

Bill of Quantity

ITEM No.	DESCRIPTION OF ITEM	UNIT	QTY	RATE	AMOUNT (INR)
EW-1.00	EARTHWORK & SSM				
EW-1.10	General earthwork excavation by mechanical means in all types of soil including dense soil, disintegrated/ weathered/ soft rock for levelling & lowering the ground upto the required level as per detail, stacking the excavated earth & disposable material wherever indicated in site, back filling in layers of 150mm, including filling depressions wherever necessary, watering, consolidating, verticle/slope cut earth during the excavation process to prevent the sliding by providing suitable shoring in slope using wooden planks / MS sheets and poles etc to the soil surface as per site condition and soil consultant recommendations. Rate to include carting away surplus excavated earth outside the site to designated areas identified by the local authorities. Contractor shall get aquented with site conditions and soil report and submit method statement for dewatering and getting the surface reasonably dry. Rate shall also include removal of all kind of vegetation, small shrubs, debris, dewatering, slush removal.				
	Note: Only PCC area shall be considered for measurement. Provision of slopes if required for execution shall not be paid separately. Quoted rate shall be deemed to include for the same.				
EW-1.11	Excavation for Foundations of Column Pedestals, Retaining walls, Shear walls, trenches, etc.	CUM	50	400.00	
	Note: The above mentioned quantities(E/W-1.11 & E/W-1.12) are based on average contour levels. Quantity of Ordinary soil/Disinterated rock/Hard rock mentioned is tentative and may vary to any extent depending upon underlaying ground profile to be exposed during excavation. The excavation & filling quantity may vary depeding on the present situations				

	<p>Special sheeting clips fabricated out of galvanised Steel sheet of 22 SWG with minimum 120 gms/Sqm</p> <p>Zinc coating of width 250 mm shall be fixed to the Sub girts using 25 mm long self drilling wafer head GI fasteners.</p>		
	<p>Fixing top sheet using standing Seam system / Clip lock system using mobile roll forming unit the Profile will have a crest height of maximum 50 mm with suitable cover width made out of 0.55 mm TCT Colour coated galvalume steel of 300 Mpa yeild stress with hot dip metallic coating of aluminium zinc alloy (150 gm/Sqm total on both sides AZ 150 as per ASTM A792 or AS) having PVDF/PVF2 coating of 20 microns over 5 micron epoxy primer on the exposed side and 5 micron coating over 5 microns over epoxy primer on the reverse side. The standing seam Profile shall be fixed on the clip provided on the purlins. The clip shall be fixed to the purlins with wafer head Self drilling self tapping fasteners. The site seaming Shall be done with a special machine to ensure 100%Water tightness. The sheets shall be without joints from the ridge to the Eaves level and profiled at site. Including providing of necessary flashing and sealing water tight for the roof expansion joint.</p>		
SS-6.30	<p>Providing and fixing in position gutter 300mm wide 200mm deep made out of 0.80mm thick plain Galvalume sheet or approved equivalent of approved colour including bending to shape, necessary fixtures, silicone based sealants, Cost of fixing etc. complete where it is required.</p>	Rmt	25
SS-6.40	<p>Specification installation of 08mm Premium fiber cement Board is an exterior grade product as per IS 14862:2000 .Type "A" category 3 and ASTM C 1185 Type "A" Grade II.</p> <p>Non asbestos fiber cement boards installed using Galvanized iron steel tracks of 0.5mm thick GI channel with providing 2 feet every interval and screwing with self tapping screws and joints will be treated with Indus jointing compound. Are to be painted with 2 coats of acrylic emulsion paint of approved shade/made, over a coat of cement primer. (Approved Make: Everest / Visaka / USG Boral / Bison Board)</p>	SQM	Rate only
SS-6.50	<p>Supplying and fixing anchor fasteners and anchor bolts of HILTI/eqv. make of approved brand by structural consultant in RC beams, columns and slabs including scaffolding, drilling</p>		

wastage and binding wire will not be measured and shall be included in the quoted rates. Quoted rate shall be deemed to have considered the above stipulation. Quoted rate to include lead, lift, placing at all levels and as directed. Cost towards cutting, preparing & delivering the sample to the testing centres including collecting and submitting the test reports to the Employer will be in Contractors account. The cost to include supply and use of 18G annealed GI Binding wire double fold to tie the bars in position.

High yield strength deformed bars conforming to IS:1786 with Fy = 500 N/mm²

MT

2

TOTAL AMOUNT FOR REINFORCING STEEL WORK =

SS-6.00	STRUCTURAL STEEL WORKS			
SS-6.10	Supplying, fabricating, delivering at site, hoisting and fixing in position and making all YST310 structural work of TATA (conforming to IS:800, IS:4923, IS:1161 to complete specifications.) in accordance with the design drawings prepared by the consultants. The structural steel work shall include welded and built up sections, hollow sections, trusses, etc., as per drawings. The rate shall include two coats of Synthetic Enamel Paint over Zinc ridge epoxy primer and shall include bolts, washers, 1:3 cement and grouting for bolts etc.complete.	MT	8	
SS-6.20	Supplying & fixing 0.5 mm TCT colour coated profile sheet as the bottom sheet having a crest height of 28 mm at 195 mm pitch made out of 0.5 mm TCT (total coated thickness) high tensile 550 Mpa Galvalume sheeting with 150 GSM galvaume coating on both sides and have SMP coating of 20 microns over 5 micron epoxy primer on the exposed side and 5 micron coating over 5 microns Over epoxy primer on the reverse side confirming to ASTM -A792 or AS 1397 factory cut and supplied in required lengths to suit shop drawing the roofing sheet shall be crest fixed to the purlins with galvanized self drilling and self tapping screws of size 12-14 x 55 mm long of buildex /corrosheild confirming to AS 1397 with EPDM Ceiling washers and with butyl sealant and foam filler wherever necessary. Z Shaped Sub-girts of size 50 x 50 x 80 mm made out of 1.6 mm thick Galvanised steel will be fixed with self drilling and self tapping fasteners to the bottom sheet.	SQM	280	
	Mineral wool slabs having density of 96 kg/M ³ of 80 mm thick conforming to IS 8183 encased in black Polythene bags is placed over the bottom sheet.			

	slabs only.			
	Providing, fabricating and erecting form work at all levels and places and profiles wherever needed/specified as per drawing including striking with 12mm Plastic coated, marine resistant waterproof ply/Smooth finished MS plates with adjustable steel props of acceptable Staging system and with sufficient bracing as approved by consultant. Cost to include designing of proper form work and staging system to suit the requirements, Submission of design calculations and shop drawings for approval, sealing the joints with heavy duty brown self adhesive tape, aligning to line and levels including M.S. Ties, PVC Spacer, Providing openings/ cutouts/ pockets, applying deshuttering chemical, Deshuttering as approved by the consultant etc., complete at all levels, double/tripple heights and profiles.			
FW-4.10	Foundations Shuttering			
	Footings of Columns/Pedestals & Retaining walls	SQM	35	
FW-4.20	Columns/Pedestals Shuttering			
	Ground Floor Pedestals/Columns	SQM	35	
FW-4.30	Beams Shuttering			
	Plinth Beams	SQM	40	
TOTAL AMOUNT FOR SHUTTERING & FORM WORK =				
RS-5.00	REINFORCING STEEL WORKS			
RS-5.10	Supplying, collecting, fabricating & fixing in position reinforcement for RCC work with high yield strength ribbed cold twisted tor steel bar of various diameters and grade of steel at all levels conforming to IS specification including transporting from yard, decoiling, straightening, cutting, bending, hoisting, fabricating, and placing in position according to drawings and binding the reinforcement with GI/MS annealed binding wire of double fold of 18 gauge and providing PVC cover blocks, for placing the reinforcements in position and for maintaining the cover specified and/or according to relevant IS specs.			
	Note: Unless noted otherwise the measurements in accordance with IS 1200. However reinforcement shall be measured only in lengths of bars as actually placed in position on standard weight basis, no allowance being made in the weight for rolling margin. Authorised laps and splices only will be measured. Chairs of any shape & profile, Spacer bar of any shape & profile, cover block,			

	<p>M20 = 300 kgs M25 = 300 kgs M30 = 320 kgs M35 = 340 kgs M40 = 360 kgs M45 = 380 kgs</p> <p>Minimum cement content of concrete mentioned are of Guidance purpose only and the same shall be confirmed with trail Mix and Cube Test as per relevant IS standard</p>			
RC-3.10	Providing and laying in position specified grade as per approved mix design of reinforced cement concrete for Foundations.			
	Footings of Columns/Pedestals & Retaining walls (M30)	CUM	15	
RC-3.20	Providing and laying in position specified grade as per approved mix design of reinforced cement concrete for Columns/Pedestals.			
	Ground Floor Pedestals/Columns (M30)	CUM	5	
RC-3.30	Providing and laying in position specified grade as per approved mix design of reinforced cement concrete for Plinth & Floor Beams.			
	Plinth Beams (M25)	CUM	3	
RC-3.40	Providing and laying in position specified grade as per approved mix design of reinforced cement concrete for Floor Slabs.			

TOTAL AMOUNT FOR REINFORCED CEMENT CONCRETE WORK =

FW-4.00	FORM WORK & SHUTTERING			
	Important notes in regard to Form work & Shuttering.			
	1. Contractors shall submit drawings showing the scheme of form work (shuttering) for all itmes of work detailed as under, at various levels as indicated in drawings and this shall be obligatory.			
	2. Formwork shall be designed for rigidity, durability, strength, water tightness, easy removal etc.,			
	3. Formwork designed with proposed materials (to be approved) shall be able to retain its shape, line, dimension, level within the allowable limits of variations. Props shall be only steel.			
	4. Necessary arrangement shall be envisaged to provide camber in beams or slabs as per design and Formwork for construction joints shall be submitted for approval.			
	5. Film coated plywood shuttering shall be considered for all vertical elements, beam soffit, corewalls, stairs, ramps, tanks, RCC pedestals, etc., M.S. plates shall be considered for foundation &			

	and the rates shall include for excavated/backfilled items.			
EW-1.20	Earth filling with approved good quality earth in plinths, area development etc., wherever specified in layers of not exceeding 300 mm thick including breaking clods, watering, consolidation each layer to achieve 95% proctor density and dry density of 1.9gm/cc at optimum moisture content, with all leads and lifts, bailing/ pumping out of water to keep site dry while backfilling. The quantity also includes backfilling of footing pits, retaining walls, RC upstands, etc.			
EW-1.21	Filling with available selected excavated earth.	CUM	50	
TOTAL AMOUNT FOR EARTHWORK & SSM =				
PC-2.00	PLAIN CEMENT CONCRETE WORKS			
PC-2.10	Providing and laying PCC 1:4:8 of specified thickness using Manufactured sand & 40mm down size aggregates including base preparation, concreting, curing, shuttering, etc., complete.			
PC-2.11	For below Foundations.	CUM	5	
TOTAL AMOUNT FOR PLAIN CEMENT CONCRETE WORK =				
RC-3.00	REINFORCED CEMENT CONCRETE WORKS			
	Important notes in regard to reinforced cement concrete.			
	1. All concrete used for reinforced concrete work (structural concrete) shall machine mixed and shall be "Controlled concrete" and the use of weight batching is a must and shall be insisted upon.			
	2. While quoting for structural concrete work contractors are particularly advised to study the relevant drawings carefully before quoting.			
	3. The successful tenderer shall maintain at site, cube testing machine in good working order, sieves, slump cone, graduated cylinder and weights, scales for material testing.			
	4. Easy access shall be provided at the time of concreting for other agencies to lay the conduits			

<p>and other works in connection with services like water supply, sanitary and electricity.</p>			
<p>5. The rate should also include the cost of staging . The design of staging wherever necessary and design mix shall be done by the contractor & should get the approval from consultants.</p>			
<p>6. The waterproof compound for concrete mix should be of plastocrete super of Sika Qualcrete P Ltd. or Conplast X4211C of FOSROC or equivalent as per manufacturer's specification.</p>			
<p>7. Vibrators shall be used for all works. Placing of insert plates, MS angles and openings in slabs/beams wherever necessary.</p>			
<p>Providing & laying controlled reinforced cement concrete conforming to grades as specified in (IS 456 - 2000) as per specifications using 20mm down size aggregates with OPC 53 grade at any depth or heights excluding the cost of steel reinforcement and Shuttering/Formwork. The rate shall include for scaffolding, compacting with vibration, curing, hacking(wherever required) and providing recess to walls or columns, sleeves in slabs, construction joints sunk slabs, cantilever slabs, making holes or cutting formwork for taking out Electrical conduits or dowels for column to Brick work, to the required shape, size, slope shown in drawings for the following items of work.</p>			
<p>The rate shall include cover blocks to keep reinforcement in position within concrete made of PVC or Nylon of approved make/quality and arrangements to provide recesses to slabs, columns, walls and placing and securing properly within the formwork sleeves and/or opening in slabs, embedment's such as insert plates, bolts, corner protection angles, anchors etc. (embedment shall be paid separately under respective items), construction joints, sunk slabs, cantilever slabs, making holes or cutting formwork for taking out Electrical conduits or dowels, switch box, hooks, puddle flange, sleeves, etc., for column to Block / Brick work etc. to the required shape, size and slope as shown in the drawing.</p>			
<p>For all Concrete works to be done from Batching Plant with Minimum Capacity of 30 cum /hr. Design mix shall be as approved by the Structural Consultant. Test Lab Site has to be set up to test samples at regular intervals and as instructed by Structural Consultants. All RCC elements should be water leak proof structure and the contractor ensure the same. The minimum cement contents for different grades of concrete and using 53 grade of cement shall be as follows. M10 = 210 kgs</p>			

	holes, fixing and testing etc. complete as per manufacturer's specification and as directed by the ENGINEER.			
	M10 dia	NOS	10	
	M12 dia	NOS	10	
	M16 dia	NOS	50	
SS-6.60	Supplying and fixing chemical fasteners of FOSROC/eqv. make of approved brand by structural consultant in RC beams, columns and slabs including scaffolding, drilling holes, fixing and testing etc. complete as per manufacturer's specification and as directed by the ENGINEER.			
	M10 dia	NOS	10	
	M12 dia	NOS	10	
	M16 dia	NOS	10	
TOTAL AMOUNT FOR STRUCTURAL STEEL WORK =				
MW-7.00	MISCELLANEOUS WORKS			
MW-7.10	Supplying and fixing chemical lockset for rebar with Fosroc/Hilti/eqv. make and complete as per manufacturer specification.	NOS		
MW-7.20	Providing and laying Non Shrink grout of FOSROC/eqv. make approved quality as per manufacturer's specification.	LTR		
TOTAL AMOUNT FOR MISCELLANEOUS WORK =				
F S - 8	FINISHING WORKS			
F S - 8.01	Providing and constructing 200mm thick precast concrete solid blocks masonry of size 40x20x20cms with compressive strength not less than 38 Kg/cmsq with cement mortar 1:6 masonry of joint thickness not to be more than 20mm (quoin, jamb, closer blocks) confirming to I.S. 2185/1965 in superstructure including cost of materials, labourcharges, scaffolding, ladders, platforms, staging, curing, plant required for the execution of the work etc..complete as per specifications & relevant drawings / as directed by the Architect / Engineer In charge. Bearing blocks of concrete or bricks in motor courses will have to be introduced where ever required.	SQM	200	
F S - 8.02	Plastering internal surfaces of walls, beam above wall, brick fins, brick pillars etc. with CM 1:6, 12 mm thick average, according to specification including necessary scaffolding, curing etc. complete. The rate shall include the cost of GI Plaster mesh - 4" to 6" wide (manufactured by M/s. Arpita Exports Ltd.), at the junction of column/ Beam/Lintel. The rate to include for	SQM	50	

making patties wherever necessary etc.,

FS - 8.02	Plastering external surfaces of walls, External column and peripheral beam outer surface with CM 1:6, 20mm thick (average) in two coats with a under layer of 12mm and top layer of 8mm thick with water proofing compound according to specification including necessary scaffolding, curing and hacking to the surface etc., complete. The rate shall include the cost of GI Plaster mesh - 4" to 6" wide (manufactured by M/s. Arpita Exports Ltd.,) at the junction of column/beam/lintal. The rate shall include for making grooves, patties coving on chajjas and 2" drip mould where ever neseccary etc. if applicable as per the direction of Project Manager.	SQM	350	
FS - 8.03	Prepare the surfaces and plastered internal walls, columns, beams, fins etc. and apply two coats of Acrylic Emulsion Paint of approved make and shade over one coat of wall primer painting including necessary sand papering, full putty work, scaffolding etc., complete. The rate shall include for finishing the painting to obtain an even and uniform shade as directed by the Architects / Project Managers.	SQM	50	
FS - 8.04	Providing two coats of APEX exterior paint of approved shade over one coat of primer. The surface should be thoroughly cleaned before, painting. The painting should be done as per the manufacturer's specification. THE SURFACE AREA ONLY SHALL BE MEASURED AND PAID FOR (External Wall)	SQM	350	
FS - 8.05	Providing and fixing two way semi unitized Single glazed structural glazing system having main frame work of verticals and horizontal made out of specially design extruded polyester powder coated aluminum section to withstand Designed wind speed as per I S code of practice with 6 mm thick heat strengthened offline coated reflective glass with all standard necessary accessories including clear silicon sealant of approved make ,EPDM triple barriers, weather strip to ensure water and air-tightness etc., complete as detailed in drawings and as directed by the Architects / Project Managers / Client's representatives. The quoted rate shall include Providing and applying F M Global approved Fire & Smoke Sealant at all the necessary areas such as Floor levels, gaps between Glazing members & Floor levels to the	SQM	20	

	required size as per site conditions inclusive of necessary products and other required supports , wastages, transportation, applicable taxes etc. complete.			
FS - 8.06	Providing and fixing Twin leaf shutter Patch fitting glass door using 12 mm thick Clear Fully Tempered glass of approved make without having any intermediate horizontal or vertical members with approved operating hardwares such as SS patch fittings , brush steel finish SS handles of size 16" height, patch lock, floor springs, integration provision for magnetic contact and access control etc., complete for frameless patch doors of size mentioned below, twin leaf shutters with fixed panel on top, as detailed in drawings and as directed by the Architects / Project Managers / Client's representatives. The rate shall include scaffolding, wastages, transportation, applicable taxes, making holes in the glass etc. complete.	SQM	5	
FS - 8.08	Providing and Fixing Books Storage cup board made out of 19 mm PRE LAM Board of approved make as per the design with all tools and tackles complete as detailed in drawings and as directed by the Architects / Project Managers / Client's representatives.	SQM		
FS - 8.09	Supplying and applying single component, elastomeric 100% pure polyurethane coating, which is free from bitumen and tar, having elongation of 400% and tensile strength of 2-4 MPa(as per ASTM D 412), crack bridging up to 2mm, applied at total consumption of 1.8kg/sqm to achieve total system DFT of 1.2-1.3mm thickness. The coating shall be continued to the entire horizontal area and should be terminated at 300mm over the vertical surface The system includes base preparation of cleaning, brushing and removal of flacky materials, grouting the porous area with cementitious grout, proper coving between slab and wall junctions and priming the surface with high moisture insensitive epoxy primer applied @ 150gms/Sqm, followed by application of polyurethane coating.	SQM	100	
FS - 8.10	Providing and laying Rough Granite stone slab of specified size and 19mm thickness, hand / machine cut and pre polished and laying for Flooring including cement slurry, tinted white cement pointing to match the colour of the slab,	SQM	175	

	curing, waxing , Protecting the polished surface with POP till handing over the building etc., complete. The rate shall include for required Nosing as per the intent drawing and as directed by the Engineer In Charge. (Basic cost Rs.150/-SFT)			
FS - 8.11	Specification & scope of work same as Rough Granite Flooring but for skirting including necessary chipping, finishing, grooves , nosing etc.,including chasing wall where necessary, making good the chased surface in CM 1:4: a) 100mm	RMT	100	
FS - 8.12	Providing and laying Granite stone slab of specified size and 19mm thickness, hand / machine cut and pre polished and laying for Coping including cement slurry, tinted white cement pointing to match the colour of the slab, curing, waxing , Protecting the polished surface with POP till handing over the building etc., complete. The rate shall include for required Nosing as per the intent drawing and as directed by the Engineer In Charge. (Basic cost Rs.150/-SFT)	SMT	15	
FS . 8.13	Supplying , Providing and fixing M S Expanded Metal Mesh for External Railing made out of M S sections with vertical and horizontal support framework of required sections for stability with necessary spot welding . Rate shall include for providing 2 coats of Enamel paint over one coat of primer complete as per the intent drawing and as directed by the Engineer In Charge.	SMT	75	
FS . 8.14	Providing water proofing for land scape area with The first part consists of application of first layer of micro fibre reinforced acrylic polymer modified white cementitious waterproof coating, two part, after base preparation of cleaning, brushing and removal of flaky materials, grouting the porous area with cementitious grout, fixing of weep holes, Grouting of pipe outlets etc and applying in two coats @ 750 Gms/Sqm/Coat. The coatings shall be applied at intervals and as per the manufacturer's specifications. Cost to include the treatment along wall up to min 300 mm and no extra measurements shall be accounted for the wall treatment. The second part consists of surface method in two layers in CM 1:4 of thickness 35mm for floor, 25mm for walls till floor level and 18mm till 300mm above floor level with water proof admixture as per Manufacturer's specification approved by consultants. Note: Plan area shall be	Sqm	50	

the mode of measurement.			
Total			
GST			
Grand Total			

