubicles / cubicle rest room systems of approved pattern and make, made up of water and chemical resistant 12mm thick high pressure laminate (HPL) compact boards. The system shall consist of partitions, doors and related fittings and accessories. The partitions shall be held with heavy duty aluminium sections anchored to walls by mild steel wall brackets. Colour of partitions shall be as per direction of Engineer-in-charge. The vendor shall provide necessary shop drawings and get the same approved by the Engineer-in-charge before commencement of work. The item shall include the cost of all fittings, fixtures and accessories required for the cubicle system including support systems both at top and bottom all complete as per direction of Engineer-in-charge.	40	Sqm (plan area)				
		<u>TOTAL COST</u>						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
19.0		PLUMBING WORKS						
1.0		SANITARY INSTALLATIONS						
1.1	17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:						
	17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	1.00	each				
1.2	NDSR	Providing and fixing premium quality wall hung type closet including push button concealed flushing system device manually operated, solid seat cover with lid, cascade health faucet and all other fittings and fixtures complete including cuttings and making good the walls and floor wherever required. The water closet shall be of Parryware/H&R Johnson/Hindware with a basic price not be less than Rs. 15000/-.	25.00	each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.3	17.80	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	14.00	each				
1.4	NDSR	Providing and fixing of any shape over-counter wash basin including Tall Body Basin Mixer, brass waste, standard C.P. bottel trap and all other fittings and fixtures complete including cuttings and making good the walls and floor wherever required The wash basin and basin mixer shall be of Parryware/H&R Johnson/Hindware with a total basic price of not less than Rs. 18000/-.	30.00	each				
1.5	17.10	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :						
1.5.1	17.10.1	Kitchen sink with drain board						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.5.2	17.10.1.2	510x1040 mm bowl depth 225mm.	2.00	each				
1.6	17.11	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :						
	17.11.2	Size 600x450x200 mm	19.00	each				
1.7	NDSR	Providing and fixing bevelled edge mirror of any size made of superior glass of approved make complete with a backing of 6 mm thick hard board fixed to wooden cleats with 25mm dia SS studs, washers etc complete.	30.00	sqm				
1.8	17.28	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.						
	17.28.2	Flexible pipe						
	17.28.2.2	40 mm dia	51.00	each				
1.9	17.33	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	15.00	each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.10	17.34	Providing and fixing toilet paper holder :						
	17.34.1	C.P. brass	30.00	each				
1.11	17.35	Providing and fixing soil, waste and vent pipes :						
1.11.1	17.35.1	100 mm dia.						
	17.35.1.1	Sand cast iron S&S pipe as per IS: 1729	300.00	metre				
1.11.2	17.35.2	75 mm diameter						
	17.35.2.1	Sand cast iron S&S pipe as per IS: 1729	200.00	metre				
1.12	17.37	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :						
1.12.1	17.37.1	For 100 mm dia. pipe	110.00	each				
1.12.2	17.37.2	For 75 mm dia. pipe	70.00	each				
1.13	17.38	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		complete.						
1.13.1	17.38.1	100 mm dia dia						
	17.38.1.1	Sand cast iron S&S as per IS - 1729	40.00	each				
1.13.2	17.38.2	75 mm dia. pipe						
	17.38.2.1	Sand cast iron S&S as per IS - 1729	25.00	each				
1.14	17.40	Providing and fixing heel rest sanitary bend						
1.14.1	17.40.1	100 mm dia						
	17.40.1.1	Sand cast iron S&S as per IS - 1729	10.00	each				
1.14.2	17.40.2	75 mm dia						
	17.40.2.1	Sand cast iron S&S as per IS - 1729	10.00	each				
1.15	17.43	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.						
1.15.1	17.43.1	100x100x100 mm						
	17.43.1.1	Sand cast iron S&S as per IS - 1729	20.00	each				
1.15.2	17.43.2	75x75x75 mm						
	17.43.2.1	Sand cast iron S&S as per IS - 1729	20.00	each				
1.16	17.56	Providing and fixing terminal guard :						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.16.1	17.56.1	100 mm						
	17.56.1.1	Sand cast iron S&S as per IS - 1729	5.00	each				
1.16.2	17.56.2	75 mm						
	17.56.2.1	Sand cast iron S&S as per IS - 1729	5.00	each				
1.17	17.57	Providing and fixing collar:						
1.17.1	17.57.1	100 mm						
	17.57.1.1	Sand cast iron S&S as per IS - 1729	20.00	each				
1.17.2	17.57.2	75 mm						
	17.57.2.1	Sand cast iron S&S as per IS - 1729	20.00	each				
1.18	17.60	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :						
	17.60.2	100 mm inlet and 75 mm outlet						
	17.60.2.2	Sand cast iron S&S as per IS - 1729	25.00	each				
1.19	NDSR	Providing and fixing 100 mm dia weight not less than 100 gms. stainless steel jali (grating) with or without hole for waste pipe of for floor or Nahani trap	91.00	each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.20	NDSR	Providing and fixing C.P. BRASS Bottle Trap for Wash basin and sink. Bottle trap 31mm single piece moulded with height of 270mm, effective length of tail pipe 230mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal, weighing not less than 260gms.	15.00	each				
1.21	NDSR	Providing and fixing Stainless steel towel ring circular shape 200 mm size with a minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and make.	15.00	each				
1.22	NDSR	Providing and fixing CP Brass soap Dish Holder of Jaquar Continental make or equivalent of approved quality with fittings etc. complete as directed by Engineer in charge.	15.00	each				
1.23	NDSR	Providing and fixing stainless steel twin coat hook fixed with CP brass screws (Jaquar/Ess Ess/ Kohler) as per Direction of Engineer in charge	18.00	each				
1.24	NDSR	Providing & fixing C.P. health Faucet of approved quality and make of the required length of flexible pipe upto the angle cock, clamp to hold the same, fixing on the wall / Glazed tiles with S.S screws	1.00	set				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		etc complete in all respects.						
1.25	NDSR	Providing and fixing Automatic Soap Dispenser with Glass Bottle 110 mm wide,128 mm high and 132 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, as directed by Engineer in charge	11.00	each				
1.26	NDSR	Providing, checking, storing & fixing Automatic Perfume Sprayer of CERA - 6912 or equivalent, fixed to wall / door with concealed CP screws etc. complete as per direction of engineer-in-charge	11.00	each				
1.27	NDSR	Providing, checking, storing & fixing solid state, no touch operating, fully hygienic hand drier of CERA-6909 or equivalent with double blower continuous repeat usage, time delay, summer and winter control, music while drying, volume ON/OFF controls including providing necessary brackets, cable from drier to plug. Plug top key and lock etc. complete as required.	11.00	each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.28	NDSR	Providing, checking, storing & installation of basement / Ground level sump pumps for storm water / soil and waste, with suction and delivery from 80 mm to 100 mm dia pipe size, with all connections making suitable foundation and connecting to power supply provided by owner. Piping paid under respective item. (10 cum / hour - at 20 m head , 2 KW). Set of 2 pumps - 1 Working + 1 standby)	1.00	each				
2.0		WATER SUPPLY WORK						
2.1	18.9	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge.						
		(External works)						
2.1.1	18.9.3	25 mm dia nominal outer dia pipes	450.00	metre				
2.1.2	18.9.4	32mm dia nominal outer dia pipes	150.00	metre				
2.1.3	18.9.5	40mm dia nominal outer dia pipes	115.00	metre				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.1.4	18.9.6	50mm dia nominal outer dia pipes	75.00	metre				
2.1.5	18.9.7	62.50 mm dia nominal inner dia pipes	50.00	Meter				
2.1.6	18.9.8	75 mm dia nominal inner dia pipes	350.00	Meter				
2.1.7	18.9.9	100 mm dia nominal inner dia pipes	60.00	Meter				
2.1.8	18.9.10	150 mm dia nominal inner dia pipes	40.00	Meter				
2.2	18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.						
		Internal work - Exposed on wall.						
2.2.1	18.7.3	25 mm dia nominal outer dia pipes	75	Mtrs.				
2.2.2	18.7.4	32mm dia nominal outer dia pipes	125	Meter				
2.2.3	18.7.5	40mm dia nominal outer dia pipes	150	Meter				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.2.4	18.7.6	50mm dia nominal outer dia pipes	150	Meter				
2.3	18.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.						
		Concealed work, including cutting chases and making good the walls etc - <u>Concealing in Ceiling / Walls</u>						
2.3.1	18.8.1	15 mm nominal outer dia Pipes	252	metre				
2.3.2	18.8.2	20 mm nominal outer dia Pipes	270	metre				
2.3.3	18.8.3	25 mm nominal outer dia Pipes	198	metre				
2.4	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.						
		Internal work - Exposed on wall						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.4.1	18.1.1	15 mm dia nominal bore	20.00	metre				
2.4.2	18.1.2	20 mm dia nominal bore	20.00	metre				
2.4.3	18.1.3	25 mm dia nominal bore	20.00	metre				
2.5	NDSR	Making connection of CPVC distribution branch with CPVC main of following sizes by providing and fixing tee, including cutting and threading the pipe etc complete.						
		25 to 40 mm nominal bore	3	Each				
2.6	NDSR	Providing and fixing ball valve of CPVC of approved quality (screwed end)						
2.6.1	NDSR	25 mm dia nominal outer dia pipes	36	each				
2.6.2	NDSR	32mm dia nominal outer dia pipes	8	each				
2.6.3	NDSR	40mm dia nominal outer dia pipes	8	each				
2.6.4	NDSR	50mm dia nominal outer dia pipes	8	each				
2.6.5	NDSR	62.5mm dia nominal inner dia pipes	2	Each				
2.6.6	NDSR	75mm dia nominal inner dia pipes	6	Each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.7	NDSR	Providing and fixing CPVC non-return valve of approved quality (screwed end).						
2.7.1	NDSR	Horizontal 40 mm nominal bore	2	each				
2.7.2	NDSR	Veritcal 40 mm nominal bore	2	each				
2.7.3	NDSR	Horizontal 50 mm nominal bore	2	each				
2.7.4	NDSR	Veritcal 50 mm nominal bore	2	each				
2.7.5	NDSR	Horizontal 62.5mm dia nominal inner dia pipes	1	Each				
2.7.6	NDSR	Horizontal 75 mm dia nominal inner dia pipes	2	Each				
2.8	18.22	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :						
	18.22.1	100 mm diameter	1.00	each				
2.9	18.48	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	10000.00	per litre				
		storage tank, ISI : 12701 marked, with cover and suitable locking						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.10	18.49	arrangement and making necessary holes for inlet, outlet and overflow						
	18.49.1	pipes but without fittings and the base support for tank.	35.00	each				
2.11	18.51	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.						
	18.51.1	15 mm nominal bore	2.00	each				
2.12	18.52	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.						
	18.52.1	15 mm nominal bore.	2.00	each				
2.13	18.53	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore						
	18.53.1	15 mm nominal bore .	75.00	each				
2.14	18.76	Cutting holes up to 30x30 cm in walls including making good the same:						
	18.76.1	With common burnt clay F.P.S. (non modular) bricks.	20.00	each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.15	18.77	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.	25.00	each				
3.0		DRAINAGE						
3.1	19.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :						
3.1.1	19.1.1	100 mm diameter	50.00	metre				
3.1.2	19.1.2	150 mm diameter	150.00	metre				
3.1.3	19.1.3	200 mm diameter	150.00	metre				
3.1.4	19.1.4	250 mm diameter	150.00	metre				
3.1.5	19.1.5	300 mm diameter	600.00	metre				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.2	19.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :						
3.2.1	19.2.1	100 mm diameter S.W. pipe	50.00	metre				
3.2.2	19.2.2	150 mm diameter S.W. pipe	150.00	metre				
3.2.3	19.2.3	200 mm diameter S.W. pipe	150.00	metre				
3.2.4	19.2.4	250 mm diameter S.W. pipe	150.00	metre				
3.3	19.3.5	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W pipes including bed concrete as per standard design : 300 mm diameter S.W. pipe	600.00	metre				
3.4	19.4	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame o f 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:						
	19.4.2	150 x 100 mm size P type						
	19.4.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	5.00	each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.5	19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :						
3.5.1	19.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :						
	19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	20.00	each				
3.5.2	19.7.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	19.7.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	6.00	each				
3.6	19.8	Extra for depth for manholes :						
3.6.1	19.8.1	Size 90x80 cm						
	19.8.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	10.00	metre				
3.6.2	19.8.2	Size 120 x 90 cm						
	19.8.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	10.00	metre				
3.7	19.9	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	19.9.1	0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :						
	19.9.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	20.00	each				
3.8	19.10	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m						
	19.10.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	5.00	meter				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.9	19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	60.00	each				
3.10	19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality 19.19.1 L D- 2.5						
	19.19.2	MD - 10						
	19.19.2.1	Square shape 450mm internal dimensions	6.00	each				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.11	19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :						
	19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	45.00	each				
4.0		RAINWATER HARVESTING, TUBEWELLS & DRAINAGE						
4.1	24.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level.						
	24.1.1	All types of soil						
	24.1.1.2	350 mm dia	250.00	meter				
4.2	24.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and						

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.						
	24.3.2	150mm nominal size dia	125.00	meter				
4.3	24.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.						
	24.4.2	150mm nominal size dia	125.00	meter				
4.4	24.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	48.00	cum				
4.5	24.6	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge	45.00	cum				

SL. No.	Item Ref:DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
4.6	24.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.	24.00	cum				
4.7	NDSR	Supplying and erecting centrifugal water pumps (Monoblock), 415 V, 3 phase, 50 cycles AC supply of 4 HP or required horsepower with discharge of 5.8 litres per second for head of 36 metres and 65 mm suction / 50 mm delivery pipe on provided cement concrete foundation as per manufacturers specifications. (1 Set = 1 working + 1 standby)	1	Set				
4.8	NDSR	Supplying and erecting automatic control panel for 1 to 6 HP centrifugal pump set consisting of DOL starter Single phasing preventer, water level controller, ammeter, voltmeter, phase indicating lamp etc. 4 way for U/G tank and OH tank. The quoted rate shall be all inclusive of the assessories, flat flexible 3 core copper cabling, fittings, fixtures required for sucessful commissioning of the pump sets as per the manufacturers specifications.	3	Each				

SUMMARY			
Sl.No.	Description	Quoted amount in Figures (in Rs.)	Quoted Amount in words (in Rs.)
I.	Fire Pump Works (Hydrant)		
II.	Piping For Fire Fighting System (Hydrant)		
III	Fire Extinguishers		
IV.	Electrical Works - Fire		
	Total		

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		FIRE FIGHTING WORKS						
	-	SUBHEAD-I(A): FIRE PUMP WORKS FOR HYDRANTS SYSTEM	-	-				
	Note:	1. NOC from fire authority shall be in the scope of Contractor. Only fee paid to the fire authority shall be reimbursed against the submission of the receipt and nothing shall be paid extra.						
		2. All the Fire Fighting works shall be done in compliance of Fire Fighting authority requirement.						
1.1	NDSR	FIRE PUMPS - ELECTRICAL						
		Supply ,installation, testing and commissioning of electrically driven fire-pump, suitable for automatic operation consisting of the following : Horizontally mounted end suction centrifugal pump, suitable for operation on 415 volts \pm 10%, 3 phase, 50 HZ A.C supply, complete with flexible coupling and coupling guard as required. Fire pump having C.I. body, bronze impeller and S.S. Shaft with mechanical seal, capable for delivering 2280 Lpm water at 70 mts.head to ensure a minimum pressure of 3.5 kg/cm ² at the Terrace/farthest hydrant. Complete with necessary pressure gauge with gun metal shut off cock on delivery side. The pump should meet the condition of Local fire	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Authority). 'Squirrel cage induction motor, TEFC type of suitable rating for operation on 415 volts, 3 phase 50 HZ A.C supply, for the above pump with synchronous speed of 2900 RPM. Common base plate for above pump and motor from M.S. Channel as required size. Suitable PCC/RCC foundation with plaster, Anti-vibration arrangement of cushy foot mountings.						
1.2	NDSR	FIRE PUMPS - DIESEL Supply, installation, testing and commissioning of Diesel Engine driven fire pump suitable for automatic operation comprising of the following : Horizontally mounted end suction centrifugal pump, suitable for operation on 415 volts \pm 10%, 3 phase, 50 HZ A.C supply, complete with flexible coupling and coupling guard as required. Fire pump having C.I. body, bronze impeller and S.S. Shaft with mechanical seal, capable for delivering 2280 LPM of water at 70 mts. head to ensure a minimum pressure of 3.5.kg/cm ² at the terrace/farthest hydrant. Complete with necessary pressure gauge with gun metal shut off cock on delivery side. The pump	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		<p>should meet the condition of Local fire Authority/NBC).</p> <p>Water Cooled Diesel engine of speed 1800 RPM for the above pump with automatic starting mechanism and other accessories including fuel tank (fabricated from 3mm MS sheet painting with two coats of synthetic enamel paint over a coat of primer) capacity 600 Its (fitted with Magnetic oil level indicator, MH with cover drain valve, Air vent hydraulic pumps including structural supports (painted with approved shade), 2 Nos. x 12 volt battery, heat exchanger with necessary piping connections & fittings flexible coupling, coupling guard & exhaust pipe (150 mm diameter M.S. Class 'C' diesel pump exhaust pipe includings all fittings, like bends, tees etc. clamps / structural steel supports. The pipe shall be provided with 75mm thick fiberglass insulation & covering the insulation with 500 g polythene sheet giving proper overlaps & sealing the joints with suitable adhesive compound. The pipe shall be provided with 24 gauge aluminium sheet cladding.) as per drawing complete as required.</p> <p>Common base plate for above pump and Diesel Engine from M.S. channel of required size.</p>						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Suitable PCC/RCC foundation with plaster, Antivibration arrangement of cushy foot mountings. 24 volts, 180 AH Lead battery - Exide make (12 volts-2 Nos) with boost / trickle charger for starting the engine automatically as required.						
1.3	NDSR	JOCKEY PUMP:- Supply, installation, testing and commissioning of jockey pump comprising of the following :Horizontally mounted end suction centrifugal pump, suitable for operation on 415 volts \pm 10%, 3 phase, 50 HZ A.C supply, complete with flexible coupling and coupling guard as required. Fire pump having C.I. body, bronze impeller and S.S. Shaft with mechanical seal, capable for delivering 180 LPM of water at 70 mts.head to ensure a minimum pressure of 3.5 kg/cm ² at the terrace/farthest hydrant. Complete with necessary pressure gauge with gun metal shut off cock on delivery side. The pump should meet the condition of Local fire Authority). Squirrel cage induction motor TEFC type for operation on 415 V, 3 phase 50 HZ AC supply for the above pump with a speed of 2900 R.P.M. with flexible coupling and coupling guard etc. as required.Common base plate for above pump and motor from M.S. channel as required size.Suitable cement	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		concrete foundation with plaster, Antivibration arrangement of cushy foot mounting.						
1.4	NDSR	Pressure Switch						
1.4.1		Supplying, installing, testing and commissioning 0 to 12 Kg/ cm2 ON/OFF pressure switch in delivery line of pump along with control wiring for auto starting and auto stopping of hydrant / spinkler and jockey pumps with syphonic pipe & needle vale It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.						
1.4.1 a	NDSR	standard type for main pumps	2	Nos.				
1.4.1 b	NDSR	differential type for jockey pump	1	No.				
1.5	NDSR	Pressure Vessel Providing, fixing, testing and commissioning of pressure vessel (250 mm dia &1500 mm height) for pressurization of fire system complete with pressure switches with isolation valves, pressure gauge with isolation valve, valves at outlet / drain to operate as per operating sequences including 25 mm dia drain valve, air release valve with stop cock on the top Duly painted from inside and outside complete as required. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	1	No.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.6	NDSR	Providing, fixing, testing & commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 8.8 Kg/cm ² and test pressure 14 Kg/cm ² . It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.						
1.6.2	NDSR	150 mm dia	4	Nos.				
1.6.4	NDSR	65 mm dia.	2	Nos.				
1.7	NSR	Supply, installation, testing, trial run and commissioning of hydrants. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.						
1.7.1	NDSR	Internal hydrants/landing valves generally as specified and all complete with:	7	Set				
		Supply, Installation, Testing & Commissioning of Double headed, Gunmetal ISI marked oblique pattern hydrant landing valve with 80 mm dia flange inlet and 63 mm dia instantaneous type female out let complete with gunmetal cap and G.I chain twist release type plug and all accessories as per IS:5290-1983						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Providing & fixing swinging type First Aid hose reel in red colour with 36 mts long and 20 mm dia heavy duty rubber water hose, 20 mm dia globe valve stop cock, terminating with G.M. coupling & nozzle of 5mm outlet with shut off valve confirming to IS 8090 - 1976 complete with drum and brackets for fixing on wall, bolts & nuts conforming to IS:884-1969 complete as required.						
		Providing & fixing Non per collating flexible hose (RRL type – A) ISI marked (IS:636 Type A) 63 mm dia x 15 m long complete with ISI marked Male and female coupling (IS:903) bound and riveted to hose pipe with copper rivets and 1.5 Sq.mm.copper wire.brusting pressure not less than 22 Kg/Sqcm. (two nos. for each hydrant-valve)						
		Providing & Fixing of standard short size 63mm dia. Stainless Steel branch pipe with gun metal nozzle of 20 mm nominal bore outlet with instantaneous type 63 mm dia coupling complete & confirming to IS:903						
		Providing and fixing standard firemans axe with heavy rubber handle.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Providing & Fixing of MS door made up of 16 gauge MS Sheet capable of accommodating fire hose reel, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry powder type portable fire extinguishers & accessories. The door shall have a front glass with lock and key arrangement & shall be painted with one coat of primer & two coat of finished stove enamelled post office red colour paint & "FIRE HOSE" written on front.(Approx. size of door: 1200 mmx2100 mm)						
1.7.2	NDSR	External hydrant valve, IS marked of gunmetal with generally as specified and as required all complete.	5	Set				
		Supply, Installation, Testing & Commissioning of single headed, Gunmetal ISI marked oblique pattern hydrant landing valve with 80 mm dia flange inlet and 63 mm dia instantaneous type female out let complete with gunmetal cap and G.I chain twist release type plug and all accessories as per IS:5290-1983						
		Providing & fixing Non per colating flexible hose (RRL type – A) ISI marked (IS:636 Type A) 63 mm dia x 15 m long complete with ISI marked Male and female coupling (IS:903) bound and riveted to hose pipe with copper rivets and 1.5 Sq.mm.copper						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		wire.brusting pressure not less than 22 Kg/Sqcm. (two nos. for each hydrant-valve)						
		Providing & Fixing of standard short size 63mm dia. Stainless Steel branch pipe with gun metal nozzle of 20 mm nominal bore outlet with instaneous type 63 mm dia coupling complete & confirming to IS:903						
		Providing & Fixing of M.S. fire hose cabinet (750x600x250mm) made out of 16 gauge M.S. sheet capable of accommodating landing valve, hose pipes, fittings & accessories. The box shall have a front glass door with lock and key arrangement & shall be painted with one coat of primer & two coat of finished stove enamelled post office red colour paint & "FIRE HOSE" written on front.						
1.8	NSR	Supply, installation, testing and commissioning brass orifice plates in pipelines to reduce pressure from 8 kg. to 3.5 kg/sq.cm. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.	5	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.9	NSR	Providing, installing, testing & commissioning of fire brigade inlet connection (fire department connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia header, 1 No. 150 mm diameter sluice valve, 1 No. 150mm dia. Non-return valve and wall mounted box of M.S. construction made out of 16 gauge MS Sheet with glass door to house the above mentioned components. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	1	Set				
1.10	NDSR	Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suction pipe MS class 'C' 100 mm dia. & 100 mm dia. foot valve & steel chain including wall mounted box M.S. construction made out of 16 gauge MS Sheet with glass door to house the above mentioned components. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge. (to be connected to static water tank)	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.11	NDSR	Providing and fixing inlet breeching having C.I. body Two way gun metal 63 mm dia instantaneous inlets conforming to IS 903 fitted with non-return valves, 25 mm dia gun metal drain cock, blank cap, brass chains and 150 mm dia flanges with all accessories suitable for local fire tender complete as required in Down Comer Riser	1	No.				
1.12		Sump Pumps						
1.12.1		Supply & Installation, testing and commissioning of centrifugal non clogging submersible sump pumps for plant room drainage. Pump capable of handling 25 mm dia soft solids. Motor suitable for 415 + 10% volts, 3 phase, 50 Hz AC Power supply. Pumps shall be suitable for automatic/manual operation (Overall depth of sump – 1.5 M). Submersible sump pump shall be provided with dry running protection inclusive of supporting arrangement for stationary type. It should be complete as per manufacturer's technical specifications & as directed by Engineer-in-charge.						
		Two nos. of pump installed in one sump pit 1 working & 1 standby with automatic/manual operation as required.						
		Waste Water Drainage Sump Pump						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		(PLANT ROOM & Basement)						
		Flow rate : 2 LPS (1 working+ 1 Standby)						
		Head : 10 Mtrs.						
		Min. Motor HP : 1.5 (Each)	1	Set				
		TOTAL C/F TO SUMMARY						
	-	<u>SUBHEAD-I(B): PIPING FOR FIRE FIGHTING SYSTEM FOR HYDRANT Works (AS PER DSR-2014)</u>	-	-				
1.13	18.59	Providing and fixing C.I. double acting air valves of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc. if reqd. will be paid separately)						
1.13.1	18.59.1	50 mm dia.	3	Nos.				
		TOTAL C/F TO SUMMARY						
	-	<u>SUBHEAD-II(A):PIPING FOR FIRE FIGHTING FOR HYDRANT SYSTEM (NON SCHEDULED ITEMS)</u>	-	-				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.1	NDSR	Supply, fabrication , laying, testing & commissioning of heavy grade IS marked & as approved make list black mild steel piping confirming to IS 1239/3589 complete with all fittings, pipe supports, clamps etc. as approved with weleded jointing for external hydrant system in ground including excavation, refilling the trench & providing cement concrete blocks as supports, not exceeding 3 meters centre to centre. These pipes shall be provided with 2mm thick weather proof anti corrosive treatment (pypkote tape) as per IS 10221. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.						
2.1.1	NDSR	150 mm nominal bore	466	Rmt				
2.1.2	NDSR	80 mm nominal bore	20	Rmt				
2.2	NDSR	Supply, fixing, testing and commissioning of following valves, gauges and stariners for condenser water circulation as per specifications:- Butterfly valve (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified 100 mm nominal bore						
2.2.1	NDSR	25 mm dia.	6	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.3	NDSR	Supply, installation testing & commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge.						
2.3.1	NDSR	Size 200 mm dia.	2	Nos.				
2.4	NDSR	Supply, fabrication & laying heavy grade IS marked & as per approved make list black mild steel piping confirming to IS 1239/3589 complete with all fittings, pipe supports, clamps & painting with one coat of primer & two coat of finished stove enamelled post office red colour paint etc. as approved with threaded /welded jointing for Wet Riser/sprinkler System. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.						
		Note:						
		Threaded joint upto 50mm diameter pipe.						
		Welded joint above 50mm diameter pipe.						
2.4.1	NDSR	200 mm nominal bore	20	Rmt				
2.4.2	NDSR	150 mm nominal bore	55	Rmt				
2.4.3	NDSR	100 mm nominal bore	30	Rmt				
2.4.4	NDSR	80 mm nominal bore	25	Rmt				
2.4.5	NDSR	65 mm nominal bore	10	Rmt				
2.4.6	NDSR	50 mm nominal bore	20	Rmt				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.4.7	NDSR	40 mm nominal bore	30	Rmt				
2.4.8	NDSR	32 mm nominal bore	30	Rmt				
2.4.9	NDSR	25 mm nominal bore	30	Rmt				
2.5	NDSR	Providing and fixing dial type pressure gauge with isolation cock and copper pipe on main header Dial diameter 100 mm celebration 0-14 / sq. cm.	10	No.				
		TOTAL C/F TO SUMMARY						
	-	<u>SUBHEAD-II(B):PIPING FOR FIRE FIGHTING FOR HYDRANT SYSTEM (SCHEDULED ITEMS)</u>	-	-				
2.6	16.11	Supply, fixing, testing and commissioning of following valves, gauges and stariners for condenser water circulation as per specifications:-						
	16.11.1	Butterfly valve (manual) with C.I body SS disc nitrile sheet & O ring & PN 16 Pressure rating as specified 100 mm nominal bore						
2.6.1	16.11.1.4	100 mm dia.	4	Nos.				
2.6.2	16.11.1.2	150 mm dia.	9	Nos.				
2.6.3	16.11.1.5	80 mm dia.	3	Nos.				
2.6.4	16.11.1.1	200 mm dia.	2	Nos.				
2.6.5	16.11.1.6	65mm dia.	3	Nos.				
2.6.6	16.11.1.7	50 mm dia.	3	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.7	16.11.2	Non - return valve with dual plate of CI Body SS plates vulcanized NBR seal flanged end & PN 16 rating as specified.						
2.7.1	16.11.2.4	100 mm dia.	2	Nos.				
2.7.2	16.11.2.2	150 mm dia.	7	Nos.				
2.7.3	16.11.2.5	80 mm dia.	1	Nos.				
2.7.4	16.11.2.6	65 mm dia.	1	Nos.				
		TOTAL C/F TO SUMMARY						
	-	<u>SUBHEAD-III(A): FIRE EXTINGUISHER (NON SCHEDULED ITEMS)</u>	-	-				
3.1	NDSR	Providing, storing, handling, shifting, installation, testing and commissioning of halon free portable fire Extinguishers as described below:						
3.1.1	NDSR	4.5 kg carbon dioxide extinguisher, IS marked, with high pressure discharge tube, horn, control valve, CCE approved cylinder	28	Nos.				
3.1.2	NDSR	6 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	24	Nos.				
3.1.3	NDSR	9 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	4	Nos.				
3.2	NDSR	Providing and fixing signages printed on photoluminescent U1000 aluminium sheet of 1.0 mm (+-10%) containing Lumigen II as base chemical, covered under UV stablized coating and of appropriate size including fixing on wall, door, ceiling etc.	750	Square Inch				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		with proper clamps, hangers, cleats, anchor fasteners etc. complete in all respects as directed by Engineer-in-charge.						
		TOTAL C/F TO SUMMARY						
	-	<u>SUBHEAD-IV (A): ELECTRICAL WORKS</u> <u>(NON SCHEDULED ITEMS)</u>	-	-				
4.1	NDSR	FIRE FIGHTING PANEL						
		Supply, installation, testing and commissioning of fire fighting panel suitable for 415V, 3 phase, 4 wires, 50 HZ power distribution system. The panel shall be floor mounted sheet metal sheet enclosed, dust and vermin proof conforming to IP-52, Compartmentalized design, fabricated out of 14SWG sheet steel, painting, earthing numbering, danger plate as per specifications and drawings, flush front with Aluminum busbars, separate earthing to be provided throughout the length of the panel. The incoming and outgoing feeder breakers, fuses, indicating lamps etc shall be accommodated in modular multitier arrangement. The painting shall be done as per relevant IS codes/as specified in the specifications. Adequate size cable alley shall be provided all round the panel and	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		in the back for each cable bending and termination. The panel shall be fabricated by TAC/Fire authority approved vendor. The outgoing feeders inside the panel shall be connected through solid bus bars. It should be complete as per manufacturer's specifications & as directed by Engineer- in-charge. Bus bars shall be provided with heat shrinkable sleeves and shall be colour coded . The panels shall be suitable for cable entry from bottom/ top. The minimum fault rupturing of all incoming and outgoing switches/breakers shall be 35KA. The panels shall be fabricated after the approval of fabrication drawings comprising of :						
A)		INCOMER						
(i)		1No. 250A TPN MCCB (35 KA)						
(ii)		METERING & INDICATION 1 set of R,Y,B phase indicating lamps Digital Multifunction meter for Voltage, Current & KW with selector switch. Each with 3nos. Of 2A SP MCB & 3nos 250/5A CTs rating BUS-BAR 1 Set of 300A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
B)		OUTGOINGS						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
(i)		2 Nos. 200A TPN MCCB (35 KA) 3 Nos. 40A TP MCCB (20 KA) 1 No. S/D starter with self illuminated Push button for ON & OFF and suitable rating of contactor and O/L relays, suitable upto 80 HP Motor or as required. 1 No. DOL starter with self-illuminated Push button for ON & OFF and suitable rating of contactor and O/L relays, suitable upto 15 HP Motor or as required.						
(ii)		1 No. space for S/D starter with self- illuminated Push button for ON & OFF.1 No. space for DOL starter with self- illuminated Push button for ON & OFF.AMF Control & Starter for 80 HP Diesel Engine complete with Contactors, Fuses, MCBs & relays of suitable rating, as required.Connector Block/Strip of suitable no.of pairs complete with wiring upto all Starters, for parallel operation from control desk.						
(iii)		Contractor shall include in his rates for providing level controllers, switches, wiring, cabling from level controller to panel etc. complete as required to operate the system automatic/manual and pump shall be protected against running dry.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
iv		DOL starters for Dewatering Pump 1 working & 1 standby, with 2 No. - 16A TPN MCCB (16 KA) with suitable HP with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, level sensor, selector switch for local/remote, auto/manual OFF operation as per direction of Engineer in Charge.						
(v)		Two No. pressure Switch or as required Wiring from pressure switch to starter of each pump sets as above -1 Lot electrical hooter with ON/OFF switch for the above pumps running indication						
(vi)		Suitable rating TPN MCCB for Diesel Engine Control panel						
(vii)		Set of control system to make the system automatic /BMS compatible as per functionl as requirements.						
(viii)		Control Panel for Diesel Engine comprising: Auto/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode.						
(ix)		Indication lamp for High/Low Lub.oil pressure, High Water Temp. and Engine ON Indication.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
(xii)		Battery charger suitable for 24V DC with boost and trickle selector switch, with digital panel meter for AC, DC voltage and Ammeter for battery charging current						
C		necessary potential free contact for indication of diesel engine driven fire pump running/fault in the addressable fire alarm panel/BMS Panel.						
		All standard relays and accessories for automatic operation of diesel engine.The diesel engine driven fire pump shall start automatically in the event of pressure drop beyond preset limit or mains failure or failure of electrical driven pumps to start						
		One (1) No. pressure Switch for DG pump set						
		Wiring from pressure switch to Diesel engine control panel.						
		One (1) No. 150A TPN MCCB (35KA).						
		Any other accessories as required to complete in all respect above Fire panel requirement as per direction of engineer in charge						
		Note:- CABLE CONNECTION						
		Control Scheme as per specifications and as per direction of Engineer in Charge						
		Following provisions to be made in the fire panel:						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Audio visual alarm & indications having disconnect/reset facility with a range of 1/2 km. Annunciator to be provided in the Fire panel with hooter and acknowledge, test and reset buttons as required. The indication shall come on when electrical driven pump set fails to start on pressure drop or when there is power failure during pressure drop.						
		Facility for mode selection ie auto or manual test & local/remote.						
		Protection failure & control cabling. Panel shall be interlocked in such a way when fire pump starts on pressure drop in the header, supply to working VRV A/c panels is disconnected. Necessary Control wiring upto A/c panels, relevant relays & contactors etc. as required complete in all respect shall be in the scope the Fire contractors (Control wire shall be paid extra). Remote indication of ON/OFF/TRIP shall be provided through potential free contact. Provision of remote starting/stopping (manuals) of the engine shall be made. All pumps operation shall be controlled by flow switches. The logic of control panel based on specifications described above TS.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
4.2	NDSR	POWER, CONTROL CABLING & EARTHING						
		Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.						
4.2.1	NDSR	Power Cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).						
4.2.1.1	NDSR	3.5C x 95 Sq. mm	40	Rmt				
4.2.1.2	NDSR	4C x 16 Sq. mm	30	Rmt				
4.2.1.3	NDSR	4C x 10 Sq. mm	30	Rmt				
4.2.1.4	NDSR	3C x 6 Sq. mm	30	Rmt				
4.2.2	NDSR	Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).						
4.2.2.1	NDSR	2C x 1.5 Sq. mm	60	Rmt				
4.2.2.2	NDSR	Supplying and making end termination with brass compression gland & Al. lugs for following sizes of PVC insulated, PVC sheathed/XLPE Al. Conductor cables of 1.1						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		KV grade as required.						
		(a) for main pump cable(3.5C x 95 Sq. mm)	2	Sets.				
		(c) for jockey pump cable(4C x 16 Sq. mm)	2	Sets.				
		(d) for dewatering pump cable(3C x 6 Sq. mm)	4	Sets.				
4.3	NDSR	Earthing Strip / Wires.						
4.3.1	NDSR	Supply and fixing of vertical down conductor 32 x 6 mm copper strip etc. on approved surface for earthing complete in all respects	30	Rmt				
		Contractor shall include in his rates for providing level controllers, switches, wiring, cabling from level controller to panel etc. complete as required to operate the system automatic/manual and pump shall be protected against running dry.						
		TOTAL C/F TO SUMMARY						

Sl.No.	Description	Quoted amount in Figures (in Rs.)	Quoted Amount in words (in Rs.)
1	AIR CONDITIONING (VRV SYSTEM)- SECTION -I- FOR COMFORT AREAS		
2	AIR CONDITIONING - SECTION -II-FOR CLASSIFIED ARAES		
	TOTAL		

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		<u>CLASSIFIED AREAS</u>						
		<u>DSR ITEMS</u>						
		<u>VOLUME CONTROL DAMPER (VCD)</u>						
		-						
1	DSR - 16.13	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc, as per specifications.	6	Sqmt				
		<u>FIRE DAMPER</u>						
2	DSR - 16.20	Supplying, Fixing,testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring,the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications.						
2.1	16.20.1	Fire damper	3	Sqmt				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.2	16.20.2	Actuator	6	Nos.				
		<u>SUPPLY / RETURN AIR GRILLES</u>						
3	DSR - 16.17	Supplying , fixing, testing & commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core	7	Sqmt				
4	DSR - 16.18	Supplying , fixing, testing & commissioning of return air diffusers of powder coated aluminium without volume control dampers with anti smudge ring & removable core	7	Sqmt				
5	DSR 16.22	Supplying, fixing accoustic lining on wall and ceiling of AHU rooms with 50 mm thick, density 32 kg/cum resin bonded glass fiber insulation friction fixed in 610mm x 610 mm frame work made of 25 x 50 x 50 x 50 x 25 mm made out of 0.6 mm thick GI sheet U shaped channel and covered with reinforced fiber galss tissue and finished with 0.8 mm perfoarted aluminium sheet etc. complete as required and as per sepcifications.	15	Sqmt				
6	DSR 16.12.1	DUCTING (for both type of Areas)						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	DSR 16.12.1	Supply, installation, balancing and commissioning of factory fabricated GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
6.1	DSR 16.12.1.1	Thickness 0.63 mm sheet	2500	Sqmt				
6.2	DSR 16.12.1.2	Thickness 0.80 mm sheet	100	Sqmt				
		TOTAL SUMMARY CARRIED FOR DSR ITEMS						
1	NDSR	AIR HANDLING UNIT						
1.1	NDSR	RECIRCULATION TYPE AHU FOR 'CLASSIFIED' SYSTEMS.						
		Supply, delivery, installation, testing and commissioning of floor mounted horizontal type Air Handling unit.						
		Sheet metal sectionalised cabinet type AHU in double skin construction fabricated from Aluminium extruded section frame structure.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		The inner skin 0.8mm Plain G.I & outer skin 0.8mm Precoated GI construction with 43mm thick PUF insulation panel, with internal coving and in thermal break construction , etc. complete with necessary frame work for supporting channels, foundation bolts and complete with following section						
A		Mixing Section with						
		Extruded Aluminium low leakage type manual return air damper. Fresh air module with, Extruded Aluminium low leakage type manual volume control damper.						
		There will be opening for cable entries for humidity & temp. sensors in mixing chamber section.						
B		Pre Filter Section with						
		Flange type washable Pre filter (EU4) with galvanised sheet steel (GSS) frame with section.						
C		DX Coil Section With						
		4 / 6 row deep DX coil (Cu tubes & Al fins)						
		Aluminium frame work for CHW coil with nut bolts						
		Extruded Aluminium low leakage manual by-pass damper						
		Insulated drain pan ,drain pan will be 18G SS 304 construction.						
D		Electrical Heater Section with Strip type electrical heater						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
E		Blower section with						
		DIDW BACKWARD CURVED TYPE blower with suitable static pressure. Motor and Blower are mounted on common base frame. Canvass connections at the outlet of the fan.						
		Bleed air air module with, Extruded Aluminium low leakage type manual volume control damper.						
		Limit switch & Marine light in fan section.						
		There will be opening for cable entries for motor in section.						
F		Fine Filter Section with						
		Flange type washable Fine filter (EU7) with galvanised sheet steel (GSS) frame.						
		Magnehelic Gauges with Necessary Tubing across fine filter Range : 0-25 mm of W.G.						
G		The air handling units should have aluminium volume control dampers at supply air outlet.						
H		There will be access door across every section of AHU. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
		Note:						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		1) Motor will be Non flame proof type and Fan will be Non spark proof type.						
		Parameters						
1.1.1	NDSR	AHU No -1	1	No.				
		Fan Capacity (CFM) - 4200						
		Supply air quantity (CFM) - 4100						
		Dehumidified CFM -2100						
		Static pressure (mm of wg) -125						
		Cooling capacity (TR) -3.85						
		Heater Bank (KW) - 7.5						
1.2	NDSR	RECIRCULATION TYPE AHU FOR 'CLASSIFIED' SYSTEMS.						
		Supply, delivery, installation, testing and commissioning of floor mounted horizontal type Air Handling unit.						
		Sheet metal sectionalised cabinet type AHU in double skin construction fabricated from Aluminium extruded section frame structure.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		The inner skin 0.8mm Plain G.I & outer skin 0.8mm Precoated GI construction with 43mm thick PUF insulation panel, with internal coving and in thermal break construction, etc. complete with necessary frame work for supporting channels, foundation bolts and complete with following section						
A		Mixing Section with						
		Extruded Aluminium low leakage type manual return air damper. Fresh air module with, Extruded Aluminium low leakage type manual volume control damper.						
		There will be opening for cable entries for humidity & temp. sensors in mixing chamber section.						
B		Pre Filter Section with						
		Flange type washable Pre filter (EU4) with galvanised sheet steel (GSS) frame with section.						
C		DX Coil Section With						
		4 / 6 row deep DX coil (Cu tubes & Al fins)						
		Aluminium frame work for CHW coil with nut bolts						
		Extruded Aluminium low leakage manual by-pass damper						
		Insulated drain pan ,drain pan will be 18G SS 304 construction.						
D		Electrical Heater Section with Strip type electrical heater						
E		Blower section with						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		DIDW BACKWARD CURVED TYPE blower with suitable static pressure. Motor and Blower are mounted on common base frame. Canvass connections at the outlet of the fan.						
		Bleed air air module with, Extruded Aluminium low leakage type manual volume control damper.						
		Limit switch & Marine light in fan section.						
		There will be opening for cable entries for motor in section.						
F		Fine Filter Section with						
		Flange type washable Fine filter (EU7) with galvanised sheet steel (GSS) frame.						
		Magnehelic Gauges with Necessary Tubing across fine filter Range : 0-25 mm of W.G.						
G		The air handling units should have aluminium volume control dampers at supply air outlet.						
H		There will be access door across every section of AHU. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
		Note: 1) Motor will be Non flame proof type and Fan will be Non spark proof type.						
1.2.1	NDSR	AHU No -2	1	No.				
		Fan Capacity (CFM) - 2550						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Supply air quantity (CFM) -2500						
		Dehumidified CFM -1900						
		Static pressure (mm of wg) -125						
		Cooling capacity (TR) -3.7						
		Heater Bank (KW) -8						
1.2.2	NDSR	AHU No -3	1	No.				
		Fan Capacity (CFM) -9050						
		Supply air quantity (CFM) -9000						
		Dehumidified CFM -8100						
		Static pressure (mm of wg) -125						
		Cooling capacity (TR) -21						
		Heater Bank (KW) -36						
1.3	NDSR	FORCE DRAFT VENTILLATION UNIT						
		Supply, delivery, installation, testing and commissioning of floor mounted horizontal type ventillation units.						
		Sheet metal sectionalised cabinet type unit in double skin construction fabricated from Aluminium extruded section frame structure.						
		The inner & Outer skin shall be 0.8mm Plain G.I & outer skin Precoated GI construction with 25mm thick PUF insulation panel, with internal coving etc.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		complete with necessary frame work for supporting channels, foundation bolts and complete with following section,						
A		Fresh air Section with Extruded Aluminium low leakage type manual fresh air damper						
B		Pre Filter Section with						
		Flange type washable Pre filter (EU4) with galvanised sheet steel (GSS) frame with section.						
C		Blower section with						
		DIDW FORWARD CURVED TYPE blower with suitable static pressure. Motor and Blower are mounted on common base frame. Canvass connections at the outlet of the fan.						
		Limit switch & Marine light in fan section.						
		There will be opening for cable entries for motor in section						
D		Fine Filter Section with						
		Flange type washable Fine filter (EU5) with galvanised sheet steel (GSS) frame						
G		The air handling units should have aluminium volume control dampers at unit Inlet & Outlet.						
E		There will be access door across every section of AHU						
		Note:						
		1) Motor will be Non flame proof type and Fan will be Non spark proof type. It should						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
		Supply FDV (Prefilter & MV filter)						
1.3.1	NDSR	FDV-S-1	1	No.				
		Fan Capacity (CFM)-4100						
		Supply air quantity (CFM) -4100						
		Static pressure (mm of wg) -50						
		Exhaust FDV (Prefilter)						
1.3.2	NDSR	FDV-E-1	1	No.				
		Fan Capacity (CFM)-4100						
		Supply air quantity (CFM) -4100						
		Static pressure (mm of wg) -30						
		Supply FDV (Prefilter & MV filter) For Drying Area						
1.3.3	NDSR	FDV-S-2	1	No.				
		Fan Capacity (CFM)-3900						
		Supply air quantity (CFM) -3900						
		Static pressure (mm of wg) -50						
		Exhaust FDV (Prefilter)						
1.3.4	NDSR	FDV-E-2	1	No.				
		Fan Capacity (CFM)-3900						
		Supply air quantity (CFM) -3900						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Static pressure (mm of wg) -30						
2	NDSR	SHEET METAL DUCTING AND INSULATION						
2.1		INSULATION (for both type of Areas)						
		Supply & Installation of Class " O " Cross Linked Polyethene Insulation with factory laminated aluminium foil. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
2.1.1	NDSR	13 mm thick on Supply air Duct	1300	Sqmt				
2.1.2	NDSR	9 mm thick on Return air Duct	1300	Sqmt				
3		AIR DISTRIBUTION PRODUCTS						
3.1	NDSR	Supply Air Terminal Box (With HEPA Filter)						
		Supply, delivery, installation, testing and commissioning of Terminal Boxes for mounting HEPA filter in minimum 18 G construction duly powder coated with all accessories like SS Perforated Sheet, dome nut, and HEPA filter with efficiency 99.97% down to 0.3 Micron, Pressure testing nobe to accommodate HEPA filters of following sizes. Boxes should be provided with Top connection and complete with Extruded Aluminium room operated volume control dampers. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.1.1	NDSR	610mm x 610mm x 120 mm -Filter Size, 692mm x 692mm -Panel cutout	14	Nos.				
3.1.2	NDSR	450mm x 450mm x 120mm -Filter Size,532mm x 532mm -Panel cutout	14	Nos.				
3.1.3	NDSR	305mm x 305mm x 120 mm -Filter Size,387mm x 387mm -Panel cutout	5	Nos.				
3.2		Return air Risers Partition Panel Type						
		Supply, delivery, installation, testing and commissioning of Factory fabricated return air inbuilt risers construction in 18 G G.I sheet, SS Perforated sheet and complete with room operated volume control damper. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
3.2.1	NDSR	800mm x 80mm x 3200mm	27	Nos.				
3.2.2	NDSR	600mm x 80mm x 3200 mm	8	Nos.				
3.2.3	NDSR	450mm x 80mm x 3200 mm	2	Nos.				
3.2.4	NDSR	300mm x 80mm x 3200 mm	4	Nos.				
		Note:- the Return Air Riser will project 150 mm above the false ceiling for connection						
		False ceiling height given is indicative & it may vary depending upon site conditionsn & no extra rate will be paid for increase in height.						
4		MISCELLANEOUS ITEMS						
4.1	NDSR	Inline Fan (100% Exhaust)						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Supply, delivery, installation, testing and commissioning of Three phase 415 V / 50 HZ suitable KW rating , Inline type wall/duct mounted fan suitable static pressure complete with all necessary fitting like M.S.bracket , bird screen & cowl piece. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
4.1.1	NDSR	800 CFM for Washing (AHU - 03)	1	No.				
4.1.2	NDSR	400 CFM for Washing Area (AHU - 03)	1	No.				
5		CONDENSING UNITS FOR AHU'S						
5.1		CONDENSING UNITS						
		Supply, delivery, installation, testing and commissioning of Air cooled Condensing units with Scroll compressor with R410 Areferigerant for following capacity. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
5.1.1	NDSR	11 TR	2	No.				
5.1.2	NDSR	5.5 TR	2	No.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
5.2		Supply, delivery, installation, testing and commissioning of Controls for condensing units like Expansion valves, catch all dryer, isolation brassometric valves & stand for mounting air cooled condensing units following capacity complete with first charge of referigerant gas. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
5.2.1	NDSR	11 TR	2	No.				
5.2.2	NDSR	5.5 TR	2	No.				
5.3		Supply, delivery, installation, testing and commissioning of Hard copper referigerant piping with nitrile rubber insulation of 19 mm thick on suction line for air cooled condensing units following capacity. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .						
5.3.1	NDSR	11 TR	40	Rmt				
5.3.2	NDSR	5.5 TR	40	Rmt				
5.4		Supply, delivery, installation, testing and commissioning of Soft copper referigerant piping with nitrile rubber insulation of 13 mm thick on liquid line for air cooled condensing units following capacity. It should be complete as per manufacturing						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		standards & as per directions of Engineer-in-charge .						
5.4.1	NDSR	11 TR	40	Rmt				
5.4.2	NDSR	5.5 TR	40	Rmt				
6		INSTRUMENTS						
6.1	NDSR	Supply, delivery, installation, testing and commissioning of Thermostat	3	Nos.				
6.2	NDSR	Supply, delivery, installation, testing and commissioning of Humidistat (For heater control)	3	Nos.				
6.3	NDSR	Supply, delivery, installation, testing and commissioning of Room Magnehelic Gauge (0 - 60 PA) Magnehelic gauges with MS powder coated box and SS top cover complete with necessary tubing with Probe to measure the differential pressure across the rooms. It should be complete as per manufacturing standards & as per directions of Engineer-in-charge .	15	Nos.				
	Note	VALIDATION of Classified area shall be in the scope of HVAC contractor and shall include as follows:						
		HVAC Validation including						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		1) Documentation for DQ, IQ, OQ with certificates of all brought items. 2) Duct leakage testing during duct Installation once. 3) Airflow velocity test once. 4) Integrity test for HEPA Filter's once. 5) Air borne particulate test once. 6) Temperature & RH monitoring test. OR 7) Area Recovery test once. 8) Room Pressure balancing once.						
		TOTAL SUMMARY CARRIED FOR NON DSR ITEMS						

Sl.No.	Description	Quoted amount in Figures (in Rs.)	Quoted Amount in words (in Rs.)
I	SUB HEAD - I : WIRING		
II	SUB HEAD - II : MCCB,MCB & DB'S		
III	SUB HEAD - III : CABLE TRAYS & CABLES		
IV	SUB HEAD - IV : EARTHING SYSTEM		
V	SUB HEAD - V : LIGHTING CONDUCTOR SYSTEM		
VI	SUB HEAD - VI : SUPPLY & FIXING OF LIGHTING CONTROL DEVICE & LIGHT FIXTURES		
VII	SUB HEAD - VII : CONDUITS AND WIRING FOR TELEPHONES		
VIII	SUB HEAD - VIII : ADDESSABLE FIRE DETECTION & ALARM SYSTEM		
IX	SUB HEAD -IX : LT PANEL & RISING MAIN		
X	SUB HEAD - X : HT EQUIPMENT & TRANSFORMER		
XI	SUB HEAD - XI : DG SET		
XII	SUB HEAD - XII : CLOSE CIRCUIT TELEVISION SYSTEM		
XIII	SUB HEAD - XIII : UPS SYSTEM		

Sl.No.	Description	Quoted amount in Figures (in Rs.)	Quoted Amount in words (in Rs.)
XIV	SUB HEAD - XIV: External Street Lights and Solar Power Panels On Grid System		
XV	SUB HEAD - XV: Public Address System, ACS, Door Locking System		
XVI	Sub Head XVI :DATA & VOICE NETWORKING WORKS		
TOTAL			

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		<u>SUB HEAD - I : WIRING</u>						
1	1.3	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit with modular switch modular plate suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc.as required.						
1.1	1.3.3	Group C	500	Point				
2	1.4	Wiring for twin light point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface/ recessed steel conduit with 2 way modular switch modular plate suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc.as required.	10	Point				
3	1.5	Wiring for power plug points with 2 x 4 sq.mm. FRLS PVC insulated, Cu. Conductor, single core cable in surface/ recessed steel conduit along with 1 No. 4 sq.mm. FRLS PVC insulated copper conductor single core cable for loop earthing as required.	6000	Mtr.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
4	1.6	Wiring for light plug points / power plug points with 4 x 4 sq.mm. FRLS PVC insulated, Cu. Conductor, single core cable in surface/ recessed steel conduit along with 2 Nos. 4 sq.mm. FRLS PVC insulated copper conductor single core cable for loop earthing as required.	2000	Mtr.				
5	1.7	Wiring for circuit/ submain wiring alongwith earth wire with the follwing size of FRLS PVC Insulated copper conductor, single core cable in surface/ recess Steel conduit as required.						
5.1	1.7.1	2x 1.5 sqmm+ 1x 1.5 sqmm earth wire	2000	Mtr.				
5.2	1.7.2	2x 2.5 sqmm+ 1x 2.5 sqmm earth wire	2800	Mtr.				
5.3	1.7.4	2x 6 sqmm+ 1x 6 sqmm earth wire for outlet on UPS	400	Mtr.				
5.4	1.7.5	2 X 10 sq. mm + 1 X 10 sq. mm earth wire	200	Mtr.				
5.5	1.7.7	4x 2.5 sqmm+ 2x 2.5 sqmm earth wire	1800	Mtr.				
5.6	1.7.9	4x 6 sqmm+ 2x 6 sqmm earth wire	100	Mtr.				
5.7	1.7.10	4x 10 sqmm+ 2x 10 sqmm earth wire	100	Mtr.				
5.8	1.7.11	4x 16 sqmm+ 2x 16 sqmm earth wire	100	Mtr.				
6	1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.						
6.1	1.24.1	5/6 amps switch (1 nos.6A switch on UPS)	620	Each				
6.2	1.24.3	15/16 amp switch	60	Each				
6.3	1.24.4	3 pin 5/6 amp socket outlet (sockets for	620	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		UPS)						
6.4	1.24.5	6 pin 15/16 amp socket outlet	60	Each				
7	1.25	Supplying and fixing of Stepped type electronic fan regulator on the existing modular plate & switch box including connections but excluding modular plate etc. as reqd.	10	Each				
8	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	320	Each				
9	1.27	Supply and fixing of following size/ modules, GI box along with modular base & cover plate for modular switch/ regulator in recess, including connection as required.						
9.1	1.27.1	1or 2 module (75mmx 75mm)	630	Each				
9.2	1.27.2	3 module (100mmx 75mm)	100	Each				
9.3	1.27.3	4 module (125mmx 75mm)	80	Each				
9.4	1.27.4	6 module (200mmx 75mm) (For 2 nos.socket+1no switch on UPS)	940	Each				
9.5	1.27.5	8 module (125mmx 125mm)	50	Each				
10	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 3 pin 5/6 Amp modular socket outlet and 5/6 A modular type switch,	660	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		connections painting etc. as reqd, for Light plug point.						
11	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 6 pin 5/6 & 15/16 Amp modular socket outlet and 15/16 A modular type switch, connections painting etc. as reqd.	300	Each				
12	1.33	Supplying & fixing of 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection as required, for Exit signage.	25	Each				
13	1.41	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent /LED fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	1400	Each				
14	1.45	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq.mm FRLS PVC insulated, copper conductor, single core cable,including providing and fixing phenolic laminated	10	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		sheet cover on the fan box etc. as required.						
15	1.50	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.						
15.1	1.50.1	Upto 450 mm sweep	25	Each				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>NON DSR ITEMS</u>	-	-				
-	-	-	-	-				
1	NDSR	Wiring for the following light points with 2.5 sq.mm PVC insulated copper conductor 1100 volts grade stranded flexible FRLS wires of approved make in concealed or surface mounted 25 mm dia 16 gauge MS Conduit including providing and controlled by SPMCB provided in the DB. (Cost of MCB not to be included here) complete in all respect and as per direction of Engineer In Charge.						
1.1	NDSR	Primary point controlled by one MCB.	100	Point				
1.2	NDSR	Same as item above but <u>Secondary point.</u> i.e. Points to be looped with Primary point.	200	Point				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
	-	<u>DSR ITEMS</u>	-	-				
	-	-	-	-				
		<u>SUB HEAD - II : MCCB,MCB & DB'S</u>		-				
1	2.2	Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required (Incomer for the DBs)						
1.1	2.2.13	100 Amp, 30KA, FPMCCB	20	Each				
1.2	2.2.14	125 Amp, 36KA, FPMCCB	20	Each				
1.3	2.2.15	200 Amp, 36KA, FPMCCB	2	Each				
2	2.7	Supplying and fixing following way,prewired SP&N,MCB distribution board of sheet steel 240 volts on on surface/ recess, complete with loose wire box ,terminal connectors for all incoming and outgoing circuits ,duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper busbars, neutral link, earth bar, dinbar, detachable gland plate , interconnections powder painted including p earthing etc. as required.(But without MCB/RCCB/Isolator)						
2.1	2.7.4	2+ 4 way/6 way, double door	3	Each				
2.2	2.7.5	2 + 8 way/10 way, double door	3	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.3	2.7.6	2 + 12 way/14way, double door	4	Each				
3	2.8	Supplying and fixing following way,prewired TP&N,MCB distribution board of sheet steel 415 volts on on surface/ recess, complete with loose wire box ,terminal connectors for all incoming and outgoing circuits ,duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks, tinned copper busbars, neutral link, earth bar, dinbar, detachable gland plate , interconnections powder painted including earthing etc. as required.(But without MCB/RCCB/Isolator)						
3.1	2.8.5	4 way (4+12),Double door	4	Each				
3.2	2.8.6	6 way (4+18),Double door	4	Each				
3.3	2.8.7	8 way (4+24),Double door	4	Each				
3.4	2.8.8	12 way (4+36),Double door	10	Each				
4	2.9	Supplying and fixing following way surface/recessed mounting , Vertical type 415 TP & N MCB distribution board of steel sheet ,dust protected ,duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs terminal connected to all incoming and outgoing circuits duly prewired with adequate size of pre- wired FRLS PVC insulated copper conductor up to terminal connector /neutral link earthing etc as						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		required (but without MCB/RCCB/Isolator)						
4.1	2.9.5	4 Way Double door	4	Each				
4.2	2.9.6	6 Way Double door	4	Each				
4.3	2.9.7	8 Way TP Double door	4	Each				
4.4	2.9.8	12 Way TP Double door	18	Each				
5	2.13	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required						
5.1	2.13.1	40 amps	45	Each				
5.2	2.13.2	63 amps	25	Each				
5.3	2.13.3	100 amps	8	Each				
6	2.14	Supplying & Fixing of following rating double pole (single phase and neutral) 240 volts, Residual Current Circuit Breaker (RCCB), having a sensitivity current upto 300 milli-amperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
6.1	2.14.1	25 Amps	10	Each				
6.2	2.14.2	40 Amps	55	Each				
6.3	2.14.3	63 Amps	50	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7	2.10	Supplying & fixing 5 amps to 32 amps rating 240/415 volts C curve Miniature Circuit Breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.						
7.1	2.10.1	Single Pole	670	Each				
7.2	2.10.3	Double Pole	40	Each				
7.3	2.10.4	Triple Pole	40	Each				
7.4	2.10.5	Triple Pole & Neutral	70	Each				
8	2.11	Supply & fixing of single pole blanking plate in the existing MCB DB complete etc. as required	50	Each				
9	2.16	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32amps 240 volts "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	40	Each				
10	2.18	Supplying and fixing 20A 240Volts SPN industrial type socket outlet with 2 pole and earthed in metal enclosed plug top along with 20A c curve SP ,MCB ,in sheet steel enclosure on surface or in recessed with chamed metal cover for the socket outlet and complete with connection testing and commisioning as required.	10	Each				
11	2.19	Supplying and fixing 20 amps 415 Volts TPN industrial type, socket outlet with 4 pole and earth metal enclosed plug top along	10	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		with 20A C curve TPMCB ,in sheet steel enclosure, on surface or in recessed with channed metal cover for the socket outlet and complete with connection testing and commisiong as required.(for Server room etc)						
12	2.21	Providing & fixing of M.V. danger notice plate of 200 mm x 150 mm, made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides, and with inscription in single red colour on front side as required.	10	Each				
13	2.22	Providing and fixing HT danger notice plate of 250 mm x 200 mm, made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides and with inscription in single red colour on front side as required.	10	RM				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>DSR ITEMS</u>	-	-				
	-	-	-	-				
		<u>SUB HEAD - III : CABLE TRAYS & CABLES</u>						
1	4.1	<u>S/ F MS Cable Trays</u>						
		Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.						
1.1	4.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	300	Mtrs.				
1.2	4.1.4	300 mm width X 50 mm depth X 1.6 mm thickness	200	Mtrs.				
1.3	4.1.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	200	Mtrs.				
1.4	4.1.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	200	Mtrs.				
1.5	4.1.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	200	Mtrs.				
2	4.2	<u>S/ F MS Cable Tray Bends</u>						
		Supplying and installing following size of perforated pre-painted M.S. cable tray bends with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.						
2.1	4.2.2	150 mm width X 50 mm depth X 1.6 mm thickness	4	Each				
2.2	4.2.4	300 mm width X 50 mm depth X 1.6 mm thickness	4	Each				
2.3	4.2.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	4	Each				
2.4	4.2.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	4	Each				
2.5	4.2.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	6	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3	4.4	<u>S/ F MS Cable Tray Tee's</u>						
		Supplying and installing following size of perforated pre-painted M.S. cable tray tee's with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.						
3.1	4.4.2	150 mm width X 50 mm depth X 1.6 mm thickness	1	Each				
3.2	4.4.4	300 mm width X 50 mm depth X 1.6 mm thickness	1	Each				
3.3	4.4.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	1	Each				
3.4	4.4.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	2	Each				
3.5	4.4.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	2	Each				
4	4.5	<u>S/ F MS Cable Tray Cross Members</u>						
		Supplying and installing following size of perforated pre-painted M.S. cable tray cross members with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.						
4.1	4.5.2	150 mm width X 50 mm depth X 1.6 mm thickness	2	Each				
4.2	4.5.4	300 mm width X 50 mm depth X 1.6 mm	2	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		thickness						
4.3	4.5.6	450 mm width X 50 mm depth X 2.0 mm thickness	2	Each				
4.4	4.5.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	2	Each				
4.5	4.5.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	2	Each				
5	7.1	laying of one number PVC Insulated and PVC shethed /XLPE power Cables of 1.1 KV grade of following size direct in ground including excavation,sand cushioning and protecting covering and refilling the trench etc as required.						
5.1	7.1.1	Up to 35 sqmm.	1460	Mtrs.				
5.2	7.1.2	Above 35 sq mm and up to 95 sq mm.	64	Mtrs.				
5.3	7.1.3	Above 95 sq mm and up to 185 sq mm.	69	Mtrs.				
5.4	7.1.4	Above 185 sq mm and up to 400 sq mm.	410	Mtrs.				
6	7.8	Laying and fixing of one no PVC insulated and PVC sheathed /XLPE power cable of 1.1 kV grade of following size on Cable tray as required.						
6.1	7.8.1	Up to 35 sqmm. (Clambd with 1 mm thick saddle)	13014	Mtrs.				
6.2	7.8.2	Above 35 sq mm and up to 95 sq mm. (Clambd with 25 x 3 mm thick MS Flat Clamp)	256	Mtrs.				
6.3	7.8.3	Above 95 sq mm and up to 185 sq mm. (Clambd with 25/40 x 3 mm thick MS Flat Clamp)	161	Mtrs.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
6.4	7.8.4	Above 185 sq mm and up to 400 sq mm. (Clamped with 25/40 x 3 mm thick MS Flat Clamp)	221	Mtrs.				
7	9.1	Supplying & making of end terminations with brass double compression gland and Al. lugs for following sizes of PVC insulated and PVC sheathed/ XLPE Al. conductor cable of 1.1 KV grade as required.						
7.1	9.1.1	2 x 6 sq. mm	4	Each				
7.2	9.1.7	3 x 10 sq. mm	2	Each				
7.3	9.1.8	3 x 16 sq. mm	12	Each				
7.4	9.1.9	3 x 25 sq. mm	20	Each				
7.5	9.1.10	3 x 35 sq. mm	20	Each				
7.6	9.1.20	3½ x 25 sq. mm	8	Each				
7.7	9.1.21	3½ x 35 sq. mm	8	Each				
7.8	9.1.22	3½ x 50 sq. mm	8	Each				
7.9	9.1.23	3½ x 70 sq. mm	6	Each				
7.10	9.1.24	3½ x 95 sq. mm	14	Each				
7.11	9.1.25	3½ x 120 sq. mm	6	Each				
7.12	9.1.27	3½ x 185 sq. mm	2	Each				
7.13	9.1.29	3½ x 240 sq. mm	8	Each				
7.14	9.1.30	3½ x 300 sq. mm	20	Each				
7.15	9.1.32	4 x 10 sq. mm	26	Each				
7.16	9.1.33	4 x 16 sq. mm	24	Each				
7.17	9.1.31	3½ X 400 sq. mm (82mm)	20	Each				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>NON DSR ITEMS</u>	-	-				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1	NDSR	Supply of following sizes of XLPE/ PVC insulated Aluminum/ Copper conductor strip/ wire Armoured, overall PVC sheathed 1.1 KV grade cables conforming to relevant IS code and technical specifications.						
	NDSR	XLPE/ PVC insulated Aluminum						
1.1	NDSR	3 x 6 sq. mm	300	RM				
1.2	NDSR	3 x 10 sq. mm	50	RM				
1.3	NDSR	3 x 16 sq. mm	250	RM				
1.4	NDSR	4 x 25 sq. mm	920	RM				
1.5	NDSR	4x 35 sq. mm	125	RM				
1.6	NDSR	3½ x 25 sq. mm	300	RM				
1.7	NDSR	3½ x 35 sq. mm	100	RM				
1.8	NDSR	4 x 50 sq. mm	100	RM				
1.9	NDSR	4 x 70 sq. mm	170	RM				
1.10	NDSR	3½ x 95 sq. mm	50	RM				
1.11	NDSR	3½ x 120 sq. mm	100	RM				
1.12	NDSR	3½ x 185 sq. mm	130	RM				
1.13	NDSR	3½ x 240 sq. mm	200	RM				
1.14	NDSR	3½ x 300 sq. mm	430	RM				
1.15	NDSR	3½ x 400 sq. mm	2200	RM				
1.16	NDSR	4 x 6 sq. mm	250	RM				
1.17	NDSR	4 x 10 sq. mm	420	RM				
1.18	NDSR	4 x 16 sq. mm	180	RM				
	NDSR	<u>PVC insulated Cu. Ar. Cables</u>						
		-						
1.19	NDSR	2C x 6 Sq.mm.	180	RM				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1.20	NDSR	3C x1.5 Sq.mm.	2300	RM				
1.21	NDSR	3C x 4 Sq.mm.	50	RM				
1.22	NDSR	4C x 4 Sq.mm.	280	RM				
1.23	NDSR	4C x 1.5 Sq.mm.	5775	RM				
1.24	NDSR	4C x 2.5 Sq.mm.	1450	RM				
1.25	NDSR	4C x 6 Sq.mm.	810	RM				
1.26	NDSR	4C x 10 Sq.mm.	20	RM				
1.27	NDSR	7C x 2.5 Sq.mm.	100	RM				
1.28	NDSR	12C x 2.5 Sq.mm.	100	RM				
1.29	NDSR	1C x 35 Sq.mm.(Unarmoured cable)	500	RM				
1.30	NDSR	1C x 150 Sq.mm.(flexible cable)	130	RM				
2	NDSR	Supply and making End termination with brass Single/ Double compression gland including providing and crimping of aluminum/copper solderless lugs/ferrules for XLPE/PVC insulated armoured power aluminum/copper conductor cables 1.1 KV grade of following sizes complete in all respect and as per direction of Engineer In Charge. :						
	NDSR	<u>Double COMPRESSION GLAND FOR AL. AR. CABLE</u>						
2.1	NDSR	4C/3C x 6 sq.mm.	40	Sets				
	NDSR	<u>Double Compression Gland for Cu. Cable</u>						
2.2	NDSR	4C/3C/2C x 6/4/2.5 sq.mm.	10	Sets				
2.3	NDSR	7C x 2.5 Sq.mm.	8	Sets				
2.4	NDSR	12C x 2.5 Sq.mm.	10	Sets				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2.5	NDSR	1C x 35 Sq.mm.(Unarmoured cable)	4	Sets				
2.6	NDSR	1C x 150Sq.mm.(flexible cable)	8	sets				
		<u>Raceways and Floor outlet box</u>						
3.1	NDSR	Supplying and fixing 250 mm x 250 mm x 53 mm deep, 3 compartment epoxy coated metal clad Underfloor access outlet boxes as per approved makes with hinged cover, cable outlet grommets, earthing connectors with provision for 3 nos 3 pin 6 amp socket outlets, 1 set of Telephone outlet and 1 set of Data outlet with fixtures complete as required and as per direction of Engineer in Charge.	30	Sets				
4	NDSR	Supplying and fixing of Raceways in the floor comprising rectangular G.I. raceway including chasing of floor and tiles, cleaning wherever necessary, fixing the raceways, minor civil work with providing sealing at joints at junction boxes and protect against any dust or any other foreign materials as per direction of Engineer in Charge.						
4.1	NDSR	300 mm x 40 mm x 2 mm thick	216	RM				
4.2	NDSR	250 mm x 40 mm x 2 mm thick	216	RM				
4.3	NDSR	150 mm x 40 mm x 2 mm thick	200	RM				
4.4	NDSR	100 mm x 40 mm x 2 mm thick	250	RM				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
5	NDSR	Supplying and fixing of Junction boxes for aforesaid raceways fabricated out of MS powder coated, having following sizes made out of 2 mm thick sheet, 50 mm deep, with cut outs for raceways and cover duly champhered. Stainless steel Cover plate of the junction box will be flush wiring as per direction of Engineer in Charge.						
5.1	NDSR	Junction Box of size 300 mm x 300 mm.	40	No.				
5.2	NDSR	Junction Box of size 250 mm x 250 mm.	40	No.				
5.3	NDSR	Junction Box of size 150 mm x 150 mm.	50	No.				
5.4	NDSR	Junction Box of size 100 mm x 100 mm.	55	No.				
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
	-	<u>DSR ITEMS</u>	-	-				
	-	-	-	-				
		<u>SUB HEAD - IV : EARTHING SYSTEM</u>						
1	5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	6	Each				
1.1	5.4	Earthing with G.I. earth Plate 600mm x 600mm x 6mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 mtr long etc. with charcoal or coke and salt)	20	Sets				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		as required.						
2	5.6	Earthing with Cu. earth Plate 600mm x 600mm x 3mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe pipe of 2.7 mtr long etc. with charcoal or coke and salt) as required	18	Sets				
3	5.11	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut,bolt, spring, washer excavation and re-filling etc. as required.	200	Metre				
3.1	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. (2 nos used for 50 x 5 for the Neutral earthing of equipments)	480	Metre				
3.2	5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required. (2 nos used for 50 x 5 for the Body earthing of equipments)	1980	Metre				
3.3	5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	800	Metre				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3.4	5.19	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required. Metre 86	250	Metre				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>DSR ITEMS</u>	-					
	-	-	-					
		<u>SUB HEAD - V : LIGHTING CONDUCTOR SYSTEM</u>						
1	6.7	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required. (For horizontal run)	300	Mtrs.				
2	6.8	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required. (For vertical run)	350	Mtrs.				
3	6.11	Providing and fixing of 20mm x 3mm thick G.I. strip, 125mm long test joint with G.I. bolts, nuts, check nuts and spring washers etc. complete as required.	4	Each				
4	6.14	Providing and laying 32mm x 6mm G.I. strip for earth grid & from test joint to grid.	100	Mtrs.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
5	5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	4	Sets				
6	6.2	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	2	Each				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>DSR ITEMS</u>	-					
	-	-	-					
-	-	<u>SUB HEAD - VI : SUPPLY & FIXING OF LIGHTING CONTROL DEVICE & LIGHT FIXTURES</u>	-					
		-						
1	15.1	Supplying, installation, testing and commissioning of Passive Infrared (PIR) technology based occupancy sensor having high performance, non regulating programmable type, suitable for connected load upto 10Amp, for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	15	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2	15.2	Supplying, installation, testing and commissioning of Passive Infrared (PIR) technology based occupancy sensor with day light dimming (lighting level shall be regulated as per availability of natural day light in an area along with occupancy detection.) having high performance, regulating programmable type, suitable for connected load upto 10Amp, for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	50	Each				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>NON DSR ITEMS</u>	-					
		-						
	NDSR	Supply of following fans & Light fittings with high frequency, electronic Ballast with THD < 10 % starter, control gears, lamps holder, power factor as per ECBC for CFL/Fluorescent /LED lights for improvement, etc. as called for, including chasing of walls, grouting of fitting and making good of the same, Hanging arrangement as required, complete with providing of all necessary hardwares like raw plugs, hangers, support plates etc. and flexible wires, flexible conduits as						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		required for fixing complet as per direction of Enginner In Charge.						
1	NDSR	36 Watt LED Clean room type, bottom opening, mirror optic, recess mounted light fitting with powder coated frame. (Catalog no. SSK-6060-36W-N) , 36 W LED or equivalent	545	each				
2	NDSR	17Watt LED Clean room type, bottom opening, mirror optic, recess mounted light fitting with powder coated frame. (Catalog no.SSK-3030-17) , 17 W LED or equivalent	40	each				
3	NDSR	45Watt LED decorative, recess mounted light fitting with powder coated frame. Suitable for office use.(Catalog no.SSK-PL-45W-6060) , 45 W LED or equivalent	85	each				
4	NDSR	36 Watt LED surface mounted light fitting with all required mounting accessories. (Catalog no. SSK-WP-1036) or equivalent	55	each				
5	NDSR	15Watt Round shape downlighter with LED. (Catalog No. BZSLO 15W WH or equivalent).	530	each				
6	NDSR	36 Watts LED, capsule fitting for terrace lighting.Catalog No. SSK-WP-1036 equivalent.	22	each				
7	NDSR	Bulk head lighting fixtures with LED with	30	each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Catalog No.BH-09, 9 W LED or equivalent.						
8	NDSR	Surface mounted Mirror Light fixture with LED (Catalog No. BCLSB 10 W LED) or equivalent as approved by Engineer in Charge with lamp.	20	Nos.				
9	NDSR	1200mm sweep 3 blade Ceiling fan complete with assembling of blades, down rod, shackle insulator, canopy etc from approved makes and complete as per direction of Engineer in Charge	10	No.				
10	NDSR	Exhaust fan with louver and with 3x1.5 sqmm flexible PVC insulated copper wire of approved make and complete as per direction of Engineer in Charge						
10.1	NDSR	300mm 1280 RPM	25	No.				
10.2	NDSR	230mm 1280 RPM	5	No.				
		<u>Note :</u>						
		<i>All LED with microcontrller ballast and Fluorescent lighting fixtures /compact flourescent lighting fixtures shall be provided with electronic ballast & TLD/T5/ CFL lamp. All lamps/ ballast shall be as per specifications</i>						
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
	-	<u>DSR ITEMS</u>	-					

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	-	-	-					
		<u>SUB HEAD - VII : CONDUITS AND WIRING FOR TELEPHONES</u>						
		-						
1	1.20	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.						
1.1	1.20.2	25 mm dia.	6000	Mtrs.				
1.2	1.18	Supplying and drawing of following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor ,unarmoured telephone cable in the existing surface /recessed steel /PVC conduit as required.						
1.2.1	1.18.2	2 Pair	9000	Mtrs.				
1.2.2	1.18.3	4 Pair	500	Mtrs.				
2	1.19	Supply and drawing of Co-axial TV cable RG-6 grade, 0.7mm solid Cu. Conductor PE insulated, shielded with fine tinned Cu. Braid & protected with PVC sheath in existing surface / recessed steel/ PVC conduit as reqd.	50	Mtrs.				
2.1	1.53	Supplying and drawing of UTP 4 pair CAT6 LAN cable in the existing surface /recessed steel /PVC conduit as required.	9500	Mtrs.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3	1.24.6	Supplying and fixing of modular Telephone socket outlet on the existing Modular plate & switch including connection but excluding modular plate etc. as required.	280	Each				
4	1.24.7	Supplying and fixing of modular TV antenna socket outlet on the existing Modular plate & switch including connection but excluding modular plate etc. as required.	2	Each				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>NON DSR ITEMS</u>	-					
		-						
1	NDSR	Supply, installation, testing and commissioning of following krone type tag blocks enclosed in MS enclosure of suitable size with lockable cover including all the accessories for fixing complete in all respect and as per direction of Engineer in Charge.						
1.1	NDSR	300 pair Tag block (Main Teg Block)	1	No				
1.2	NDSR	100 pair Tag block	4	No				
1.3	NDSR	50 pair Tag block	1	No				
1.4	NDSR	20 pair Tag block	2	No				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2	NDSR	Supply, laying, testing and commissioning of following size of 0.61mm dia copper conductor multi pair telephone cable as per suitable for indoor telephone wiring conforming for ITD S/WS - 113 C and S/WS - 114 (actual qty. may vary as per site) in existing conduit/ trench/ tray as required . The flexible conduit wherever required shall be inclusive in cable rates and complete as per direction of Engineer in Charge .						
2.1	NDSR	100 pair Ar. Cable	50	RM				
2.2	NDSR	60 pair Ar. Cable	20	RM				
2.3	NDSR	50 pair Ar. Cable	60	RM				
2.4	NDSR	20 pair Ar. Cable	100	RM				
3	NDSR	Supply, fixing, testing & commissioning of Modular RJ-45 with data outlet socket with grid & cover plate in suitable size of 16 SWG GI box complete as per direction of Engineer in Charge .	290	Nos				
4	NDSR	Supply, erection, testing and commissioning of splitter/ Tap-off terminals for Co-axial cables in suitable size of G.I. Boxes with hinged lockable cover complete complete as per direction of Engineer in Charge .						
4.1	NDSR	Two way Splitter(S2)	6	Nos.				
4.2	NDSR	1 way Tap-off Box.	3	Nos.				
4.3	NDSR	2 way Tap-off Box.	3	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
5	NDSR	Supply, laying and connecting of following: Co-axial TV cable as per specifications in the existing conduit / raceways trays etc complete as per direction of Engineer in Charge .						
5.1	NDSR	RG-11 Cable	100	RM				
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
	-	<u>DSR ITEMS</u>	-					
	-	-	-					
		<u>SUB HEAD - VIII : ADDESSABLE FIRE DETECTION & ALARM SYSTEM</u>						
		-						
1	1.17	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required.						
1.1	1.17.11	2 x 2.5 sq. mm	3000	Mtrs				
2	1.2	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required						
2.1	1.20.2	25mm	1650	Mtrs				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	-	<u>NON DSR ITEMS for ADDESSABLE FIRE DETECTION & ALARM SYSTEM</u>	-					
		-						
1	NDSR	Supply Installation , testing and commissioning of "Extension of FPA 5000 fire alarm system suitable for minimum 229 detectors,9 loops,9 zone for the existing Fire Alarm system installaed at existing building.	1	set				
2	NDSR	Supply, installation, testing and commissioning of Analogue addressable Multicreteria Type detector having 2 optical sensor &1 Heat sensor with inbuilt isolator with floating sensivity, mounting based LED, software addressing, Address Switch to programme the detectors is not acceptable, to be installed under/above false ceiling, roof and concealed space etc. interconnecting to loop cable complete as required as per direction of Engineer in Charge.(FAP DOT 420 or equivalent)	30	No.				
3	NDSR	Supply, installation, testing and commissioning of Analogue addressable photoelectric flush mount with colour option invisible multicriteria optical plus chemical sensor with inbuilt isolators type detector with mounting based LED software addressing, Address Switch to programme the detectors is not acceptable, UL /EN LISTED to be installed under/above false ceiling, roof and	150	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		concealed space, etc. interconnecting to loop cable complete as required as per direction of Engineer in Charge.(FAPOC 520 or equivalent)						
4	NDSR	Supply, installation, testing and commissioning of UL /EN listed Analogue Addressable type Heat Detector (with inbuilt isolators) with range upto 54° C complete with all fixing accessories like base, base box, self adhesive sticker indicating loop number and address etc. to be installed under/above false ceiling, roof and concealed space, etc. interconnecting to loop cable complete as required as per direction of Engineer in Charge.(FAH-T420 or equivalent)	50	No.				
5	NDSR	Supply, installation, testing and commissioning of addressable Manual Call Point (break glass type)with inbuilt isolators complete as per direction of Engineer in Charge.(FMC-210-DM-G-R or equivalent)	15	No.				
6	NDSR	Supply, installation, testing and commissioning of addressable strobe cum-Hooter as per direction of Engineer in Charge.(FNM-420-A-BS-RD+FNS-420-R or equivalent)	15	No.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
7	NDSR	Providing, installation, testing & commissioning of control module with inbuilt isolator as per specifications and as per direction of Engineer in Charge..	6	No.				
8	NDSR	Providing, installation, testing & commissioning of Monitor module inbuilt isolator as per specifications and as per direction of Engineer in Charge..	3	No.				
9	NDSR	Providing, installation, testing & commissioning of Response Indicator as per specifications and as per direction of Engineer in Charge..	100	No.				
10	NDSR	Providing, installation, testing & commissioning of 2 way communication Fire Fighter's Telephone Jack as per specifications complete as required.	3	No.				
11	NDSR	Providing, installation, testing & commissioning of 2 way communication Fire Fighter's Handset as per specifications complete as required.	3	No.				
12	NDSR	Providing, installation, testing & commissioning of Fire panel supervised 70db-84db Ceiling mounted multi tap 2 Watt Speaker as specified & same make as of panel as per specifications complete as required.	60	No.				
13		<u>CABLES AND CONDUIT</u>						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
13.1	NDSR	Supply, installation & commissioning of Fire Survival Armoured cable (600/1000V) with Class-2 annealed copper conductor to BS EN 60228 having crosslinkable Halogen Free insulation with Glass Mica (Fire barrier) tape along with Low Smoke Zero Halogen (LSZH) inner & outer sheath as per BS 7846:2009. Should retain circuit integrity as per BS 6387 C.W.Z & BS EN 50200 .						
13.1.1	NDSR	2 x 2.5 sqmm	3500	RM				
		Note: The specifications/code/reference number of new items must be compatible for suitable integration with existing system/item						
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
		<u>SUB HEAD -IX : LT PANELS</u>						
		DSR ITEMS						
		<u>SUB HEAD -IX : LT PANEL & RISING MAIN</u>						
		-						
		<u>RISING MAIN</u>						
		-						
1	3.1	Supplying, installing on wall, testing and commissioning of following capacity rising mains made of 1.6mm thick sheet steel enclosure duly painted with powder coating, wall straps, fully PVC insulated 4 Nos aluminium bus bars in convenient						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		sections and suitable for 415 volts, 3 phase, 4 wire, 50 Hz, A.C. supply with extension joints, fire proof barriers, expansion joints, thrust pads including jointing, and earthing with 2 runs of galvanised iron strips etc. as required. (Rising mains confirming to IS 8623, TEC 439)						
1.1	3.1.4	630 amps (S.C. rating for 1 sec - 45 KA)	20	RM				
2	3.2	Supplying, installing, testing and commissioning of following capacity TPN tap off box made of 1.6mm thick sheet steel enclosure duly painted with powder coating on existing rising mains complete with TPN disconnecter FSU and HRC fuses, connections, earthing etc. as required.						
2.1	3.2.3	63 amps TPN	9	Each				
2.2	3.2.4	100 amps TPN	5	Each				
2.3	3.2.5	200 amps TPN	1	Each				
3	3.4	Supplying, installing, testing and commissioning of following capacity End Feed Unit made of 1.6mm thick sheet steel enclosure duly painted with powder coating to existing rising mains complete with TPN disconnecter FSU and HRC fuses, mounting stands, cable end box, brass compression gland, connections, earthing etc. as required.						
3.1	3.4.4	600 amps TPN	1	Each				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
	-	<u>NON DSR ITEMS</u>	-					
		-						
		<u>FRONT OPERATED PANEL</u>						
	NDSR	Design, manufacture, supplying fixing in position of the following front operated cubicle type, front access, dead back, 2mm thick steel enclosed free standing, dust and vermin proof, switchboard with IP42 /IP65 protection with hinged and lockable doors complete with interconnections, tinned copper crimping lugs, bonding to earth and painting, suitable for use at 415 volts, 3 phase 4 wire 50 Hertz system, and suitable for a fault level of 25 MVA symmetrical at 415 volts.						
i)		All switchboards shall be modular type and have provision for entry of cables from the top /bottom as required.						
ii)		The cost shall include providing and fixing of 100 x 50 x 6 mm channels for switchboard support.						
iii)		All live accessible parts shall be shrouded and all equipment shall be finger touch proof. The Busbars insulation shall be with heat shrinkable sleeves. SMC/DMC shrouds and busbar supports shall be used.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
iv)		All MCCB shall have phase barriers, rotary handles and extension terminal as required .						
v)		All unbalanced kWh meter shall have communication module for BMS connectivity						
1	NDSR	<u>VRV Panel at terrace out door type (IP 65)</u>						
A		<u>INCOMER</u>						
		1 No.400A TPN MCCB (50 KA)						
B		<u>METERING & INDICATION</u>						
i)		1 set of R,Y,B phase indicating lamps						
ii)		1 No. (0-500V) Voltmeter with Built-in VSS with 3 nos. 2A SP MCB						
iii)		1 No. (0-400A) Ammeter with ASS with 3 nos. 400/5A CT's						
C		<u>BUS-BAR</u>						
i)		1 Set of 630A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
D		<u>OUTGOINGS</u>						
i)		4 No. 160A TPN MCCB						
ii)		5No. 125A TPN MCCB						
iii)		4 Nos. 63A TPN MCB						
		Supplying,Receiving, fixing, testing & commissioning of above described Panel	1	Sets				
2	NDSR	<u>UPS Input panel</u>						
A		<u>INCOMER</u>						
		1 No.400 4P MCCB						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
B		<u>METERING & INDICATION</u>						
i)		1 set of R,Y,B phase indicating lamps						
ii)		1 No. (0-500V) Voltmeter with Built-in VSS with 3 nos. 2A SP MCB						
iii)		1 No. (0-400A) Ammeter with ASS with 3 nos. 400/5A CT's						
C		<u>BUS-BAR</u>						
i)		1 Set of 500A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
D		<u>OUTGOINGS</u>						
i)		5No. 100A FP MCCB						
		Supplying,Receiving, fixing, testing & commissioning of above described Panel	1	Sets				
3	NDSR	<u>UPS outgoing Panel</u>						
A		<u>INCOMER</u>						
		1No. 100A 4P MCCB (35 kA)						
		2 Nos space shall be provided for the future incomers.						
B		<u>METERING & INDICATION</u>						
i)		1 set of R,Y,B phase indicating lamps						
ii)		1 No. (0-500V) Voltmeter with Built-in VSS with 1nos. 2A SP MCB						
iii)		1 No. (0-100A) Ammeter with ASS with 1 nos. 100/5A CT's						
C		<u>BUS-BAR</u>						
i)		1Set of 100A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
		<u>BUS-COUPLER</u>						
		1No 100A FP MCCB with Phase indication lamps						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
D		<u>OUTGOINGS</u>						
i)		1 Nos. 100 A FP MCB						
ii)		6 Nos. 63 A FP MCB						
		Supplying,Receiving, fixing, testing & commissioning of above described Panel	5	Sets				
4	NDSR	PRESSURIZATION PANEL (Terrace)						
A		INCOMER						
		1No. 160A TPN MCCB (25 KA)						
B		METERING & INDICATION						
i)		1 set of R,Y,B phase indicating lamps						
ii)		1 No. (0-500V) Voltmeter with Built-in VSS with 3 nos. 2A SP MCB						
iii)		1 No. (0-160A) Ammeter with ASS with 3 nos. 160/5A CT's						
C		BUS-BAR						
		1 Set of 200A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
D		<u>OUTGOINGS</u>						
i)		4 Nos. 63A TPN MCB						
ii)		4 Nos. 40A TPN MCB						
iii)		3 nos. 32Amp TPN MCB						
iv)		2 Nos. S/D starter with self illuminated Push button for ON & OFF and suitable rating of contactor and O/L relays, suitable upto for 10 HP Motor.						
v)		2 Nos. DOL starter with self illuminated Push button for ON & OFF and suitable rating of contactor and O/L relays, suitable upto for 5HP Motor.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Supplying,Receiving, fixing, testing & commissioning of above described Panel	1	Sets				
5	NDSR	Lift Panel (Loc.-Lift Machine room)						
A		INCOMER						
i)		1 No. 125A TPN MCCB .						
B		METERING & INDICATION						
i)		1 set of R,Y,B phase indicating lamps						
ii)		1 No. (0-500V) Voltmeter with Built-in VSS with 3 nos. 2A SP MCB						
iii)		1 No. (0-125A) Ammeter with ASS with 3 nos. 125/5A CT's						
C		BUS-BAR						
i)		1 Set of 150A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
D		OUTGOINGS						
i)		4 Nos. 63 A TPN MCB .						
ii)		3No. 32A DP MCB .						
		Supplying,Receiving, fixing, testing & commissioning of above described Panel	1	Sets				
6	NDSR	AHU main panel for Second floor						
A		INCOMER						
i)		1 No. 200 A TPN MCCB .						
B		METERING & INDICATION						
i)		1 set of R,Y,B phase indicating lamps						
ii)		1 No. (0-500V) Voltmeter with Built-in VSS with 3 nos. 2A SP MCB						
iii)		1 No. (0-200A) Ammeter with ASS with 3 nos. 200/5A CT's						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
C		BUS-BAR						
i)		1 Set of 200 A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
D		OUTGOINGS						
		1Nos. 125A TPN MCCB						
i)		2Nos. 100 A TPN MCCB						
ii)		3 No. 32A DP MCB .						
		Supplying,Receiving, fixing, testing & commissioning of above described Panel	1	Sets				
7	NDSR	<u>Water Supply Panel</u>						
A		<u>INCOMER</u>						
		1No. 160A TPN MCCB (25 KA)						
B		<u>METERING & INDICATION</u>						
i)		1 set of R,Y,B phase indicating lamps,Voltmeter ,Ametr						
C		<u>BUS-BAR</u>						
		1 Set of 200A TPN Aluminium Bus Bar with colour coded PVC Sleeves						
D		<u>OUTGOINGS</u>						
i)		2 Nos. 40A TP MCB .						
ii)		6 Nos. 32 A TP MCB .						
iii)		3 No. 16A TP MCB .						
iv)		2 Nos. S/D starter with self illuminated Push button for ON & OFF and suitable rating of contactor and O/L relays, suitable upto for 10 HP Motor.						
v)		9Nos. DOL starter with self illuminated Push button for ON & OFF and suitable rating of contactor and O/L relays, suitable						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		upto for 2 /1.5 HP Motor.						
vi)		1 No. space for S/D starter with self illuminated Push button for ON & OFF.						
vii)		2 Nos. space for DOL starter with self illuminated Push button for ON & OFF.						
viii)		Supplying,Receiving, fixing, testing & commissioning of above described Panel	1	Set				
8	NDSR	Supply Installation Testing and Commissioning of VFD with starter bypass AHU CONTROL PANEL with :						
		System control panel for Recirculation AHU comprising of incomer MCCB, feeder with approved Make VFD for Supply Air Fan Motor, Bypass mode Starter with MPCB, 3-Pole contactors and related indication lamps etc. For AHU complete with wall mounting, CRCA Fabricated, Epoxy powder coated, fully wired and tested. The control panel shall have provision for hook up to BMS Interface in Auto mode.This control panel must have the provision for starter bypass mode also. This Panel should be with controller having :						
A		For AHU-01 , 02						
		1 No. 100A TPN MCCB As Incomer						
		4 No. 63A TPN MCCB As outgoing						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		AHU motor feeder 5.5kW - 1 no. each with VFD alongwith DOL starter bypass arrangements.						
		Heater feeder 9kW - 1 no. Each						
		Condensing unit 7.5 kW - 1 no.each	2	Set				
B		AHU-03						
		1 No. 125A TPN MCCB As Incomer						
		1No. 100A TPN MCCB outgoing						
		4 No. 63A TPN MCCB As outgoing						
		AHU motor feeder 11kW - 1 no. each with VFD star-delta starter bypass arrangements.						
		Heater feeder 39kW - 1 no.						
		Condensing unit 14.3 kW - 1 no.						
		Condensing unit 14.3 kW - 1 no.						
		Condensing unit 7.5 kW - 1 no.	1	Set				
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
		<u>SUB HEAD - X : HT EQUIPMENT & TRANSFORMER</u>						
		-						
	Note:	1. All the necessary Approvals & liasoning for Load enhancement from present approved load to the required load including CEA apprvl shall be in the scope of the contractor.Only fee paid to						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		the authority shall be reimbursed against the submission of the receipt and nothing shall be paid extra.						
1		<u>INDOOR TYPE</u>						
	10.4	Supplying, and making Indoor cable end termination with Heat shrinkable jointing kit complete with all accessories, including lugs suitable for following sizes of 3 core XLPE aluminum conductor cable of 11 KV grade as required.						
1.1	10.4.3	3Cx240 sq.mm. XLPE insulated Al. Ar. Cable	2	Sets				
2		<u>OUTDOOR TYPE</u>						
	10.5	Supplying, and making OUTDOOR cable end termination with Heat shrinkable jointing kit complete with all accessories, including lugs suitable for following sizes of 3 core XLPE aluminum conductor cable of 11 KV grade as required.						
2.1	10.5.3	3Cx240 sq.mm. XLPE insulated Al. Ar. Cable	2	Sets				
3	8.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning,	100	Metre				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		protective covering and refilling the trench etc. as required.						
3	8.1.2	Above 120 sq. mm and upto 400 sq. mm						
4	8.2	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required..						
4.1	8.2.2	Above 120 sq. mm and upto 400 sq. mm	50	Metre				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
		<u>NON DSR ITEMS</u>						
		-						
1A	NDSR	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe /surface as required for 11 kv cable Above 120 sq. mm and upto 400 sq. mm	100.00	<u>metre</u>				
2.0		Supply, Laying, Testing & Commissioning of following 1.1KV XLPE armoured copper cable complete as required. The cable shall be laid in trenches / cable trays as required. The cable shall be clamped at						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		regular intervals to the supports in trench or on cable trays or brick wall using MS clamps and fasteners. Rate shall include MS clamps & fasteners.						
2.1	NDSR	24core 1.5 sq mm (for OLTC control, from OLTC to RTCC)	50	Mtrs				
2.2	NDSR	4core 2.5 sq mm (for Tap position sensing, from OLTC to RTCC)	50	Mtrs				
2.3	NDSR	4core 4 sq mm (for 3ph 4 wire, Aux supply incoming to RTCC from LT panel & 3ph 4 wire, Aux supply outgoing to OLTC from RTTC)	100	Mtrs				
2.4	NDSR	12core 1.5 sq mm (Transformer to HT Panel)	100	Mtrs				
3.0		Supply, Installation, Testing & Commissioning of following XLPE armoured copper cable end termination, complete as required. (Double Compression)						
3.1	NDSR	24core 1.5 sq mm (for OLTC control, from OLTC to RTTC)	4	Nos				
3.2	NDSR	4core 2.5 sq mm (for Tap position sensing, from OLTC to RTTC)	4	Nos				
3.3	NDSR	4core 4 sq mm (for 3ph 4 wire, Aux supply incoming to RTTC from LT panel & 3ph 4 wire, Aux supply outgoing to OLTC from RTTC)	8	Nos				
3.4	NDSR	12core 1.5 sq mm (Transformer to HT Panel)	8	Nos				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
5	NDSR	Supply, installation, testing and commissioning of 500 kVA 11000/433 volts Deta/Star, vector group DYN11, outdoor mounting , oil cooled, ONAN transformer with ON Load Tap Changer (OLTC) plus AVR ,AVS relay and RTCC for automatic sensing of incoming voltage, automatic operation of OLTC and facility for remote manual operation of On Load Tap changer, suitable for incoming voltage variation of +10% to –10% in 16 steps in 1.25% to give a constant secondary voltage. The transformer shall be provided with fittings, accessories, protection, first filing of oil etc. including Buchholz oil temperature alarm/trip protection and space for mounting differential protection CT's in LV chamber complete as per specifications and as required. The transformer shall be provided with arrangement to terminate XLPE cable on HT side and to connect XLPE Cable on LT side, complete as required.						
	NDSR	Supplying,Installation,Testing & Commissioning Rate for distribution transformer as described above	2	Set				
6	NDSR	Supplying OF following size of aluminum conductor, XLPE insulated armoured and over all PVC sheathed, 11 KV (E) grade earthed cable as per technical specifications						
i)	NDSR	3C x 240 sq.mm. XLPE insulated Al. Ar.	150	RM				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Cable						
7	NDSR	Supply, Fabricating and fixing of weld mesh fencing WITH 2 NOS. DOOR for Transformer yard with required Gate of 2.5 Mtrs height made out of 2"x2" 10 swg Weld mesh made of 40mmx40mmx6mm L angle frame in the height of 2500mm with necessary grouting arrangements detachable type complete as required.	100	Sqm				
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
		SUB HEAD - XI :DG SETS AND ACCESSORIES						
		<u>NON DSR ITEMS</u>						
	NDSR	<u>SUB HEAD :- XI:- SUPPLY, INSTALLATION, TESTING AND COMMISIONING OF DG SET INCLUDING ALL ACCESSORIES (NON DSR)</u>	-					
		-	-					
1		<u>DG SETS</u>	-					
1.1	NDSR	Design, manufacture, supply, erection, testing & commissioning of following rating of DG Sets in Accoustic Enclosure, having self excited & self regulated 415 V, 3 Phase, 4-Wire, 50 Hz, 0.8 p.f. Alternator coupled with multi-cylinder, turbo-charged/ turbo-charged after cooled as called for, Diesel Engine capable to						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		generate the power not less than the required BHP to achieve the alternator capacity as given below, with Air-cooled radiator, hospital type silencers and Electronic governor suitable PCC (Power Command Control) or equivalent for Automatic Transfer Switch as called for, & Engine control panel, 24V batteries of suitable rating, battery-charger with battery leads, inbuilt oil fuel tank and complete with all standard accessories & protection as required and as per specifications, including first filling of lube oil providing common base plate, anti vibration pads, drip trays, foundation bolts, nuts, bolts, cable termination/adopter box suitable to terminate upto 3 nos. of 3.5Cx300 sq.mm. XLPE cables as required for a complete installation including initial filling of fuel and lubricants required during trial run of DG sets on full load for 12 hours followed by 10% overload for one hour in any 12 hours duration, as per specifications & drawings complete with RCC/PCC foundation for DG set as per the structural detail for Dynamic Load submitted by the Vendor and approve by the Consultant.						
		Note : The exhaust system should have exhaust bellow just near to DG sets and before the exhaust silencer to accommodate the expansion in the exhaust system.						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	NDSR	625 KVA (With Acoustic Enclosure)	1	Set				
1.2	NDSR	GE Make Zenith or equivalent Automatic Transfer Switch 1000A 4P open style, Model ZTG or equivalent suitable for 625 KVA load transfer from Transformer to DG sets in the suitable enclosure in the Essential panel . All the laying cabling , control wiring and end termination etc shall be in scope of the contractor(Cost of suitable size of cables and control wires is excluding)	1	Set				
		<u>EXHAUST PIPE & CHIMNEY</u>						
		<u>EXHAUST PIPE</u>						
2		Supply, installation, testing and commissioning of exhaust pipe fabricated out of 6 mm thick MS pipe with all fixing accessories and hardwares. The exhaust pipes shall be dual insulated with first layer of 25 mm thick ceramic fibre wool insulation (128 Kg/ cubic metre density) and second layer of 50 mm thick mineral wool (150 Kg/ cubic metre density) insulation wrapped in chicken mesh and clad with 24 gauge aluminium sheet including all support as required. (Exhaust support structure Steel qty has been taken in Civil BOQ)						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
	NDSR	250 mm dia	20	Mtrs				
		Safety Mats						
3	NDSR	Providing a mat made of elastomeric polymers Material(Class B)1 mtr. wide and 2.5 mm thick to withstand 11 KV dielectric strength AS PER IS 15652 : 2006	15	mtr				
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
		-						
		<u>SUB HEAD - XII : CLOSE CIRCUIT TELEVISION SYSTEM</u>						
		-						
		<u>DSR ITEMS</u>						
1	1.17	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel / PVC conduit as required.						
1.1	1.17.3	3 x 1.5 sq. mm	400	Mtrs				
2	1.2	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit complete as required and as per direction of Engineer in Charge.						
2.1	1.20.2	25mm	300	Mtrs				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3	1.19	Supply and drawing of Co-axial TV cable RG-6 grade, 0.7mm solid Cu. Conductor PE insulated, shielded with fine tinned Cu. Braid & protected with PVC sheath in existing surface / recessed steel/ PVC conduit complete as required and as per direction of Engineer in Charge..	50	Mtrs.				
		TOTAL CARRIED TO SUMMARY SHEET IN DSR ITEMS						
		<u>NON DSR ITEMS</u>						
		-						
		Supply, installation, testing and commissioning of following UL/EN Listed items as per the technical specification as below						
1	NDSR	1/3" Super HAD CCD II, sensor resolution 540TVL, Sensitivity 0.01lux , (Lens 2.8 to 12 mm) ,Signal-to-Noise Ratio >50 dB(AGC Off) ,True Day/ Night,Digital Noise Reduction ,ATR,HLC ,OSD Menu for Easy Operation ,Digital Image Stabilizer,Varifocal Manual zoom and focus adjustment, including 230V AC / 12V DC Adaptor electrical Shutter (convertor) and plug top with shielded wires and Ceiling mounting bracket for camera complete in all respect and as per direction of Engineer in Charge.(For Indoor application). LTC 3364 or equivalent	18	No.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2	NDSR	True day/night Indoor PTZ dome camera with 1/4" HAD CCD II progressive scan 550TVL Analog PTZ Colour DWDR Dome Camera, 3DNR, True Day/Night, 0.2 lux minimum illumination sensitivity for colour and 0.02 for B/W, electronic shutter, 36X Optical Zoom, 12X Digital Zoom, 360 Degrees continuous pan rotation, unobstructed 0 Degree to +90 Deg Tilt, Switchable automatic gain control, auto white balance, Auto Tracking, Privacy Masking, Motion Detection The Camera system shall have minimum 255 presets, built in menu system for setup of programmable functions. The PTZ camera shall support multiple protocols. Above complete in all respect and as per direction of Engineer in Charge. (indoor High Speed PTZ Cameras)600 series Auto dome or equivalent	4	No.				
3	NDSR	16 channel DIGITAL VIDEO RECORDER (DVR) with two video outputs & 32" totally flat colour LCD monitor & rack as per Specification. Contractor shall size the DVR for real time 400 FPS / 4 CIF resolution 30 days of continuous recording and submit data sheet of their storage calculation for both MPEG 4 and H.264 recording formats. The DVR with TCP / IP	1	No.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		connectivity, DVD R/W & USB connectivity with all necessary software along with standalone UPS with 15 min. Battery back upMin 6HDD Slots. 600 series or equivalent						
4	NDSR	8 channel DIGITAL VIDEO RECORDER (DVR) with two video outputs & 32" totally flat colour LCD monitor & rack as per Specification. Contractor shall size the DVR for real time 400 FPS / 4 CIF resolution 30 days of continuous recording and submit data sheet of their storage calculation for both MPEG 4 and H.264 recording formats. The DVR with TCP / IP connectivity, DVD R/W & USB connectivity with all necessary software along with standalone UPS with 15 min. Battery backup Min 6HDD Slots.Above complete in all respect and as per direction of Engineer in Charge. 600 series or equivalent	1	No.				
5	NDSR	Supply Installation Testing & Commissioning Joystick controller (for PTZ camera's) complete in all respect and as per direction of Engineer in Charge LTC 5136 or equivalent	1	NO.				
6	NDSR	Supply, Installation and commissioning of 32" Color Monitor including all accessories as per specifications & complete in all	2	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		respect and as per direction of Engineer in Charge						
7	NDSR	Supply & laying of following Solid annealed bare electrolytic grade copper conductor, co-axial cable with PE dielectric, poly-laminated aluminum tape followed by copper braiding & overall PVC sheathed cable.						
7.1	NDSR	RG -11 coaxial cable	200	RM				
8	NDSR	Supplying, drawing, connecting & testing of 4 pair CAT-5 wire for PTZ High speed camera's in existing conduit complete in all respect and as per direction of Engineer in Charge	300	RM				
		Note: The specifications/code/reference number of new items must be compatible for suitable integration with existing system/item						
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
		<u>NON DSR ITEMS</u>						
		-						
	NDSR	<u>SUB HEAD - XIII : UPS SYSTEM</u>						
1	NDSR	Supply, installation, Testing and commissioning of the following rating UPS						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		as per specifications and complete in all respects.						
1.1	NDSR	30 KVA UPS (in parallel redundant mode) 3 phase (415 V + 15%) Volts input & 3 phase output (415 V + 1%), 50 Hz, Input harmonic Current THD <=3% typical at 100% load, <=6% maximum at 50% load with Isolation Transformer and 120 min battery backup for each UPS along with battery cabinet complete in all respect including supporting steel rack structure for UPS and Battery as required. Quoted price shall be inclusive of required rating single core copper conductor cable including terminations, connections of UPS to panels, required no. of batteries of approved makes for 120 minutes backup etc complete in all respect and as per direction of Engineer in Charge.	3	Set				
1.2	NDSR	10 KVA UPS (in parallel redundant mode) 3 phase (415 V + 15%) Volts input & 3 phase output (415 V + 1%), 50 Hz, Input harmonic Current THD <=3% typical at 100% load, <=6% maximum at 50% load with Isolation Transformer and 120 min battery backup for each UPS along with battery cabinet complete in all respect including supporting steel rack structure for UPS and Battery as required. Quoted price shall be inclusive of required rating single core copper conductor cable including	2	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		terminations,connections of UPS to panels, required no. of batteries of approved makes for 120 minutes backup etc complete in all respect and as per direction of Engineer in Charge.						
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
		<u>SUB HEAD - XIV: External Street Lights and Solar Power Panels On Grid System</u>						
		-						
		-						
	NDSR	Design, supply at site, installation, testing & commissioning of 3-phase, 415 volt, ON-GRID solar power plant synchronized with transformer supply including all accessories, inverter, solar panels, all cabling, certifications, liaison with authorities for subsidy, for the following KVA ratings complete as required.						
1	NDSR	10KVA	1	Set				
		STREET LIGHT POLES						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1	NDSR	Supply, fixing, testing & commissioning of the Gate Lighting Fixture equivalent to Philips cat no. Metronomois CDS 570 including 1 no. 150 watt CDM-T MH lamp along with ignitor, necessary brackets, including connections ,required wiring ,conduit , as required.	4	Each				
2	NDSR	Supply, fixing, testing & commissioning of the bollard Lighting Fixture equivalent to Philips Cat. No. BCP 151 Bollard including 1 no. 8 watt LED lamp of approved shade along with ignitor, necessary brackets, including connections,wiring,conduit ,civil works as required and complete in all respect as per direction of engineer in charge.	15	Each				
		TOTAL CARRIED TO SUMMARY SHEET IN NON DSR ITEMS						
		SUB HEAD - XV: Public Address System, ACS, Door Locking System						
		-						
A	NDSR	PUBLIC ADDRESS SYSTEM						
1	NDSR	Supply, Installation, Testing, Commissioning of 6W speakers to be flushed mounted on false ceiling complete in all respect as per direction of Engineer in Charge.LBD 0606 or equivalent	159	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2	NDSR	Supply, Installation, Testing, Commissioning of volume control - cum - ON - OFF switch flush mounted on wall along with other electrical switches complete in all respect as per direction of Engineer in Charge .	20	Nos.				
3	NDSR	Supply, Installation & Testing of 12 zone call station complete in all respect as per direction of Engineer in Charge.LBB 1957+1956 or equivalent	1	Nos.				
4	NDSR	Supply, Installation & Testing of controller for Public Address System along with router & controller complete in all respect as per direction of Engineer in Charge . LBB 1990+1992 or equivalent	1	Nos.				
5	NDSR	Supply, Installation & Testing of 120W Amplifier for Public Address System with microphone input, tone control, protection circuit complete for the speakers output lines complete in all respect as per direction of Engineer in Charge	12	Nos.				
6	NDSR	Supply, Installation & Testing of Music system the system to be of Philips/Sony or equivalent approved make. The system to comprise of MP3 compatible discs, FM radio, etc. complete with all neccessary hardware & accessories, etc. as per direction of Engineer in Charge	1	Nos.				
8	NDSR	Supply and Installation of PA Rack complete in all respect as per direction of Engineer in Charge	1	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9	NDSR	Supply installation of 2 CORE x 40/36 Twin Twisted Cable Multi - Stranded Copper, unarmoured, 10-12 Twist/ mtr, Shielded cable complete in all respect as per direction of Engineer in Charge	1600	Mtr.				
10	NDSR	Supply and installatino of 25 mm PVC Conduit with all required accessories complete in all respect as per direction of Engineer in Charge	1500	Mtr.				
A		Sub Total PA System						
B	NDSR	ACCESS CONTROL SYSTEM:Design, supply , testing and commissioning of the following systems complete in all respect system as per direction of Engineer in Charge.						
1	NDSR	Proximity Card Reader. HID R-10 or equivalent	29	Nos.				
2	NDSR	Biometric Reader for attendance BSM-OC Suprema or equivalent	1	Nos.				
3	NDSR	Electromagnetic Lock	15	Nos.				
4	NDSR	Electromagnetic Bracket With DPS.	15	Nos.				
5	NDSR	Green MCP.	15	Nos.				
6	NDSR	4 - reader access controller with of SMPS power supply with TCP/IP connectivity including all necessary hardware & accessories, etc. APC-AMC2-4WCF or equivalent	8	Nos.				
7	NDSR	Time and attendance software	1	Nos.				
8	NDSR	8C x 0.5 Sq.mm sheilded cable laid through PVC rigid conduit	800	meter				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
9	NDSR	4C x 0.5 Sq.mm sheilded cable laid through PVC rigid conduit	800	meter				
10	NDSR	HID Card HID 2080	200	Nos.				
		Design, supply , testing and commissioning of the above system complete in all respect system as per direction of engineer in charge.						
		Note: The specifications/code/reference number of new items must be compatible for suitable integration with existing system/item						
		-						
B		Sub Total ACCESS CONTROL SYSTEM						
C		DOOR INTERLOCKING SYSTEM: Design, supply , testing and commissioning of the following systems complete in all respect system as per direction of Engineer in Charge. .						
2	NDSR	4 Door Interlock System (1 Set for 4 Door)	8	set				
		Which includes following items						
		i)Controller -1 Set. or as required						
		ii)Front Facia Plates - 8 Nos. or as required						
		iii)600 LBS EM Lock for single leaf with DPS -4 Nos. or as required						
		iv)Door Position sensors -4 Nos. or as required						
		v)Brackets -4 Nos. or as required						
		vii)Back boxes -8 Nos.or as required						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		viii)Cable & Conduit 1 Set or as required						
C	NDSR	Sub Total Door Locking System						
D	NDSR	Rodent Repellent system: Design, supply , testing and commissioning of the following systems complete in all respect system as per direction of Engineer in Charge.						
1	NDSR	Supply, Installation of Rodent Repellent Controller	1	Nos				
2	NDSR	Supply, Installation of Rodent Transducers	8	Nos				
3	NDSR	Supply, Installation of MS Powder Coated Bracket	1	Nos				
4	NDSR	Supply, Installation of Rodent Repellent cable	1	Set				
D		Rodent Repellent system: Design, supply , testing and commissioning of the following systems complete in all respect system as per direction of Engineer in Charge.						
E	NDSR	Water Leak Detection System : Design, supply , testing and commissioning of the following systems complete in all respect system as per direction of Engineer in Charge.						
1		Supply, Installation of 4 Zone Water Leak Detector Panel with Modbus connectivity .	1	Nos				
2		Supply, Installation of Water Leak Sensor Cable	1	Nos				
3		Supply, Installation of Hooter	1	Nos				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
E		Water Leak Detection System : Design, supply , testing and commissioning of the following systems complete in all respect system as per direction of Engineer in Charge.						
		Su Total of SUB HEAD - XVI: Public Address System, ACS, Door Locking System						
II		Sub Head XVI :DATA & VOICE NETWORKING WORKS						
		Supply , testing and commissioning of the following systems /items complete in all respect system as per direction of Engineer in Charge.						
A	NDSR	DATA NETWORKING (475V)						
1	NDSR	Cat - 6 UTP cable ,color Grey For Data	8920	meter.				
2	NDSR	Cat 6 Information Outlet for Data - color as required	446	Nos..				
3	NDSR	Cat 6 Information Outlet for Voice- color as required	257	Nos..				
4	NDSR	Cat 6 24 Port Loaded Panel, 1U-Data	40	Nos..				
5	NDSR	Quad Face Plate	446	Nos.				
6	NDSR	Cat 6 Patch Cord 2meter for Data - colour as required (Server Room)	446	Nos..				
7	NDSR	Cat 6 Patch Cord 1meter (User Side)	446	Nos..				
8	NDSR	Server Rack: Closed 42U/800W/1000 MMD With front & rear split perforated doors, 2 No. of 6/16A PDU, Hardware packet, Shelves - sliding and fixed, all	1	Nos..				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		standard accessories						
9	NDSR	Network Rack: Closed 24 U with all standard accessories	2	Nos.				
10	NDSR	Termination, Testing, Scanning, Certification and Documentation of UTP Points	446	Nos..				
11	NDSR	L2 24-port 10/100Mbps + 2 uplink port, Management Switch with stacking cables	20	Nos.				
12	NDSR	L3 24-port 10/100Mbps + 2 uplink port, Management Switch with stacking cables	2	Nos.				
13	NDSR	IEEE.802.11ac Wireless Access Point for Conference room	5	Nos.				
14	NDSR	L2 8 Port 10/100Mbps PoE Switch	1	Nos.				
15	NDSR	300 Pair MDF Frame with Krone Module	2	Nos.				
16	NDSR	Hook Up Wire	400	Mtrs.				
17	NDSR	Conduits & Accessories -25mm PVC Conduit with Std Accessories	6000	Mtrs.				
18	NDSR	100mm X 50mm Casing capping	700	Mtrs.				
19	NDSR	Services - Scanning of Data points	446	Nos.				
20	NDSR	Labeling of Data & Voice Node	703	Nos.				
		Sub Head XVI :DATA & VOICE NETWORKING WORKS						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		LIFT						
1	NSR	Supplying, installation, testing and commissioning of 13 Passenger (884 Kg) Gearless lifts having contract speed of 1 MPS serving different floors in the lift shaft as per detailed specifications and as under:						
		Floor: G+2						
		Travel : 12Meters (approx.)						
		Stops and Opening : 3 Stops & 3 Opening						
		Controller: AC Variable voltage and variable frequency						
		Automatic rescue device complete with dry maintenance free batteries as required						
		Operation: Microprocessor based single automatic push button / duplex selective collective/ with/ without attendant						
		Power: 415V 3phase 50 HZ, 4-wire system						
		Type of door: a. Car: power operated center opening horizontal sliding, stainless steel scratch proof (Hairline finish)						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		b. landing doors: stainless steel scratch proof (hairline finish) with 2hr fire rating						
		A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car						
		Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator						
		fire man's switch & battery operated emergency light & alarm bell						
		Lift as per Above description complete as required.	Set	1.00				
2	NSR	Supplying, installation, testing and commissioning of Service Lift of 1000Kgs Gearless lifts having contract speed of 0.5 MPS serving different floors in the lift shaft as per detailed specifications and as under:						
		Floor: G+2						
		Travel : 12Meters (approx.)						
		Stops and Opening : 3 Stops & 3 Opening						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Controller: AC Variable voltage and variable frequency						
		Automatic rescue device complete with dry maintenance free batteries as required						
		Operation: Microprocessor based single automatic push button / duplex selective collective/ with/ without attendant						
		Power: 415V 3phase 50 HZ, 4-wire system						
		Type of door: a. Car: power operated center opening horizontal sliding, stainless steel scratch proof (Hairline finish) b. landing doors: stainless steel scratch proof (hairline finish) with 2hr fire rating						
		A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car						
		Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator						
		fire man's switch & battery operated emergency light & alarm bell						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Lift as per Above description complete as required.	Set	1.00				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		ETP						
1	NSR	Supply, Fabrication, installation, testing and commissioning of effluent treatment plant with effluent handling capacity 10 m3 per day. The entire plant will be constructed in MS (FRP coated, min. 3 mm). The ETP shall be designed as water retaining structures, with necessary chemical dosing as required by the manufacturer's design. All the equipment, piping, pumps, air blowers and electrical panel to be housed in the ETP skid including M.S. puddle flange (Galvanised), inlet, outlet, overflow, vent, moving ladders & railing. The Plant shall be complete with a central OUTDOOR TYPE Electrical Power and Control panel fully pre/site wired and with all power and control cables to all pumps and equipment including all instrumentation, level and other controls. The cost will also include any consequential civil work including making foundations for the structure, pumps, blowers etc. It should be complete as per manufacturer's specifications & as directed by Engineer-in-charge.	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Effluent from Laboratories shall be discharged into the ETP. Design to take consideration of same. The parameters indicated below are representative and the contractor take samples from the existing labs, get tested and submit design get its approval from HLL/Client .						
		Daily average flow : 10 Cum/Day						
		PH : 5.5 - 9.0 or actual						
		BOD : 250 - 600 mg/l or actual						
		S. Solids : 200 - 650 Mg/l or actual						
		COD : 600 - 1200 mg/l or actual						
		Oil & Grease : 50-140 mg/L or actual						
		<u>Effluent discharge standard after treatment :-</u>						
		PH : 7.0 - 8.5						
		S. Solids : Less than 150 mg/l						
		COD : Less than 100 mg/l						
		Oil & Grease : Less than 5 mg/l						
		BOD : Less than 30						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Mg/L						
		The ETP shall consist of following units but not limited to these unit as may be required by the manufacturer's design. MS PVC coated rungs in all tanks & Platform for maintenance etc. complete as required.						
1.1	NSR	SS Perforated basket screen having provision for chain lifting arrangement etc. complete as required.	1	Set				
1.2	NSR	Collection cum Equalization tank including provision for aeration will be kept to avoid any smell problems in RCC Construction (Civil contractor's Scope)-5 Cum	1	Set				
1.3	NSR	Reaction tank with air diffuser and piping complete of adequate capacity. Fine air bubble jet diffuser with EPDM seat minimum number of diffusers to be provided as per manufacturer's recommendations in MS (FRP) Construction. Min. 1 Cum	1	Set				
1.4	NSR	Secondary clarifier tank, hopper bottom type with arrangement of deep well, baffle wall, scum removal arrangement, outlet launders with arrangement of lifting sludge from the bottom etc. complete as required in MS (FRP) Construction. Min. 2	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		Cum						
1.5	NSR	Providing and fixing all piping (as described below) and isolation control valves, non return valves etc. for making the system complete.	1	Set				
a)		PVC piping- For all submerged waste water piping.						
b)		MS (C Class) - For all exposed air piping and flexible stainless steel pipe for submerged air piping.						
c)		GI (C class) for all other water piping.						
1.6	NSR	Providing and fixing all instrumentation eg. Pressure guages, level controllers, sensors, rotameters for air, water etc. for making the system complete.	1	Set				
1.7		EQUALIZED WASTE WATER TRANSFER PUMPS :						
		Providing, installation, testing & commissioning of Horizontal / Submersible centrifugal pumps solid handling (min. 50 mm) pumps. The pumps shall be made of CI casing, bronze Impellar, SS shaft & sleeve, Mechanical Seal are connected to a TEFC induction motor mounted on a common channel						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		base frame with coupling guard, 150 mm dia pressure gauge with GM isolation cock, suitable vibration eliminator pads of approved design. Motor to be suitable for 415 V, 3 Phase, 50 cycles AC power supply, including all necessary piping, valves and other accessories and concrete foundation complete as required.						
1.7.1	NSR	Capacity :1 M ³ /hr @ Discharge Head 12 M head (1 Working + 1 Standby)- from equilization tank to reaction tank	1	Set				
1.7.2	NSR	Capacity : 1 M ³ /hr @ Discharge Head 12 M head (1 Working + 1 Standby) transferring clear water from clarifier to nearest manhole	1	Set				
1.8	NSR	Providing and fixing Chemical dosing system (Alum/lime/Poly) consisting of dosing pump (0-6 lph) with 100 l HDPE tanks including all piping from the dozer to the reaction tank etc. complete in all respects. (1W+1 S-Pump set)-02 nos.	1	Set				
1.9	NSR	Supply, installing, testing & commissioning of Electrical Control Panel out door type IP 65 , including all switchgear, cables, control wiring, multi function multimeters,	1	Set				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		DOL starter etc., also including the complete automation of the plant with level controllers and sensors in the HDPE and the MS tanks, control cabling, complete in all respects as required as per IS specifications.						
		NOTE:						
		Contractor shall include all electrical and mechanical items as required to operate the system automatically and also include in his rates any other components/tanks/ equipment/ etc. required to complete the job as required. Only main power supply with the earthing to be ETP main control panel shall be provided by the owner through other agencies. The electrical panle will also include all the required NO/NC contacts, contactors etc. required to provide BMS connectivity.						
		Bypass arrangement shall be provided incase of maintenance of ETP.						
		Total for ETP						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
		BUILDING MANAGEMENT SYSTEM (BMS)						
1a	NDSR	Supply, Installation, Testing and Commissioning of Client PC Hardware with a minimum of Intel Xeon E5630 Processor 2.53GHz 12M 5.86GT/s, 4X2GB or more of RAM, 1TB 10KRPM 3Gbps HD Windows 7 professional addition, DVD/RW, and nVidia, Joystick controller, NVS 295, 512MB dual DVIGraphics Card to support 2 multiplexed Monitors in control room with different content possibility on each of the monitor i.e. Multiplexed, Alarm, Maps, sequence or any combination with DVD Writer, Key Boards, Optical Mouse etc all complete as required and as per the standard manufacturer's specifications & as per directions of EIC.	1	Nos.				
1b	NDSR	Supply, Installation, Testing and Commissioning of 32" colour LED monitor (24 x 7 Application) for above client workstation with Built in speakers all complete as required and as per specifications & as per directions of EIC.	1	Nos.				
1c	NDSR	Supply, Installation, Testing and Commissioning of Dynamic Graphics Software (WEB enabled type) Software on Niagra frame work for Building Automation System complete in all respect as per specifications & as per directions of EIC.	1	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
1d	NDSR	Supply, Installation, Testing and Commissioning of Network Controller or Router for Connecting DDC Devices to BMS PC ALONG WITH 32 bit DDC Controller having Built in Real time clock & having peer to peer communication enclosed in panel with allied accessories for complete HVAC intergarion system as per requirments, all complete as required and as per specifications & as per directions of EIC.	1	Lot				
1e	NDSR	Supply, Installation, Testing and Commissioning of Necessary Hardware Device for Software Integration of, Fire Alarm Panels, AHU, VFDs, PA, Water Leakage Detection, Gas based Suppression System, CCTV, Access Controls, on Modbus protocol as required, all complete as required and as per specifications & as per directions of EIC.	1	Lot				
2	NDSR	Field Devices						
2a	NDSR	Supply, Installation, Testing and Commissioning of Duct type Temp & RH Transmitter, all complete as required and as per specifications & as per directions of EIC.	3	Nos.				
2b	NDSR	Supply, Installation, Testing and Commissioning of Differential Pressure Switch for filter, all complete as required and as per specifications & as per directions of EIC.	7	Nos.				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
2a	NDSR	Supply, Installation, Testing and Commissioning of Differential Pressure Transmitter across HEPA Filter, all complete as required and as per specifications & as per directions of EIC.	3	Nos.				
2b	NDSR	Supply, Installation, Testing and Commissioning of OA Temp and RH Transmitter, all complete as required and as per specifications & as per directions of EIC.	1	Nos.				
2a	NDSR	Supply and Installation of Velocity Transmitter for Speed Control	3	Nos.				
2b	NDSR	Supply, Installation, Testing and Commissioning of Room type Temp RH and Pressure transmitter with Display, all complete as required and as per specifications & as per directions of EIC.	12	Nos.				
2a	NDSR	Supply, Installation, Testing and Commissioning of Room type Temp transmitter with Display, all complete as required and as per specifications & as per directions of EIC.	2	Nos.				
2b	NDSR	Supply, Installation, Testing and Commissioning of Room type Pressure transmitter with Display, all complete as required and as per specifications & as per directions of EIC.	9	Nos.				
3	NDSR	Supply and laying Cable Tray/ Conduits						

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
3a	NDSR	Supply, Installation, Testing and Commissioning of 150mm x 50mm x 1.6mm thick Aluminium Tray, all complete as required and as per specifications & as per directions of EIC.	300	meter				
3b	NDSR	Supply, Installation, Testing and Commissioning of 100mm x 50mm x 1.6mm thick Aluminium Tray, all complete as required and as per specifications & as per directions of EIC.	20	meter				
3c	NDSR	Supply, Installation, Testing and Commissioning of 50mm x 50mm x 1.6mm thick Aluminium Tray, all complete as required and as per specifications & as per directions of EIC.	600	meter				
3d	NDSR	Supply, Installation, Testing and Commissioning of 25 mm PVC Conduit with accessories, all complete as required and as per specifications & as per directions of EIC.	300	meter				
3e	NDSR	Supply, Installation, Testing and Commissioning of 2C x 1.5 Sq mm copper Twisted Pair Armoured Communication Cable, all complete as required and as per specifications & as per directions of EIC.	300	meter				
3f	NDSR	Supply, Installation, Testing and Commissioning of 2C x 1.5 Sq mm copper Screened Armoured Cable, all complete as required and as per specifications & as per directions of EIC.	3000	meter				

S. No.	Item Ref: DSR Code 2014	Description	Boq Qty	Unit	Rate in Figures	Rate in Words	Amount in Figures	Amount in Words
4	NDSR	DESIGN OF OVERALL BUILDING MANAGEMENT SYSTEM AS PER TECHNICAL SPECIFICATION & ITEMS PROPOSED ABOVE	1	LS				
		TOTAL COST (IN RS.)						