

BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/CA/09/18

NAME OF WORK : CIVIL WORKS FOR EXTENSION OF FABRICATION BAY AND M.P.SHOP IN FACTORY.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
15.0	01	Restricted partial dismantling for the following items where extra care has to be taken to safe guard the existing structures.				
15.3	01A	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	1.000	CUM	537.55	537.55
15.2	01B	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.For 1:4:8 or leaner MIX.	1.000	CUM	226.90	226.90
15.7.4	01C	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 In cement mortar.	40.000	CUM	310.75	12430.00
15.28.2	01D	Dismantling roofing including ridges, hips valleys and gutters etc., and stacking the material within 50 metres lead of Asbestos sheet.	200.000	SQM	11.75	2350.00
15.9.1	01E	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 lime mortar.	10.000	CUM	175.05	1750.50
15.18	01F	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	1000.000	KG	0.85	850.00
15.40.2	01G	Dismantling precast concrete or stone slabs in walls, partition walls etc.	100.000	SQM	66.05	6605.00

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					RS	P	RS	P
		including stacking within 50 metres lead for Thickness above 40 mm up to 75 mm.						
15.43.1	01H	Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50metres lead as per direction of Engineer-in-charge : For Water bound macadam road.	260.000	SQM	34.30		8918.00	
2.1	02	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed : for all kinds of soil.	1950.000	SQM	20.74		40443.00	
2.6	03	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. For All kinds of soil.	300.000	CUM	101.85		30555.00	
2.7	04	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed. For Ordinary rock.	540.000	CUM	152.60		82404.00	
2.8.1	05	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of	770.000	CUM	103.40		79618.00	

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					RS	P	RS	P
		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. For All kinds of soil.						
2.9.1	06A	Excavation work by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m.for Ordinary rock.	540.000	CUM	162.65		87831.00	
2.9.2	06B	For Hard rock (requiring blasting)	870.000	CUM	272.95		237466.50	
2.26.1	07	Extra for every additional lift of 1.5 m or part thereof in. for All kinds of soil.	1140.000	CUM	18.90		21546.00	
2.27	08	Supplying and filling in plinth with Jamuna sand under floors including, watering, ramming consolidating and dressing complete.	300.000	CUM	301.50		90450.00	
4.1.9	09	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : for 1:4:8 (1 cement: 4 fine sand : 8 graded stone aggregate 40 mm nominal size)	600.000	CUM	1415.55		849330.00	
5.11.1	10	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all	5.000	SQM	106.20		531.00	

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					RS	P	RS	P
		levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured) Suspended floors, roofs, landing, beams and balconies (Plan area to be measured).						
5.22.3	11	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.for cold twisted bars.	74850.000	KG	6.19		463321.50	
5.9.1	12A	Foundations, footings, bases of columns, etc. for mass concrete.	1175.000	SQM	119.25		140118.75	
5.9.2	12B	Walls (any thickness) including attached pilasters,butteresses, plinth and string courses etc.	550.000	SQM	180.40		99220.00	
5.9.5	12C	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	10.000	SQM	162.65		1626.50	
5.9.6	12D	Columns, Pillars, Piers, Abutments, Posts and Struts.	5.000	SQM	238.40		1192.00	
5.9.13	12E	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards.	10.000	SQM	285.55		2855.50	
5.1.3	13	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level for 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	460.000	CUM	1702.00		782920.00	
5.28	14	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS: 1838 including cost of primer, sealing compound in expansion joints.	500.000	SQM	334.55		167275.00	

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					RS	P	RS	P
11.4	15	52 mm thick cement concrete flooring with concrete hardener topping under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume .hardening compound is mixed @ 2 litre per 50kg of cement or as per manufacturers specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	2900.000	SQM	166.89		483981.00	
2.25	16	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, lead up to 50 m and lift upto 1.5 m.	1500.000	CUM	45.70		68550.00	
1.1.2/4	17A	Carriage of materials by mechanicals transport including loading,unloading & stacking-excavated earth,debris etc., for 1 KM lead.	1015.000	CUM	49.42		50161.30	
1.1.2/5	17B	Carriage of materials by mechanicals transport including loading,unloading & stacking-excavated earth,debris etc.,2 km lead.	50.000	CUM	56.41		2820.50	
5.33	18	5.33 Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work 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	215.000	CUM	2023.60		435074.00	

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		setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. M-25 grade reinforced cement concrete by using 410kg. of cement per cum of concrete. All work up to floor V level.				
5.37	19	Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 km having continuous agitated mixer,manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C from transit mixer to site of laying,excluding the cost of centering,shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per I.S:9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge M25 grade Reinforced cement concrete by using 410 kg of cement per cum of concrete. All works up to floor v level.	300.000	CUM	4356.50	1306950.00
5.39	20	Extra for carriage of R.M.C beyond the initial lead of 10km.	300.000	CUM	92.90	27870.00
6.1.2	21	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in:for Cement mortar 1:6 (1 cement: 6 coarse sand)	100.000	CUM	1798.00	179800.00
6.4.2	22	Brick work with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level in all shapes and sizes in :for Cement mortar 1:6 (1 cement: 6 coarse sand)	245.000	CUM.	2106.50	516092.50
13.1.2	23	12 mm cement plaster of mix :for cement mortar 1:6 (1 cement: 6 fine	1000.000	SQM	49.00	49002.00

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					RS	P	RS	P
		sand)						
13.2.2	24	15 mm cement plaster on the rough side of single or half brick wall of mix :for cement mortar 1:6 (1 cement: 6 fine sand)	900.000	SQM	56.28		50648.40	
5.17	25	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in vertical & horizontal fins individually or forming box louvers setting in cement mortar 1:2 (1 cement : 2 coarse sand) including the cost of required centering, shuttering and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete but excluding the cost of reinforcement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	80.000	CUM	4295.36		343628.80	
10.1	26	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:		KG				
10.1	26A	For conveying from stores and fixing at site of work rail,sliding doors of required size and all other structural work excluding cost of structural steel and including cost of all labour and incidental charges etc.,complete.	5000.000	KG	6.50		32500.00	
10.2	26B	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:	3200.000	KG	10.70		34240.00	

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					RS	P	RS	P
10.19	27	Fixing M.S. round holding down bolts with nuts and washer plates complete. Rate excludes cost of holding down bolts but includes labour charges, templates etc. complete.	7800.000	KG	16.40		127920.00	
13.37	28	White washing with lime to give an even shade:for New work (three or more coats)	1000.000	SQM	6.75		6750.00	
13.46.1	29	Finishing walls with Acrylic Smooth exterior paint of required shade :for New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @ 2.20 kg/10 sqm).	1200.000	SQM	50.40		60480.00	
13.61	30	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :for Two or more coats on new work.	100.000	SQM	35.35		3535.00	
AGT NO:26/01	31	Grouting the holding down bolts and underneath the base plates etc.,after alignment with non-shrink free flow grout mix of SHRINKOMP 30 (ACC's make)or equivalent as per standard specifications and instructions of Engineer-in-charge.Rate to include charges for cleaning the sleeves or pockets and other incidental charges,tools and plants etc.,complete.	2.000	CUM	40422.55		80845.10	
19.6	32	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :						
19.6.5	32A	450mm dia RCC pipe	90.000	R.M	487.12		43840.62	
19.6.7	32B	600 mm dia. RCC pipe	60.000	R.M.	878.52		52711.44	
19.11	33	Constructing brick masonry circular manhole 1.22m internal dia at bottom and 0.56m dia at top in cement						

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					RS	P	RS	P
		mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement :3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design :						
19.11.1	33A	68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) : With F.P.S. bricks class designation 75	6.000	EACH	6154.23		36925.38	
7.1.1	34	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 20mm nominal size) at plinth level with : Cement mortar 1:6 (1 cement: 6 coarse sand)	10.000	CUM	1411.55		14115.50	
4.10	35	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size).	15.000	SQM	76.81		1152.15	

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					RS	P	RS	P
13.7.1	36A	12 mm cement plaster finished with a floating coat of neat cement of mix :For 1:3 (1 cement: 3 fine sand)	300.000	SQM	58.38		17514.84	
13.8	36B	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :For 1:3 (1 cement: 3 fine sand).	300.000	SQM	65.68		19702.62	
	37							

7259182.85

ESCALATION @ 19.00 %

1379244.74

TOTAL ESTIMATED VALUE (A)

8638427.59

CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR _____% (B)

(Percentage in words)

SUB TOTAL (A+B)

SERVICE TAX @ % (C)

SERVICE HEAD : _____

TOTAL VALUE OF WORK (A+B+C)

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:=====

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ESTIMATE

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
2.8.1	01	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. IN ALL KINDS OF SOIL	20.000	CUM	103.40	2068.00
2.9.1	02	Excavation work by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains not exceeding 1.5 m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m. IN ORDINARY ROCK	275.000	CUM	162.65	44728.75
2.26	03	Extra for every additional lift of 1.5 m or part thereof in ORDINARY OR HARD ROCK	150.000	CUM	33.85	5077.50
2.25	04	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, lead up to 50 m and lift upto 1.5 m.	185.000	CUM	45.70	8454.50
2.27	05	Supplying and filling in plinth with Jamuna sand under floors including, watering, ramming consolidating and dressing complete.	50.000	CUM	301.50	15075.00
4.10	06	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size).	30.000	SQ.M	76.81	2304.30

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4.1	07	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :						
4.1.9	07A	1:4:8 (1 cement: 4 fine sand : 8 graded stone aggregate 40 mm nominal size)	55.000	CUM	1415.55		77855.25	
5.1	08	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :						
5.1.2	08A	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	125.000	CUM	1660.00		207500.00	
5.9	09	Centering and shuttering including strutting, propping etc and removal of form for:						
5.9.1	09A	5.9.1 Foundations, footings, bases of columns, etc. for mass concrete	100.000	SQ.M	119.25		11925.00	
5.9.5	09B	Lintels, beams, plinth beams, girders, bressumers and cantilevers	165.000	SQ.M	162.65		26837.25	
5.9.6	09C	Columns, Pillars, Piers, Abutments, Posts and Struts	250.000	SQ.M	238.40		59600.00	
5.11.1	10	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured) Suspended floors, roofs, landing, beams and balconies (Plan area to be measured).	250.000	SQ.M	106.20		26550.00	
5.18.1	11	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size) reinforced with 1.6 mm dia mild	24.000	SQ.M	350.70		8416.92	

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		steel wire including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits. 50 mm thick				
5.22.3	12	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Cold twisted bars	15000.000	KG.	6.19	92850.00
6.1.2	13	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: for Cement mortar 1:6 (1 cement: 6 coarse sand)	5.000	CUM	1798.00	8990.00
6.4.2	14	Brick work with F.P.S. bricks of class designation 75 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)	150.000	CUM	2106.50	315975.00
7.1.1	15	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 20mm nominal size) at plinth level with : Cement mortar 1:6 (1 cement: 6 coarse sand)	60.000	CUM	1411.55	84693.00
10.2	16	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:	13500.000	KG.	10.70	144450.00
11.4	17	52 mm thick cement concrete flooring with concrete hardener topping under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of	430.000	SQM	166.89	71763.56

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					RS	P	RS	P
		mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume .hardening compound is mixed @ 2 litre per 50kg of cement or as per manufacturers specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.						
12.1.2	18	Providing corrugated G.S. sheet roofing including vertical/curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces) excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. 0.80mm thick with zinc coating not less than 275gm/m2	500.000	SQ.M	82.49		41243.10	
12.4.1	19	Providing ridges or hips of width 60 cm over all width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete 12.4.1 0.80mm thick with zinc coating not less than 275gm/m2	36.000	SQ.M	91.39		3290.11	
13.61	20	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :for Two or more coats on new work	240.000	SQM	35.35		8484.00	
13.1.2	21	12 mm cement plaster of mix :for cement mortar1:6 (1 cement: 6 fine sand)	550.000	SQM	49.00		26951.10	
13.2.2	22	15 mm cement plaster on the rough side of single or half brick wall of mix :for Cement mortar 1:6 (1 cement: 6 fine sand)	650.000	SQM	56.28		36579.40	

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/CA/09/20

NAME OF WORK : CONSTRUCTION OF NEW FASTENER STORE IN FACTORY

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
13.47.1	23	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade for New work (Two or more coats applied @ 1.43 Itr/ 10 sqm. over and including base coat of water proofing cement paint applied @ 2.20 kg/10 sqm).	570.000	SQM	60.10		34257.00	
21.1	24	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt 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 and paneling to be paid for separately) :						
21.1.2	25A	For fixed portion- Powder coated aluminium (minimum thickness of powder coating 50 micron)	55.000	KG	306.30		16846.50	
21.1.2.2	25B	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required (Fittings shall be paid for separately).	60.000	KG.	326.60		19596.00	

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					RS	P	RS	P
		Powder coated aluminium (minimum thickness of powder coating 50 micron)						
21.3	26	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/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):						
21.3.1	27A	21.3.1 With float glass panes of 4.0 mm thickness	25.000	SQ.M	554.95		13873.75	
21.3.2	27B	21.3.2 With float glass panes of 5.50 mm thickness	5.000	SQ.M	673.55		3367.75	
21.2	28	Providing and fixing 12mm 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.	2.000	SQ.M	812.60		1625.20	
AGT NO.26/01	29	Grouting the pockets underneath of base plate with ACC Shrinkkomp or equivalent brand as approved by the Engineer-incharge, non-shrink free flow grout mix 30. Rate to include cleaning, properly hacking the surface of the pockets and below base plates with necessary centring and shuttering, labour and materials etc. complete as per standard specifications and instructions of Engineer-in-charge. all cleaning and preparation of surface, mixing should	1.000	CUM	40422.55		40422.55	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		be done strictly as per the manufacturers recommendations.						
12.47	30	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigis incorporating minimum 0.3% Ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified. 2mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	32.000	SQ.M	785.35		25131.20	
5.28	31	5.28 Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS: 1838 including cost of primer, sealing compound in expansion joints.	5.000	SQ.M	334.55		1672.75	
10.6.1	32	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 27.5cm long wire springs grade No.2 and M.S. top cover of required thickness for rolling	15.000	SQM	1208.45		18126.75	

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		shutters.for 80x1.25mm M.S. laths with 1.25 mm thick top cover.						
10.8.1	33	Extra for providing mechanical device chain and crank operation for operating rolling shutters.Exceeding 10.00 sqm and upto 16.80 sqm in the area.	15.000	SQM	480.30		7204.50	
10.11.2	34	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators side /top /centre hung with beading and all members such as K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted with 15x3mm lugs, 10cm long, embedded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of hinges, pivots, float glass panes with glazing clips and special metal sash putty of approved make and a priming coat of approved steel primer excluding the cost of other fittings except necessary hinges or pivots complete as per approved design (Sectional weight of only steel members shall be measured for payment without weight of glass & other fittings.except necessary hings or pivots complete as per approved design.sectional weight of any steel members shall be measured for payment without weight of glass and other fittings.	5.000	SQM	178.90		894.50	
10.19	35	Providing and fixing M.S. round holding down bolts with nuts and washer plates complete.	10.000	KG	52.05		520.50	

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ESTIMATE REF NO : CF/CA/09/20

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
5.20	36	Encasing rolled steel section in grillages with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 12.5mm nominal size) including centering and shuttering but excluding cost of expanded metal and hangers.	10.000	CUM	1791.30		17913.00	
6.12.2	37	Half brick masonry with F.P.S. brick of class designation 75 in foundations and plinth in for cement mortar 1:4 (1 cement: 4 coarse sand)	10.000	SQM	215.23		2152.35	
5.16	38	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in shelves including setting in cement mortar 1:3 (1 cement: 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size).	5.000	CUM	4871.70		24358.50	
12.7.1	39	Providing and fixing 15 cm wide 45 cm over all semi circular plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc. including making necessary connections with rain water pipes complete. 0.80mm thick with zinc coating not less than 275gm/m ²	100.000	METRE	283.70		28370.00	
12.11	40	Extra for providing and fixing wind ties of 40x 6mm flat iron section.	100.000	METRE	73.65		7365.00	
13.37.1	41	INTERIOR FINISHING White washing with lime to give an even shade: New work (three or more coats)	1500.000	SQM	6.75		10125.00	
	42	Carriage of materials by mechanical transport including loading, unloading, stacking excavated earth debris etc., up to a lead of 2.00 KM	150.000	CUM	56.41		8461.50	

1613946.04

ESCALATION @ 19.00 %

306649.75

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BOILER AUXILIARIES PLANT

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ESTIMATE

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NAME OF WORK : CONSTRUCTION OF NEW FASTENER STORE IN FACTORY

TOTAL ESTIMATED VALUE (A) 1920595.79

CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR _____% (B)
(Percentage in words)

SUB TOTAL (A+B)

SERVICE TAX @ % (C)

SERVICE HEAD : _____

TOTAL VALUE OF WORK (A+B+C) =====

=====

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

SPECIAL CONDITIONS OF CONTRACT

1. The tenderer shall quote a percentage above or below or at par, the rates shown in the Bill of Quantities based on CPWD DSR 2007. The percentage quoted shall be clearly written both in words and figures.
2. The quoted percentage will apply to the individual items uniformly.
3. The above rates does not include PF & ESI remittance .The tenderer shall quote inclusive of PF & ESI contribution to their workers.
4. Items of work other than those mentioned in Bill of Quantities will have to be carried out at the rates to be fixed by this organization. The same offered percentage will be applicable with reference to CPWD DSR 2007.
5. Water will be supplied on chargeable basis @ 1% of the contract value, Power and compressed air will be provided free of charges from the nearest tapping point subject to availability. The contractor should make necessary arrangement for tapping the same. In case BHEL is not able to provide the same the contractor has to make his own arrangement for completion of the work at their own cost.
6. Safety precautions should be taken while doing the work. You will have to follow all safety requirements to carry out the work inside the factory premises.
7. All materials shall confirm to the latest IS/IRC specifications
8. All the works to be carried out strictly as per the specifications laid down in Tamil Nadu Building practice and also satisfying relevant IS/IRC specifications.
9. Cement, Reinforcement steel, Structural steel and AC sheets will be issued free of cost for theoretical consumption and at a recovery rate of Rs. 6,325.00 / MT Rs. 41,975.00 / MT Rs. 46,500.00 / MT and Rs. 140.00 / Sqm respectively up to 5% over and above the theoretical consumption and beyond which penal recovery will be effected at the double the rates specified above.
10. Once the work is completed the contractor should remove all the unwanted materials from the site time to time and it should be disposed off as per the instructions of Engineer-in-charge without any further delay.

11. All the rates are inclusive of scaffolding charges, sundries & contingencies, carriage of materials, cost of brush, sand paper, ladder, gum, putty, turpentine, caustic soda or washing soda, mixing charges etc., complete.
12. All works shall be carried out as per standard specifications and instructions of Engineer-in-charge.
13. Base preparation, mixing ratio, etc. shall be as per the recommendations of the manufacturer.
14. All materials, colour, shade, brand, etc. shall be got approved from the Engineer-in-charge before the start of the work and shall conform to the latest IS/IRC specifications.
15. The current minimum wages per day for USW is Rs.149.00/day
16. Coefficient of consumption for paint, distemper, cement, etc. shall be as per CPWD 2007 data.
17. The contractor shall have to follow all statutory requirements like PF, ESI, etc., throughout the contract period.
18. The General conditions of contract in force shall apply to this contract.
19. The contractor is required to engage a Degree / Diploma holder Engineer throughout the contract period.
20. Time is essence of the contract. Any delay beyond the delivery date will be subjected to LD.
21. The tenderer may visit the site and assess the prevailing conditions before quoting the rate.

22. CONTRACT CONDITIONS ON TAXES & DUTIES

- a) The Tenderer shall have been Registered under Excise, Sales Tax, Tamil Nadu VAT, Service Tax regulations if applicable and provide a copy of such registration to BHEL as part of the tender document. In case of fresh registration/amendment thereon, the same shall be carried out before start of the work. PAN no shall be submitted as part the tender document. (copy to be enclosed)
- b) Service Tax shall be paid by the service provider namely the Tenderer.

- c) Required Tax Invoice as per the existing provisions to be issued in required parts duly signed by the Competent/Authorized Official of the Contractor to BHEL
- d) If due to deficiency in the document submitted, BHEL could not avail CENVAT, VAT Credit, the credit amount will be recovered from the amount due to the Tenderer.
- e) If the payment of statutory dues are not made in accordance with the applicable provisions of the relevant Act within the time specified and Penalty, Interest etc paid/payable by the Contractor, the same shall not be reimbursed by BHEL and the entire implication is only to be borne by the Contractor. The Tenderer shall clearly indicate the rate of applicable taxes and duties for the work to be executed.
- f) The Tenderer shall indicate all exemptions on account of threshold limits or special notification under any statute. Any modification thereon shall also be intimated immediately on changes.
- g) The quote submitted shall include all taxes and duties of whatsoever in nature but exclusive of Service Tax which shall be quoted separately if applicable. The existing rate shall be quoted clearly. If reduced rates are applicable on account of material, labour if any the same shall be indicated clearly. After tender opening addition of any tax & duty is not admissible.
- h) If any composition scheme is to be availed by the Tenderer, the all relevant terms and conditions shall be indicated clearly in the offer. The required compliance under relevant statute shall be carried out.
- i) Any statutory variation will be to the account of BHEL. But if the variation is effective during the delayed/extended period of execution for reasons attributable to the vendor, the same shall be borne by the vendor only.