



NAYA RAIPUR DEVELOPMENT AUTHORITY

**Tender Document for the
Construction of Fire station at Sector 13 of Naya Raipur**

(Following Three-Envelope Tender Procedure)

**Schedule – A
Price Tender
To be submitted in ENVELOPE-3**

NIT No.: 71 / FS /S-13/ EEE-I / CE (E) / NRDA / 2013-14, Raipur,

Dated: 01.03.2014

Issued by: Chief Executive Officer,
Naya Raipur Development Authority (NRDA)
1st floor, Utility block, Capitol Complex, Sector-19,
Naya Raipur 492 002, Chhattisgarh
E-mail: ceo@nayarapur.com

Tender Document Contains

- (a) Only schedule "A" and Section-I of schedule "D" are to be filled & signed by the tenderer
 (b) All the certificates as per pre qualification criteria shall be appended with relevant forms of schedule "D"

1. PART ONE (NRDA F-1)-(Attached herewith, to be submit along the tender)

Part (A)

- a) Press Notice
 b) Detailed NIT

Part (B)

a) Schedule-A

- (i) Cost Abstract
 (ii) Bill of Quantities

- b) Schedule-B –NIL
 c) Schedule-C –NIL
 d) Schedule-D

Section-I..... Technical tender forms

- (i) Letter of Technical Tender
 (ii) Tenderer's Information Sheet
 (iii) Annual Turnover
 (iv) Specific Construction Experience
 (v) Declaration
 (vi) Check list for Technical tender evaluation

Section –IIScope of work

Section –III..... Technical specifications of work

Section –IV..... Special Conditions of Contract

Section –V..... List of approved makes

Section –VI..... Drawings

- e) Schedule-E
 f) Schedule-F

2. PART TWO (NRDA F-2/3)-Standard form (Not Attached herewith, and not to be submitted along the tender) Important note: - Link site <http://nayarapur.com/documents/gcc.pdf>

1. General Guidelines
2. Tender
3. General rules and directions
4. Conditions of contract
5. Clauses of contract
6. Model rules relating to labour, water supply and sanitation in labour camps safety code
7. Contract forms
 - (a) Draft Format for Performance Security
 - (b) Earnest Money Deposit Form (Bank Guarantee)
 - (c) Format of Contract Agreement
 - (d) Draft Format for Performance Guarantee for Water Proofing and Anti-termite Works
 - (e) Indemnity Bond
 - (f) Indenture Bond
 - (g) Notice for Appointment of Arbitrator
8. Proforma of schedules (Schedule 'A' to Schedule 'F')

Naya Raipur Development Authority (NRDA) Raipur, Chhattisgarh

Document details

Name of work: Construction of Fire station at Sector 13 of Naya Raipur

Name of Tenderer:

Details

- a) Cost of Tender Document : Rs
- b) EMD : Rs

Signature of Tenderer

Date: _____

Signature of Contractor.....

Signature of NRDA.....

COST ABSTRACT**Construction of Fire station at Sector 13 of Naya Raipur**

Sl. No.	Description of Items	Amount in Figures (In INR)	Amount in Words (In INR)
A	Civil Work	Rs. -	
B	Plumbing Works	Rs. -	
C	Electrical Works	Rs. -	
	Total	Rs. -	

BILL OF QUANTITY**Construction of Fire station at Sector 13 of Naya Raipur**

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
A	CIVIL WORKS					
A.1	EARTHWORK					
1	Excavation in all types and sizes of foundations, trenches and drains or for any other purpose with all lead and lift including seperation of usefull soil for refilling and stacking & levelling of same, and disposal of surplus excavated stuff and spoils beyond NRDA boundries or as directed by Engineer In-charge including shoring, dewatering, surface dressing, etc., complete as per direction of Engineer In-charge.					
a	In all types of soil	cum	1834.00			-
2	Surface dressing of the ground including removing vegetation and making up undulations and in-equalities not exceeding 15 cms in depth/ height including disposal of rubbish upto 1.5 m lift and lead upto 50m (at least 5m away from the dressed area).	cum	1430.00			-
3	Backfilling: Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	cum	1223.00			-
4	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.	cum	1738.00			-
5	Supplying chlorpyriphos/ Lindane emulsifiable concentrate of 20% in sealed containers including delivery as specified.	litre	1477.00			-
6	Diluting chemical emulsion (Chlorpyriphos/ lindane) in water as per manufacturers recommendation and injecting for post - constructional anti-termite treatment:					
6.1	Surface treatment by spreading emulsion under floor, over the plinth area before laying base concrete @ 5 litres / sqm.	sqm	910.00			-
7	Treatment of inside of plinth masonry wall on using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall below plinth protection at the intervals of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).	meter	3034.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
8	Treatment of outer side of plinth masonry wall using diluted chemical emulsion @ 1.5 litre per hole, including drilling 12 mm diameter holes in plinth wall at the junction of floor at the intervals of 300 mm and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand).	meter	3257.00			-
A.2	FORM WORK					
9	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:					
a	Foundations, footings, base of columns and plinth beam in any shape and size.	sqm	1610.00			-
b	Columns, Pillars, Piers and likes- rectangular or square in shape	sqm	1675.00			-
c	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)	sqm	3906.00			-
d	Beams, lintels, cantilevers & walls	sqm	3331.00			-
e	Vertical and horizontal fins individually or forming box, louvers bands, almirah shelves and likes.	sqm	608.00			-
f	Weather shade, chhajja, Cornices and mouldings	sqm	101.00			-
g	Stair cases of all types excluding spiral and folded plate type, including risers and landings	sqm	252.00			-
A.3	CEMENT CONCRETE (PLAIN AND REINFROCED)					
10	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.					
	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	cum	240.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
11	Providing and laying design mix reinforcement cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto floor five level excluding cost of reinforcement and form work.					
a	M-25 (using minimum cement 410 kg/cum concrete)	Cum	1383.00			-
12	Water proofing material: Providing and mixing water proofing material in PCC/ RCC work in the proportion recommended by the manufacturer.	kg	3706.00			-
13	DPC: Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including formwork.	Cum	19.00			-
14	Applying a coat of hot bitumen 30/40 using @ 1.7kg/ sqm on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	sqm	182.00			-
15	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:					
	Thermo-Mechanically treated bars (Fe -500)	kg	148497.00			-
16	Making 50mm thick plinth protection of plain cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with sand including finishing the top smooth.	sqm	398.00			-
A.4	WATER PROOFING					
	Providing and laying integral cement based water proofing treatment on roofs, balconies, terraces etc with average thickness of 120mm and minimum thickness at khurra as 65 mm, consisting of following operations including surface preparation:	sqm	3648.00			-
	i) Applying a slurry coat of neat cement using 2.75 kg/sqm. of cement mixed with water proofing compound conforming to IS. 2645 over the RCC slab including adjoining walls upto 300mm height.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
17	ii) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) mixed with water proofing compound conforming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) mixed with water proofing compound conforming to IS : 2645 to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.					
	iii) After two days of proper curing applying a second coat of cement slurry using 2.75kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645.					
	iv) Finishing the surface with 20 mm thick joint less cement mortar of mix 1:4 (1 cement :4 coarse sand) mixed with water proofing compound conforming to IS : 2645 including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep.					
A.5	BRICK WORK					
18	Brick work with modular fly-ash lime bricks (FALG Bricks) conforming to IS:12894-2002 of class designation 40 in foundation and plinth in:					
a	Cement Mortar 1:6 (1 cement : 6 coarse sand)	cum	1094.00			-
19	Extra for brick work in superstructure:					
	Above plinth and upto floor five level.	cum	963.00			-
20	Half brick thick brick masonry with FLAG bricks of crushing strength not less than 25 kg/sqcm and water absorption not more than 20% in superstructure above plinth level upto floor five level.					
a	Cement Mortar 1:3 (1 cement : 3 coarse sand)	sqm	1336.00			-
21	Extra for providing and placing in position hopping 25 x 1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.	sqm	1285.00			-
A.6	DOORS AND WINDOWS					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
22	Providing and fixing in position doors, windows and ventilators frames made of cold rolled pressed steel sheet framed profiles made from commercial M.S. Sheets conforming to IS: 513 of 1973 and as per general specifications of IS: 4351 including hinges jamb, lock jamb, steel butt hinges, base tie, joints mitred and welded with 10 cm long legs of size 15 x 3mm M.S. flat, embedded in cement concrete blocks 15 x 10 x 10cm size of grade M-10 or rawl plugs and screws or with fixing clips or with bolts and nuts including neatly compacted filling M-10 cement concrete in profile section applying a priming coat of red oxide zinc chromate primer.					
	Single rebate 100mm x 50mm size, 1.6mm thick sheet.	metre	5074.00			-
A.	Door Shutters					
23	Providing and fixing exterior grade type & phenoformaldehyde bound flush door shutters decorative type, core of block board construction with frame of first class hard wood and well matched approved veneering with vertical grains or cross bands and face veneers on both faces with grooves of shutters excluding hinges.					
	35 mm. thick (single leaf)	Sqm	588.00			-
	Door Fixtures					
24	Providing and fixing powder coated M.S. sliding door bolts with bolts, nuts and necessary iron screws:					
	300x16 mm	each	320.00			-
25	Providing and fixing powder coated M.S. door latch with necessary iron screws:					
a	300x20x16 mm	each	319.00			-
26	Providing and fixing powder coated M.S. tower bolts (Barrel type) with necessary iron screws:					
a	200 x10mm	each	319.00			-
27	Providing and fixing powder coated M.S. handles with necessary iron screws:					
a	125 mm	each	638.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
28	Providing and fixing frosted glass panes with steel glazing clips and special metal sash putty of approved make in steel doors, windows, ventilators:					
a	5 mm thick	Sqm	810.00			-
29	MS Grill: Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat of red oxide zinc chromate primer..	kg	25515.00			-
30	Providing and fixing factory made UPVC door frame made of UPVC profile section having an overall dimension as below (tolerance ± 1 mm) with wall thickness $2.0\text{mm} \pm 0.2\text{mm}$, corners of the door frame to be jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19mm and $1\text{mm} \pm 0.1\text{mm}$ wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge.					
a	Extruded section Profile size 48 x 40 mm.	meter	280.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
31	Providing and fixing 30mm thick factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for styles and 15 x 15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture . M.S. frame covered with 5mm thick heat moulded PVC 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45degree angle on either side forming styles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel. 10mm (5mm x 2) thick, 20mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail. paneling of 5mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7mm (5mm+2mm) thick x 15mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per Manufacturer's specification including 3 nos ISI marked stainless steel hinges of size 100 x 58 x 1.9 mm complete. (for W.C. and bathroom door shutter).					
a	PVC door shutter	Sqm	94.00			-
32	Providing and fixing M.S. fan clamp/ hook for ceiling fan made out of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop.	Each	137.00			-
33	Supplying and fixing rolling shutter of approved makes made of 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 out side locking with push and pull arrangement complete but excluding the cost of top cover and spring.					
a	80 x 0.90mm M.S. Laths	sqm	8.00			-
34	Providing and fixing 27.5cm long wire spring for rolling shutters.	each	2.00			-
35	Providing and fixing M.S. sheet top cover for rolling shutter					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a	1.25mm thick	sqm	8.00			-
36	Providing and fixing ball bearing for rolling shutters.	each	2.00			-
A.7	PLASTERING AND POINTING					
37	15mm thick cement plaster on the rough side of single or half brick wall of mix:					
a	In Cement Mortar 1:4 (1 cement : 4 fine sand)	Sqm	2629.00			-
38	12mm thick cement plaster of mix:					
a	In cement Mortar 1:3 (1 cement : 3 fine sand)	sqm	8945.00			-
39	6mm thick cement plaster of mix:					
	In Cement mortar 1:3 (1 cement : 3 fine sand)	sqm	2333.00			-
A.8	FLOORING					
40	Providing and laying porcelain floor tiles of size 600x600mm with water absorption's less than 0.5% and conforming to IS : 15622 of approved make , laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc. complete:	sqm	1791.00			-
41	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement..					
	75mm thick	sqm	186.00			-
42	Cement plaster skirting upto 30 cm. height with cement mortar 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement including rounding of junction with floor.					
	18 mm thick in two layers of 12 mm and 6mm	Sqm	364.00			-
A.9	Granite work.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
43	Kota stone slabs 25 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 match the shade of the slabs, including rubbing and polishing complete.	sqm	434.00			-
43.1	Extra for nosing in steps and treads of kota stone slab.	metre	340.00			-
A.10	PAINTING					
44	Finishing walls with water proofing cement paint to give an even shade.					
	On new work (Two or more coats)	sqm	2629.00			-
45	Distempering with acrylic washable distemper to give an even shade.					
	On new work (Two or more coats)	sqm	11274.00			-
46	Painting on new work (two or more coats) to give an even shade with:					
	Premium synthetic enamel paint (2nd top most approved branded quality) to give an even shade.	sqm	2322.00			-
A.11	ROAD					
47	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned up to a lead of 1000 meters including removal and disposal of top organic soil not exceeding 150 mm in thickness if required and as per relevant clauses of section-200.					
	In area of light jungle	Ha	0.13			-
48	Construction of embankment / sub grade with Material Obtained from Borrow Pits(Construction of embankment with approved material/selected soil having C.B.R. > 5 (unless specified otherwise in the contract) obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2)	Cum	1037.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
49	Construction of granular sub-base by providing close graded Material, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface watering, rolling and compacting with vibratory power roller at OMC to achieve the desired density, complete as per clause 401					
	Plant mix method (with Mechanically crushed stone only)					
	for grading-III Material	Cum	450.00			-
50	Dry Lean Cement Concrete Sub-base (Construction of dry lean cement concrete Sub-base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing.)	Cum	139.00			-
51	Cement Concrete Pavement (Grade M-40) (Construction of un-reinforced, cement concrete pavement over a prepared sub base with minimum cement @ 400 kg per cum, coarse and fine aggregate conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed as per approved mix design, transported to site, laid, spread, vibrated, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, de-bonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing.)	Cum	305.00			-
52	Cast in Situ Cement Concrete M20 kerb (Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M20 grade PCC on M10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete as per clause 408)	meter	276.00			-
	Sub total ; Civil Works					-

BILL OF QUANTITY

Construction of Fire station at Sector 13 of Naya Raipur

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
B	PLUMBING WORKS					
1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits, complete as per specifications and as directed by the Engineer etc.					
a	All types of soil	Cum	1277.00			-
2	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	Cum	639.00			-
3	PCC work: Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of form work. (RMC: Using batching plant, transit mixer and concrete pump etc.)					
4	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	Cum	64.00			-
5	RCC work: Providing and laying design mix reinforcement cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto floor five level excluding cost of reinforcement and form work.					
	M-20 (using minimum cement 390 kg/cum concrete)	Cum	205.00			-
6	Providing, laying and placing of precast cement concrete cover of drain M-35 grade in superstructure including form work but excluding reinforcement complete .	Cum	57.00			-
7	Reinforcement :Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:					
a	Thermo-Mechanically treated bars (Fe -500)	kg	21352.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
8	Centring and shuttering at all levels including strutting, propping etc. and removal of form for :					
a	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	160.00			-
b	Wall of any thickness including attached pilasters, buttresses etc.	Sqm	2553.00			-
9	Providing and fixing on wall face unplasticized Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion(i) Single Socketed pipes					
a	110 mm diameter	metre	473.00			-
10	Providing,lowering,laying trenches aligning ,fixing in position and jointing ISI marked uPVC pipe fittings /accessaries of class III (6kg/sq.cm) suitable for potable water with rubber rings ,joints in uPVC pipe line at all levels/depth including all material ,labour,hydraulic testing and commisionning as per technicle specification and as per direction of engineer etc,complete.					
a	Sewerage (Toilet)					
b	160 mm inner dia	metre	323.00			-
11	Making connection of G.I. distribution branch in G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete: (Dia of main line to be measured)					
a	80 mm nominal bore	metre	128.10			
b	80 mm nominal bore	metre	80.00			
		metre	209.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
12	Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.					
a	"P" trap 110mmx110mm long	each	43.00			-
b	Nahani trap 110x75mm	each	61.00			-
13	Providing and fixing vitreous china water closet (European type W.C. pan) with white ISI marked plastic seat and lid, 10 litre low level white P.V.C. flushing cistern (same colour), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :					
a	White wall hung type	each	51.00			-
14	Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings :					
a	White Size 550x400 mm	each	50.00			-
15	Providing and fixing white vitreous china urinal basin with waste fitting as per IS : 2556, and other couplings in C.P. brass complete:					
a	Flat back type urinal of size 430x260x350mm	each	5.00			-
16	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink with drain board as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :					
a	510x1040 mm bowl depth 225mm.	each	42.00			-
17	Providing and fixing on wall surface G.I. pipes medium class complete with G.I. fittings and clamps, including cutting, making good the walls etc. and testing of joints complete:					
a	50 mm dia. nominal bore	metre	36.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
18	Providing and fixing concealed in wall G.I. pipes medium class complete with G.I. fittings and clamps, including painting with anti corrosive bitumastic paint, cutting chases, making good the walls etc. and testing of joints complete:					
a	15 mm dia nominal bore	metre	280.00			-
b	20 mm dia nominal bore	metre	112.00			-
19	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :					
a	15 mm nominal bore	each	40.00			-
b	20 mm nominal bore	each	40.00			-
20	Providing and fixing 15 mm nominal bore Brass bib/stop cock of approved quality and weighting not less than 400 grams):					
a	Bib cock	each	87.00			-
b	Stop cock	each	80.00			-
21	Providing and fixing 15 mm nominal bore C.P. brass fittings of approved make and conforming to IS:8931 including C.P. brass extension if required:					
a	Long nose bib cock (500gms)	each	47.00			-
b	Bottle trap set with extension pipes	each	43.00			-
c	Towel rail (600mm long x 20mm dia)	each	43.00			-
22	Providing and fixing stainless steel drain jali of approved make/quality.	each	44.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
23	Constructing masonry Chamber 30x30x50 cm, inside with modular fly ash bricks of 35 kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand) for stop cock, necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design :	each	15.00			-
24	Constructing brick masonry manhole with fly ash bricks crushing strength not less than 35kg/ cm ² in cement mortar 1:4 (1 cement : 4 coarse sand), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation in cement concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm 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 20mm nominal size) finished with a floating coat of neat cement complete as per standard design :					
a	Inside size 90x80 cm and 45 cm deep total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :	each	15.00			-
25	Extra for depth for manholes					
a	Size 90x80 cm	metre	15.00			-
26	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes in concealed in wall, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints including cutting chases and making good the walls etc complete as per direction of Engineer in Charge.					
a	Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm inner dia	metre	150.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
27	Providing and laying Reinforced Cement Concrete pipe NP 3 / prestressed concrete pipe on first class bedding. (Laying Reinforced cement concrete pipe NP3 /prestressed concrete pipe for culverts on first class bedding of granular material including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets .)					
a	450 mm dia	metre	274.00			-
28	Making connection of G.I. distribution branch in G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete: (Dia of main line to be measured)					
a	80 mm nominal bore	metre	255.00			-
	Sub total ; Plumbing Works					-

BILL OF QUANTITY**Construction of Fire station at Sector 13 of Naya Raipur**

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
C	ELECTRICAL WORKS					
1	Supply,Installation,testing and commissioning of 11 kV (E) XLPE cable,steel armoured, aluminium conductor in ground including excavation, sand cushioning, protective covering , refilling the trench along with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3x70 sqmm	Mtr	500.00			-
2	Supply,Installation,testing and commissioning of 11kV(E) XLPE cable, steel armoured, aluminium conductor in existing RCC/ HUME/ METAL pipes including accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3x70 sqmm	Mtr	10.00			-
3	Supply and making outdoor cable end termination with heat shrinkable jointing kit for following sizes of 11kV(E) XLPE cable along with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3x70 sqmm	Mtr	2.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
4	Supply and fixing of cable route markers of 100x100x5mm GI plate with inscription there on, bolted/welded to 35x35x6mm angle iron of 600mm long and fixing the same in the ground as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Each	5.00			-
5	Supply,Installation,testing and commissioning of outdoor plinth mounted SF6 TYPE RMU comprising of 2 Nos 800A, 50kA LBS and one no. VCB for transformer, neon indication lamps with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CSPDCL standards and Electrical Inspectorate standards.	Each	1.00			-
6	Supply,Installation,testing and commissioning of outdoor Cu.wound ONAN type transformer, having continuous rating,11/0.433 kV,3 ph,50 Hz, DY-11 vector group,offload tap changer in steps of 2.5% FRLSom -7.5% to +5%, with oil conservator,silica gel breather, having cable boxes on either side,mounted on brick/RCC plinth with fittings as per IS 2026 etc required for completeness and as per specification, direction of Engineer, CSPDCL standards and Electrical Inspectorate standards					
a	315 kVA	Each	1.00			-
7	Excavation of 1500x1500x1500mm pit, filling with sand for 100mm depth, laying bed concrete with CC (1:4:8)using 40 mm HBG metal for 100mm deep, construction of transformer plinth with footing of 1500x1500x1200 mm and 900x900x450 mm size, column of 225x225x2600 mm, beam of 225x225x 2750 mm size ,slab of of 1500x1500x100 mm size ,with relief steel rod of 12 mm (76 kg), refilling the hollow portion with excavated soil, 20mm thick plastering of column and beam with CM of 1:5 etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards .	Sets	1.00			-
8	Supply and fixing of Danger Notice Board as per BIS-2551,made out of 2 mm thick sheet steel, vitreous enamelled ,white on both FRLSont and back, with letters,figures and the conventional skull and bones in signal red colour of BIS 5 on FRLSont side and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a	For 11 kV of 250x200 mm size	Each	10.00			-
b	For 1.1 kV of 200x150 mm size	Each	20.00			-
9	Supply and laying of 25x6 mm GI strip along with the 11kV cable and making connections firmly with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards and connection	Each	400.00			-
10	Supply and making of Earth Pits of 4500mm long ,40mm dia G.I. pipe, providing masonry enclosure, hinged cover plate with locking arrangement and watering pipe, refilling with charcoal, salt and excavated soil with accessories, hardwares etc required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Nos.	12.00			-
11	Supply and laying following sizes one number XLPE, steel armoured, aluminium conductor Power cable of 1.1 KV grade direct in ground including excavation, sand cushioning, protective covering and refilling the trench with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3.5x 240 sqmm	Nos	100.00			-
b	3.5x 70 sqmm	Nos	100.00			-
c	3.5x 50 sqmm	Nos	100.00			-
d	3.5x 25 sqmm	Nos	100.00			-
e	4 x 10 sqmm	Nos	250.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
12	Supply and laying of following sizes of additional one number XLPE, steel armoured,aluminium conductor Power cable of 1.1 KV grade direct in ground as in the same trench in horizontal formation including excavation, sand cushioning, protective covering and refilling the trench, accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD stanandards and Electrical Inspectorate standards.					
a	3.5x 240 sqmm	Nos	100.00			-
b	3.5x 70 sqmm	Nos.	100.00			-
13	Supply and making of end termination with brass compression gland and aluminum lugs for following sizes armoured aluminium conductor power cable of 1.1KV grade along with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3.5x240 sqmm	Nos.	4.00			-
b	3.5x70 sqmm	Nos.	6.00			-
c	3.5x50 sqmm	Nos.	8.00			-
d	3.5x 25 sqmm	Nos.	10.00			-
e	4 x 10 sqmm	Nos.	20.00			-
14	Supply and laying of following size medium class GI pipes with accessories in ground below road, path,crossing of drain, cable entry into the building etc at a depth not less than 40cm including excavation, dismantling of road, refilling the trench,making good the damages caused etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a	100 mm dia	Rmt	20.00			-
b	80 mm dia	Rmt	50.00			-
15	<p>Fabrication, supply, installation, testing and commissioning of cubicle type compartmentalized pedestal/ floor mounted Power Supply Panel Board of approved size and 450mm deep made out of 2 mm thick CRCA sheet steel with suitable size compartments, Al. bus bars, switchgears, voltmeters, ameters with selector switches etc including powder coating painting with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards. The panel board shall house :</p> <p>1 No 4 pole 630A MCCB, 35kA as Normal Supply Incomer; 4 Pole 500A Al. busbar ;</p> <p>3 Nos. Current transformer of 500/5A; 1 No Ammeter with selector switch:</p> <p>1 No 0-500V Voltmtter with selector switch; 3 Nos. LEDs:</p> <p>7 Nos 4 pole, 63A MCCB, 35kA as outgoing feeders:</p> <p>1 No 4 pole, 200A MCCB, 35kA as outgoing feeders:</p> <p>1 No 4 pole 100A MCCB. 35kA as DG Supply Incomer</p>	Each	1.00			-
16	<p>Supply,Installation,testing and commissioning of Diesel Generating Set in outdoor accoustic enclosure comprising of;</p> <p>a) Directly coupled Alternator of self excited,brushless, air cooled,4 pole suiiable to deliver the specified output at 433V ,50 Hz,3 phase & neutral</p> <p>b) Water cooled disel engine of 1500 rpm, turbo charged, direct injection type,4 stroke,6 cylinder including fuel tank of 900 L capacity,fabricated out of 3mm MS sheet duly calibrated and painted, residential type silencer with exhaust pipe of150mm duly wrapped with asbestos rope legging of approved quality</p> <p>c) Cubical compartmentalized AMF panel board with power and control switchgers/ control gears/ instruments with accessories,internal wiring, connections, interconnection with normal power supply board, etc for touble FRLSee operation</p> <p>d)Maintenance FRLSee battery set with charger</p>					
	50 kVA	set	1.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
17	Supply and fixing on surface/ recess horizontal type, double door, 415 V TP & N, MCB D.B. of sheet steel phosphatized and powder painted complete with loose wire box, terminal blocks, tinned copper busbar, neutral link, earth bar, din bar, detachable gland plate, duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks including interconnections, earthing, accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards. The board shall be mounted with:					
a	1 No. 63A 4pole, 415V, 300mA sensitivity RCCB as Incomer; 18 Nos. 6-32A SP MCB C series 10kA as out going feeder. (Office GF)	Each	1.00			-
b	1 No. 63A 4pole, 415V, 300mA sensitivity RCCB as Incomer; 12 Nos. 6-32A SP MCB C series 10kA as out going feeder. (Office FF & Tender Parking)	Each	2.00			-
c	1 No. 63A 4pole, 415V, 300mA sensitivity RCCB as Incomer;3 Nos. 6-32A FP , 6 Nos 6-32A SP MCB C series 10kA as out going feeder. (Pump House)	Each	1.00			-
18	Point Wiring for light/ fan/ exhaust fan/ call bell point with 1.5 sqmm FRLS PVC insulated stranded copper conductor single core cable in concealed PVC conduit, 6A piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with same size cable along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards, Electrical Inspectorate standards.					
a	Short Point	Nos	8.00			-
b	Medium Point	Nos	5.00			-
c	Long point	Nos	2.00			-
19	Point wiring for light plug point with 2.5 sq mm FRLS PVC insulated stranded copper conductor single core cable cable in concealed PVC conduit,6 A piano type switch and 3 pin 6 A socket outlet with suitable size M.S. box, phenolic laminated sheet, earthing the switch box and socket outlet with same size cable along with accessories, hardwares etc. as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	Short Point	Nos	5.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
b	Medium Point	Nos	10.00			-
c	Long point	Nos	2.00			-
20	Point wiring for Power plug point with 4 sq mm FRLS PVC insulated stranded copper conductor single core cable cable in concealed PVC conduit 16 A piano type switch and 6 pin 6/16 A socket outlet with suitable size M.S. box, phenolic laminated sheet, earthing the switch box and socket outlet with same size cable along with accessories, hardwares etc.required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	Short Point	Nos	1.00			-
b	Medium Point	Nos	2.00			-
c	Long point	Nos	2.00			-
21	Point Wiring for light/ fan/ exhaust fan/ call bell point with 1.5 sqmm FRLS PVC insulated stranded copper conductor single core cable in concealed PVC conduit, with 6 A modular switch ,modular base and cover plate with suitable size Gl. box and earthing the point with same size cable along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards ,Electrical Inspectorate standards.					
a	Short Point	Nos	10.00			-
b	Medium Point	Nos	20.00			-
c	Long point	Nos	10.00			-
22	Point wiring for light plug point with 2.5 sq mm FRLS PVC insulated stranded copper conductor single core cable cable in concealed PVC conduit along with 6 A modular switch and 3 pin 6 A modular socket outlet, modular base and cover plate with suitable size Gl. box, earthing the switch box and socket outlet with same size cable along with accessories, hardwares etc. required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a	Short Point	Nos	5.00			-
b	Medium Point	Nos	10.00			-
c	Long Point	Nos	2.00			-
23	Point wiring for Power plug point with 4 sq mm FRLS PVC insulated stranded copper conductor single core cable in concealed PVC conduit along with 16 A modular switch and 6 pin 6/16 A modular socket outlet, modular base and cover plate with suitable size GI. box earthing the switch box and socket outlet earthing with same size cable along with accessories, hardwares etc. required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	Short Point	Nos	2.00			-
b	Medium Point	Nos	5.00			-
c	Long Point	Nos	7.00			-
24	Supply and fixing of 2 pole and earth, 240 V, industrial type socket outlet for AC units, enclosed metal top plug with SP MCB in sheet steel enclosure, on surface or in recess, with chained metal top metal cover for the socket and complete with connections, testing, commissioning etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	20 A with C series MCB	Each	2.00			-
b	32A with C series MCB	Each	5.00			-
25	Circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in concealed PVC conduit along with accessories, hardwares etc. required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a	3 x 2.5 sqmm in 20mm conduit	Rmt	400.00			-
b	3 x 4sqmm in 25mm conduit	Rmt	120.00			-
c	3 x 6 sqmm in 32 mm conduit	Rmt	100.00			-
d	4 x 4 sqmm in 32 mm conduit	Rmt	100.00			-
e	4 x 6 sqmm in 32 mm conduit	Rmt	100.00			-
26	Supply and fixing of metal box of following sizes in recess with suitable size phenolic laminated sheet cover in FRLSont including painting, accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	100mm x 100mm x 60mm deep	Each	30.00			-
27	Supply and fixing of GI box of following sizes in recess with modular base & cover plate for modular switches including accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	125mmx75mm	Each	50.00			-
28	Supply and fixing of following sizes PVC conduit in concealed manner along with accessories, hardwares etc required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	20mm	Rmt	300.00			-
b	25mm	Rmt	150.00			-
c	32mm	Rmt	200.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
29	Supply and fixing of following Piano type switches and accessories of approved make and type such as switch, socket etc on the existing switch box/ cover including connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3 pin 5/6 amp socket outlet	Each	10.00			-
b	6 pin 15/16 amp socket outlet	Each	2.00			-
c	Fan Regulator Electronic, step type moving all round	Each	6.00			-
e	Calling Bell	Each	5.00			-
f	Ceiling Roses	Each	40.00			-
g	Batten/angle Holders	Each	10.00			-
h	Bell Push	Each	2.00			-
30	Supply and fixing of following modular type switches and accessories of approved make and type such as switch, socket etc on the existing modular plates & switch box including connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3 pin 5/6 amp socket outlet	Each	20.00			-
b	6 pin 15/16 amp socket outlet	Each	8.00			-
c	Fan Regulator Electronic, step type moving all round	Each	12.00			-
d	Bell Push	Each	3.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
31	Supply and fixing of round/hexagonal fan box (125mm dia) depth 75mm (max.) with 12mm dia steel bar hook, 1.6mm thick MS sheet cover, in RCC slab along with accessories, hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Each	18.00			-
32	Supply, installation, testing and commissioning of following sizes ceiling fan of approved make and type including down rods of 30 cm, wiring with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, earthing, connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	1050mm sweep	Each	2.00			-
b	1200mm sweep	Each	14.00			-
c	1400mm sweep	Each	2.00			-
33	Supply, installation, testing and commissioning of following sizes exhaust fan (heavy duty) of approved make and type in existing opening in wall including earthing, connections along with accessories, hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
	300 mm sweep	Each	4.00			-
34	Supply, installation, testing and commissioning of following type prewired fluorescent fitting of approved make and type complete with copper ballast, glow type starter but without lamp, on ceiling/wall/recess, earthing, connections along with accessories, hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	1x40w industrial type with reflector suspended by conduits	Each	20.00			-
b	2x40w industrial type with reflector suspended by conduits	Each	20.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
c	1x40w Surface mounting with opal diffuser	Each	10.00			-
d	1x40w Surface mounting single patti type	Each	10.00			-
35	Supply, fixing, testing and commissioning of following CFL lamp fixtures of approved make and type without lamp, on ceiling/ surface/recess complete with earthing, connections along with accessories, hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	2x18W with aluminium mirror reflector	Each	10.00			-
b	2x11W with aluminium mirror reflector	Each	5.00			-
36	Supply, fixing, testing and commissioning of following size lamp/tube of approved make on existing luminaires and as per direction of Engineer					
a	36/40 watt fluorescent	Each	70.00			-
b	11 watt CFL built in choke	Each	10.00			-
c	18 watt CFL built in choke	Each	20.00			-
37	Supply, fixing, testing and commissioning of approved make split type Air Conditioner unit and fixing cooling unit on wall at desired location having standard length of 3 m copper piping with insulation and drainage pipe upto 1.5m length, necessary wiring including providing and fixing necessary good quality powder coated MS FRL Same etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
	1 Ton capacity 3000 kcal/hr	Each	1.00			-
	1.5 Ton capacity 4500 kcal/hr	Each	3.00			-
	2 Ton capacity 6000 kcal/hr	Each	3.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
38	Supply ,laying and connection of 8 SWG GI wire on surface or in reces along with accessories, hardwares etc.required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards	Rmt	100.00			-
39	Supply,laying and connection of 6 SWG GI wire 0.50 m below including excavation, sand cushioning, and refilling the trench along with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards	Rmt	200.00			-
40	Supply and laying of 25x6 mm GI strip along with the 11kV cable and making connections firmly with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standardsand connection	Rmt	200.00			-
41	Earthing with G.I. earth plate of 600 mm X 600 mm X 6 mm thick providing masonry enclosure with cover plate having locking arrangement and watering pipe, with charcoal and salt along with accessories, hardwares etc required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Each	10.00			-
42	Supply,installation, testing and commissioning of Distribution box, junction box, jacket/plug outlet completely wired in concealed conduit along with telephone sets of approved make and type with accessories,hardwares etc required for completeness and as per direction of Engineer and BSNL standards.	Each	1.00			-
43	Supply of hot dipped galvanized octagonal poles made out of 4mm thick steel plates,having base plate of 275x275x16mmmm, window and flush cover with locking arrangement at suitable height FRLSom base for cable terminal block, suitably reinforced with welded steel section,complete with template, foundation bolts, accessories,hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a	9 m high, minm dia 173 at bottom and 75 mm at top	Each	10.00			-
44	Designing and providing suitable RCC foundation for octagonal poles including steel reinforcement (90kg/cm minm),form work, embedding 2 Nos 50 mm dia PVC pipe for cable entry in each foundation, excavation,disposal of surplus soil,curing etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Cum	6.00			-
45	Erection of GS Octagonal pole on existing cement concrete foundation having grouted bolts and nuts, aligning in true vertical position and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	9m high	Each	12.00			-
46	Supply of swaged steel tubular poles as per IS 2713 with base plate of size 300x300x6mm welded at bottom, necessary hole for cable entry and earthing stud welded at specified height including painting with one coat of red oxide zinc chromate primer					
a	410 SP- 7 of 5m height	Each	10.00			-
47	Erection of metallic street light poles in cement concrete 1:3:6 foundation with cement concrete collar of size 0.4mdia and 0,50 m height including excavation, refilling etc as of requirred length and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	7m to 8m	Each	10.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
48	Supply and fixing of street light bracket on existing poles made out of 50mm dia GS pipe welded to 300 mm long GS pole canopy of suitable dia at an angle of 102.5 including GS triangular stiffner of 150x150x5 mm thick,complete with arrangement for tightening the bracket with poles,painting with one coat of approved primer,accessories,hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	Single over hang of 1m long	Each	20.00			-
b	Double overhang of 1m long	Each	4.00			-
49	Supply and fixing of 32mm dia x 2 metre long G.I pipe bracket for mounting street light fittings of all types on po buildings including bending the pipe to the required shape, 2 Nos 40 x 3mm flat iron clamps with bolts and nuts including wiring with 1.5 sq. mm W.P/ PVC wire etc. as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards:	Each	10.00			-
50	Supply,installation, testing and commissioning of prewired CFL Lighting fitting for periphery , approved make and type complete with lamp electronic ballast, capacitor,mirror optics,perspex cover but without lamp,on pole,earthing, connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	65 watts	Each	10.00			-
51	Supply,installation,testing and commissioning of prewired LED Street Lighting fitting of approved make and type complete with pressure die cast aluminium housing of IP65 design.but without lamp,on pole,with bracket,earthing, connections along with accessories,hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
a	45 watt	Each	10.00			-
52	Supply,installation,testing and commissioning of prewired metal halide wide beam flood light luminaire of approved make and type complete with pressure die cast aluminium housing of IP65 design.weather proof gear box,igniter,capacitor,but without lamp,on wall surface/building parapet /pole bracket,earthing,connections along with accessories,hardwares etc required for complete-ness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	1x150 Watt	Each	5.00			-
53	Supply . Fixing,Testing and commissioning of230/250V lamps in existing fixtures					
a	65 Watt CFL	Each	20.00			-
b	85 Watt CFL spiral	Each	10.00			-
c	85 Watt LED	Each	20.00			-
d	150 Watt metal halide	Each	5.00			-
54	Supply,installation,testing and commissioning of prewired terminal/Junction box of 200x150x150 mm size, made out of 1.6 mm thick sheet steel with detachable gland plate in bottom, hinged FRLSont door, rubber gasket,having 4 way connector ans 1 no 4A SP MCB inside for supply to fixtures, fixed to the poles with accessories,hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Each	22.00			-
55	Supply,drawing,testing and commissioning of following sizes FRLS PVC insulated stranded copper conductor single core cable through poles FRLSom JB/TB to fixtures with accessories,hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Rmt	200.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
56	Supply,installation,testing and commissioning of 3 Nos 1.5 sqmm FRLS PVC insulated stranded Cu. SC cable through poles FRLS to JB/TB to fixtures with accessories,hardwares etc required for complete-ness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Rmt	200.00			-
57	Supply and laying following sizes one number XLPE,steel armoured, Al. conductor power cable of 1.1 KV grade direct in ground including excavation,sand cushioning,protective covering and refilling the trench along with accessories,hardwares etc.required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	4 x10 sqmm	Rmt	400.00			-
58	Supply and making end termination with brass compression gland and aluminum lugs for following sizes armoured Al.conductor power cable of 1.1KV grade along with accessories, hardwares etc. as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	4x10 sqmm	Each	50.00			-
59	Supplying,laying and connection of 6SWG GI wire 0.50 m below including excavation,sand cushion-ing,and refilling the trench along with accessories,hardwares etc.required for completeness and as per attached specification,direction of Engineer,CGPWD standards and Electrical Inspectorate standards	Rmt	600.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
60	Design , Fabrication, supply, installation, testing and commissioning of pedestal mounted lighting Feeder Pillar made out of 2 mm thick CRCA sheet steel,suitably reinforced in cubicle,FRLSee standing, dust/vermin/weather proof with bus bars,switch gears,earth bus etc including powder coated painting along with accessories,hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards. The panel board shall house :1 No 4 pole 63A MCCB, 35kA as Incomer; 1No. 70A FP AC23 contactor, AOM switch, 0-24 hrs Timer 4 Pole 100A Aluminium busbar ;6 Nos 20A FP MCB as outgoing feeders:	Set	1.00			-
61	Design , Fabrication, supply, installation, testing and commissioning of pedestal/ floor mounted Colony Main Supply Board (to be located in one of the blocks), made out of 2 mm thick CRCA sheet steel, suitably reinforced in cubicle , FRL See standing, , dust / vermin/ weather proof with copper bus bars,switchgears,earth bus etc per specifications including powder coated painting along with accessories, hardwares etc. required for completeness and as per attached specification,direction of Engineer,CGPWD standards and Electrical Inspectorate standards. The panel board shall house : 1 No 4 pole 200A MCCB, 35kA as Incomer; 4 Pole 200A copper busbar ; 18 Nos FP 63A MCB as outgoing feeders:	Each	1.00			-
62	Design,Fabrication,supply,installation,testing and commissioning of pedestal mounted Block Main Power Board, made out of 2 mm thick CRCA sheet steel, cubicle type,FRLSee standing,dust/vermin/ weather proof with busbars, switchgears,earth bus etc including powder coated painting along with accessories,hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards. The panel box shall house : 1 No 4 pole 80 MCB, C series, 10kA as Incomer; 100A four pole Copper busbars, 18 Nos 32A SP MCB ,C series, 10kA as outgoing feeders: 18 Nos lockable compartments for housing kWh meters Interconnection by Copper insulated leads	Each	3.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
63	Supplying and fixing on surface/ recess horizontal type, double door, 415 V TPN , MCB DB of sheet steel ,phosphatized and powder coating painted complete with loose wire box, terminal blocks, tinned copper busbar,neutral link,earth bar,din bar,detachable gland plate,duly prewired with suitable size FRLS PVC insulated copper conductor up to terminal blocks including interconnections, earthing, accessories, hardwares etc. as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards. The board shall be mounted with: The board shall house : 1 No 4 pole 63A TPN MCB, C series, 10kA as Incomer; 100A four pole Copper busbars, 3 Nos 63A SPN MCB ,C series, 10kA as outgoing feeders: 3 Nos lockable compartments for housing kWh meters ; Interconnection by Copper insulated leads	Each	1.00			-
64	Supplying and fixing on surface/ recess horizontal type, double door, 240 V SP & N, MCB D.B. of sheet steel,phosphatized and powder coating painted complete with loose wire box, terminal blocks, tinned copper busbar,neutral link,earth bar,din bar,detachable gland plate,duly prewired with suitable size FRLS PVC insulated Cu.conductor up to terminal blocks including interconnections, earthing, accessories, hardwares etc. as required for completeness and as per attached specification,direction of Engineer,CGPWD standards and Electrical Inspectorate standards. The board shall be mounted with:					
a	20A DP MCB C series, 10kA as Incomer; 4 Nos 6-32A SP MCB ,C series, 10	Each	35.00			-
b	40A DP MCB C series, 10kA as Incomer; 6 Nos 6-32A SP MCB ,C series, 10	Each	15.00			-
c	40A DP MCB C series, 10kA as Incomer; 8 Nos 6-32A SP MCB ,C series, 10	Each	2.00			-
65	Circuit/ sub main / main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor,SC cable in concealed PVC conduit along with accessories, hardwares etc. as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3 x 2.5 sqmm in 20mm conduit	Rmt	600.00			-
b	3 x 4sqmm in 25mm conduit	Rmt	300.00			-
c	3x6 sqmmin 32mm conduit	Rmt	300.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
66	Supply and fixing of following sizes PVC conduit in concealed manner along with accessories, hardwares etc as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	20mm	Rmt	1200.00			-
b	25mm	Rmt	500.00			-
c	32mm	Rmt	300.00			-
67	Supply and fixing metal box of following sizes in recess with suitable size phenolic laminated sheet cover in FRLSont including painting, accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	100mm x 100mm x 60mm deep	Each	500.00			-
68	Supply and fixing of GI box of following sizes in recess with modular base & cover plate for modular switches including accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Each	200.00			-
a	125mmx75mm					
69	Point Wiring for light/ fan/ exhaust fan/ call bell with 1.5 sqmm FRLS PVC insulated stranded Cu.SC cable in concealed PVC conduit, with 6A piano type switch, phenolic laminated sheet,suitable size M.S. box and earthing the point with same size cable with accessories, hardwares etc required for completeness and as per direction of Engineer,CGPWD standards Electrical Inspectorate standards.					
a	Short Point	Each	500.00			-
b	Medium Point	Each	160.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
70	Point wiring for light plug with 2.5 sq mm FRLS PVC insulated stranded Cu.SC cable cable in concealed PVC conduit ,with 6A piano type switch and 3 pin 6A socket outlet with suitable size M.S. box,phenolic laminated sheet,earthing the switch box and socket outlet with same size cable a with accessories, hardwares etc. as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	Short Point	Each	100.00			-
b	Medium Point	Each	50.00			-
71	Point wiring for Power plug with 4sq mm FRLS PVC insulated stranded Cu. SC cable in concealed PVC conduit with 16 A piano switch and 6 pin 6/16 A socket outlet with suitable size M.S. box,phenolic laminated sheet,earthing the switch box and socket outlet with same size cable along with accessories,hardwares etc. required for completeness and as per direction of Engineer,CGPWD standards and Electrical Inspectorate standards.					
a	Medium Point	Each	60.00			-
b	Long Point	Each	30.00			-
72	Point Wiring for light/ fan/ exhaust fan/ call bell with 1.5 sqmm FRLS PVC insulated stranded copper Cu.SCconductor single core cable in concealed PVC conduit, with 6 A modular switch ,modular base and cover plate with suitable size Gl. box and earthing the point with same size cable along with accessories, hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards Electrical Inspectorate standards.					
a	Short Point	Each	200.00			-
b	Medium Point	Each	300.00			-
c	Long Point	Each	40.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
73	Point wiring for light plug with 2.5 sq mm FRLS PVC insulated stranded Cu.SCcopper conductor single core cable cable in concealed PVC conduit along with 6 A modular switch and 3 pin 6 A modular socket outlet, modular base and cover plate with suitable size Gl. box, earthing the switch box and socket outlet with same size cable along with accessories, hardwares etc. as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	Short Point	Each	10.00			-
b	Medium Point	Each	30.00			-
c	Long Point	Each	50.00			-
74	Point wiring for Power plug with 4 sq mm FRLS PVC insulated stranded Cu.SCcopper conductor single core cable cable in concealed PVC conduit along with 16 A modular switch and 6 pin 6/16 A modular socket outlet, modular base and cover plate with suitable size Gl. box earthing the switch box and socket outlet with same size cable along with accessories, hardwares etc. as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	Short Point	Each	5.00			-
b	Medium Point	Each	20.00			-
c	Long Point	Each	20.00			-
75	Supply and fixing 2 pole and earth, 240 V, industrial type socket outlet for AC units, enclosed metal top plug with DP MCB in sheet steel enclosure, on surface or recess, with chained metal top metal cover for the socket and complete with connections, testing, commissioning etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	20A with C series MCB	Each	2.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
b	32A with C series MCB	Each	15.00			-
76	Point Wiring for twin control of light with 1.5 sqmm FRLS PVC insulated stranded Cu. SC cable in concealed PVC conduit, with 6A piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with same size cable along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards Electrical Inspectorate standards.	Each	4.00			-
77	Point Wiring for twin control of light with 1.5 sqmm FRLS PVC insulated stranded copper conductor single core cable in concealed PVC conduit, with 6A modular switch, modular base and cover plate, suitable size GI box and earthing the point with same size cable along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards Electrical Inspectorate standards.	Each	15.00			-
78	Supply and fixing of following piano type switches & accessories of approved make and type such as switch, socket etc on the existing switch box/cover including connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3 pin 5/6 amp socket outlet	Each	100.00			-
b	6 pin 15/16 amp socket outlet	Each	30.00			-
c	Calling Bell	Each	50.00			-
d	Ceiling Roses	Each	200.00			-
e	Batten/angle Holders	Each	240.00			-
f	Bell push	Each	30.00			-
g	Fan regulator, electronic, step type moving all round	Each	60.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
79	Supply and fixing of following modular type switches and accessories of approved make and type such as switch, socket etc on the existing modular plates & switch box including connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
a	3 pin 5/6 amp socket outlet	Each	50.00			-
b	6 pin 15/16 amp socket outlet	Each	30.00			-
c	Bell push	Each	30.00			-
d	Fan regulator,electronic,step type moving all round	Each	100.00			-
80	Supply and fixing round/ hexagonal fan box (125mm dia) depth 75mm (max.) with 12mm dia steel bar hook,1.6mm thick MS sheet cover, in RCC slab along with accessories, hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Each	200.00			-
81	Supply, installation, testing and commissioning of following sizes ceiling fan of approved make and ISI quality including the down rods of 30 cm wiring with 1.5 sq. mm FRLS PVC insulated Cu. SC cable, earthing, connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
	1200mm sweep	Each	200.00			-
82	Supply,installation,testing and commissioning of following sizes exhaust fan (fancy type) of approved make and ISI quality in existing opening in wall including earthing, connections along with accessories, hardwares etc as required for completeness.					
	225 mm sweep	Each	18.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
83	Supply, installation, testing and commissioning of following type prewired fluorescent fitting of approved make and type complete with copper ballast, glow type starter but without lamp, on ceiling/wall/surface, earthing, connections along with accessories, hardwares etc required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
	1x40w Surface mounting with opal diffuser	Each	10.00			-
	1x40w Surface mounting single patti type	Each	150.00			-
84	Supply and fixing of 32mm dia x 2 metre long G.I pipe bracket for mounting street light fittings on buildings including bending the pipe to the required shape, 2 Nos 40 x 3mm flat iron clamps with bolts and nuts including wiring with 1.5 sq. mm W.P/ PVC wire etc. as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards:	Each	30.00			-
85	Supply, installation, testing and commissioning of prewired CFL Lighting fitting for periphery , approved make and type complete with lamp electronic ballast, capacitor, mirror optics, perspex cover but without lamp , on pole ,earthing, connections along with accessories, hardwares etc as required for completeness and as per direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
	65 watts	Each	30.00			-
86	Supplying, fixing, testing and commissioning of following size lamp/tube of approved make on existing luminaires and as per direction of Engineer					
	36/40 watt fluorescent	Each	240.00			-
	11 watt CFL built in choke	Each	30.00			-
	18 watt CFL built in choke	Each	300.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
	65 watt CFL built in choke	Each	30.00			-
87	Supply and laying following sizes one number XLPE,steel armoured, Al. conductor power cable of 1.1 KV grade direct in ground including excavation,sand cushioning, protective covering and refilling the trench along with accessories,hardwares etc. required for completeness and as per attached specification,direction of Engineer,CGPWD standards and Electrical Inspectorate standards.					
	3.5x25 sqmm	Each	150.00			-
	4x10 sqmm	Each	200.00			-
88	Supplying and making end termination with brass compression gland and aluminum lugs for following sizes armoured aluminium conductor power cable of 1.1KV grade along with accessories, hardwares etc. as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.					
	3.5x25 sqmm	Each	10.00			-
	4x10 sqmm	Each	50.00			-
89	Supply ,laying and connection of 8 SWG GI wire on surface or in reces along with accessories, hardwares etc. as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards	Rmt	500.00			-
90	Supply ,laying and connection of 6 SWG GI wire 0.50 m below including excavation, sand cushioning, and refilling the trench along with accessories, hardwares etc. as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards	Rmt	350.00			-

Sr. No.	Description of Items	Unit	Quantity	Rate in INR	Rate in words (in INR)	Amount in INR
91	Supply and laying of 25x6 mm GI strip along with the 11kV cable and making connections firmly with accessories, hardwares etc. required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards and connection	Rmt	300.00			-
92	Earthing with G.I. earth plate of 600 mm X 600 mm X 6 mm thick providing masonry enclosure with cover plate having locking arrangement and watering pipe, with charcoal and salt along with accessories, hardwares etc as required for completeness and as per attached specification, direction of Engineer, CGPWD standards and Electrical Inspectorate standards.	Each	20.00			-
93	Supply, installation, testing and commissioning of Distribution box, junction box, jacket/plug outlet completely wired in concealed conduit along with telephone sets of approved make and type with accessories, hardwares etc as required for completeness and as per direction of Engineer and BSNL standards.	Each	1.00			-
	Sub total ; Electrical Works					-