

SCHEDULE OF WORK

Stat _____ Division _____
 Branch _____ Sub-Division _____
 Name of Work : Construction of drain and C.C. road with chain link fencing along the boundary wall from Charkhi gate to Chandel Gate at IIT Kanpur.

ITEM	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1	CARRIAGE OF MATERIALS					
1.1	Carriage of material by Mechanical Transport including loading, unloading and stacking					
1.1.1	Earth - Lead 2 Km	3000	cum	111.50	(Rupees One Hundred Eleven and Fifty Paise only)	3,34,500.00
1.1.2	Manure or sludge - Lead 5 Km	750	cum	129.71	(Rupees One Hundred Twenty Nine and Seventy One Paise only)	97,283.00
	Sub-Total					4,31,783.00
2	EARTH WORK					
2.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in-Charge:					
2.1.1	All kinds of soil	2000	sqm	53.00	(Rupees Fifty Three only)	1,06,000.00
2.2	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.					
2.2.1	All kinds of soil	7000	cum	125.95	(Rupees One Hundred Twenty Five and Ninety Five Paise only)	8,81,650.00
2.3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.					
2.3.1	All kinds of soil.	240	cum	166.40	(Rupees One Hundred Sixty Six and Fourty Paise only)	39,936.00
2.4	Extra rates for quantities of works, executed : Note for item no. 2.24:- The extra percentage rate is applicable in respect of each item but					

limited to quantities of work executed in these difficult conditions. The unit, namely, metre depth, to be considered for payment, shall be the depth measured from the sub soil water level upto the centre of gravity of the quantity executed in difficult conditions. The depth shall be reckoned correct to 0.1 metre. 0.05 metre or more shall be taken as 0.1 metre and less than 0.05 metre ignored.

2.4.1	In or under water and/or liquid mud, including pumping out water as required.	150	metre depth	33.28	(Rupees Thirty Three and Twenty Eight Paise only)	4,992.00
2.5	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.	4000	cum	125.75	(Rupees One Hundred Twenty Five and Seventy Five Paise only)	5,03,000.00
2.6	Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.					
2.6.1	All kinds of soil	1500	cum	51.75	(Rupees Fifty One and Seventy Five Paise only)	77,625.00
2.7	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.					
2.7.1	All kinds of soil	4000	sqm	13.95	(Rupees Thirteen and Ninety Five Paise only)	55,800.00
2.8	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	2500	sqm	7.20	(Rupees Seven and Twenty Paise only)	18,000.00
	Sub-Total					16,87,003.00
3	CONCRETE WORK					
3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
3.1.1	1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size).	40	cum		(Rupees Five Thousand Four Hundred Eighty One and Ninety Five Paise only)	2,19,278.00
3.1.2	1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)	280	cum		(Rupees Four Thousand Four Hundred Seventy Eight and Fifteen Paise only)	12,53,882.00
3.2	Providing and laying cement concrete in retaining walls, return walls,					

walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing :

3.2.1	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	20	cum		(Rupees Six Thousand Five Hundred Fourty Seven and Seventy Paise only)	1,30,954.00
	Sub-Total					16,04,114.00
4	REINFORCED CEMENT CONCRETE					
4.1	Centering and shuttering including strutting, propping etc. and removal of form for:					
4.1.1	Foundations, footings, bases of columns, etc. for mass concrete	400	sqm	193.95	(Rupees One Hundred Ninety Three and Ninety Five Paise only)	77,580.00
4.1.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	8150	sqm	378.60	(Rupees Three Hundred Seventy Eight and Sixty Paise only)	30,85,590.00
4.1.3	Suspended floors, roofs, landings, balconies and access platform	21	sqm	422.30	(Rupees Four Hundred Twenty Two and Thirty Paise only)	8,868.00
4.1.4	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	190	sqm	193.95	(Rupees One Hundred Ninety Three and Ninety Five Paise only)	36,851.00
4.2	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in shelves, including setting in cement mortar 1:3 (1cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	170	cum		(Rupees Twelve Thousand Seven Hundred Twenty Six and Fifty Five Paise only)	21,63,514.00
4.3	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					
4.3.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	82000	Kg	56.60	(Rupees Fifty Six and Sixty Paise only)	46,41,200.00
4.4	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of					

concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).

4.4.1	All works upto plinth level	890	cum		(Rupees Six Thousand Four Hundred Fourty Six and Fourty Five Paise only)	57,37,341.00
	Sub-Total					
5	BRICK WORK					
5.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					
5.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	95	cum		(Rupees Four Thousand Seven Hundred Fifty One and Sixty Five Paise only)	4,51,407.00
5.2	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in:					
5.2.1	Cement Mortar 1:6 (1 cement : 6 coarse sand).	8	cum		(Rupees Four Thousand Four Hundred and Fifty Paise only)	35,204.00
	Sub-Total					4,86,611.00
6	STEEL WORK					
6.1	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	12500	kg	67.60	(Rupees Sixty Seven and Sixty Paise only)	8,45,000.00
	Sub-Total					8,45,000.00
7	ROOFING					
7.1	Providing and fixing on wall face unplasticised 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.					
7.1.1	110 mm diameter	90	metre	236.35	(Rupees Two Hundred Thirty Six and Thirty Five Paise only)	21,272.00
	Sub-Total					21,272.00
8	FINISHING					
8.1	12 mm cement plaster of mix :					
8.1.1	1:6 (1 cement: 6 coarse sand)	1800	sqm	168.25	(Rupees One Hundred Sixty Eight and Twenty Five Paise only)	3,02,850.00

8.2	15 mm cement plaster on rough side of single or half brick wall of mix:					
8.2.1	1:6 (1 cement: 6 coarse sand)	300	sqm	194.60	(Rupees One Hundred Ninety Four and Sixty Paise only)	58,380.00
8.3	Finishing walls with Acrylic Smooth exterior paint of required shade :					
8.3.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	500	sqm	96.05	(Rupees Ninety Six and Five Paise only)	48,025.00
8.4	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :					
8.4.1	Two or more coats on new work	950	sqm	78.40	(Rupees Seventy Eight and Fourty Paise only)	74,480.00
	Sub-Total					4,83,735.00
9	DISMANTLING & DEMOLISHING					
9.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.					
9.1.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	2	cum	997.05	(Rupees Nine Hundred Ninety Seven and Five Paise only)	1,994.00
9.1.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	4	cum	615.15	(Rupees Six Hundred Fifteen and Fifteen Paise only)	2,461.00
9.2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.					
9.2.1	In cement mortar	4	cum	842.75	(Rupees Eight Hundred Fourty Two and Seventy Five Paise only)	3,371.00
	Sub-Total					7,826.00
10	ROAD WORK					
10.1	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.	3600	sqm	90.10	(Rupees Ninety and Ten Paise only)	3,24,360.00
10.2	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m					

(minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.

10.2.1	With G.I. barbed wire	4400	metre	12.65	(Rupees Twelve and Sixty Five Paise only)	55,660.00
10.3	"Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately). Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately		cum			
10.3.1	Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	550	cum		(Rupees Seven Thousand One Hundred Sixty and Fourty Paise only)	39,38,220.00
10.4	Providing and fixing in position pre-moulded joint filler in expansion joints.	19500	per cm depth per cm width	2.20	(Rupees Two and Twenty Paise only)	42,900.00
10.5	Providing and laying in position bitumen hot sealing compound for expansion joints etc.					
10.5.1	Using grade 'A' sealing compound.	19500	Per cm depth per cm width	2.20	(Rupees Two and Twenty Paise only)	42,900.00
10.6	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.					
10.6.1	Made of G.I. wire of dia 4 mm	900	sqm	561.70	(Rupees Five Hundred Sixty One and Seventy Paise only)	5,05,530.00

10.7	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 specifications, 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, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer- in-charge.	1100	cum		(Rupees Three Thousand Three Hundred Thirty One and Ninety Five Paise only)	36,65,145.00
	Sub-Total					85,74,715.00
11	MINOR CIVIL MAINTENANCE WORK.					
11.1	Filling Joints of brick work with cement mortar 1:6 (1 cement: 6 coarse sand)	700	Sqm	52.00	(Rupees Fifty Two only)	36,400.00
	Sub-Total					36,400.00
	Total					
					Total	2,99,29,403.00
					Sav	2,99,29,403.00
					(Rupees Two Crores Ninety Nine Lakh Twenty Nine Thousand Four Hundred Three only)	

Junior Engineer

Assistant Engineer

Executive Engineer