

# K.D. MALAVIYA NATIONAL OIL MUSEUM - GUWAHATI

## SUMMARY

SR. NO.	DESCRIPTION	AMOUNT (Rs.)
1	CIVIL WORKS	
2	SANITATION & PLUMBING WORKS	
	<b>TOTAL</b>	

(Rupees \_\_\_\_\_  
\_\_\_\_\_)

Date:

Contractors Signature

# CIVIL WORKS

## SUMMARY

SR. NO.	DESCRIPTION	AMOUNT (Rs.)
1.0	EARTH WORK INCLUDING ROCK CUTTING	
2.0	PLAIN, REINFORCED CONCRETE & PILING WORK	
3.0	MASONRY	
4.0	PLASTERING, PAINTING & POLISHING	
5.0	FLOORING & CLADDING	
6.0	WOOD WORKS	
7.0	METAL WORKS	
8.0	ALUMINIUM WORKS	
9.0	FALSE CEILING	
10.0	GLASS PYRAMID AND GLAZING	
11.0	WATERPROOFING	
12.0	ROAD WORKS	
	<b>TOTAL</b>	

(Rupees \_\_\_\_\_

\_\_\_\_\_)

Date:

Contractors Signature

## CIVIL WORKS

### BILL OF QUANTITIES

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>1.0</b>	<b><u>EARTH WORK INCLUDING ROCK CUTTING</u></b>				
1.1a	Excavation over areas (exceeding 30 cm in depth, 1.5 M in width as well as 10 Sq.m on plan) in all kinds of soil (Manually/ Mechanically) wet or dry (such as yellow murum / gravel or mixture of any kind, in loose & slushy condition other than ordinary / hard rock, to required level for foundations, trenches, rafts of walls / columns , basements, plinth beams, pile caps etc. upto depth of 1.5m from levelled ground. Rate to include disposal of soil lead upto 50 M , bailing / pumping of water to keep the site dry at all times until completion of back filling, making temporary stepping / sloping shoring, strutting, sectioning, trimming dressing etc. complete as directed by Engineer-In-Charge & to the entire satisfaction of Engineer-In-Charge.	3250	Cum.		
1.1b	Same as 1.1a but for depth of 1.5m to 3.0m	2270	Cum.		
1.1c	Same as 1.1a but for depth of 3.0m to 4.5m	1150	Cum.		
1.1d	Same as 1.1a but for depth exceeding 4.5m	230	Cum.		
1.2a	Same as 1.1a but for excavation etc in ordinary rock upto 1.5m	25	Cum.		
1.2b	Same as 1.2a but for depth of 1.5m to 3.0m	25	Cum.		
1.2c	Same as 1.2a but for depth of 3.0m to 4.5m	20	Cum.		
1.2d	Same as 1.2a, but for depth exceeding 4.5m	10	Cum.		
1.3a	Same as 1.1a, but for excavation etc. in Hard rock for depth upto 1.5m including stacking rubble as directed. (Blasting prohibited)	10	Cum.		
1.3b	Same as 1.3a but for a depth upto 1.5m to 3.0m	10	Cum.		
1.3c	Same as 1.3a but for a depth upto 3.0m to 4.5m	10	Cum.		
1.3d	Same as 1.3a but for for depth exceeding 4.5m	5	Cum.		
1.4.0	Demolishing cement concrete 1:3:6 or richer mix including disposal of material within 50 Mtrs. lead	5	Cum.		
1.4.(a)	Demolishing R.C.C work including stacking of steel bars & disposal of unserviceable material within 50 Mtrs. lead	5	Cum.		

<b>SR. NO.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>	<b>UNIT</b>	<b>RATE</b>	<b>AMOUNT</b>

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
1.5.1	Filling available excavated earth (Excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 c.m. in depth: consolidating each deposited layer by ramming and watering, lead up to 50 M and lift up to 1.5 m.	2000	Cum.		
1.5.2	Filling by selected earth / murum brought from out side in plinth, foundations, trenches, etc. as directed in 200mm layers, watering, consolidating etc. complete as per instruction & directions of Engineer-In-Charge.	975	Cum.		
1.5.3	Desposing excavated surplus earth out side the premises at dumping place .	2500	Cum.		
1.6	Supplying and filling in plinth with sand under floors including watering, ramming , consolidating and dressing complete.	75	cum		
1.7.1	Suppling chemical emulsion chlorpyriphos concentrate of 20% in sealed containers including delivery as specified.	750	Lit.		
1.7.2	Diluting & injecting chlorpyriphos chemical emulsion EC-20% with 1% concentration for anti-termite treatment (excluding the cost of chemical emulsion) as per IS specifications, for floor and walls with ten years guarantee. (Guarantee to be submitted directly to owner in approved proforma on stamp paper)	3300	Sqm.		
	<b>Note:</b> For payment purpose only plinth area shall be measured at ground level and shall include all stages of work as specified.				
1.8	Providing and laying in plinth 15 cm to 23 cm thick stone soling with stone boulders by hand packing, packing with smaller stones and stone dust, consolidating etc. complete as directed by the Engineer-In-Charge.	745		Cum.	
<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
2.0	<b><u>CONCRETE WORKS</u></b>				
2.1	<b>PLAIN CONCRETE WORKS</b>				
2.1.1	Providing and laying in position cement concrete of 1:3:6 (1 Cement; 3 coarse sand : 6 graded stone aggregate, 20 mm nominal size) excluding the cost of centering and shuttering. All work upto plinth level.	200	Cum.		
2.1.2	Providing and laying in position cement concrete of 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), excluding the cost of centering and shuttering. All work upto plinth level.	435	Cum.		
2.1.3	Providing and laying cement concrete in coping, bed blocks, sills, fillets etc. of 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate 20 mm nominal size), excluding the cost of centering, shuttering and finishing .Work above ground level.	80	Cum		
2.2	<b>PILE WORKS</b>				
2.2.1	Mobilisation & demobilization of piling rigs and complete plant & machinery, personnel etc.	6	Piling Rigs		
2.2.2	Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of specified diameter and length below the pile cap, M 25 grade of cement concrete ( cement content shall not be less than 385 kg/m <sup>3</sup> ) to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with casing and / or bentonite solution and the length of pile to be embedded in the pile cap. (Length of pile for payment shall be measured up to bottom of pile cap).				
2.2.2.1	600 mm dia piles.	6380	R.M.		
2.2.3	Empty boring for specified diameter piles from ground level to cut-off level.				
2.2.3.1	600 mm dia piles	319	RM		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
2.2.4	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test-cap and dismantling of test cap after test etc. complete as per specification and the direction of Engineer-in-charge.				
2.2.4.1	Single pile above 100 tonne capacity - Initial Test	1	No.		
2.2.4.2	Single pile above 100 tonne capacity - Routine Test	5	Nos.		
<b>2.3</b>	<b>REINFORCED CONCRETE</b>				
2.3.1	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering and reinforcement including curing, compacting, finishing with rendering in cement sand mortar 1:3 (1 cement : 3 coarse sand) and making good the joints and 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. M 25 grade reinforced cement concrete. All work upto plinth level.	950	Cu.m		
2.3.2	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering and reinforcement including curing, compacting, finishing with rendering in cement sand mortar 1:3 (1 cement : 3 coarse sand) and making good the joints and 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. M 25 grade reinforced cement concrete. All work from plinth level upto Floor V level.				
2.3.2.1	Walls, column, pillars, posts and struts	1025	Cu.m		
2.3.2.2	Beams, suspended floors, roof having slope upto 15 degree, landings, balconies, shelves, chajjas, lintels, bands, window sills, staircase and spiral staircase.	2198	Cu.m		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
2.3.3	Extra over for the item No. 2.3.1 & 2.3.2 but with ready mix concrete of M 25 grade (cement content shall not be less than 385 kg / M3)	1,000	Cum		
2.3.4	Centering and shuttering with plywood or steel sheets including strutting, propping, bracing both ways etc. and removal of formwork for :-				
2.3.4.1	Foundations, footings, bases of columns etc. for mass concrete.	825	Sq.m		
2.3.4.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	4,160	Sq.m		
2.3.4.3	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	9,810	Sq.m		
2.4.4.4	Columns, Pillars, Piers, Abutments, Posts and struts	5,950	Sq.m		
2.4.4.5	Suspended floors, roofs, landings, balconies and access platform.	5,800	Sq.m		
2.3.5	Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.				
2.3.5.1	Mild steel and medium tensile steel bars (IS 432)	15,000	Kg		
2.3.5.2	Cold twisted deformed bars (IS 1786)	912,000	Kg		
2.3.6	Providing & fixing in position M-20, RCC pre-cast coping of approved design in C.M. 1:3 (1 cement : 3 fine sand), finished smooth, including cost of scaffolding & excluding cost of reinforcement all complete as directed by Engineer-In-Charge.	30	Cum		
2.3.7	Adding water proofing compound conforming to IS 2645, in concrete of approved agency in specified proportions.	200	Kg.		
<b>TOTAL CARRIED OUT TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>3.0</b>	<b>MASONARY</b>				
3.1	Brick work with modular bricks of class designation 75 in cement mortar 1:6 (1 cement : 6 fine sand) in superstructure above plinth level upto floor V level.	35	Cum.		
3.2	Half brick masonry with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand ) in superstructure above plinth level upto floor V level.	60	Sqm.		
3.3	Providing & laying 200mm thk.Pre-cast solid concrete block masonry, having minimum strength 50 kg / sq.cm. at all levels in C.M. 1:6 (1 cement : 6 coarse sand) including racking out joints curing, scaffolding etc. complete as directed by Engineer-in-Charge	1,000	Cum.		
3.4	Providing & laying 100mm thk.Pre-cast solid concrete block masonry, having minimum strength 50 kg / sq.cm. at all levels in C.M. 1:4 (1 cement : 4 coarse sand) including racking out joints, scaffolding, curing etc. complete as directed including providing 100mm thick RCC M20 patli at middle level (Reinforcement if provided shall be paid under separate item of reinforcement.)	60	Cum.		
3.5	Randum rubble masonry with hard stone in cement mortar 1:6 (1 cement : 6 coarse sand) for walls with providing weep holes, raking out joints, curing etc. complete as directed by Engineer-in-Charge.	1,035	Cum.		
3.6	Coursed rubble masonry (Second sort) with hard stone in cement mortar 1:6 (1 cement : 6 coarse sand) including striking joints, raking out joints, proviidng weep holes curing etc. complete as directed by Engineer-in-Charge.	1,885	Cum.		
3.7	Stone work with hard stone for pitching, 230 mm thick placed in earth with flush C.M. 1:4 (1 cement : 4 fine sand) pointing including watering etc. complete as directed by Engineer-in-Charge.	250	Sqm.		
<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>4.0</b>	<b>PLASTER , PAINTING &amp; POLISHING</b>				
4.1	6 mm cement plaster to ceiling of mix 1:3 (1 cement : 3 fine sand) with neat cement punning.	4,865	Sqm.		
4.2	15 mm cement plaster on the rough side of single or half brick wall of mix 1:4 (1 cement : 4 fine sand) with neat cement punning	9,000	Sqm.		
4.3	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3course sand) finished rough with sponge.	5,970	Sqm.		
4.4	Extra for providing and mixing water proofing material 'Impermo' of M/s. Snowcem or equivalent in cement plaster work in proportion as recommended by the manufacturer for 18 mm cement plaster in two coats under layer 12 mm thick cement mortar 1:3 (1 cement : 3 sand)	5,970	Sqm.		
4.5	Providing and applying plaster of paris (POP) putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	1,000	Sqm.		
4.6	Providing exterior stone - crete facing of approved colour and dressing with base coat of 12 to 15 mm thick in cement mortar 1:4 (1 cement : 4 coarse sand) to masonry work, concrete surface in all positions including final coat of stone crete facing of required thickness but not less than 6 mm thick in proportion of CM 1:3 (1 cement : 3 fine sand) using grey cement and colour pigment including scaffolding and curing complete as directed by Engineer-in-Charge.	600	Sqm.		
4.7	Providing and fixing chicken wiremesh 150 mm wide at junctions of concrete and masonry firmly by brass screws with PVC plug including required scaffolding etc. complete as directed.	250	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
4.8	Ruled pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand)	2,800	Sqm.		
4.9	White washing with lime to give an even shade (three or more coats) for new work.	500	Sqm.		
4.10	Painting with two or more coats of plastic emulsion paint of approved brand and manufacturers to give an even shade on new surface.	13,865	Sqm.		
4.11	Painting with two or more coats of synthetic enamel paint of approved brand and manufacturer to give an even shade on new surface.	1,000	Sqm.		
4.12	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings, with synthetic enamel paint of approved brand and manufacturer and required colour over a priming coat of approved steel primer on new work.				
i	75 mm diameter pipes	250	RM		
ii	100 mm diameter pipes	250	RM		
iii	150 mm diameter pipes	100	RM		
4.13	Applying one coat of cement primer of approved brand and manufacturer on wall surface as specified.	13,865	Sqm.		
4.14	Applying two or more coats of waterproof cement paint of approved quality in required shade for new work.	600	Sqm.		
4.15	Applying textured matt paint over a coat of primer to give an even shade, of approved manufacturer and required colour including preparing surface, curing etc. complete as directed.	1,900	Sqm.		
4.16	Melamine polishing on wood work one or more coats as directed.	530	Sqm.		
<b>TOTAL CARRIED OUT TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>5.0</b>	<b>FLOORING &amp; CLADDING</b>				
Note(1)	All flooring, cladding material samples shall be got approved from Engineer in Charge before Commencement of Work				
(2)	Basic rate for following materials are inclusive of basic cost of material, taxes and levies (if any), delivery at site shall be considered for quoting the item.				
	<input type="checkbox"/> 18 mm polished granite of all types - Rs.2000 / Sq.m <input type="checkbox"/> 30 mm polished granite all types - Rs.2500 / Sq.m <input type="checkbox"/> Polished Kotah stone Rs. 360 / Sq.m <input type="checkbox"/> Vetrified Ceramic Tiles 600x600x10 mm - Rs.700 / Sq.m <input type="checkbox"/> Ceramic tiles 200x200 mm - Rs.300 / Sq.m <input type="checkbox"/> Bisazza Tiles 20x20x4 mm - Rs. 1575 / Sq.m				
5.1	Providing and laying cement concrete flooring 50 mm thick with cement concrete 1:2:3 (1 Cement : 2 Coarse Sand : 3 graded stone aggregate 20 mm nominal size) laid to proper level and slope in alternate bays including compaction, filling joints, marking lines to give the appearance of tiles of 30 cm, x 30 cm or other size, laid diagonally / square, etc finishing smooth (with extra cement) in any colour as directed, and curing complete.	370	Sqm.		
5.2	Providing and laying polished Kotah Stone Flooring 25 mm thick and having size not less than 575 mm x 575 mm in plain / diamond pattern on a bed of 50 mm thick CM 1:6 (1 cement: 6 coarse sand) including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	5400	Sqm.		
5.3	Providing and laying white glazed tiles 150 mm x 150 mm in size and 5 to 6 mm thick for flooring in required position laid on a 25 mm thick CM bed of 1:4 (1 cement : 4 coarse sand) including neat cement float, filling joints with white cement slurry, curing and cleaning complete.	90	Sqm.		
5.4	Providing and laying approved 18 mm thick machine cut, machine polished cherry red granite flooring with 18 mm thick jet black granite border in required pattern, over 50 mm thick C.M. 1:4 (1 cement : 4 coarse sand), bedding, joints filled with white cement slurry mixed with matching pigment, including rubbing the joints, curing, polishing, cleaning etc. complete as directed.	265	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.5	Providing and laying approved machine cut, machine polished 18 mm thick jet black granite and sandal wood granite flooring in required pattern, over 50 mm thick CM 1:4 (1 cement : 4 coarse sand) bedding, joints filled with white cement slurry mixed with matching pigment, including rubbing the joints, curing, polishing, cleaning etc. complete as per drawing and as directed.	435	Sqm.		
5.6	Providing and laying approved machine cut, machine polished 18 mm thick blue pearl granite and sandal wood granite flooring in required pattern, over 50 mm thick CM 1:4 (1 cement : 4 coarse sand) bedding, joints filled with white cement slurry mixed with matching pigment, including rubbing the joints, curing, polishing, cleaning etc. complete as per drawing and as directed.	115	Sqm.		
5.7	Providing and laying approved machine cut, machine polished / flamed finished 18 mm thick blue pearl granite and sandal wood granite flooring in pattern over 50 mm thick CM 1:4 (1 cement : 4 coarse sand) bedding, joints filled with white cement slurry mixed with matching pigment including rubbing the joints, curing, polishing, cleaning etc. complete as directed.	790	Sqm.		
5.8	Providing and laying approved vitrified ceramic tiles 600 mm x 600 mm x 10 mm of 1st quality of approved make and colour for flooring laid in pattern, fixed over 50 mm thick bedding of CM 1:4 (1 cement : 4 coarse sand), laid with cement slurry including grouting joints with white cement mixed with matching pigment, curing, cleaning etc. complete as directed.	410	Sqm.		
5.9	Providing and laying approved machine cut, machine polished / flamed finished jet black 18 mm thick granite stone flooring in required pattern, over 50 mm thick CM 1:4 (1 sand : 4 coarse sand) bedding, joints filled with white cement slurry mixed with matching pigment including rubbing the joints, curing, polishing, cleaning etc. complete as directed.	40	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.10	Providing and fixing approved 450 mm x 450 mm x 40 mm pebble faced precast cement concrete tile flooring with CM 1:4 (1 cement : 4 Coarse Sand) bedding 25 mm thick, filling joints between tiles by cement mortar, 1:2 (1 cement : 2 fine sand), levelling, curing, cleaning etc. complete as directed.	550	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.11	Providing and fixing approved 450 mm x 450 mm x 40 mm pebble faced precast cement concrete tile flooring, fixed on consolidated ground with 20 / 25 mm thick lawn joints, levelling, watering, cleaning etc. complete as directed.	625	Sqm.		
5.12	Providing and fixing approved quality 100 mm x 100 mm x 100 mm local cobble stone block flooring fixed on 45 mm thick compacted sand bedding, filling, joints with fine sand compacting with plate compactor, levelling, cleaning etc. complete as directed.	2100	Sqm.		
5.13	Providing and fixing approved quality 100 mm thick concrete interlocking paver block strength 50 m / Sq.mm of approved design and coloured in required pattern flooring fixed on 45 mm thick compacted sand bedding, filling joints with fine sand, compacting with plate compactor, levelling, cleaning etc. complete as directed by Engineer-In-Charge.	760	Sqm.		
5.14	Providing and fixing 18 mm thick approved machine cut machine polished jet black granite counter for kitchen platform / wash basin counters of approved shade including providing recess for fixing wash basins, over cudappah stone slab with 20 mm bedding of CM 1:4 (1 cement : 4 coarse sand) of required thickness laid and jointed with white cement slurry admixed with matching pigment, epoxy touchups including rabbing, curing and polishing etc. complete as directed.				
5.14.1	Wash basin counters	15	Sqm.		
5.14.2	Kitchen / service platform	5	Sqm.		
5.15	Providing and laying china mosaic flooring using approved broken glazed tiles of required colours and shade, laid in pattern and design as per the drawing, fixed over 20 mm thick bedding of CM 1:4 (1 cement : 4 coarse sand) including cement slurry mixed with waterproofing compound. The china mosaic tiles shall be laid and jointed with white cement slurry including pointing with white cement mortar 1:2 (1 cement : 2 fine sand) with matching pigment and mixing waterproofing compound, levelling, cleaning etc. all complete as directed.	1425	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.16	Providing and fixing approved 2 mm thick vinyle flooring of approved colour on surface with approved acrylic glue, levelling, cleaning etc. complete as directed.	110	Sqm.		
5.17	Providing and fixing 30 mm thick kotah stone treads in one piece with edge moulding, with 18 mm thick sandle wood granite inlay as shown in drawing, laid in 15 mm thick CM bedding 1:4 (1 cement : 4 coarse sand), joints filled up with cement mortar slurry mixed with pigment, epoxy touch up including rubbing, curing, cleaning, polishing etc. complete as directed.	85	Sqm.		
5.18	Providing and fixing approved machine cut, machine polished 30 mm thick sandal wood granite treads 1.50 meter length with edge moulding, laid on 15 mm thick cement mortar bedding 1:4 (1 cement : 4 coarse sand), joints filled up with white cement mortar slurry mixed with matching pigment, including rubbing, curing cleaning, polishing etc. complete as directed.	10	Sqm.		
5.19	Providing and laying 30 mm thick kotah stone treads minimum 1.5 meter length with 20 mm thick CM 1:4 (1 cement : 4 coarse sand) bedding, filling joints between treads by cement mortar, levelling, curing, cleaning etc. complete as directed.	250	Sqm.		
5.20	Providing cement plaster 15 mm thick skirting with cement mortar 1:3 (1 cement : 3 fine sand) finished smooth with floating coat of neat cement etc. complete as directed.	40	Sqm.		
5.21	Providing & laying in required positions skirting of polished Kotah stone slab 20 mm thick with 3 mm x 3mm chamfer, 10 mm thick cement plaster backing coat on 1:4 (1 cement : 4 coarse sand) including cement float, filling joints with neat slurry, curing, polishing & cleaning complete.	270	Sqm.		
5.22	Providing approved machine cut, machine polished 18 mm thick jet black granite skirting with 3 mm x 3mm chamfer, fixing on 10 mm thick CM 1:4 (1 cement : 4 coarse sand) backing coat, filling joints with white cement mixed with matching pigment, curing, cleaning, polishing etc. complete as directed.	80	Sqm.		

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SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.23	Providing approved machine cut, machine polished 18 mm thick blue pearl granite skirting with 3 mm x 3 mm chamfer, fixing on 10 mm thick CM 1:4 (1 cement : 4 coarse sand) backing coat, filling joints with white cement mixed with matching pigment, curing, cleaning, polishing etc. complete as directed.	44	Sqm.		
5.24	Providing and fixing approved vetrified ceramic tile skirting 10 mm thick on 10 mm thick CM 1:4 (1 cement : 4 coarse sand) backing coat with filling joints with white cement mixed with matching pigment, curing, cleaning etc. complete as directed.	41	Sqm.		
5.25	Providing and fixing approved machine cut machine polished 18 mm thick sandal wood granite riser length minimum 1.5 meter fixed on 10 mm thick CM 1:4 (1 cement : 4 coarse sand) backing coat with filling joints with white cement mixed with matching pigment, curing, cleaning, polishing etc. complete as directed	5	Sqm.		
5.26	Providing and fixing approved 2 mm thick vinyle skirting of approved colour on 10 mm cement mortar 1:4 backing coat with approved acrylic glue, cleaning etc. complete as directed.	11	Sqm.		
5.27	Providing and fixing approved 150 mm x 150 mm white glazed tile for dado / cladding over 15 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) backing coat fixing tiles with cement slurry, filling joints with white cement, curing, cleaning etc. complete as directed.	345	Sqm.		
5.28	Providing and fixing approved 200 mm x 200 mm ceramic tile for dado / cladding of approved shade over 15 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) backing coat, fixing tiles with cement slurry, filling joints with white cement mixed with matching pigment curing, cleaning etc. complete as directed.	475	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.29	Providing and fixing approved machine cut, machine polished 18 mm thick granite dado / cladding in approved pattern, fixed over 15 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) backing coat with stainless steel pins / anchors, filling joints with white cement mixed with matching pigment, rubbing joints, curing, cleaning, polishing etc. complete as directed.				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.29.1	Jet black granite	50	Sqm.		
5.29.2	Cherry red granite	32	Sqm.		
5.29.3	Sandal wood granite	190	Sqm.		
5.30	Providing and fixing approved machine cut machine polished 18 mm thick jet black granite 3mm x 3mm chamfer, of approved type for sills, jambs and similar locations of required size, laid over 15 mm thick bedding / backing coat of cement mortar 1:4 (1 cement : 4 coarse sand), including filling joints with white cement mixed with matching pigment, rubbing joints, curing, cleaning, polishing etc. complete as directed.	100	Sqm.		
5.31	<p>Providing and laying approved Glass Mosaic tile work (with Vetricolor mosaic series of Bisazza tiles of size 20 mm x 20 mm x 4 mm or equivalent approved brand, hand cut with bevelled edges with sizes as specified), in dado, using tiles of required colours and shade, laid with Random mix of tiles of Group I series in combination of tiles of different colours and shades in the same series, laid in linear as well as curvilinear portions of the building, fixed over sponge finished 12 mm thick cement mortar 1:3 (1 cement : 3 coarse sand) admixed with water proofing compound in proportion as recommended by the manufacturer. The glass mosaic tiles shall be fixed with polymer modified cementitious adhesive (minimum 2 mm thick) with white star of BAL ENDURA adhesive or equivalent brand, of required colour and shade, levelling and cleaning of top finished surface etc. all complete as per architectural drawings, as specified and as directed by the Engineer-in-Charge.</p> <p>[Item includes cost of all inputs of labour, materials (including Glass mosaic tiles, cement plaster, adhesive, grout etc.), all incidental charges, wastages etc., involved in the work. For the purpose of measurement, the actual area of Glass Mosaic tile work including width of joints shall be measured in sqm.]</p> <p>(The cost of providing water proofing compound shall be paid for seperately under the relevant item).</p>	318	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
5.32	<p>Providing and fixing approved 30 mm thick, machine cut, machine polished sadarali dry granite stone slab cladding in approved pattern with 6 mm grooves, fixed using necessary stainless steel cramps, pins, expansion hold fasteners etc. by keeping a gap up to 50 mm from the existing backing R.C.C. / Masonry walls including chamfering of the edges of the slabs and providing &amp; filling non-streaking high performance silicone sealant DC 991 HP of Dow Corning or equivalent approved make and of approved colour and shade, in continuous bead in the grooves / joints, upto minimum 6 mm depth to make the joints water tight, tooling it, including providing &amp; fixing open cell foam backer rod etc. including preparation of the surface of substrate as per the manufacturer's specifications, providing and removing masking tape etc. all complete as per Architectural drawing and as directed by the Engiener-in-Charge. (The item includes cost of all inputs of labour, material, T &amp; P, incidental charges including wastages etc. involved in the work.</p>	825	Sqm.		
5.33	<p>Providing and fixing approved machine cut, machine polished 18 mm thick sadarali granite with 3 mm groove all around dado / cladding in approved pattern, fixed over 15 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) backing coat with stainless steel pins, anchors, filling joints with cement mortar 1:2 (1 cement : 2 fine sand) and silicon sealant, rubbing joints, cleaning, plishing etc. complete as per the drawing and as directed.</p>	680	Sqm.		
5.34	<p>Providing and fixing local stone of approved quality cladding 100 mm thick, dressed as directed and in pattern as per drawing and fixed on the wall with 15 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) backing coat with cement slurry including 1:2 (1 cement : 2 fine sand) cement pointing as directed including curing, cleaning etc. complete as directed.</p>	580	sqm.		
<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>6.0</b>	<b>WOOD WORKS</b>				
6.1	Providing second class teak wood work in frames of doors, windows, clerestorey windows and other frames, frame work etc. and fixing in position, as specified, including making required rebates, chamfering and rounding edges, making grooves or any other feature etc., wherever required, as per the Architectural drawings and as directed by the Engineer.	6.5	Cum.		
6.2	Providing and fixing 35 mm thick ISI marked marine grade flush door shutters non-decorativ 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, fixed with stainless steel butt hinges with necessary screws etc. complete as directed by the Engineer.	175	Sqm.		
6.3	Extra for providing lipping for flush door shutters with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured)	175	Sqm.		
6.4	Extra for providing and fixing flush door shutters with teak veneering as directed by Engineer.	190	Sqm.		
6.5	Extra for providing high pressure decorative laminates 1 mm thick including cutting to required sizes and shapes and fixing to the face of the flush door shutters by factory hot pressing, using high strength cross linked PVAc based adhesive, "Korlok 472"of National or "Fevicol SWR" of Pidilite Industries Ltd., as per the manufactuter's specifications, including fixing in pattern using laminates of same or different colour and shade and wherever required in combination with natural wood veneer etc., all complete as specified, as per the architectural drawings and as directed by the Engineer. (for the purpose of payment, actual area of the laminate provided and fixed in the position shall be measured):	145	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
6.6	Extra for making opening of the required size and shape for vision panel etc., in all type of door shutters including providing and fixing glass panels of 4 mm thick clear float glass in the opening of the vision panel, including providing and fixing internal lipping of the required size made out of second class teak wood (on the cut edges of the opening) etc., complete as specified and as directed by the Engineer. (area of opening for glass panes excluding portion in rebate/beading shall be measured for payment):	30	Sqm.		
6.7	Extra for providing and fixing 2nd class teak wood louvers with solid wood fixed blades, 10 mm thick, fixed at required inclination in opening made in the door shutters. The louvers blades shall be fixed at spacing such that the blades overlap each other by half of their width, including providing and fixing 2nd class teak wood beading of size 12 x 12 mm around the louvered opening from inside to secure the louver blades in position, including making necessary grooves / rebates in the styles of the door shutters, to have face of the louver blades flush with the face of the shutters on both faces etc., all complete, as per the Architectural drawings, as specified and as directed by the Engineer. (overall area of louvered opening on external face of the shutter shall be measured for payment).	16	Sqm.		
6.8	Providing and fixing second class teak-wood panelled door shutter as per the drawing partly glazed and partly paneled / louvered as per the drawing with styles, top / bottom / lock rails as specified including providing stainless steel butt hinges with necessary screws etc. complete as directed by the Engineer.	53	Sqm.		
6.9	Fixing fittings with necessary screws including drilling holes, cutting slots etc., in door shutters etc. including making good the same, all complete, as specified, as per the Architectural drawings and as directed by the Engineer-in-Charge. (The item includes cost of all inputs of labour, materials , T & P , incidental charges etc. involved in the work . However the fittings, along with screws only, shall be supplied by the Department free of cost. For the purpose of payment the number of fittings fixed in position shall be measured.)				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
6.9.1	Door Handles	25	Each		
6.9.2	Door closers (concealed or open type)	26	Each		
6.9.3	Baby latch	24	Each		
6.9.4	Mortice lock / latch cum lock including handles	70	Each		
6.9.5	Tower bolts	45	Each		
6.9.6	Floor door stopper	10	Each		
6.9.7	Knob handles	20	Each		
6.10	Providing and fixing 40 mm x 40 mm second class hard wood frame work on walls fixed with fabritrack panels backed with 25 mm thick glass wool of density of 60 Kg / Cu.m and panels with fabritrack finished backed with decron of absorption coefficient of 0.1 at 500 H3 etc. complete as per drawing and as directed.	100	Sq.m		
<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>7.0</b>	<b>METAL WORKS</b>				
7.1	Providing, cutting, fabricating, erecting and placing in position structural steel work welded in built-up sections, including cutting, hoisting, fixing in position and applying a priming coat of red oxide zink cromate primer and painting with two coats of synthetic enament paint all complete as per drawing and directed by Engineer-In-Charge.	101000	Kg		
7.2	Providing, cutting, fabricating & erecting structural steel work welded in built up sections / framed work including cutting hoisting, fixing in position and applying a priming coat of approved red oxide, zink cromate primer and painting with two coats of synthetic enamel paint etc. as required for gratings, frames, guard bar, ladders, railings, brackets, gates & similar works all complete as per drawing and as directed by Engineer-In-Charge.	42000	Kg		
7.3	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 grade No. 2 and M.S. top cover of required thickness for rolling shutters. Painting with red oxide, zink cromate primer and two coats of synthetic enamel paint.				
7.3.1	80 x 0.90 mm M.S laths with 0.90 mm thick top cover.	45	Sqm.		
7.3.2	Providing and fixing ball bearing for rolling shutters	12	Each		
7.3.3	Extra for providing mechanical device chain and crank operation for operating rolling shutters size exceeding 10.00 sqm and upto 16.80 sqm in the area	45	Sqm.		
7.3.4	Extra for providing grilled rolling shuttters 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)	9	Sqm		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
7.4	Providing and fixing in position welded built-up section using stainless steel pipes of stainless steel grade 316 L polished to stain finish, of required diameter and thicknes including cutting, welding, grinding, bending to required profile and shape, hoisting, buffing, polishing, fixing in wood / steel / concrete work etc. all complete at all levels as directed by Engineer-In-Charge.	6300	Kg		
7.5	Providing and fixing in position galvanised iron barbed wire fencing rolled in 600 mm dia shape and barbed wire [9.38 kg per 100 metre (min)] at 200 mm centre to centre and fixed to M. S. angles (paid seperately) by galvanised binding wire etc. complete as per drawing and as directed.	425	R.M.		
<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
8.0	<p><b>ALUMINIUM WORKS</b></p> <p>STRUCTURAL GLAZING / ALUMINIUM WINDOWS / DOORS , LOUVRES, VENTILATIONS, ALUMINIUM COMPOSITE PANELS, ALUMINIUM LOUVERS.</p>				
8.1	Design, supply, fabrication and installation of aluminium fully unitised system shall withstand minimum wind speed of 150 KM / Hrs., duly coloured electrostatic powdercoated of minimum 50 micron thickness, with standard components such as Dow corning / GE structural sealant, weather sealant, EPDM gasket, SS fastners, GI anchors, Vertical fins as shown on drawing and to ensure water and air tightness with provision for double and single glazing, aluminium cladding, etc. complete as per the drawing and as directed by the Engineer-In-Charge.				
8.1.1	<p>Type W1 : With Vertical fins</p> <p>Vision Panel - Double Glass - 6 mm HS-SS08 on Azurlite of Emirates or approved equivalent Heat Strengthened Glass + 12 mm Air Gap + 6 mm annealed clear float tempered glass Spandrel Panel - 4mm aluminium composite panel.</p>	600	Sqm.		
8.1.2	<p>Type W2 : with Vertical Fins</p> <p>Vision panel - Double Glass - 6 mm HS-SS08, on azurlite of Emirates or approved equivalent Heat Strengthened Glass + 12 mm Air Gap + 6mm annealed clear float tempered glass Spandrel Panel - 4mm aluminium composite panel.</p>	83	Sqm.		
8.1.3	<p>Type W3 :</p> <p>Vision panel - Double Glass - 8mm HS-SS08, on azurlite of Emirates or approved equivalent Heat Strengthened Glass + 12 mm Air Gap + 6 mm annealed clear float tempered glass Spandrel Panel - 4mm aluminium composite panel.</p>	253	Sqm.		
8.1.4	<p>Type W4:</p> <p>Vision panel - Double Glass - 6mm HS - SS08, on azurlite of Emirates or approved equivalent Heat Strengthened Glass + 12 mm Air Gap + 6 mm annealed clear float tempered glass.</p>	14	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
8.1.5	<p>Type W5 :</p> <p>Vision panel - Double Glass - 6 mm HS - SS08, on azurlite of Emirates or approved equivalent Heat Strengthened Glass + 12 mm Air Gap + 6 mm annealed clear float tempered glass. Spandrel Panel - 4 mm aluminium composite panel.</p>	282	Sqm.		
8.1.6	<p>Type W6 :</p> <p>Vision panel - Double Glass - 6mm HS - SS08 on azurlite of Emirates or approved equivalent Heat Strengthened Glass + 12 mm Air Gap + 6 mm annealed clear float tempered glass.</p>	29	Sqm.		
8.1.7	<p>Type W7 :</p> <p>Vision panel - Double Glass - 6mm HS - SS08 on azurlite of Emirates or approved equivalent Heat Strengthened Glass + 12 mm Air Gap + 6 mm annealed clear float tempered glass. Spandrel panel - 4mm aluminium composite panel.</p>	25	Sqm.		
8.1.8	<p>Type W10: Top hung</p> <p>Vision panel - Top hung Glass - 6mm HS - SS08 on azurlite of Emirates or approved equivalent Heat Strengthened Glass.</p>	7	Sqm.		
8.2	<p>Providing. Fabricating and supplying fire stop (barrier)-cum-smoke seals, of required size and shape, having two hours fire resistance for integrity and insulation, for sealing the gap between the RCC / Masonry wall and and the windows / curtain wall at soffit and / or sill levels, of the building all to the approval of the Chief Fire Officer, by providing 100 mm thick layer of non-inflammable heat insulating rock wool, having homogenous density of (minimum) 64 Kg. per cu.m, of the make as approved by the Engineer-in-Charge, and fixing it over 1 mm thick G. I. sheet tray (of required size and bent to required profile and shape including keeping provision for overlapping of G. I. sheet tray at the continuity joints) using stainless steel rivets, nuts, bolts, washers etc.</p>				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
8.3	<p>This insulation along with G. I. tray shall be cut to required size and shape including making slots / niches in the fire stop (barrier)-cum-smoke seals for accommodating mullions / transoms and other aluminium members of window / curtain glazing or for any other projections etc. all complete, as required as per the architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge .[Rate shall include cost of all inputs of labour, materials (Rock wool insulation panel, G. I. sheet backing tray, stainless steel rivets, screws, nuts, bolts, washers etc. weather silicone sealant required, if any), Tools and Plants, all incidental charges, wastage etc. involved in the work (for payment purpose only the actual area of the insulation will be measured)</p> <p>Installing and fixing in position pre-fabricated fire stop (barrier)-cum-smoke seals at the soffit and / or sill level of the RCC members of the building, at all floors, sealing the gap between RCC members of the building and the members of the aluminium structural framing of the window / curtain glazing, for compartmentalisation of building to prevent spread of fire from one floor to other, to the approval of the Chief Fire Officer as specified.</p> <p>The fire stop (barrier)-cum-smoke seals shall be fixed to the RCC members using stainless steel fasteners / screws, nuts, bolts, washers etc. including overlapping the G.I. sheet tray suitably for continuity &amp; sealing it for smoke on continuity joints / overlaps in the G. I. sheet tray using weather silicone sealant of approved brand and manufacture, as well as sealing the gap between the G. I. sheet tray of the fire stop (barrier) - cum-smoke seals and the aluminium members of the curtain glazing by providing and fixing backer rods and sealing with weather silicone sealant of approved brand and manufacture, in a manner to allow permissible deflections in the members of the aluminium structural framing of the curtain glazing for the design loads etc. all complete, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge.</p>	100	Sqm.		
		75	RM		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
8.4	Providing and fixing coloured anodised 20 micron, aluminium adjustable, 4 mm clear glass louvred window type 'W'8 with arrangement of top for fixing exhaust fan etc. complete as per drawings and as directed.	15	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
8.5	Providing and fixing coloured anodised 20 microns aluminium frame and aluminium louvres as shown on drawing for window type 'W9', complete as per drawing and as directed.	42	Sqm.		
8.6	Providing and fixing coloured anodised 20 microns aluminium frame and 4 mm thick clear glass louvres for ventilator type 'V1', complete as directed.	5	Sqm.		
8.7	Providing and fixing in position glazed doors of 10 mm thick clear plate glass with fixed glazed panels 10 mm thick clear plate glass on sides, approved patch fittings, locking arrangements, handles, of approved type, complete in all respect as per the drawings and direction of Engineer.				
8.7.1	Door type 'D10' (3.97 m x 2.085 m) with two openable shutters and fixed glazed panels on both sides.	34		Sqm.	
8.7.2	Door type 'D 10 A' (4.42 M x 2.085 M) with two openable shutters and fixed glazed panels on both sides.	10		Sqm.	
8.7.3	Door type 'D11' (7.97 m x 2.185 m) with two double sliding shutters and fixed glazed panels on sides of sliding shutters.	18		Sqm.	
8.8	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked. Hardwyn make (model 3000) or equivalent for doors including cost of cutting floors as required, embedding in floors and stainless steel cover plate with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-Charge.	16		Nos.	
<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>					

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<p><b>9.0</b></p> <p>9.1</p>	<p><b>FALSE CEILING WORKS</b></p> <p>Providing and fixing at all heights and all levels, Aluminium False Ceiling LUXALON of "Hunter Douglas" or equivalent approved brand with 225 C multi panel closed ceiling system with perforated continuous line moulded aluminium panel (with perforations of 2 mm diameter and 5 mm c/c) consisting of panels 225 mm wide x 15.5 mm deep x 0.6 mm thick with bevelled edges, including cutting panels to required sizes and shapes wherever required, panel length up to 6 metres, panels with polyester paint coil coated (minimum thickness of 20 microns on face # 1) of approved shade &amp; colour on a continuous coil coating paint line and two coat two baked system and polyester based paint wash (service coat) minimum 3-7 microns thickness on face # 2, the panels roll-formed from pre-painted stove enamelled corrosion resistant aluminium alloy AA 3005.</p> <p>The panels shall abutt each other with a narrow V groove. The panels shall be positively clipped/ snap fitted to a baked enamelled aluminium multi panel carrier frame of size 32 mm wide x 39 mm deep x 0.95 mm thick in standard lengths of 5 meters, made of aluminium alloy AA 5050 with machine made prongs/ cut - outs for holding panels in position in a module of 225 mm, the panel carriers provided and fixed at spacing of 1000 mm centre to centre (maximum). The panel carrier shall be suspended using pre straightened G.I suspension wire 4 mm diameter and galvanised suspension spring clips at a distance of not more than 1200 mm c/c.</p> <p>The suspension rods (wires) shall be fixed to the R.C.C slab using electroplated galvanised steel anchor fasteners (of required strength characteristics and capacities for the designed dead, imposed and all incidental loads) including cutting, bending and fastening etc. as specified including suspension of the false ceiling frame from the RCC roof / structural members with soffit angle, cleats and dash fasteners and required numbers of GI suspenders and level adjusters, including all trims, carrier splices/ connectors, panel splices, level adjusters, adaptor clips for perimeter edge profiles, angles recessed edge profile in aluminium of required shape &amp; size as per the site conditions, and including making good etc. fixed to panel and wall surface using necessary stainless steel screws, all complete.</p>				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
9.2	<p>The rate includes cost of making opening for luminaries, air grills, diffusers, signages, fire sprinklers, fire detectors etc.as required, chipping/ cutting of RCC/ masonry including making good etc. of required size and shape and providing and fixing additional framing (carriers, suspenders,level adjusters, splices etc.) wherever required for cut-outs, based on size of the room etc. as per the manufacturer's specifications, architectural drawings, as specified and as required in coordination with other services and as per the directions of the Engineer-in-Charge.</p> <p>Providing and fixing at all heights and all levels, false ceiling of Armostrong or equivalent false ceiling systems, with ceiling tiles fixed to "Sihouette" of Armstrong, coordinated suspension ceiling system with galvanized steel sections (Powder / coil coated in white colour) of the grid consisting of hangers, main runners, cross tees, perimeter profiles etc. including:</p> <p>Providing and fixing hangers for supporting grid frame for false ceiling, made of pre straightened G. I. wires, 4 mm dia and of lengths as required for keeping the minimum plenum depth as per the architectural drawings and fixed to R.C.C. / structural steel soffit using G. I. anchor fasteners of approved make and of required strength characteristics and capacities for the designed dead, imposed and all incidental loads including drilling holes in RCC, G. I. nuts, bolts, washers, clips etc. as required, at spacing as specified including providing and fixing stainless steel levels adjuster clips.</p> <p>Providing and fixing to the G. I. hangers "Shilhouette" grid system (for fixing ceiling tiles) with reveal profile with 15 mm wide flanges incorporating a 6 mm wide central recess with black colour in the reveal as approved. The main runners shall be 15 x 8 x 42 mm profile made out of 0.36 thick G. I. sheet and cross tees 15 x 8 x 42 mm profile made out of 0.33 mm thick G. I. sheet, runners and cross tees powder / coil coated, roll formed from G. I. sheet and fixed at required spacing to form grids of 600 x 600 mm module (runners and cross tees fixed to each other with mitred joints) etc. all complete as per the approved shop drawings, architectural drawings, as specified, and as directed by Engineer-in-Charge.</p>	670	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
	<p>Providing and fixing perimeter angle or channel edge profiles of approved shape, of size 19 x 19 mm made out of 0.35 mm thick G. I. Sheet as required as per the site conditions, fixed to walls at 450 mm centre to centre (maximum) using stainless steel screws, rawl plugs, sleeves etc. of required size and shape, powder / coil coated to the matching colour and shade to completely enclose the ceiling at the edges including perimeter trims, required overlaps and jointed at internal and external angles with mitred joints in a workmanlike manner etc. all complete as per approved shop drawings and as directed by the Engineer-in-charge.</p> <p>Providing and placing in position ceiling tiles of required size and shape with machine cut edges including cutting the tiles to the required size and shape and placing in position. The work also includes making opening of required size and shape in the suspension frame and / or tile, strengthening of the grid system by providing and fixing additional, hangers, runners, cross tees, fasteners, bracings etc. for luminaries, air grills, diffusers, signages, fire sprinklers, fire detectors etc. as required, chipping / cutting of RCC / masonry including making good etc. all complete as per the manufacturer's specifications, architectural drawings, approved shop drawings and as directed by the Engineer-in-charge with ceiling tiles:</p> <p>Mineral fibre board acoustic false ceiling tiels, 15 mm thick 'Prima Dune Supreme 99" of Armstrong or equivalent approved brand, machine edged mineral fibre board tiles of size 600 x 600 mm made of non-combustible biosoluble wool, having finely granulated surface texture with micro-perforations &amp; various characteristics and performance parameters as per the manufacturer's specifications, 3 coats of white paint on face # 1 and protective coat on face # 2 and as specified.</p>	520	Sqm.		
	<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>10.0</b>	<b>GLASS PYRAMID AND GLAZING</b>				
10.1	Design, Supply, Fabrication and Erection of Pyramid with base as per enclosed drawing indicating the architectural intent comprising tubular members, tie-rods and sleeves with forged and / or machined cones, welded to tubes, forged hollow spherical / truncated spherical node connectors CNC machined and drilled to requirement with minimum tensile strength of 600 Mpa and minimum elongation of 12%, high tensile fasteners of minimum 8.8 grade supplied in zinc phosphated / zinc plated condition of TVS, Unbrako, Boltmaster or equivalent make as per proprietary drawings, painted with two coats of enamel paint over one coat of epoxy primer. (Payment as per inclined surface area measured at outer layer of pyramid). The contractor to submit propriitors certificate for the work as directed by Engineer-In-Charge.				
10.1.1	Museum building pyramid	2150	Sqm.		
10.1.2	Lift tower pyramid	75	Sqm.		
10.2	Providing and fixing of glazing panels to the space frame structure including fabrication of glazing using anodized aluminium sub-framces, fixing of 6mm laminated reflective ocean blue (coating on surface I) heat strengthened + 0.76 PVB + 4 mm clear heat strengthened glass with semi-unitized system, sealing of the gaps between panels with weather sealent and fillers as per the proprietary drawings and direction of Engineer. (Payment as per inclined surface area measured at outer glazing of pyramid) The Contractor to submit propriitors certificate for the work as directed by Engineer in Charge.				
10.2.1	For Musium Building Pyramid	1625	Sqm.		
10.2.2	In pannelling of pyramid on four sides with slidding door fixed on heavy duty coloured anodized 50 micron aluminum frame work.	430	Sqm.		
	<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
11.0	<b>WATER PROOFING WORKS</b>				
11.1	Providing and laying integral cement based treatment for water proofing on horizontal surface at all levels as directed by Engineer-in-Charge with 10 years guarantee by specified waterproofing agency and consisting of : (1) Ist layer of 20mm thick approved and specified rough shahabad / tandur stone slab over a 25mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound 'Impermo' of Snowcem or equivalent conforming to IS:2645 in the recommended proportion. Joints sealed and grouted with cement slurry mixed with water proofing compound. (2) 2nd layer of 25mm thick cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportions. (3) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cu dm/sqm thoroughly embedded in the 2nd layer.	575	Sqm.		
11.2	Providing and laying integral cement based treatment for water proofing with 10 years guarantee by specialised waterproofing agency on the vertical surface by fixing specified rough shahabad / tandur stone slab 20 mm thick with cement slurry mixed with water proofing compound 'Impermo' of Snowcem or equivalent conforming to IS:2645 in recommended proportions with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:4 (1 cement:4 coarse sand) 20mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-Charge.	930	Sqm.		
11.3	Providing and laying integral cement based water proofing treatment with ten years guarantee by specialised water proofing agency including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations :				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
11.4	<p>Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with proprietary water proofing compound conforming to IS. 2645 over the RCC slab including cleaning the surface before treatment.</p> <p>Laying cement concrete using broken bricks/brick bats 25 mm to 100mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with proprietary water proofing compound conforming to IS :2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand ) admixed with proprietary water proofing compound conforming to IS : 2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.</p> <p>After two days of proper curing , applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645.</p> <p>Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300 x 300mm square.</p> <p>The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test.</p> <p>All above operations to be done in order and as directed and specified by the Engineer-in-Charge.</p> <p>With average thickness of 120mm and minimum thickness at khurra as 65 mm .</p> <p>Providing and laying water proofing treatment with ten years guarantee by specialised Waterproofing agency in sunken portion of WC's, bathroom etc., by applying :-</p> <p>First layer of slurry of cement @ 0.488kg/sqm mixed with waterproofing compound and cured.</p>	2100	Sqm.		

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
11.5	<p>Second layer of slurry of cement @ 0.242 kg/sqm mixed with waterproofing compound and cured.</p> <p>Including preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.</p> <p>Providing and laying waterproofing treatment with ten years guarantee by specialised waterproofing agency to vertical and horizontal surfaces of water tanks consisting of:</p> <p>1st course of applying cement slurry @ 4.40 kg / sqm admixed with waterproofing compound conforming to IS 2645 in recommended proportions.</p> <p>2nd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) admixed with waterproofing compound conforming to IS 2645 in recommended proportions.</p>	470	Sqm.		
11.6	<p>Providing and laying waterproof brick bat coba filling in cement mortar 1:3 (1 cement : 3 coarse sand) with waterproofing compound to achieve required slope &amp; levels, brick bat top surface to be finished to receive water proofing treatment / tiling and to be carried out by speicalized waterproofing agency. The waterproofing work shall be guaranteed for 10 years.</p>	430	Sqm.		
	<p>Providing and laying waterproof brick bat coba filling in cement mortar 1:3 (1 cement : 3 coarse sand) with waterproofing compound to achieve required slope &amp; levels, brick bat top surface to be finished to receive water proofing treatment / tiling and to be carried out by speicalized waterproofing agency. The waterproofing work shall be guaranteed for 10 years.</p>	235	Cum.		
	<p><b>TOTAL CARRIED OUT TO SUMMARY PAGE</b></p>				

SR. NO.	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT
<b>12.0</b>	<b>ROAD WORK</b>				
12.1	Preparation of subgrade by excavating earth to an average of 22.50 cm. depth, dressing to camber and consolidating with road roller including making good the undulations etc. and disposal of surplus earth outside the premises.	2550	Sqm.		
12.2	Laying 150 mm thick consolidated water bound macadan in two layers with 45 mm to 90 mm graded stone aggregate, 13.2 mm nominal stone screening / chippings and blinding material including screening, sorting, spreading to template and consolidation with power road roller of 8 to 10 tonne capacity etc. complete with spreading 6 mm thick red bajri, watering and rolling complete as directed.	2550	Sqm.		
12.3	Providing and fixing in position cement concrete kerb stones 1:2:4 (1 Cement : 2 - Coarse Sand : 4 graded stone aggregate 20 mm nominal size) with edging including necessary excavations, setting kerb in line and level in 1:3:6 concrete (1 cement : 3 coarse sand : 6 graded stone aggregate, 20 mm nominal size) filling joints in 1:3 (1 cement : 3 fine sand) cement mortar, cleaning and painting with two coats of oil paint etc. complete as directed.	10	Cum.		
12.4	Providing and laying 23 cm thick stone soling with stone boulders by hand packing, packing with smaller stones and stone dust, consolidating etc. complete as directed by the Engineer.	500	Cum.		
<b>TOTAL CARRIED OVER TO SUMMARY PAGE</b>					