

ESTIMATE

Name of Work

**CONSTRUCTION OF
NEW BOUNDARY WALL FOR
SHISHU GRAM ORPHANAGE SOCIETY
AT NORTH GUWAHATI**

CONSULTANT



CREATIVE ENGINEERS

(Engineering Consultancy & Construction Firm)

REGISTERED OFFICE AT
NORTH GUWAHATI, MAJGAON
NEAR NORTH GUWAHATI VETERINARY HOSPITAL
NORTH GUWAHATI-781030
FIRM REG NO:- RF/KAM (R)/185/B/01 OF 2023-24
GST NO:- 18AARFC0055C1ZP
PHONE:- 7002097820

REPORT

Actual amount for the RCC BOUNDARY WALL is **Rs. 2,17,54,264/- (Two Crore Seventeen Lakh Fifty Four Thousand Two Hundred Sixty Four Only)**, which is find out by the method of detail estimate i.e. item wise quantity calculation from the final drawings and the item rates have been considered in D.S.R. of 2020-2021 has been provided by Central Public Works Department (C.P.W.D).

(According to Government of Assam notification **no-B.57/2021/41 Dt:-28th June-2021**, Order by the Governor of Assam).

Total Overall Length of the Boundary wall is 1420M. There are two types of Foundation will be executed as per the site condition. One is normal Isolated footing foundation which length is 1124M & other is Pile foundation which length is 296M.

Foundation wise amount is shown in the Summary Sheet

All The Works Will Be Carried Out As Per C.P.W.D. (Building) Specifications.

DATE:

SIGNATURE

SUMMARY SHEET

Name of Work:- "Construction of New Boundary Wall for Shishu Gram Orphanage Society at North Guwahati"

Over All Length of The Boundary Wall:- 1420M Length (As Per Survey)

Total Length of Boundary Wall (Without Pile Foundation):- 1124M Length (As Per Site Condition)

Total Length of Boundary Wall (With Pile Foundation):- 296M Length (As Per Site Condition)

SL No	DESCRIPTION	AMOUNT			REMARKS
		Over All Total	With Pile Foundation	Without Pile Foundation	
1	<i>PART- A- Civil Work</i>	₹ 2,09,67,965.00	₹ 67,89,930.00	₹ 1,41,78,035.00	
2	<i>PART- B- Sanitary & Water supply work</i>	₹ 0.00	₹ 0.00	₹ 0.00	0% of the Cost of Civil Work
3	<i>PART-C- Electrical Works</i>	₹ 7,86,298.69	₹ 2,54,622.38	₹ 5,31,676.31	3.75% of the Cost of Civil Work
	Total Amount=	₹ 2,17,54,263.69	₹ 70,44,552.38	₹ 1,47,09,711.31	

Say= ₹ 2,17,54,264.00

In words Rs. Two Crore Seventeen Lakh Fifty Four Thousand Two Hundred Sixty Four Only.

ITEM NO AS PER CPWD SCHEDULE (2020-21)	DESCRIPTION OF WORK	UNIT	RATE AS PER CPWD SCHEDULE (2020-21)	QTY	AMOUNT (Rs)	Qty B/F Pg No
	PART- A- Civil Work					
2.0	EARTH WORK					
2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge					
2.6.1	All kinds of soil	Cum	205.45	1822.63	374459.33	
2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	253.95	1516.43	385097.40	
4.0	CONCRETE WORK					
4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
4.1.5	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	6833.40	126.33	863263.42	
4.3	Centering and shuttering including strutting, propping etc. And removal of form work for :					
4.3.1	Foundations, footings, bases for columns	Sqm	307.95	432.13	133074.43	
5.0	REINFORCED CEMENT CONCRETE					
5.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :					
5.1.2	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	8364.20	412.19	3447639.60	
5.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :					
5.2.2	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	10185.05	64.80	659991.24	
5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	Cum	10719.30	127.63	1368104.26	
	FORM WORK					
5.9	Centering and shuttering including strutting, propping etc. and removal of form for :					

5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	307.95	918.63	282892.11	
5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	608.35	1106.20	672956.77	
5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	804.25	1436.55	1155345.34	
	STEEL REINFORCEMENT					
5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto & above plinth level.					
5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more	Kg	89.65	48311.00	4331081.15	
6.0	MASONRY WORK					
6.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					
6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	6658.25	132.07	879355.08	
6.13	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.					
6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	1018.05	1722.60	1753692.93	
13.0	FINISHING					
	CEMENT PLASTER (IN FINE SAND)					
13.1	12 mm cement plaster of mix :					
13.1.2	1:6 (1 cement: 6 fine sand)	Sqm	282.00	3176.40	895744.80	
13.2	15 mm cement plaster on the rough side of single or half brick wall of mix :					
13.2.2	1:6 (1 cement: 6 fine sand)	Sqm	324.30	2296.80	744852.24	
	EXTERIOR FINISHING					
13.44	Finishing walls with water proofing cement paint of required shade					
13.44.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	Sqm	97.60	5473.20	534184.32	
16.0	ROAD WORK					
16.19	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.	Kg	99.95	2407.68	240647.62	
16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately	RM	303.65	1420.00	431183.00	
20	PILE WORK					

20.2	<p>Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note: Truck Mounted rotary/TMR/Tubewell boring machine shall not be used .</p>				
	300 mm dia piles	RM	1400.00	1296.00	1814400.00
Gross Value of work done (Rs)=					20967965.00

2.0	EARTH WORK						
2.25	<i>Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.</i>						CUM
	Total Earth Excavation below Ground				Qty Same as It No. 2.6.1	1822.63	
	Less PCC Quantity					-126.33	
	Less RCC Quantity upto GL					-179.87	
					Total Qty=	1516.43	Cum

4.0	CONCRETE WORK						
4.1	<i>Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :</i>						
4.1.5	<i>1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)</i>						CUM
	For Foundation Work						
	Below Footing Size (1500x1000x250 mm)	396	1	1.700	1.200	0.100	80.78
	Tie Beam (250x350mm) only for footing (Without Pile)	1	1	1012.25	0.450	0.100	45.55
					Total Qty=	126.33	Cum

4.0	CONCRETE WORK						
4.3	<i>Centering and shutting including strutting, propping etc. And removal of form work for :</i>						
4.3.1	<i>Foundations, footings, bases for columns</i>						Sqm
	For Foundation Work [Without Pile]						
	Footing Size (1500x1000x250 mm)	396	2	2.900	.....	0.100	229.68
	Tie Beam (250x350mm) only for footing (Without Pile)	1	2	1012.25	.....	0.100	202.45
					Total Qty=	432.13	Sqm

5.0	REINFORCED CEMENT CONCRETE						
5.2	<i>Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :</i>						
5.2.2	<i>1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)</i>						CUM
	Column Above Ground Level						
	Column, Size (250x250)	576	1	0.250	0.250	1.800	64.80
						Total Qty=	64.80
							Cum

5.0	REINFORCED CEMENT CONCRETE						
5.3	<i>Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).</i>						Cum
	<i>Tie Beam</i>						
	Tie Beam, Size (250x350)	1	1	1276.00	0.250	0.350	111.65
	<i>Lintel</i>						
	Lintel or Copping, Size (150x75)	1	1	1420.00	0.150	0.075	15.98
					Total Qty=	127.63	Cum

CPWD SCHEDULE (2020-21)	DESCRIPTION OF WORK	NO	NO	QUANTITY			TOTAL QTY	UNIT
				LENGTH	BREADTH	HEIGHT		
5.0	REINFORCED CEMENT CONCRETE							
	FORM WORK							
	For Foundation Work (Without Pile)							
	Footing Size (1500x1000x250 mm)	396	2	2.500	.....	0.250	495.00	
	Pedestal for Single Column	345	2	0.800	.....	0.150	82.80	
	Pedestal for Double Column	51	2	1.100	.....	0.150	16.83	
	For Foundation Work (With Pile)							
	Pile Cap Size (1800x1200x500 mm)	108	2	3.000	.....	0.500	324.00	
							Total Qty=	918.63 Sqm

5.0	REINFORCED CEMENT CONCRETE							
	FORM WORK							
5.9	<i>Centering and shuttering including strutting, propping etc. and removal of form for :</i>							
5.9.5	<i>Lintels, beams, plinth beams, girders, bressumers and cantilevers</i>							Sqm
	Tie Beam, Size (250x350)	1	2	1276.00	.....	0.350	893.20	
	Lintel or Copping, Size (150x75)	1	2	1420.00	.....	0.075	213.00	
							Total Qty=	1106.20 Sqm

5.0	REINFORCED CEMENT CONCRETE							
	FORM WORK							
5.9	<i>Centering and shuttering including strutting, propping etc. and removal of form for :</i>							
5.9.6	<i>Columns, Pillars, Piers, Abutments, Posts and Struts</i>							Sqm
	Column upto Plinth, Size (200x200)	447	4	0.250	.....	0.750	335.25	
	Column upto Plinth, Size (200x200)	129	4	0.250	.....	0.500	64.50	
	Column Above Plinth, Size (200x200)	576	4	0.250	.....	1.800	1036.80	
							Total Qty=	1436.55 Sqm

6.0	MASONRY WORK							
6.1	<i>Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:</i>							
6.1.2	<i>Cement mortar 1:6 (1 cement : 6 coarse sand)</i>							Cum
	<i>For Maintain the Earth Pressure, Consider the Avg Height of 0.45M above the Tie Beam</i>	1	1	1276.00	0.230	0.450	132.07	
							Total Qty=	132.07 Cum

6.0	MASONRY WORK							
6.13	<i>Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.</i>							
6.13.2	<i>Cement mortar 1:4 (1 cement :4 coarse sand)</i>							Sqm
	Total Length of Wall	1	1	1276.00	.....	1.350	1722.60	
							Total Qty=	1722.60 Sqm

DETAIL MEASUREMENT

Page No.....

CPWD SCHEDULE (2020-21)	DESCRIPTION OF WORK	NO	NO	QUANTITY			TOTAL QTY	UNIT
				LENGTH	BREADTH	HEIGHT		
13.0	<i>FINISHING</i>							
	<i>CEMENT PLASTER (IN FINE SAND)</i>							
13.1	<i>12 mm cement plaster of mix :</i>							
13.1.2	<i>1:6 (1 cement: 6 fine sand)</i>							Sqm
	Wall (Plain Surface) Area [88.44M+43.60M]	1	1	1276.00	.....	1.800	2296.80	
	Column's Side Area	2	576	0.13	.....	1.350	194.40	
	Column's Front Area	1	576	0.25	.....	1.800	259.20	
	Copping Top Surface Area	1	2	1420.00	.....	0.150	426.00	
							Total Qty=	3176.40 Sqm

13.0	<i>FINISHING</i>							
	<i>CEMENT PLASTER (IN FINE SAND)</i>							
13.2	<i>15 mm cement plaster on the rough side of single or half brick wall of mix :</i>							
13.2.2	<i>1:6 (1 cement: 6 fine sand)</i>							Sqm
	Wall (Rough Surface) Area	1	1	1276.00	.....	1.800	2296.80	
							Total Qty=	2296.80 Sqm

13.0	<i>FINISHING</i>							
	<i>Finishing walls with water proofing cement paint of</i>							
13.4	<i>Finishing walls with water proofing cement paint of required shade</i>							
13.44.1	<i>New work (Two or more coats applied @ 3.84 kg/10 sqm)</i>							Sqm
	Qty B/F from Item No:- 13.1.2						3176.40	
	Qty B/F from Item No:- 13.2.2						2296.80	
							Total Qty=	5473.20 Sqm

16.0	<i>ROAD WORK</i>							
16.2	<i>Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.</i>							Kg
	"Y" Angle < 50x50x5mm Thk for Fencing Work	1	576	1.10	3.800	2407.68	
							Total Qty=	2407.68 Kg

DETAIL MEASUREMENT

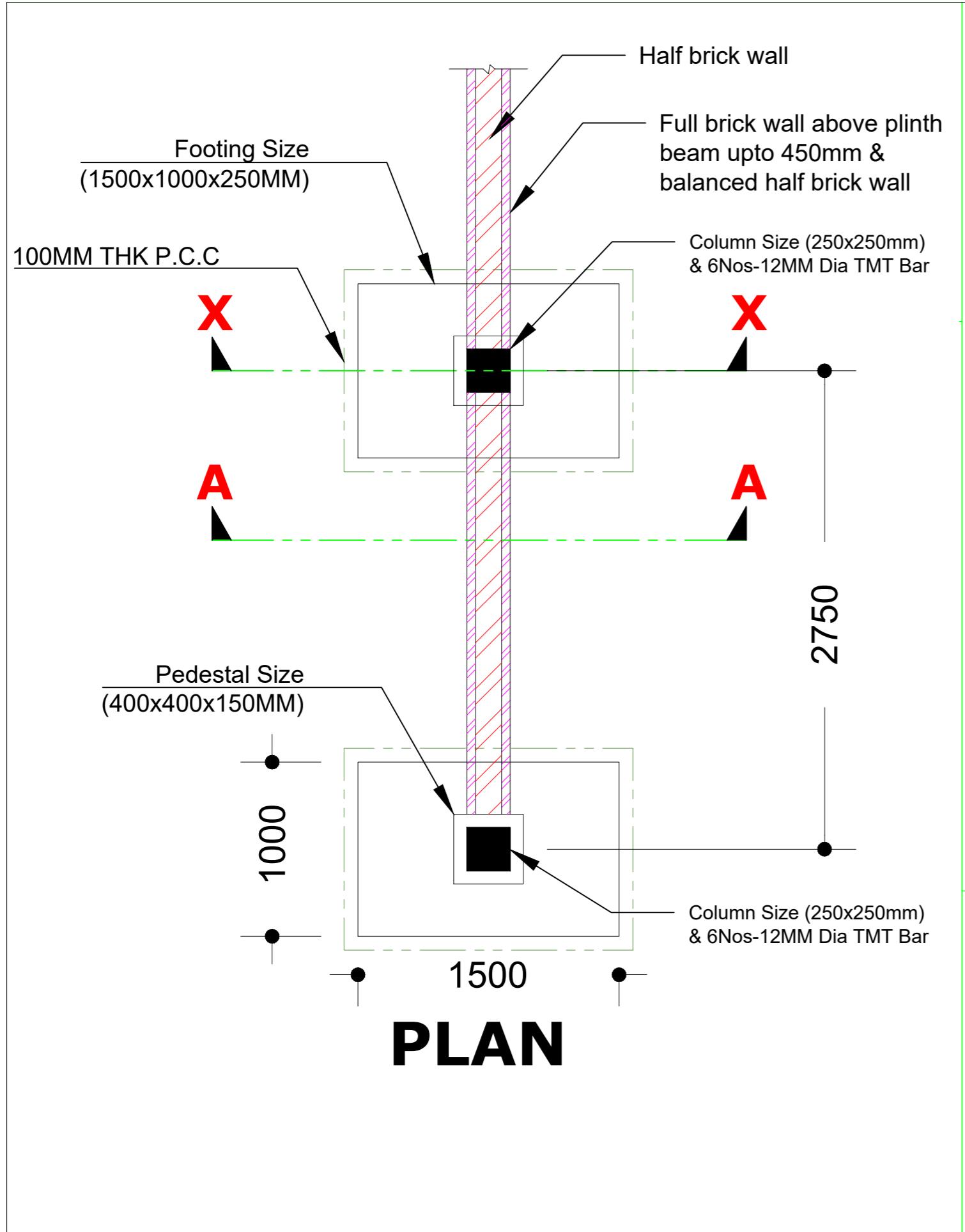
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CPWD SCHEDULE (2020-21)	DESCRIPTION OF WORK	NO	NO	QUANTITY			TOTAL QTY	UNIT
				LENGTH	BREADTH	HEIGHT		
16.0	ROAD WORK							
16.5	<i>Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately</i>							RM
	Total Length of the Wall	1	1	1420.00	.....	.....	1420.00	
					Total Qty=		1420.00	RM

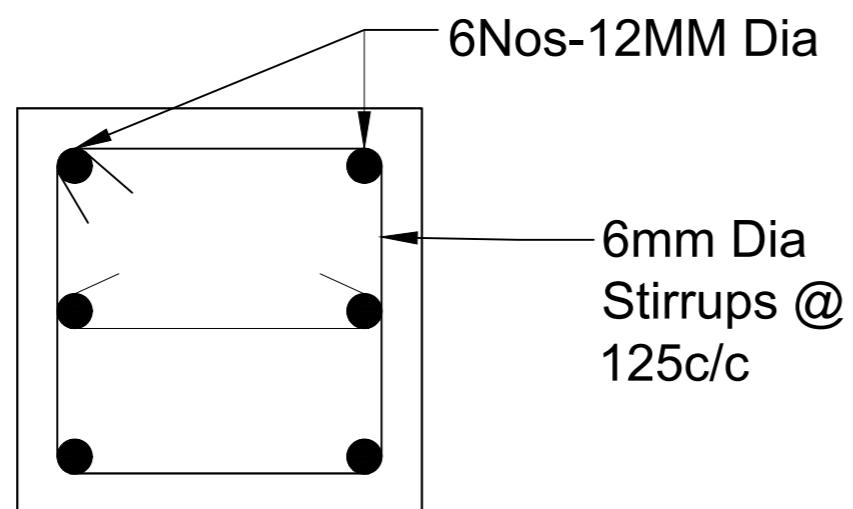
20.0	PILE WORK							
20.2	<i>Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note: Truck Mounted rotary/TMR/Tubewell boring machine shall not be used .</i>							
	<i>300 mm dia piles</i>						RM	
	Total Length	108	2	6.00	1296.00	
					Total Qty=	1296.00	RM	

REINFORCEMENT FOR CONSTRUCTION OF NEW BOUNDARY WALL											
SL NO	DESCRIPTION OF ITEM	DIA OF BAR	No of Member	No of Bar	No of Bar	CUTTING LENGTH+LA P LENGTH (Where needed)	DIAWISE TOTAL LENGTH IN METER				
							6MM	8MM	10MM	12MM	16MM	20MM
	<u>ITEM NO:- 5.22.</u> Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto & above plinth level.										
	<u>5.22.6.</u> Thermo-Mechanically Treated bars of grade Fe-500D or more										
1	FOR FOOTING										
	For Footing Mkd-F1 (1500x1000x250), Main bar, @125mm c/c	10	396	1	12	1.000			4752.00		
	Distribution bar, @125mm c/c	10	396	1	8	1.500			4752.00		
2	FOR PILE CAP										
	For Footing Mkd-P1 (1800x1200x500), Top Main bar, @125mm c/c	12	108	1	16	1.900			3283.20		
	Top Distribution bar, @125mm c/c	12	108	1	10	2.500			2700.00		
	Bottom Main bar, @125mm c/c	12	108	1	16	1.900			3283.20		
	Bottom Distribution bar, @125mm c/c	12	108	1	10	2.500			2700.00		
	Hoop Reinforcement	10	108	1	3	6.200			2008.80		
3	FOR COLUMN										
	For Col (250x250), Main Bar	12	576	1	6	3.200			11059.20		
	Stirrups, @125mm c/c	6	576	1	30	0.830	14342.40				
4	FOR TIE BEAM										
	BEAM Size (250x350)										
	Top Main	12	1	1	3	1420.000			4260.00		
	Lapping	12	1	1	130	0.600			78.00		
	Bottom Main	12	1	1	2	1420.000			2840.00		
	Lapping	12	1	1	130	0.600			78.00		
	Stirrups, @125mm c/c	6	1	1	11360	1.150	13064.00				
4	FOR COPPING										
	Size (150x150)										
	Top Main	8	1	1	2	1420.000		2840.00			

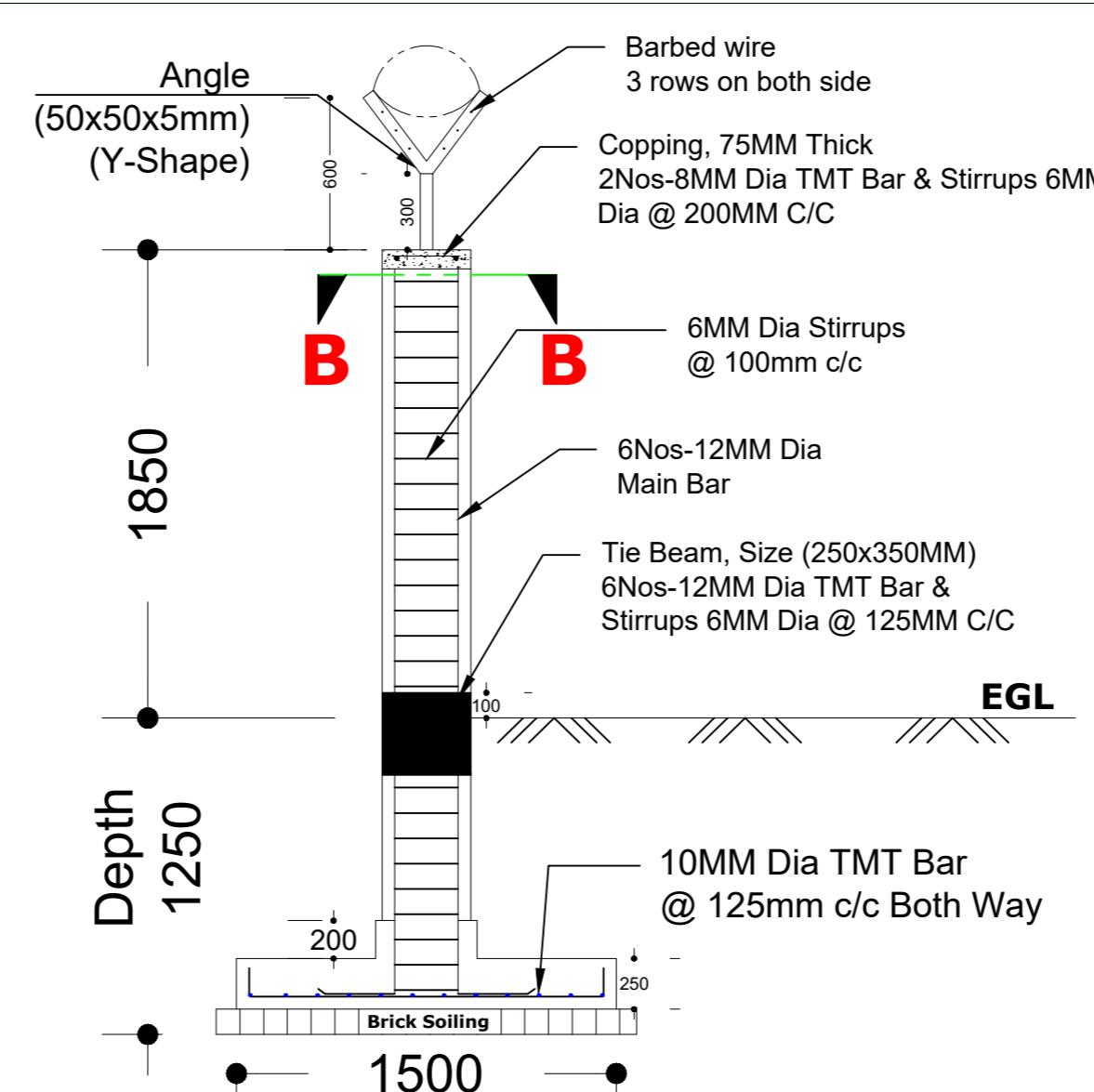
REINFORCEMENT FOR CONSTRUCTION OF NEW BOUNDARY WALL												
SL NO	DESCRIPTION OF ITEM	DIA OF BAR	No of Member	No of Bar	No of Bar	CUTTING LENGTH+LA P LENGTH (Where needed)	DIAWISE TOTAL LENGTH IN METER					
							6MM	8MM	10MM	12MM	16MM	20MM
5	FOR PILING WORK [300mm Dia]											
	Main Vt Bar	12	108	1	8	6.000				5184.00		
	Stirrups, @125mm c/c	8	108	1	49	1.200		6350.40				
Total Length in meter=							27406.40	9190.40	11512.80	35465.60	0.00	0.00
Unit weight of steel per meter=							0.222	0.395	0.617	0.888	1.580	2.470
Total Weight in Kg=							6084.22	3630.21	7103.40	31493.45	0.00	0.00
Grand Total Quantity in Kg=							48311.00					



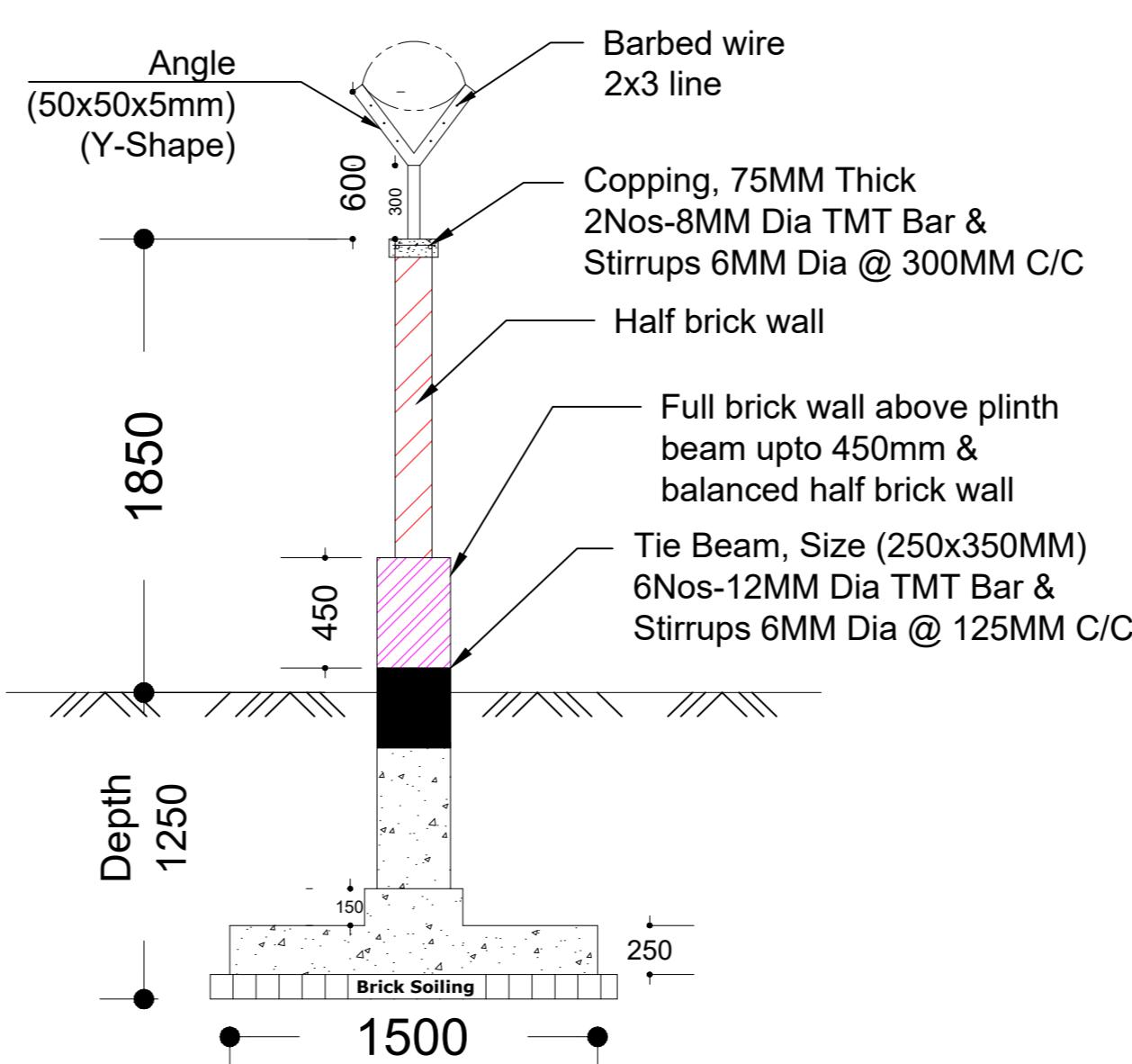
PLAN



COLUMN SECTION AT B-B



SECTION AT X-X



SECTION AT A-A

PROPOSED DRAWING IS SUITABLE ONLY FOR HARD SOIL STRATA

SPECIFICATION :-----

1. R.C.C MIX M-20 (1 Cement : 1.5 Sand : 3 Stone Chips of 20mm size) SHALL BE USED FOR ALL RCC WORK.
2. CLEAR COVER TO OUTER BARS SHALL BE AS FOLLOW-----
FOR FOOTING 50MM, FOR COLUMNS 40MM & BEAM 25MM
3. LAP LENGTH FOR ALL BARS SHALL BE 50 X DIA OF BARS
4. HIGH STRENGTH DEFORMED BARS OF YIELD STRENGTH 500 N/Sq.mm SHALL BE USED AS REINFORCEMENT FOR ALL RCC WORK.
5. ALL DIMENSION ARE IN MILLIMETER OTHERWISE MENTION
6. 100MM THICK P.C.C MIX (1 Cement : 3 Sand : 6 Stone Chips of 20mm size) SHALL BE PROVIDE BELOW THE BEAM& FOOTINGS.
7. 12MM THK CEMENT PLASTER (1:6) PROVIDE IN EVEN SURFACE & 15MM THK CEMENT PLASTER (1:6) PROVIDE IN ROUGHT SURFACE OF WALL

PROJECT TITLE:-

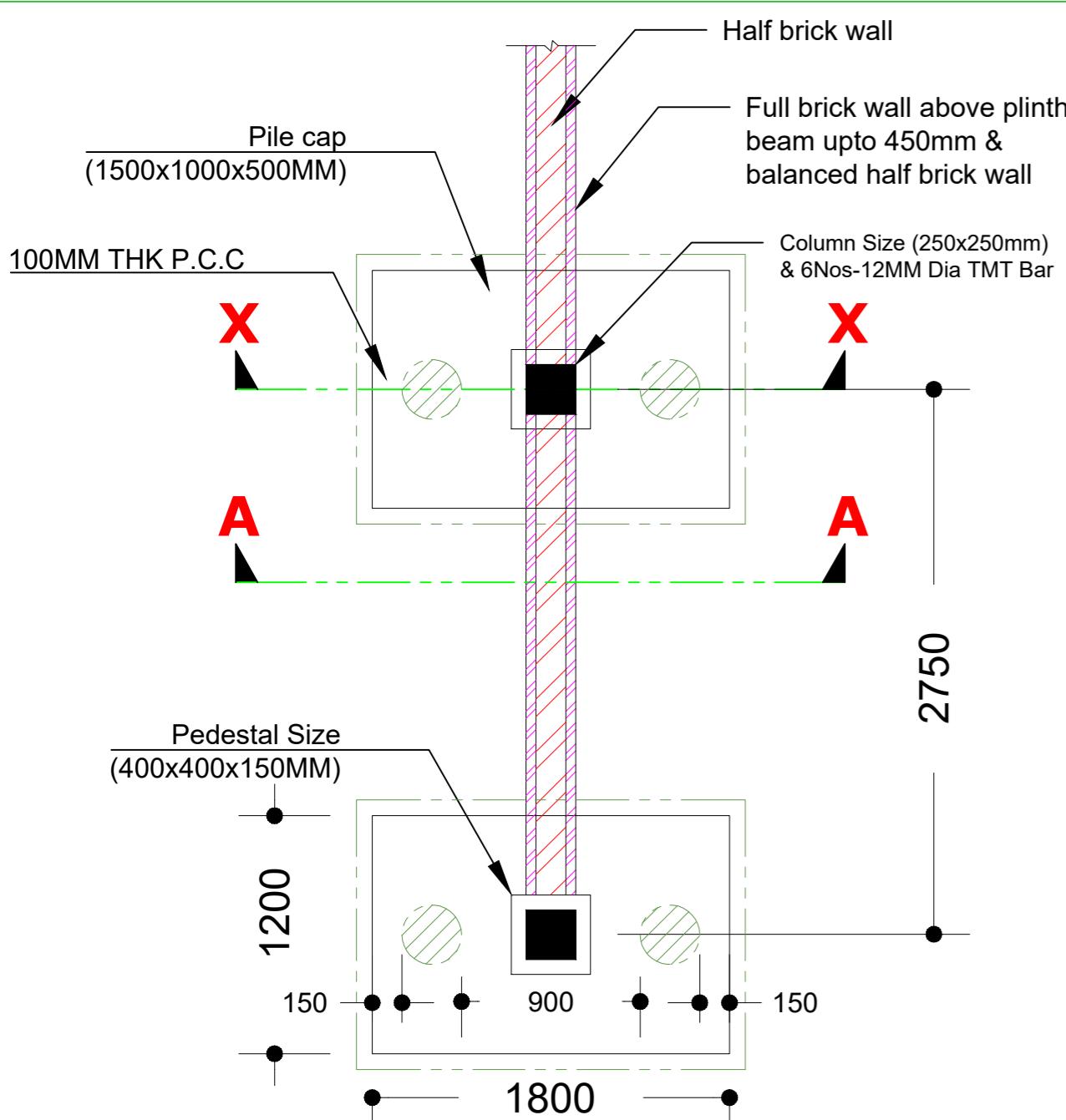
CONSTRUCTION OF BOUNDARY WALL AT SISHUGRAM, NORTH GUWAHATI.

CLIENT:- SISHUGRAM NORT GUWAHATI

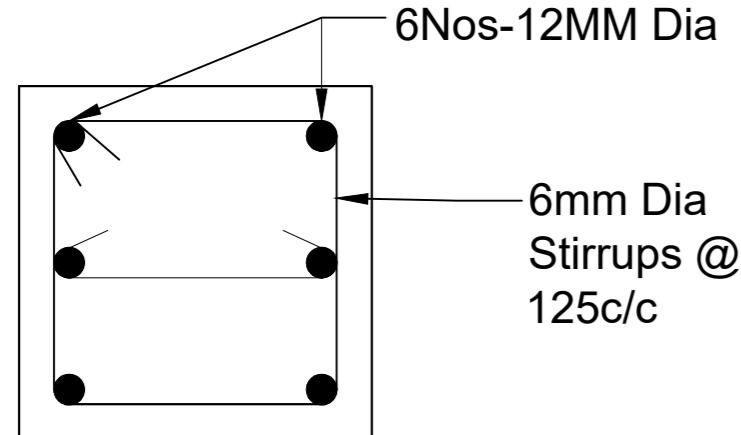
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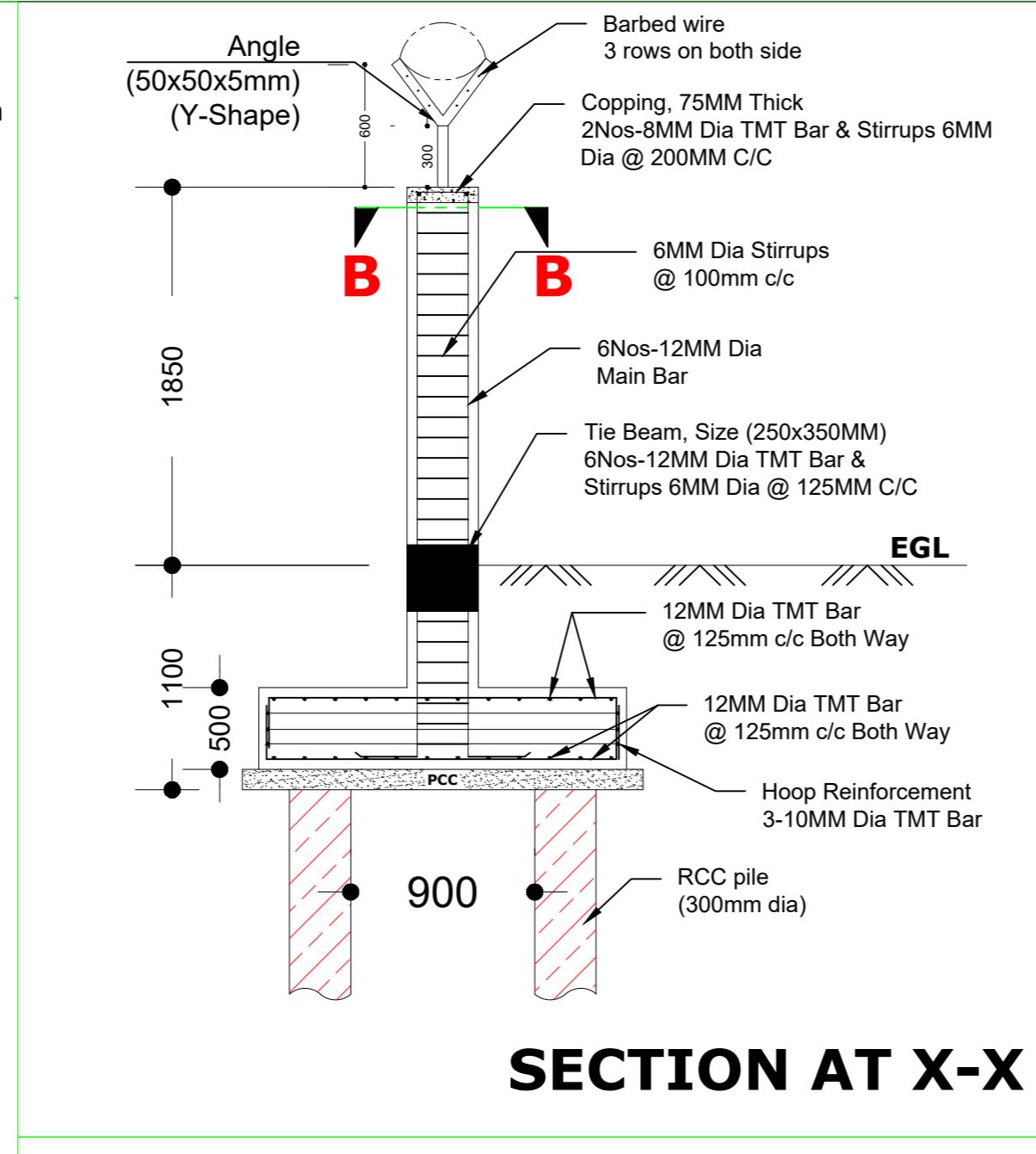
PART-1



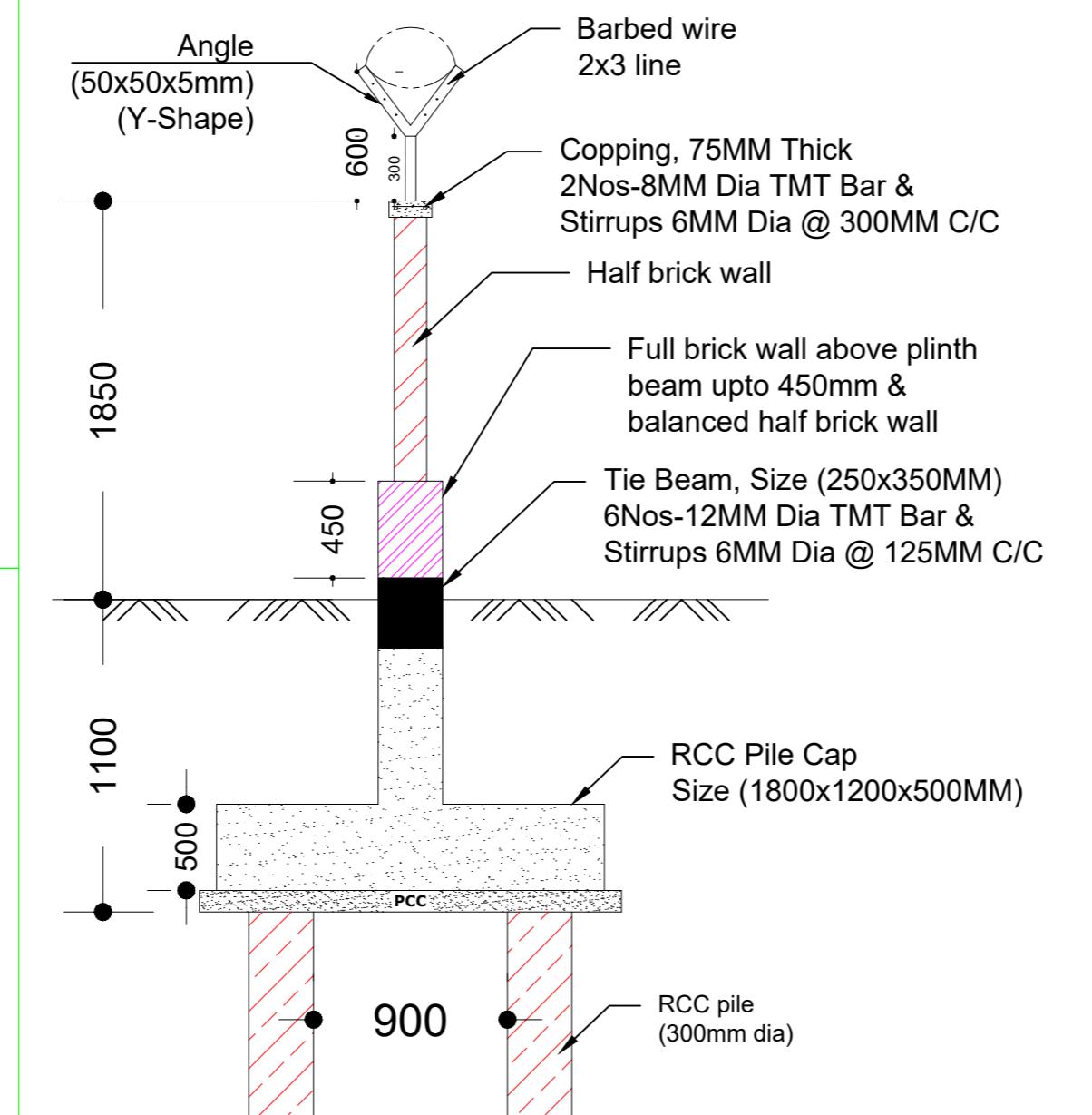
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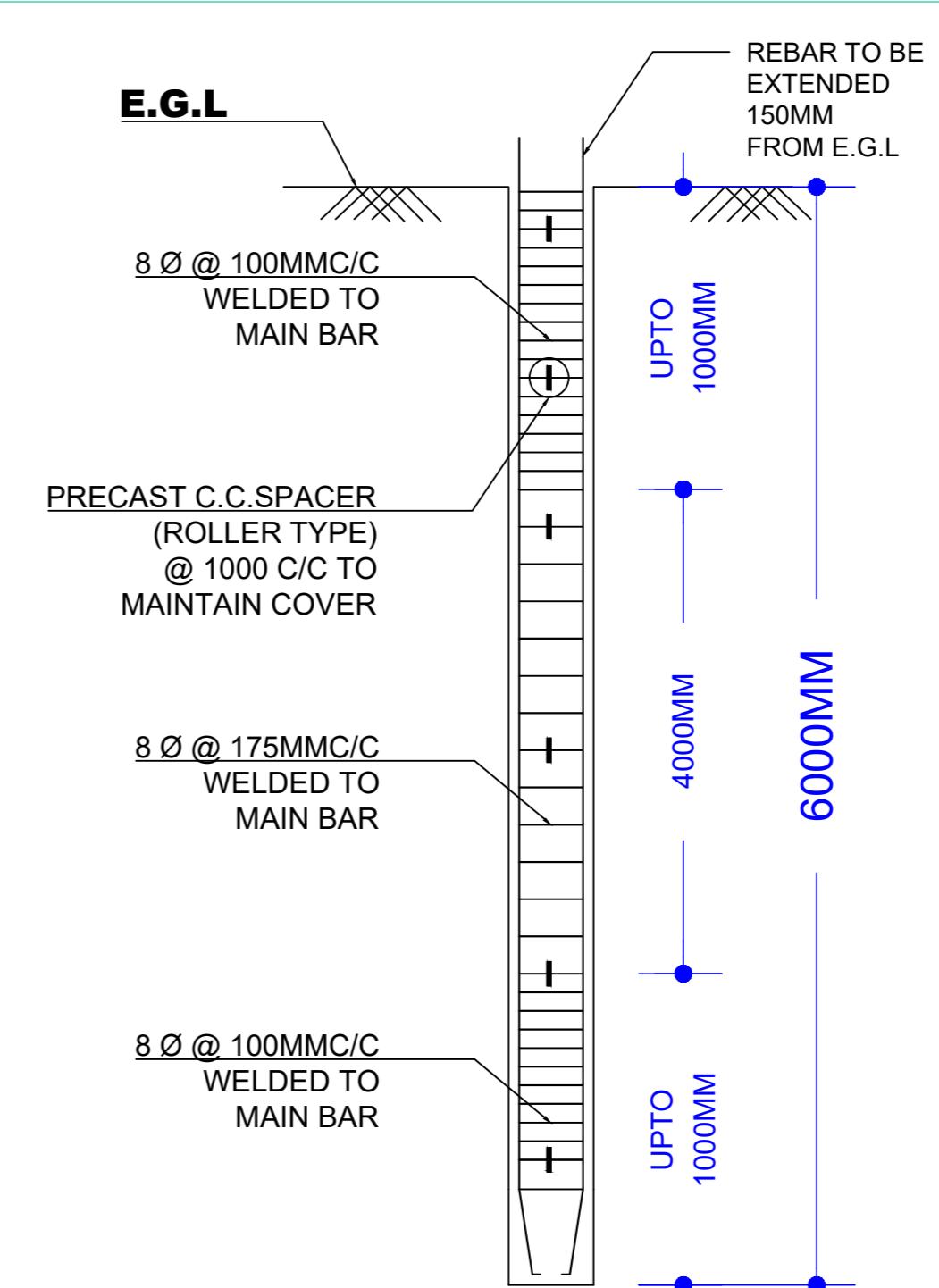
COLUMN SECTION AT B-B



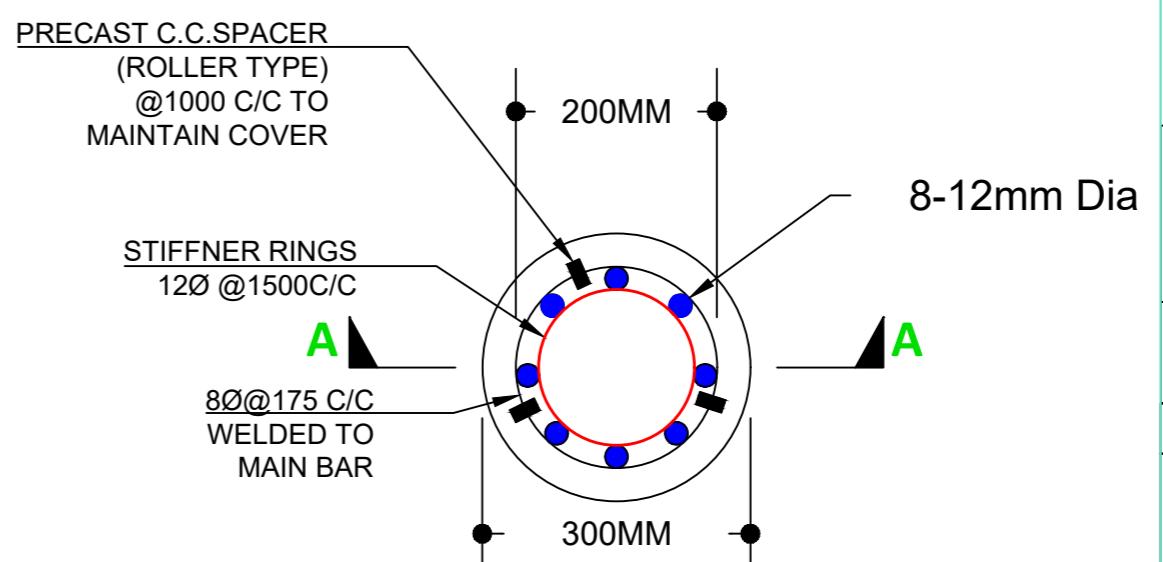
SECTION AT X-X



SECTION AT A-A



PILE LONG SECTION THROUGH A-A (300 Ø PILE)



PILE CROSS SECTION (300 Ø PILE)

SPECIFICATION :-----

1. R.C.C MIX M-20 (1 Cement : 1.5 Sand : 3 Stone Chips of 20mm size) SHALL BE USED FOR ALL RCC WORK.
2. CLEAR COVER TO OUTER BARS SHALL BE AS FOLLOW-----
FOR FOOTING 50MM, FOR COLUMNS 40MM & BEAM 25MM
3. LAP LENGTH FOR ALL BARS SHALL BE 50 X DIA OF BARS
4. HIGH STRENGTH DEFORMED BARS OF YIELD STRENGTH 500 N/Sq.mm SHALL BE USED AS REINFORCEMENT FOR ALL RCC WORK.
5. ALL DIMENSION ARE IN MILLIMETER OTHERWISE MENTION
6. 100MM THICK P.C.C MIX (1 Cement : 3 Sand : 6 Stone Chips of 20mm size) SHALL BE PROVIDED BELOW THE BEAM& FOOTINGS
7. 12MM THK CEMENT PLASTER (1:6) PROVIDE IN EVEN SURFACE & 15MM THK CEMENT PLASTER (1:6) PROVIDE IN ROUGH SURFACE OF WALL

8. CLEAR COVER IN PILE SHALL BE 50MM (ROLLER TYPE COVER BLOCK TO BE USED)
9. NOT MORE THAN HALF OF TOTAL NOS OF BAR SHALL BE LAPPED AT ANY SECTION.
10. BENTONITE SLURRY SHOULD BE USED IF THE BORE HOLES ARE UNSTABLE, HAVING TENDENCY TO CAVE IN.
11. ALL LONGITUDINAL REINFORCEMENT IN PILES SHAFTS TO BE OF GRADE Fe-500 HYS/ TMT BAR. TRANSVERSE REINFORCEMENT (8MM DIA) SHALL BE WELDED TO THE MAIN REINFORCEMENT.
12. CONCRETE MIX IN PILE SHALL BE OF M-20 GRADE WITH MINIMUM CEMENT CONCRETE OF 400KG/CUM OF CONC.
13. CUTOFF LEVEL OF PILES IS TAKEN AS 1.00MTR FROM E.G.L
14. THIS DRAWING SHALL BE ONLY FOR PILE FOUNDATION WORK.

PROJECT TITLE:-

CLIENT:- SISHUGRAM NORT GUWAHATI

DATE:- 25-JANUARY-2025

CREATIVE ENGINEERS
(Engineering Consultancy & Construction Firm)
NORTH GUWAHATI-30
PH NO. 7002097820
Firm Reg No:- RF/KAM(R)/185/B/01 OF 2023-24
GST No: 18AAPEC0055C1ZP

THIS DRAWING IS A PROPERTY OF DESIGNER. COPY OR MODIFICATION TO BE DONE ONLY WITH THE WRITTEN PERMISSION OF THE DESIGNER.

PROPOSED DRAWING IS SUITABLE ONLY FOR POOR SOIL STRATA

PART-2

THANK YOU



CREATIVE ENGINEERS

(Engineering Consultancy & Construction Firm)

REGISTERED OFFICE AT

NORTH GUWAHATI, MAJGAON

NEAR NORTH GUWAHATI VETERINARY HOSPITAL

NORTH GUWAHATI-781030

FIRM REG NO:- RF/KAM (R)/185/B/01 OF 2023-24

GST NO:- 18AARFC0055C1ZP

PHONE:- 7002097820

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8. *Surveying.*
9. *Soil Testing & Pile Load Testing Work.*
10. *Building Permission Drawing **[GMDA / GMC / NGMB/GP/ALL ASSAM]***
11. *Technical Supervision for your Building*