

**International centre for Theoretical Sciences.
Tata Institute of Fundamental Research**

Name of work : Rising of existing size stone masonry Compound Wall for ICTS Campus near Shivakote Village, Bangalore North.

Schedule of Quantities

Item no	Description	Unit	Qty	Rate	Amount
1	Demolishing cement concrete 1:3:6 or richer mix including MS angle and disposal of materials within 50m lead. MS angle shall be stored in departmental store or as directed by the Engineer in charge.	Cum	25.00		
2	Earthwork in excavation for FOUNDATION TRENCHES in ALL KINDS OF SOILS including dressing of sides, ramming of bottom, disposing the surplus excavated materials within a distance of 50m and lift 1.50m complete as per specifications. (Disposed soil to be levelled by breaking clods if any and neatly dressed).	Cum	50.00		
3	Providing and laying cement concrete using 20mm nominal size graded hard granite stone aggregate obtained from approved quarry including compaction, finishing top surface to level, curing but excluding cost of formwork, etc.; complete as per specifications. Mix ratio specified is for (cement: coarse sand: graded stone aggregate).				
	In foundation and plinth/sub-base to floors with P.C.C 1:4:8	Cum	5.00		
4	Providing and constructing RANDOM RUBBLE MASONRY using hard granite stones obtained from approved quarry with bond stones at every 0.50 sqm of wall surface in cement mortar in mixes stipulated below without pinning on face, but including raking out joints and pointing flush in same mortar including curing, etc.; complete as per specifications in FOUNDATION AND PLINTH. (Rate includes cost of bond stones wherever provided). (Mix ratio specified is for cement : coarse sand)				
	In cement mortar 1:5	Cum	50.00		
5	Providing and constructing SIZE STONE MASONRY using hard granite stones obtained from approved quarry, with edges of all stones chisel dressed to obtain uniform size and shape and in courses not less than 20cms with bond stones 2mtrs apart in each course including raking out joints, curing, scaffolding, etc.; complete as per specifications IN SUPERSTRUCTURE UPTO FLOOR-V LEVEL.(The mix ratio specified for cement : coarse sand)The dressing on stones and quoins shall be as follows:				
	Dressing: Face stones shall be hammer dressed on all beds and joints, so as to give them approx. rectangular block shape. These shall be squared on all joints and beds. The bed joints shall be rough chisel dressed for atleast 5 cm back from the face, and the side joints for atleast 4 cm such that no portion of the dressed surface is more than 6mm from a straight edge placed on it. The remaining portion of the stone shall not project beyond the surface of bed and side joints.. The bushing on the face shall not project more than 4 cm on an exposed face and 1 cm on a face to be plastered. The hammer dressed stone shall also have a rough tooling for a minimum width of 2.5cm along the four edges of the face of the stone.				

	Quoins: The quoins which shall be of the same height as the course in which these occur, shall be formed of stones of at least 25cm long, laid stretchers and headers alternately. These shall be laid square on the beds, which shall be rough chisel dressed to a depth of atleast 10 cm. These stones shall have a minimum of 2.5 cm wide chisel drafts at four edges. All the edges being in the same plane.				
5.1	In cement mortar 1:5	Cum	400.00		
5.2	For S.S. masonry using hard granite stones. In square or rectangular pillars.	Cum	80.00		
6	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) including raking out joints/old or existing wall joints, scaffolding, curing, finishing neat, etc; complete all as per specifications UPTO 10 MTR LEVEL ABOVE G.L				
a	Ruled or sunk pointing.	Sqm	1900.00		
b	Ruled or sunk pointing for Existing or old compound wall	Sqm	2200.00		
7	Providing and laying in position REINFORCED CEMENT CONCRETE from approved RMC plant using graded hard granite stone aggregate of 20mm nominal size obtained from approved quarry including mechanical mixing, vibrating, compaction, finishing, curing, etc; complete all as per specifications but excluding the cost of form works and steel reinforcement. (Rate to include labour for keeping embedments if any, wherever required while casting). Mix ratio is specified is for (cement : coarse sand : graded stone aggregate) UPTO FLOOR FIVE LEVEL IN beams, suspended floors, roofs having slope upto 15 degree, landings, balconies, shelves, chajjas, lintels, bands, plain window sills , staircases and spiral staircases etc.,Complete.				
	RCC 1:1:2	Cum	52.00		
8	Providing and laying cement concrete using graded hard granite stone aggregate of 20mm nominal size obtained from approved quarry including formwork, compaction, finishing, curing, etc; IN BED BLOCKS, ANCHOR BLOCKS, COPING BLOCKS, etc; upto floor-V level complete all as per specifications. Mix ratio specified is for (cement:coarse sand:graded stone aggregate) The work includes providing throating/ drip mould wherever required as per standard engineering practice of size not be less than 40mm X 15mm. The rate is inclusive for making drip mould & no extra cost will be paid for.				
	P.C.C 1:2:4	Cum	35.00		
9	1. Quoted rate shall include for removing the rust/scaling, dust over the surface thoroughly before put into use as directed by the EIC. 2. Cost of binding wire shall be borne by the contractor & shall not be measured for payment.				
	Reinforcement for RCC work using Thermo Mechanically Treated bars of grade Fe-500 manufactured by SAIL/TATA STEEL/RINL only as per the following including loading, unloading, transporting, decoiling, straightening, cutting, bending, placing in position and binding with 18 gauge, soft drawn annealed steel binding wire including carrying out various tests as required etc. all as per specifications, drawings & as directed by the EIC.	MT	8.00		

10	Providing rigid and water tight centering and shuttering using best quality wood/ plywood/ steel forms and centering with steel props, acro tubes etc., including strutting, propping, bracing, staging etc., complete for all RCC items fixed in position as required including labour for careful removal of form work etc., complete all as per specifications at all heights for all geometric shapes and sizes at all leads and lifts.				
	For all RCC works	Sqm	280.00		
11	Providing and constructing at all levels concrete block walls with CEMENT CONCRETE SOLID BLOCKS using 400x200x200/400x150x200 with approved quality and confirming to a crushing strength of not less than 50Kgs/Sqcms in CM 1: 6 to correct line, level and plumb including racking out joints, curing scaffolding, at all levels/ floors , lead, lifts and height for walls , platforms and packing the junction of wall with ceiling with 1:3:6 mix and plant required for the execution of the work etc. Complete as per specifications, & as directed by EIC.	Cum	40		
12	Supply & fixing all types of Structural steel fabrication work for the following using M.S/S.S of M/s. Sail OR M/s.Tata welded, riveted, bolted in built up sections, trusses , space frame spiral stair case, railings, ladder and framed work , suspenders, supports, portals frames, raceways to support PH pipes of various dia, etc., for the following at all floors and locations, heights, including scaffolding, bracing, multi level staging, lead etc., in grills, guard bars for windows, frames, covers, gazettes plate, base plate, cover bracket for slanting chajja etc.using specified structural steel sections like angles, tees, flats, bars, chequered plates, sheets Channel/I sections,M.S tubes section/pipes, joists, bolts & nuts,M.s rods, threaded U/J bolts, washers, suitable size anchor fasteners fo M/s Hilti or approved make for concrete and masonry, drilling holes in concrete & masonry etc., including				
	supplying, cutting, fabricating, welding, bending to shape,(curved), wastages, hoisting/ erecting, fixing in position, making holes/chases wherever required and fixing /embedding in position in concrete/brick work with necessary hold fasts/ supporting plates, cleats, gazette plate, screws & rawl plugs and finishing the concrete/ brick work after fixing/ embedding including painting one coat Zinc chromate primer over shop coat of approved anticorrosive primer and two coats of synthetic enamel spray paint of approved make and colour on all exposed surfaces over a coat of approved steel primer etc.complete as per specifications, drawings and as directed.				
	Note ; 1.Quoted rate shall be inclusive of all cost irrespective of size & shapes, in circular/plain works of steel trusses, structural roof system, tubular frame works, etc., Extra claim will be not entertained. 2. Quoted shall be inclusive of suitable size S.S.anchor fasteners for concrete and polyamide fasteners for masonry work including drilling holes and making good the same after completion of work.				
12.1	For all structural steel works including hand railing, window grills	MT	2.00		
12.2	Steel work in built up tubular trusses and space frame with MS pipes as per the specifications.	MT	2.00		

13	Providing & fixing concertina coil fencing with required dia 600 mm upto 3m height of wall with exiting angle iron 'Y' shaped placed 2.4m or 3.00m apart and with 9 horizontal R.B.T.stud tied with G.I.clips to retain horizontal including necessary bolts or G.I.barbed wire tied to angle iron all complete as per direction of Engineer-in-charge with reinforced barbed tape (R.B.T) / Spring core (2.5mm thick) wire of tensile strength of 165 kg/sq.mm. with tape (0.52mm thick) of Supreme make or equivalent and weight 43.478gm / metre (cost of M.S.angle, C.C.blocks shall be paid seperately).	RM	850.00		
14	Cement plaster in single coat at all floors and locations to correct line, level, plan at all locations, heights, lead, and plumb for the following, including cleaning, preparing the surface, scaffolding, double height /multi level staging etc., curing etc. all complete as per drawings, specifications and as directed by the EIC.				
	Sand face plaster 20 mm thick in two coats in C.M 1:4 for brick/ concrete surfaces (external/ internal) (back coat and finishing coat of 10mm thick each) with water proofing agent @ 2% by weight of cement.	Sqm	120.00		
TOTAL Rs.					

Note: 1.The rate inclusive of all taxes.

(Rupees

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Contractor's Seal with Signature