

CONSTRUCTION OF FRONT SIDE COMPOUND WALL & GATE FOR PROPOSED REGIONAL SCIENCE CENTRE, CHALAKUDY					
PART I-CIVIL					
Item No	Description	Qty	Unit	Rate in Figures and words (Rs)	Amount in Rs.
	EARTH WORK				
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width aswell as 10 sqm on plan) including disposal of excavated earth, with all lifts and leads, disposed earth to be levelled and neatly dressed, as per the direction of Engineer in charge.All kinds of soil	180.00	cum		
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering etc complete, with all leads and lifts as per the direction of Engineer in charge.	120.00	cum		
	DEMOLISHING AND DISMANTLING				
3	Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge : In cement mortar	39.38	cum		
4	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	26.25	cum		
	PLAIN CEMENT CONCRETE				
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	10.00	cum		

	STONE WORK				
6	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand).	12.00	cum		
	REINFORCED CEMENT CONCRETE				
7a	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).All works upto plinth level.	26.00	cum		
b	Add for using extra cement in the items of design mix over and above the specified cement content therein.	13.00	qtl		
c	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately). All works above plinth level upto floor V level.	34.00	cum		

d	Add for using extra cement in the items of design mix over and above the specified cement content therein.	17.00	qtl		
8	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo Mechanically Treated bars.	8,400.00	Kg		
9	Centering and shuttering including strutting, propping etc. and removal of form for : Arches, domes, vaults up to 6 m span	200.00	sqm		
	BRICK WORK				
10	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	50.00	cum		
	STEEL WORK				
11	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings/ wooden frames with rawl plugs screws etc.	126.00	kg		
12	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				

	hot finished welded tubes	710.57	kg		
13	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:	883.72	kg		
	FINISHING				
14	Plastering with cm 1:4 ,12 mm thick floated hard and trowelled smooth for inside walls including watering ,curing cost and conveyance of all materials and labour charges etc complete.	560.00	sqm		
15	Plastering the walls with stucco spray plastering with cement grout floated hard including scaffolding, watering, curing, cost and conveyance of all materials hire and labour charges etc complete	181.00	sqm		
16	6 mm cement plaster of mix:1:3 (1 cement : 3 fine sand) for ceiling.	30.00	sqm		
17	18 mm cement plaster in two coats under layer 12mm thick cement plaster 1:5 (1cement :5 Coarse sand) finished with a top layer 6mm thick cement plaster 1:6 (1 Cement : 6 Fine sand)	50.00	sqm		
18	Plastering in cm 1:3, 12 mm thick floated hard and trowelled smooth including watering ,curing cost and conveyance of all materials and labour charges etc complete with water proofing compound.	15.00	sqm		

19	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : New work (two or more coats) over and including water thinnable priming coat with cement primer	70.00	sqm		
20	Pointing the brick work in cm 1:3 including brick washing and cost and conveyance of all materials and labour charges etc. complete.Flush / Ruled/ Struck or weathered pointing	20.00	sqm		
21	Finishing walls with Acrylic smooth exterior paint of required shade:- New work (Two or more coats applied @ 1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @ 2.2 kg/10sqm.)	1,200.00	sqm		
22	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	380.25	sqm		
23	Providing and fixing aluminium work with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
	Powder coated aluminium (minimum thickness of powder coating 50 micron)	1480.00	kg		
	MISCELLANEOUS WORK				

24	Supplying and fixing pre-polished granite slab of jet black colour with a minimum thickness of 19 mm fixed using CM 1:4 along with nuts & bolts of adequate sizes on the RCC beam at a height of about 4.50 m w.r.to ground level supported on the front gate pillars for fixing Brass Letters of the Name board including cost and conveyance of all materials hire and labour charges scaffolding etc complete	5.00	sqm		
25	Supplying and fixing Name Board in Brass letter in Granite slab already fixed including material and labour charges for fixing etc complete.	40.00	Each		
26	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth with all lifts and leads, as directed by Engineer in Charge.	80.00	sqm		
27	Supplying and stacking at site. 53 mm to 22.4 mm size stone aggregate	16.00	cum		
28	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density, as directed by Engineer in Charge.	16.00	cum		

29	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	2.00	cum		
30	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	80.00	sqm		
31	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :W.C. pan with ISI marked black solid plastic seat and lid	1.00	Each		

32	Providing and fixing wash basin with C.I/ M.S brackets, 15mm C.P. brass pillar taps Kingston/ Gem/ Techno/ Parko/Jaguar, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls and floors wherever require: White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	1.00	Each		
33	Providing and fixing P.V.C waste pipe for sink or wash basin, including P.V.C waste fittings complete :-				
	Flexible pipe :-32 mm dia.	1.00	Each		
34	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors				
	a)100mm inlet and 75mm outlet.	1.00	Each		
35	Providing and jointing PVC pipes of (pressure 10 K g/cm ²) for water supply including testing of joints, concealing the pipes , & trenching & refilling wherever required etc complete.				
a	20mm PVC pipe	5.00	Rm		
b	25mm PVC pipe	10.00	Rm		

c	32mm PVC pipe	50.00	Rm		
d	40mm PVC pipe	50.00	Rm		
36	Providing and fixing PTMT grating of approved quality and colour. 150 mm nominal size square 100 mm diameter of the inner hinged round grating.	1.00	Each		
37	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. 15mm nominal bore	1.00	Each		
38	Providing and fixing unplasticised rigid P.V.C pipe conforming to IS Standards (pressure 6kg/cm ²) in drainage lines including cutting and making good the walls, cutting and refilling of earth, jointing all etc complete				
a	110mm dia	20.00	Rm		
b	75mm dia	10.00	Rm		
39	Providing & fixing PVC Fittings and fixtures Conforming IS specifications including cutting and making good the walls etc complete				
a	110mm dia plain elbow	3.00	each		

b	75mm dia plain elbow	3.00	each		
c	110mm dia door elbow	1.00	each		
d	75mm dia door elbow	1.00	each		
e	110mm dia plain bend	3.00	each		
f	75mm dia plain bend	3.00	each		
g	110mm dia air cowl	1.00	each		
h	75mm dia air cowl	1.00	each		
40	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 15mm nominal bore	2.00	each		
41	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15mm nominal bore	2.00	each		

42	Providing and fixing unplasticised P.V.C connection pipe with brass unions :- 45 cm length	2.00	each		
	15MM nominal bore				
43	Providing and fixing Porcelain Gully trap of 300 x 300 mm inside dimension for the waste line with cement concrete in 1:4:8 (1 cement:4coarse sand: 8 graded stone aggregate 40mm nominal size) for foundation and with necessary brick masonry in cement mortar 1:4 (1 cement:4coarse sand) and plastering with 12mm thick cement plaster in cement mortar 1:4 (1cement : 4 fine sand) including neat cement flushing coat and providing RCC top slab with 1:2:4 mix etc complete, as directed by the Engineer in Charge.	2.00	each		
44	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design : Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	each		
45	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	1.00	each		

46	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : Rectangular shape 453x357 mm	1.00	each		
47	Providing and fixing C.P towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms	1.00	each		
48	Providing and fixing C.P soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	1.00	each		
49	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design. With common burnt clay F.P.S. (non modular) bricks of class designation 7.5.	1.00	each		
50	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides	2.00	sqm		

51	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.50 mm thickness	5.00	sqm		
52	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-				
a	125 mm	2.00	each		
b	100mm	6.00	each		
53	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-				
a	250 X 10 mm	2.00	each		
b	150x10mm	6.00	each		

54	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	1.00	each		
55	Providing fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete. Powder coated minimum thickness 50 micron aluminium.	3.00	each		
56	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer- in-charge complete. 255 X 19 mm	6.00	each		
57	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) Transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	1.00	each		
58	Providing and fixing factory made PVC door frame manufactured by M/s Rajshri or equivalent of size 50x47 mm with a wall thickness of 5 mm. made out of extruded 5 rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15mm M.S. square tube, the vertical door profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size complete as per manufactures specification and direction of Engineer-in-charge	6.00	Rm		

59	<p>Providing and fixing 30mm thick factory made PVC rigid foam panelled door shutters manufactured by M/s Rajshri or equivalent made from M.S. tube of 19 guage thickness, size 19x19 mm for styles and 15x15 mm for top and bottom rails, covered with heat moulded PVC "C" channel of 5 mm thick and 75 mm wide PVC sheets for top rail, lock rail and bottom rail on either side and 5 mm thick 20mm wide cross PVC sheet as gap insert for top rail and bottom rial, panelling of 5mm thick PVC sheet fitted in the M.S. frame welded/ sealed to the styles and rails with 5x30mm PVC sheet beading on either side and joined together with solvent cement adhesive etc., complete as per manufacture specification and direction of Engineer-in-charge fixed to frames with 4 Nos. M.S. powder coated butt hinges (For W.C. and bathroom shutters).</p>	2.00	sqm		
60	<p>Providing and laying Ceramic joint free antiskid floor tiles of size 400x400 mm thicknes 7.5mm or nearest size of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigments etc. complete. for Toilets as directed by Engineer in Charge (Basic Price of Tile not less than Rs.370 per Sqm)</p>	14.00	sqm		
61	<p>Providing and fixing Ist quality ceramic glazed wall tiles of size 300 x 600mm, of thickness 5mm or nearest size, conforming to IS:15622 of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete. for Toilets as directed by Engineer in charge. (Basic Price of Tile not less than Rs.400 per Sqm)</p>	15.00	sqm		

62	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Granite of any colour and shade Area of slab over 0.50 sqm	2.00	sqm		
63	Providing and fixing up to floor five level precast cement concrete stringor lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc., including hoisting and setting in position with cement 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	5.00	cum		
64	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	11.00	cum		
65	Centering and shuttering including strutting, propping etc. and removal of form for :Foundations, footings, bases of columns, etc. for mass concrete	25.00	sqm		
TOTAL FOR PART I-CIVIL WORKS					