

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
			General Notes : All the works are to be carried out as per latest specifications of CPWD/MES/Indian Railways/State PWD, and relevant IS Codes unless otherwise specified in BOQ. Measurements of all the items shall be taken as per detailed specifications of the various items mentioned in CPWD specifications. In the absence of such specifications mode of Measurements as per IS 1200 with its latest revisions will be followed. Unless otherwise specified, the rates of various items will be for all heights, leads and lifts. It is deemed that tenderer has understood the intent of the item of work to be completed and cost(s) of item quoted, is worked out to include the cost of all labour & materials and to complete the item of work irrespective of completeness of the description.			
			Note: A) In case any specific method of measurement for any item is not mentioned, IS 1200 shall be followed for the purpose of measurement and certification. B) This BOQ shall be read in conjunction with Technical Specification.			
			General Notes: All levels mentioned in tender/GFC drawing are with respect to existing ground level at site or, for trenches and pits, the bottom of mass excavation, whichever deeper. At the time of handing over the site to the Contractor, if in case, any variation, discrepancy between Good For Construction(GFC)/tender drawings and existing site conditions is noticed, the same should be brought to the notice of Engineer-in Charge/ Architects/Consultants in writing.			
			Levels are to be taken before and after excavation and as directed by Engineer-in-charge for calculating the depth of excavation.			
			Rate shall include marking the areas to be excavated, setting up the reference datum bench mark, establishing interim and final excavation levels with appropriate survey instruments, carrying out excavation in the specified type of soil, inclusive of de-watering to keep the area clear from water ponding at all times to the required depth and profile . Rate shall include for breaking and removing old foundations with or without reinforcement, underground tanks, floor concrete, sewers, pipelines etc. and carting away the debris. Rate shall be inclusive of shoring, strutting, removal of slurry, dewatering, including stacking of good excavated earth anywhere within site premises and backfilling in layers of 300mm to achieve 95 % MDD as approved by Engineer in charge, include all other incidental charges. (Note: Working space and extra space for side slope soil stabilization will not be measured and paid for). Payments will be made only on the volume of earth excavated as per GFC drawings.			
			Contractor shall use the latest mechanical means of excavation suitable to achieve the required excavation level within the agreed time period. All such equipment mobilized on the site shall be in perfectly working condition, well maintained, ensuring no down time during the entire agreed working period. A list of all such equipment, manpower, machinery and the proposed infrastructure that the contractor is going to mobilize for the work shall be submitted to the Engineer in charge before start of work for his approval.			
			The final approved founding strata shall be left absolutely clean by removing loose, slushy soil, murrum and weathered rock with necessary tools & tackles, cleaning the surface by wire brush and carting away debris, dewatering to keep site dry at all times etc. all complete to the approval of Engineer in charge.			
			Contractor's rates shall include fees for all statutory sanction and royalties for any kind of disposal.			
			Quoted rate shall include for cost of materials, labour, loading and unloading charges, hire of machinery, tools & plants, shoring, strutting, dewatering, removal of slurry, fuel charges, transportation, scaffolding and all other incidental charges etc., with all leads and lifts as specified in respective items of work, complete and as directed by the Engineer-in-charge at all levels.			
			If the Excavation for foundation is done to a depth greater than that shown in the drawings or as required by the Engineer -In- Charge, the excess depth shall be made good by the contractor at his own cost with the concrete of the mix used for levelling / bed concrete for foundations. No Payment shall be made to contractor for the cost of Additional Concrete required to fill up the extra depth of excavation in such cases.			
	<u>1</u>		Pile work			

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1.001	20.2.3	6591	Boring, providing and installing 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 lifts and leads (Length of pile for payment shall be measured up to bottom of pile cap). (a) : 450 mm dia piles	Metre	1,665.35	109,76,321.85		
1.002	20.2.4	105	(b) :500 mm dia piles	Metre	1,953.85	2,05,154.25		
1.003	20.2.5	96022	(c) : 600 mm dia piles	Metre	2,671.00	2564,74,628.45		
1.004	20.2A.1	16945	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below 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 Crawler mounted, telescopic boom hydraulic pilling Rig 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). 600 mm dia piles	Metre	3,629.25	614,97,822.71		
1.005	20.6.1.1	15	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge. Note: 1. Initial and Routine Load Test shall not be carried out by Dynamic method of testing. Note: 2. Testing agency shall submit the design of loading platform for the approval of Engineer-in-charge. (a) : Initial test (Test Load 2.5 times the safe capacity)	Per test	38,561.80	5,78,427.00		
1.006	20.6.1.2	117	(b) :Routine test (Test Load 1.5 times the safe capacity)	Per test	17,422.50	20,38,432.50		
1.007	20.6.2.1	12	Single pile above 50 tonne and up to 100 tonne capacity (a) : Initial test (Test Load 2.5 times the safe capacity)	Per test	46,808.45	5,61,701.40		
1.008	20.6.2.2	12	(b) :Routine test (Test Load 1.5 times the safe capacity)	Per test	26,714.50	3,20,574.00		
1.009	20.8.1	15	Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile : (a) :Up to 50 tonne capacity pile	Per test	17,422.50	2,61,337.50		
1.010	20.8.2	14	(b) : Above 50 tonne and up to 100 tonne capacity pile	Per test	27,411.40	3,83,759.60		
1.011	20.9	44	Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge.	Per test	745.50	32,802.00		
11			Subtotal of SOR Pile Work			3333,30,961.26		
	2		Earth work					
2.001	2.1.1	3023	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed : All kinds of soil	100 Sqm	5,044.15	152,48,465.45		
2.002	2.6.1	202950	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 disposal of excavated earth lead up to 50m and lift up to 1.5m, disposed soil to be levelled and neatly dressed : All kinds of soil	Cum	155.60	315,79,020.00		

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2.003	2.8.1	34928	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 up to 1.5m, including getting out the excavated soil and disposal surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	Cum	157.50	55,01,160.00			
2.004	2.3.1	373429	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead up to 50 m and lift up to 1.5 m : All kinds of soil.	Cum	241.70	902,57,789.30			
2.005	2.4	1350	Deduct for not rolling with power roller of minimum 8 tonnes for banking excavated earth in layers not exceeding 20 cm in depth.	Cum	3.00	-4,050.00			
2.006	2.25	80448	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, compacting each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	Cum	112.40	90,42,355.20			
2.007	2.26.1	122190	Extra for every additional lift of 1.5 m or part thereof in excavation (Item no. 2.6., 2.8.1,2.10.1) / banking excavated or stacked materials. All kinds of soil.	Cum	46.25	56,51,285.27			
2.008	2.27	13544	Supplying and filling in plinth with Clean Coarse sand under floors, including watering, ramming, compacting and dressing complete.	Cum	910.25	123,28,426.00			
2.009	2.36	1500	Deduct for disposed soil not levelled and neatly dressed.	Cum	33.95	-50,925.00			
2.010	1.1.2	142375	Carriage of Earth with mechanical Transport (a) up to 1 km Including Loading, Unloading and stacking	Cum	99.44	141,57,770.00			
2.011	1.1.2	240	Carriage of Earth with mechanical Transport (b) up to 2 km Including Loading, Unloading and stacking	Cum	113.29	27,189.60			
2.012	2.31	1391	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	100 Sqm	642.00	8,93,022.00			
2.013	2.33.1	15	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. (a) : Beyond 30 cm girth up to and including 60 cm girth	Nos	196.70	2,950.50			
2.014	2.33.2	50	(b) : Beyond 60 cm girth up to and including 120 cm girth	Nos	871.10	43,555.00			
2.015	2.33.3	23	(c) : Beyond 120 cm girth up to and including 240 cm girth	Nos	4,029.05	92,668.15			
2.016	2.33.4	1	(d) : Above 240 cm girth	Nos	8,080.45	8,080.45			
16			Subtotal of Earth Work			1847,78,761.92			
	3		Concrete work						
3.001	4.1.10	1444	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : (a) : 1:5:10 (1 Cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	Cum	4,004.00	57,81,776.00			
3.002	4.1.5	215	(b) :1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Cum	4,834.30	10,39,374.50			
3.003	4.1.8	10595	(c) : 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum	4,301.15	455,70,684.25			
3			Subtotal of Concrete Work			523,91,834.75			
	4		Reinforced Cement Concrete work						
4.001	5.9.1	14802	Centering and shuttering including strutting, propping etc. and removal of form for (a) : Foundations, footings, bases of columns, etc. for mass concrete	Sqm	196.45	29,07,852.90			
4.002	5.9.2	138165	(b) : Walls (any thickness) including attached pilasters, buttresses, plinth and string courses & kerb etc.	Sqm	360.80	498,49,932.00			
4.003	5.9.3	47267	(c) : Suspended floors, roofs, landings, balconies and access platform	Sqm	401.65	189,84,790.55			
4.004	5.9.4	230	(d) : Shelves (Cast in situ)	Sqm	401.65	92,379.50			
4.005	5.9.5	53339	(e) : Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	332.15	177,16,548.85			
4.006	5.9.6	32491	(f) : Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	453.35	147,29,794.85			
4.007	5.9.7	4345	(g) : Stairs, (excluding landings) except spiral-staircases	Sqm	395.65	17,19,099.25			
4.008	5.9.9	1440	(h) : Arches, domes, vaults up to 6 m span	Sqm	1,066.30	15,35,472.00			
4.009	5.9.10	1140	(i) : Extra (over item no. 5.9.9)for arches, domes, vaults exceeding 6 m span	Sqm	446.65	5,09,181.00			

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4.010	5.9.14	27012	(j) : Extra for shuttering in circular work	Sqm	80.33	21,69,873.96			
4.011	5.9.15	818	(k) : 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	Sqm	196.45	1,60,696.10			
4.012	5.22.6	7223540	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level. Thermo-Mechanically Treated bars TMT 500 D	Kg	68.10	4919,23,063.78			
4.013	5.22A.6	4500725	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. Thermo-Mechanically Treated bars TMT 500 D	Kg	68.10	3064,99,372.50			
4.014	5.33.1	36989	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. All works up to plinth level	Cum	6,296.15	2328,88,292.35			
4.015	5.33.2	30994	(b) : All works above plinth level up to floor V level	Cum	7,014.55	2174,08,962.70			
4.016	5.34.1	5521	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable /recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC /RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum)	Cum	76.50	4,22,356.50			
4.017	5.34.2	1333	Providing M-35 grade concrete instead of M-25 grade BMC /RMC. (Note : Cement content considered in M-35 is @ 350 kg/cum)	Cum	152.95	2,03,805.88			
4.018	5.34.3	666	Providing M-40 grade concrete instead of M-25 grade BMC /RMC.(Note : Cement content considered in M-40 is @ 360 kg/cum)	Cum	229.45	1,52,871.06			
4.019	5.35	400	Add for using extra cement in the items of design mix over and above the specified cement content therein.	Quintal	742.75	2,96,914.31			
4.020	5.38	133	Extra for R.C.C./ B.M.C/ R.M.C. work above floor V level for each four floors or part thereof.	Cum	174.20	23,212.15			
4.021	5.42.1	1540	Providing and fixing tapered / parallel threaded couplers conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification", to reinforcement bars including threading, enlargement at connection by forging, protecting the prepared reinforcement bars and related operations as required to complete the works per direction of Engineer-in-Charge. (The length of the bars in which coupler is to be provided should not be less than 4 metre, no deduction for labour and binding wire saved for not providing lap length shall be made). (a) : Coupler for 16 mm diameter reinforcement bar	Nos	122.35	1,88,419.00			
4.022	5.42.2	950	(b) :Coupler for 20 mm diameter reinforcement bar	Nos	166.45	1,58,127.50			
4.023	5.42.3	675	(c) :Coupler for 25 mm diameter reinforcement bar	Nos	230.20	1,55,385.00			
4.024	5.42.4	40	(d) :Coupler for 28 mm diameter reinforcement bar	Nos	316.90	12,676.00			
4.025	5.42.5	290	(e) :Coupler for 32 mm diameter reinforcement bar	Nos	367.65	1,06,618.50			
4.026	5.43.2	1086	Providing and fixing in position Stainless steel Grade 304 plate-1.0 mm thick as per design for expansion joints. (a) : 300 mm wide.	Metre	833.00	9,04,638.00			

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4.027	5.44.1	210	Providing and fixing of expansion joint system related with floor location as per drawings and direction of Engineer-In-Charge. The joints system will be of extruded aluminium base members, self aligning / self centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor /floor to wall expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of metal profiles with a universal aluminium base member designed to accommodate various project conditions and finish floor treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self-centering arrangement that freely rotates / moves in all directions. The Self – centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminium extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Provision of Moisture Barrier Membrane in the Joint System to have watertight joint is mandatory requirement all as per the manufactures design and as approved by Engineer -in- Charge . (Material shall confirm to ASTM 6063.) (a) Floor Joint 100 mm Gap	Metre	6,358.55	13,35,295.50
4.028	5.44.2	100	(b) Floor Joint 150 mm Gap	Metre	6,982.85	6,98,285.00
4.029	5.45.1	426	Providing and fixing of expansion joint system related with wall joint (internal/external) location as per drawings and direction of Engineer-In- Charge. The joints shall be of extruded aluminium base members, self aligning / centering arrangement and support plates as per ASTM B221- 02. The material shall be such that it provides an Expansion Joints System suitable for vertical wall to wall/ wall to corner application, both new and existing construction in office Buildings & complexes with no slipping down tendency amongst the components of the Joint System. The Joint System shall utilize light weight aluminium profiles exhibiting minimal exposed aluminium surfaces mechanically snap locking the multicellular to facilitate movement. (Material shall confirm to ASTM 6063.) (a) Wall Joint 100 mm Gap	Metre	5,080.90	21,64,463.40
4.030	5.45.2	350	(b) Wall Joint 150 mm Gap	Metre	5,472.90	19,15,515.00
30			Subtotal of Reinforced Cement Concrete Work			13678,33,895.09
	5		Brick work			
5.001	6.1.2	36275	Brick work with common burnt clay F.P.S. (non modular) bricks of size 230 mm x 110 mm x 70 mm class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	4,677.25	1696,66,594.48
5.002	6.4.2	3781	Brick work with common burnt clay F.P.S. (non modular) bricks of size 230 mm x 110 mm x 70 mm class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	5,426.15	205,16,273.15
5.003	6.13.2	40	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 in Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	665.80	26,632.00
5.004	6.23	113	Honey-comb brick work 10 / 11.4 cm thick with common burnt clay bricks of class designation 7.5 in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand).	Sqm	433.80	49,205.93
5.005	6.44	150	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	Metre	38.15	5,722.50
5.006	6.38	20	Providing and laying autoclaved aerated cement blocks masonry with 100 mm thick AAC blocks in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	Cum	6,386.95	1,27,739.00
5.007	6.5	1123	Extra for brick work / AAC block masonry / Tile brick masonry in superstructure above floor V level, for each four floors or part thereof by mechanical means.	Cum	289.05	3,24,458.63
5.008	6.14	1668	Extra for half brick masonry in superstructure, above floor V level for every four floors or part thereof by mechanical means.	Sqm	25.60	42,690.56
8			Subtotal of Brick Work			1907,59,316.25
	6		Stone work			
6.001	7.1.1	34	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	3,918.10	1,32,235.88

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6.002	7.8.1	26	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor five level Masonry work (first sort) , in cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	5,263.60	1,38,169.50			
6.003	7.32.1	100	Stone work, plain in copings, cornices, string courses and plinth courses, upto 75 mm thick in Cement mortar 1:6 (1 cement : 6 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade. - Red Sandstone	Cum	38,249.00	38,24,900.00			
6.004	7.33.1	8	Providing and fixing stone jali 40 mm thick throughout in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment, matching the stone shade, jali slab without any chamfers etc. Red sand stone	Sqm	9,522.70	76,181.60			
4			Subtotal of Stone Work					41,71,486.98	
	Z		Marble & Granite Work						
7.001	8.2.2.2	322	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels (a) : Granite of any colour and shade Area of slab over 0.50 Sqm	Sqm	3,907.40	12,58,182.80			
7.002	8.3.2	541	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by engineer in charge. (a) : Granite work	Metre	230.55	1,24,727.55			
7.003	8.5	446	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/Granite/stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	Nos	386.60	1,72,423.60			
7.004	8.12	35	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineering- Charge : Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent	Sqm	3,244.35	1,13,552.25			
4			Subtotal of Marble & Granite Work					16,68,886.20	
	8		Wood & PVC Work						
8.001	9.1.1	437	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). (a) : Second class teak wood	Cum	91,496.90	399,84,145.30			
8.002	9.7.1	2593	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick : (a) : Second class teak wood panels- 25 mm thick	Sqm	2,155.60	55,89,470.80			
8.003	9.7.7.2	2371	(b) : Float glass panes 5.0 mm thick glass panes	Sqm	1,406.75	33,35,404.25			
8.004	9.7.8	222	(c) : Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia. wire and 1.4 mm wide aperture with matching wood beading	Sqm	1,602.40	3,55,732.80			
8.005	9.21.1+9.23 - (9.15.1.1)	1171	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, lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters : (a) : 35 mm thick excluding ISI marked Stainless Steel butt hinges with necessary screws	Sqm	1,972.15	23,09,387.65			
8.006	9.21.2+9.23- (9.15.1.1)	85	(b) : 30 mm thick excluding ISI marked Stainless Steel butt hinges with necessary screws	Sqm	1,797.95	1,52,645.96			

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.									
Subject :- Schedule-B DSR Items									12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount			
8.007	9.22.1	433	Extra for Providing and fixing flush doors with decorative veneering instead of non decorative ISI marked flush door shutters conforming to IS: 2202 (Part I) (a) : On one side only	Sqm	394.90	1,70,991.70			
8.008	9.127	1893	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality. (a) :1.0 mm thick on one side only	Sqm	676.40	12,80,425.20			
8.009	9.84	12	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight up to 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	Nos	1,027.20	12,326.40			
8.010	21.4.1	120	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight up to 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. With stainless steel cover plate minimum 1.25 mm thickness	Nos	2,039.00	2,44,680.00			
8.011	21.8.1	8013	Filling the gap in between frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Up to 5mm depth and 5 mm width	Metre	88.75	7,11,153.75			
11			Subtotal of Wood & PVC Work			541,46,363.81			
	9		Steel work						
9.001	10.6.1	941	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. (a) : 80x1.25 mm M.S. laths with 1.25 mm thick top cover	Sqm	2,142.10	20,15,716.10			
9.002	10.7	216	Providing and fixing ball bearing for rolling shutters.	Nos	438.95	94,813.20			
9.003	10.8.1	923	Extra over DSR Item No. 10.6.1 for providing mechanical device chain and crank operation for operating rolling shutters. (a) : Exceeding 10.00 sqm and up to 16.80 Sqm in the area	Sqm	724.85	6,69,036.55			
9.004	10.9	198	Extra over DSR item No. 10.6.1 for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in-charge,(area of grill to be measured).	Sqm	313.60	62,092.80			
9.005	10.16.1	215947	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses 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. Hot finished welded type tubes	Kg	102.90	222,20,946.30			
9.006	10.25.1	1559	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. (a) : In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	Kg	75.30	1,17,422.82			
9.007	10.25.2	39539	(b) : In gratings, frames, guard bar, ladder, railings, brackets, gates, and similar works.	Kg	90.10	35,62,463.90			
9.008	10.19	4896	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	Kg	73.95	3,62,059.20			
9.009	10.26.1	8713	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer. (a) : M.S. tube	Kg	104.70	9,12,251.10			

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.								
Subject :- Schedule-B DSR Items								12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount		
9.010	10.27.3	10218	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 m dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge. (a) :10 x 120 mm	Nos	86.75	8,86,411.50		
9.011	10.27.2	6204	(b) :10 x 80 mm	Nos	70.75	4,38,933.00		
9.012	10.28	585	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kg	619.40	3,62,349.00		
12			Subtotal of Steel Work			317,04,495.47		
	10		Flooring work					
10.001	11.1.2	15565	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12 mm cement mortar, including filling the joints with same mortar, with common burnt clay non modular bricks: 1:6 (1cement : 6 coarse sand).	Sqm	630.10	98,07,506.50		
10.002	11.3.1	4398	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	Sqm	353.35	15,54,033.30		
10.003	11.26.1	32573	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand): a) 25 mm thick	Sqm	1,141.40	371,78,822.20		
10.004	11.27	6850	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	1,191.25	81,60,062.50		
10.005	8.6	25572	Extra for Mirror polishing over normal polishing of marble work/Granite work/stone work where ever required to give high gloss finish complete.	Sqm	212.85	54,43,000.20		
10.006	11.31	442	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	Rmt	75.80	33,503.60		
10.007	11.32	1109	Extra for Kota stone/ sand stone in treads of steps and risers using single length up to 1.05 metre.	Sqm	16.90	18,742.10		
10.008	11.36	473	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), 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 mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	836.65	3,95,735.45		
10.009	11.37	360	Providing and laying Ceramic glazed tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.	Sqm	785.40	2,82,744.00		
10.010	11.53	978	Providing and fixing Glass mosaic tiles at finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design , fixing in customize design as per direction of Engineer-in- Charge. The Glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-Charge:	Sqm	1,752.60	17,14,042.80		
10.011	11.41.2	12033	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, 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. (a) : Size of Tile 600x600 mm	Sqm	1,405.95	169,17,796.35		
10.012	11.41.3	1072	(b) : Size of Tile 800x800 mm	Sqm	1,522.85	16,32,495.20		

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.								
Subject :- Schedule-B DSR Items								12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount		
10.013	11.46.2	6896	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, dado and pillar over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete. (a) : Size of Tile 600x600 mm	Sqm	1,415.40	97,60,598.40		
10.014	11.46.3	585	(b) : Size of Tile 800x800 mm	Sqm	1,534.45	8,97,653.25		
10.015	11.33.1	330	Providing and fixing 25 mm wooden planking, tongued and grooved in flooring, including fixing with iron screws complete. (a) second class teak wood	Sqm	3,332.85	10,98,507.36		
10.016	11.45	557	Providing and laying 500x500x40 mm thick Turf paver (Turf pave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.	Sqm	1,743.20	9,70,439.44		
10.017	16.68	15589	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	602.20	93,87,695.80		
17			Subtotal of Flooring Work			1052,53,378.45		
	11		Roofing					
11.001	12.21.1	4425	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design : In 75x75 mm deep chase	Metre	143.10	6,33,217.50		
11.002	12.22	331	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 m x1 m x 400 micron, finished with 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.	Nos	186.65	61,781.15		
11.003	12.7.1	759	Providing and fixing 15 Cm wide, 45 cm overall semi-circular plane G.S. sheet gutter with iron brackets 40 x 3 mm Size, bolts, nuts and washers etc., including making necessary connections with rain Water pipes complete. 0.80 mm thick with zinc coating not less than 275 gm/m ²	Meter	534.60	4,05,761.40		
3			Subtotal of Roofing Work			11,00,760.05		
	12		Finishing work					
12.001	13.4.1	21054	Providing and laying plaster (a) : 12 mm cement plaster of mix : 1:4 (1 cement: 4 coarse sand)	Sqm	172.30	36,27,604.20		
12.002	13.5.1	5612	(b) : 15 mm cement plaster on rough side of single or half brick wall of mix : 1:4 (1 cement: 4 coarse sand)	Sqm	200.05	11,22,680.60		
12.003	13.12	4283	(C) : 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.	Sqm	258.90	11,08,868.70		
12.004	13.79	3787	Extra for addition of synthetic Polyester triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement plaster/mortar by using 125 gms. of synthetic Polyester triangular fibre for 50 Kgs. cement used in cement mortar as per directions of Engineer-in-Charge.	Per Bag of 50 Kg of cement	58.05	2,19,835.35		
12.005	13.31.1	31187	Pointing on brick work or brick flooring on non Modular bricks with cement mortar 1:3 (1 cement : 3 fine sand): (a) : Flush / Ruled/ Struck or weathered pointing on bricks of size 230 mm x 110 mm x 75mm	Sqm	106.35	33,16,737.45		
12.006	13.31.2	366	Pointing on brick work or brick flooring on non Modular bricks with cement mortar 1:3 (1 cement : 3 fine sand): (b) : Raised and cut pointing	Sqm	172.75	63,295.60		
12.007	13.33.1	90	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) as per directions of Engineer-in-Charge.: (a) : Flush/ Ruled pointing	Sqm	152.85	13,756.50		
12.008	13.33.2	45	(b) : Raised and cut pointing	Sqm	276.70	12,451.50		
12.009	13.37.1	611	White washing with lime to give an even shade : New work (three or more coats)	Sqm	16.20	9,898.20		

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
12.010	13.8	12982	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	89.65	11,63,836.30
12.011	13.41.1	8005	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : New work (two or more coats) over and including water thin able priming coat with cement primer	Sqm	89.70	7,18,048.50
12.012	13.44.1	3931	Finishing walls with water proofing cement paint of required shade : New work (Two or more coats applied @ 3.84 kg/10 sqm)	Sqm	57.85	2,27,408.35
12.013	13.83.2	20722	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour. Two coats	Sqm	75.35	15,61,402.70
12.014	13.84.2	4480	Painting with synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour. Two coats	Sqm	71.60	3,20,796.64
12.015	13.46.1	1351	Finishing walls with Acrylic Smooth exterior paint of required shade : 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)	Sqm	90.00	1,21,590.00
12.016	13.52.1	609	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	Sqm	116.55	70,978.95
12.017	13.58	185	Providing and applying two coats of fire retardant paint on cleaned wood / ply surface / steel surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendations of manufacturer to make the surface fire retardant.	Sqm	247.65	45,716.19
12.018	14.61	2100	Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.	Sqm	42.00	88,200.00
18			Subtotal of Finishing Work			138,13,105.73
	13		Water proofing work			
13.001	22.4.1	865	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete : (a) : Serrated with central bulb (225 mm wide, 8-11 mm thick)	Metre	490.20	4,24,023.00
13.002	22.6	15437	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying: a) after surface preparation, first layer of slurry of cement @ 0.488 Kg/Sqm mixed with water proofing cement compound @ 0.253 Kg/Sqm. b) laying second layer of Fiber glass cloth when the first layer is still green. Overlaps of joints of fiber cloth should not be less than 10 cm. c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 Kg/Sqm mixed with water proofing cement compound @ 0.670 Kg/Sqm and coarse sand @ 1.289 Kg/Sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken up to 30 cm on parapet wall and tucked into groove in parapet all around. d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately. For the purpose of measurement the entire treated surface will be measured.	Sqm	390.35	60,25,832.95

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
13.003	MR based on 22.7.1	16112	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc. consisting of following operations: a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls up to 300 mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls up to 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. d)Finishing the surface with joint less cement mortar of mix 1:4 (1cement :4 coarse sand) admixed with water proofing compound confirming to IS 2645 and approved by Engineer - in - Charge including finishing the top surface with boom finish to receive subsequent finishing layer complete. 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 Engineering-Charge : With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	Sqm	1,051.42	169,40,445.54
13.004	22.14.1	793	Grading roof for water proofing treatment with Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	5,570.55	44,17,446.15
13.005	22.20.1	13033	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be up to -2°C when tested in accordance with ASTM,D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane : 3 mm thick	Sqm	425.35	55,43,586.55
13.006	22.21	26116	Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	Sqm	74.85	19,54,782.60
6			Subtotal of Water Proofing Work			353,06,116.79
	14		SANITARY WORK			
14.001	17.1.1	7	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required. 17.1.1 White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	each	3,392.80	23,749.60
14.002	17.11	58	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 : 17.11.2 Size 600x450x200 mm	each	3,162.75	1,83,439.50
2			Subtotal of Sanitary work			2,07,189.10
	15		INTERNAL DRAINAGE			
15.001	12.44	273	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	41.10	11,220.30

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
15.002	18.8.1	2956	INTERNAL WATER SUPPLY SYSTEM Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes SDR-11 confirming to IIS 15778, 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 complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc. a) 15 mm nominal dia Pipes	metre	270.00	7,98,187.50
15.003	18.8.2	2970	b) 20mm nominal dia	metre	296.40	8,80,340.60
15.004	18.8.3	840	c) 25mm nominal dia	metre	351.30	2,95,232.52
15.005	18.7.1	1838	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes SDR -11 , 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 & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall a) 15 mm nominal outer dia	metre	143.65	2,63,964.06
15.006	18.7.2	1860	b) 20 mm nominal outer dia	metre	163.30	3,03,700.44
15.007	18.7.3	1666	c) 25 mm nominal outer dia	metre	209.50	3,48,947.39
15.008	18.7.4	1392	d) 32 mm nominal outer dia	metre	262.35	3,65,204.32
15.009	18.7.5	584	e) 40 mm nominal outer dia	metre	350.50	2,04,727.05
15.010	18.7.6	547	f) 50 mm nominal outer dia	metre	524.10	2,86,525.47
15.011	18.19.1.1	44	Providing & fixing gun metal / Bronze non – return valve of approved make with union / flange, washer, nuts & bolts. Rated to temperature of 85 Deg C and tested to a pressure not less than 15 Kg/Sq.cm. a) 20mm nominal dia	each	411.25	18,095.00
15.012	18.19.2.2	59	b) 32 mm nominal dia	each	634.60	37,441.40
15.013	DSR EnM 2014 16.7.3.6	12	NON RETURN VALVE with dual plate of CI body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating a) 65mm dia	each	2,361.00	28,332.00
15.014	DSR EnM 2014 16.7.3.	12	b) 80 mm nominal dia	each	2,728.00	32,736.00
15.015	DSR EnM 2014 16.7.3.	10	b) 100 mm nominal dia	each	3,776.00	37,760.00
15			Subtotal of Internal Plumbing work			39,12,414.05
	16		EXTERNAL PLUMBING WORK			
16.001	2.8.1	4975	EXTERNAL PLUMBING WORKS Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50 m. All kinds of soil	cum.	157.50	7,83,593.50
16.002	2.10.1.2	7867	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including compacting each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed within a lead of 50 m. All kinds of soil (a) Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	metre	208.30	16,38,737.76
16.003	2.10.1.3	12001	(b) Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	metre	325.20	39,02,562.60
16.004	19.6.2	5319	STORM DRAINAGE - 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: a)150mm RCC Pipe	metre	348.30	18,52,433.55

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.									
Subject :- Schedule-B DSR Items									12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount			
16.005	19.6.3	8956	b) 250mm dia R.C.C. pipe	metre	468.60	41,96,547.30			
16.006	19.6.4	2145	c) 300mm dia R.C.C. pipe	metre	506.35	10,86,120.75			
16.007	19.1.1	284	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: a) 100mm dia.	metre	206.55	58,556.93			
16.008	19.2.2	6189	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand :10 graded stone aggregate 40 mm nominal size) all-round. including bed concrete as per standard design. a) 150mm nominal dia	metre	724.70	44,84,805.95			
16.009	19.2.3	790	b) 200mm nominal dia.	metre	844.85	6,67,431.50			
16.010	19.2.4	850	c) 250mm dia nominal dia.	metre	977.00	8,30,450.00			
16.011	19.3.4	8916	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 pipes including bed concrete as per standard design. a) 250mm nominal dia	metre	624.60	55,68,621.30			
16.012	19.3.5	2145	b) 300mm nominal dia	metre	720.70	15,45,901.50			
16.013	19.4.2.1	198	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design 150 x 100 mm size P type With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	each	1,594.35	3,15,681.30			
16.014	DSR 2014 19.30.1.1	129	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: Inside dimensions 455x610 mm and 45 cm deep for single pipe line With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	4,692.05	6,05,274.45			
16.015	DSR 2014 19.31.1.1	20	Extra for depth beyond 45 cm of brick masonry chamber : 19.31.1 For 455x610 mm size With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Rmt.	3,924.65	78,493.00			
16.016	19.9.1.1	391	Sewer Manhole - Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel 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, all complete as per standard design. 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S.12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	8,738.55	34,16,773.05			
16.017	19.10.1	75	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 mt With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4,842.40	3,63,180.00			

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
16.018	19.13.1.1	27	Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel 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, all complete as per standard design a 2.30 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	34,976.25	9,44,358.75
16.019	19.14.1	13	Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	14,842.95	1,92,958.35
16.020	19.16	2508	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mm x 25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	each	311.60	7,81,492.80
16.021	19.9.1.1	66	Storm Chamber - Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel 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, all complete as per standard design. 0.91 m deep with S.F.R.C. grating and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S.12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	8,738.55	5,76,744.30
16.022	19.10.1	5	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m a) With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4,842.40	24,212.00
16.023	19.27.1	583	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design : a With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	3,957.50	23,07,222.50
16.024	19.28.1	307	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with pre-cast R.C.C. vertical grating complete as per standard design : a With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4,408.95	13,51,343.18

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
16.025	19.30.1.1	31	Storm Chamber - Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. Grating with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement: 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: Inside dimensions 455x610 mm and 45 cm deep for single pipe line With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4,692.05	1,45,453.55
16.026	19.31.1.1	10	Extra for depth beyond 45 cm of brick masonry chamber : For 455x610 mm size With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	3,924.65	39,246.50
16.027	19.7.1	7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 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 :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) :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	8,507.00	56,146.20
16.028	19.8.1.1	86	Extra for depth for manholes : Size 90x80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	5,638.20	4,83,757.56
16.029	18.9.10	1540	DOMESTIC WATER - Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. External work a) 150 mm nominal outer dia Pipes Schedule 80	metre	3,426.25	52,76,425.00
16.030	18.9.5	638	b) 40 mm nominal outer dia Pipes SDR 11	metre	350.50	2,23,619.00
16.031	18.40.4	20	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality a) 32 mm nominal inner dia Pipes	metre	10.40	208.00
16.032	18.40.5	20	b)40 mm nominal inner dia Pipes	metre	11.85	237.00
16.033	18.40.6	20	c)50 mm nominal inner dia Pipes	metre	14.15	283.00
16.034	18.40.7	20	d)65 mm nominal inner dia Pipes	metre	17.45	349.00
16.035	18.40.8	250	e)80 mm nominal inner dia Pipes	metre	20.25	5,062.50
16.036	18.9.5	866	DRINKING WATER DISTRIBUTION -Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes SDR 11, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. a) 25 mm nominal outer dia Pipes	metre	209.50	1,81,364.15
16.037	18.9.2	589	b) 20 mm nominal outer dia Pipes	metre	163.30	96,102.05
16.038	18.9.6	1540	c) 50 mm nominal outer dia Pipes	metre	524.10	8,07,114.00
16.039	18.9.8	1540	FLUSHING WATER DISTRIBUTION - Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. a) 80 mm nominal inner dia Pipes Schedule 80	metre	2,051.25	31,58,925.00
16.040	18.9.4	545	b) 32 mm nominal outer dia Pipes SDR 11	metre	262.35	1,42,849.58
16.041	18.9.5	773	c) 40 mm nominal outer dia Pipes SDR 11	metre	350.50	2,71,041.65
16.042	18.9.6	773	d) 50 mm nominal outer dia Pipes SDR 11	metre	524.10	4,05,286.53
42			Subtotal of External Plumbing work			488,66,966.57

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.								
Subject :- Schedule-B DSR Items								12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount		
	17		PUMPS,SWIMMING POOL, TREATMENT SYSTEM & EQUIPMENTS					
	18		FIRE FIGHTING WORKS					
18.001	DSR E& M 16.7.1.6	9	Supplying Installation Testing and Commissioning of Butterfly Valve (Manual) with CI body, SS Disc , Nitrile Rubber seal & O Ring , flanges, PN 16 pressure rating complete as required a) 65mm nominal dia	each	3,269.00	29,421.00		
18.002	DSR E&M 16.7.1.5	9	b) 80mm nominal dia	each	3,638.00	32,742.00		
18.003	DSR E&M 16.7.1.4	4	c) 100mm nominal dia	each	5,205.00	20,820.00		
18.004	DSR E&M 16.7.1.2	8	c) 150mm nominal dia	each	6,499.00	51,992.00		
18.005	DSR E&M 16.7.1.21	6	d) 200mm nominal dia	each	10,982.00	65,892.00		
18.006	DSR E&M 16.7.4.5	11	Supply, installation , testing & commissioning CI `Y' strainer with Stainless steel strainer including rubber gasket, flanges, nuts, bolts and washers, complete as per approved specifications. a) 80 mm nominal dia.	each	4,948.00	54,428.00		
18.007	DSR E&M 16.7.4.6	6	b)65mm nominal dia	each	4,746.00	28,476.00		
18.008	DSR E&M 16.7.4.4	6	c)100mm nominal dia	each	6,806.00	40,836.00		
18.009	DSR E&M 16.7.4.2	8	c) 150mm nominal dia	each	10,418.00	83,344.00		
18.010	DSR E&M 16.7.3.6	10	Supply, installation , testing & commissioning dual plate CI wafer type check valve tested to a pressure of 15 Kg/sqcm. Including rubber gasket, flanges, union, nuts, bolts, washers & painting complete as per approved specifications. a) 65mm nominal dia	each	2,361.00	23,610.00		
18.011	DSR E&M 16.7.3.5	4	80 mm dia	each	2,728.00	10,912.00		
18.012	DSR E&M 16.7.3.4	4	100 mm dia	each	3,736.00	14,944.00		
18.013	DSR E&M 16.7.3.2	4	150 mm dia	each	6,354.00	25,416.00		
18.014	18.17.1	113	Supply, installation , testing & commissioning of bronze gate valves of 25mm dia with high tensile brass rising stem conforming to IS 778 suitable for the system pressure, complete as per specifications	each	428.85	48,460.05		
18.015	MR -19.074	12	Supply, Installation, Testing and Commissioning of end terminations of following armoured cables. All the lugs shall be of Cu/Al lugs and glands shall be double compression brass glands as per the technical specifications. The cost shall include the cost of crimping and all tools and accessorised required to complete the job in full respect. 4C X 16 Sq. mm Cu2XY	each	485.49	5,825.93		
18.016	MR -19.083	4	3C X 6 sq.mm 2XWY	each	438.67	1,754.70		
18.017	DSR EnM 2014 9.1.34	30	4C X 25 Sq. mm 2XY	each	248.00	7,440.00		
18.018	DSR EnM 2014 9.1.22	10	3.5C X 50 Sq. mm 2XY	each	342.00	3,420.00		
18.019	MR -19.091	90	2C X 2.5 sq.mm. 2XY	each	319.99	28,799.25		

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
18.020	DSR EnM 2014 5.15	213	Providing and Fixing of 25 x 3 mm G.I. strip on surface or in recess for connections etc. as required	metre	142.00	30,246.00
18.021	DSR EnM 2014 5.16	186	Providing and Fixing of 6 SWG dia G.I. wire on surface or in recess for loop earthing as required	metre	35.00	6,492.50
21			Subtotal of Fire fighting work			6,15,271.42
	19		ELECTRICAL WORK			
19.001			<p>General Notes :</p> <p>Chapter-1 Wiring (As per CPWD DSR 2014 E & M)</p> <ol style="list-style-type: none"> This section covers Items of Sub mains and point wiring for all internal areas. Switchboards, power plugs, switches for power plugs, GI Modular boxes and cover plates and its accessories are included in this chapter. GI box, soclets, cover plates for TV and telephone are included in this chapter. Point wiring for light/bell/fan/exhaust fan - wiring including termination from switch boxes to the point outlet including Concealed/surface conduits, the GI box, modular cover plate and switches are included in the rates of point wiring. Sub mains wiring includes wiring including termination from distribution boards to respective switchboards and power outlets for all internal areas. wiring for DB controlled light points are also considered in sub mains wiring. All tools and accessories required to complete the job in full respect and as per engineer in charge shall be included. <p>Chapter-2 MCCBs, MCBs & DBs:</p> <ol style="list-style-type: none"> Items under this section covers Distribution boards considered for all internal and common areas. Switchgears used inside the distribution boards and its accessories are covered under this chapter. All internal wirings including neutral and earthing connections inside DB has to be fully completed. External earthing for DB is considered under earthing section and shall be paid under relevant items. Minimum Breaking capacity for all switchgears inside DB shall be 10kA with Ics=Icu. All tools and accessories required to complete the job in full respect and as per engineer in charge shall be included. <p>Chapter-3 Cables & End terminations:</p> <ol style="list-style-type: none"> Items under this section covers Armoured / Unarmoured / flexible AL/Cu. cables & their end terminations from Substation to different feeder pillars , from feeder pillars to metering panels / Main LT Panel of different buildings and therefrom to different distribution boards and HVAC Panels. Armoured cables are to be laid on cable trays / underground as per relevant design drawing and specifications. All flexible cables shall be laid inside surface / concealed conduits (rigid / flexible)/ raceways or as per relevant design drawing and specifications. Cost of cable trays, raceways trenches, 			
19.002	1.14.2	48370.32667	CHAPTER-1 WIRING Wiring of circuit / submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit as required. (a) 2 x 2.5 sq.mm. + 1 x 2.5 sq.mm. earth wire.	Metre	131.00	63,36,512.79
19.003	1.14.3	21228	(b) 2 x 4 sq.mm. + 1 x 4 sq.mm. earth wire	Metre	162.00	34,38,911.70
19.004	1.14.4	2368	(c) 2 x 6 sq.mm. + 1 x 6 sq.mm. earth wire	Metre	221.00	5,23,328.00
19.005	1.21.2	11270	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. (a) : 25 mm	Metre	65.00	7,32,574.38
19.006	1.21.3	4005	(b) : 32 mm	Metre	85.00	3,40,440.94
19.007	1.21.4	510	(c) : 40 mm	Metre	110.00	56,100.00
19.008	1.21.5	135	(d) : 50 mm	Metre	144.00	19,440.00
19.009	1.20.2	1385	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. (a) : 25 mm	Metre	142.00	1,96,670.00
19.010	1.20.3	900	(b) : 32 mm	Metre	193.00	1,73,700.00

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.						
Subject :- Schedule-B DSR Items						12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount
19.011	1.20.4	310	(c) : 40 mm	Metre	287.00	88,970.00
19.012	1.20.5	120	(d) : 50 mm	Metre	387.00	46,440.00
19.013	1.19	2550	Supplying and drawing Co-axial TV cable RG-6 grade,0.7mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/recessed steel/PVC conduit as required.	Metre	28.00	71,400.00
19.014	1.53	33111	Supplying and drawing of UTP 4 pair CAT6 LAN cable in the existing surface / recessed steel/PVC conduit as required.	Metre	33.00	10,92,663.00
19.015	1.27.1	2579	Supplying and fixing following size / modules, GI box along with modular base and cover plate for modular switches in recess etc. as required. (a) : 1 or 2 Module (75mm x 75mm)	Each	166.00	4,28,114.00
19.016	1.27.2	3939	(b) : 3 Module (100mm x 75mm)	Each	175.00	6,89,325.00
19.017	1.27.3	236	(c) : 4 Module (125mm x 75mm)	Each	195.00	46,020.00
19.018	1.27.4	1762	(d) : 6 Module (200mm x 75mm)	Each	248.00	4,36,976.00
19.019	1.27.5	489	(e) : 8 Module (125mm x 125mm)	Each	287.00	1,40,343.00
19.020	1.27.6	14	(f) : 12 Module (200mm x 150mm)	Each	334.00	4,676.00
19.021	1.24.4	5161	Supplying and fixing following modular switch / socket on existing modular plate and switch box including connections but excluding modular plate etc. as required. (a) : 3 pin 5/6 amp socket outlet	Each	79.00	4,07,719.00
19.022	1.24.5	462	(b) : 6 pin 15/16 amp socket outlet	Each	150.00	69,300.00
19.023	1.24.1	4228	(d) : 5/6 amps switch	Each	81.00	3,42,468.00
19.024	1.24.3	1235	(e) : 15/16 amp switch	Each	111.00	1,37,085.00
19.025	1.24.6	1121	(f) : Telephone socket outlet	Each	95.00	1,06,495.00
19.026	1.24.7	255	(g) : TV antenna socket outlet	Each	94.00	23,970.00
19.027	1.24.8	74	(h) : Bell Push	Each	111.00	8,214.00
19.028	1.38	74	(i) : Supplying and fixing call bell / buzzer suitable for single phase, 230 volts, complete as required.	Each	61.00	4,514.00
19.029	1.26	1046	(j) Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	23.00	24,058.00
19.030	1.25	1207	(k) Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	284.00	3,42,788.00
19.031	2.18	52	(l) Supplying and fixing 20 amp, 240 Volts, SPN industrial type, socket outlet with 2 pole and earth, metal enclosed plug top along with 20 amps "C curve", SP , MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for socket outlet and complete with connections , testing commissioning etc. as required.	Each	954.00	49,608.00
19.032	2.2	59	(m) Supplying and fixing 30 amp, 415 Volts, TPN industrial type, socket outlet with 4 pole and earth, metal enclosed plug top along with 30 amps "C curve", TP , MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for socket outlet and complete with connections , testing commissioning etc. as required.	Each	2,473.00	1,45,907.00
19.033	2.17	19	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 16/25/32amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	Each	868.00	16,492.00
19.034	1.10.3	13115	Wiring for light point / fan point / exhaust fan point / call bell point with 1.5 sq.mm. FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable etc. as required. (a) Group C	Each	718.00	94,16,570.00
19.035	1.11	211	Wiring for twin controlled light point with 1.5 sq.mm. FRLS PVC insulated copper conductor, single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable etc. as required. (a) Group C	Each	770.00	1,62,470.00

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.									
Subject :- Schedule-B DSR Items									12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount			
19.036	1.34	12957	Supplying and fixing of brass batten / angle holder / connectors including connections etc. as required.	Each	74.00	9,58,818.00			
19.037	1.44	1219	Installation, testing and commissioning of ceiling fan, including wiring, the down rods of standard length (up to 30 cm) with 1.5 sqmm FRLS PVC insulated copper conductor single core cables etc. as required.	Each	95.00	1,15,805.00			
19.038	1.50.1	251	Installation of exhaust fan in the existing opening , including making good the damage, connection, testing commissioning etc. as required. (a): Up to 450mm sweep	Each	204.00	51,204.00			
19.039	1.50.2	17	(b): 510 mm sweep	Each	288.00	4,896.00			
19.040	1.51	268	Extra for fixing the louvers / shutters complete with frame for a exhaust fan of all sizes.	Each	90.00	24,120.00			
19.041	1.44	93	(i): Installation of Wall fan suitable for single phase, 230 volts including wiring with 1.5 sqmm FRLS PVC insulated copper conductor single core cables etc., complete as required.	Each	95.00	8,835.00			
19.042	2.10.1	7683	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. (a) Single pole	Each	169.00	12,98,427.00			
19.043	2.10.3	306	(b) Double pole	Each	459.00	1,40,454.00			
19.044	2.10.4	96	(c) Triple pole	Each	696.00	66,816.00			
19.045	2.14.1	91	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB) having sensitivity up to 30milliamper in the existing MCB DB complete with connections, testing commissioning etc. as required (a) 25 amps	Each	1,645.00	1,49,695.00			
19.046	2.14.2	449	(b) 40 amps	Each	1,714.00	7,69,586.00			
19.047	2.14.3	108	(c) 63 amps	Each	2,237.00	2,41,596.00			
19.048	2.2.13	14	Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in the cubical panel, making connections etc. as required. (a) 100 A, 30kA, FP MCCB	Each	5,347.00	74,858.00			
19.049	2.2.14	8	(b) 125 A, 36kA, FP MCCB	Each	5,434.00	43,472.00			
19.050	2.1.15	3	(c) 200 A, 36kA, FP MCCB	Each	13,118.00	39,354.00			
19.051	2.11	606	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	7.00	4,242.00			
19.052	2.13.1	11	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. (a) 32 Amp	Each	659.00	7,249.00			
19.053	2.13.1	6	(b) 40 Amp	Each	659.00	3,954.00			
19.054	2.13.2	7	(c) 63 Amp	Each	670.00	4,690.00			
19.055	5.7	11960	Supplying and laying 6 SWG GI wire at 0.50 metre below ground level for conductor earth electrode including connections / termination with GI thimble etc. as required.	Metre	27.00	3,22,920.00			
19.056	5.9	6497	Supplying and laying 25mm x 5mm GI strip at at 0.50 metre below ground as strip earth electrode including connections / terminating with GI nut, bolts, spring, washer etc. as required (Jointing shall be done by overlapping and with 2 set of G.I nut bolt and spring washer spaced at 50mm).	Metre	109.00	7,08,173.00			
19.057	6.1	68	Providing and fixing of lightning conductor finial , made of 25mm dia 300mm long Copper tube, having single prong at top, with 85mm dia 3mm thick Copper base plate including holes etc. complete as required.	Each	764.00	51,952.00			
19.058	6.5	2753	Providing and fixing Copper tape 20mm x 3mm thick on parapet or surface of wall for lightning conductor complete as required.(for horizontal run)	Metre	376.00	10,35,128.00			
19.059	6.6	1077	Providing and fixing copper tape 20mm x 3mm thick on parapet or surface of wall for lightning conductor complete as required.(for vertical run)	Metre	406.00	4,37,262.00			

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.									
Subject :- Schedule-B DSR Items									12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount			
19.060	6.11	68	Providing and fixing testing joint , made of 20mm x 3mm thick copper strip, 125 mm long, with 4 Nos. of tinned brass bolts, nuts, check nuts and spring washers etc. complete as required.	Each	195.00	13,260.00			
19.061	19.8.1.1	35	Extra for depth for manholes for above item : Size 90x90 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	5,638.20	1,96,068.41			
19.062	19.7.2	84	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 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 : Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Nos.	18,304.45	15,37,573.80			
19.063	19.8.1.2	8	Extra for depth for manholes for above item : Size 120x90 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	6,753.65	56,730.66			
19.064	19.6.5	1471	Providing and laying Non Pressure NP-2 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete (a) 450 mm dia RCC pipe	Metre	705.90	10,38,237.72			
19.065	2.21	49	providing and fixing of MV danger notice plate 200mm x 150mm, made of mild steel at least 2mm thick and vitreous enamelled white on both side and with inscription in single red colour on front side as required.	Each	141.00	6,909.00			
19.066	1.35	2354	CHAPTER- 8 : FIXTURES Installation of following fixtures in all internal and common areas complete in all respect including fixing and connection from nearby terminal to fixture as required. Supply of fixture not included in this item. (a) 1 x LED 12W-300x300	Each	52.00	1,22,408.00			
19.067	1.35	1684	(b) 1 x LED 33W-300x300	Each	52.00	87,568.00			
19.068	1.35	3562	(c) 15W LED Down lighter	Each	52.00	1,85,224.00			
19.069	1.35	880	(d) 1x12W LED down lighter	Each	52.00	45,760.00			
19.070	1.35	158	(e) 1x33 W LED Down lighter	Each	52.00	8,216.00			
19.071	1.35	512	(f) 1x20.8W LED Tube light	Each	52.00	26,624.00			
19.072	1.35	143	(g) 1x49W LED Tube light	Each	52.00	7,436.00			
19.073	1.35	250	(h) 1x10W LED Bulb	Each	52.00	13,000.00			
19.074	1.35	82	(i) 50W LED Wall Washer	Each	52.00	4,264.00			
19.075	1.35	219	(k) 18W Bulk Head Light	Each	52.00	11,388.00			
19.076	1.35	337	(l) 1 x 4W LED Mirror Light	Each	52.00	17,524.00			
19.077	1.35	481	(m) 1 x 27 W LED Down lighter	Each	52.00	25,012.00			
19.078	1.35	31	(n) LED Focus Light	Each	52.00	1,612.00			
19.079	1.35	110	(o) 13W LED Recessed Wall Light	Each	52.00	5,720.00			
19.080	1.35	20	(p) 17W LED Spot Light	Each	52.00	1,040.00			
19.081	1.35	100	(q) 18W LED Down lighter	Each	52.00	5,200.00			
19.082	1.35	20	(r) 18W LED Down lighter (Battery Operated)	Each	52.00	1,040.00			
19.083	1.35	37	(s) 20.8 W LED Tube Light-IP-65 Type	Each	52.00	1,924.00			
19.084	1.35	4	(t) 20.8 W LED Tube Light -IP-65 Type(Battery Operated)	Each	52.00	208.00			
19.085	1.35	50	(u) 1 x 27 W LED Down lighter (Battery Operated)	Each	52.00	2,600.00			
19.086	1.35	33	(v) 1x12W LED down lighter (Battery Operated)	Each	52.00	1,716.00			
19.087	1.35	50	(w) 1x3W LED Ground Burial	Each	52.00	2,600.00			

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.									
Subject :- Schedule-B DSR Items									12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount			
19.088	1.35	10	(x) 1x18 W LED Wall washer	Each	52.00	520.00			
19.089	1.35	800	(y) 1x 5 W LED strip	Rmt	52.00	41,600.00			
19.090	1.35	341	(z) 1x33 W LED pole Light	Each	52.00	17,732.00			
19.091	1.35	15	(b1) 1x12 W Bollard Lights	Each	52.00	780.00			
19.092	1.35	15	(c1) 1x15 W LED Down lighter (Battery Operated)	Each	52.00	780.00			
19.093	1.35	3	(e1) Foot light	Each	52.00	156.00			
19.094	1.35	158	(e1) 24 W Pass Light	Each	52.00	8,216.00			
19.095	15.2	386	(n) Supplying, installation, testing and commissioning of Passive Infrared (PIR) technology based occupancy sensor with day light dimming (lighting level shall be regulated as per availability of natural day light in an area along with occupancy detection.) having high performance, regulating programmable type, suitable for connected load up to 10 Amp , for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	4,447.00	17,16,542.00			
91			Subtotal of ELECTRICAL Work			378,96,958.39			
	20		Elevators		-				
	21		Horticulture & Landscaping		-				
21.001	23.28	95716	Preparation of mounds of various size and shape by available excavated / supplied earth in layers not exceeding 20 cm in depth, breaking clods, watering of each layer, dressing etc., lead up to 50 meter and lift up to 1.5 m complete as per direction of Officer-in-charge.	Cum	276.18	264,34,886.68			
21.002	16.1	681317	Road Work Preparation and compaction 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 compacting with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead up to 50 metres.	Sqm	94.45	643,50,390.65			
21.003	16.11	31788	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	Sqm	491.25	156,15,855.00			
21.004	16.12	46191	Dry brick pitching half brick thick in drains including supply of bricks and preparing the surface complete : With common burnt clay F.P.S. (non modular) bricks of class designation 5	Sqm	509.38	235,28,771.58			
21.005	16.9	1138	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	Sqm	1,672.38	19,03,168.44			
5			Subtotal of Landscape Work		-	1318,33,072.35			
	22		MoRTH/SOR - 2016 OF ROAD CONSTRUCTION DEPARTMENT GOVERNMENT OF BIHAR		-				
22.001	NH SOR 1.4 (i)	7497320	Carriage of Materials Cost of Haulage/Carriage of Materials by tipper excluding Cost of loading, unloading and stacking through Surface Road	Tonne.km	6.89	516,56,537.08			
22.002	NH SOR 1.4 (ii)	473118	Cost of Haulage/Carriage of Materials by tipper excluding Cost of loading, unloading and stacking through Unsurfaced Gravelled Road	Tonne.km	8.37	39,61,891.99			
22.003	NH SOR 1.4 (iii)	473118	Cost of Haulage/Carriage of Materials by tipper excluding Cost of loading, unloading and stacking through Katcha Track and Track in Riverbed/Nallah Bed and Choe Bed	Tonne.km	16.75	79,23,783.98			
22.004	NH SOR 3.18	42319	Earthwork Construction of Subgrade and Earthen Shoulders. (Construction of embankment for subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and lead up to 1000 m, transporting to site, spreading, grading to required slope and compacting to meet requirement of MoRTH table 300-2)	Cum	284.08	120,22,117.88			
22.005	NH SOR 12.1 (I)	176	Excavation for Structures (Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material.) Ordinary Soil (up to 3.0 m. Depth)	Cum	95.07	16,706.02			
22.006	NH SOR 12.4	176	Concrete work PCC 1:3:6 in Foundation including form work (Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.)	Cum	4,186.00	7,35,605.78			

Name of Work :- Development Of Permanent Campus Of Nu Rajgir.									
Subject :- Schedule-B DSR Items									12-Sep-16
Sr.no	Item Nos. as per DSR'14	Total Quantity	Description	Unit	Rate	Total Amount			
22.007	NH SOR 8.2	43844	Construction of cement concrete kerb 150 mm thick, 400 mm high in M 20 grade PCC on M-10 grade foundation 100 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 MoRTH clause 408 (B) Using Concrete Batching and Mixing Plant	Rmt	293.00	128,46,233.40			
22.008	NH SOR 8.2	28858	Construction of cement concrete kerb 150 mm thick, 400 mm high in M 20 grade, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete as per MoRTH clause 408 (B) Using Concrete Batching and Mixing Plant	Rmt	235.00	67,81,677.00			
22.009	NH SOR 2.5 (II)	5050	Road work Dismantling of Flexible Pavements (Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately)	Cum	302.00	15,25,075.84			
22.010	NH SOR 4.12	5904	Wet Mix Macadam : Providing laying, spreading and compacting graded stone aggregate to wet mix macadam specifications including premixing the materials with water at OMC, in mechanical mix plant carriage of mix material by tipper to site, laying in uniform layers of 100/125 mm thick compacted macadam with paver in sub base/base course on well prepared surface and compacting with vibratory roller to achieve desired density as per relevant MoRTH clause 406	Cum	1,213.00	71,61,612.65			
22.011	NH SOR 6.1	8858	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.	Cum	2,474.00	219,14,197.20			
22.012	NH SOR 6.2	17014	Construction of 225 mm thick un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with cement @ 425 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site and laid with fixed form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing as per MoRTH clause 602	Cum	5,985.00	1018,27,473.30			
22.013	DSR 16.68	28871	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	699.70	202,01,159.31			
22.014	DSR 16.94	12420	Providing and laying factory made chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method, to attain superior smooth finish using PU or equivalent moulds, laid in required Grey colour & pattern over 50mm thick compacted bed of coarse 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 jamuna sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc. all complete as per manufacturer's specifications & direction of Engineer -in-Charge: (a) 80 mm thick c.c. paver block of M-30 grade with approved colour design and pattern.	Sqm	857.13	106,45,985.39			
22.015	NH SOR 8.13	673	Road Marking with Hot Applied Thermoplastic Compound with Reflectorsing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorsing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	Sqm	791.00	5,32,343.00			
22.016	NH SOR 8.23 A	3000	Type - A, "W" : Metal Beam Crash Barrier (Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810)	Rmt	2,160.00	64,80,000.00			
16			Sub Total of Road Work	-		2662,32,399.83			