

ABSTRACT OF COST

**CLIENT: BIHAR STATE MILK CO-OPERATIVE FEERATION LTD.,
DAIRY DEVELOPMENT COMPLEX, BIHAR VETERINARY COOEGE,
PATNA-800014. (BIHAR)**

**PROJECT : CIVIL CONSTRUCTION WORK OF BMC BUILDING AND BOUNARY
WALL AT CHITARKOLI, RAJALI UNDER NALANDA DAIRY PROJECT.**

SR. NO.	DESCRIPTION OF WORKS	AMOUNT	PAGE
1	Civil Construction work of BMC Building	Rs.61,78,704.00	2 to 7
2	Electrification work in Building	Rs.2,25,172.00	8 to 11
3	Construction of Boundry Wall	Rs.40,19,054.00	12 to 13
4	Miscellaneous work as drainge system &water supply	Rs.11,61,664.00	14 to 17
5	Bore well & Submersiable pump complete	Rs.1,93,033.00	18 to 19
	TOTAL PROJECT COST	₹ 1,17,77,627.00	

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**PROJECT : CIVIL CONSTRUCTION WORK OF BMC BUILDING AND BOUNARY WALL AT
CHITARKOLI, RAJOULI UNDER NALANDA DAIRY PROJECT**

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
		SECTION-I [FOUNDATION & PLINTH WORKS]				
1	2.8	Earth work in excavation 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.aAll kind soil.	Cum.	216.250	360.70	Rs. 78,001.38
2	2.26	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth: consolidating each deposited layer by ramming and watering lead up to 50mtr.[75% OF EARTH CUTTING]	Cum.	162.188	123.90	Rs. 20,095.03
3	2.28	Supplying and Filling in plinth with local sand and under floors including, watering, ramming consolidating and dressing complete.	Cum.	156.770	287.30	Rs. 45,040.02
4	11.72	Providing designation 100 A one brick flat soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I,	Sqm.	156.380	283.30	Rs. 44,302.45
5	11.73	Providing designation 100 A one brick on edge soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I,	Sqm.	155.440	444.80	Rs. 69,139.71
6	4.1	Providing and laying in position cement concrete of specified grade exluding the cost of centring and shuttering-all work upto plinth level.				
	4.1.5	1:3:6(1 Cement :3 coarse sand:6 graded stone aggregate 20 mm nominal size)	Cum.	14.960	3434.00	Rs. 51,372.64
7	5.33A	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering finishing and reinforcement,				
	5.33A.1	All work upto plinth level cum 4756.90	Cum.	70.280	4756.90	Rs. 3,34,314.93
8	5.33A.2.1	Walls columns, pillars, posts cind struts cum 5293.50	Cum.	9.350	5293.50	Rs. 49,494.23
9	5.33A.2.2	Beams, planth beams, girders, bressumers, contilevers, Suspended floors lintels roofs and staircases including spiral staircases, shelves etc. cum 5677.20	Cum.	12.490	5677.20	Rs. 70,908.23
10	33.B	Add or deduct for providing richer or leaner mixes respectively at all floor levels.				
	33 B.1	Proiding M-25 grade R.C.C. instead of M-20 grade R.C.C. cum 164.50	Cum.	92.120	164.50	Rs. 15,153.74
11	5.9	Centring and shuttering including strutting,propping etc. and removal of form for.				
	5.9.1	Foundations, footings, bases of columns etc. for mass concrete.	Sqm.	66.100	211.60	Rs. 13,986.76
12	5.9.5	Lintels, beams, griders, bressumers and contilevers. sqm 404.70	Sqm.	101.720	404.70	Rs. 41,166.08
13	5.9.6	Columns,Pillars, Piers, Abutments, Posts and Struts sqm 494.40	Sqm.	119.020	494.40	Rs. 58,843.49

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
		<u>SECTION II RCC WORK ABOVE PLINTH</u>				
15	5.33A	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering finishing and reinforcement, M-20 grade reinforced cement concrete:				
	5.33A.2.2	Beams, planth beams, girders, bressumers, contilevers, Suspended floors lintels roofs and staircases including spiral staircases, shelves etc. cum 5677.20	Cum.	51.510	5677.20	Rs. 2,92,432.57
16	5.33A.2.1	Walls columns, pillars, posts and struts cum 5293.50	Cum.	9.850	5293.50	Rs. 52,140.98
17	33.B	Add or deduct for providing richer or leaner mixes respectively at all floor levels.				
	33 B.1	Providing M-25 grade R.C.C. instead of M-20 grade R.C.C.	Cum.	61.360	164.50	Rs. 10,093.72
18	5.9	Centring and shuttering including strutting, propping etc. and removal of form for.				
	5.9.3	Suspended floors, roofs, landings, balconies and access platform.	Sqm.	192.58	437.50	Rs. 84,253.75
19	5.9.5	Lintels, beams, plinth beams, girders, bressumers and contilevers.	Sqm.	250.77	404.70	Rs. 1,01,486.62
20	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm.	110.930	494.40	Rs. 54,843.79
21	5.9.7	Stairs, (excluding landings) except spiral-staircases.	Sqm.	16.800	439.90	Rs. 7,390.32
22	5.9.16.1	Edges of slabs and breaks in floors and walls: Under 20 cms wide	Mtr.	68.986	130.20	Rs. 8,981.98
23	5.9.19	Weather shade, Chajjas, corbels etc. including edges	Sqm	24.200	550.90	Rs. 13,331.78
24	5.22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.29.7A	Thermo-Mechanically Treated bars TMTC-500 - 8mm dia.	Kg.	3365.913	94.50	Rs. 3,18,078.78
25	5.29.7B	Thermo-Mechanically Treated bars TMTC-500- 10mm dia.	Kg.	5529.230	92.60	Rs. 5,12,006.70
26	5.29.7C	Thermo-Mechanically Treated bars TMTC-500-12mm dia.	Kg.	3444.862	90.80	Rs. 3,12,793.47
27	5.29.7D	Thermo-Mechanically Treated bars TMT Fe-500- 16mm dia.	Kg.	5973.325	91.70	Rs. 5,47,753.90
28	5.29.7D	Thermo-Mechanically Treated bars TMT Fe-500- 16mm dia.	Kg.	2888.047	91.70	Rs. 2,64,833.91
		<u>SECTION III BRICKWORK ABOVE PLINTH</u>				
29	6.1A	Brick work with bricks of class designation 100A in foundations and plinth in :				
	6.1.14A	Cement mortar 1:6 (1 cement: 6 coarse sand) cum 4819.90	Cum.	45.840	4819.90	Rs. 2,20,944.22
30	6.3A + 6.1.14A	Brick work in superstructure above plinth level upto floor V Lvl	Cum.	52.170	5662.10	Rs. 2,95,391.76
	6.18.3A	Half brick masonry with bricks of class designation 100A in foundations and plinth in :				
	6.19A	Cement mortar 1:3 (1 cement: 3 coarse sand)	SQM.	2.340	711.20	Rs. 1,664.21
		<u>SECTION IV DOOR WINDOWS</u>				

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
31	21.1 RATE FROM MARKET	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, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / aneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : All complete with accessarie, screws handle lock etc complet. excluding glass.	Sqm.	23.730	3400.00	Rs. 80,682.00
32	22.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
33	22.3.2	With float glass panes of 5.50 mm thickness(weight not less than 12.50 kg/sqm)	Sqm.	28.780	1115.10	Rs. 32,092.58
34	9.1.4	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately). Local wood .	Cum.	1.870	54628.90	Rs. 1,02,156.04
35	9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:				
	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm.	8.570	1775.30	Rs. 15,214.32
36	9.48.1	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. mFixed to wall for windows by inserting in to blocks kg 144.50	Kg.	989.903	144.50	Rs. 1,43,040.98
37	9.71.1	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete: 125x64x2.50 mm each 93.70	Each	21	93.70	Rs. 1,967.70
38	9.96.12	Providing and fixing aluminium sliding door bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete: 300x16 mm .	Each	5	235.50	Rs. 1,177.50
39	9.97	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with necessary screws etc. complete:				
	9.97.2	250x10 mm each 98.20	Each	10	98.20	Rs. 982.00
40	9.97.3	200x10 mm each 84.60	Each	10	84.60	Rs. 846.00
41	9.100	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete:				
	9.100.1	125 mm	Each	12	57.10	Rs. 685.20
		SECTION-V FLOOR WORKS				

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
42	11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (Thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy , bottle green , black of any size as approved by Engineer-in-charge in skirting , risers of steps and dados over 12 mm thick bed of cement Motar 1:3(1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	Sqm.	62.87	795.00	Rs. 49,981.65
43	11.41	Providing and laying vitrified floor tiles in different sizes {thickness to be specified by the manufactruer} with water absorption's less than 0.08 % and conforming to IS : 15622 of approved make in all colours and shades, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including grouting the joint with white cement and matching pigments etc., complete.				
	11.41.2	Size of Tile 60x60 cm sqm 1638.80	Sqm.	32.140	1638.80	Rs. 52,671.03
44	NDDB 6.17	Providing & laying in position acid and alkali resistant red pre- polished machine cut Mandana stone of approved size arround 23" x 23" or 17" x 23" about 25-30mm thick for flooring/ dado over average 30-40mm thick cement mortar bedding 1:4 (1 part cemement mixed with acid and alkali proof powder, 4 part coarse sand with acid proof silica powder keping the joint 6mm to 8mm wide and 12mm deep gap all arround, raking the joint, curring, drying and filling the groove joint with epoxi resin and hardener mortar (parts by weight Araldite GY250 - 100 PARTS, Aradur 830 - 40 parts, Aradur 850 - 15 parts, Silca flour - 20 parts, silica sand - 200 to 300 parts (Huntsman advanced materials (I) Pvt. Ltd. or other equivalent approved makes) including hand machine polishing and wax polishing etc complete as directed. sqm :1950.00	Sqm.	173.080	1950.00	Rs. 3,37,506.00
45	10.18	Providing and fixing circular/hexagonal cast iron or M.S sheet box for ceiling fan clamp 140 mm internal dia, 73 mm height, 5 mm thick rim bottom and top lids, 1.5 mm thick M.S sheet with its top surface hacked for proper bonding top lid shall be screwed into the cast iron box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamps shall be made of 12 mm dia M.S. bar bent to shape as per standard drawing.	Each	8	165.40	Rs. 1,323.20
46	12.78	Supplying , fitting and fixing on wall face unplastidsed-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS :4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion.				
	12.78.2	110 mm diameter	Mtr.	28.85	257.50	Rs. 7,428.88
47	12.79	Providing and fixing on wall face unplasticised -PVC molded fittings/accessories for unplasticised-PVC rain water pipes conforming to (S:4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion.				
	12.79.1.2	Coupler 110mm	Each	6	120.00	Rs. 720.00
48	12.79.3.2	Single Tee with door 110x110x110mm	Each	6	193.40	Rs. 1,160.40
49	12.79.5.2	Band 87.5 110 mm bend	Each	6	132.00	Rs. 792.00
50	12.79.6.2	Shoe plain 110m Shoe	Each	6	115.95	Rs. 695.70
51	12.80	Providing and fixing unplasticised -PVC pipe clip of approved design to unplasticised PVC rain water pipe by means of 50x50x50mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing on cement mortar(1:4) 1 cement: 4corsa sand and making good the wall etc complete.				
	12.80.2	110 mm	Each	24	182.72	Rs. 4,385.28
52	12.81	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	Each	8	47.90	Rs. 383.20
53	19.1.2	Providing laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete : 150mm diameter	Mtr	25	464.30	Rs. 11,607.50

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
54	19.2.2	Providing and laying cement concrete 1:5:10 (1cement: 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design:	Mtr	25	494.40	Rs. 12,360.00
55	M.R	Providing and fixing SS AMUL DrainTRAP including 125mm thik masonary wall chamber around the trap duly filled with local sand complete with 75mm thick p.c.c. foundation as per drawing and direction of engineer-in charge.	Each	6	12500.00	Rs. 75,000.00
		<u>SECTION-VI FINISHING WORKS</u>				
56	13.11.4	12 mm cement plaster of mix : 1:6(1 cement: 6 coarse sand)	Sqm.	244.210	141.50	Rs. 34,555.72
57	13.13.4	20 mm cement plaster of mix ; 1:6(1 cement: 6 coarse sand) sqm 192.10	Sqm.	268.540	192.10	Rs. 51,586.53
58	13.24.2	6 mm cement plaster to ceiling of mix :1:4(1 cement: 4 coarse sand)	Sqm.	200.130	125.60	Rs. 25,136.33
59	13.78.1	Applying one coat of cement primer of approved brand and manufacture on wall surface: Cement primer sqm 38.60	Sqm.	712.880	38.60	Rs. 27,517.17
60	13.79.1	Finishing walls with water proofing cement paint of approved brandand manufacture and of required shade to give an even shade:New work (three or more coats) sqm 81.20	Sqm.	712.880	81.20	Rs. 57,885.86
61	13.94	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:				
	13.94.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture:	Sqm.	21.830	116.50	Rs. 2,543.20
62	12.78	Providing and fixing on wall face unplastidsed-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS :4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion.				
	12.78.2	110 mm diameter metre 257.50	metre	28.700	257.50	Rs. 7,390.25
63	12.79	Providing and fixing on wall face unplasticised -PVC molded fittings/accessories for unplasticised-PVC rain water pipes conforming to (S:4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion.				
	12.79.2.2	Single pushfit coupler of 110mm each 374.60	each	7	374.60	Rs. 2,622.20
64	12.79.3.2	Single tee with door 10x110x110mm each 193.40	each	7	193.40	Rs. 1,353.80
65	12.79.5.2	Band 87.5° 110 mm bend each 132.00	each	7	132.00	Rs. 924.00
66	12.79.6.2	Shoe plain 110m Shoe each 115.95	each	7	115.95	Rs. 811.65
67	12.80	Providing and fixing unplasticised -PVC pipe clip of approved design to unplasticised PVC rain water pipe by means of 50x50x50mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing on cement mortar(1:4) 1 cement: 4corsa sand and making good the wall etc complete				Rs. -
	12.80.2	110 mm each 182.72	each	7	182.72	Rs. 1,279.04
68	12.38	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement:2 coarse sand:4 stone aggregate 10mm and down gauge) including finishing with cement mortar 1:3(1 cement::3 coarse sand)as per standard design				
	12.38.1	In 75x75 mm deep chase metre 66.00	metre	55.800	66.00	Rs. 3,682.80
69	12.39	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement:2 coarse sand:4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 mx1 mx400 micron, finished 12 mm cement plaster 1:3 (1 cement:3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	each	7.000	189.40	Rs. 1,325.80

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
70	22.8	Providing and laying integral cement based water proofing treatment including prepatation of surface as required for treatment of roofs, balconies , terraces etc, consisting of following operations. (a)Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water -proofing compound cleaning the surface before treatment, (b) Laying cement concrete using broken bricks / brick bats 25 mm to 100 mm size with 50 % of cement mortar 1:5 (1 cement: 5 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement: 5 coarse sand) admixed with proprietary water proofing compound conforming to IS 2545 to reuired slope and treating similiary the adjoining walls upto 300 mm height including rounding of junctions, or walls ad slabs. (c) After two days of proper curing applying a secoung coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with proprietary water proofing compound conforming to IS : 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300 x 300 mm square. (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test, All above operations to be done in order and as directed and specified by the Engineer-in-Charge.				Rs. -
	22.8.1	With average thickness of 120 mm and minimum thickness at khurras point to be 65 ..	Sqm.	193.793	850.70	Rs. 1,64,859.28
						Rs. 53,08,573.94
	CARRIAGE OF MATERIALS & DIFFERENCE OF COST OF MATERIALS					
71	I	Carriage of Materials				
	a	Graded Stone aggregate	Cum.	106.73	1950.08	Rs. 2,08,132.04
	b	Coarse sand	Cum.	91.11	1728.96	Rs. 1,57,525.55
	c	Bricks 8km	1000No.	60.35	1053.35	Rs. 63,569.67
	d	Reinforcement (Steel) 5 km.	Tonne	11.798	518.09	Rs. 6,112.43
	e	Cement 5 km.	Tonne	58.73	518.09	Rs. 30,427.43
	f	Local Sand	Cum.	156.77	322.81	Rs. 50,606.92
		Brick bats	Cum.	18.22	420.60	Rs. 7,663.33
72	II	Difference of Cost of Materials				
	a	Bricks [Patna rural]	1000No.	60.35	270.58	Rs. 16,329.50
	b	Cement [Patna]	Tonne	58.73	262.78	Rs. 15,433.07
		GRAND TOTAL				Rs. 58,64,373.88
		Add 5.36% as per PWd Notification for GST				Rs. 3,14,330.44
		sub total				Rs. 61,78,704.32
		TOTAL COST OF CIVIL WORKS				Rs. 61,78,704.00

CLIENT:COMFED, PATNA

**ELECTRICAL WORK IN BMC BUILDING AT CHEWARA BLOCK, DIST.
SHEKHPURA AT UNDER NALNDA DAIRY PROJECT.****INTERNAL ELECTRIFICATION****I. ELECTRICAL WORKS****Part-A**

SL. NO.	DIFFERENT HEADS OF WORK	AMOUNT IN RS.	REMARKS
1	Sub Head - I (WIRING)	162255.00	Bihar Government of Rates (2023) / M.R
2	SUB HEAD - II (SUPPLY OF CABLE & SUBMAIN)	19845.00	Bihar Government of Rates (2023) / M.R
3	SUB HEAD - III (SUPPLY & MAKING OF EARTH PITS)	0.00	Bihar Government of Rates (2023) / M.R

Part-B

4	SUB HEAD - IV (SUPPLY OF FIXTURES & FANS)	43072.00	Bihar Government of Rates (2023) / M.R
	TOTAL	2,25,172.00	

ESTIMATE OF ELECTRICAL WORKS**SUB HEAD - I (WIRING)****Part-A**

SL. NO.	ITEM OF WORK	UNIT	QTY	RATE	AMOUNT
1. 1.3.3 (C)	Wiring for Light / Fan/Wall fan / Exhaust Fan / Call Bell point with 1.5sq.mm FR PVC insulated Copper Conductor single core cable in recessed medium class PVC Conduit in surface / recessed Mouldaler type switch. Mouldaler Plate ,sutable size PVC/GI box etc. (Group-C) as required, all complete as per instructions of Elec.Er. / Architect.	Light Point	18	1146.00	20628.00
2. 1.7.2	Wiring for switch board, and 5A socket power circuit/submain wiring along with earth wire with 2x2.5 sq. mm +1x2.5 FR PVC insulated copper conductor single core cable in surface / recessed medium PVC conduit. as required, all complete as per instructions of Elec.Er./ Architect.	Mtr.	125	246.00	30750.00
3. 1.7.2	Wiring for 15A socket power circuit/submain wiring along with earth wire with 2x2.5 sq. mm +1x2.5 FR PVC insulated copper conductor single core cable in surface / recessed medium PVC conduit. as required, all complete as per instructions of Elec.Er./ Architect.	Mtr.	100	246.00	24600.00

4. 1.7.3	Wiring for circuit 15A power and 25A A.C. power point along with earth wire with 2x4 sq. mm +1x4 FR PVC insulated copper conductor single core cable in surface / recessed medium PVC conduit. as required, all complete as per instructions of Elec.Er./ Architect.	Mtr.	80	309.00	24720.00
5. 1.7.12	Supply & Fixing for sub main from L.T Penal to Light and Power point D.B's- 4 x 10sq. mm PVC insulated copper conductor single core cable in recessed PVC conduit with 1x6 sq mm PVC insulated copper conductor single core cable for loop earthing as required, all complete as per instructions of Elec.Er / Architect. .	Mtr.	45	925.00	41625.00
6. 1.24.1 1.64.4	Supplying and fixing 5 pin, 5/6 amps socket outlet and 5/6 amps Modular type switch connection etc up-on switch board, as required.all complete as per instructions of Elec.Er / Architect.	Set	16	112.00	1792.00
7. 01.32	Supplying and fixing 1nos Modular type 15Amp 6 pin socket with 15Amps switch, Modular Plate, suitable size PVC/G.I. box as required. all complete as per instructions of Elec.Er. / Architect.	Set	6	531.00	3186.00
10. 01.33	Supplying and fixing ceiling rose 2 pin 6amps on existing junction box/ wooden block including connection etc. as required.	Each	12	64.00	768.00
11. 1.25.0	Supplying and fixing stepped type electronic fan regulator on the existing modular plate/ switch box including connections but excluding modular plate etc. as required.	Set	6	358.00	2148.00
12. 2.8.8	Supplying and fixing 12 way (4 +36), Double door, horizontal type three pole & neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus - bar, neutral bus bar, earth bar, din bar, interconnections,powder painted including earthing etc. as required, (But without MCB/RCCB/Isolator)	Each	1	3201.00	3201.00
13	Supplying & fixing of following rating and series miniature circuit breaker and residual current circuit breaker in the existing MCB DB complete with connection testing and commissioning etc. as required. all complete as per instructions of Elec.Er. / Architect.				
13.A 2.12.1	(i) 06A/10A, SP, M.C.B-'B' (Light and Raw power)	Each	4	237.00	948.00
13.B 2.12.1	(ii) 16A/25A SP, MCB-'C'(POWER/A.C)	Each	2	237.00	474.00
13.C 2.12.8	(iii) 63A TPN, MCB-'C'(LIGHT CIRCUIT MAIN)	Each	1	2329.00	2329.00
16	Supplying & fixing of following rating and series miniature circuit breaker and residual current circuit breaker in the existing MCB DB complete with connection testing and commissioning etc. as required. all complete as per instructions of Elec.Er. / Architect.				

17. 2.12.8	(ii) 63A TPN, MCB-'C'(POWER/A.C CIRCUIT MAIN)	Each	2	2329.00	4658.00
18.. 02.20	Providing and fixing M.V danger notice plate of 200mmx150mm made of mild steel at least 2mm thick, vitreous enameled white on both side and with inscription in single red colour on front side in excluding cubical panel as required.	Each	2	214.00	428.00
19. 8.10.13	Supply and fixing panel mounted digital multimeter (Voltmeter & ammeter) including CT coil and RYB pilot indicator in the existing cubical panel board including drilling holes in the panel board making connections etc as etc as required.	Each		6536.00	0.00
20. 2.7.9	Providing and fixing 400A capacity four pole ONload/panel mounted changeover switches inside the existing cubical panel board including drilling holes in cubicle panel, making connections etc. as required.	Each	0	34409.00	0.00
	TOTAL SUB HEAD-I				162255.00
<u>SUB HEAD - II (SUPPLY OF CABLE MAIN & SUBMAIN)</u>					
1. 7.7.7	Supply of 25 sq. mm and 3.5 core PVC/XLPE insulated, PVC sheathed (heavy duty) armoured electrical power cable with aluminium conductor for working voltage upto 1.1 KV 1.1 KV as required. (Note-Cable Measurement written is approx. Size may change according to layout of cable.)	Mtr.	45	346.00	15570.00
2.A 7.4.4	(ii) Above 25 sq. mm and upto 70sq. Mm	Mtr.	25	171.00	4275.00
	TOTAL SUB HEAD-II				19845.00
<u>SUB HEAD - III (SUPPLY & MAKING OF EARTH PITS)</u>					
1. 3.21 OR 3.6+3.8+ 3.9	Providing chemical/mineral maintenance free earthing system comprising of copper coated earth electrode 3 metre length and 17.2 mm outer dia along with 25 kg earth conductivity enhancing back fill mineral compound for earth inspection pit etc. as required. OR Supply, Fixing & Hole cutting in earth as per drawing of (CU) (600mm X 300mm X 3mm) plate electrode earth, all complete as per specifications and drawings attached. (1 No. EARTH for UPS Main neutral only.) -The rate shall be inclusive of submission of TEST REPORT (2 Ohm) of each earth pit and - <u>Coution Note</u> - <u>The rate shall be inclusive of submission of TEST REPORT (2 Ohm) of each earth pit and TESTING shall be carried out in front of Officials / Consultant.</u>	Each		16675.00	0.00
	TOTAL SUB HEAD-III				0.00
<u>SUB HEAD - IV (SUPPLY OF FIXTURES & FANS)</u>					
1 6.1.4	Supplying and fixing of 9/10 watt LED lamp types lamp in the existing electrical fitting/ fixtures etc. as required	Each	12	161.00	1932.00

2. 5.5	Supplying and fixing replaceable compact commercial batten suitable for Double TB LED tube complete with 20 watt LED polycarbonate TB tube with built in driver etc. directly on wall/ceiling including connections with 1.5 sq.mm FRLS PVC insulated copper conductor etc. asrequired.	Each	8	1232.00	9856.00
3. 8.15	Supply and installation of regular/standard model A.C. ceiling fan of 1200 mm sweep with service value (CM/MM) minimum 4.00, Air delivery minimum 270 cum/min including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated copper conductor etc as required. approved equivalent.	Each	6	2482.00	14892.00
4. 5.7.6	Supplying and fixing ceiling mounted 22/24 watt (300mm X 300mm)downlighter with minimum efficacy 100 lm/w in pressure die-cast aluminium housing and integrated electronic driver etc directly on ceiling including connections with 1.5 sq.mm FRLS PVC insulated copper conductor cable etc as required.	Each	8	2049.00	16392.00
	TOTAL SUB HEAD-IV				43072.00

DAIRY DEVELOPMENT COMPLEX, BIHAR VETERINARY COLLEGE, PATNA-800014. (BIHAR)

PROJECT : CIVIL CONSTRUCTION WORK OF BMC BUILDING AND BOUNARY WALL AT CHITARKOLI, RAJALI UNDER NALANDA DAIRY PROJECT.

BOUNDARY WALL

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
		SECTION-I [FOUNDATION & PLINTH WORKS]				
2	2.8	Earth work in excavation 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.aAll kind soil	Cum.	149.470	360.70	Rs. 53,913.83
3	2.26	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth: consolidating each deposited layer by ramming and watering lead up to 50mtr.	Cum.	112.100	123.90	Rs. 13,889.19
3	2.28	Supplying and Filling in plinth with local sand and under floors including, watering, ramming consolidating and dressing complete.	Cum.	1548.22	287.30	Rs. 4,44,803.61
4	11.72	Providing designation 100 A one brick flat soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I,	Sqm.	26.130	283.30	Rs. 7,402.63
5	4.1	Providing and laying in position cement concrete of specified grade exluding the cost of centring and shuttering-all work upto plinth level.				
	4.1.5	1:3:6(1 Cement :3 coarse sand:6 graded stone aggregate 20 mm nominal size)	Cum.	9.490	3434.00	Rs. 32,588.66
6	5.33A	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering finishing and reinforcement, M-20 grde reinforcd cement concrete:				
	5.33A.1	All work upto plinth level	Cum.	31.000	4756.90	Rs. 1,47,463.90
9	5.33A.2.1	Walls columns, pillars, posts cind struts	Cum.	13.990	5293.50	Rs. 74,056.07
10	5.33A.2.2	Beams, planth beams, girders, bressumers, contilevers, Suspended floors lintels roofs and staircases including spiral staircases, shelves etc.	Cum.	196.900	5677.20	Rs. 11,17,840.68
11	5.33.B	Add or deduct for providing richer or leaner mixes respectively at all floor levels.				
	5.33.B.1	Proiding M-25 grade R.C.C. instead of M-20 grade R.C.C. cum 164.50	Cum.	241.890	164.50	Rs. 39,790.91
12	5.9	Centring and shuttering including strutting,propping etc. and removal of form for.				
	5.9.1	Foundations, footings, bases of columns etc. for mass concrete.	Sqm.	73.640	211.60	Rs. 15,582.22
	5.9.5	Lintels, beams, plinth bams, griders, bressumers and contilevers	Sqm.	196.900	404.70	Rs. 79,685.43
13	5.9.6	Columns,Pillars, Piers, Abutments, Posts and Struts	Sqm.	130.800	494.40	Rs. 64,667.52

Sl.	code	DESCRIPTION OF WORK	UNIT	Qty.	RATE	AMOUNT
	5.22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.29.7A	Thermo-Mechanically Treated bars TMTC-500 - 8mm dia.	Kg.	2245.920	94.50	Rs. 2,12,239.44
	5.29.7B	Thermo-Mechanically Treated bars TMTC-500- 10mm dia.	Kg.	1196.790	92.60	Rs. 1,10,822.75
	5.29.7C	Thermo-Mechanically Treated bars TMTC-500-12mm dia.	Kg.	2254.760	90.80	Rs. 2,04,732.21
	6.1A	Brick work with bricks of class designation 100A in foundations and plinth in :				
	6.1.14A	Cement mortar 1:6 (1 cement: 6 coarse sand) cum 4819.90	Cum.	48.440	4819.90	Rs. 2,33,475.96
	6.3A + 6.1.14A	Brick work in superstructure above plinth level upto floor V Lvl	Cum.		5662.10	Rs. -
	13.11.4	12 mm cement plaster of mix : 1:6(1 cement: 6 coarse sand)	Sqm.	141.300	141.50	Rs. 19,993.95
	13.13.4	20 mm cement plaster of mix ; 1:6(1 cement: 6 coarse sand) sqm 192.10	Sqm.	337.510	192.10	Rs. 64,835.67
27	13.78.1	Applying one coat of cement primer of approved brand and manufacture on wall surface: Cement primer sqm 38.60	Sqm.	478.810	38.60	Rs. 18,482.07
	13.79.1	Finishing walls with water proofing cement paint of approved brand and manufacture and of required shade to give an even shade: New work (three or more coats) sqm 81.20	Sqm.	478.810	81.20	Rs. 38,879.37
	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) for built up a iron gate etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete: GATE				
	10.16.3	Electric resistance or induction butt welded tubes kg 110.80	Kg.	1120.232	110.80	Rs. 1,24,121.71
33	13.94	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:				
	13.94.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture:	Sqm.	26.800	116.50	Rs. 3,122.20
						Rs. 31,22,389.98
	CARRIAGE OF MATERIALS & DIFFERENCE OF COST OF MATERIALS					
34	I	Carriage of Materials				
	a	Graded Stone aggregate 65 KM.	Cum.	46.69	1950.08	Rs. 91,049.24
	b	Coarse sand	Cum.	29.82	1728.96	Rs. 51,557.59
	c	Bricks 8km	%	22.22	1053.35	Rs. 23,405.44
	d	Reinforcement (Steel) 5 km.	Tonne	0	518.09	Rs. -
	e	Cement 5 km.	Tonne	26.12	518.09	Rs. 13,532.51
	f	Local Sand	Cum.	1548.22	322.81	Rs. 4,99,780.90
35	II	Difference of Cost of Materials				
	a	Bricks	%	22.22	270.58	Rs. 6,012.29
	b	Cement	Tonne	26.12	262.78	Rs. 6,863.81
		GRAND TOTAL				Rs. 38,14,591.76
		Add 5.36% as per PWD Notification for GST				Rs. 2,04,462.12
		sub total				Rs. 40,19,053.88
		TOTAL COST OF CIVIL WORKS				Rs. 40,19,054.00

BILL OF QUANTITY						
MISCELLANEOUS WORKS FOR CIVIL CONSTRUCTION WORK OF MILK CHILLING CENTER & BOUNDARY WALL AT CHITARKOLI,, RAJOULI UNDER NALANDA DAIRY PROJECT.						
SR.	C-2022	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE	AMOUNT
1	2.8	Earth work in excavation 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.All kind soil		46.960	360.700	16938.47
2	11.72	Providing designation 100 A one brick flat soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I,		26.250	283.300	7436.63
3	4.1	Providing and laying in position cement concrete of specified grade exluding the cost of centring and shuttering-all work upto plinth level.				
	4.1.5	1:3:6(1 Cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size)	Cum.	3.140	3434.000	10782.76
4	19.3	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :				
	19.3.5	300 mm diameter		30.000	491.70	14751.00
5	4.3	Centring and shuttering including strutting, propping etc. and removal or form work for				
	4.3.1	Foundations,footings, bases Columns	Sqm.	19.430	211.100	4101.67
6	5.33A	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering finishing and reinforcement, M-20 grde reinforcd cement concrete:				
	5.33A.1	All work upto plinth level cum 4756.90		7.590	4756.900	36104.87
7	5.9	Centring and shuttering including strutting,propping etc. and removal ofform for.				
	5.9.1	Foundations, footings, bases of columns etc. for mass concrete.	Sqm.	11.780	211.600	2492.65
	5.9.2	Walls (any thickness) including attached pilasters. Butteresses, plinth and string courses etc.	Sqm.	75.530	375.100	28331.30
	5.9.3	Suspended floors, roots, landings, balcnies and access platform. sqm 437.50	Sqm.	11.250	437.500	
	5.9.16	Edges of slabs and breaks in floors and walis-				
	5.9.16.1	Under 20 cms wide m 130.20		212.000	130.200	27602.40

SR.	C-2022	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE	AMOUNT
8	5.22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	5.22.7A	Thermo-Mechanically Treated bars TMTC-500-8mm dia.	Kg.	1400.128	92.600	129651.85
9	18.33	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10(1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominalsize) and inside plastering with cement mortar 1:3 (1 cement : 3coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :				
10	18.33.1	With common burnt clay F.P.S.(non modular) bricks of class designation 100A each 7210.60	each	2.000	7210.600	14421.20
11	19.7	Constructing brick masonry manhole in cement mortar 1:4 (1cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
	19.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
	19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 each 7914.70	each	4	7914.700	31658.80
12	19.8.1.1	Extra for depth for manholes :19.8.1 Size 90x80 cm:19.8.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 metre 5660.00	mtr.	2	5660.000	11320.00
13	18.48	.Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	ltr.	5000.000	9.700	48500.00
14	18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				

SR.	C-2022	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE	AMOUNT
	18.7.4	32 mm nominal outer dia Pipes metre 395.20	mtr.	35.000	395.200	13832.00
	18.7.6	50 mm nominal outer dia Pipes metre 791.00	mtr.	8.000	791.000	6328.00
	18.8.2	20 mm nominal outer dia Pipes metre 350.80		60.000	350.800	21048.00
15	18.19.4	Providing and fixing gun metal non- return valve of approved quality(screwed end) : 50 mm nominal bore 18.19.4.1 Horizontal each 1173.60	each	2	1173.600	2347.20
16	18.21.2.2	Providing and fixing uplasticised PVC connection pipe with brassions :18.21.2 45 cm length20 mm nominal bore each 102.60	each	4	102.600	410.40
17	18.50.1	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms. 15 mm nominal bore each 715.10	each	4	715.100	2860.40
18	18.53.1	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 15 mm nominal bore each 500.40	each	4	500.400	2001.60
19	17.11.2	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required : Size 600x450x200 mm each 5085.90	each	2	5085.900	10171.80
20	12.79.2.2	Providing and fixing in floor unplasticised -PVC molde fittings/accessories for unplasticised-PVC drain water pipes conforming to (S:4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. Single pushfit coupler: 110 mm each 374.60	each	4	374.600	1498.40
21	12.78.2	Providing and fixing under floor unplastidsed-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS :4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. 110 mm diameter metre 257.50	mtr.	40.000	257.500	10300.00
22	13.17.1	12 mm cement plaster 1:3(1 cement: 3 coarse sand) finished with a loating coat of neat cement	Sqm.	64.580	203.600	13148.49
		HARD PARK				0.00
23	2.28	Supplying and Filling in plinth with local sand and under floors including, watering, ramming consolidating and dressing complete. 287.30/ cum	Cum	36.000	287.300	10342.80
24	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	Sqm.	315.000	90.700	28570.50

SR.	C-2022	DESCRIPTION OF ITEM	UNIT	QUANTITY	RATE	AMOUNT
25	16.78	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.				
26	16.78.1	With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30 cum 1310.40	Cum	97.200	1310.400	127370.88
27	16.91	Providing and laying factory made chamfered edge Cement Concrete paver blocks In foot path, park & lawns driveway or light & traffic parking etc. of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required, colour & pattern over 50mm thick compacted bed of course sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacturer's specifications & direction of Engineer- in-Charge.				0.00
	16.91.2	80mm thick Cement concrete paver block of M-30 grade with approved colour, design & pattern. sqm 778.00	Sqm.	486.000	778.000	378108.00
						0.00
28	19.6	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 :				
	19.6.4	300 mm dia. R.C.C. pipe metre 780.00				
			Mtr.	24.921	780.000	19438.38
29	CARRIAGE OF MATERIALS & Difference of Cost of Materials					
		Carriage of Materials				
	I	Graded Stone aggregate		16.890	1950.08	32936.85
	II	Coarse sand		10.258	1728.96	17735.67
	III	Bricks 8km		1.560	1053.35	1643.23
	IV	Reinforcement 5 km.		1.400	518.09	725.33
	V	Cement 5 km.		7.186	518.09	3722.99
	vi	Local Sand		36.000	322.81	11621.16
30		Difference of Cost of Materials				
	i	Bricks Patna Rural		1.560	270.58	422.100
	ii	Cement [Patna]		7.186	262.78	1888.340
		GRAND TOTAL				1102566.120
		Add 5.36% as per PWd Notification for GST				59097.540
		sub total				1161663.660
		TOTAL COST OF CIVIL WORKS			Rs.	11,61,664.00

**DAIRY DEVELOPMENT COMPLEX, BIHAR VETERINARY COLLEGE, PATNA-800014.
(BIHAR)**

ESTIMATE OF MODLE BORE WELL & PUMP

Sr.	BSR-22	DESCRIPTION OF WORK	No.	Length	Width	Depth	Quantity	UNIT	Rate	Amount
1	24.1	Boring/drilling bore well of required dia for casing/strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre & upto 150 metre depth below ground level.								
	24.2.1.1	300 mm dia (All types of soil)	1			70.00	70.00	Metre	486.80	Rs. 34,076.00
	24.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.								
	24.3.2	150 mm nominal size dia	1			30.00	30.00	Metre	660.10	Rs. 19,803.00
	24.3.5	75 mm nominal size dia	1			30.00	30.00	Metre	414.40	Rs. 12,432.00
	24.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.								
	24.4.5	75 mm nominal size dia metre 482.10	1			10.00	10.00	Metre	482.10	Rs. 4,821.00
	24.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-incharge.	1				2.00	Cum.	1188.90	Rs. 2,377.80
	24.6	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.					1.80	Cum.	1195.60	Rs. 2,152.08
	24.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.					1.80	cum	1195.60	Rs. 2,152.08
	24.10	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/ plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-incharge								
	24.10.1	100 mm nominal size dia having minimum wall thickness 5.00 mm					30.00	Metre	1121.20	Rs. 33,636.00

Sr.	BSR-22	DESCRIPTION OF WORK	No.	Length	Width	Depth	Quantity	UNIT	Rate	Amount
	24.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.					12.00	hour	916.80	Rs. 11,001.60
	24.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:								
	24.13.2	150 mm dia					2.00	each	210.70	Rs. 421.40
		Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.								
	24.14.2	150 mm clamp					2.00	each	1531.40	Rs. 3,062.80
	24.15	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).								
	24.15.2	150 mm dia					1.00	each	281.80	Rs. 281.80
	18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.								Rs. -
	18.7.6	50 mm nominal outer dia Pipes metre 791.00					40.00	Metre	791.00	Rs. 31,640.00
										Rs. 1,57,857.56
		add 5.36%								Rs. 8,461.17
									A	Rs. 1,66,318.73
	MR	PUMP MR Establishment of 1 HP of submersible pump set (detail attached)					1.00	each	26714.50	Rs. 26,714.50
Total amount										Rs. 1,93,033.23
										Rs. 1,93,033.00