Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
Chapter - 4 : Bridge Works						
Section-01: General, Site Facilities, Environmental Mitigation & Enhancement Works						
4.01.01	Dismantling of existing/ damaged structures like culverts, bridges, retaining walls comprising of masonry, cement concrete, wood work, steel work by manual/ mechanical means and sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead up to 1000 meters including scrapping and removing concrete from MS rods, preparation and erection of platform where necessary, carrying, all sorts of handling, stacking the same properly after clearing, leveling and dressing the site and clearing the river/canal bed, etc. all complete as per direction of the E-I-C. Cost of conveying, loading, transportation of unserviceable material accumulated during dismantling operation is included in this unit rate. The unserviceable material must be disposed at a safe place outside the site premises with minimum traffic disruption and the procuring entity will not provide any environmentally safe place for disposing the unserviceable materials.					
4.01.01.01	RCC works					
4.01.01.01.03	Case III: By Mechanical Means	cum	2,745.99	2,728.72	2,683.44	2,683.44
4.01.01.01.04	Case IV: By Mechanical Means submersed in water	cum	4,118.98	4,093.08	4,025.16	4,025.16
4.01.06	Videography: Providing and carrying out video shoting of roads, bridges, buildings, other programmes by professional videographer including hiring of vehicle, equipment for video shooting, titling, lightening, mixing, lettering, editing including cost of two DVDs of approved makes and quality etc. all complete as per direction of E-I-C. The edition of the video film and the script for narration shall be as approved by the engineer.					
4.01.06.01	Within 50 Kilometer from district head quarter for full day	day	1,698.52	1,698.52	1,698.52	1,698.52
4.01.06.02	Beyond 50 Kilometer from district head quarter for full day	day	1,846.22	1,846.22	1,846.22	1,846.22
4.01.06.03	Work upto 5 hours per day only	day	1,104.04	1,104.04	1,104.04	1,104.04
4.01.09	Project Profile Signboard: Providing and fixing of typical project profile signboard as per direction of E-I-C, to be placed at a suitable place of the site including submission of proposals for the materials & size of the signboards (recommended size: 1800mm x 1200 mm with 2 nos. 75mm dia. MS post, outer & inner frames of board shall be 50mm x 50mm x 5mm & 25mm x 25mm x 5 mm respectively) and text layout to the engineer for approval which will be positioned as directed by the engineer and removing the same on completeion of the works or as instructed by the E-I-C. Sheeting will be made of encapsulated lens with retro-reflective type and messages/ borders will be screen printed. The text shall mention among others the name of the project, name of the implementing agency, cost of the project, completion time, name of the contractor etc.	sqm	16,002.77	15,955.69	15,885.08	15,885.08
4.01.10	Bench Mark Pillar: Manufacturing, supplying & fixing in position RCC (1:2:4) Bench Mark Pillars of size 150mm x 150mm x 750mm, with 400mm x 400mm x 100mm base having 3 nos. 10mm dia MS bar each way at base, 4 nos. 10mm dia vertical bar and 8 nos. 6mm dia tie, including cost of form works, concreting, reinforcement, plastering at top, inscribing on exposed surface, finishing surface, curing, earth cutting, embedding 450mm below GL., backfilling, ramming etc. complete as per direction of E-I-C.	each	1,161.02	1,155.69	1,123.16	1,125.70
4.01.11	Overall environment management in addition to the clause 27 & 29 of GCC to the entire satisfaction of Engineer-in-charge					

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1	2	3	4	5	6	7
4.01.11.01	Improvement of Waste Disposal Facility for temporary camp site. There should be atleast one camp in each site, there should be 1 no of organic waste and 1 no of inorganic waste disposal facility.	each	12,923.51	12,923.51	12,923.51	12,923.51
4.01.11.02	Dust suppression measures	km	2,584.70	2,584.70	2,584.70	2,584.70
4.01.12	Providing and maintaining adequate portable water supply, sanitation, cleanliness facilities at camp site and work site to the entire satisfaction of Engineer-in-charge.					
4.01.12.01	Temporary Toilet: Construction of temporary toilets in work site/ rest area complete as per design and specifications and approved by the Engineer-in-Charge. There should be 1 camp in each site. In each camp, there should be 1 no of toilet for women and 1 no of toilet for men	each	12,923.51	12,923.51	12,923.51	12,923.51
Section-02: Topographical Survey, Geotechnical Investigation & Preparation of Report						
4.02.01	Conducting detailed topographical survey by electronic total station (digital survey equipment) and investigation and collection of hydraulic data (essential design data as per appraisal format for bridges and culvert) regarding catchment area; L-section of road and canal, X-section of canal at the point of crossing at upstream and down stream as well as making of HFL/OFL, transferring and fixing of pucca bench mark at site, to pin point all salient features such as roads, building, trees, water body, play field, green area, water supply lines, sewer lines, electric/ telephonic lines with poles, wells etc., taking all the boundary measurement, internal angles, North direction, preparation of survey drawing including spot levels/ contours ongrids 5m x 5m and plotting on AutoCAD etc. complete including of all necessary material and labour required for survey work. Contractor shall submit final topographical survey drawings in five copies duly spiral binded along with soft copy.					
4.02.01.01	For catchment area less then 1.25 sq. Km.	each	37,232.03	37,232.03	37,232.03	37,232.03
4.02.01.02	For catchment area less then 1.25 to 2.50 sq. Km.	each	74,464.05	74,464.05	74,464.05	74,464.05
4.02.01.03	For catchment area beyond then 2.50 sq. Km.	each	104,249.68	104,249.68	104,249.68	104,249.68
4.02.02	Survey and investigation and preparation of Report for bridge approach road work with chain and compass, auto level, theodolite or total station including fixing of permanent benchmark and also fixing of bench mark on all the permanent structures, along the alignment, like boundary wall, electrical poles etc. Also marking of locations of boundary wall, electric poles, telephone poles trees etc. in the road boundary, collection and submission of existing inventory of the road all along the alignment conducting survey@20 metre interval for L-section and for single lane X-section interval will be @ 0.75, 1.25, 1.875, 2.60, 3.75, 4.50, 5.50 and 6.50 metre on both side of centre line for double or other lane interval for x-section shall be as specified by the E-I-C. Data collected as specified above are required to be submitted in both hard and soft copies, L-section, X-section and plan is required to be submitted in the shape of drawing sheets drawn with the help of auto plotter. Preparation of report complete and submission of the same in five copies duly spiral binded.					
4.02.02.01	For single lane road	km	22,339.22	22,339.22	22,339.22	22,339.22
4.02.02.02	For double lane road	km	29,040.98	29,040.98	29,040.98	29,040.98
4.02.02.03	Beyond the double lane	km	35,742.75	35,742.75	35,742.75	35,742.75
Section-04: Bailey Bridge (PSB), Steel pontoon and Steel Bridge						
4.04.05	IB: Elements of Iron bridge as per design, drawing, specification and direction of Engineer-in-charge.					
4.04.05.01	IB-SCIS: Supplying CI Shoe of specified diameter including fitting, fixing etc. all complete as per direction of the E-I-C.					

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1	2	3	4	5	6	7
4.04.05.01.01	IB-SCIS_300: For 300mm diameter, Weight of each shoe should be at least 45 kg	each	4,738.62	4,735.54	4,723.24	4,723.24
4.04.05.01.02	IB-SCIS_450: For 450mm diameter, Weight of each shoe should be at least 70 kg	each	7,297.48	7,294.03	7,280.25	7,280.25
4.04.05.01.03	IB-SCIS_600: For 600mm diameter, Weight of each shoe should be at least 90 kg	each	9,341.85	9,338.16	9,323.39	9,323.39
4.04.05.01.04	IB-SCIS_750: For 750mm diameter, Weight of each shoe should be at least 135 kg	each	14,012.78	14,007.24	13,985.09	13,985.09
4.04.05.02	IB-SCIC: Supplying CI Cap of standard size to fit on single/ double E.I. Rail, with necessary fittings etc. all complete as per direction of the E-I-C.					
4.04.05.02.01	IB-SCIC_SH: CI Cap (Single Headed)	each	2,384.70	2,381.62	2,369.31	2,369.31
4.04.05.02.02	IB-SCIC_DH: CI Cap (Double Headed)	each	2,698.55	2,694.24	2,677.01	2,677.01
4.04.05.03	IB-SEIR: Supplying Double headed/ Flat Footed EI rail of standard size at site to construct iron bridge including necessary fitting, fixing, drilling the hole and priming a coat of red oxide etc. all complete as per direction of E-I-C.	kg	129.51	129.09	128.45	128.45
4.04.05.06	IB-LE: Labour for erection of EI Rail including hoisting and placing in position etc. all complete as per direction of the E-I-C.	m	572.70	563.47	526.54	526.54
4.04.06	SSW_SF: Supply and fabrication of structural steel work in accordance with relavant ASTM/ AASHTO codes comprising of Main Girders, Cross Girders, Connecting plates, stringer, stiffening plates etc. intended for use in bridges and delivery at bridge site including straightening, descaling, degreasing, cutting to size and shape, drilling, welding conforming to AWS D 1.5M, grinding, removing rust with blast cleaning, trial assembling at workshop, one priming coat of shop paint with red oxide paint conforming to ASTM D83 with all labour, material, paints, consumables, stacking in protected condition, cost of testing at national accredited test authority/ BUET etc. as per approved drawing, specification and direction of E-I-C.					
4.04.06.01	Grade 345: Box & I Sections in accordance with ASTM A 709M/ AASHTO M 270 of Grade 345, 345S, 345W or HPS 345W	kg	179.49	179.49	179.49	179.49
4.04.06.02	Grade 485W: Decking Sheet in accordance with ASTM A 709M/ AASHTO M 270 of Grade 485W or HPS 345W	kg	182.16	182.16	182.16	182.16
4.04.06.03	Grade 250: Structural Steel sections such as columns, beams, bracings etc. in accordance with ASTM A 36M of Grade 250					
4.04.06.03.01	Grade 250BU: Built-up Sections	kg	127.80	127.80	127.80	127.80
4.04.06.03.02	Grade 250HR: Hot-rolled Sections (W, H, I-shape, Channel, Angle, Tube etc.)	kg	145.15	145.15	145.15	145.15
4.04.07	SSW_Bolt: Supply and installation of high-strength structural bolts of variable diameter with nut and washer for structural steel joints intended for use in bridges in accordance with ASTM/ AASHTO code including cost of hot-dip zinc coating on steel bolt conforming to ASTM A 153M/ AASHTO M232 and cost of testing at international/national accredited test authority/ BUET etc. as per approved design, drawing, specification and direction of E-I-C.	kg				
4.04.07.01	SSW_Bolt_325: Structural bolts in accordance with ASTM A325M/ AASHTO M 164M Type 1	kg	361.49	361.49	361.49	361.49
4.04.07.02	SSW_Bolt_490: Structural bolts in accordance with ASTM A490 Type 1	kg	509.19	509.19	509.19	509.19

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1	2	3	4	5	6	7
4.04.10	TSB: Transportation of Iron/ Bailey/ Steel Bridge Superstructure (Complete Sets) from LGED's Central/ Regional/ District Stack-yard or Source to the bridge construction site and stacking at proper place including loading, unloading, local handling as per design, drawing, specifications and direction of E-I-C.					
4.04.10.01	TSB_50: Within 50km of Stack-yard/ source to site	MT	1,979.74	1,964.85	1,918.14	1,918.14
4.04.10.02	TSB_50+: Additional charge Beyond 50km of Stack-yard/ source to site	MT-Km	6.69	6.69	6.69	6.69
Section-05: Excavation, Dewatering, Artificial Island & Cofferdam						
4.05.01	Earth work in excavation of foundation of structures by mechanical (Hydraulic excavator - Long Boom)/ manual means in all sorts of soil up to specified depth in accordance with requirements of lines, grades, cross sections and elevation as shown in the drawing including setting out, removal of stumps, logs, boulders and other deleterious materials, providing necessary tools and plants, construction of shoring and bracing, cleaning the excavated materials to a safe distance out of the site premises, cut to a firm surface including pumping/ bailing out water, removal of spoils to a safe distance, dressing of sides and bottom and backfilling of trenches up to original level with approved material etc. all complete as per approval of E-I-C. Contractor shall get acquainted with site conditions, nature of soil and adopt suitable adequate dewatering system as deemed fit for the nature of soil and prevailing water table to get the surface reasonably dry for laying PCC at the time of execution so that execution will not be hampered or delayed. Back-filled materials shall be compacted to a density comparable with the adjacent undisturbed material.					
4.05.01.02	Earth work in Ordinary Soil by Mechanical Means (Hydaulic Excavator) for an initial lead of 30m					
4.05.01.02.01	For depth up to 3m	cum	104.91	104.54	103.05	103.05
4.05.01.02.02	For depth 3m to 6m	cum	117.62	117.17	115.37	115.37
4.05.01.02.03	For depth above 6m	cum	133.71	133.17	130.98	130.98
4.05.01.04	Earth work Rocky, gravelly, slushy or organic type Soil by Mechanical Means (Hydaulic Excavator) for an initial lead of 30m					
4.05.01.04.01	For depth up to 3m	cum	115.39	114.98	113.34	113.34
4.05.01.04.02	For depth 3m to 6m	cum	130.80	130.26	128.12	128.12
4.05.01.04.03	For depth above 6m	cum	149.92	149.23	146.48	146.48
4.05.04	RB: Making arrangement of artificial ring bundh for construction of pile/ pile cap in river/channel having standing water not greater than 3 meter with supplying and driving sal-bulliah (150mm to 200mm dia) up to required depth, tarja, drum sheet, soil filled Geobag and all other necessary iron fitting, earth arranged and carried by contractor by any means including cost of all materials required for the work and maintaining the same till the completion of the main component of the structure for which the ring is made, etc. all complete as per direction of the Engineer-in-Charge. Contractor shall submit the design calculations and methodology which must be compatible with the weather conditions, waves, currents, construction equipment, construction method, internal permanent structures and ground condition. Contractor shall take necessary safety measure for the construction of earthen ring/cross bundh and responsible for all obligations. The temporary arrangement is to be completely removed on completion of the main component of the structure. Note: Additional payment for pumping & bailing out of water will not be given					

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1	2	3	4	5	6	7
4.05.04.01	RB_2: For 3m wide & 2m high earthen ring bundh constructed by driving 2/3rd part of 7m long wooden bullah at 500mm c/c in the outer side and driving bullah of same length at 750mm c/c in the inner side, placing tarza & dram sheet including lapping of min. 150mm, polythene sheet, soil filled geobag in the outer side, wooden bracing with 50mm x 50mm at 600mm c/c vertically, cross bracing with 12 BWG GI wire @ 1500mm c/c, bailing out of standing water from inner portion of ring bundh etc. [For depth of standing water: Up to 2m]	m	34,091.88	33,872.96	32,801.94	32,801.94
4.05.04.02	RB_2+: For 3m wide & 3m high earthen ring bundh constructed by driving 2/3rd part of 9m long wooden bullah at 500mm c/c in the outer side and driving same length bullah at 750mm c/c in the inner side, placing tarza & dram sheet including lapping of min. 150mm, polythene sheet, soil filled geobag in the outer side, wooden bracing with 50mm x 50mm at 600mm c/c vertically, cross bracing with 12 BWG GI wire @ 1500mm c/c, bailing out of standing water from inner portion of ring bundh etc. [For Depth of standing water: Above 2m and up to 3m]	m	44,601.33	44,315.84	42,926.24	42,926.24
4.05.08	Making arrangement of steel staging for construction of Cast-in-situ pile by driving of double headed EI Rail post up to 4.00 m to 6m with 600/750mm dia CI Shoe (screw) @ 1.00m c/c in transverse dimension and 4.00m c/c in longitudinal direction povided with double headed CI cap and RS Joist of required size in both direction. The double headed EI vertical post shall be cross-braced with 75mm x 75mm MS angle. The RS joist frame shall be covered with MS plate (6mm thick) to make a smooth platform. The work shall be completed including hiring charge of all material, fitting, fixing with nut bolt etc., all labour cost and maintaining the same till the completion of the work for which it is made. The structure is to be completely removed on completion of the work and the cost is inclusive of the element also. All work shall be done as per supplied drawing and direction of the E-I-C. Contractor shall take necessary safety measures for the stage and shall be responsible for any accident. Note: This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.					
4.05.08.01	For 5.00m to 9.00m depth of water	sqm	16,026.70	15,660.37	14,671.50	14,671.50
4.05.08.02	For 9.00m to 12.00m depth of water	sqm	18,493.88	18,067.70	16,926.22	16,926.22
4.05.08.03	For 12.00m to 15.00m depth of water	sqm	19,636.23	19,186.14	17,967.47	17,967.47
4.05.08.04	For 15.00m to 18.00m depth of water	sqm	20,794.30	20,319.97	19,023.04	19,023.04
4.05.08.05	For 18.00m & Above depth of water	sqm	21,992.28	21,492.92	20,114.91	20,114.91

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1	2	3	4	5	6	7
4.05.09	Construction of steel cofferdam with bottom frame with a required number of hole, side frame with necessary nos. of bracings at different level and top platform with provision of adequate access, light and ventilation including cost of MS plate, MS angle, joists, fabrication, welding, grinding, shifting the cofferdam from bank to pier location, lowering of cofferdam to it's design level, bottom plugging of cofferdam by 30MPa Tremie Concrete (underwater concrete) through a tube usually 200 to 250mm pipe, dewater the interior area, breaking head of hardened cast-in-situ bored pile to the cut-off level and exposing pile reinforcement for embedment in pile cap, erection and removal of cofferdam by unifloat (pontoon), monitoring the behavior of the cofferdam and surrounding area, tower crane, generator, gas cutter set etc. all complete in all respect as per direction of Design Unit & concern Engineer-in-Charge. Contractor shall submit the design calculations and methodology which must be compatible with the weather conditions, waves, currents, construction equipment, construction method, internal permanent structures and ground condition. Contractor shall take necessary safety measure for the construction of cofferdam and responsible for all obligations. Note: Measurement will be based on the actual pile cap area. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.					
4.05.09.01	For depth up to 5m from LWL	sqm	124,375.00	124,408.13	123,983.17	124,101.23
4.05.09.02	For depth 5m to 6m from LWL	sqm	136,812.50	136,848.94	136,381.49	136,511.35
4.05.09.03	For depth 6m to 7m from LWL	sqm	149,250.00	149,289.76	148,779.80	148,921.47
4.05.09.04	For depth 7m to 8m from LWL	sqm	161,687.50	161,730.57	161,178.12	161,331.60
4.05.09.05	For depth 8m to 9m from LWL	sqm	174,125.00	174,171.38	173,576.44	173,741.72
4.05.09.06	For depth 9m to 10m from LWL	sqm	186,562.50	186,612.20	185,974.75	186,151.84
4.05.09.07	For depth above 10m from LWL	sqm	199,000.00	199,053.01	198,373.07	198,561.97
4.05.10	Making arrangement of dewatering system to provide temporary reductions in ground water level for construction of pile caps/ foundation of any other structure which extend to below ground water level including installation of a wellpoint system consists of a closely spaced series of small-diameter shallow wells connected to a common headermain and pumped with a high-efficiency vacuum dewatering pump or installation and operation of series of submersible pumps so as to lower the water table to provide stable and dry conditions to facilitate excavation. For drawdowns in excess of 6m further stages of wellpoints are required, installed at successively lower levels as excavation proceeds. Dewatering system may be used around open cut excavations or in conjunction with shoring or retaining wall used to support the excavation. The choise of pumping system used for dewatering or groundwater systems depends on the amount of drawdown required and the ground conditions. Contractor shall submit the design calculations and methodology which must be compatible with the sub-soil & weather condition, construction equipment, construction method, ground water level etc. Contractor shall take necessary safety measure for making arrangement of dewatering system and responsible for all obligations. Note: Measurement will be based on the actual pile cap/ foundation area. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.					
4.05.10.01	Dewatering system for depth up to 3m	sqm	9,003.38	8,985.60	8,930.73	8,930.73
4.05.10.02	Dewatering system for depth 3m to 6m	sqm	27,873.14	27,836.10	27,726.51	27,726.51
4.05.10.03	Dewatering system for depth 6m to 9m	sqm	69,497.09	69,421.32	69,203.18	69,203.18

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4.05.10.04	Dewatering system for depth above 9m	sqm	86,871.36	86,776.65	86,503.97	86,503.97
4.05.11	SPW: Shore protection work during excavation in foundation trenches & construction of the same to protect loose soil by driving U-type hot rolled steed sheet pile of 600mm width, thickness 7.5mm, and using bracing type I-joist of nominal size 200x150 mm, sectional dimension 6mm in horizontal, long and short direction etc. all complete including maintennace upto completion of the work or as per direction of E-I-C (Taking out of sheet pile and removing of shore protection work to clean after completion of foundation work e.g. pile cap) Note: Measurement will be based on the actual pile cap area. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.					
4.05.11.01	SPW_3+: depth from 3 m to 4 m from LWL	sqm	29,612.12	29,459.71	28,885.75	28,922.01
4.05.11.02	SPW_4+: depth from 4 m to 5 m from LWL	sqm	33,008.84	32,833.47	32,188.95	32,225.21
Section-06: Sand Filling, Brick Soling, Plain Cement Concrete, Brick Work & Plaster						
4.06.01	Sand filling on the prepared foundation bed with sand of specified FM in layers not more than 150mm thick including necessary carriage, leveling, watering and ramming to achieve minimum dry density (MDD) of 95% STD compaction with optimum moisture content (OMC) by ramming each layer up to finished level as per direction of E-I-C.					
4.06.01.04	Sand of Minimum FM 2.5	cum	2,418.54	2,341.00	2,341.00	2,363.16
4.06.03	PCC-10: Plain cement concrete work in foundation with minimum compressive strength of 10 MPa at 28 days (sugessted mix proportion 1:3:6) on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded 1st class/ picked brick chips (LAA value not exceeding 40) comforming to ASTM C 33 including breaking bricks into chips, shuttering, mixing by concrete mixer machine, casting, laying compacting and curing for the requisite period etc. all complete as per direction of the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost.	cum	9,232.40	9,194.73	8,885.30	8,952.10
4.06.04	PCC-17: Plain cement concrete work in foundation with minimum compressive strength of 17 MPa at 28 days (sugessted mix proportion 1:2:4 & maximum w/c ratio 0.45) on standard cylinder as per standard practice of Code AASHTO/ ASTM/ and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded 1st class/ picked brick chips (LAA value not exceeding 40) comforming to ASTM C 33 including breaking bricks into chips, shuttering, mixing by concrete mixer machine, casting, laying compacting and curing for the requisite period etc. all complete as per direction of the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost.	cum	10,063.81	10,025.97	9,723.60	9,787.42

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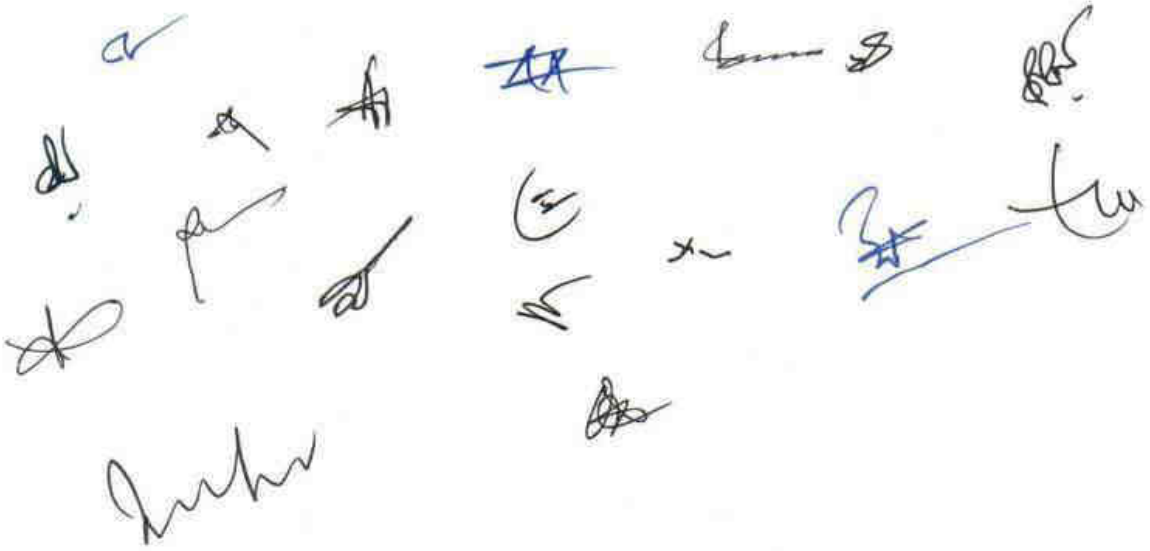
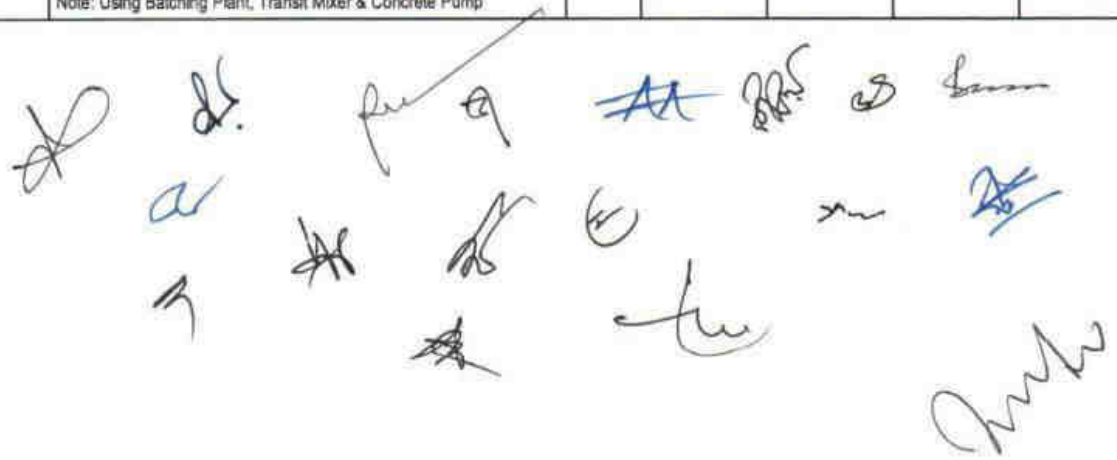
1	2	3	4	5	6	7
Section-07: Pile Work & Pile Test						
4.07.01	BCIS: Boring for cast-in-situ piles up to the required depth and specified diameter with driving temporary steel casing (shall be 8mm thick with necessary stiffener bands and sharp edge at bottom and provided up to non-collapsible strata from the existing ground level but not less then 4.0 m) in all types of soils including min. 2-chamber slurry tank, drilling with bentonite circulation (Dry Bentonite powder of liquid limit of minimum 350 shall be mixed with water @ minimum 4% by weight to make the fresh drilling fluid of viscosity between 32-50 seconds and density less than 1.1gm/cc), maintaining fluid level inside casing at all time at least 2 m higher than outside the casings, washing bore hole by air lift cleanup method with fresh bentonite slurry until the slurry from bore hole bottom have density less than 1.15gm/cc and sand content is less than 4%, make the bore hole ready for concreting including disposal/removal of all bored material, hire charge of mechanical winch machine/ skid mounted mechanical table drive rotary/ hydraulic rotary boring equipment, derrick, trimie pipe, cost of fuel, lubricant, mobilization, demobilization, spares, insurance coverage, water, electricity and other charges all complete as per design, drawing, specification and direction of E-I-C. Contractor shall submit the methodology of cast-in-situ pile work including information on boring equipment, sequence of boring & casting, quality control, disposal of spoils, test result of materials to the E-I-C for approval before commencing any boring operation. Boring and excavation for a pile shall not commence until 24 hours after completion of any pile within radius of 6 meters c/c. Cost of collecting, conveying, loading, transportation of spoils/mud accumulated during boring of cast-in-situ pile with all lifts and lead is included in this unit rate. The spoils must be dumped in an unobjectionable place outside the site premises with minimum traffic disruption and the procuring entity will not be responsible for any irregularities by the party regarding dumping of the spoils. Note: Boring method shall be selected as per instruction given in the drawing.	m				
4.07.01.01	BCIS_PM: Boring by PERCUSSION METHOD using Direct Mud Circulation (DMC) or Bailer and Chisel technique by tripod and mechanical winch machine. Tubewell boring machine shall not be used.					
4.07.01.01.01	450mm diameter	m	1,506.19	1,498.07	1,472.34	1,472.34
4.07.01.01.02	500mm diameter	m	1,869.61	1,857.76	1,818.84	1,818.84
4.07.01.01.03	600mm diameter	m	2,218.68	2,205.81	2,164.52	2,164.52
4.07.01.01.04	700mm diameter	m	2,575.60	2,562.06	2,518.90	2,518.90
4.07.01.01.05	800mm diameter	m	2,850.88	2,837.34	2,794.01	2,794.01
4.07.01.02	BCIS_SMMTD: Boring by Skid Mounted Mechanical Table Drive Rotary Boring/ Spindle Type Rotary Drilling Machine. Tube well boring machine/ Bailer and chisel technique by tripod and mechanical winch machine shall not be used.					
4.07.01.02.01	600mm diameter	m	2,565.07	2,561.35	2,549.36	2,549.36
4.07.01.02.02	700mm diameter	m	3,103.11	3,098.77	3,084.82	3,084.82
4.07.01.02.03	800mm diameter	m	3,668.55	3,663.58	3,647.61	3,647.61
4.07.01.02.04	900mm diameter	m	4,616.50	4,610.00	4,589.29	4,589.29
4.07.01.02.05	1000mm diameter	m	6,039.51	6,030.71	6,002.89	6,002.89
4.07.01.02.06	1200mm diameter	m	7,359.97	7,348.69	7,313.49	7,313.49
4.07.01.02.07	1500mm diameter	m	9,367.74	9,354.20	9,313.21	9,313.21

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.01.03	BCIS_HRM: Boring by HYDRAULIC ROTARY METHOD using Crawler mounted, telescopic boom hydraulic piling rig. Tube well boring machine/ Bailer and chisel technique by tripod and mechanical winch machine/ Skid Mounted Mechanical Table Drive Rotary Boring/ Spindle Type Rotary Drilling Machine shall not be used.					
4.07.01.03.01	600mm diameter	m	3,565.60	3,561.87	3,549.89	3,549.89
4.07.01.03.02	800mm diameter	m	4,743.40	4,738.44	4,722.46	4,722.46
4.07.01.03.03	900mm diameter	m	5,896.20	5,889.70	5,868.99	5,868.99
4.07.01.03.04	1000mm diameter	m	7,627.62	7,618.82	7,591.00	7,591.00
4.07.01.03.05	1200mm diameter	m	9,072.38	9,061.09	9,025.89	9,025.89
4.07.01.03.06	1500mm diameter	m	11,337.92	11,324.39	11,283.39	11,283.39
4.07.01.03.07	1800mm diameter	m	13,827.50	13,810.95	13,761.46	13,761.46
4.07.01.03.08	2000mm diameter	m	15,229.16	15,209.61	15,151.69	15,151.69
4.07.01.03.09	2500mm diameter	m	17,234.59	17,212.03	17,145.46	17,145.46
4.07.02	DCIS: Driven Cast-in-Situ vertical R.C.C. pile of specified diameter and length (length to be measured from the bottom of pile cap to the bottom of shoe), to carry safe working load not less than specified, including cost shoe & all other materials and labour for casting, hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary but excluding concrete & reinforcement etc. all complete as per drawing, specification and direction of Engineer-in-Charge.					
4.07.02.01	Pile diameter - 450 mm	m	5,142.24	5,139.77	5,135.84	5,135.84
4.07.02.02	Pile diameter - 500 mm	m	5,666.56	5,664.10	5,660.16	5,660.16
4.07.02.03	Pile diameter - 600 mm	m	6,190.89	6,188.42	6,184.49	6,184.49
4.07.02.04	Pile diameter - 700 mm	m	9,554.60	9,548.86	9,539.70	9,539.70
4.07.02.05	Pile diameter - 800 mm	m	10,720.24	10,712.85	10,700.98	10,700.98
4.07.02.06	Pile diameter - 900 mm	m	11,784.52	11,776.64	11,763.97	11,763.97
4.07.02.07	Pile diameter - 1000 mm	m	13,934.56	13,924.72	13,908.96	13,908.96
4.07.02.08	Pile diameter - 1200 mm	m	15,255.83	15,243.52	15,223.83	15,223.83
4.07.02.09	Pile diameter - 1500 mm	m	17,418.37	17,404.68	17,382.80	17,382.80

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.03	RCC-25SCCM: Reinforced cement concrete work for cast-in-situ pile with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking chips, screening through proper sieves, placing & maintaining re-bar cage in position, jointing longitudinal bars by welding or re-bar coupling method, placing and removing tripod/ derrick as per requirement, mixing in standard mixture machine with hoper, maintaining allowable slump of 150mm to 200mm, placing a sliding plug or barrier to prevent direct contact between the first charge of concrete in the pipe of the tremie and the water of drilling fluid, pouring the concrete in bore hole with the help of trimie pipe, maintaining the trimie pipe immersed in concrete by at least 1.5m throughout the period of concreting etc. including cost of all materials, labour, equipment and all incidental charges but excluding the cost of reinforcement and its fabrication, welding, coupling and placing etc. all complete as per design, drawing, specifications and direction of the E-I-C. The contractor shall maintain a continuous record of the volume of concrete used and the level of the concrete in the pipe. Any deviations from the theoretical, or expected, volume/ level relationship shall be immediately reported to the E-I-C. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. Note: Using Concrete Mixer	cum	15,695.04	15,775.78	14,740.18	15,027.88



Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.04	RCC-25SCBP: Reinforced cement concrete work for cast-in-situ pile with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking chips, screening through proper sieves, placing & maintaining re-bar cage in position, jointing longitudinal bars by welding or re-bar coupling method, placing and removing tripod/ derrick as per requirement, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 150mm to 200mm, placing a sliding plug or barrier to prevent direct contact between the first charge of concrete in the pipe of the tremie and the water of drilling fluid, pouring the concrete in bore hole with the help of trimie pipe, maintaining the trimie pipe immersed in concrete by at least 1.5m throughout the period of concreting etc. including cost of all materials, labour, equipment and all incidental charges but excluding the cost of reinforcement and its fabrication, welding, coupling and placing etc. all complete as per design, drawing, specifications and direction of the E-I-C. The contractor shall maintain a continuous record of the volume of concrete used and the level of the concrete in the pipe. Any deviations from the theoretical, or expected, volume/ level relationship shall be immediately reported to the E-I-C. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. Note: Using Batching Plant, Transit Mixer & Concrete Pump	cum	16,028.78	16,109.52	15,073.91	15,361.61



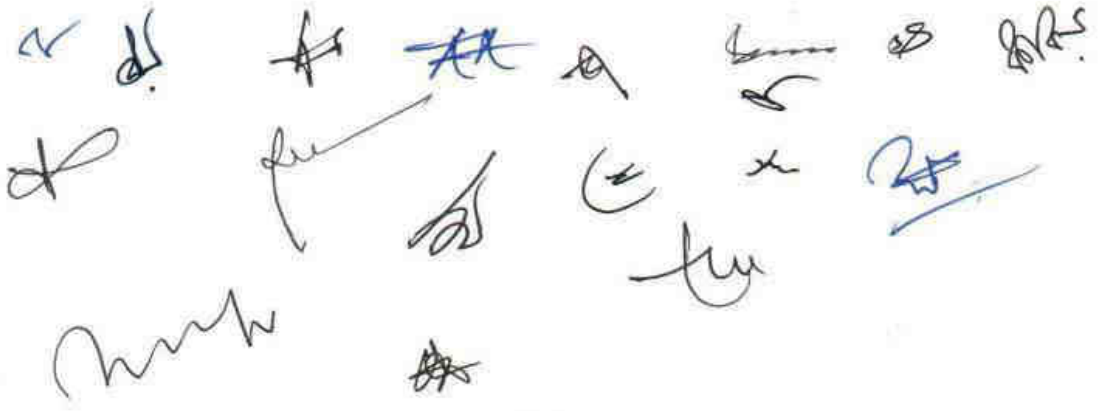
Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.05	RCC-30SCBP: Reinforced cement concrete work for cast-in-situ pile with minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, f'cr = 38.5 MPa and satisfying a specified compressive strength, f'c = 30 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33 including breaking chips, screening through proper sieves, placing & maintaining re-bar cage in position, jointing longitudinal bars by welding or re-bar coupling method, placing and removing tripod/ derrick as per requirement, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 150mm to 200mm, placing a sliding plug or barrier to prevent direct contact between the first charge of concrete in the pipe of the tremie and the water of drilling fluid, pouring the concrete in bore hole with the help of trimie pipe, maintaining the trimie pipe immersed in concrete by at least 1.5m throughout the period of concreting etc. including cost of all materials, labour, equipment and all incidental charges but excluding the cost of reinforcement and its fabrication, welding, coupling and placing etc. all complete as per design, drawing, specifications and direction of the E-I-C. The contractor shall maintain a continuous record of the volume of concrete used and the level of the concrete in the pipe. Any deviations from the theoretical, or expected volume/ level relationship shall be immediately reported to the E-I-C. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump	cum	16,965.24	17,045.98	16,010.37	16,298.08
4.07.06	Permanent Casing: Supplying, fabricating and placing in position permanent Steel casing conforming to ASTM A 36/ AASHTO M 183 for RCC bored cast-in-situ piles of specified diameters (internal) to a depth as shown in approved construction drawings including lowering & pitching the fabricated casing in position, driving the casing below bed level through all types of soil/clay/boulders/weathered or fissured or hard rock, fixing the casing in position with necessary lateral bracings (if required) etc. for stability until completion of all deck works, gas cutting, bending, welding at fabrication shop & site, painting with Red Oxide paint, transporting from fabrication shop to site, unloading at site, driving of casing, all sorts of labour, materials, tools, equipment, fuel, taxes etc. all complete as per design, drawing, specification & direction of Engineer-in-charge. Only length of steel casing driven as per drawing will be paid, wastage shall not be paid. All longitudinal and transverse welds shall be made with full penetration butt welds and adjacent segments shall be rotated 90 degree relative to each other so that longitudinal welds on the fabricated casing are staggered. The outside surface of the permanent casing shall receive two coats of anti-corrosion tar type paint which shall be approved by the Engineer-in-charge and it's application shall follow the manufacturer's instructions. If the handling, transportation, driving arrangement require a greater thickness to avoid deformation or buckling of casing, the increase in thickness shall be provided by the contractor at his own expense.					
4.07.06.01	400mm diameter and 6mm thick wall	m	7,441.38	7,440.70	7,437.99	7,437.99

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.06.02	500mm diameter and 6mm thick wall	m	9,916.92	9,916.22	9,913.38	9,913.38
4.07.06.03	600mm diameter and 6mm thick wall	m	11,897.81	11,897.02	11,893.85	11,893.85
4.07.06.04	700mm diameter and 6mm thick wall	m	13,822.80	13,822.01	13,818.84	13,818.84
4.07.06.05	800mm diameter and 8mm thick wall	m	20,965.46	20,964.61	20,961.21	20,961.21
4.07.06.06	900mm diameter and 8mm thick wall	m	23,527.39	23,526.54	23,523.14	23,523.14
4.07.06.07	1000mm diameter and 10mm thick wall	m	32,595.03	32,594.13	32,590.50	32,590.50
4.07.06.08	1200mm diameter and 10mm thick wall	m	37,335.72	37,334.80	37,331.12	37,331.12
4.07.06.09	1500mm diameter and 12mm thick wall	m	54,582.55	54,581.60	54,577.79	54,577.79
4.07.06.10	1800mm diameter and 12mm thick wall	m	65,435.87	65,434.75	65,430.31	65,430.31
4.07.06.11	2000mm diameter and 16mm thick wall	m	96,876.95	96,875.68	96,870.60	96,870.60
4.07.06.12	2500mm diameter and 20mm thick wall	m	151,168.35	151,166.92	151,161.21	151,161.21
4.07.06.13	Any other diameter and thickness not mentioned in the specified rate chart. Measurement will be based on the weight of the steel casing. Hire Charge of Tripod, Mechanical Winch Machine, Derrick, Welding machine, and other nececcery manpower is included in this unit rate.	MT	122,113.67	122,112.52	122,107.90	122,107.90
4.07.09	RCC-17BCCM: Reinforced cement concrete work for pre-cast pile with minimum cement content relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 24 MPa and satisfying a compressive strength f'c = 17 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. Note: Using Concrete Mixer	cum	11,128.24	11,084.06	10,735.34	10,805.48

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.10	RCC-25SCCM: Reinforced cement concrete work for pre-cast pile with cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. Note: Using Concrete Mixer	cum	17,144.82	17,234.68	16,007.18	16,343.80
4.07.11	RCC-25SCBP: Reinforced cement concrete work for pre-cast pile with cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average compressive strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. Note: Using Batching Plant, Transit Mixer & Concrete Pump	cum	17,782.40	17,880.90	16,669.97	17,006.58

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.12	RCC-30SCBP: Reinforced cement concrete work for pre-cast pile with minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, f'cr = 38.5 MPa and satisfying a specified compressive strength, f'c = 30 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, water reducing admixture of complying type A under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 50mm to 100mm, casting, compacting by mechanical vibrators and tapered rods as where necessary, curing for 28 days etc. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump	cum	18,791.55	18,890.05	17,679.12	18,015.73
4.07.13	Mobilization and demobilization of drop hammer type pre-cast pile driving rig set.	set/site	10,338.81	10,338.81	10,338.81	10,338.81
4.07.15	Mobilization and demobilization of automatic diesel hammer mounted compete rig set.	per site	184,572.39	184,572.39	184,572.39	184,572.39
4.07.16	Driving pre-cast RCC piles with automatic diesel hammer mounted rig in any type of soil to the required depth including fitting and fixing steel cap, handling and keeping in position and maintaining driving log in prescribed format as per design, drawing & direction of the E-I-C. Before commencing driving operation, contractor shall submit the methodology for carrying the driving operation including sequence of driving to the E-I-C. The maximum permitted deviation of the finished pile from the horizontal & vertical shall be 50mm & 25mm respectively. Cutting of a pile not being installed to the planned depth is exclusively subject to the approval of Design Unit, LGED.					
4.07.16.01	X-section of pre-cast pile: 225 mm X 225 mm	m	580.33	576.31	568.13	568.13
4.07.16.02	X-section of pre-cast pile: 250 mm X 250 mm	m	747.13	741.96	731.43	731.43
4.07.16.03	X-section of pre-cast pile: 300 mm X 300 mm	m	977.12	970.35	956.59	956.59
4.07.16.04	X-section of pre-cast pile: 350 mm X 350 mm	m	1,045.25	1,038.02	1,023.28	1,023.28
4.07.16.05	X-section of pre-cast pile: 400 mm X 400 mm	m	1,160.58	1,152.54	1,136.17	1,136.17
4.07.16.06	X-section of pre-cast pile: 450 mm X 450 mm	m	1,244.06	1,235.44	1,217.90	1,217.90
4.07.17	Mobilization and demobilization of Hydraulic Static Pile driver (HSPD) including complete accessories					
4.07.17.01	Maximum pile driving force up to 120 ton	set/site	188,683.30	188,683.30	188,683.30	188,683.30
4.07.17.02	Maximum pile driving force 120 to 180 ton	set/site	240,377.35	240,377.35	240,377.35	240,377.35
4.07.17.03	Maximum pile driving force 180 to 260 ton	set/site	292,071.41	292,071.41	292,071.41	292,071.41
4.07.17.04	Maximum pile driving force 260 to 360 ton	set/site	369,612.49	369,612.49	369,612.49	369,612.49

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.17.05	Maximum pile driving force above 360 ton	set/site	421,306.54	421,306.54	421,306.54	421,306.54
4.07.19	Supplying and driving vertical Steel piles of required shape and length including cost of all materials and labour for hoisting, driving etc. and also including cost of dummy lengths of pile and of hire charges of all instruments as necessary complete as per drawing, technical Specifications and direction of E-I-C.					
4.07.19.01	Steel H-Piles of 400mm x 250mm conforming to requirements of AASHTO M 183.	m	8,971.32	8,970.25	8,968.52	8,968.52
4.07.19.02	Steel H-Piles of 450mm x 250mm conforming to requirements of AASHTO M 183.	m	10,116.78	10,115.53	10,113.54	10,113.54
4.07.21	RCC-30SCCM: Reinforced cement concrete work for pre-cast driven micro pile with minimum cement content and maximum water cement ratio as specified by laboratory having minimum required average compressive strength, f'cr = 38.5 MPa and satisfying a specified compressive strength, f'c = 30 MPa at 28 days on standard cylinders as per standard practice of code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N/ ASTM C150 Type-1, water reducing admixture of complying type A under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33, mixing in standard mixture machine with hoper and fed by standard measuring boxes, including all related works like breaking stone boulders into chips, screening through proper sieves, cleaning and washing, centering and shuttering with MS sheet, MS angle, nuts and bolts, chamfering edges, preparation of casting beds, laying polythene, placing reinforcement cages in position, casting in steel forms, compacting by vibrators and tapered rods as where necessary , curing for 28 days, driving the pile upto the design depth as per standard practice or specified method, providing all equipment, labour, materials including carrying etc. all complete as per design, drawing and direction of the E-I-C. The cost of reinforcement and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength to be provided by the contractor at his own cost. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Concrete Mixer					
4.07.21.01	X-section of pre-cast pile: 150mm x 150mm					
4.07.21.01.01	Cost of reinforced cement concrete	m	403.46	405.73	378.39	385.94
4.07.21.02	X-section of pre-cast pile: 200mm x 200mm					
4.07.21.02.01	Cost of reinforced cement concrete	m	716.94	721.01	672.33	685.79



Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.23	SLT: Conducting static load test as per ASTM D 1143 or equivalent standard for the cast in situ/ pre-cast pile providing required land development (earth exavation, sand filling, sub-base, cement concrete work, bullah palisading etc.), Crib wall (sand bags, brick works, CC blocks etc.) depending on test loading, scaffolding, bracing, jacks, pressure test gauge, loading unloading, arranging other necessary plants and equipment including staging, mobilization, demobilization, cost of empty gunny/ fertilizer/ plastic bag, concrete block/ steel sheet, sand and filling sacs/ empty gunny/fertilizer/plastic bags, switching, loading and unloading, record readings and preparation of results in standard forms and other incidental charges as per standard practice and procedures including submission of load test report, furnishing all graph and chart etc. complete in all respects approved and accepted by the E-I-C. Before commencing load test, Contractor shall submit methodology along with combined calibration report for conducting load test to the E-I-C for approval. The Testing firm will be selected taking prior approval of procuring entity. The methodology of static load test and driving logs/ boring & pouring logs shall be the part of test report. Load Test and Report shall be conducted under the supervision of a professional Geotechnical Engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB). [Cost of Combined Calibration Test (Hydraulic Jack, pressure gauge & electric/hydraulic pump) has been included in all sub-items.]					
4.07.23.01	Up to 75 MT	each	148,844.69	148,687.95	147,601.58	147,601.58
4.07.23.02	Above 75 MT and up to 125 MT	each	199,542.00	199,479.52	198,298.88	198,298.88
4.07.23.03	Above 125 MT and up to 175 MT	each	261,303.06	261,235.40	259,687.01	259,687.01
4.07.23.04	Above 175 MT and up to 225 MT	each	312,000.36	312,026.97	310,384.31	310,384.31
4.07.23.05	Above 225 MT and up to 275 MT	each	362,717.87	362,838.97	361,101.82	361,101.82
4.07.23.06	Above 275 MT and up to 325 MT	each	416,137.00	416,302.42	414,272.33	414,272.33
4.07.23.07	Above 325 MT and up to 375 MT	each	466,827.20	467,086.89	464,962.52	464,962.52
4.07.23.08	Above 375 MT and up to 500 MT	each	508,696.46	507,697.04	505,573.28	505,573.28
4.07.23.09	Above 500 MT and up to 700 MT	each	780,668.18	779,468.88	776,920.36	776,920.36
4.07.23.10	Above 700 MT and up to 900 MT	each	946,348.01	944,848.89	941,663.24	941,663.24
4.07.23.11	Above 900 MT and up to 1100 MT	each	1,415,992.38	1,413,983.69	1,409,715.24	1,409,715.24
4.07.23.12	Above 1100 MT and up to 1300 MT	each	1,687,450.85	1,684,940.00	1,679,604.43	1,679,604.43
4.07.23.13	Above 1300 MT and up to 1500 MT	each	1,940,463.34	1,937,450.31	1,931,047.64	1,931,047.64
4.07.23.14	Above 1500 MT and up to 1700 MT	each	2,504,570.64	2,501,356.75	2,494,527.23	2,494,527.23
4.07.23.15	Above 1700 MT and up to 1900 MT	each	2,757,787.76	2,754,172.13	2,746,488.92	2,746,488.92
4.07.23.16	Above 1900 MT and up to 2100 MT	each	3,009,959.11	3,005,941.75	2,997,404.84	2,997,404.84
4.07.23.17	On each additional load Above 2100 MT	Per MT	1,436.82	1,434.90	1,430.84	1,430.84

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1	2	3	4	5	6	7
4.07.24	LLT: Performing Lateral load test for test load of 1.5 times of the working lateral load in accordance with ASTM D 3966 (Standard Test Methods for Deep Foundations under Lateral Load) on working pile including the cost of arranging kenteldge, jacks, platform, reaction frame with required anchorage, island where required, preparing the pile head if necessary, dial gauges, joist and all other necessary arrangement, loading and unloading, submission of the result, removal of all arrangement after completion, cost of all labour, material, carriage, leads and lift etc. complete as per approved drawing, Technical specification and as directed by the Engineer-in-charge. Before commencing load test, Contractor shall submit methodology for conducting load test to the E-I-C for approval. The Testing firm will be selected taking prior approval of procuring entity. The methodology of lateral load test and driving logs/ boring & pouring logs shall be the part of test report. Lateral Load Test and Report shall be conducted under the supervision of a professional Geotechnical Engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB).					
4.07.24.01	LLT_50: Up to 50 ton capacity pile	each	34,893.49	34,893.49	34,893.49	34,893.49
4.07.24.02	LLT_50+: Above 50 ton capacity pile	each	52,986.41	52,986.41	52,986.41	52,986.41
4.07.26	PIT (Pile Integrity Test): Conducting Low-Strain Impact Integrity Testing on cast-in-situ/ pre-cast piles in accordance with ASTM D 5882 (Standard Test Method for Low Strain Impact Integrity Testing of Deep Foundations) using pile integrity tester containing calibrated measuring devices like highly sensitive accelerometer, a magnification device, an amplification box, a small impact device (hammer) & a computer with ability to convert data from analog to digital form with graphical display on completion of required setting/ driving of piles, preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc., mobilizing and demobilizing of equipment, preparation of results in standard forms and compiling final report with recommendations on the tests etc. complete in all respects approved and accepted by the E-I-C. Report should include proper presentable graph of same wave speed (m/sec), impendence reduction, interpretation of results, cross sectional or material changes (if any), length of pile, concrete quality etc. Routine test samples shall be chosen by E-I-C on random basis. Methodology for conducting PIT shall be submitted to the E-I-C for approval and shall be the part of PIT report. All pile integrity tests shall be performed and analyzed under the supervison of a professional geotechnical engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB).					
4.07.26.02	Additional charge on Mobilization & demobilization beyond 100km of Dhaka/ nearby source to site	Per km	47.39	47.39	47.39	47.39

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1	2	3	4	5	6	7
4.07.27	PDA (Pile Driving Analyzer) Test: Performing high-strain dynamic testing on piles in accordance with ASTM D 4945 (Standard Method for High-Strain Dynamic Testing of Deep Foundation) to evaluate integrity of the hardened pile using pile driving analyser by impacting a weight of atleast 1.5% to 2% of required ultimate pile bearing capacity with a fall varying from 1m to 3m including preparing head, providing ply and sheet plates, fixing atleast 2 pairs of strain & acceleration sensors at diametrically opposite sides, experts, labour, mobilization, demobilization, data acquisition, CAPWAP analysis, integrity, interpolation, preparation of results in standard forms etc. complete in all respects approved and accepted by the E-I-C. Routine test samples shall be chosen by E-I-C on random basis. Before commencing PDA test, Contractor shall submit methodology for conducting test to the E-I-C for approval. The report should include true static capacity of the pile at the time of testing, simulated static load test curve, total skin variation along the length of pile, skin friction variation along the length of the pile, compressive and tensile stressses developed in pile during testing, net and total displacement of the pile & pile integrity. The Testing firm will be selected taking prior approval of procuring entity. All PDA testing shall be performed and analyzed under the supervison of a professional geotechnical engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB).					
4.07.27.01	For test load up to 100 MT					
4.07.27.01.01	Only one pile at a site to test in single run	each	114,342.32	114,250.01	113,880.77	113,880.77
4.07.27.01.02	Up to two piles at a site to test in single run	each	94,341.65	94,249.34	93,880.09	93,880.09
4.07.27.01.03	Up to three piles at a site to test in single run	each	87,674.42	87,582.11	87,212.87	87,212.87
4.07.27.01.04	four or above piles at a site to test in single run	each	84,341.31	84,249.00	83,879.76	83,879.76
4.07.27.02	For test load 101 MT to 300 MT					
4.07.27.02.01	Only one pile at a site to test in single run	each	183,316.96	183,224.65	182,855.41	182,855.41
4.07.27.02.02	Up to two piles at a site to test in single run	each	133,315.27	133,222.96	132,853.72	132,853.72
4.07.27.02.03	Up to three piles at a site to test in single run	each	116,647.71	116,555.40	116,186.16	116,186.16
4.07.27.02.04	four or above piles at a site to test in single run	each	108,314.43	108,222.12	107,852.87	107,852.87
4.07.27.03	For test load 301 MT to 500 MT					
4.07.27.03.01	Only one pile at a site to test in single run	each	300,540.92	300,448.61	300,079.37	300,079.37
4.07.27.03.02	Up to two piles at a site to test in single run	each	220,538.22	220,445.91	220,076.67	220,076.67
4.07.27.03.03	Up to three piles at a site to test in single run	each	193,870.32	193,778.01	193,408.76	193,408.76
4.07.27.03.04	four or above piles at a site to test in single run	each	180,536.87	180,444.56	180,075.31	180,075.31
4.07.27.04	For test load 501 MT to 800 MT					
4.07.27.04.01	Only one pile at a site to test in single run	each	386,105.35	386,013.04	385,643.80	385,643.80
4.07.27.04.02	Up to two piles at a site to test in single run	each	281,101.80	281,009.49	280,640.25	280,640.25
4.07.27.04.03	Up to three piles at a site to test in single run	each	246,100.62	246,008.31	245,639.07	245,639.07
4.07.27.04.04	four or above piles at a site to test in single run	each	228,600.03	228,507.72	228,138.48	228,138.48
4.07.27.05	For test load above 800 MT					
4.07.27.05.01	Only one pile at a site to test in single run	each	436,107.04	436,014.73	435,645.49	435,645.49
4.07.27.05.02	Up to two piles at a site to test in single run	each	306,102.65	306,010.34	305,641.09	305,641.09

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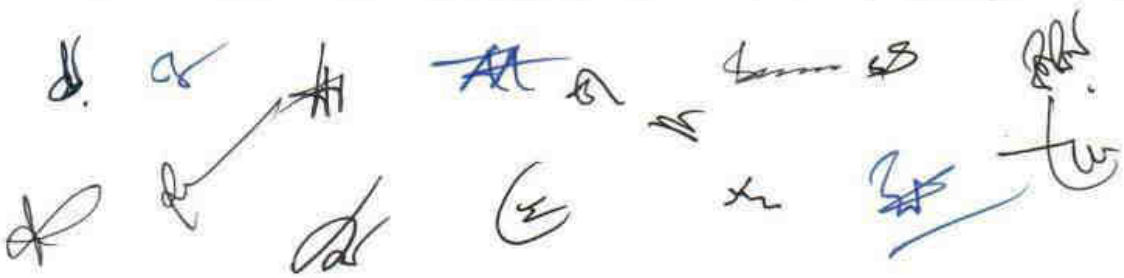
1	2	3	4	5	6	7
4.07.27.05.03	Up to three piles at a site to test in single run	each	262,771.18	262,678.87	262,309.63	262,309.63
4.07.27.05.04	four (or above) piles at a site to test in single run	each	241,100.45	241,008.14	240,638.90	240,638.90
4.07.28	CSL Access Tube Installation: Supplying and Installation of 38 to 50mm inside diameter standard weight MS access tubes in each diameter drilled shaft to permit possible inspection by CSL having regular internal diameter, free of defects and obstructions, free from corrosion with clean internal and external faces to ensure a good bond between the concrete and the tubes, fit with a watertight shoe on the bottom and removable cap on the top, extended to within 150mm of the bottom of the drilled shaft to at least 1.0m above the top of the concrete and at least 0.6m but not more than 1.5m above the ground surface including materials, labour, tools and equipment necessary for unobstructed passage of the probes during the CSL Testing.	m	876.83	875.46	869.66	869.66
4.07.29	CSL (Crosshole Sonic Logging) Test: Conducting ultrasonic crosshole testing for checking homogeneity, structural integrity, location of defects (if any) of concrete in bored pile/ drilled shafts in accordance with ASTM D 6760 (Standard Test Method for Integrity Testing of Concrete Deep Foundation by Ultrasonic Crosshole Testing) providing all equipment, experts, labour, mobilization, demobilization, data acquisition, analysis software, integrity, interpolation, preparation of results in standard forms etc. complete in all respects approved and accepted by the E-I-C. The contractor shall provide a pleliminary report to the E-I-C within 72 hours after the CSL testing has been finished and furnish two copies of the final CSL testing report sealed by the professional Geotechnical Engineer within 10 working days of testing. The final report should include CSL logs with analysis of the initial pulse arrival time versus depth and pulse energy/ amplitude versus depth and summary of the CSL test results which covers bored pile identification, test data, shaft age at time of CSL testing, bored pile diameter, number of CSL tubes tested, test length, average compression velocity & a drecription of defects detected. Before commencing CSL test, Contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval. All CSL testing shall be performed and analyzed under the supervison of a professional geotechnical engineer registered in the Bangladesh Professional Engineers Registration Board (BPERB), Institute of Engineers Bangladesh (IEB). The Testing firm will be selected taking prior approval of procuring entity.					
4.07.29.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and CSL Testing on 4 (four) nos. access tubes or less of a single bored pile/drilled shafts	set	279,470.98	279,458.06	279,341.74	279,341.74
4.07.29.02	Additional charge on Mobilization & demobilization beyond 100km of Dhaka/ nearby source to site	Per Km	47.39	47.39	47.39	47.39
4.07.29.03	CSL Testing on each additional access tube after 4(four) access tubes	each	57,267.32	57,264.09	57,235.01	57,235.01



Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.07.30	PG: Conducting post-grouting of the large diameter piles by repeatedly injecting high presssure grout after 1 or 2 days of concreting to improve shaft friction and end-bearing. Head displacement during base grouting operations must be carefully monitored and limited to 3mm. Conduit pipes with easily removable plugs at the bottom/ peripheral end should be placed in the bore along with reinforcement cage before concreting. including the cost of arranging kenteldge, jacks, platform, reaction frame with required anchorage, island where required, preparing the pile head if necessary, dial gauges, joist and all other necessary arrangement, loading and unloading, submission of the result, removal of all arrangement after completion, cost of all labour, material, carriage, leads and lift etc. complete as per approved drawing, Technical specification and as directed by the Engineer-in-charge. Before commencing post-grouting, Contractor shall submit methodology for conducting post-grouting to the Engineer-in-charge for approval. The firm will be selected taking prior approval of procuring entity. This item shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.					
4.07.30.01	PG_60: Post-grouting work by applying pressure up to 60 bars	cum	35,410.43	35,126.11	34,182.69	34,182.69
Section-08: Well Foundation Work						
4.08.01	Sinking of Well as per specification through all types of strata namely sandy soil, clayey soil and rock as shown against each case, including drawing Foundation Wells true to position and plumb with dia under cutting edge as mentioned below, including hire charges of all tools and plants etc. and supplying power, dewatering etc., initial excavation of earth complete as per drawing and technical specifications and direction of the Engineer-in-charge including throwing the spoils clear off the well up to 150m radius (Measurement to be taken in the following stages from the level of the bottom of capping slab on well up to the bottom of cutting edge) through any kind of soil including rocky soil and rock till 25% of cutting edge (linear) comes in contact with rock including testing of bottom plug by dewatering the well upto 5 meters and checking the rise in water level as per Specification. Depth of sinking is reckoned from bed level.					
4.08.01.01	Sinking of 6m external diameter well in Sandy Soil					
4.08.01.01.01	Depth below bed level up to 3.0 m	m	6,612.41	6,585.33	6,401.20	6,401.20
4.08.01.01.02	Depth beyond 3.0 m up to 10.0 m	m	9,280.93	9,247.08	9,016.92	9,016.92
4.08.01.01.03	Depth beyond 10.0 m up to 15.0 m	m	10,765.88	10,726.61	10,459.63	10,459.63
4.08.01.01.04	Depth beyond 15.0 m up to 20.0 m	m	13,735.77	13,685.68	13,345.04	13,345.04
4.08.01.01.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	22,738.28	22,655.35	22,091.45	22,091.45
4.08.01.01.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	32,483.25	32,364.79	31,559.22	31,559.22
4.08.01.01.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	50,117.02	49,934.24	48,691.37	48,691.37
4.08.01.02	Sinking of 6m external diameter well in Clayey Soil					
4.08.01.02.01	Depth below bed level up to 3.0 m	m	9,331.70	9,301.24	9,067.69	9,067.69
4.08.01.02.02	Depth beyond 3.0 m up to 10.0 m	m	22,535.53	22,474.61	22,007.51	22,007.51
4.08.01.02.03	Depth beyond 10.0 m up to 15.0 m	m	27,042.64	26,969.53	26,409.02	26,409.02

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1	2	3	4	5	6	7
4.08.01.02.04	Depth beyond 15.0 m up to 20.0 m	m	34,930.07	34,835.64	34,111.64	34,111.64
4.08.01.02.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	58,592.38	58,433.97	57,219.53	57,219.53
4.08.01.02.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	85,635.02	85,403.50	83,628.55	83,628.55
4.08.01.02.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	126,198.97	125,857.79	123,242.07	123,242.07
4.08.01.03	Sinking of 6m external diameter well in Soft Rock					
4.08.01.03.01	Depth below bed level up to 3.0 m	m	35,525.94	35,242.85	33,797.70	33,797.70
4.08.01.04	Sinking of 7m external diameter well in Sandy Soil					
4.08.01.04.01	Depth below bed level up to 3.0 m	m	9,789.45	9,755.60	9,525.44	9,525.44
4.08.01.04.02	Depth beyond 3.0 m up to 10.0 m	m	12,964.87	12,924.25	12,648.06	12,648.06
4.08.01.04.03	Depth beyond 10.0 m up to 15.0 m	m	15,039.25	14,992.13	14,671.75	14,671.75
4.08.01.04.04	Depth beyond 15.0 m up to 20.0 m	m	19,188.01	19,127.89	18,719.13	18,719.13
4.08.01.04.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	31,763.93	31,664.42	30,987.74	30,987.74
4.08.01.04.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	45,377.04	45,234.88	44,268.20	44,268.20
4.08.01.04.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	70,010.29	69,790.96	68,299.51	68,299.51
4.08.01.05	Sinking of 7m external diameter well in Clayey Soil					
4.08.01.05.01	Depth below bed level up to 3.0 m	m	12,964.87	12,924.25	12,648.06	12,648.06
4.08.01.05.02	Depth beyond 3.0 m up to 10.0 m	m	23,598.43	23,544.28	23,174.66	23,174.66
4.08.01.05.03	Depth beyond 10.0 m up to 15.0 m	m	28,318.12	28,253.13	27,809.60	27,809.60
4.08.01.05.04	Depth beyond 15.0 m up to 20.0 m	m	36,577.57	36,493.63	35,920.73	35,920.73
4.08.01.05.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	61,355.93	61,215.12	60,254.13	60,254.13
4.08.01.05.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	89,674.05	89,468.25	88,063.73	88,063.73
4.08.01.05.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	132,151.23	131,847.95	129,778.12	129,778.12
4.08.01.06	Sinking of 7m external diameter well in Soft Rock					
4.08.01.06.01	Depth below bed level up to 3.0 m	m	30,211.09	30,069.55	29,126.16	29,126.16
4.08.01.07	Sinking of 8m external diameter well in Sandy Soil					
4.08.01.07.01	Depth below bed level up to 3.0 m	m	11,949.45	11,908.83	11,632.64	11,632.64
4.08.01.07.02	Depth beyond 3.0 m up to 10.0 m	m	14,655.88	14,608.49	14,283.56	14,283.56
4.08.01.07.03	Depth beyond 10.0 m up to 15.0 m	m	17,000.82	16,945.85	16,568.93	16,568.93

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1	2	3	4	5	6	7
4.08.01.07.04	Depth beyond 15.0 m up to 20.0 m	m	21,690.70	21,620.57	21,139.67	21,139.67
4.08.01.07.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	35,906.91	35,790.81	34,994.72	34,994.72
4.08.01.07.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	51,295.58	51,129.73	49,992.46	49,992.46
4.08.01.07.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	79,141.75	78,885.86	77,131.22	77,131.22
4.08.01.08	Sinking of 8m external diameter well in Clayey Soil					
4.08.01.08.01	Depth below bed level up to 3.0 m	m	15,879.80	15,832.41	15,492.58	15,492.58
4.08.01.08.02	Depth beyond 3.0 m up to 10.0 m	m	24,501.48	24,440.55	24,005.95	24,005.95
4.08.01.08.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	29,401.77	29,328.66	28,807.15	28,807.15
4.08.01.08.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	37,977.29	37,882.86	37,209.23	37,209.23
4.08.01.08.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	63,703.85	63,545.44	62,415.48	62,415.48
4.08.01.08.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	93,105.62	92,874.10	91,222.63	91,222.63
4.08.01.08.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	137,208.28	136,867.10	134,433.35	134,433.35
4.08.01.09	Sinking of 8m external diameter well in Soft Rock					
4.08.01.09.01	Depth below bed level up to 3.0 m	m	33,176.42	33,006.57	31,925.18	31,925.18
4.08.01.10	Sinking of 9m external diameter well in Sandy Soil					
4.08.01.10.01	Depth below bed level up to 3.0 m	m	12,145.09	12,101.09	11,810.68	11,810.68
4.08.01.10.02	Depth beyond 3.0 m up to 10.0 m	m	16,062.57	16,008.42	15,655.05	15,655.05
4.08.01.10.03	Depth beyond 10.0 m up to 15.0 m	m	18,632.59	18,569.76	18,159.86	18,159.86
4.08.01.10.04	Depth beyond 15.0 m up to 20.0 m	m	23,772.61	23,692.46	23,169.48	23,169.48
4.08.01.10.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	39,353.30	39,220.62	38,354.88	38,354.88
4.08.01.10.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	56,219.01	56,029.46	54,792.68	54,792.68
4.08.01.10.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	86,737.90	86,445.46	84,537.28	84,537.28
4.08.01.11	Sinking of 9m external diameter well in Clayey Soil					
4.08.01.11.01	Depth below bed level up to 3.0 m	m	16,830.37	16,779.59	16,407.95	16,407.95
4.08.01.11.02	Depth beyond 3.0 m up to 10.0 m	m	26,876.21	26,808.51	26,345.48	26,345.48
4.08.01.11.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	32,251.45	32,170.21	31,614.58	31,614.58

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.01.11.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	41,658.12	41,553.19	40,835.49	40,835.49
4.08.01.11.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	69,878.13	69,702.13	68,498.25	68,498.25
4.08.01.11.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	102,129.58	101,872.34	100,112.82	100,112.82
4.08.01.11.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	150,506.75	150,127.86	147,534.69	147,534.69
4.08.01.12	Sinking of 9m external diameter well in Soft Rock					
4.08.01.12.01	Depth below bed level up to 3.0 m	m	38,700.75	38,502.59	37,288.15	37,288.15
4.08.01.13	Sinking of 10m external diameter well in Sandy Soil					
4.08.01.13.01	Depth below bed level up to 3.0 m	m	14,371.56	14,324.18	14,019.55	14,019.55
4.08.01.13.02	Depth beyond 3.0 m up to 10.0 m	m	17,032.10	16,974.55	16,588.02	16,588.02
4.08.01.13.03	Depth beyond 10.0 m up to 15.0 m	m	19,757.23	19,690.48	19,242.10	19,242.10
4.08.01.13.04	Depth beyond 15.0 m up to 20.0 m	m	25,207.50	25,122.34	24,550.27	24,550.27
4.08.01.13.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	41,728.63	41,587.66	40,640.65	40,640.65
4.08.01.13.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	59,612.33	59,410.94	58,058.07	58,058.07
4.08.01.13.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	91,973.32	91,662.60	89,575.30	89,575.30
4.08.01.14	Sinking of 10m external diameter well in Clayey Soil					
4.08.01.14.01	Depth below bed level up to 3.0 m	m	18,886.79	18,812.33	18,328.31	18,328.31
4.08.01.14.02	Depth beyond 3.0 m up to 10.0 m	m	27,247.07	27,172.61	26,644.59	26,644.59
4.08.01.14.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	32,696.49	32,607.13	31,973.51	31,973.51
4.08.01.14.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	42,232.97	42,117.55	41,299.12	41,299.12
4.08.01.14.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	70,842.39	70,648.79	69,275.94	69,275.94
4.08.01.14.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	103,538.88	103,255.92	101,249.45	101,249.45
4.08.01.14.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	152,583.62	152,166.62	149,209.72	149,209.72
4.08.01.15	Sinking of 10m external diameter well in Soft Rock					
4.08.01.15.01	Depth below bed level up to 3.0 m	m	42,123.37	41,896.90	40,547.99	40,547.99
4.08.01.16	Sinking of 11m external diameter well in Sandy Soil					
4.08.01.16.01	Depth below bed level up to 3.0 m	m	32,525.90	32,436.54	31,847.60	31,847.60
4.08.01.16.02	Depth beyond 3.0 m up to 10.0 m	m	27,345.91	27,224.06	26,422.55	26,422.55

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.01.16.03	Depth beyond 10.0 m up to 15.0 m	m	31,721.25	31,579.91	30,650.16	30,650.16
4.08.01.16.04	Depth beyond 15.0 m up to 20.0 m	m	40,471.94	40,291.61	39,105.38	39,105.38
4.08.01.16.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	66,997.48	66,698.94	64,735.26	64,735.26
4.08.01.16.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	95,710.68	95,284.20	92,478.94	92,478.94
4.08.01.16.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	147,667.91	147,009.91	142,681.79	142,681.79
4.08.01.17	Sinking of 11m external diameter well in Clayey Soil					
4.08.01.17.01	Depth below bed level up to 3.0 m	m	31,496.94	31,388.63	30,581.71	30,581.71
4.08.01.17.02	Depth beyond 3.0 m up to 10.0 m	m	56,839.09	56,683.39	55,528.52	55,528.52
4.08.01.17.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	68,206.91	68,020.07	66,634.23	66,634.23
4.08.01.17.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	88,100.59	87,859.26	86,069.21	86,069.21
4.08.01.17.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	147,781.63	147,376.82	144,374.16	144,374.16
4.08.01.17.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	215,988.54	215,396.89	211,008.38	211,008.38
4.08.01.17.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	318,298.90	317,426.99	310,959.72	310,959.72
4.08.01.18	Sinking of 11m external diameter well in Soft Rock					
4.08.01.18.01	Depth below bed level up to 3.0 m	m	93,489.31	92,979.76	89,993.19	89,993.19
4.08.01.19	Sinking of 12m external diameter well in Sandy Soil					
4.08.01.19.01	Depth below bed level up to 3.0 m	m	68,122.42	67,905.80	66,505.88	66,505.88
4.08.01.19.02	Depth beyond 3.0 m up to 10.0 m	m	77,829.83	77,572.59	75,766.50	75,766.50
4.08.01.19.03	Depth beyond 10.0 m up to 15.0 m	m	90,282.60	89,984.20	87,889.14	87,889.14
4.08.01.19.04	Depth beyond 15.0 m up to 20.0 m	m	115,188.15	114,807.43	112,134.42	112,134.42
4.08.01.19.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	190,683.08	190,052.85	185,627.92	185,627.92
4.08.01.19.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	272,404.40	271,504.06	265,182.74	265,182.74
4.08.01.19.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	420,281.08	418,891.99	409,139.09	409,139.09
4.08.01.20	Sinking of 12m external diameter well in Clayey Soil					
4.08.01.20.01	Depth below bed level up to 3.0 m	m	76,684.44	76,440.74	74,572.37	74,572.37
4.08.01.20.02	Depth beyond 3.0 m up to 10.0 m	m	136,423.56	136,098.63	133,653.50	133,653.50
4.08.01.20.03	Depth beyond 10.0 m up to 15.0 m [Considering additional cost for Dewatering]	m	163,708.28	163,318.35	160,384.20	160,384.20

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.01.20.04	Depth beyond 15.0 m up to 20.0 m [Considering additional cost for Dewatering]	m	211,456.52	210,952.87	207,162.92	207,162.92
4.08.01.20.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	354,701.26	353,856.43	347,499.10	347,499.10
4.08.01.20.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	518,409.54	517,174.79	507,883.30	507,883.30
4.08.01.20.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	763,971.95	762,152.32	748,459.60	748,459.60
4.08.01.21	Sinking of 12m external diameter well in Soft Rock					
4.08.01.21.01	Depth below bed level up to 3.0 m	m	214,633.34	213,501.00	206,902.25	206,902.25
4.08.02	Sinking of Twin D Type Well as per specification through all types of strata namely sandy soil, clayey soil and rock as shown against each case, including drawing Foundation Wells true to position and plumb with dia under cutting edge as mentioned below, including hire charges of all tools and plants etc. and supplying power, dewatering etc., initial excavation of earth complete as per drawing and technical specifications and direction of the Engineer-in-charge including throwing the spoils clear off the well up to 150m radius (Measurement to be taken in the following stages from the level of the bottom of capping slab on well up to the bottom of cutting edge). Depth of sinking is reckoned from bed level.					
4.08.02.01	Sinking of 8m external diameter well in Sandy Soil					
4.08.02.01.01	Depth below bed level up to 3.0 m	m	15,336.21	15,285.44	14,984.20	14,984.20
4.08.02.01.02	Depth beyond 3.0 m up to 10.0 m	m	16,625.79	16,571.64	16,233.16	16,233.16
4.08.02.01.03	Depth beyond 10.0 m up to 15.0 m	m	19,285.92	19,223.10	18,830.47	18,830.47
4.08.02.01.04	Depth beyond 15.0 m up to 20.0 m	m	24,606.17	24,526.02	24,025.08	24,025.08
4.08.02.01.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	40,733.19	40,600.51	39,771.25	39,771.25
4.08.02.01.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	58,190.27	58,000.73	56,816.07	56,816.07
4.08.02.01.07	Depth beyond 30.0 m [Considering additional cost for Kentledge including supports, loading arrangement and Labour.]	m	89,779.28	89,486.84	87,659.08	87,659.08
4.08.02.02	Sinking of 8m external diameter well in Clayey Soil					
4.08.02.02.01	Depth below bed level up to 3.0 m	m	18,287.83	18,233.67	17,830.21	17,830.21
4.08.02.02.02	Depth beyond 3.0 m up to 10.0 m	m	30,233.22	30,151.98	29,576.58	29,576.58
4.08.02.02.03	Depth beyond 10.0 m up to 15.0 m	m	36,279.86	36,182.38	35,491.90	35,491.90
4.08.02.02.04	Depth beyond 15.0 m up to 20.0 m	m	46,861.49	46,735.58	45,843.70	45,843.70
4.08.02.02.05	Depth beyond 20.0 m up to 25.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	78,606.37	78,395.16	76,899.11	76,899.11
4.08.02.02.06	Depth beyond 25.0 m up to 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	114,886.23	114,577.54	112,391.01	112,391.01

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.02.02.07	Depth beyond 30.0 m [Considering additional cost for Dewatering, Kentledge including supports, loading arrangement and Labour.]	m	169,306.02	168,851.11	165,628.85	165,628.85
4.08.02.03	Sinking of 8m external diameter well in Soft Rock					
4.08.02.03.01	Depth below bed level up to 3.0 m	m	48,305.31	48,093.00	46,758.24	46,758.24
4.08.03	SL: Providing Steel liner 10 mm thick for Curbs and 6 mm thick for Steining of Wells including fabrication and setting out as per detailed drawing, specification and direction of Engineer-in-Charge.	MT	131,021.16	130,875.90	129,260.98	129,260.98
4.08.04	SCE: Providing and laying Steel Cutting edge weighing not less than 40 kg per metre for Well foundation including cost & carriage of all materials complete as per drawing, specification and direction of Engineer-in-charge.	MT	147,055.68	146,796.54	144,732.40	144,732.40
4.08.05	PCC/RCC_WF: Plain/ Reinforced Cement Concrete, in Well foundation with coarse aggregates of appropriate nominal size and grading, fine aggregate (sand) conforming to proper grading zone, both of approved quality, cement and water reducing admixtures, as necessary, including labour, cost and carriage of all materials and including preparation of design mix, approval of the same by the Engineer-in-Charge and cost for quality control, sampling, testing etc. all complete as per drawing and technical specification including the cost of necessary form work and staging complete.					
4.08.05.01	In well curb					
4.08.05.01.01	RCC-17BCCM : Compressive strength, f'c = 17 MPa MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture]	cum	10,907.45	10,890.22	10,609.82	10,687.04
4.08.05.01.02	RCC-20SCCM : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35), water reducing admixture of complying type A under ASTM C 494 [Using Concrete Mixture]	cum	16,191.83	16,334.93	15,060.94	15,420.83
4.08.05.01.03	RCC-20SCBP : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35)., water reducing admixture of complying type A under ASTM C 494 [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	15,774.22	15,936.29	14,739.97	15,099.86
4.08.05.01.04	RCC-25SCCM : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30), high range water reducing admixture of complying type F under ASTM C 494 [Using Concrete Mixture]	cum	16,957.23	17,074.68	15,870.13	16,215.38
4.08.05.01.05	RCC-25SCBP : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30), high range water reducing admixture of complying type F under ASTM C 494 [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	16,539.62	16,676.04	15,549.17	15,894.41
4.08.05.01.06	RCC-30SCCM : Compressive strength, f'c = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30), high range water reducing admixture of complying type F under ASTM C 494. [Using Concrete Mixture]	cum	18,011.97	18,129.42	16,924.88	17,270.12

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.01.07	RCC-30SCBP : Compressive strength, f'c = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	17,594.37	17,730.78	16,603.91	16,949.15
4.08.05.02	In well steining					
4.08.05.02.01	RCC-17BCCM : Compressive strength, f'c = 17 MPa MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture]	cum	9,998.49	9,982.71	9,725.67	9,796.45
4.08.05.02.02	RCC-20SCCM : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35), water reducing admixture of complying type A under ASTM C 494 [Using Concrete Mixture]	cum	14,842.51	14,973.69	13,805.86	14,135.76
4.08.05.02.03	RCC-20SCBP : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35),, water reducing admixture of complying type A under ASTM C 494 [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	14,459.70	14,608.26	13,511.64	13,841.54
4.08.05.02.04	RCC-25SCCM : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	15,544.13	15,651.79	14,547.62	14,864.09
4.08.05.02.05	RCC-25SCBP : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	15,161.32	15,266.37	14,253.40	14,569.87
4.08.05.02.06	RCC-30SCCM : Compressive strength, f'c = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	16,510.98	16,618.64	15,514.47	15,830.94
4.08.05.02.07	RCC-30SCBP : Compressive strength, f'c = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	16,128.17	16,253.21	15,220.25	15,536.72
4.08.05.02.09	RCC-35SCBP : Compressive strength, f'c = 35 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.8 and 20mm down well graded crushed stone chips (LAA <=25). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	17,199.10	17,324.14	16,291.18	16,607.65
4.08.05.03	In Bottom Plug [Concrete to be placed using tremie pipe, 10% extra cement is included in these unit rates.]					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.03.01	PCC-17BCCM : Compressive strength, f'c = 17 MPa MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 40mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture]	cum	10,350.18	10,335.95	10,093.64	10,160.32
4.08.05.03.02	PCC-20SCCM : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Concrete Mixture]	cum	14,969.97	15,105.46	13,954.11	14,241.41
4.08.05.03.03	PCC-20SCBP : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Batching Plant, Transit Mixer & Crane/ Concrete Pump]	cum	14,311.93	14,464.07	13,380.78	13,668.08
4.08.05.03.04	PCC-25SCCM : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	15,962.66	16,161.12	15,003.54	15,301.86
4.08.05.03.05	PCC-25SCBP : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Crane/ Concrete Pump]	cum	15,304.61	15,519.73	14,430.21	14,728.53
4.08.05.03.06	RCC-30SCCM : Compressive strength, f'c = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	16,975.74	17,174.27	16,016.80	16,315.12
4.08.05.03.07	PCC-30SCBP : Compressive strength, f'c = 35 Mpa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=25). [Using Batching Plant, Transit Mixer & Crane/ Concrete Pump]	cum	18,134.25	18,349.37	17,259.85	17,558.16
4.08.05.04	In Intermediate Plug [Concrete to be placed using tremie pipe, 10% extra cement is included in these unit rates.]					
4.08.05.04.01	PCC-17BCCM : Compressive strength, f'c = 17 MPa MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 40mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture]	cum	9,857.31	9,843.76	9,612.99	9,676.50
4.08.05.04.02	PCC-20SCCM : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Concrete Mixture]	cum	14,257.12	14,386.15	13,289.63	13,563.25

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.04.03	PCC-20SCBP : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Batching Plant, Transit Mixer & Crane/ Concrete Pump]	cum	13,630.41	13,775.30	12,743.60	13,017.22
4.08.05.04.04	PCC-25SCCM : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	15,202.53	15,391.54	14,289.09	14,573.20
4.08.05.04.05	PCC-25SCBP : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Crane/ Concrete Pump]	cum	14,575.82	14,780.69	13,743.06	14,027.17
4.08.05.05	In Top Plug					
4.08.05.05.01	PCC-17BCCM : Compressive strength, f'c = 17 MPa MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 40mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture]	cum	8,928.68	8,915.20	8,684.52	8,748.03
4.08.05.05.02	PCC-20SCCM : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Concrete Mixture]	cum	13,389.93	13,519.02	12,422.60	12,696.23
4.08.05.05.03	PCC-20SCBP : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, water reducing admixture of complying type A under ASTM C 494, sand of minimum FM 2.2 and 38mm down well graded crushed stone chips (LAA <=35). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	13,041.92	13,186.82	12,155.13	12,428.75
4.08.05.05.04	PCC-25SCCM : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	14,437.25	14,626.33	13,523.98	13,808.08
4.08.05.05.05	PCC-25SCBP : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 38mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	14,089.25	14,294.13	13,256.50	13,540.61
4.08.05.06	In well cap					
4.08.05.06.01	RCC-17BCCM : Compressive strength, f'c = 17 MPa MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA <=38) [Using Concrete Mixture]	cum	9,401.34	9,386.22	9,142.91	9,209.83

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.08.05.06.02	RCC-20SCCM : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35), water reducing admixture of complying type A under ASTM C 494 [Using Concrete Mixture]	cum	13,999.19	14,122.91	13,021.44	13,332.59
4.08.05.06.03	RCC-20SCBP : Compressive strength, f'c = 20 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 2.2 and 20mm down well graded crushed stone chips (LAA <=35),, water reducing admixture of complying type A under ASTM C 494 [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	13,638.13	13,778.25	12,743.93	13,055.09
4.08.05.06.04	RCC-25SCCM : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	14,625.61	14,726.91	13,687.99	13,985.76
4.08.05.06.05	RCC-25SCBP : Compressive strength, f'c = 25 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	14,265.43	14,383.08	13,411.16	13,708.93
4.08.05.06.06	RCC-30SCCM : Compressive strength, f'c = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Concrete Mixture]	cum	15,460.28	15,561.09	14,527.19	14,823.52
4.08.05.06.07	RCC-30SCBP : Compressive strength, f'c = 30 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.5 and 20mm down well graded crushed stone chips (LAA <=30). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	15,101.83	15,218.92	14,251.69	14,548.02
4.08.05.06.08	RCC-35SCBP : Compressive strength, f'c = 35 MPa at 28 days on standard cylinders, cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N, high range water reducing admixture of complying type F under ASTM C 494, sand of minimum FM 2.8 and 20mm down well graded crushed stone chips (LAA <=25). [Using Batching Plant, Transit Mixer & Concrete Pump]	cum	16,104.61	16,221.70	15,254.47	15,550.80
4.08.06	Brick work with 1st class brick in specified cement mortar in staining of wells with sand of minimum FM 1.50 and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, cutting bricks to required sizes, cleaning and soaking bricks at least for 24 hours before use, hoisting and keeping in position the MS bond rods and finished with flush pointing joints, watering, etc. complete including cost of all materials but excluding cost of MS bond rods and bottle nuts, etc. all complete as per direction of the E-I-C.					
4.08.06.01	Cement mortar (1:3)	cum	9,286.69	9,266.04	8,932.61	9,032.55
4.08.06.02	Cement mortar (1:4)	cum	8,867.72	8,847.07	8,513.64	8,613.58

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
Section-09: Reinforced Cement Concrete (RCC) Works						
4.09.01	RCC-17BCCM: Reinforced cement concrete work with minimum cement content relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.45 having minimum required average strength, f'cr = 24 MPa and satisfying a compressive strength f'c = 17 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded crushed picked brick chips (LAA value & maximum water absorption not exceeding 38 & 15% respectively) conforming to garadation requirement as per ASTM C 33 including screening chips through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, fed by standard measuring boxes, maintaining allowable slump of 50mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included in this unit rate. Additional quantity of cement to be added if required to attain the specified strength at the contractor's own cost. Note: Using Concrete Mixer					
4.09.01.01	For pile caps, abutment base of bridges and bottom slab of box culverts	cum	11,128.24	11,084.06	10,735.34	10,805.48
4.09.01.02	For diaphragm walls, wing walls, piers, columns, pier caps, abutments of bridges and vertical members of box culverts					
4.09.01.02.01	For height up to 5m	cum	11,638.71	11,592.50	11,227.79	11,301.14
4.09.01.02.02	For height above 5m	cum	14,548.38	14,490.63	14,034.73	14,126.43
4.09.01.03	For solid slab type super-structure including cantilever, side walk, curb, wheel guard of bridges					
4.09.01.03.01	For height Up to 5m	cum	14,293.15	14,236.40	13,788.51	13,878.60
4.09.01.03.02	For height above 5m	cum	16,079.79	16,015.96	15,512.07	15,613.42
4.09.01.04	For T-girder & slab type super-structure including cross girders, side walk, curb, wheel guard of bridges					
4.09.01.04.01	For height up to 5m	cum	15,354.19	15,282.04	14,784.24	14,877.54
4.09.01.04.02	For height above 5m	cum	17,465.39	17,383.31	16,817.07	16,923.20
4.09.01.05	For top slab including curb and wheel guard of box culvert					
4.09.01.05.01	For height up to 5m	cum	13,068.02	13,016.14	12,606.64	12,689.00
4.09.01.05.02	For height above 5m	cum	13,852.10	13,797.11	13,363.04	13,450.34
4.09.01.06	For cast-in-situ/ pre-cast railing and rail post of bridges and box culverts					
4.09.01.06.01	For pre-cast railing and rail post	cum	13,659.93	13,595.74	13,152.87	13,235.88
4.09.01.06.02	For cast-in-situ railing and rail post	cum	12,071.57	12,014.84	11,623.47	11,696.82

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.02	RCC-20SCCM: Reinforced cement concrete work with minimum cement content relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 28.5 MPa and satisfying a compressive strength f'c = 20 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.2 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 35) conforming to ASTM C33 including screening chips through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, fed by standard measuring boxes, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. Note: Using Concrete Mixer					
4.09.02.01	For pile caps, abutment base of bridges and bottom slab of Box Culvert	cum	16,210.56	16,312.21	15,061.29	15,388.19
4.09.02.02	For diaphragm walls, wing walls, piers, columns, abutments of bridges and vertical members of box culverts					
4.09.02.02.01	For height up to 5m	cum	16,715.63	16,821.95	15,513.64	15,855.54
4.09.02.02.02	For height above 5m to 10m	cum	20,894.54	21,027.43	19,392.06	19,819.43
4.09.02.02.03	For height above 10m to 15m	cum	25,073.45	25,232.92	23,270.47	23,783.32
4.09.02.02.04	For height above 15m to 20m	cum	29,252.36	29,438.40	27,148.88	27,747.20
4.09.02.02.05	For height above 20m	cum	30,088.14	30,279.50	27,924.56	28,539.98
4.09.02.03	For solid slab type super-structure including cantilever, side walk, curb, wheel guard of bridges					
4.09.02.03.01	For height up to 5m	cum	20,527.97	20,658.53	19,051.84	19,471.72
4.09.02.03.02	For height above 5m to 10m	cum	23,093.97	23,240.85	21,433.32	21,905.68
4.09.02.03.03	For height above 10m to 15m	cum	25,659.96	25,823.16	23,814.80	24,339.65
4.09.02.03.04	For height above 15m to 20m	cum	28,225.96	28,405.48	26,196.28	26,773.61
4.09.02.03.05	For height above 20m	cum	28,739.16	28,921.94	26,672.58	27,260.41
4.09.02.04	For T-girder & slab type super-structure including cross girders, side walk, curb, wheel guard of bridges					
4.09.02.04.01	For height up to 5 m	cum	21,811.69	21,933.52	20,235.55	20,670.42
4.09.02.04.02	For height above 5m to 10m	cum	24,810.79	24,949.38	23,017.93	23,512.60
4.09.02.04.03	For height above 10m to 15m	cum	27,809.90	27,965.24	25,800.32	26,354.78
4.09.02.04.04	For height above 15m to 20m	cum	30,809.01	30,981.10	28,582.71	29,196.96
4.09.02.04.05	For height above 20m	cum	31,408.83	31,584.27	29,139.19	29,765.40
4.09.02.05	For top slab including curb and wheel guard of box culvert					
4.09.02.05.01	For height up to 5m	cum	18,768.43	18,887.80	17,418.83	17,802.72

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.02.05.02	For height above 5m	cum	19,894.54	20,021.07	18,463.96	18,870.88
4.09.02.06	For cast-in-situ/ pre-cast railing & rail post of bridges and box culverts					
4.09.02.06.01	For pre-cast railing & rail post	cum	18,249.00	18,233.55	17,284.36	17,522.63
4.09.02.06.02	For cast-in-situ railing & rail post	cum	16,127.02	16,113.37	15,274.55	15,485.12
4.09.03	RCC-25SCCM: Reinforced cement concrete work with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. Note: Using Concrete Mixer					
4.09.03.01	For pile caps, abutment base, facing elements of Reinforced/ Mechanically Stabilized Earth Structure, bottom slab of Box Culvert etc.	cum	16,677.73	16,756.08	15,568.24	15,881.84
4.09.03.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges and vertical members of box culverts					
4.09.03.02.01	For height up to 5m	cum	17,442.76	17,524.71	16,282.38	16,610.36
4.09.03.02.02	For height above 5m to 10m	cum	21,803.46	21,905.88	20,352.98	20,762.95
4.09.03.02.03	For height above 10m to 15m	cum	26,164.15	26,287.06	24,423.57	24,915.54
4.09.03.02.04	For height above 15m to 20m	cum	30,524.84	30,668.24	28,494.17	29,068.13
4.09.03.02.05	For height above 20m	cum	31,396.98	31,544.47	29,308.29	29,898.65
4.09.03.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.03.03.01	For height up to 5 m	cum	23,716.04	23,827.45	22,138.32	22,584.26
4.09.03.03.02	For height above 5m to 10m	cum	26,324.80	26,448.47	24,573.54	25,068.53
4.09.03.03.03	For height above 10m to 15m	cum	28,933.57	29,069.49	27,008.76	27,552.80
4.09.03.03.04	For height above 15 m to 20 m	cum	31,542.33	31,690.51	29,443.97	30,037.07
4.09.03.03.05	For height above 20m	cum	34,151.10	34,311.53	31,879.19	32,521.34
4.09.03.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.03.04.01	Height up to 5 m	cum	25,088.60	25,188.84	23,407.81	23,868.13
4.09.03.04.02	For height above 5m to 10m	cum	26,970.25	27,078.00	25,163.39	25,658.24

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.03.04.03	For height above 10m to 15m	cum	28,851.89	28,967.16	26,918.98	27,448.35
4.09.03.04.04	For height above 15m to 20m	cum	30,733.54	30,856.33	28,674.56	29,238.46
4.09.03.04.05	For height above 20m	cum	32,615.18	32,745.49	30,430.15	31,028.57
4.09.03.05	For top slab including curb and wheel guard of box culvert					
4.09.03.05.01	Height up to 5 m	cum	19,890.87	19,984.32	18,567.63	18,941.64
4.09.03.05.02	For height above 5m	cum	21,084.32	21,183.37	19,681.68	20,078.14
4.09.03.06	For Arch/ inclined girder of bridges					
4.09.03.06.01	For height up to 5m	cum	26,299.10	26,402.47	24,535.31	25,010.02
4.09.03.06.02	For height above 5m to 10m	cum	29,586.48	29,702.77	27,602.23	28,136.27
4.09.03.06.03	For height above 10m to 15m	cum	32,873.87	33,003.08	30,669.14	31,262.53
4.09.03.06.04	For height above 15m to 20m	cum	36,161.26	36,303.39	33,736.06	34,388.78
4.09.03.06.05	For height above 20m	cum	36,818.73	36,963.45	34,349.44	35,014.03
4.09.03.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	24,481.07	24,596.08	22,852.46	23,312.79
4.09.03.08	For cast-in-situ/ pre-cast railing and rail post of bridges & culverts					
4.09.03.08.01	For pre-cast railing and rail post	cum	19,138.49	19,102.61	18,195.69	18,426.78
4.09.03.08.02	For cast-in-situ railing and rail post	cum	16,913.09	16,881.37	16,079.91	16,284.13
4.09.03.09	For Pre-cast paving slab for bridge footpath	cum	16,677.73	16,756.08	15,568.24	15,881.84
4.09.04	RCC-25SCBP: Reinforced cement concrete work with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant and pumping using line pump or boom placer, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.09.04.01	For pile caps, abutment base, facing elements of Reinforced/ Mechanically Stabilized Earth Structure, bottom slab of Box Culvert etc.	cum	16,976.57	17,068.33	15,917.39	16,230.98
4.09.04.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges and vertical members of box culverts					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.04.02.01	For height up to 5m	cum	17,755.31	17,851.28	16,647.54	16,975.52
4.09.04.02.02	For height above 5m to 10m	cum	22,194.14	22,314.11	20,809.43	21,219.41
4.09.04.02.03	For height above 10m to 15m	cum	26,632.97	26,776.93	24,971.32	25,463.29
4.09.04.02.04	For height above 15m to 20m	cum	31,071.79	31,239.75	29,133.20	29,707.17
4.09.04.02.05	For height above 20m	cum	31,959.56	32,132.31	29,965.58	30,555.94
4.09.04.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.04.03.01	For height up to 5 m	cum	24,140.99	24,271.48	22,634.82	23,080.76
4.09.04.03.02	For height above 5m to 10m	cum	26,796.50	26,941.35	25,124.65	25,619.64
4.09.04.03.03	For height above 10m to 15m	cum	29,452.01	29,611.21	27,614.48	28,158.52
4.09.04.03.04	For height above 15m to 20m	cum	32,107.52	32,281.07	30,104.31	30,697.41
4.09.04.03.05	For height above 20m	cum	34,763.03	34,950.94	32,594.14	33,236.29
4.09.04.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.04.04.01	For height up to 5m	cum	25,527.26	25,647.19	23,920.32	24,380.64
4.09.04.04.02	For height above 5m to 10m	cum	27,441.81	27,570.73	25,714.34	26,209.19
4.09.04.04.03	For height above 10m to 15m	cum	29,356.35	29,494.27	27,508.36	28,037.73
4.09.04.04.04	For height above 15m to 20m	cum	31,270.90	31,417.81	29,302.39	29,866.28
4.09.04.04.05	For height above 20m	cum	33,185.44	33,341.35	31,096.41	31,694.83
4.09.04.05	For top slab including curb and wheel guard of box culvert					
4.09.04.05.01	For height up to 5 m	cum	20,247.28	20,356.73	18,984.04	19,358.05
4.09.04.05.02	For height above 5m	cum	21,462.12	21,578.13	20,123.08	20,519.54
4.09.04.06	For Arch/ inclined girder of bridges					
4.09.04.06.01	For height up to 5 m	cum	26,751.47	26,875.14	25,063.84	25,538.55
4.09.04.06.02	For height above 5m to 10m	cum	30,095.40	30,234.54	28,196.82	28,730.87
4.09.04.06.03	For height above 10m to 15m	cum	33,439.33	33,593.93	31,329.80	31,923.18
4.09.04.06.04	For height above 15m to 20m	cum	36,783.26	36,953.32	34,462.78	35,115.50
4.09.04.06.05	For height above 20m	cum	37,452.05	37,625.20	35,089.37	35,753.97
4.09.04.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	24,919.73	25,054.43	23,364.97	23,825.30
4.09.04.08	For cast-in-situ/ pre-cast railing and rail post of bridges & culverts					
4.09.04.08.01	For pre-cast railing and rail post	cum	19,492.16	19,472.16	18,608.90	18,839.99
4.09.04.08.02	For cast-in-situ railing and rail post	cum	17,225.63	17,207.95	16,445.07	16,649.30
4.09.04.09	For Pre-cast paving slab for bridge footpath	cum	16,976.57	17,068.33	15,917.39	16,230.98

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.05	RCC-30SCCM: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average strength, f'cr = 38.5 MPa and satisfying a compressive strength f'c = 30 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Concrete Mixer					
4.09.05.01	For foundation of Pier & Abutment of Bridges and Box Culverts	cum	17,635.79	17,714.14	16,526.30	16,839.90
4.09.05.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges and vertical members of box culverts					
4.09.05.02.01	For height up to 5m	cum	18,444.77	18,526.71	17,284.39	17,612.37
4.09.05.02.02	For height above 5m to 10m	cum	23,055.96	23,158.39	21,605.48	22,015.46
4.09.05.02.03	For height above 10m to 15m	cum	27,667.16	27,790.07	25,926.58	26,418.55
4.09.05.02.04	For height above 15m to 20m	cum	32,278.35	32,421.75	30,247.68	30,821.64
4.09.05.02.05	For height above 20m	cum	33,200.59	33,348.08	31,111.90	31,702.26
4.09.05.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.05.03.01	For height up to 5m	cum	25,078.42	25,189.83	23,500.70	23,946.84
4.09.05.03.02	For height above 5m to 10m	cum	27,837.04	27,960.71	26,085.78	26,580.77
4.09.05.03.03	For height above 10m to 15m	cum	30,595.67	30,731.59	28,670.86	29,214.90
4.09.05.03.04	For height above 15m to 20m	cum	33,354.29	33,502.47	31,255.93	31,849.03
4.09.05.03.05	For height above 20m	cum	36,112.92	36,273.35	33,841.01	34,483.16
4.09.05.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.05.04.01	For height up to 5m	cum	26,494.93	26,595.16	24,814.13	25,274.45
4.09.05.04.02	For height above 5m to 10m	cum	28,482.05	28,589.80	26,675.19	27,170.04
4.09.05.04.03	For height above 10m to 15m	cum	30,469.16	30,584.44	28,536.25	29,065.62
4.09.05.04.04	For height above 15m to 20m	cum	32,456.28	32,579.07	30,397.31	30,961.21
4.09.05.04.05	For height above 20m	cum	34,443.40	34,573.71	32,258.37	32,856.79
4.09.05.05	For top slab including curb and wheel guard of box culvert					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.05.05.01	For height up to 5m	cum	21,033.51	21,126.95	19,710.27	20,084.28
4.09.05.05.02	For height above 5m	cum	22,295.52	22,394.57	20,892.88	21,289.34
4.09.05.06	For Arch/ inclined girder of bridges					
4.09.05.06.01	For height up to 5m	cum	27,444.74	27,558.27	25,706.35	26,181.05
4.09.05.06.02	For height above 5m to 10m	cum	30,875.34	31,003.05	28,919.64	29,453.69
4.09.05.06.03	For height above 10m to 15m	cum	34,305.93	34,447.83	32,132.93	32,726.32
4.09.05.06.04	For height above 15m to 20m	cum	37,736.52	37,892.62	35,346.22	35,998.95
4.09.05.06.05	For height above 20m	cum	38,422.64	38,581.57	35,988.88	36,653.48
4.09.05.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	25,887.40	26,002.40	24,258.79	24,719.11
4.09.05.08	For cast-in-situ/ pre-cast railing and rail post of bridges & box culverts					
4.09.05.08.01	For pre-cast railing and rail post	cum	20,272.34	20,236.46	19,329.54	19,560.63
4.09.05.08.02	For cast-in-situ railing and rail post	cum	17,915.09	17,883.38	17,081.92	17,286.14
4.09.05.09	For Pre-cast paving slab for bridge footpath	cum	17,635.79	17,714.14	16,526.30	16,839.90
4.09.06	RCC-30SCBP: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 38.5 MPa and satisfying a specified compressive strength, f'c = 30 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.50 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by the concerned District Quality Control Laboratory or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump						
4.09.06.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	17,934.63	18,026.39	16,875.45	17,189.04
4.09.06.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.06.02.01	For height up to 5 m	cum	18,757.32	18,853.29	17,649.55	17,977.53
4.09.06.02.02	For height above 5m to 10m	cum	23,446.65	23,566.61	22,061.94	22,471.91
4.09.06.02.03	For height above 10m to 15m	cum	28,135.98	28,279.94	26,474.33	26,966.30
4.09.06.02.04	For height above 15m to 20m	cum	32,825.30	32,993.26	30,886.71	31,460.68

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.06.02.05	For height above 20m	cum	33,763.17	33,935.92	31,769.19	32,359.55
4.09.06.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.06.03.01	For Height up to 5m	cum	25,503.37	25,633.86	23,997.20	24,443.13
4.09.06.03.02	For height above 5m to 10m	cum	28,053.71	28,197.25	26,396.91	26,887.45
4.09.06.03.03	For height above 10m to 15m	cum	30,604.04	30,760.63	28,796.63	29,331.76
4.09.06.03.04	For height above 15m to 20m	cum	33,154.38	33,324.02	31,196.35	31,776.07
4.09.06.03.05	For height above 20m	cum	35,704.72	35,887.40	33,596.07	34,220.39
4.09.06.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.06.04.01	For Height up to 5m	cum	26,933.59	27,053.52	25,326.64	25,786.96
4.09.06.04.02	For height above 5m to 10m	cum	28,684.27	28,812.00	26,972.87	27,463.12
4.09.06.04.03	For height above 10m to 15m	cum	30,434.95	30,570.47	28,619.10	29,139.27
4.09.06.04.04	For height above 15m to 20m	cum	32,185.64	32,328.95	30,265.34	30,815.42
4.09.06.04.05	For height above 20m	cum	33,936.32	34,087.43	31,911.57	32,491.57
4.09.06.05	For top slab including curb and wheel guard of box culvert					
4.09.06.05.01	For height up to 5m	cum	21,389.92	21,499.37	20,126.68	20,500.69
4.09.06.05.02	For height above 5m	cum	22,566.37	22,681.83	21,233.65	21,628.23
4.09.06.06	For Arch/ inclined girder of bridges					
4.09.06.06.01	For Height up to 5m	cum	27,774.44	27,896.24	26,112.38	26,579.90
4.09.06.06.02	For height above 5m to 10m	cum	31,246.24	31,383.27	29,376.43	29,902.39
4.09.06.06.03	For height above 10m to 15m	cum	34,718.05	34,870.30	32,640.48	33,224.87
4.09.06.06.04	For height above 15m to 20m	cum	38,189.85	38,357.33	35,904.53	36,547.36
4.09.06.06.05	For height above 20m	cum	38,884.21	39,054.74	36,557.34	37,211.86
4.09.06.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	26,326.06	26,460.76	24,771.30	25,231.62
4.09.06.08	For Box Girder and Balanced Cantilever					
4.09.06.08.01	For height up to 5m	cum	28,201.74	28,325.42	26,514.11	26,988.82
4.09.06.08.02	For height above 5m to 10m	cum	31,726.95	31,866.09	29,828.37	30,362.42
4.09.06.08.03	For height above 10m to 15m	cum	35,252.17	35,406.77	33,142.64	33,736.02
4.09.06.08.04	For height above 15m to 20m	cum	38,777.39	38,947.45	36,456.90	37,109.63
4.09.06.08.05	For height above 20m	cum	39,482.43	39,655.58	37,119.76	37,784.35

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.07	RCC-35SCBP: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 45 MPa and satisfying a specified compressive strength, f'c = 35 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.09.07.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	18,995.82	19,087.58	17,936.64	18,250.24
4.09.07.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.07.02.01	For height up to 5 m	cum	19,867.19	19,963.16	18,759.42	19,087.40
4.09.07.02.02	For height above 5m to 10m	cum	24,833.99	24,953.95	23,449.28	23,859.25
4.09.07.02.03	For height above 10m to 15m	cum	29,800.78	29,944.74	28,139.13	28,631.10
4.09.07.02.04	For height above 15m to 20m	cum	34,767.58	34,935.53	32,828.99	33,402.95
4.09.07.02.05	For height above 20m	cum	35,760.94	35,933.69	33,766.96	34,357.32
4.09.07.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.07.03.01	For height up to 5 m	cum	26,141.04	26,267.32	24,683.45	25,115.00
4.09.07.03.02	For height above 5m to 10m	cum	28,624.44	28,762.71	27,028.38	27,500.93
4.09.07.03.03	For height above 10m to 15m	cum	31,107.83	31,258.11	29,373.30	29,886.85
4.09.07.03.04	For height above 15m to 20m	cum	33,591.23	33,753.50	31,718.23	32,272.78
4.09.07.03.05	For height above 20m	cum	36,074.63	36,248.90	34,063.16	34,658.70
4.09.07.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.07.04.01	For height up to 5 m	cum	27,600.95	27,717.13	26,044.22	26,490.16
4.09.07.04.02	For height above 5m to 10m	cum	29,395.01	29,518.74	27,737.09	28,212.02
4.09.07.04.03	For height above 10m to 15m	cum	31,189.07	31,320.36	29,429.97	29,933.88
4.09.07.04.04	For height above 15m to 20m	cum	32,983.13	33,121.97	31,122.84	31,655.74
4.09.07.04.05	For height above 20m	cum	34,777.19	34,923.58	32,815.72	33,377.60

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.07.05	For Arch/ inclined girder of bridges					
4.09.07.05.01	For height up to 5 m	cum	28,904.85	29,024.78	27,268.37	27,728.69
4.09.07.05.02	For height above 5m to 10m	cum	32,517.96	32,652.88	30,676.91	31,194.78
4.09.07.05.03	For height above 10m to 15m	cum	36,131.07	36,280.98	34,085.46	34,660.86
4.09.07.05.04	For height above 15m to 20m	cum	39,744.17	39,909.08	37,494.01	38,126.95
4.09.07.05.05	For height above 20m	cum	40,466.79	40,634.70	38,175.71	38,820.17
4.09.07.06	For Box Girder, Segmental Construction and Balanced Cantilever					
4.09.07.06.01	For height up to 5m	cum	29,356.49	29,478.30	27,694.44	28,161.95
4.09.07.06.02	For height above 5m to 10m	cum	33,026.05	33,163.08	31,156.24	31,682.20
4.09.07.06.03	For height above 10m to 15m	cum	36,695.61	36,847.87	34,618.04	35,202.44
4.09.07.06.04	For height above 15m to 20m	cum	40,365.18	40,532.66	38,079.85	38,722.68
4.09.07.06.05	For height above 20m	cum	41,099.09	41,269.61	38,772.21	39,426.73
4.09.08	RCC-40SCBP: Reinforced cement concrete work with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 50 MPa and satisfying a specified compressive strength, f'c = 40 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.09.08.01	For foundation of Pier & Abutment of bridges	cum	19,286.94	19,378.71	18,227.76	18,541.36
4.09.08.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.08.02.01	For height up to 5m	cum	20,171.67	20,267.64	19,063.90	19,391.88
4.09.08.02.02	For height above 5m to 10m	cum	25,214.58	25,334.55	23,829.87	24,239.85
4.09.08.02.03	For height above 10m to 15m	cum	30,257.50	30,401.46	28,595.85	29,087.82
4.09.08.02.04	For height above 15m to 20m	cum	35,300.42	35,468.37	33,361.82	33,935.79
4.09.08.02.05	For height above 20m	cum	36,309.00	36,481.75	34,315.02	34,905.38
4.09.08.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.08.03.01	For height up to 5m	cum	26,700.15	26,826.43	25,242.56	25,674.11
4.09.08.03.02	For height above 5m to 10m	cum	29,236.66	29,374.94	27,640.60	28,113.15
4.09.08.03.03	For height above 14m to 15m	cum	31,773.17	31,923.45	30,038.64	30,552.19
4.09.08.03.04	For height above 19m to 20m	cum	34,309.69	34,471.96	32,436.69	32,991.23
4.09.08.03.05	For height above 20m	cum	36,846.20	37,020.47	34,834.73	35,430.27
4.09.08.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.08.04.01	For height up to 5m	cum	28,014.93	28,131.11	26,458.20	26,904.14
4.09.08.04.02	For height above 5m to 10m	cum	29,695.83	29,818.98	28,045.69	28,518.39
4.09.08.04.03	For height above 10m to 15m	cum	31,376.72	31,506.85	29,633.19	30,132.64
4.09.08.04.04	For height above 15m to 20m	cum	33,057.62	33,194.71	31,220.68	31,748.88
4.09.08.04.05	For height above 20m	cum	34,738.51	34,882.58	32,808.17	33,361.13
4.09.08.05	For Arch/ inclined girder of bridges					
4.09.08.05.01	For height up to 5m	cum	28,873.88	28,991.93	27,262.96	27,716.09
4.09.08.05.02	For height above 5m to 10m	cum	32,483.11	32,615.92	30,670.83	31,180.60
4.09.08.05.03	For height above 10m to 15m	cum	36,092.34	36,239.91	34,078.70	34,645.11
4.09.08.05.04	For height above 15m to 20m	cum	39,701.58	39,863.91	37,486.57	38,109.62
4.09.08.05.05	For height above 20m	cum	40,423.43	40,588.70	38,168.14	38,802.53
4.09.08.06	For Box Girder, Segmental Construction and Balanced Cantilever					
4.09.08.06.01	For height up to 5m	cum	29,790.51	29,912.31	28,128.45	28,595.97
4.09.08.06.02	For height above 5m to 10m	cum	33,514.32	33,651.35	31,644.51	32,170.46
4.09.08.06.03	For height above 10m to 15m	cum	37,238.13	37,390.39	35,160.56	35,744.96
4.09.08.06.04	For height above 15m to 20m	cum	40,961.95	41,129.43	38,676.62	39,319.45
4.09.08.06.05	For height above 20m	cum	41,706.71	41,877.23	39,379.83	40,034.35

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.09	Marine Concrete_RCC_30SCCM: Reinforced cement concrete work for Marine region with minimum cement content and maximum water cement ratio (WCR), as specified by the laboratory through mix design having minimum required average strength, f'cr = 40.0 Mpa and satisfying a compressive strength f'c = 30 Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and Portland Composite cement conforming to BDS EN 197-1 : 2003 CEM-II/B-V , high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.5 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. Note: minimum Cement content considered in M-30 is @ 450kg/cum relates to nominal mix ratio 1:1.25:2.4 and maximum WCR=0.4, Additional quantity of cement to be added if required to attain the required strength at the contractors own cost.The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture & Drinkable water with storage reservior for Concreteing is included in this unit rate. The Mix Design shall have to be approved by the Central Quality Control Laboratory(CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Concrete Mixer					
4.09.09.01	For foundation of Pier & Abutment of Bridges and Box Culverts	cum	18,717.11	18,795.45	17,607.62	17,800.47
4.09.09.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges and vertical members of box culverts					
4.09.09.02.01	For height up to 5m	cum	19,575.69	19,657.63	18,415.31	18,617.00
4.09.09.02.02	For height above 5m to 10m	cum	24,469.61	24,572.04	23,019.13	23,271.26
4.09.09.02.03	For height above 10m to 15m	cum	29,363.53	29,486.45	27,622.96	27,925.51
4.09.09.02.04	For height above 15m to 20m	cum	34,257.46	34,400.86	32,226.78	32,579.76
4.09.09.02.05	For height above 20m	cum	35,236.24	35,383.74	33,147.55	33,510.61
4.09.09.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.09.03.01	For height up to 5m	cum	26,616.07	26,727.48	25,038.35	25,312.59
4.09.09.03.02	For height above 5m to 10m	cum	29,543.84	29,667.50	27,792.57	28,096.98
4.09.09.03.03	For height above 10m to 15m	cum	32,471.60	32,607.53	30,546.79	30,881.36
4.09.09.03.04	For height above 15m to 20m	cum	35,399.37	35,547.55	33,301.01	33,665.75
4.09.09.03.05	For height above 20m	cum	38,327.14	38,487.57	36,055.23	36,450.13
4.09.09.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.09.04.01	For height up to 5m	cum	28,082.18	28,182.42	26,401.38	26,684.47
4.09.09.04.02	For height above 5m to 10m	cum	30,188.34	30,296.10	28,381.49	28,685.81
4.09.09.04.03	For height above 10m to 15m	cum	32,294.51	32,409.78	30,361.59	30,687.14
4.09.09.04.04	For height above 15m to 20m	cum	34,400.67	34,523.46	32,341.70	32,688.48

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.09.04.05	For height above 20m	cum	36,506.83	36,637.14	34,321.80	34,689.81
4.09.09.05	For top slab including curb and wheel guard of box culvert					
4.09.09.05.01	For height up to 5m	cum	22,323.15	22,416.60	20,999.91	21,229.92
4.09.09.05.02	For height above 5m	cum	23,662.54	23,761.59	22,259.90	22,503.71
4.09.09.06	For Arch/ inclined girder of bridges					
4.09.09.06.01	For height up to 5m	cum	29,081.60	29,195.12	27,343.20	27,635.13
4.09.09.06.02	For height above 5m to 10m	cum	32,716.80	32,844.51	30,761.10	31,089.53
4.09.09.06.03	For height above 10m to 15m	cum	36,352.00	36,493.90	34,179.00	34,543.92
4.09.09.06.04	For height above 15m to 20m	cum	39,987.20	40,143.29	37,596.90	37,998.31
4.09.09.06.05	For height above 20m	cum	40,714.24	40,873.17	38,280.48	38,689.19
4.09.09.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	27,474.65	27,589.66	25,846.04	26,129.13
4.09.09.08	For cast-in-situ/ pre-cast railing and rail post of bridges & box culverts					
4.09.09.08.01	For pre-cast railing and rail post	cum	21,552.06	21,516.18	20,609.26	20,697.46
4.09.09.08.02	For cast-in-situ railing and rail post	cum	19,046.01	19,014.30	18,212.83	18,290.78
4.09.09.09	For Pre-cast paving slab for bridge footpath	cum	18,717.11	18,795.45	17,607.62	17,800.47
4.09.10	Marine Concrete_RCC_30SCBP: Reinforced cement concrete work for Marine region with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 40.0 Mpa and satisfying a specified compressive strength, f'c = 30 Mpa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and Portland Composite cement conforming to BDS EN 197-1 : 2003 CEM-II/B-V, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.50 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture & Drinkable water with storage reservior for Concreteing is included in this unit rate. The Mix Design report shall have to be approved by the Central Quality Control Laboratory (CQCL),LGED or any other reputed laboratory approved by the competent authority before execution of the work Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.09.10.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	19,015.94	19,107.71	17,956.76	18,149.62
4.09.10.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.10.02.01	For height up to 5 m	cum	19,888.23	19,984.21	18,780.47	18,982.17

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.10.02.02	For height above 5m to 10m	cum	24,860.29	24,980.26	23,475.59	23,727.71
4.09.10.02.03	For height above 10m to 15m	cum	29,832.35	29,976.31	28,170.70	28,473.25
4.09.10.02.04	For height above 15m to 20m	cum	34,804.41	34,972.37	32,865.82	33,218.79
4.09.10.02.05	For height above 20m	cum	35,798.82	35,971.58	33,804.84	34,167.90
4.09.10.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.10.03.01	For height up to 5 m	cum	27,041.02	27,171.51	25,534.85	25,809.09
4.09.10.03.02	For height above 5m to 10m	cum	29,745.12	29,888.66	28,088.33	28,390.00
4.09.10.03.03	For height above 10m to 15m	cum	32,449.23	32,605.81	30,641.82	30,970.90
4.09.10.03.04	For height above 15m to 20m	cum	35,153.33	35,322.97	33,195.30	33,551.81
4.09.10.03.05	For height above 20m	cum	37,857.43	38,040.12	35,748.79	36,132.72
4.09.10.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.10.04.01	For height up to 5 m	cum	28,520.84	28,640.77	26,913.89	27,196.98
4.09.10.04.02	For height above 5m to 10m	cum	30,232.09	30,359.22	28,528.73	28,828.80
4.09.10.04.03	For height above 10m to 15m	cum	32,228.55	32,364.07	30,412.70	30,732.59
4.09.10.04.04	For height above 15m to 20m	cum	33,939.80	34,082.52	32,027.53	32,364.41
4.09.10.04.05	For height above 20m	cum	35,936.26	36,087.37	33,911.51	34,268.20
4.09.10.05	For top slab including curb and wheel guard of box culvert					
4.09.10.05.01	For height up to 5 m	cum	22,679.57	22,789.01	21,416.32	21,646.33
4.09.10.05.02	For height above 5m	cum	23,926.94	24,042.41	22,594.22	22,836.88
4.09.10.06	For Arch/ inclined girder of bridges					
4.09.10.06.01	For height up to 5 m	cum	29,386.49	29,508.30	27,724.44	28,011.95
4.09.10.06.02	For height above 5m to 10m	cum	33,059.80	33,196.83	31,189.99	31,513.44
4.09.10.06.03	For height above 10m to 15m	cum	36,733.12	36,885.37	34,655.55	35,014.93
4.09.10.06.04	For height above 15m to 20m	cum	40,406.43	40,573.91	38,121.10	38,516.43
4.09.10.06.05	For height above 20m	cum	41,141.09	41,311.62	38,814.21	39,216.72
4.09.10.07	For RCC deck slab/Cross girder/diaphragm supported on PSC Girder using suspended type staging/ centering and shuttering for any height	cum	27,913.31	28,048.01	26,358.55	26,641.64
4.09.10.08	For Box Girder and Balanced Cantilever					
4.09.10.08.01	For height up to 5 m	cum	29,838.59	29,962.27	28,150.97	28,442.90
4.09.10.08.02	For height above 5m to 10m	cum	33,568.42	33,707.55	31,669.84	31,998.26
4.09.10.08.03	For height above 10m to 15m	cum	37,298.24	37,452.84	35,188.71	35,553.62
4.09.10.08.04	For height above 15m to 20m	cum	41,028.06	41,198.12	38,707.58	39,108.99
4.09.10.08.05	For height above 20m	cum	41,774.03	41,947.18	39,411.35	39,820.06

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.11	Marine Concrete_RCC_35SCBP: Reinforced cement concrete work for Marine region with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 45 Mpa and satisfying a specified compressive strength, f'c = 35 Mpa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and Portland Composite Cement conforming to (BDS EN 197-1:2003 CEM-II/B-V), high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.50 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 including breaking chips, screening through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in mechanized batch mix plant, pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and it's fabrication, placing, binding etc. is not included but the cost of admixture & Drinkable water with storage reservior for Concreteing is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.09.11.01	For foundation of Pier & Abutment of Bridges and Facing Elements of Reinforced/ Mechanically Stabilized Earth Structure	cum	19,044.12	19,135.88	17,984.94	18,177.79
4.09.11.02	For diaphragm walls, wing walls, piers, columns, projected pile cap above water level, pier caps, abutments of bridges					
4.09.11.02.01	For height up to 5 m	cum	19,917.70	20,013.67	18,809.93	19,011.63
4.09.11.02.02	For height above 5m to 10m	cum	24,897.13	25,017.09	23,512.42	23,764.54
4.09.11.02.03	For height above 10m to 15m	cum	29,876.55	30,020.51	28,214.90	28,517.45
4.09.11.02.04	For height above 15m to 20m	cum	34,855.98	35,023.93	32,917.38	33,270.36
4.09.11.02.05	For height above 20m	cum	35,851.86	36,024.61	33,857.88	34,220.94
4.09.11.03	For solid slab type super-structure including cantilever, side walk, curb and wheel guard of bridges					
4.09.11.03.01	For height up to 5 m	cum	26,207.50	26,333.78	24,749.91	25,015.31
4.09.11.03.02	For height above 5m to 10m	cum	28,697.21	28,835.49	27,101.15	27,391.76
4.09.11.03.03	For height above 10m to 15m	cum	31,186.93	31,337.20	29,452.40	29,768.21
4.09.11.03.04	For height above 15m to 20m	cum	33,676.64	33,838.91	31,803.64	32,144.67
4.09.11.03.05	For height above 20m	cum	36,166.35	36,340.62	34,154.88	34,521.12
4.09.11.04	For T-girder & slab type super-structure including cross girders, side walk, curb and wheel guard of bridges					
4.09.11.04.01	For height up to 5 m	cum	27,669.63	27,785.81	26,112.90	26,387.14
4.09.11.04.02	For height above 5m to 10m	cum	29,468.15	29,591.89	27,810.24	28,102.30
4.09.11.04.03	For height above 10m to 15m	cum	31,266.68	31,397.96	29,507.57	29,817.47
4.09.11.04.04	For height above 15m to 20m	cum	33,065.20	33,204.04	31,204.91	31,532.63

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.09.11.04.05	For height above 20m	cum	34,863.73	35,010.12	32,902.25	33,247.79
4.09.11.05	For Arch/ inclined girder of bridges					
4.09.11.05.01	For height up to 5 m	cum	28,975.75	29,095.68	27,339.26	27,622.35
4.09.11.05.02	For height above 5m to 10m	cum	32,597.72	32,732.64	30,756.67	31,075.14
4.09.11.05.03	For height above 10m to 15m	cum	36,219.69	36,369.60	34,174.08	34,527.94
4.09.11.05.04	For height above 15m to 20m	cum	39,841.65	40,006.56	37,591.49	37,980.73
4.09.11.05.05	For height above 20m	cum	40,566.05	40,733.95	38,274.97	38,671.29
4.09.11.06	For Box Girder, Segmental Construction and Balanced Cantilever					
4.09.11.06.01	For height up to 5 m	cum	29,428.49	29,550.30	27,766.44	28,053.95
4.09.11.06.02	For height above 5m to 10m	cum	33,107.06	33,244.09	31,237.24	31,560.69
4.09.11.06.03	For height above 10m to 15m	cum	36,785.62	36,937.87	34,708.05	35,067.43
4.09.11.06.04	For height above 15m to 20m	cum	40,464.18	40,631.66	38,178.85	38,574.18
4.09.11.06.05	For height above 20m	cum	41,199.89	41,370.42	38,873.01	39,275.53
Section-10: Pre-Stressed Concrete (PSC) Work, HT Strand and Steel Anchorage						
4.10.01	PSC-35SCCM: Providing and laying Cement Concrete in Pre-stressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 45 MPa and satisfying a specified compressive strength, f'c = 35 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 , including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in standard mixture machine with hoper, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Concrete Mixture					
4.10.01.01	For Solid Slab/ voided slab Super-structure.					
4.10.01.01.01	For height up to 5 m	cum	26,294.73	26,384.09	24,706.99	25,138.54
4.10.01.01.02	For height above 5 m to 10 m	cum	28,924.21	29,022.50	27,177.69	27,652.40
4.10.01.01.03	For height above 10 m to 15 m	cum	31,553.68	31,660.91	29,648.39	30,166.25
4.10.01.01.04	For height above 15 m to 20 m	cum	34,183.15	34,299.32	32,119.09	32,680.10
4.10.01.01.05	For height above 20 m	cum	36,812.63	36,937.73	34,589.78	35,193.96

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.01.02	For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.					
4.10.01.02.01	For height up to 5 m	cum	31,553.68	31,660.91	29,648.39	30,166.25
4.10.01.02.02	For height above 5 m to 10 m	cum	33,446.90	33,560.56	31,427.29	31,976.22
4.10.01.02.03	For height above 10 m to 15 m	cum	35,340.12	35,460.22	33,206.19	33,786.20
4.10.01.02.04	For height above 15 m to 20 m	cum	37,233.34	37,359.87	34,985.10	35,596.17
4.10.01.02.05	For height above 20 m	cum	39,126.56	39,259.53	36,764.00	37,406.15
4.10.01.03	For cast-in-situ box girder, segmental construction and balanced cantilever.					
4.10.01.03.01	For height up to 5 m	cum	35,059.65	35,178.79	32,942.65	33,518.06
4.10.01.03.02	For height above 5 m to 10 m	cum	37,338.52	37,465.41	35,083.92	35,696.73
4.10.01.03.03	For height above 10 m to 15 m	cum	39,617.40	39,752.03	37,225.20	37,875.40
4.10.01.03.04	For height above 15 m to 20 m	cum	41,896.28	42,038.65	39,366.47	40,054.08
4.10.01.03.05	For height above 20 m	cum	44,175.15	44,325.27	41,507.74	42,232.75
4.10.02	PSC-35SCBP: Providing and laying Cement Concrete in Pre-stressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 45 MPa and satisfying a specified compressive strength, f'c = 35 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 125mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or or any other reputed laboratory approved by the competent authority before execution of the workk. Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.10.02.01	For Solid Slab/voided slab Super-structure.					
4.10.02.01.01	For height up to 5 m	cum	26,963.53	27,071.35	25,445.01	25,876.57
4.10.02.01.02	For height above 5 m to 10 m	cum	29,659.88	29,778.48	27,989.51	28,464.22
4.10.02.01.03	For height above 10 m to 15 m	cum	32,356.23	32,485.61	30,534.02	31,051.88
4.10.02.01.04	For height above 15 m to 20 m	cum	35,052.58	35,192.75	33,078.52	33,639.54
4.10.02.01.05	For height above 20 m	cum	37,748.94	37,899.88	35,623.02	36,227.19

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.02.02	For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.					
4.10.02.02.01	For height up to 5 m	cum	32,356.23	32,485.61	30,534.02	31,051.88
4.10.02.02.02	For height above 5 m to 10 m	cum	34,297.61	34,434.75	32,366.06	32,914.99
4.10.02.02.03	For height above 10 m to 15 m	cum	36,238.98	36,383.89	34,198.10	34,778.11
4.10.02.02.04	For height above 15 m to 20 m	cum	38,180.35	38,333.02	36,030.14	36,641.22
4.10.02.02.05	For height above 20 m	cum	40,121.73	40,282.16	37,862.18	38,504.33
4.10.02.03	For cast-in-situ box girder, segmental construction and balanced cantilever.					
4.10.02.03.01	For height up to 5 m	cum	35,951.37	36,095.13	33,926.68	34,502.09
4.10.02.03.02	For height above 5 m to 10 m	cum	38,288.21	38,441.31	36,131.92	36,744.72
4.10.02.03.03	For height above 10 m to 15 m	cum	40,625.05	40,787.49	38,337.15	38,987.36
4.10.02.03.04	For height above 15 m to 20 m	cum	42,961.89	43,133.68	40,542.39	41,230.00
4.10.02.03.05	For height above 20 m	cum	45,298.72	45,479.86	42,747.62	43,472.63
4.10.03	PSC-40SCRDM: Providing and laying Cement Concrete in Pre-stressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 50 MPa and satisfying a specified compressive strength, f'c = 40 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C 494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 , including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in Reversible Drum Mixer/ Batch Mix Plant, maintaining allowable slump of 125mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Reversible Drum Mixer/ Batch Mix Plant					
4.10.03.01	For Solid Slab/voided slab Super-structure					
4.10.03.01.01	For height up to 5 m	cum	27,393.97	27,483.33	25,806.23	26,237.78
4.10.03.01.02	For height above 5 m to 10 m	cum	30,133.37	30,231.66	28,386.85	28,861.56
4.10.03.01.03	For height above 10 m to 15 m	cum	32,872.77	32,979.99	30,967.47	31,485.33
4.10.03.01.04	For height above 15 m to 20 m	cum	35,612.16	35,728.33	33,548.09	34,109.11
4.10.03.01.05	For height above 20 m	cum	38,351.56	38,476.66	36,128.72	36,732.89

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.03.02	For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.					
4.10.03.02.01	For height up to 5 m	cum	32,872.77	32,979.99	30,967.47	31,485.33
4.10.03.02.02	For height above 5 m to 10 m	cum	34,845.13	34,958.79	32,825.52	33,374.45
4.10.03.02.03	For height above 10 m to 15 m	cum	36,817.50	36,937.59	34,683.57	35,263.57
4.10.03.02.04	For height above 15 m to 20 m	cum	38,789.86	38,916.39	36,541.62	37,152.69
4.10.03.02.05	For height above 20 m	cum	40,762.23	40,895.19	38,399.66	39,041.81
4.10.04	PSC-40SCBP: Providing and laying Cement Concrete in Pre-stressed Concrete works with minimum cement content and maximum water cement ratio as specified by the laboratory through mix design having minimum required average compressive strength, f'cr = 50 MPa and satisfying a specified compressive strength, f'c = 40 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 100mm to 150mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.10.04.01	For Solid Slab/voided slab Super-structure.					
4.10.04.01.01	For height up to 5 m	cum	27,371.17	27,478.99	25,852.66	26,284.21
4.10.04.01.02	For height above 5 m to 10 m	cum	30,108.29	30,226.89	28,437.92	28,912.63
4.10.04.01.03	For height above 10 m to 15 m	cum	32,845.40	32,974.79	31,023.19	31,541.05
4.10.04.01.04	For height above 15 m to 20 m	cum	35,582.52	35,722.69	33,608.46	34,169.47
4.10.04.01.05	For height above 20 m	cum	38,319.64	38,470.59	36,193.72	36,797.90
4.10.04.02	For I-Girder/T-Girder including casting of girders on staging at site or launching of precast girders by launching truss.					
4.10.04.02.01	For height up to 5 m	cum	32,845.40	32,974.79	31,023.19	31,541.05
4.10.04.02.02	For height above 5 m to 10 m	cum	34,816.13	34,953.28	32,884.58	33,433.52
4.10.04.02.03	For height above 10 m to 15 m	cum	36,786.85	36,931.76	34,745.97	35,325.98
4.10.04.02.04	For height above 15 m to 20 m	cum	38,757.58	38,910.25	36,607.36	37,218.44
4.10.04.02.05	For height above 20 m	cum	40,728.30	40,888.74	38,468.76	39,110.91

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.04.03	For cast-in-situ box girder, segmental construction and balanced cantilever.					
4.10.04.03.01	For height up to 5 m	cum	36,494.89	36,638.65	34,470.21	35,045.61
4.10.04.03.02	For height above 5 m to 10 m	cum	38,867.06	39,020.17	36,710.77	37,323.58
4.10.04.03.03	For height above 10 m to 15 m	cum	41,239.23	41,401.68	38,951.34	39,601.54
4.10.04.03.04	For height above 15 m to 20 m	cum	43,611.40	43,783.19	41,191.90	41,879.51
4.10.04.03.05	For height above 20 m	cum	45,983.57	46,164.70	43,432.47	44,157.47
4.10.05	PSC-45SCBP: Providing and laying Cement Concrete in Pre-stressed Concrete workswith minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, f'cr = 55 MPa and satisfying a specified compressive strength, f'c = 45 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, silica fume conforming to ASTM C 1240, high range water reducing admixture of complying type F/ G under ASTM C494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33, including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump					
4.10.05.01	For cast-in-situ box girder, segmental construction and balanced cantilever.					
4.10.05.01.01	For height up to 5 m	cum	39,067.08	39,196.46	37,244.86	37,762.73
4.10.05.01.02	For height above 5 m to 10 m	cum	41,313.44	41,450.26	39,386.44	39,934.08
4.10.05.01.03	For height above 10 m to 15 m	cum	43,559.79	43,704.06	41,528.02	42,105.44
4.10.05.01.04	For height above 15 m to 20 m	cum	45,903.82	46,055.84	43,762.72	44,371.21
4.10.05.01.05	For height above 20 m	cum	48,052.51	48,211.65	45,811.18	46,448.16

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.06	PSC-50SCBP: Providing and laying Cement Concrete in Pre-stressed Concrete workswith minimum cement content and maximum water cement ratio as specified by the laboratory having minimum required average compressive strength, f'cr = 60 MPa and satisfying a specified compressive strength, f'c = 50 MPa at 28 days on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, silica fume conforming to ASTM C 1240, high range water reducing admixture of complying type F/ G under ASTM C 494 (Doses of admixture to be fixed by the mix design) for smart dynamic concrete (i.e. Low fines self compacting concrete), sand of minimum FM 2.80 and 20mm down well graded crushed stone chips broken from boulders (LAA value not exceeding 25) conforming to ASTM C 33 , including breaking stone boulders into chips, screening through proper sieves, making and placing shutter in position, making shutter water-tight properly, placing non prestressing reinforcement, HT Strand, sheath, anchorage in position, mixing in mechanized batch mix plant & pumping using line pump or boom placer, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing at least for 28 days, removing shutter after specified time period, finishing, launching, shifting & placing in position etc. including cost of water, electricity, other incidental charges etc. all complete as per design, drawing, specification & directionn of E-I-C. The cost of non prestressing reinforcement, HT Strand and it's fabrication, binding, welding and placing is not included but the cost of admixture is included in this unit rate. The Mix Design shall have to be approved by Central Quality Control Laboratory (CQCL), LGED or any other reputed laboratory approved by the competent authority before execution of the work. Note: Using Batching Plant, Transit Mixer & Concrete Pump						
4.10.06.01	For cast-in-situ box girder, segmental construction and balanced cantilever.					
4.10.06.01.01	For height up to 5 m	cum	40,213.58	40,342.96	38,391.36	38,909.23
4.10.06.01.02	For height above 5 m to 10 m	cum	42,525.86	42,662.68	40,598.87	41,146.51
4.10.06.01.03	For height above 10 m to 15 m	cum	44,838.14	44,982.40	42,806.37	43,383.79
4.10.06.01.04	For height above 15 m to 20 m	cum	47,150.42	47,302.12	45,013.88	45,621.07
4.10.06.01.05	For height above 20 m	cum	49,462.70	49,621.84	47,221.38	47,858.35

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.07	Providing and laying of Uncoated Seven-Wire Steel Strand conforming to AASHTO M 203/ ASTM A 416M (Grade 1860, low-relaxation type) having minimum ultimate tensile strength 1860 MPa of required size as per design including supplying, fabrication, placing in position, providing corrugated galvanized steel sheathing duct of minimum 0.4mm thick and minimum 75mm internal diameter, decoling the strands, cutting to the required lengths, preparing cables of required number strands as per drawings, making dead ends of cables in flowers to achieve rigid ends, spacers & joineries of approved quality, inserting cables within the sheathing, fixind tendon support bars, supervising anti bursting reinforcements, maintaning profile during concreting operations, stressing of cables in sequence as per design to required loads with approved stressing jacks, Blocking with proper pressure, measuring and recording elongation and force, grouting the duct with pumpable, nonbleeeding, high strength non-shrink cementitious grout with non-shrink grout admixture conforming to ASTM C 1107, maintaining the water cement ratio between 0.47 to 0.53, cutting the excess HT strand after satisfactory tensioning & anchorage, providing patch concrete at recess end with epoxy coating, all materials, labors, equipment, tools etc. all complete including leads and lifts as per design, drawing, specification and direction of the E-I-C. [Extra Length required for stressing operation is included in this unit rate]	MT	370,673.17	370,183.44	369,017.85	369,017.85
4.10.08	Multi-Strand Steel Anchorage: Supplying, fitting and fixing of best quality post tensioning multi-strand steel anchorage system comprising bearing plate, wedge plate, guide tube and gripping accessories with necessary test certificate from manufacturer for origin, performance and capacity including cost of all materials and accessories, necessary performance and capacity test from BUET, placing properly in position, labour, welding and carrying etc. all complete as design, drawing and direction of the E-I-C. The geometrical size and shape of the anchorage system shall be confirmed as per drawing or manufacturer's recommendation with necessary test results. One set of extra anchorage will be required for laboratory test and necessary arrangement.					
4.10.08.01	Anchorage Type: 4K13/ 4T13	set	5,212.48	5,212.48	5,212.48	5,212.48
4.10.08.05	Anchorage Type: 27K13/ 27T13	set	17,424.59	17,424.59	17,424.59	17,424.59
4.10.08.06	Anchorage Type: 37K13/ 37T13	set	23,232.78	23,232.78	23,232.78	23,232.78
4.10.08.07	Anchorage Type: 4K15/ 4T15	set	6,776.23	6,776.23	6,776.23	6,776.23
4.10.08.11	Anchorage Type: 27K15/ 27T15	set	21,296.72	21,296.72	21,296.72	21,296.72
4.10.08.12	Anchorage Type: 37K15/ 37T15	set	24,200.82	24,200.82	24,200.82	24,200.82
4.10.09	TF_Ancr:Test Fee for Multi-Strand Steel Anchorage system comprising bearing plate, wedge plate, guide tube and gripping accessories with necessary test certificate from manufacturer for origin, performance and capacity including cost of all materials and accessories, necessary performance and capacity test from BUET, placing properly in position, labour, welding and carrying etc. all complete as design, drawing and direction of the E-I-C. The geometrical size and shape of the anchorage system shall be confirmed as per drawing or manufacturer's recommendation with necessary test results. One set of extra anchorage will be required for laboratory test and necessary arrangement Excluding cos of Materials.	each	140,127.81	140,127.81	140,127.81	140,127.81

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.10.10	Unbonded Monostrand: Providing and laying of cold-drawn, low relaxation 7-wire coated HT strand conform to ASTM A 416 (Grade 1860, the outer diameter of HDPE sheathing should not be less then 1.27mm) having minimum ultimate tensile strength 1860 MPa of required size as per design including supplying, fabrication, placing in position, support chairs, spacers, joineries of approved quality, properly stage wise tensioning with approved jacks, Blocking with proper pressure, measuring and recording elongation and force, cutting the excess HT strand after satisfactory tensioning & anchorage, providing patch concrete at recess end with epoxy coating, all materials, labors, equipment, tools etc. all complete including leads and lifts as per design, drawing, specification and direction of the E-I-C.	MT	259,618.77	259,434.15	258,541.81	258,541.81
4.10.10.02	MSA: 1K15/ 1T15	set	1,920.06	1,920.06	1,920.06	1,920.06
4.10.11	Mono Strand Anchorage: Supplying, fitting and fixing of best quality post tensioning monostrand steel anchorage system comprising bearing plate, wedge plate, guide tube and gripping accessories with necessary test certificate from manufacturer for origin, performance and capacity including cost of all materials and accessories, necessary performance and capacity test from BUET, placing properly in position, labour, welding and carrying etc. all complete as design, drawing and direction of the E-I-C. The geometrical size and shape of the anchorage system shall be confirmed as per drawing or manufacturer's recommendation with necessary test results. One set of extra anchorage will be required for laboratory test and necessary arrangement.					
4.10.11.01	MSA: 1K13/ 1T13	set	1,472.05	1,472.05	1,472.05	1,472.05
4.10.13	Dummy Cable Duct: Supplying, fabricating and fixing dummy cable duct including end anchor cone, cost of equipment, labour etc. complete as per drawing, specification and direction of Engineer-in-charge.	m	1,065.94	1,065.23	1,056.41	1,056.57
Section-11: MS Fabrication, Re-Bar Coupler, Bearing & Expansion Joints						
4.11.02	FBECR: Extra over item code: 4.11.01 for providing Fusion Bonded Epoxy Coating (FBEC) to reinforcement bars as per ASTM A775/ BDS ISO 14654: 2013 specification for a coating thickness (after curing) of 175 to 300 microns for 10mm to 16mm and 175 to 400 microns for 20mmm to 50mm re-bars including extra cost on account of careful handling during straightening, cutting, bending & placing, extra cost on account of using PVC coated binding wire instead of G.I. wire, extra cost on account of touch-up material (All cut edges/weld areas and bend locations where coating has been damaged touch up shall be done with same paint, the upper thickness limit shall not apply to repaired areas of damaged coating) supplied by coating agency and repair work, extra cost on account of transportation to and fro from steel yard to plant and plant to work site by trailer (if required), loading, unloading, flexibility & holiday testing, including all taxes, etc. complete to ensure proper resistance of FBE against corrosive environment. [Fusion Bonded Epoxy Coating to be proposed only in Coastal Area/Severe Exposure Condition with prior approval of Design Unit, LGED.]					
4.11.02.01	For Re-bar diameter: 8mm to 12mm	kg	12.92	12.92	12.92	12.92
4.11.02.02	For Re-bar diameter: 16mm to 50mm	kg	10.98	10.98	10.98	10.98

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.11.03	Supplying and fabrication of High Yield strength (500 MPa, Galvanized wire rope) of required size and length for all types of Arch Bridge work including cutting, fitting , securing and placing them in position, etc. including cost of all materials, labour, local handling, laboratory test, incidentals charge to complete the work as per specifications, drawings and direction of the Engineer. Laboratory test for physical property, strength, to be performed as per ASTM	kg	280.29	280.13	279.49	279.49
4.11.04	Supplying, fitting and fixing mechanical couplers of various diameter confirming to ACI/ AASHTO having minimum connection strength at least 125% of nominal yield strength, fy of the reinforcing bars including fitting & fixing in proper position as shown in drawing and attach to the reinforcement bars by thread, cold swaging and extrusion or hot forging including cost of all materials, labors, equipment, tools etc. all complete as per design, drawing and direction of the E-I-C. All operations relating to reinforcement coupling shall be done using supplier's petented machine/ equipment and in the presence of the supplier's representative. The contractor shall submit relevant trade literature, mill certificates, certificate of origin and letters of approval for each proposed application. A sample of each type of mechanical coupler shall be submitted for testing and approval prior to the use of any coupler in the works					
4.11.04.01	For 25mm diameter rebar Coupler	each	313.14	311.91	308.22	308.22
4.11.04.02	For 32mm diameter rebar Coupler	each	423.62	422.39	418.70	418.70
4.11.04.03	For 40mm diameter rebar Coupler	each	644.58	643.34	639.65	639.65
4.11.04.04	For 50mm diameter rebar Coupler	each	701.07	699.84	696.15	696.15
4.11.06	Supplying, fitting, fixing & installation of expansion joints as indicated on the drawing and conforming to the following specifications and as directed by the E-I-C.					
4.11.06.01	Providing expansion joints between the breast walls (abutment top wall) and girders or in between the girders with steel sheet and filling the gap with sand and bitumen (80/100) as per design, drawing and direction of the E-I-C.	kg	211.90	211.95	211.61	211.61
4.11.06.02	Strip Seal Expansion Joint: Providing and laying of Strip Seal type bridge deck expansion joint catering to maximum horizontal movement up to 80 mm including cost of all materials (edge beams, Strip seal, anchorage, angle, bar, plate etc.), fixtures, welding, preparing surface for receiving joints, installation in proper position, labour charges, testing of all materials in approved laboratory, handling, tools, equipment, all leads and lifts etc. all complete as per approved drawing, specification and direction of the E-I-C. The Installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. [The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC Deck.]	m	43,579.68	43,578.07	43,572.69	43,572.69

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.11.06.03	Modular Strip/ Box Seal Expansion Joint: Providing and laying of modular strip/ Box seal expansion joint catering to maximum horizontal movement beyond 80 mm and up to 240 mm including all materials, installation in proper position, labour charges, testing, handling, tools, equipment etc. all complete as per drawing, specification and direction of the E-I-C. The anchoring bars of the expansion joint assembly shall be welded to the main reinforcement of the deck. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. [The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC Deck.]					
4.11.06.03.01	Modular Strip Expansion: beyond 80 mm and up to 160 mm	m	214,619.15	214,617.22	214,611.35	214,611.35
4.11.06.03.02	Modular Strip Expansion: beyond 160 mm and up to 240 mm	m	320,614.78	320,612.36	320,604.98	320,604.98
4.11.06.04	EJ-F: Providing and laying of finger expansion joint catering to maximum horizontal movement up to 300 including all materials, installation in proper position, labour charges, testing, handling, tools, equipment etc. all complete as per drawing, specification and direction of the E-I-C. The anchoring bars of the expansion joint assembly shall be welded to the main reinforcement of the deck. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. [The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC Deck.]					
4.11.06.04.01	EJ-F_100: Finger Joint: Up to 100mm, Without Elastic Seal	m	192,649.18	192,647.24	192,641.38	192,641.38
4.11.06.04.02	EJ-F_100E: Finger Joint: Up to 100mm, With Elastic Seal	m	367,139.43	367,137.01	367,129.63	367,129.63
4.11.06.04.03	EJ-F_200: Finger Joint: 100mm to 200mm, Without Elastic Seal	m	298,621.99	298,620.05	298,614.19	298,614.19
4.11.06.04.04	EJ-F_200E: Finger Joint: 100mm to 200mm, With Elastic Seal	m	597,177.97	597,175.55	597,168.17	597,168.17
4.11.06.04.05	EJ-F_300: Finger Joint: 200mm to 300mm, Without Elastic Seal	m	607,493.96	607,492.03	607,486.16	607,486.16
4.11.06.04.06	EJ-F_300E: Finger Joint: 200mm to 300mm, With Elastic Seal	m	1,194,244.29	1,194,241.87	1,194,234.49	1,194,234.49
4.11.07	Supplying, fitting and fixing bridge bearings including cost of all materials, labour, welding and carrying etc. complete in all respect as per design, drawing, specification and direction of the E-I-C.					
4.11.07.01	Roller bearing with required numbers of rollers, plate and other fittings					
4.11.07.01.01	Each set up to 150 mm diameter	kg	373.06	365.43	353.98	353.98
4.11.07.01.02	Each set beyond 150 mm diameter	kg	602.60	587.84	565.68	565.68
4.11.07.02	Hinge plate bearing with lead plates and other fittings					
4.11.07.02.01	Each set with plate up to 25 mm thick	kg	504.26	499.34	491.96	491.96
4.11.07.02.02	Each set with plate beyond 25 mm thick	kg	538.04	533.11	525.73	525.73
4.11.07.03	Free plate bearing with lead plates and other fittings					
4.11.07.03.01	Each set with plate up to 25 mm thick	kg	318.51	313.59	306.20	306.20
4.11.07.03.02	Each set with plate beyond 25 mm thick	kg	318.51	313.59	306.20	306.20
4.11.07.04	Hinge plate bearing with lead sheets including fitting & fixing	kg	315.98	311.05	303.67	303.67

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.11.08	SLEB: Supplying, fitting and fixing steel-laminated Elastomeric/ Neoprene bearings in exact positions as per drawing, specifications and direction of the E-I-C including cost of all materials, labour, carrying etc. The set shall be of 100% virgin Chloroprene Rubber (CR), grades of raw elastomer of proven use in elastomeric bearings, with low crystallization rates and adequate shelf life viz. Neoprene WRT, Neoprene W, Bayprene 110, Bayprene 210, Skyprene B-5, Skyprene B-30, Denka S-40V and Denka M-40, shall be used. No reclaimed rubber or Vulcanized wastes or natural rubber shall be used. Use of synthetic rubber-like materials such as Ethyl Propylene Dimonomer (EPDM), Isobutane Isoprene Copolymer (IIR) and Chloro-Isoprene Copolymer (CIIR) shall not be permitted. Laboratory test to be performed from BUET, Dhaka for Elastomer hardness limits determined in accordance with ASTM D 2240 shall be 60 ± 5 duro, minimum tensile strength determined in accordance with ASTM D 412 shall be 17 MPa, ultimate elongation determined in accordance with ASTM D 412 shall be minimum 400%, compression set value after 22 hours at 100 degree centigrade determined in accordance with ASTM D 395 Method B shall be maximum 35%, Elastomeric content determined in accordance with ASTM D 297 shall not be less than 60%, Ash content determined in accordance with ASTM D 297 shall not exceed 5%, Shear modulus of elastomeric bearing determined in accordance with ASTM D 4014 shall neither be less than 0.8 MPa nor greater than 1.2 MPa, the adhesion strength of elastomer to steel plates (Peel Strength) determined in accordance with ASTM D 429 Method B shall not be less than 7kN/m. One set of Elastomeric Bearing must be taken as extra for laboratory test.	cucm	3.05	3.04	3.02	3.02
4.11.09	TF_Neo_Pad:Test fee for steel-laminated Elastomeric/ Neoprene bearings confirming to 100% virgin Chloroprene Rubber (CR), grades of raw elastomer of proven use in elastomeric bearings, with low crystallization rates and adequate shelf life viz. Neoprene WRT, Neoprene W, Bayprene 110, Bayprene 210, Skyprene B-5, Skyprene B 30, Denka S-40V and Denka M-40, shall be used. No reclaimed rubber or Vulcanized wastes or natural rubber shall be used. Use of synthetic rubber-like materials such as Ethyl Propylene Dimonomer (EPDM), Isobutane Isoprene Copolymer (IIR) and Chloro-Isoprene Copolymer (CIIR) shall not be permitted. Laboratory test to be performed from BUET, Dhaka for Elastomer hardness limits determined in accordance with ASTM D 2240 shall be 60 ± 5 duro, minimum tensile strength determined in accordance with ASTM D 412 shall be 17 MPa, ultimate elongation determined in accordance with ASTM D 412 shall be minimum 400%, compression set value after 22 hours at 100 degree centigrade determined in accordance with ASTM D 395 Method B shall be maximum 35%, Elastomeric content determined in accordance with ASTM D 297 shall not be less than 60%, Ash content determined in accordance with ASTM D 297 shall not exceed 5%, Shear modulus of elastomeric bearing determined in accordance with ASTM D 4014 shall neither be less than 0.8 MPa nor greater than 1.2 MPa, the adhesion strength of elastomer to steel plates (Peel Strength) determined in accordance with ASTM D 429 Method B shall not be less than 7kN/m. One set of Elastomeric Bearing must be taken as extra for laboratory test but excluding cost of Bearing Pad	each	39,349.02	39,349.02	39,349.02	39,349.02
4.11.10	Filling of expansion joints upto a depth of 40 mm with bitumen mixed with coarse sand (FM ≥ 2.5) in concrete works including supply of all materials etc. complete as per specification and direction of E-I-C.					
4.11.10.01	25mm wide	m	106.45	105.11	102.33	102.35
4.11.10.02	20mm wide	m	85.21	84.14	81.91	81.92

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.11.11	POT-PTFE Bearing: Supplying, fitting and fixing POT-PTFE bearing to the true line and level and position as per drawing and AASHTO Specifications as to impart full and even bearing on the seats and free movements/ restraints as specified including coat of all materials, fixtures, preparing surface for receiving bearing, grouting of sleeves in pier caps/ superstructures with non-shrink high early strength grout of flowable consistency, load testing of all bearings as per design and drawings and specifications, removing clamps provided for transportation and handling etc. complete including all leads and lifts as directed by E-I-C. One set must be taken as extra for laboratory test which to be performed from BUET.					
4.11.11.01	PBG: Guided/ Free Type Pot Bearing	MT	811.84	811.61	810.91	810.91
4.11.11.02	PBF: Fixed Type Pot Bearing	MT	588.19	588.05	587.61	587.61
4.11.12	Spherical Bearing: Supplying fitting and fixing in position true to line and level cast steel spherical/ cylindrical type bearing with stainless steel plate with PTFE sliding surface as per AASHTO specification complete with all accessories as per drawing and direction of E-I-C and including cost of all material installation. One set must be taken as extra for laboratory test which to be performed from BUET.	MT	1,168.30	1,168.19	1,167.85	1,167.85
4.11.13	STU: Providing and fitting in position true to line and level shock transmission unit as per AASHTO specification complete with all accessories as per drawing and direction of Engineer-in-charge and including cost of all material for installation. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation.					
4.11.13.01	STU_50: Up to 50 MT of Horizontal Load	MT	36,366.80	36,363.85	36,352.03	36,352.03
4.11.13.02	STU_50+: Above 50 MT of Horizontal Load	MT	26,700.09	26,698.82	26,693.75	26,693.75
4.11.14	HDRB: Supplying, fitting and fitting High Damping Rubber Bearing for seismic isolation in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, carrying etc. The devices shall be made from natural rubber (NR) providing a high resistance against mechanical wear. The bearings shall consist of alternate layers of elastomeric material and vulcanized reinforcement steel plates and provide a high level of damping of up to 16%. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. One set of HDRB must be taken as extra for laboratory test which must be performed from BUET, Dhaka.	MT	1,111.45	1,108.50	1,096.68	1,096.68
4.11.15	DB: Supplying, fitting and fitting Disc Bearing in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, carrying etc. The upper and lower bearing plates shall be made of carbon steel conforming to ASTM A 709 Gr 250 or Gr 345, stainless steel as per Type 304 of ASTM A 167, polyether-Urethane rotational disc as per AASHTO Specifications and PTFE material as per ASTM D4894/ D3294. The installation shall be done by the manufacturer/ supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation. One set of Disc Bearing must be taken as extra for laboratory test which must be performed from BUET, Dhaka.	MT	1,809.32	1,806.37	1,794.55	1,794.55

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
Section-12: Chemical Admixture, Galvanizing & Curing Compound and Concrete Cover Blocks						
4.12.02	CGC: Providing Cold Galvanizing Compound having 96% of zinc (purity is 99.99%), corrosion rate shall be less than 0.05mm per year, solid content shall not be more than 40% by volume and relative density shall not more than 2.70 gm/cc and should be complied the international test result like salt spray test, frame test, weathering test and humidity test. Shelf and drying time shall not be more than 25 minutes for the cathodic (galvanic/sacrificial) protection of all steel structure for a specified time against formation of rust and corrosion with labour, consumables, air compressor tools, plants and equipment, transportation etc. all complete as per specifications and direction of E-I-C. [This coating shall be selected as per Instruction given in the drawing & after getting approval from Design unit, LGED.]					
4.12.02.01	CGC30: 30 Micron Cold Galvanizing Compound for minimum 8 years protection against rust & corrosion.	sqm	2,237.05	2,228.61	2,224.02	2,226.00
4.12.02.02	CGC40: 40 Micron Cold Galvanizing Compound for minimum 10 years protection against rust & corrosion.	sqm	3,361.91	3,353.47	3,348.88	3,350.86
4.12.02.03	CGC40PU: 40 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 10+ years protection against rust & corrosion.	sqm	4,149.31	4,140.88	4,136.29	4,138.26
4.12.02.04	CGC60: 60 Micron Cold Galvanizing Compound for minimum 12 years protection against rust & corrosion.	sqm	4,222.43	4,213.99	4,209.40	4,211.38
4.12.02.05	CGC60PU: 60 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 13+ years protection against rust & corrosion.	sqm	4,396.08	4,387.64	4,383.05	4,385.03
4.12.02.06	CGC80: 80 Micron Cold Galvanizing Compound for minimum 15 years protection against rust & corrosion.	sqm	4,699.09	4,690.65	4,686.06	4,688.04
4.12.02.07	CGC80PU: 80 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 15+ years protection against rust & corrosion.	sqm	5,021.08	5,012.64	5,008.06	5,010.03
4.12.02.08	CGC80PBW: 80 Micron Cold Galvanizing Compound including Plyvinyl Butyral Wash primer (adhesion) & Copper Epoxy anti-foul 250 Micron (Triplex System) for minimum 15+ years protection against rust & corrosion.	sqm	6,253.51	6,245.07	6,240.48	6,242.46
4.12.02.09	CGC100: 100 Micron Cold Galvanizing Compound for minimum 15+ years protection against rust & corrosion.	sqm	5,901.29	5,892.85	5,888.26	5,890.24
4.12.02.10	CGC100PU: 100 Micron Cold Galvanizing Compound including Polyurethane (PU) or Epoxy Polyamide (Duplex System) for minimum 15+ years protection against rust & corrosion.	sqm	6,087.59	6,079.15	6,074.57	6,076.54
4.12.02.11	CGC100PBW: 100 Micron Cold Galvanizing Compound including Plyvinyl Butyral Wash primer (adhesion) & Copper Epoxy anti-foul 250 Micron (Triplex System) for minimum 15+ years protection against rust & corrosion.	sqm	6,492.54	6,484.10	6,479.52	6,481.49

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.12.03	CCC: Supplying and spraying liquid membrane-forming water/resin based concrete curing compounds conforming to ASTM C 309/ AASHTO M 148 on freshly cast concrete or newly exposed concrete surfaces immediately after removal of shuttering or after initial moist curing at a rate of 5.0 m2/L or in accordance with the manufacturer's instructions to form a thin continuous firm barrier/ temporary membrane which will retain sufficient moisture for effective curing to take place during the early-hardening period without disturbing the normal setting action of concrete including labour, equipment, other incidental charges etc. all complete as per specification and direction of E-I-C. The curing compound shall exhibit water loss not more than 0.55 Kg/m2 in 72 hours when tested as per ASTM C 156, shall exhibit a daylight reflectance of not less than 60% when tested as per ASTM E 1347 and shall dry to touch in not more than 4 hours. [This unit rate includes 10% extra curing compound for overlaps and wastage.]	sqm	156.07	154.84	152.99	152.99
4.12.04	CCB: Supplying concrete cover block as specified size conforming to BS 8110-1, satisfying a compressive strength f'c = 35 MPa (Min.), ensuring perfect clear cover to rebar in concrete structure. The mix used for concrete cover blocks made from cement, sand, stone dust, small aggregate etc. and should be comparable in strength, durability, porosity and apprearance to the sorrounding concrete as fas as practicable. Concrete cover blocks made on the construction site should not be used. [The volumn of concrete cover blocks must be deducted from the RCC/PSC items.]					
4.12.04.01	CCB-M20/25: Concrete Cover Block with 20/25 mm clear cover facility for Slab, Stair etc. [Concrete Volumn = 0.0022 cum/100 Nos.]	Nos.	3.08	3.08	3.08	3.08
4.12.04.02	CCB-M35/40: Concrete Cover Block with 35/40 mm clear cover facility for Beam, column, RCC Wall, Girder, Pier etc. [Concrete Volumn = 0.0067 cum/100 Nos.]	Nos.	8.00	8.00	8.00	8.00
4.12.04.03	CCB-M45/50: Concrete Cover Block with 45/50 mm clear cover facility for Beam, Column, RCC Wall, Girder, Pier etc. [Concrete Volumn = 0.0082 cum/100 Nos.]	Nos.	9.85	9.85	9.85	9.85
4.12.04.04	CCB-M60/65/75/80: Concrete Cover Block with 60/65/75/80 mm clear cover facility for Sub-structure, footing/ foundation, column, beam etc. [Concrete Volumn = 0.0186 cum/100 Nos.]	Nos.	16.00	16.00	16.00	16.00
4.12.04.05	CCB-M100/110: Concrete Cover Block with 100/110 mm clear cover facility for top layer of slab reinforcement [Concrete Volumn = 0.0216 cum/100 Nos.]	Nos.	20.31	20.31	20.31	20.31
4.12.04.06	CCB-C40: Concrete Cover Block with (Circular) 40 mm clear cover facility for Spiral Column, RCC Wall etc. [Concrete Volumn = 0.0155 cum/100 Nos.]	Nos.	13.54	13.54	13.54	13.54
4.12.04.07	CCB-C75: Concrete Cover Block with (Circular) 75 mm clear cover facility for Piling Work [Concrete Volumn = 0.0507 cum/100 Nos.]	Nos.	40.62	40.62	40.62	40.62
4.12.04.08	CCB-L40: Concrete Cover Block with (L-Shape) 40 mm clear cover facility for Beam/ Column Construction [Concrete Volumn = 0.015 cum/100 Nos.]	Nos.	13.54	13.54	13.54	13.54

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
Section-13: Wearing course, Drainage Spouts, Back filling & Weep holes						
4.13.01	CWC: Providing and laying wearing course on deck slab of bridge with minimum cement content relates to mix ratio 1:1.5:3 and maximum water cement ratio 0.4 having minimum required average strength, f'cr = 33.5 MPa and satisfying a compressive strength f'c = 25 MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, Coarse sand of minimum FM 2.5 and 6mm down well graded crushed stone chips broken from boulders (preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 30), including breaking stone boulders into chips, screening through proper sieves, casting, finishing complete to camber and grade, compacting, curing at least for 28 days, etc. including cost and carriage of all materials, labour, water, electricity, other incidental cost etc. all complete as per design, drawing, specification & directionn of E-I-C.	cum	12,975.71	12,911.58	12,618.72	12,697.95
4.13.02	RWDP: Providing & fixing rainwater down pipes including cost of all materials, labours, equipment, transportation, fixtures, accessories etc. at any level as per specification, drawings and direction of the E-I-C.					
4.13.02.07	RWDP50PVC: 50mm uPVC Pipe of 2.5mm to 3mm wall thickness conforming to BS 3505	m	183.39	182.41	180.93	180.93
4.13.02.08	RWDP75PVC: 75mm uPVC Pipe of 2.9mm to 3.4mm wall thickness conforming to BS 3505	m	297.86	296.75	295.09	295.09
4.13.03	BF: Back filling behind abutments, wing walls and retaining walls with selected granular material (50:50 best quality picked brick chips & sand of min. FM 1.00) of minimum 450 mm width, in layers of 150 mm thickness free from dust, impurities etc. including compaction using plate compactor, watering & dressing, supply & cost of all materials, carrying and labour, hire charge of plate compactor and other tools etc. all complete as per direction of the Engineer-In-Charge. Payment to be made for the compacted volume only for a compaction of 90% of the maximum dry density.	cum	3,249.59	3,268.81	3,129.60	3,162.34
4.13.04	WH: Providing weep holes in Brick masonry/ Plain/ Reinforced concrete retaining wall, abutment, wing/ return wall, with 50 - 100 mm dia uPVC pipe extending through the full width of structure with slope 1V : 20H towards draining face including hand packing of 0.85 cum pervious backfill material (40mm - 63mm sized 1st class/picked brick bats) wrapped in Geo-fabric (Grade-III-DF-40-2.3mm thick) in the back of each weep hole etc. all compete as per direction of the E-I-C. [Cost of uPVC pipe, Geo-bag, brick bats, mortar etc. is included in this item and shall not be paid separately.]					
4.13.04.01	WH50: Using 50mm dia uPVC pipe	each	541.34	543.44	527.87	532.30
4.13.04.02	WH75: Using 75mm dia uPVC pipe	each	664.88	666.92	650.84	655.35
4.13.04.03	WH100: Using 100mm dia uPVC pipe	each	850.34	852.32	835.80	840.42

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.13.05	DS: Supplying, fitting and fixing in position galvanized drainage spouts for bridge decks made up by minimum 100mm dia. MS pipe of 4.05mm wall thickness conforming to BDS 1031/ BS 1387 Medium Class, grating formed by 262mm x 262mm top rim of 32mm X 28mm ASTM A36 complied MS rectangular bars and 4 nos. 198mm X 12mm X 25mm ASTM A36 complied MS flat bars, square shaped collection pit of 210mm X 210mm made up by 6mm thick ASTM A36 complied MS plate with necessary anchorage and fixing the grating frame by minimum 6 nos. of 10mm dia. bolts and other necessary fittings including all labour, tools, plant, equipment, machinery, leads & lifts, fuel, electric charges etc. complete in all respectas as per drawing, specifications and direction of Engineer-in-Charge. The grating has to carry a spot load of 100 kN. Drainage spouts has to be constructed in such a way so that the gratings can be temporarily fixed to protect against theft. After fabrication, the complete assembly shall be given a hot dipped galvanized coating. [600mm MS Pipe is included in this unit rate, Extra length must be added if necessary]	each	6,688.76	6,685.10	6,660.84	6,660.84
4.13.06	DG: Supplying, fitting and fixing in position galvanized drainage grating for bridge decks made up by 200mm x 150mm outer frame of 25mm x 25mm x 6mm ASTM A 36 complied MS Angles and 4 nos. 25mm x 6mm ASTM A36 complied MS flat bars, grating fitted with 4 nos. BDS ISO 6935-2: 2006 (Grade 400) complied 12mm dia. anchor bar 100mm in length by welding and other necessary fittings including all labour, tools, plant, equipment, machinery, leads & lifts, fuel, electric charges etc. complete in all respect as per drawing, specifications and direction of Engineer-in-Charge. After fabrication, grating shall be given a hot dipped galvanized coating.	each	624.25	623.24	616.82	616.82
4.13.07	PS: Providing cork/ polystyrene sheet in expansion joints of concrete works including supply of all materials etc. complete as per direction of E-I-C.					
4.13.07.01	PS_25: 25mm thick cork/ polystyrene sheet	sqm	292.13	289.65	285.92	285.92
4.13.07.02	PS_20: 25mm thick cork/ polystyrene sheet	sqm	279.70	277.22	273.49	273.49
4.13.08	Providing and fixing 150 mm PVC pipe of 6.6mm to 7.6mm wall thickness conforming to BS 3505 for longitudinal runner pipe/ under drain along soffit of deck slab including cost of all materials, labours , fixing in true line and levels, including bends and fixtures, specials, etc. complete with all leads and lifts etc. as per specification and direction of E-I-C.	m	2,434.79	2,433.50	2,427.04	2,427.04

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.13.09	MA: Providing and laying mastic asphalt wearing course on top of deck slab excluding prime/tack coat with 10/20 penetration grade bitumen satisfying the requirements of ASTM/AASHTO code, coarse aggregate should be crushed stone chips (LAA value <=30) complying with the specified grading requirement of the relevant item of Rural Road Design Standard - 2021, water absorption not >2%, flakiness index not > 35%, fine aggregate shall be the fraction passing the 2.36mm and retained on the 0.075mm sieve, filler shall be limestone powder passing 75 micron sieve and shall have a calcium carbonate content of not < 80%, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including hire charges of all tools, plants and machinery, wages of operational staff, cost of fuel & lubricants and all other incidental charges all complete as per design, specification and direction of Engineer-in-Charge. The contractor shall submit to the Engineer for approval at least one month before the start of the work the job mix formula proposed to be used by him for the work. [Excluding the cost of applying Prime/Tack coat] Notes: 1. Where prime/tack coat is required to be provided before laying mastic asphalt, the same is required to be measured and paid separately. The rate for prime/tack coat shall be taken from Road Works. 2. Bituminous wearing course of specified thickness shall be overlaid with this mastic asphalt (for up to 25mm thickness) and the rate for bituminous wearing course shall be taken from Road Works.					
4.13.09.01	MA_12: 12mm thick mastic asphalt wearing course	sqm	995.06	990.95	972.70	973.90
4.13.09.02	MA_25: 25mm thick mastic asphalt wearing course	sqm	1,380.49	1,376.60	1,352.46	1,355.03
4.13.09.03	MA_40: 40mm thick mastic asphalt wearing course	sqm	2,211.10	2,204.90	2,168.66	2,170.70
4.13.09.04	MA_50: 50mm thick mastic asphalt wearing course	sqm	2,749.16	2,741.59	2,694.57	2,699.60
Section-14: Slope Protective Work, Jute & Synthetic Geo-textile						
4.14.01	Manufacturing and supplying Plain Cement Concrete (PCC) Blocks with cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 40 mm down well graded shingles to attain a minimum 28 days cylinder strength of 17.00 MPa (suggested mix proporation 1:2:4) including grading, washings shingles, mixing, laying in forms, consolidating, curing for at least 21 days, including preparation of platform, shuttering and stacking in measurable stacks, cost of all materials, labour, equiptment and machinery, work at all leads and lifts, loading and unloading, transportation and all other incidental charges etc. all complete as per drawing, specification & direction of the E-I-C. Steel shutter shall be used to perform the job. [Payment shall be done after laying of PCC Blocks]					
4.14.01.01	Size: 400 mm x 400 mm x 150 mm	each	345.76	350.10	316.45	325.33
4.14.01.02	Size: 500 mm x 500 mm x 150 mm	each	515.79	523.10	472.12	485.95
4.14.01.03	Size: 500 mm x 500 mm x 200 mm	each	704.05	713.42	644.40	662.88
4.14.01.04	Cast-in-Situ Blocks of required sizes as per drawing	cum	14,236.60	14,427.32	12,934.16	13,321.87

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.14.03	Providing brick mattressing in bridge approaches as protective work with required layer soling of 1st class/ picked bricks encased in 12 BWG galvanised wire 100mm square mesh wire net over a 25mm thick filter bed of sand (minimum FM 2.50) & brick chips (20mm down graded) mixed with proportion 1:1 including necessary earth cutting and fitting, fixing with 750mm long bamboo peg @ 1m c/c, dressing, leveling, compacting, etc. all complete in all respect as per approved design, specification and direction of E-I-C. Rate is inclusive of cost of materials, labour, equiptment & machinery, work at all leads and lifts, loading & unloading, transportation and all incidental charges in this connection.					
4.14.03.01	Single Layer Soling of 1st Class/ picked bricks	sqm	1,042.91	1,036.67	1,010.64	1,019.94
4.14.03.02	Double Layer Soling of 1st Class/ picked bricks	sqm	1,515.05	1,508.81	1,459.46	1,476.38
4.14.04	Supplying and placing of required layers of gunny bagged Riprap filled with cement (BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N) and Sand (minimum FM 1.00) mortar (1:8) along slopes of abutments, piers, banks of river/ khal including washing of sand, mixing in standard mixture machine, filled & tamping the bags in place, stitching bags by hand sewing machine, curing by sprinkling water over the bags including preparation of slope (bed) by cutting or filling with ramming the filled up earth to the same profile as that of the finished slope level, placing the filled gunny bags along the slope, etc. all complete in all respect as per approved design, specification and direction of the E-I-C. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.					
4.14.04.01	Single layer of Gunny Bagged Riprap	sqm	773.32	769.21	745.51	745.51
4.14.04.02	Two layers of Gunny Bagged Riprap	sqm	1,488.42	1,481.31	1,438.97	1,438.97
4.14.05	Supplying best quality sal/ sundari/ gazari/ sonali/ tetul/ Jam etc. bullah piles free from rots, knots, sap and uniform in size at work site including carrying, stacking, etc. all complete as per direction of the Engineer-in-Charge. Before any piling work is commenced the contractor shall submit to the engineer full details of the pile driving equipment and the method he intends to use in carrying out the work. Diameter of bullah pile to be measured at a distance of 1.5m from the thicker end.					
4.14.05.02	Bullah piles of 200mm to 250mm diameter	m	590.79	590.54	589.56	589.56
4.14.06	Labour for handling and driving best quality bullah piles up to required depth by monkey/ power winch in all sorts of soil including hoisting and placing piles in position, protecting the pile head with steel cap, hire charge for necessary driving appliances, cutting & shaping heads before and after driving etc. complete in all respect as per direction of the Engineer-in-Charge. Payment to be made on the length driven into the ground. Note: Water jet machine shall not be used in the pile driving process.					
4.14.06.01	Bullah piles of 150mm to 200mm diameter					
4.14.06.01.01	For driving from ground with staging	m	307.09	301.67	281.24	281.24
4.14.06.01.02	For driving from pontoon or boats with staging	m	319.37	313.74	292.49	292.49
4.14.06.01.03	For driving from pontoon or boats with heavy staging	m	328.58	322.79	300.93	300.93
4.14.06.02	Bullah piles of 200mm to 250mm diameter					
4.14.06.02.01	For driving from ground with staging	m	449.86	441.74	411.09	411.09
4.14.06.02.02	For driving from pontoon or boats with staging	m	467.86	459.41	427.53	427.53
4.14.06.02.03	For driving from pontoon or boats with heavy staging	m	481.35	472.66	439.87	439.87

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.14.07	Providing & Installtion of 100mm x 200mm x 8mm steel joist or any other required steel sections of 7.62m length @ 200mm c/c for Shore protection work during excavation in foundation trenches to protect the adjacent property including rent, conveyance, labour, material for cutting to required size & for driving the same upto required depth including cost of all fittings etc. complete as per direction of the E-I-C. The contractor will remove the joists after completing the work without any extra payment & the contractor will be the owner of these joists. Note: Measurement shall be based on lengths of protection work in horizontal direction.	m	30,214.43	30,059.34	29,600.56	29,600.56
4.14.09	Providing, preparing and laying of geogrid crated apron 1 m x 5 m, 600 mm thick including excavation and backfilling with baffles at 1 m interval, made with geogrids having , joining sides with connectors/ring staples, top corners to be tie tensioned, placing of suitable cross interval ties in layers of 300 mm connecting opposite side with lateral braces and tied with polymer braids to avoid bulging, filled with stone with minimum size of 200 mm and specific gravity not less than 2.65, packed with stone spalls, keyed to the foundation recess in case of sloping ground and laid over a layer of geotextile to prevent migration of fines, all as per approved design and direction of E-I-C	cum	15,943.78	16,314.50	13,983.98	14,656.00
4.14.10	Construction of single/ double row bamboo spur, with full length borak bamboo of specified dia. & length, at 0.3m c/c, two rows at 1.5m apart (not applicable for single row spur) and stays with bamboo at 3 m apart on the D/S side of the spur, single/ double (for length > 6m) row runner with half split bamboo on both sides and also with double layer cross tie at 3.0m interval, including 2.4m to 3.0m driving of bamboo pins by monkey hammer, necessary staging etc. complete with supply of all materials including local carriage within 150m and as per drawing and direction of E-I-C.					
4.14.10.01	Single bamboo spur: dia. = 75mm, Length = 6.0m to 7.5m	m	2,594.62	2,583.28	2,537.95	2,537.95
4.14.10.02	Double row bamboo spur: dia. = 75mm, Length = 3.0m to 4.5m	m	2,503.03	2,490.10	2,438.41	2,438.41
4.14.10.03	Double row bamboo spur: dia. = 75mm, Length = 4.5m to 6.0m	m	4,136.16	4,112.12	4,015.97	4,015.97
4.14.10.04	Double row bamboo spur: dia. = 100mm, Length = 7.5m to 11.0m	m	6,334.45	6,308.17	6,203.08	6,203.08
4.14.11	Construction of a narrow filter sub- surface drain consisting of porous or perforated pipe laid in narrow trench surrounded by a geotextile filter fabric, with a minimum of 450 mm overlap of fabric and installed including excavation and backfilling.	m	920.15	907.23	869.11	869.11
4.14.12	JGT_RRC: Supplying and laying of woven type untreated double warp plain weave jute geo-textile (JGT) of different grades conforming to BDS 1909: 2016 for strengthening subgrade of Road & Bridge approach including local handling, unrolling, placing in position, ensuring proper drapability (JGT should touch the ISG surface at all points), stapling JGT by 6mm dia. U-shapped pegs/ hooknails or 37mm long mushroom shaped nails at an interval of 300mm with overlaps of 100mm, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-A (JGT Installation Guideline for Rural Road Construction) of BDS 1909 : 2016 and approval of Engineer-In-Charge.					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.14.12.01	JGT_RRC-1 : Applicable for Strengthening subgrade of Village Roads. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 85 x 32, Width(m) ≥ 1, Mass per unit area (gsm) = 627 ± 10%, Thickness under 2 kPa pressure (mm) = 2.0 ± 10%, AOS (O95) (µm) ≤ 450, Vertical Permeability (m/sec) ≥ 3.0 x10-3, Horizontal Permeability (m/sec) ≥ 7.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 850 x 200, Grab Tensile Elongation (%) MD x CD ≤ 30 x 35, CBR Puncture Resistance (N) ≥ 2000, Wide Width Tensile Strength (kN/m) MD x CD ≥ 20 x 10, Wide Width Elongation (%) MD x CD ≤ 12 x 10.	sqm	182.25	181.71	180.22	180.22
4.14.12.02	JGT_RRC-2 : Applicable for Strengthening subgrade of Union or Higher Roads. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 94 x 39, Width(m) ≥ 1, Mass per unit area (gsm) = 724 ± 10%, Thickness under 2 kPa pressure (mm) = 2.0 ± 10%, AOS (O95) (µm) ≤ 300, Vertical Permeability (m/sec) ≥ 2.0 x10-3, Horizontal Permeability (m/sec) ≥ 6.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 925 x 425, Grab Tensile Elongation (%) MD x CD ≤ 35 x 40, CBR Puncture Resistance (N) ≥ 2150, Wide Width Tensile Strength (kN/m) MD x CD ≥ 25 x 10, Wide Width Elongation (%) MD x CD ≤ 15 x 12.	sqm	211.20	210.66	209.17	209.17
4.14.13	JGT_RBP: Supplying and laying of natural additive treated woven type double warp plain weave jute geo-textile (JGT) conforming to BDS 1909: 2016 for river bank and slope protection work including local handling, unrolling, placing in position, ensuring proper drapability (JGT should touch the ground surface at all points), stapling JGT by 6mm dia. U-shapped pegs/ hooknails or 37mm long mushroom shaped nails at an interval of 300mm with overlaps of 100mm, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-B (JGT Installation Guideline for River Bank Protection) of BDS 1909 : 2016 and approval of Engineer-in-Charge.					
4.14.13.01	JGT_RBP-1: Applicable for mild to moderate River Bank Protection work. This type of treated JGT shall have the following requirements. Ends x Picks /dm ≥ 85 x 32, Width(m) ≥ 1, Mass per unit area (gsm) = 627 ± 15%, Thickness under 2 kPa pressure (mm) = 2.0 ± 20%, AOS (O95) (µm) ≤ 150, Vertical Permeability (m/sec) ≥ 1.0 x10-3, Horizontal Permeability (m/sec) ≥ 6.0 x10-3, Grab Tensile Strength (N) MD x CD ≥ 950 x 230, Grab Tensile Elongation (%) MD x CD ≤ 35 x 45, CBR Puncture Resistance (N) ≥ 2500, Wide Width Tensile Strength (KN/m) MD x CD ≥ 20 x 10, Wide Width Elongation (%) MD x CD ≤ 12 x 10.	sqm	246.59	246.05	244.56	244.56
4.14.14	JGT-HSM: Supplying and laying of open mesh Plain Weave jute geo-textile (JGT) commonly known as Soil Saver of different grades conforming to BDS 1909: 2016 for Hill Slope Management work including local handling, unrolling, placing in position, unrolling of JGT in the direction of surface run-off, stapling JGT by 6mm dia. U-shapped hooknails at an interval of 300mm with overlaps of 100mm at the sides and 150mm at the ends, anchoring JGT within a trench at the two ends by filling the trench with big bats/gravel or other suitable materials, ensuring proper drapability (JGT must touch the ground surface at all points), filling drain materials immediately after laying of JGT, protecting the JGT from any other damages etc. all complete in all respect as per instructions given in Annexure-C (JGT Installation Guideline for Hill Slope Management) of BDS 1909 : 2016 and approval of Engineer-in-Charge.					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.14.14.01	JGT_HSM-1: Applicable for Moderate slope (≤35 degree) & annual rainfall ≤ 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 6.5 x 4.5, Width(m) = 1.22, Mass per unit area (gsm) = 500 ± 10%, Thickness under 2 kPa pressure (mm) = 4.5 ± 10%, Water Holding Capacity (% by weight) ≥ 400, Wide Width Tensile Strength (kN/m) MD x CD ≥ 6.5 x 6.0, Wide Width Elongation (%) MD x CD ≤ 14.0 x 14.0.	sqm	69.66	69.12	67.63	67.63
4.14.14.02	JGT_HSM-2: Applicable for Moderate slope (≤35 degree) & annual rainfall ≥ 2000mm and steep stope (>35 degree to ≤ 45 degree) & annual rainfall ≤ 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 8 x 7, Width(m) = 1.22, Mass per unit area (gsm) = 600±10%, Thickness under 2 kPa pressure (mm) = 5.5±10%, Water Holding Capacity (% by weight) ≥ 400, Wide Width Tensile Strength (kN/m) MD x CD ≥ 12.0 x 6.0, Wide Width Elongation (%) MD x CD ≤ 14.0 x 14.0.	sqm	74.49	73.94	72.45	72.45
4.14.14.03	JGT_HSM-3: Applicable for steep stope (>35 degree to ≤ 45 degree) & annual rainfall > 2000mm. This type of JGT shall have the following requirements. Ends x Picks /dm ≥ 8 x 8, Width(m) = 1.22, Mass per unit area (gsm) = 700±10%, Thickness under 2 kPa pressure (mm) = 5.5±10%, Water Holding Capacity (% by weight) ≥ 400, Wide Width Tensile Strength (kN/m) MD x CD ≥ 14.0 x 7.0, Wide Width Elongation (%) MD x CD ≤ 14.0 x 14.0.	sqm	79.31	78.77	77.28	77.28
4.14.15	Arrangement of necessary construction materials at work site including, carrying, stacking, handling etc. all complete as per direction of the E-I-C.					
4.14.15.01	MS pipe of 100mm diameter & 4mm wall thickness					
4.14.15.01.01	For permanent use, cost of MS pipe is included in this unit rate.	m	1,848.06	1,848.06	1,848.06	1,848.06
4.14.15.01.02	For temporary use, rent of MS pipe is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.)	m	58.16	58.16	58.16	58.16
4.14.15.02	MS pipe of 150mm diameter & 4mm wall thickness					
4.14.15.02.02	For temporary use, rent of MS pipe is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.)	m	84.00	84.00	84.00	84.00
4.14.15.03	MS pipe of 200mm diameter & 6.5mm wall thickness					
4.14.15.03.01	For permanent use, cost of MS pipe is included in this unit rate.	m	4,989.77	4,989.77	4,989.77	4,989.77
4.14.15.03.02	For temporary use, rent of MS pipe is included in this unit rate. (all hiring charge & maintaining the same till the completion of the work.)	m	148.62	148.62	148.62	148.62
4.14.15.04	MS pipe of 300mm diameter & 10 mm wall thickness					
4.14.15.04.01	For permanent use, cost of M S pipe is included in this unit Rate	m	9,282.96	9,282.96	9,282.96	9,282.96
4.14.15.04.02	For temporary use, rent of MS pipe is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.)	m	542.79	542.79	542.79	542.79
4.14.15.05	Supplying best quality of MS angle,Plate,Nut Bolt, Stifinner, I-Beam at work site including, carrying, stacking, handling etc. all complete as per direction of the E-I-C.etc					
4.14.15.05.02	For temporary use, rent of MS angle,Plate,Nut Bolt, Stifinner, I-Beam etc is included in this unit rate.(all hiring charge & maintaining the same till the completion of the work.	kg	25.48	25.48	25.48	25.48
4.14.15.06	Labour cost for fitting, fixing, erection, removing and welding of MS angle, Plate, Nut Bolt, Stifinner, I-Beam of Steel structure etc.	kg	84.00	84.00	84.00	84.00

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.14.15.07	Supplying best quality Wooden Plank,Btten ctc (Jarul & Local Shal wood) at work site including, carrying, stacking, handling etc. all complete as per direction of the E-I-C.					
4.14.15.07.02	For Temporary use, Rent of Wood is included in this unit Rate (all hiring charge & maintaining the same till the completion of the work.)	cum	20,588.02	20,588.02	20,275.70	20,275.70
4.14.16	Labour for driving MS steel pipes of any size up to required depth with monkey, power winch etc. including all necessary tools, equipment and accessories and hoisting piles in true & vertical position etc. all complete as per direction of E-I-C.	m	429.32	425.44	413.16	413.16
4.14.17	Labour for extraction of MS steel/ micro pipes of any size with monkey, power winch etc. including all necessary tools, equipment and accessories all complete as per direction of E-I-C.	m	341.44	337.56	325.28	325.28
Section-15: Railing, Painting & Other Bridge Appurtenances						
4.15.01	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 channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.10 m below ground/road level, all steel parts and fittings to be galvanised by hot dip process (zinc coated, 550 gsm, minimum single spot), all fittings to conform to AASHTO M 180, 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 etc. all complete as per specification & direction of the Engineer in charge.	m	8,499.17	8,492.33	8,472.50	8,472.50
4.15.02	Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal rail, 70 cm above road/ground level, fixed on channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process (zinc coated, 550 gsm, minimum single spot), all fittings to conform to AASHTO M 180, metal rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 546 mm long etc. all complete as per specification & direction of the E-I-C.	m	10,818.77	10,812.48	10,794.24	10,794.24
4.15.03	Supplying fitting and fixing railing & rail post made of various dia MS pipes of standard thickness for normal, ornamental Bridge or any other structure including required ms plate, nutbolt, cutting, welding, painting with anticorrosive paint, laying in position etc. all complete as per design, drawing, spacification & the direction of the E-I-C.					
4.15.03.02	75mm dia. and wall thickness 4mm	m	1,458.51	1,453.90	1,446.97	1,446.97
4.15.03.03	100mm dia. and wall thickness 4mm	m	2,338.54	2,333.93	2,327.00	2,327.00
4.15.03.05	200mm dia. and wall thickness 6.5mm	m	6,078.67	6,074.05	6,067.13	6,067.13
4.15.04	Supplying fitting and fixing railing & rail post made of various size MS Square Box of standard thickness for normal & ornamental Bridge or any other structure, including required ms plate, nut-bolt, cutting, welding, painting with anticorrosive paint, laying in position, etc. all complete as per design, drawing, spacification & the direction of the E-I-C.					
4.15.04.01	Size: 25mm x 25mm MS box and wall thickness 4mm	m	730.79	726.18	719.26	719.26
4.15.04.02	Size: 40mm x 40mm MS box and wall thickness 4mm	m	942.34	937.72	930.80	930.80
4.15.04.03	Size: 50mm x 50mm MS box and wall thickness 6mm	m	1,610.82	1,606.21	1,599.28	1,599.28
4.15.04.04	Size: 62.5mm x 62.5mm MS box and wall thickness 6mm	m	1,915.45	1,910.83	1,903.91	1,903.91
4.15.04.05	Size: 75mm x 75mm MS box and wall thickness 8mm	m	3,049.33	3,044.72	3,037.79	3,037.79
4.15.04.06	Size: 100mm x 100mm MS box and wall thickness 8mm	m	3,903.98	3,899.36	3,892.44	3,892.44
4.15.04.07	Size: 125mm x 125mm MS box and wall thickness 8mm	m	4,792.47	4,787.85	4,780.93	4,780.93

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.15.04.08	Size: 125mm x 125mm MS box and wall thickness 10mm	m	5,807.89	5,803.27	5,796.35	5,796.35
4.15.04.09	Size: 150mm x 150mm MS box and wall thickness 8mm	m	5,587.88	5,583.27	5,576.34	5,576.34
4.15.04.10	Size: 150mm x 150mm MS box and wall thickness 10mm	m	6,823.31	6,818.69	6,811.77	6,811.77
4.15.05	Supplying & providing flexible and acrylic type reflectorized traffic painting/ coating on rail post, rail bar, wheel guard, Pier column etc. including surface preparation, applying paint, all materials, labour charges, tools, equipment etc. all complete as per specification & direction of the E-I-C.	sqm	664.19	666.90	650.28	650.28
4.15.06	Lighting on Bridges: Supplying and Installation of mild steel hollow bent light pole of overall length 8.9m having 150mm dia. at bottom & 75mm dia. at top & wall thickness 4mm with base plate 275 x 275x 16mm thick, providing 32mm dia MS/GI pipe for incoming and outgoing cable connection to jucntion box, 20m apart and fitted with pole light fitting, sodium vapour lamp, circuit breaker, bending of steel poles, two coats of silver white aluminium paint over steel pole, steel reducers for changing diameter from 150mm to 75mm, scaffolding, holes at top of the pole for fixing ring type GI braket/ pole light fitting, suitable precautions for ensuring prevention of water ingress etc. all complete in all respect as per design, specification and direction of E-I-C. The cost of pole light fitting, sodium vapour lamp, circuit breaker and cable is not included in this unit rate. Note: Length of pole: 8.9m (Straight portion = 4m of 150mm dia. & bent portion = 4.9m of 75mm dia.)	each	25,920.25	25,913.35	25,887.30	25,887.30
4.15.07	Lighting on Bridge Approaches: Supplying and Installation of mild steel hollow bent light pole of specifiedlength having 150mm dia. at bottom & 75mm dia. at top & wall thickness 4mm with base plate 275 x 275 x 16mm thick, providing 32mm dia MS/GI pipe for incoming and outgoing cable connection to jucntion box, 20m apart and fitted with pole light fitting, sodium vapour lamp, circuit breaker, bending of steel poles, two coats of silver white aluminium paint over steel pole, steel reducers for changing diameter from 150mm to 75mm, laying 500 x 500 x 1200 mm cement concrete block in the ratio 1:3:6 and block be continued up to 300mm above the ground level i.e. 900mm below ground level including excavation, centering, shuttering and refilling, providing props for pole, holes at top of the pole for fixing ring type GI braket/ pole light fitting etc. all complete in all respect as per design, specification and direction of E-I-C. The cost of pole light fitting, sodium vapour lamp, circuit breaker and cable is not included in this unit rate.					
4.15.07.01	Pole with double arm if fixed in the median Note: Length of pole: 12.9m (Straight portion = 5.0m of 150mm dia. & bent portion on both sides = 7.9m of 75mm dia.)	each	34,056.99	34,048.20	34,015.40	34,015.40
4.15.07.02	Pole with single arm if fixed on the footpath Note: Length of pole: 9.9m (Straight portion = 5.0m of 150mm dia. & bent portion = 4.9m of 75mm dia.)	each	30,017.65	30,008.86	29,976.07	29,976.07
4.15.08	Construction of pre-cast/ Cast-in-situ RCC Railing of specified strength having aggregate size not exceeding 12mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 1500mm, leaving adequate space between vertical post for expansion, complete as per Bridge Design Standard For LGED- June 2012, approved drawings, technical specification and approval of E-I-C. The cost of reinforcement and it's fabrication, binding, welding and placing is included in this unit rate.					
4.15.08.01	Pre-cast RCC Railing of 25 MPa concrete	m	4,152.19	4,145.34	4,042.64	4,065.24
4.15.08.02	Cast-in-Situ RCC Railing of 25 MPa concrete	m	3,755.72	3,749.58	3,661.39	3,680.45

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.15.09	Supplying fitting and fixing railing & rail post made of various dia Stainless Steel (SS) pipes of standard thickness for normal , ornamental Bridge or any other structure including required SS plate, nutbolt, cutting, welding, laying in position etc. all complete as per design, drawing,spacification & the direction of the Engineer in charge.					
4.15.09.02	38mm dia. and wall thickness 2.5mm	m	1,340.05	1,335.43	1,328.51	1,328.51
4.15.09.03	50mm dia. and wall thickness 2.50mm	m	1,763.14	1,758.52	1,751.60	1,751.60
4.15.09.04	62.50mm dia. and wall thickness 3.00mm	m	2,592.40	2,587.78	2,580.86	2,580.86
4.15.09.05	75mm dia. and wall thickness 3.00mm	m	3,015.49	3,010.87	3,003.95	3,003.95
4.15.09.06	100mm dia. and wall thickness 3.00mm	m	4,284.76	4,280.14	4,273.22	4,273.22
4.15.09.07	125mm dia. and wall thickness 3.00mm	m	5,554.03	5,549.42	5,542.49	5,542.49
4.15.10	Supplying fitting and fixing railing & rail post made of various size Stainless Steel (SS) Square/Rectangular Box of standard thickness for normal & ornamental Bridge or any other structure, including required SS plate, nutbolt, cutting, welding, laying in position, etc. all complete as per design, drawing, spacification & the direction of the Engineer in charge.					
4.15.10.01	Size: 25mm x 25mm Stainless Steel box and wall thickness 2.00mm	m	1,103.11	1,098.50	1,091.58	1,091.58
4.15.10.02	Size: 32mm x 32mm Stainless Steel box and wall thickness 1.50mm	m	1,077.73	1,073.11	1,066.19	1,066.19
4.15.10.03	Size: 38mm x 38mm Stainless Steel box and wall thickness 2.50mm	m	1,686.98	1,682.36	1,675.44	1,675.44
4.15.10.04	Size: 50mm x 50mm Stainless Steel box and wall thickness 2.00mm	m	2,084.69	2,080.07	2,073.15	2,073.15
4.15.10.05	Size: 62.5mm x 62.5mm Stainless Steel box and wall thickness 2.00mm	m	2,668.55	2,663.94	2,657.01	2,657.01
4.15.10.06	Size: 50mm x 25mm Stainless Steel box and wall thickness 1.50mm	m	1,289.27	1,284.66	1,277.74	1,277.74
4.15.10.07	Size: 75mm x 25mm Stainless Steel box and wall thickness 1.50mm	m	1,678.52	1,673.90	1,666.98	1,666.98
4.15.10.08	Size: 75mm x 50mm Stainless Steel box and wall thickness 2.00mm	m	2,516.24	2,511.62	2,504.70	2,504.70
4.15.10.09	Size: 100mm x 50mm Stainless Steel box and wall thickness 2.00mm	m	3,125.49	3,120.87	3,113.95	3,113.95
4.15.11	Painting on Concrete Surface: Providing and applying 2 coats of water based cement paint of approved quality to unplastered concrete surface after cleaning, washing, brushing and sand/grit blasting the surface of dirt, dust, oil, grease, efflorescence and applying paint @ 1 litre for 2 sqm including cost of all materials, labour, transportation, scaffolding etc. complete as per specifications and direction of the E-I-C. Paint shall be got approved from the E-I-C and tested from approved laboratory.	sqm	88.56	87.63	85.42	85.42
4.15.12	MS Railing: Providing, fitting and fixing in position mild steel railing over RCC crash barrier including support angle/ fixtures as per detailed drawings, specifications and direction of E-I-C. Cost of material for painting one shop coat with red oxide primer and 3 costs of synthetic enamal paint & consumables to safeguard against weathering and corrosion is included in this unit rate.					
4.15.12.01	MSR100MC: 100mm dia MS pipe of 4.50mm wall thickness conforming to BDS 1031/ BS 1387 Medium Class specifications.	m	4,101.96	4,088.79	4,054.02	4,054.02

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.15.14	RS: Supplying, fitting and fixing of Reflecting Studs of minimum 115mm x 81mm x17mm of approved brand and colour, including cleaning and washing the railing surface, drilling to accept concrete nail, application of epoxy adhesive/ putty and necessary scaffolding, etc. including carriage and fixing, etc. all complete in all respect as per approved drawing, specification and direction of Engineer-in-charge. Rate is inclusive of cost of all materials, labour and all incidental charges in this connection.	each	1,131.82	1,130.24	1,127.86	1,127.86
4.15.15	FMM: Supply and fixing of Flexible Median Markers (FMM) made of tough high impact resistance injection moulded thermoplastic body of standard size and thickness with fluorocent yellow colour type XI retroreflective sheeting fixed on both sides, fixed with epoxy adhesive and grouting to the surface complete in all respect as per national accrediation institution and the direction of the E-I-C.	each	518.09	517.32	514.86	514.86
4.15.16	Bollard: Supplying, fitting and fitting Bollard in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, carrying etc. [This fender shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]	kg	190.30	190.26	190.08	190.08
4.15.17	Rubber Fender: Supplying, and installation of Rubber Fender of specified size in exact positions as per drawing, specificatons and direction of the E-I-C including cost of all materials, labour, machines, transportation etc. [This fender shall be selected as per instruction given in the drawing & after getting approval from Design unit, LGED.]					
4.15.17.01	RF-D: D-Type Rubber Fender of Length = 1000mm, Width = 300mm and Height = 300mm	each	73,412.16	73,402.70	73,372.73	73,372.73
4.15.17.02	RF-Arc: Arc Type Rubber Fender					
4.15.17.02.01	RF-Arc-1: Length = 1580mm, Width = 1400mm and Height = 840mm	each	488,455.65	488,448.08	488,424.11	488,424.11
4.15.17.02.02	RF-Arc-2: Length = 1000mm, Width = 606mm and Height = 400mm	each	362,297.54	362,289.97	362,266.00	362,266.00
4.15.17.03	RF-Wing: Wing Type Rubber Fender of Length = 1000mm, Width = 600mm and Height = 300mm	each	94,482.73	94,475.16	94,451.19	94,451.19
Section-16: Repair & Rehabilitation						
4.16.03	Sealing of cracks/ porous concrete by injecting grout through nipples including cleaning the affected area by wire brush, compressed air, 15mm dia and 150 to 200mm deep holes along the length of the cracks at a spacing of 500mm may be drilled by wet drilling using rotary percussion drills and nipples, inerterd in these holes. Only non-shrink grout admixture conforming to ASTM C 1107 has been included in this unit rate. Where necessary and approved by the Engineer, admixutures to protland cement grout mixtures may be added for delaying the setting time, increasing flow ability, minimising segregation and shrinkage, not being added to the analysis.					
4.16.03.01	Cement Grout	kg	336.28	328.89	308.58	308.58
4.16.03.02	Cement Mortar (1:1) Grout	kg	348.12	341.02	320.34	320.34

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.16.04	Sealing of cracks/ porous concrete by injection of epoxy resin through nipples including cleaning the affected surfaces adjacent to cracks or other areas of application from dirt, grease, oil efflorescence or other foreign matter by brushing/ water jetting/ sand blasting. Just before use, the two components i.e. resin and hardeer, shall be thoroughly mixed in the ratios specified by the manufacturer. Acids and corrosives shall not be permitted for cleaning. Epoxy adhesive injection shall be performed until crakcs are complely filled. The Contractor shall furnish detailed methodology of construction including source of supply of material, tools, equipment and appliances to be used on work, details of personel and supervision and take approval from Design Unit, LGED.	kg	1,207.43	1,200.04	1,179.73	1,179.73
4.16.05	Shotcrete/ guniting concrete surface with 40mm thick (avg.) cement mortar comprising of cement, graded sand conforming to ASTM C 33, coarse aggregate (20 to 40% of total aggregate for thick sections if adequate guniting equptment is available), water and quick setting compound conforming to ASTM C 1141 in the proportion as per guidence of Central Quality Control Laboratory (CQCL), LGED or any approved laboratory instructed by Engineer-in-Charge, water cement ratio ranging from 0.35 to 0.5, density of shotcrete/ gunite not less than 2000kg/cum, strength not less than 25 MPa, applied with compressed air under pressure after cleaning removing old guniting/ part of defective concrete, cleaning the surface and exposed reinforcement thoroughly by sand blasting, spraying with epoxy conforming to ASTM C 881 @ 67 kg/sqm including cost of wire mesh fabrics 50mm x 50mm x 10 BWG in first layer of guniting complete as per drawings & direction of E-I-C. Wherever the reinforcement have been corroded, the same shall be removed and replaced by additional reinforcement.	sqm	2,049.34	2,040.94	2,019.81	2,020.58
4.16.06	Patching of damaged concrete surface with 25mm thick (avg.) polymer concrete and curing compounds, initiator and promoter, available in present formulations, to be applied as per instructions of manufacturer and as approved by the E-I-C. This item is a proprietory item available in market as pre-packed polymer concrete and is required to be applied as per instructions of the manufacturer.	sqm	12,842.58	12,838.88	12,828.91	12,828.91
4.16.07	Providing and applying 10mm thick (avg.) pre-packed cement based polymer mortar of strength 45 MPa at 28 days by trowels & float over the spalled concrete for bridge deck, pier cap etc. including scaffolding, shuttering, supplying required material including polymer etc. complete as per the specification & as directed by E-I-C. Primer coat by Nylon brush must be applied on the spalled out concrete location before applying polymer mortar.					
4.16.07.01	Average Thickness = 10mm thick	sqm	5,551.50	5,541.16	5,506.27	5,506.27
4.16.07.02	Average Thickness = 25mm thick	sqm	12,712.42	12,699.50	12,657.50	12,657.50
4.16.08	EBA: Providing & applying epoxy bonding agent conforming to ASTM C 881/ AASHTO M 235 to exposed old concrete surfaces for bonding of freshly mixed concrete to hardened concrete at the rate of 0.80 Kg/sqm or as per manufacturer's recommendation with pot life not less than 60-90 minutes at normal temperature including cost of materials, storage, labour, tools, lead lifts, preparation of surface, cleaning the surface, tackles etc. complete as per manufacturer's specification and as directed & instructed by Engineer-In-charge.	sqm	1,245.87	1,239.47	1,215.47	1,215.47
4.16.09	Applying epoxy mortar over leached, honey combed and spalled concrete surface and exposed steel reinforcement complete as per direction of E-I-C. Thickness of epoxy mortar shall not be less than 10mm	sqm	953.27	946.81	922.58	922.58

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.16.10	Replacement of Expansion Joints including removal and replacement of 300 mm wide portion of a existing deck slab to accommodate expansion joint, cleaning by blower, fabrication of additional reinforcement (if required), applying epoxy bonding agent for old to new concrete conforming to ASTM C 881, concreting with 35 MPa concrete after fixing the expansion joint complete as per manufacture specifications & direction of E-I-C. The cost of admixture & epoxy required for this work has been included in this analysis. The rate for the installation of new exapansion joints may be taken from the chapter 11 on Bridge Works.	m	4,281.30	4,257.59	4,012.94	4,045.29
4.16.14	Carrying out repair of RCC railing of 25 MPa concrete to bring it to the original shape including dismantling and trimming the surface to a regular shape and removal of damaged material as per Bridge Design Standard for LGED, 2012 and direction of E-I-C. [Note: It is assumed that damage is to the extent of 10%]	m	320.54	319.73	309.83	311.88
4.16.15	Micro Concrete Work: Providing and laying in position Micro concrete having minimum compressive strength 50 MPa after 28 days (as per ASTM C 109), tensile strength 2 MPa after 28 days (as per ASTM C 307) and flexular strength 5 MPa after 28 days (as per ASTM C 580), cement based prepacked single component, chloride free, non shrink, free flow, self compacting, ready to use after mixing water in specified proportion obtained from approved manufacture including water tight shuttering and scaffolding etc. complete as per specification and as per direction of Engineer-in-charge.	cum	146,939.50	146,885.18	145,939.73	146,116.89
4.16.16	Chemically Bonded Anchor: Providing and fixing reinforcing bars by drilling holes up to specified depth and fixing required diameter anchor rods at every specified spacing on the surfaces of the slabs, columns, beams as the case may be, clean the same using water and make sure that there are no fine particles present in the hole, mix the base and hardener of the polyester resin with the spatula thoroughly, fill the drilled and cleaned holes to a maximum depth of 2/3rd of the hole with the prepared polyester resin, make sure that the resin has reached till the end of the hole. At this stage push the shear connector gently in to the hole and finish the excess resin which comes out of the hole and allow the shear connectors not to be disturbed for minimum 20 minutes, complete in all respect and direction of E-I-C. The cost of reinforcement is not included in this unit rate.					
4.16.16.01	CBA_8: Diameter of Rebar = 8mm, minimum drilling diameter = 14mm, minimum drilling depth = 80mm	each	83.72	83.38	82.00	82.00
4.16.16.02	CBA_10: Diameter of Rebar = 10mm, minimum drilling diameter = 14mm, minimum drilling depth = 90mm	each	143.13	142.55	140.21	140.21
4.16.16.03	CBA_12: Diameter of Rebar = 12mm, minimum drilling diameter = 16mm, minimum drilling depth = 110mm	each	200.31	199.49	196.22	196.22
4.16.16.04	CBA_16: Diameter of Rebar = 16mm, minimum drilling diameter = 20mm, minimum drilling depth = 125mm	each	278.39	277.25	272.69	272.69
4.16.16.05	CBA_20: Diameter of Rebar = 20mm, minimum drilling diameter = 25mm, minimum drilling depth = 170mm	each	626.24	623.67	613.41	613.41
4.16.16.06	CBA_25: Diameter of Rebar = 25mm, minimum drilling diameter = 32mm, minimum drilling depth = 250mm	each	1,669.63	1,662.80	1,635.45	1,635.45
4.16.16.07	CBA_32: Diameter of Rebar = 32mm, minimum drilling diameter = 40mm, minimum drilling depth = 300mm	each	2,504.76	2,494.51	2,453.47	2,453.47
4.16.17	EP: Providing external prestressing with high tensile steel wires/strands including drilling for passage of prestessing steel, all accessories for stressing and stressing operation and grouting complete as per drawing and Technical specification. [This item shall be selected as per instruction given in the drawing & after getting approval from Desing Unit, LGED.]					

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.16.17.01	EP_25m: Span assumed: 25 m (12.7mm dia. Strand in 12T13/12K13 system. Weight-9.42 kg/m of cable.)	MT	548,224.45	547,895.09	546,404.82	546,404.82
4.16.17.02	EP_50m: Span assumed: 50 m (12.7mm dia. Strand in 19T13/19K13 system. Weight-14.73 kg/m of cable.)	MT	1,663,745.81	1,662,889.16	1,659,217.41	1,659,217.41
4.16.18	Rust Removal: Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.					
4.16.18.01	RR_12: Bars up to 12 mm diameter	m	11.08	11.05	10.85	10.85
4.16.18.02	RR_12+: Bars above 12 mm diameter	m	22.10	22.05	21.64	21.64
4.16.19	SC: Providing and Appying average 1mm thick pre-packed Polymer modified cement based skim-coat for filling blowholes, non-structural honeycomb and rectifying other surface imperfections in newly placed concrete surfaces and achieving a smooth finish on precast, cast in place, tilt up or other unfinished concrete sufaces; including cleaning the surface thoroughly using stiff brush to remove dust, loose particles, oil etc., neutralizing the surface by applying potable water, ensuring saturated surface dry (SSD) condition of the concrete surface, mixing powder with potable water in a drum by blending machine, spreading the mixture to any concrete surface using trowel to get smooth suface etc. all complete as per specification and direction of E-I-C. This is avitable in market as pre-packed and is required to be applied as per instruction of the manufacturer. Proper curing method should be applied for at least 3 days, all complete as per specification and direction of E-I-C.	sqm	1,400.91	1,400.91	1,381.52	1,381.52
4.16.20	CFL: Supply and installation of ready to use Carbon Fiber Laminates for strenghtening reinforced concrete structures having density ≥ 1.61 gm/cm3, width = 100mm, thickness ≥ 1.2mm, modulus of Elasticity ≥ 165 GPa, tensile strength ≥ 2800 MPa, elongation at break ≥ 1.4%; including surface preparation by application of grinding work, patch mortar, primer and epoxy putty etc. all complete as per specification and direction of E-I-C. Note: The work have to be done by certified/trained applicator.	m	16,849.09	16,802.01	16,663.91	16,663.91
4.16.21	CFFS: Supply and installation of Carbon Fibre Fabric Sheets having modulus of elasticity (GPa) ≥ 230, tensile strength (GPa) ≥ 4.9, weight of carbon fibre (gsm) ≥ 200, density (g/cm3) ≥ 1.8, design cross section thickness (mm) ≥ 0.111, elongation at break (%) ≥ 2.1; including surface preparation by application of grinding work, patch mortar, primer and epoxy putty etc. all complete as per specification and direction of E-I-C. Note: The work have to be done by certified/trained applicator.	sqm	13,255.29	13,245.25	13,211.39	13,211.39
4.16.22	LDSS: Providing, fixing and operating Light-Duty Suspended Scaffolding system for repair/ rehabilitation/ retrofitting work made with M.S. Pipe, M.S. clamps, M.S. Chain, M. S. staircase having at least 1.5m wide working platform, adjusted to the required level anytime, hanged or suspended using ropes, chains or any other non-rigid, overhead support and maintaining it in a serviceable condition for the required duration. The Contractor shall take necessary safety measures for the arrangement of suspended scoffolding system and responsible for all obligations. The scaffolding system must be completely shifted on completion of the main component of the structure.					
4.16.22.01	LDSS≤10m: for width of Bridge ≤ 10m.	each/month	139,658.65	138,643.23	135,596.97	135,596.97
4.16.22.02	LDSS>10m: for width of Bridge > 10m.	each/month	163,304.25	162,288.83	159,242.57	159,242.57

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1	2	3	4	5	6	7
4.16.23	Cleaning of exposed concrete surface of sticking material including loose and foreign material by sand blasting with coarse sand followed by and including cleaning with oil free air blast as per direction of Engineer in Charge.	sqm	410.97	402.70	401.28	403.21
4.16.24	TPS: Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the E-I-C.					
4.16.24.02	TPS_PVC: Wooven PVC Cloth	sqm	53.32	53.17	52.58	52.58
4.16.25	SWF: Providing and fixing hard drawn steel wire fabric of size 50 x 25mm mesh or other appropriate size wire mesh to fe fixed and firmly anchored to the concrete surface by means of 'L' shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by E-I-C.	sqm	596.94	595.52	583.35	583.35
Section-17: Precast Reinforced Concrete Pipes						
4.17.01	Supplying and laying machine made pre-cast RCC pipes with collars of different diameter, length & thickness including screening, grading and washing aggregates with clear water, mixing, laying in steel forms, placing re-bars in position, consolidating, curing for at least 14 days including the cost of formwork, lifting, loading and unloading from factory/ yard, laying in position etc including tools, plants, testing etc. all complete as per direction of the E-I-C. The collars shall be of 200mm wide made by RCC and having the same strength as the pipes to be jointed. The spirals shall end in a complete ring/ turn at both the ends of pipes and collars. The cost of reinforcement and it's fabrication, welding, coupling, placing, binding etc. is included in this unit rate.					
4.17.01.01	For Light/ Medium Traffic: Cross drains/ culverts/ outlet and any other works carrying light traffic in leanest mix 1:1.5:3 with cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, 20mm down well graded picked brick chips, sand of minimum FM 2.5 to attain a minimum 28 days cylinder strength of 20 MPa.					
4.17.01.01.01	300mm internal dia, wall thickness not less than 50mm, Re-bar for pipe:- circumferential: 10 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	1,797.08	1,784.39	1,733.01	1,738.17
4.17.01.01.02	400mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 14 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	3,023.73	3,002.51	2,918.29	2,928.54
4.17.01.01.03	500mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 16 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	3,503.79	3,481.51	3,393.04	3,405.59
4.17.01.01.04	600mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 10 turns - 6mmΦ for inner cage & 8 turns - 6mmΦ for outer cage and longitudinal: 6 nos. - 6mmΦ for inner cage & 6 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	4,405.00	4,380.83	4,284.74	4,301.40
4.17.01.01.05	700mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 13 turns - 6mmΦ for inner cage & 10 turns - 6mmΦ for outer cage and longitudinal: 6 nos. - 6mmΦ for inner cage & 6 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	5,221.79	5,195.81	5,091.26	5,110.56

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			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.17.01.01.06	800mm internal dia, wall thickness not less than 95mm, Re-bar for pipe:- circumferential: 15 turns - 6mmΦ for inner cage & 11 turns - 6mmΦ for outer cage and longitudinal: 7 nos. - 6mmΦ for inner cage & 7 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	6,515.07	6,483.59	6,356.27	6,380.82
4.17.01.01.07	900mm internal dia, wall thickness not less than 100mm, Re-bar for pipe:- circumferential: 18 turns - 6mmΦ for inner cage & 14 turns - 6mmΦ for outer cage and longitudinal: 7 nos. - 6mmΦ for inner cage & 7 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 12 nos. - 6mmΦ	m	7,924.34	7,887.73	7,739.18	7,768.18
4.17.01.02	For Heavy Traffic: Cross drains/ culverts/ outlet and any other works carrying heavy traffic in leanest mix 1:1.25:2.5 with cement conforming to BDS EN 197-1 : 2003 BDS EN 197-1 : 2003 CEM-I 52.5N / ASTM C150 Type-1, 20mm down well graded stone chips broken from boulder (LAA not exceeding 30), sand of minimum FM 2.5 and water reducing admixture conforming to ASTM C 494 Type - A @ 1.75 liter per cubic meter of concrete to attain a minimum 28 days cylinder strength of 30 MPa.					
4.17.01.02.01	300mm internal dia, wall thickness not less than 50mm, Re-bar for pipe:- circumferential: 14 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	2,180.48	2,171.96	2,094.53	2,107.27
4.17.01.02.02	400mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 14 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	3,643.70	3,630.84	3,490.15	3,516.16
4.17.01.02.03	500mm internal dia, wall thickness not less than 75mm, Re-bar for pipe:- circumferential: 19 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	4,372.23	4,360.19	4,202.61	4,234.43
4.17.01.02.04	600mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 19 turns - 6mmΦ for inner cage & 14 turns - 6mmΦ for outer cage and longitudinal: 6 nos. - 6mmΦ for inner cage & 6 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	6,121.63	6,111.06	5,923.21	5,965.47
4.17.01.02.05	700mm internal dia, wall thickness not less than 85mm, Re-bar for pipe:- circumferential: 19 turns - 6mmΦ for inner cage & 14 turns - 6mmΦ for outer cage and longitudinal: 8 nos. - 6mmΦ for inner cage & 8 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	7,020.27	7,010.05	6,799.15	6,848.12
4.17.01.02.06	800mm internal dia, wall thickness not less than 95mm, Re-bar for pipe:- circumferential: 22 turns - 6mmΦ for inner cage & 17 turns - 6mmΦ for outer cage and longitudinal: 8 nos. - 6mmΦ for inner cage & 8 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 8 nos. - 6mmΦ	m	8,854.52	8,843.09	8,580.51	8,642.80
4.17.01.02.07	900mm internal dia, wall thickness not less than 100mm, Re-bar for pipe:- circumferential: 14 turns - 8mmΦ for inner cage & 11 turns - 8mmΦ for outer cage and longitudinal: 8 nos. - 6mmΦ for inner cage & 8 nos. - 6mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 6mmΦ and longitudinal: 12 nos. - 6mmΦ	m	10,588.28	10,575.35	10,267.06	10,340.62
4.17.01.02.08	1000mm internal dia, wall thickness not less than 115mm, Re-bar for pipe:- circumferential: 17 turns - 8mmΦ for inner cage & 13 turns - 8mmΦ for outer cage and longitudinal: 8 nos. - 8mmΦ for inner cage & 8 nos. - 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ and longitudinal: 12 nos. - 6mmΦ	m	13,615.16	13,605.06	13,238.28	13,332.00

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1	2	3	4	5	6	7
4.17.01.02.09	1100mm internal dia, wall thickness not less than 115mm, Re-bar for pipe:- circumferential: 19 turns - 8mmΦ for inner cage & 14 turns - 8mmΦ for outer cage and longitudinal: 8 nos. - 8mmΦ for inner cage & 8 nos. - 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ and longitudinal: 12 nos. - 6mmΦ	m	15,202.72	15,193.93	14,798.18	14,901.15
4.17.01.02.10	1200mm internal dia, wall thickness not less than 120mm, Re-bar for pipe:- circumferential: 21 turns - 8mmΦ for inner cage & 16 turns - 8mmΦ for outer cage and longitudinal: 8 nos. - 8mmΦ for inner cage & 8 nos. - 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ and longitudinal: 12 nos. - 8mmΦ	m	17,525.49	17,518.84	17,077.01	17,195.14
4.17.01.02.11	1400mm internal dia, wall thickness not less than 135mm, Re-bar for pipe:- circumferential: 17 turns - 10mmΦ for inner cage & 13 turns - 10mmΦ for outer cage and longitudinal: 12 nos. - 8mmΦ for inner cage & 12 nos. - 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 8 nos. - 8mmΦ for inner cage & 8 nos. - 8mmΦ for outer cage	m	24,072.97	24,071.27	23,527.29	23,680.63
4.17.01.02.12	1600mm internal dia, wall thickness not less than 140mm, Re-bar for pipe:- circumferential: 21 turns - 10mmΦ for inner cage & 16 turns - 10mmΦ for outer cage and longitudinal: 12 nos. - 8mmΦ for inner cage & 12 nos. - 8mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 8 nos. - 8mmΦ for inner cage & 8 nos. - 8mmΦ for outer cage	m	29,864.38	29,866.71	29,239.89	29,421.78
4.17.01.02.13	1800mm internal dia, wall thickness not less than 150mm, Re-bar for pipe:- circumferential: 22 turns - 10mmΦ for inner cage & 22 turns - 10mmΦ for outer cage and longitudinal: 14 nos. - 10mmΦ for inner cage & 14 nos. - 10mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 12 nos. - 8mmΦ for inner cage & 12 nos. - 8mmΦ for outer cage	m	37,853.95	37,861.55	37,126.19	37,345.48
4.17.01.02.14	2000mm internal dia, wall thickness not less than 170mm, Re-bar for pipe:- circumferential: 22 turns - 10mmΦ for inner cage & 22 turns - 10mmΦ for outer cage and longitudinal: 14 nos. - 10mmΦ for inner cage & 14 nos. - 10mmΦ for outer cage , Re-bar for Collar:- circumferential: 3 turns - 8mmΦ for inner cage & 3 turns - 8mmΦ for outer cage and longitudinal: 12 nos. - 8mmΦ for inner cage & 12 nos. - 8mmΦ for outer cage	m	44,024.74	44,040.24	43,141.95	43,417.41
Section-18: Destructive and Non-destructive Tests (NDT) on Concrete						
4.18.01	RHT (Rebound/ Schmidt Hammer Test): Conducting rebound hammer test to assess quality of the concrete on built structure in accordance with ASTM C 805 (Standard Test Method for Rebound Number of Hardened Concrete) including preparing the surface of RCC structural members such as beams, columns, slabs etc. by chipping the plastered surface/ finishing/ cladding to expose the concrete, smoothening the area using carborndum stone all as directed by E-I-C, preparation of separate report for each structure with observations and recommendations for remedial measures if any. Before commencing RHT, Contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval.					
4.18.01.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and RHT on 10 (ten) nos. spots or less of a single structure	set	16,025.16	16,012.23	15,895.92	15,895.92
4.18.01.02	Additional charge on Mobilization & demobilization beyond 100km of dhaka/ nearby source to site	per km	33.85	33.85	33.85	33.85
4.18.01.03	RHT on each additional spot after 10(ten) spots tested.	each	1,602.52	1,601.22	1,589.59	1,589.59

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1	2	3	4	5	6	7
4.18.02	UPV (Ultrasonic Pulse Velocity) Test: Conducting Ultrasonic Pulse Velocity test to assess uniformity, homogeneity and quality of the concrete, in terms of cracks, voids, flaws, honeycombing etc. and other inperfections in accordance with ASTM C 597 (Standard Test Method for Pulse Velocity Through Concrete) including preparing the surface of RCC structural members such as beams, columns, slabs etc. by chipping the plastered surface/ finishing/ cladding to expose the concrete, smoothening the area using carborndum stone all as directed by E-I-C, preparation of separate report for each structure with observations and recommendations for remedial measures if any. Before commencing UPV, Contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval.					
4.18.02.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and UPV on 10 (ten) nos. spots or less of a single structure	set	23,133.09	23,120.17	23,003.85	23,003.85
4.18.02.02	Additional charge on Mobilization & demobilization beyond 100km of dhaka/ nearby source to site	per km	33.85	33.85	33.85	33.85
4.18.02.03	UPV on each additional spot after 10(ten) spots tested.	each	2,313.31	2,312.02	2,300.39	2,300.39
4.18.03	Core Cutter: Obtaining, preparing and testing in-situ cylindrical core specimens of specified diameter drilled from hardened concrete including core location determination by rebar locator/ scanning and preparing the structural members as directed to expose the concrete, cleaning the area with blower/ wire brush and taking out the concrete sample with cutter and testing as per standard specification. The procedure for drilling, examination, measurement and testing for comprehensive strength shall be in accordance with ASTM C 42 (Standard Test Method for obtaining and testing drilled cores and sawed beams of concrete). Before commencing Core cutting, contractor shall submit methodology with resumes of the consulting personnel for conducting test to the E-I-C for approval. The cost of cutting the core with necessary laboratory test fees is included in this unit rate.					
4.18.03.01	Mobilization & demobilization within 100km of Dhaka/ nearby source to site and in-situ core cutting on 3 (three) nos. spots or less of a single structure	set	24,554.68	24,541.75	24,425.44	24,425.44
4.18.03.02	Additional charge on Mobilization & demobilization beyond 100km of Dhaka/ nearby source to site	per km	47.39	47.39	47.39	47.39
4.18.03.03	In-situ core cutting on each additional nos. after 3(three) spots	each	6,422.99	6,419.76	6,390.68	6,390.68
Section-19: Ground Reinforcement, Improvement and Treatment Techniques						
4.19.01	Sand Compaction Pile: Execution of sand compaction pile through displacement method by using tripod rig, mechanical winch, special type drop hammer (weighing minimum 1.00 ton) and casing pipe of inner diameter 200mm to 300mm upto a maximum depth of 10.0m, compacting the sand with desired sand volume and FM value of sand upto desired relative density (60% to 65%), to attain the desired SPT value between sand piles etc. complete including the cost of compacted sand as per design, specification and direction of Engineer in charge. [Note: Sand must be free from clay lump and blending of sand to attain the specific FM is not acceptable]					
4.19.01.01	Pile diameter: 200mm					
4.19.01.01.01	Sand Volumn 0.075 cum/m, minimum FM = 1.5	m	290.59	291.47	286.34	286.34
4.19.01.01.02	Sand Volumn 0.075 cum/m, minimum FM = 1.8	m	253.66	254.55	249.42	249.42
4.19.01.01.03	Sand Volumn 0.075 cum/m, minimum FM = 2.5	m	268.34	262.86	260.96	262.34
4.19.01.01.04	Sand Volumn 0.1 cum/m, minimum FM = 1.5	m	367.83	369.14	362.72	362.72

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1	2	3	4	5	6	7
4.19.01.01.05	Sand Volumn 0.1 cum/m, minimum FM = 1.8	m	318.60	319.90	313.49	313.49
4.19.01.01.06	Sand Volumn 0.1 cum/m, minimum FM = 2.5	m	338.17	330.98	328.87	330.72
4.19.01.01.07	Sand Volumn 0.15 cum/m, minimum FM = 1.5	m	546.33	548.32	538.82	538.82
4.19.01.01.08	Sand Volumn 0.15 cum/m, minimum FM = 1.8	m	472.48	474.48	464.97	464.97
4.19.01.01.09	Sand Volumn 0.15 cum/m, minimum FM = 2.5	m	501.83	491.09	488.05	490.82
4.19.01.02	Pile diameter: 250mm					
4.19.01.02.01	Sand Volumn 0.1 cum/m, minimum FM = 1.5	m	374.93	376.19	369.62	369.62
4.19.01.02.02	Sand Volumn 0.1 cum/m, minimum FM = 1.8	m	325.69	326.95	320.38	320.38
4.19.01.02.03	Sand Volumn 0.1 cum/m, minimum FM = 2.5	m	345.26	338.03	335.77	337.62
4.19.01.02.04	Sand Volumn 0.15 cum/m, minimum FM = 1.5	m	562.59	564.48	554.63	554.63
4.19.01.02.05	Sand Volumn 0.15 cum/m, minimum FM = 1.8	m	488.74	490.63	480.78	480.78
4.19.01.02.06	Sand Volumn 0.15 cum/m, minimum FM = 2.5	m	518.10	507.25	503.86	506.63
4.19.01.02.07	Sand Volumn 0.20 cum/m, minimum FM = 1.5	m	735.51	738.13	725.31	725.31
4.19.01.02.08	Sand Volumn 0.20 cum/m, minimum FM = 1.8	m	637.05	639.67	626.84	626.84
4.19.01.02.09	Sand Volumn 0.20 cum/m, minimum FM = 2.5	m	676.19	661.82	657.61	661.31
4.19.01.02.10	Sand Volumn 0.25 cum/m, minimum FM = 1.5	m	910.66	914.00	898.15	898.15
4.19.01.02.11	Sand Volumn 0.25 cum/m, minimum FM = 1.8	m	787.58	790.91	775.07	775.07
4.19.01.02.12	Sand Volumn 0.25 cum/m, minimum FM = 2.5	m	836.51	818.61	813.54	818.15
4.19.01.03	Pile diameter: 300mm					
4.19.01.03.01	Sand Volumn 0.15 cum/m, minimum FM = 1.5	m	574.59	576.40	566.28	566.28
4.19.01.03.02	Sand Volumn 0.15 cum/m, minimum FM = 1.8	m	500.74	502.55	492.43	492.43
4.19.01.03.03	Sand Volumn 0.15 cum/m, minimum FM = 2.5	m	530.10	519.17	515.51	518.28
4.19.01.03.04	Sand Volumn 0.20 cum/m, minimum FM = 1.5	m	766.13	768.54	755.05	755.05
4.19.01.03.05	Sand Volumn 0.20 cum/m, minimum FM = 1.8	m	667.66	670.08	656.59	656.59
4.19.01.03.06	Sand Volumn 0.20 cum/m, minimum FM = 2.5	m	706.80	692.23	687.36	691.05
4.19.01.03.07	Sand Volumn 0.25 cum/m, minimum FM = 1.5	m	957.67	960.68	943.82	943.82
4.19.01.03.08	Sand Volumn 0.25 cum/m, minimum FM = 1.8	m	834.59	837.60	820.74	820.74
4.19.01.03.09	Sand Volumn 0.25 cum/m, minimum FM = 2.5	m	883.51	865.29	859.20	863.82
4.19.01.03.10	Sand Volumn 0.30 cum/m, minimum FM = 1.5	m	1,149.21	1,152.82	1,132.59	1,132.59
4.19.01.03.11	Sand Volumn 0.30 cum/m, minimum FM = 1.8	m	1,001.51	1,005.13	984.89	984.89
4.19.01.03.12	Sand Volumn 0.30 cum/m, minimum FM = 2.5	m	1,060.22	1,038.36	1,031.05	1,036.59
4.19.01.03.13	Sand Volumn 0.35 cum/m, minimum FM = 1.5	m	1,340.72	1,344.94	1,321.33	1,321.33
4.19.01.03.14	Sand Volumn 0.35 cum/m, minimum FM = 1.8	m	1,168.40	1,172.63	1,149.02	1,149.02
4.19.01.03.15	Sand Volumn 0.35 cum/m, minimum FM = 2.5	m	1,236.90	1,211.40	1,202.87	1,209.33

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1	2	3	4	5	6	7
4.19.02	Stone Column: Providing and installing cast-in-situ compaction stone column of speicified diameter and length to increase bearing capacity and reduce the settlement of construction by driving of suitable MS casing pipe (removable) having a detachable M.S.shoe (flat/conical) at the bottom and filling inside the casing pipe in layers of 1m using 1(sand; minimum FM 2.5) : 2(Shingles; Shingles shall be 50mm down graded) and each layer be well compacted by dynamic compaction method (before compaction lift the casing for 800mm from bottom and then the backfill shall be throughly compacted. This procedure shall be repeated for every layer till the ground level is reached) for ground improvement including all materials, labour etc complete as per specification, drawings and as directed by the E-I-C.					
4.19.02.01	For 300mm diameter:					
4.19.02.01.01	Fill Volumn 0.2 cum/m	m	1,484.87	1,480.52	1,444.53	1,458.06
4.19.02.01.02	Fill Volumn 0.3 cum/m	m	2,094.64	2,089.01	2,037.91	2,058.20
4.19.02.02	For 500mm diameter:					
4.19.02.02.01	Fill Volumn 0.6 cum/m	m	3,657.61	3,649.91	3,559.26	3,599.84
4.19.02.02.02	Fill Volumn 0.8 cum/m	m	4,788.01	4,778.34	4,659.41	4,713.51
4.19.03	Prefabricated Vertical Drain (PVD)/ Wick Drain: Supply & Installation of prefabricated virtical drains/ wick drains to reduce the preload time & to accelerate settlement of embankments for bridge approach or roadways including unrolling the wick drain roll, changing & splicing wick drain roll, pushing hollow mandrel carrying into the ground carring the wick drain inside to protect it from tear, cuts and abrasion, providing anchor plate/ rod at the bottom of the mandrel to prevent soil from entering the mandrel during installation, maintain the mandrel in a vertical position, providing a minimum of 30 ton of static push force when setting on firm ground, installing by specialized wick drain installation equipment mounted on hydraulic excavator or crane, withdrawn the mandrel after the installtion of the drain, cost of furnishing all tools, materials, labour, equipment and all other costs necessary to complete the work as per design, specification & direction of the E-I-C. Hydraulic jetting shall not be permitted for installtion of the drains. The locations and depth of wick drain, sequene of installation will be as directed by the Engineer and specifications in conjuction with all drawings and logs. All drains will go to maximum allowable/ anchorable depth or until refusal as directed in the specification and logs. Note: Prior to installation of PVD the Contractor shall demonstrate that the equipment, method, and materials produce a satisfactory installation in accordance with the specifications. For this purpose, the Contractor will be required to install 2 trial drains at locations designated by the Engineer. Trial drains will be paid at the contract unit price unless the drain is improperly installed. 5% wastage is considered in this unit rate.					
4.19.03.01	SPVD: Prefabricated Vertical Synthetic Drains shall consist of a continuous plastic drainage core wrapped in a non-woven polypropylene/polyester geotexile material having discharge capacity at 240 kPa and Hydraulic Gradient of 1 should be greater than 500 m3/yr and shall meet the following specifications. Composite Drain Properties: Weight (g/m) > 75± 10%, Width(mm) ≥ 100 ± 2, Thickness (mm) > 3.0, Tensile Strength (kN) > 2.2, Elongation at 2.0 kN (%) > 25, Strength at 10% Elongation (kN) > 1.3 Filter Fabric Properties: CBR Puncture Resistance (N) > 150, Trapezoidal Tear Strength (N) > 200, Grab Tensile Strength (N) > 550, Apparent opening size(AOS, O95) (micron) ≤ 90, Permeability/ Permittivity (cm/s) > 200 x 100	m	402.28	401.86	400.13	400.13

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1	2	3	4	5	6	7
4.19.03.02	PVJD: Prefabricated Vertical Jute Drains (PVJD) shall consist of an outer sheath (jacket) made of woven jute geotextile (JGT) with 4-coir wicks separated by stitched compartments having discharge capacity at 7 days (200 kPa at hydraulic gradient of 1.0) shall be greater than 500 m3/yr and shall meet the following specifications. Composite Drain Properties: Width (mm) ≥ 90 ± 10%, Thickness (mm) > 5, Grab Tensile Strength (N), MD X CD > 350 X 350, Trapezoidal Tear Strength (N), MD X CD > 100 X 100, Puncture Resistance (N) > 100, Burst Strength (N) > 900, Apparent Opening size (AOS, O95) (micron) ≤ 90. Filter Fabric Properties: Equivalent Diameter (mm) > 50.	m	263.87	263.45	261.72	261.72
4.19.04	Khoa Consolidation: 50mm down graded picked jhama Khoa Consolidation in foundation trenches by mixing in mixture machine with local sand of min. FM 1.2 incluing/ excluding cement to achieve minimum dry density of 90% with optimum mositure content (Modified Proctor Test) including breaking and screening chips, laying and spreading in 150mm layers uniformly and compacting etc. all complete and accepted by the E-I-C.					
4.19.04.01	Khoa: Sand = 2: 1	cum	5,630.49	5,598.69	5,348.38	5,416.50
4.19.04.02	Cement: Sand: Khoa: = 1:6:12	cum	6,573.57	6,541.96	8,300.16	6,364.70
4.19.05	MSE: Construction of Mechanically Stabilized/Reinforced Earth retaining walls, viaduct access ramps, road widening and bridge abutments with pre-cast Facia panels, reinforcing element, foundation beam, caping beam including excavation for foundation, concreting the foundation with appropriate groove seating for facing elements, placement of facing elements, assembling, joining with facing elements, laying of the reinforcing elements, earth filling with granular material etc. as per design, drawing, specification and direction of Engineer-in-charge. Contractor shall submit the methodology of reinforced earth work to the Engineer-in-Charge for approval before commencing the work. Notes: i) Drainage arrangement including filter media shall be made as per approved design & drawings and calculated separately. ii) The rates for excavation and foundation concrete shall be taken from section 5 & 9 of Bridge Works. iii) The earth fill to be retained is not included in this analysis which is to be worked out and provide separately. iv) Capping beam is to be priced separately as per approved design. The rate for cement concrete shall be taken from the section 7 of bridge works.					
4.19.05.01	MSE_FP: Providing, hoisting and placing of pre-cast RCC Facia Panels of minimum 0.80 sqm area and 180mm thickness, made with minimum 35 MPa concrete inclusive of reinforcement, shuttering, casting in yard, curing, storing, transporting, lifting, placing in position, erection with all necessary accessories i.e., rubber pad, universal hook, anchor block, nut, washer, joint fillers, fasteners etc. complete in all respect as per approved drawing, specification and direction of Engineer-in-charge.	sqm	5,674.06	5,693.26	5,415.41	5,488.80
4.19.05.02	Reinforcing Elements: Providing, assembling, joining with facing elements and laying of reinforcing elements (metal strip/geotextile/steel etc.) in the form of grid or strip or strap or combination of metallic or synthetic or any other proprietary material as per approved drawing, specification and direction of Engineer-in-Charge. The packaging of reinforcing elements shall clearly indicate the name of the manufacturer/ supplier and brand name, date of production, expiry, if any and batch identification number along with the manufacturers test certificates.					

Item Code	Brief Description of Item	Unit	Rate			
			Zone-A Dhaka & Mymensingh Division	Zone-B Chattogram & Sylhet Division	Zone-C Rajshahi & Rangpur Division	Zone-D Khulna & Barishal Division
1	2	3	4	5	6	7
4.19.05.02.01	MSE_MSR_GCS: With reinforcing elements of Galvanised carbon steel strips of 60mm wide and 5mm thick with minimum bearing and shear strength of 490 MPa conforming to BS EN 10025, Grade S 355 JR. The fabricated element shall be galvanized and the minimum zinc coating weight shall not be less than 1000gm/sqm.	m	1,335.89	1,335.34	1,333.72	1,333.72
4.19.05.02.02	MSE_MSR_Cu: With reinforcing element of Copper Strips of 60mm wide and 5mm thick conforming to BS 2870 quality C 101 or C 102 in the 1/2H condition and shall have 0.2 percent proof stress of not less than 180 MPa.	m	1,335.89	1,335.34	1,333.72	1,333.72
4.19.05.02.03	MSE_MSR_Al: With reinforcing elements of Aluminium Strips of 60mm wide and 5mm thick conforming to Bs 1470 quality 5454 in H 24 condition.	m	680.60	680.06	678.44	678.44
4.19.05.02.04	MSE_MSR_SS: With reinforcing element of Stainless steel strips of 60mm wide and 5mm thick.	m	680.60	680.06	678.44	678.44
4.19.05.02.05	MSE_MSR_FRP: with reinforcing element of Glass reinforced polymer/ fibre reinforced polymer/ polymeric strips of 60mm wide and 5mm thick.	m	1,335.89	1,335.34	1,333.72	1,333.72
4.19.05.02.06	MSE_GTR: With reinforcing elements of synthetic geogrids.	sqm	320.20	319.65	318.03	318.03
4.19.05.02.07	MSE_HDGSR: With reinforcing elements of high yield ribbed/ deformed steel reinforcement complying with BDS ISO 6935-2: 2006 and fully hot-dip Galvanized to BS EN ISO 1461: 1999 with minimum coat thickness of 85 microns or 610 gm per meter squre surface.	kg	220.68	220.19	218.72	218.72
4.19.05.03	MSE_BF: Backfill with selected granular material in layers in approaches of work over metal strip/synthetic geogrid/steel which is to be retained by mechanically stabilized/ reinforced earth wall including grading, placement and compaction complete as per drawing, Technical specification and as directed by the Engineer-in-charge. The backfill material shall be clean, free draining, granular with high friction and low cohesion having particle size not more than 100mm and angle of internal friction not less than 34 degree, plasticity index shall not exceed 6 as determined by AASHTO T 90, non-corrosive, coarse grained with not 10 per cent of particles passing 75 micron sieve, free of shale or other soft, poor durability particles, any deleterious matter, chlorides, salts, acids, alkalies, mineral oil, fungus and microbes and pH shall be between 5.0 to 10.0 as determined by AASHTO T 289. The backfill material shall be compacted for AASHTO T 236 to 95 percent of the maximum density determined according to AASHTO T 99 method C or D and corrected for oversized material according to AASHTO T 99, Note 9.	cum	3,249.59	3,268.81	3,129.60	3,162.34
4.19.06	Jet Grouting: Execution of Jet grouted pile including mobilization & demobilization of Jet Grouting Machine, cost of furnishing all materials, labour and equipment necessary to complete the work, cost of trial columns, coring, testing and disposal of waste materials. Every completed jet grouted column/s shall be supported with Jet Grout Pile Data. No separate payment shall be made for drilling holes, washing/cleaning of holes, placing grout, labor, equipment, processing, mixing, hooking-up to the hole, injecting grout, hole closures, clearing up, cost of furnishing samples of grouting materials, providing assistance for sampling including verification testing, all of which shall be considered part of the Work of jet grouting.					
4.19.06.01	JGC_600: Diameter of Jet grouted column = 600mm	m	3,158.02	3,154.77	3,142.72	3,142.72
4.19.06.02	JGC_800: Diameter of Jet grouted column = 800 mm	m	5,639.77	5,634.00	5,612.49	5,612.49
4.19.06.03	JGC_1000: Diameter of Jet grouted column = 1000 mm	m	8,797.79	8,788.78	8,755.21	8,755.21
4.19.06.04	JGC_1200: Diameter of Jet grouted column = 1200 mm	m	12,661.26	12,648.26	12,599.93	12,599.93

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1	2	3	4	5	6	7
4.19.07	Soil Nailing: Supply and installation of soil nail of specified diameter, spacing and length as shown in drawings including setting-up, drilling in soil or rock, galvanized re-bar, centralizers, grout injection (30 MPa Concrete) as specified in specification. Works also include supply and fix nail head and all necessary works for proper completion including UPVC pipe as casing required for soil nailing work. The constractor shall submit the Methodology for the installtion of Soil Nail to the Engineer-in-charge for prior written approval (at least 7 days) before the commencement of works. The constractor shall keep records for each soil nail installation and submit one signed copy to the Engineer not later than next working day after the soil nails have been installed. The record for each soil nail shall include soil nail reference number, date/time of commencement and completion of drilling and grouting, names of supervisor and operators, the necessary drilling and grouting details etc. Only dry type drilling equipment shall be used to minimize slope disturbance.					
4.19.07.01	Diameter of Drill Hole: 100 mm, Diameter of Re-bar = 25mm (Grade 500, conforming to BDS ISO 6935-2:2006)	m	1,549.92	1,547.52	1,539.43	1,539.43
4.19.09	Anchor Bar: Fixing anchor bars upto 28mm. dia to the founding level at rock strata as per approved design including cost, conveyance & all taxes of all materials and T&P required for the work but excluding cost of TS rod & labour charges for bending, binding, tying the grills & placing in position as per specification & direction of Engineer-in-Charge.					
4.19.09.01	With G.I/MS pipe	nos	876.83	875.46	869.66	869.66