ललितपुर महानगरपालिका

नगर कार्यपालिकाको कार्यालय

पुल्चोक, ललितपुर, बागमती प्रदेश, नेपाल

पूर्वाधार निर्माण महाशाखा

टिप्पणी र आदेश

बिषय : दररेट स्वीकृती सम्बन्धमा ।

मितिः २०८०/८/१९

श्रीमान ,

यस ललितपर महानगरपालिकाबाट चालु आर्थिक बर्ष २०८०/८१ को लागि वार्षिक स्वीकृत सडक सम्वन्धि योजनाहरु सन्चालनका लागि दररेट आवश्यक पर्ने भएको हुदा डिभिजन सडक कार्यालय हरिहरभवन , पुल्चोकवाट प्राप्त भएको संलग्न विश्लेषण सहितको दररेट स्विकृतीको लागि श्रीमान समक्ष पेश गर्दछु ।

श्रीमान प्रमुख प्रशासकीय अधिकृत ज्यू,

आ.व. २०८०/८१ को लागी डिभिजन सडक कार्यालय, हरिहरभवन ल.पु. बाट प्राप्त विश्लेषण सहितको दररेट स्वीकृतीको पेश गर्दछु ।

२०८०/८/१९

रामप्रसाद (व.ई.)

Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Federal Road Supervision & Mointoring Office, Babarmahal,Kathmandu
Road Division Lalitpur
Hariharbhawan, Lalitpur

F.Y. :2080/2081
RATE ANALYSIS

Bhadra, 2080

Government of Nepal

Ministry of Physical Infrastructure and Transport

Department of Roads

Federal Road Supervision & Mointoring Office, Babarmahal,Kathmandu

Road Division, Lalitpur

Hariharbhawan, Lalitpur

with overhead

S.No	Norms No.	Specification Clause No.	Description	Unit	Rate
	Activity : Section 100 :General				
1			Insurance for loss of or damage to works , plant, material, equipment, property and personnel injury or death and third party as per contract data including mobilization, demobilization expenses for manpower , equipment and performance bond commision (Clause 19 of CoC)	L.S.	
2			Reconstruction and Relocation of damaged public utility services(Electricity,watersupply,telecom,etc) , supply of miscellaneous items(Survey and lab equipments etc.) required, engineers facilities, traffic management and traffic safety etc. during construction all complete as directed by Engineer .	P.S.	
3			Provision of safety clothing and equipment, First Aid/Medical facilities and other safety measures	Month	
4	1.3 & 29.1 A	109 & 2902	Carry out maintenance of the existing road to keep the road serviceable through out the contract period as per specification and instruction of the Engineer		
4a	1.3 & 29.1 A	109 & 2902	a) Maintenance of road during construction phase	Km-Month	9936.00
4b			b)Routine maintenance work by existing length worker and supervisors (name and wages will be provided by employer)	Month	
5			Provision of Photographs (incl. prints)	No.	
6			Providing and Istallation of overhead informative signboards	L.S.	
7	1.3	110	Providing and installation of project signboards with size of 1.8 x 1.2 m as per specification and instruction of engineer.	No.	21582.88
	Activity : Section 200 : SITE CLEARANCE				
8	2.1 . I . (ii) A	201	Clearing and grubbing road land including uprooting rank vegetation , grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal ofunserviceable materials and stacking of serviceable Material to be used or auctioned , up to a lead of 30 meters including removal and disposal of top organic soil not exceeding 150 mm in thickness.	m2	4.85
9	2.1 . II . (ii) A	201	Clearing and grubbing road land including uprooting rank vegetation , grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal ofunserviceable materials and stacking of serviceable Material to be used or auctioned , up to a lead of 1000 meters including removal and disposal of top organic soil not exceeding 150 mm in thickness.	m2	6.40
10	2.30	201	Clearing Grass and Removal of Rubbish and Dressing and levelling the construction surface Clearing grass/ top soil and removal up to a distance of 50 meters outside the periphery of the area , including cutting and filling of small undulation.	m2	10.35
11	2.4 (i) II (A)	202	Dismantling of Cement Concrete Grade M -15 & M-20 existing structures like culverts , bridges,retaining walls and other structure comprising of masonry,cement concrete , wood work , steel work , including scaffolding wherever necessary , sorting the dismantled Material , disposal of unserviceable Material and stacking the serviceable Material with all lifts and lead of 1000 meters.	m3	2326.27
12	2.4 (i) II (B)	202	Dismantling of Prestressed / reinforced cement concrete grade M -20 & above existing structures like culverts , bridges,retaining walls and other structure comprising of masonry ,cement concrete, wood work, steel work, including scaffolding wherever necessary , sorting the dismantled Material , disposal of unserviceable Material and stacking the serviceable Material with all lifts and lead of 1000 meters.	m3	2878.27
13	2.4 (ii) (B)	202	Dismantling of Brick / Tile work (In cement Mortar) existing structures like culverts , bridges,retaining walls and other structure comprising of masonry,cement concrete , wood work , steel work , including scaffolding wherever necessary , sorting the dismantled Material , disposal of unserviceable Material and stacking the serviceable Material with all lifts and lead of 1000 meters.	m3	1844.30

14	2.4 (iii) (B)	202	Dismantling of rubble Stone Masonry in cement mortar existing structures like culverts , bridges,retaining walls and other structure comprising of masonry,cement concrete , wood work , steel work , including scaffolding wherever necessary , sorting the dismantled Material , disposal of unserviceable Material and stacking the serviceable Material with all lifts and lead of 1000 meters.	m3	1844.30
15	2.4 (iii) (F)	202	Dismantling of boulders laid in wire crates including opening of crates and stacking dismantled Material existing structures like culverts , bridges,retaining walls and other structure comprising of masonry ,cement concrete, wood work, steel work, including scaffolding wherever necessary , sorting the dismantled Material , disposal of unserviceable Material and stacking the serviceable Material with all lifts and lead of 1000 meters.	m3	1180.90
16	2.5 I (A)	202	Dismantling of Bituminous course (By Manual means) flexible pavements and disposal of dismantled Material up to a lead of 1000 metres, stacking serviceable and unserviceable Material separately	m3	2361.80
17	2.5 I (B)	202	Dismantling of Granular courses (By Manual means) flexible pavements and disposal of dismantled Material up to a lead of 1000 metres, stacking serviceable and unserviceable Material separately	m3	2051.30
18	2.5 II (A)	202	Dismantling of Bituminous course (By Mechnical means) flexible pavements and disposal of dismantled Material up to a lead of 1000 metres, stacking serviceable and unserviceable Material separately	m3	1206.05
19	2.5 I (B)	202	Excavation of metalled road and removal of all materials in Water bound macadam materials including soling /base/ sub-base and screening , sorting out reusable materials and disposing unusable materials all complete as directed by engineer and all complete as per specification. [SS 202]*	m3	71.30
20	2.14	202	Removal of telephone / Electric poles and lines including excavation and dismantling of foundation concrete and electic cables under the supervision of concerned department , disposal with all lifts and up to a lead of 1000 metres and stacking the serviceable and unserviceable Material Separately.	No.	1017.26
21	2.2	201	Cutting of trees , including cutting of trunks , branches and removal of stumps, roots, stacking of serviceable Material with all lifts and up to a lead of 1000 meters and earth filling in the depression/pit.		
		i	(i) Girth from 300 mm to 600 mm	No.	1086.26
		ii	(i i) Girth from 600 mm to 900 mm	No.	3258.80
		iii	(iii) Girth from 900 mm to 1800 mm	No.	8587.60
		iv	(iv) Girth from 1800 - 2500 mm	No.	19916.50
		v	(iv) Girth above 2500 mm	No.	65176.02
	Activity : Section 700 : PIPE DRAINS, PIPE CULVERTS AND CONCRETE				
22	7.1 (A)	701	Providing, jointing and laying PE -100,PN6 HDPE pipes with or without collar etc. complete in place as per Drawing andTechnical Specifications .(200 mm outer dia. NS-40)	Rm.	1978.18
23	7.1 (A)	701	Providing, jointing and laying PE -100,PN6 HDPE HDPE pipes with or without collar etc . complete in place as per Drawing andTechnical Specifications.(110 mm outer dia. NS-40)	Rm.	796.69
24	7.1 (A)	701	Providing, jointing and laying PE -100,PN6 HDPE HDPE pipes with or without collar etc . complete in place as per Drawing andTechnical Specifications.(50 mm dia. HDPE pipe NS-40.)	Rm.	391.93
25	7.1 (A)	701	Providing, jointing and laying PE -100,PN10 HDPE HDPE pipes with or without collar etc . complete in place as per Drawing andTechnical Specifications.(32 mm dia. HDPE pipe NS-40.)	Rm.	354.23
26	7.1 (A)	701	Providing, jointing and laying PE -100,PN12 HDPE HDPE pipes with or without collar etc . complete in place as per Drawing andTechnical Specifications.(25 mm internal dia. HDPE pipe NS-40.)	Rm.	335.89
27	7.2 A	701	Providing and Laying Reinforced cement concrete 300 mm internal dia . NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.	Rm.	4786.01
28	7.2 B	701	Providing and Laying Reinforced cement concrete 450 mm internal dia . NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.	Rm.	6698.28
29	7.2 C	701	Providing and Laying Reinforced cement concrete 600 mm internal dia . NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.	Rm.	9041.80
30	7.2 D	701	Providing and Laying Reinforced cement concrete 900 mm internal dia . NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.	Rm.	17046.17
31	7.2 F	701	Providing and Laying Reinforced cement concrete 1200 mm internal dia . NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.	Rm.	22872.56

	Activity : Section 900 : EARTH WORKS				
32	9.1 I (A)	905	Road way Excavation in all types of soil as per Drawing and technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instruction of the Engineer. (By Manual Means)	m3	805.00
33	9.1 I (B)	905	Road way Excavation in all types of soil as per Drawing and technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instruction of the Engineer.	m3	71.30
34	9.1 II (B)	905	Roadway Excavation in ordinary rock as per Drawing and Technical specification, including all lift and lead as per Drawing and instruction of the engineer.	m3	213.92
35	9.1 IV	905	Roadway Excavation in hard rock with rock breakers, including breaking rock, lifts and lead for disposal as per Drawing and Technical Specifications	m3	495.24
36	9.2	905	Removal of unserviceable soil including excavation ,loading and disposal upto 1000 meters lead etc. all complete	m3	152.49
37	9.4 (B) i	907	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications.	m3	106.96
38	9.4 (A) i	907	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications.	m3	966.00
39	9.7	909 & 910	Preparation and surface treatment of Formation by removing mud and slurry, watering to the extent needed to maintain desired moisture content ,compacting all complete as per Drawing and Technical Specifications.	m2	8.80
40	9.8	909 & 910	Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement as per Drawing and Technical Specifications.	m3	520.39
41	9.9 (B)	909 & 910	Providing, laying, spreading and compacting embankment with roadway cutting material and compact to the required density as per Drawing and Technical Specifications. (With machine)	m3	333.19
42	9.11 A	908	Providing suitable material and Back filling behind abutment with granular material, wing wall and return wall complete as per Drawing and Technical Specifications.	m3	1399.73
43	9.11 C	908	Providing suitable material and Back filling behind abutment with Local available material including compaction, wing wall and return wall complete as per Drawing and Technical Specifications.	m3	773.00
44			Transportation of material by truck, including loading,unloading and stacking in stockpiles/safe disposal at safe tipping site all complete as per specification and instruction of engineer.	m3	214.49
	Activity : Section 1000 : SUBGRADE				
45	10.2 A	1003	Scarifying the existing road surface upto a depth of 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	m2	23.83
46	10.2 A	1003	Scarifying the existing road surface upto a depth of 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	m3	476.76
47	10.2 B	1003	Scarifying the existing bituminous road surface to a depth upof 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	m2	13.23
48	10.2 B	1003	Scarifying the existing bituminous road surface to a depth upof 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	m3	264.75
49	10.30	1004	Construction of subgrade by Providing and laying sub-grade and earthen shoulders with approved Material obtained from borrow pits with all lifts & leads as per Drawing and Technical Specifications. (Capping layer-with granular material)	m3	902.51
50	10.30	1003 & 1005	Subgrade construction with loose untreated materials ; preparation and formation of subgrade in fill areas all complete as per specification [SS 1003]*	m3	902.51
51	10.4 Case-I	1003 & 1005	Compacting original ground supporting sub -grade Loosening of the ground upto a level of 500 mm below the sub -grade level, watered, graded and compacted in layers as per Drawing and Technical Specifications . (SS 1003 & 1005)	m3	122.61

52	10.4 Case-II	1003 & 1005	Loosening, leveling and Compacting original ground supporting embankment to facilitate placement of first layer of embankment , scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rolling so as to achieve dry density as per Drawing and Technical Specifications.	m3	87.61
53	10.80	1006	Providing and laying of hand pack Stone soling with 150 to 200 mm thick stones and packing with smaller stone on prepared surface as per Drawing and Technical Specifications.	m3	7888.85
	Activity : Section 1200 : SUB BASE , BASE				
54	12.1 A	1201	Providing and laying granular sub -base on prepared surface , mixing at OMC, and compacting to achieve the desired density , complete as per Table 12.1 grading IV, Technical Specifications, etc all complete	m3	3434.25
55	12.1 A	1201	Providing and laying Crusher Run sub -base on prepared surface , mixing at OMC, and compacting to achieve the desired density , complete as per Table 12.1 grading IV, Technical Specifications, etc all Complete	m3	3745.84
56	12.1 A	1201	Providing, laying, spreading, watering, levelling and compaction of scarified base and subbase material to construct subbase grading as per table 12.1 of standard specification all completed as directed by engineer [SS 1201]	m3	266.38
	12.30	1202	Providing, laying and spreading Cement Treated Crushed Rock having grading requirement as per specification for Base Material on a prepared surface, adding the designed quantity of cement to the spread Material, grading and compacting at OMC to achieve the desired unconfined compressive strength and to form a layer of base as per Drawing and Technical Specifications.	m3	5647.49
57	12.7	1204	Providing and laying Crusher Run Macadam on a prepared surface , spreading and mixing , watering and compacting to form a layer of Base course as per 53 mm nominal size grading and TechnicalSpecifications.	m3	4723.61
	12.7	1204	Providing and laying Crusher Run Macadam on a prepared surface , spreading and mixing , watering and compacting to form a layer of Base course as per 37.50 mm nominal size grading and TechnicalSpecifications., etc. all complete	m3	4766.31
58	12.7	1204	Providing and laying Crusher Run Macadam on a prepared surface , spreading and mixing , watering and compacting to form a layer of Sub - Base course 63 mm down size grading and TechnicalSpecifications.	m3	3767.39
59	12.14 (A)	1208	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC laying in uniform layers in sub - base / base course on well prepared surface and compacting to achieve required density as per Drawing and Technical Specifications.Base course with B1 material	m3	4878.46
	Activity : Section 1300 : BITUMINOUS SURFACE				
60	13.1 (A)	1302	Providing and applying prime coat with MC 30/70 of Hot Bitumen (including cutter) on prepared surface of granular base including cleaning of road surface and spraying (Spray Rate @ 0.90 per Sq.m) as per Technical Specification .	litre	162.45
61	13.2 A	1302	Providing and applying tack coat with hot Bitumen at specified rate on the prepared non -bituminous surfaces including cleaning as per Technical Speciation . (Spray Rate @ 0.50 per Sq.m)	litre	152.34
62	13.50	1308	Providing and laying dense bituminous macadam using crushed aggregates of specified grading, premixed with bituminous binder and filler as per Drawing and Technical Specifications.	m3	20810.91
63	13.60	1309	Providing and laying Bituminous concrete/ Asphalt concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler as per Drawing and Technical Specifications.	m3	25751.56
	Activity : Section 1400 : KERBS AND FOOTPATHS				
64	14.1	1401	Providing and laying of M 20 precast cement concrete Kerb 38 cm * 20 cm * 25 cm (H*B*L) with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material , all complete as per Drawing and Technical Specifications.	R.m.	1490.45
65	14.1	1401	Providing and laying of M 25 precast cement concrete Kerb 38 cm * 20 cm * 25 cm (H*B*L) with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material , all complete as per Drawing and Technical Specifications.	R.m.	2056.25

66	14.1	1401	Providing and laying of M 20 precast cement concrete median Kerb (45 cm*20 cm Avg.)with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material , all complete as per Drawing and Technical Specifications.	R.m.	1265.93
67	14.1	1401	Providing and laying of M 25 precast cement concrete Kerb 35 cm * 20 cm * 30 cm (H*B*L) with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material , all complete as per Drawing and Technical Specifications.	R.m.	1633.79
68	14.2	1401	Tactile block for footpath ; Providing and laying Tactile Matrix Slab (Single Color) with Compressive Strength M 35 or Above. 40mm thickness dimension: 400mmx400mmx40mm all complete as per specification.	m2	2143.03
69	14.2	1401	Providing and Laying of 60mm thick cement concrete M 20 intrlocking block (Grey colour) for footpath over 50 mm thick stone dust , all complete(1401)	m2	1447.33
70	14.2	1401	Providing and Laying of 60mm thick cement concrete M 35 Hexagonal intrlocking block (Grey colour) for footpath over 50 mm thick stone dust , etc. all complete(1401)	m2	2611.44
71	14.2	1401	Providing and Laying of 60mm thick cement concrete M 35 Hexagonal intrlocking block (Multi colour) for footpath over 50 mm thick stone dust , etc. all complete(1401)	m2	2715.93
73	14.2	1401	Providing and Laying of 60mm thick cement concrete M 35 Rectangular intrlocking block (Multi colour) for footpath over 50 mm thick stone dust , etc. all complete(1401)	m2	4286.30
74	14.5 B	1403	Providing and laying flat brick over 60 mm thick sand bed in footpath including excavation sand bedding all complete as per specification.	m2	975.87
	Activity : Section 1500 : TRAFFIC SIGN ROAD MARKINGS				
75	15.1	1501	Providing and fixing 60cm. Dia. Circular, 60cm. equilateral traingle and 80cm.x 60cm. rectangular shaped sign (single post) of warning, mandatory and informatory sign board of 2 mm thick MS Sheet with back support angle 50 x 50 x 6 mm frame fixed on 50 mm heavy grade steel tube firmly fixed to the ground by means of properly designed foundation with M 20 grade cement concrete 300 mm x 300 mm x 300 mm, l as per drawings and Technical Specification/ DOR Publication..	no	5524.33
76	15.4	1501	Providing and Painting two coats after filling the surface with synthetic enamel paint after filling the surface with primer in all shades on concrete / plaster surfaces etc all completeas per Drawing and Technical Specifications.	m2	1044.72
77	15.5	1501	Providing and applying two coats of ready mix paint enamel on steel surface with priming, after through cleaning of surface to give an even shade as per Drawing and Technical Specifications.	m2	208.59
78	15.6	1509	Providing and applying two coats of ready mix enamel paint of approved brand on wood surface with priming after thorough cleaning of surface to give an even shade as per Drawing and Technical Specifications.	m2	200.41
79	15.9 i	1504	Providing and laying of hot applied thermoplastic (paint) compound On smooth surface (similar to Asphalt concrete and rigid pavement) at least 2 mm thick including reflectorizing glass beads as per DOR Traffic sign manual/ Specifications .The finished surface to be level , uniform and free from streaks and holes.	m2	893.25
80	15.9 i	1504	Providing and laying of hot applied thermoplastic (paint) compound On rough surface (similar to surface dressing) at least 2 mm thick including reflectorizing glass beads as per DOR Traffic sign manual / Specifications .The finished surface to be level, uniform and free from streaks and holes.	m2	1529.57
81	15.11 (i)	1501	Supplying and placing Standard R .C.C. Kilometer post placed at each kilometer (concrete M 15/40) including excavation , back filling , painting and writing etc . all complete as per design , drawing and specification . [SS 1506]*	no	10529.09
82	15.11 (ii)	1501	Supplying and placing Bigger (placed at each 5 km.) R.C.C. kilometer post (concrete M20/20) including excavation, back filling, painting and writing etc. all complete as per design, drawing and specification. [SS 1506]*	no	14467.87
83	15.12	1507	Providing and installation of 150 mm * 150 mm 1. 5 m (M20 grade concrete) long delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level , painted black and white in 20 cm wide strips, buried or pressed into the ground and conforming to the drawings and Technical Specifications.	no	1984.10

84	15.14 A	1507	Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail , 70 cm above road /ground level , fixed on ISMC series channel vertical post , 150 x 75 x 5 mm spaced 2 m center to center, 1.8 m high, 1.1 m below ground/road level metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per Drawing and Technical Specifications.	Rm.	5616.02
85	15.16		Providing and fixing Solar powered LED Street Lighting Systems automatically switched on and off including excavation , fixing in position and concreting (M25 - 1.00m*0.50m*0.50m) etc. all complete as per specification and drawing in median and tapered portion of intersection etc all complete as per specification. (Specification :- Twin Arm circular type - 30 Watt X 2, Luminous Efficiency at least 100 Lumen/watt , Operational hour 12, Back up time 12 hrs, Battery bank 12 volt 2 X 75 AH SOLAR TUBULAR OR GEL, Working Temperature & Humidity -5 to +55 degree Celcius to 85% RH, Pole Height 7m (4 inch dia - 4.5m length + 3 inch dia - 2.5m length) Galvanized pole at least 75 kg weight of per pole , Minimum guarentee period 10 years in solar panals and 2 years in battery and electronics). All the specification should be fulfilled and satisfied by the manufacturer and is the responsibility of the contractor - should submit for approval prior to the supply and Installation of solar light.	no.	136649.43
86	15.16		Providing and fixing Street Lighting Systems automatically switched on and off and auto dimming opetion , including excavation, fixing in position and concreting (including M 25/20 concrete,reinforcement as schedule - 1.40m*0.50m*0.50m as per drawing) etc. all complete as per specification and drawing in median ,footpath and tapered portion of intersection etc all complete as per specification . (Specification :- 1.8 meter overhang Twin Arm if fixed in the medain and on one side if fixed on the footpath , 2 X 100 Watt LED AC Street light with auto on -off switch and auto dimming option system, heavy octagonal conical Pole of Height 10 meter, no. of side - 8, Top dia.-90 mm, base dia.-200 mm,wall thickness minimum-3 mm,Base plate of (300*300*20 mm), anchor of base plate with 24 mm. dia bolt of 750 mm length, door length (opening)-500mm, Galvanized pole with all electrical accessories fittings system etc. all complete). All the specification should be fulfilled and satisfied by the manufacturer and is the responsibility of the contractor - should submit for approval prior to the supply and Installation of street light all complete as per specification and as directed by the Engineer.	no.	69191.09
87			Supply and installation of 11/0.4, 50 KVA three phase transformer including dropout fuse set , lighting arrestor ,earthing set cable logs , channels, pole clamp, angle bracing, switching system for street light ,stay set, stay insulator, nut bolts including all necessary ancillaries as directed by engineer.	no.	501360.92
88			Supply and installation of 11m P.S.c Pole etc, all complete as per standard specification.	no.	35831.12
89			Supply and installation of 6 Sq. mm Copper conductor Armoured power cable for street light, underground (minimum depth 60 cm. below the earth surface) in 6 kg/cm2 HDP 50 mm. dia pipe, including all required accessories, ancillaries etc all complete as directed by engineer.	no.	548.78
	Activity : Section 1800 : FALSEWORK,FORMWORK				
90	18.1 (a)	1804 & 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for foundation and footings . (Class F1 Finish)	m2	612.11
91	18.2 (a) (i)	1804 & 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for walls . (Class F 2 Finish), vertical plain surface (upto height 3 m)	m2	810.87
92	18.2 (a) (ii)	1804 & 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for walls . (Class F 2 Finish), vertical plain surface. (Height above 3 m to 6 m)	m2	965.94
			Weightage Rate of Formwork per M2		888.40
	Activity : Section 2000 : CONCRETE				
92	20.1	2000	Providing and laying of Plain Cement Concrete M 10 (or1:3:6 for nominal mix) in Foundation complete as per Drawing and Technical Specifications.	m3	10650.95
93	20.2 A	2000	Providing and laying of Plain Cement Concrete grade M 15 in Foundation including formwork etc . all complete as per Drawing and Technical Specifications.	m3	12509.61

94	20.2 C	2000	Providing and laying of Plain Cement Concrete (PCC) grade M 20 in Foundation/sub-structure including formwork etc . all complete as per Drawing and Technical Specifications.	m3	13676.32
95	20.2 C	2000	Providing and laying of Reinforced Cement Concrete (RCC) grade M20 in Foundation/sub-structure including formwork etc . all complete as per Drawing and Technical Specifications.	m3	13739.73
96	20.2 D	2000	Providing and laying of Plain Cement Concrete (PCC) grade M 25 in Foundation/sub-structure including formwork ,admixture etc . all complete as per Drawing and Technical Specifications.	m3	15249.78
97	20.2 E	2000	Providing and laying of Reinforced Cement Concrete (RCC) grade M25 in Foundation/sub-structure including formwork ,admixture etc . all complete as per Drawing and Technical Specifications.	m3	15792.65
98	20.2 F	2000	Providing and laying of Plain Cement Concrete (PCC) grade M 30 in Foundation/sub-structure including formwork ,admixture etc . all complete as per Drawing and Technical Specifications.	m3	15323.05
99	20.2 G	2000	Providing and laying of Reinforced Cement Concrete (RCC) grade M30 in Foundation/sub-structure including formwork ,admixture etc . all complete as per Drawing and Technical Specifications.	m3	15837.21
100	20.3 & 20.5	2014	Providing and laying Reinforcement Fe 500 including cutting , bending, binding, fixing in position etc . all complete in foundation /sub-structure as per drawing and technical specification	Mt.	141045.20
101	20.6	2014	Providing and laying Reinforcement Fe 500 including cutting , bending, binding, fixing in position etc . all complete in super -structure complete as per drawing and technical specifications.	Mt.	147894.60
102	20.9	2014	Providing and laying Reinforcement Fe 500 including cutting , bending, binding, fixing in position etc . all complete in super -structure complete as per drawing and technical specifications.	Mt.	144150.20
			Weightage Rate of Reinforcement per Mt.		**144363.33**
	Activity : Section 2400 : RIVER TRAINING AND PROTECTION WORKS				
103	24.1 A I,ii&iii	2401	Supply and Fabrication of hexagonal mesh type 100mm x 120 mm heavy coated Gabion boxes / mattresses with diapharagms , with heavy coated binding wire 12 swg, mesh wire 10 swg and selvedged wire 8 swg , including rolling , cutting and weaving ; assembling Gabion boxes mattresses, palcing in position including stretching , forming compartments ; tying with bracing wires and tie wires ; tying down the lid complete ; and providing and filling stone / boulder in gabion boxes / mattresses etc . including dressing , beding, bonding and all transporation as per specification. [SS 2401]*	m3	7797.20
104	24.2,24.3 & 24.4	2402	Providing mechanically woven double twisted gabion boxes /crates /mattress with diaphragm including rolling , cutting and with lacing wire of Heavy zinc coated Hexagonal mesh type 100 mm x 120 mm,mesh wire 3 mm, selvage wire 3.9 mm, lacing wire 2.4 mm ; assembling Gabion boxes mattresses, palcing in position including stretching , forming compartments ; tying with bracing wires and tie wires ; tying down the lid complete ; and providing and filling stone / boulder in gabion boxes / mattresses etc . including dressing , beding, bonding and all transporation as per specification. [SS 2402]*	m3	6845.69
105	24.50	2404	Providing, laying, fixing in positions of Geo -textile (filter fabrics). [SS 2404]*	m2	185.38
106		2405	Supply and fixing Geo -grid fibre glass with tensile strength (di-axial) (50KN*50KN) (SS-2405)* after assurence of quality	m2	204.70
107	24.21 A i	2416	Providing and placing plum concrete (Boulder mixed Concrete) with 60% M15/40 concrete and 40% boulders/stones as per specification , using concrete mixer and vibrator excluding formwork , curing, testing etc . all complete as per specification and drawing. [SS 2421]*	m3	10966.59
108	24.21 A i	2416	Providing and placing plum concrete (Boulder mixed Concrete) with 60% M15/40 concrete and 40% boulders/stones as per specification , using concrete mixer and vibrator including formwork , curing, testing etc . all complete as per specification and drawing. [SS 2421]*	m3	11229.79
109	24.22	2414	Providing and laying subsurface drain with perforated pipe of 100 mm internal diameter of metal / asbestos cement/ cement concrete/PVC, closely jointed, perforations ranging from 3 mm to 6 mm depending upon size of material surrounding the pipe , with 150 mm bedding below the pipe and 300 mm cushion above the pipe,. as per Drawing and Specifications	Rm.	1550.94
	Activity : Section 2500 : BRICKWORK				
110	25.1 C	2500	Providing and laying Brick Masonry Work in Cement sand mortar (1:4) in Foundation / structure,mixing mortar with concrete mixture , First class Brick, etc all complete , as per Drawing and Technical Specifications.(SS2500)	m3	16023.00

111	25.2 C	2500	Providing and laying Brick Masonry Work in Cement sand mortar (1:4) in superstructure/sub-structure mixing mortar with concrete mixer etc allcomplete , as per Drawing and Technical Specifications.(SS2500)	m3	16198.95
			Weightage Rate of brick work per cu.m		**16110.97**
112	25.4 C	2500	Providing and applying 12.5 mm thick Plaster with cement mortar 1:4 (1 cement : 4 sand) on brick work structure as per Technical Specifications.	m2	413.35
	Activity : Section 2600 : STONE MASONARY				
113	26.3 (B)	2602,2603,2607	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:4 in Foundation complete as per Drawing and Technical Specifications.	m3	11978.92
114	26.5 (A)	2602,2603,2607	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:4 in structure complete as per Drawing and Technical Specifications.	m3	13490.37
			Weightage Rate of stone masonary per Cum.		**12734.64**
115	26.3©	2602,2603,2607	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:6 in Foundation complete as per Drawing and Technical Specifications.	m3	11674.31
116	26.6 A	2602,2603,2607	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:6 in structure complete as per Drawing and Technical Specifications.	m3	13003.60
			Weightage Rate of stone masonary per Cum.		12338.96
115	26.7 A	2600	Providing and Pointing with cement mortar on masonary work in structure as per technical specification cement mortar 1:3	m2	289.94
	Activity : Section 2900 : MAINTENANCE OF ROAD				
116	29.1 A	2902	Carryout Routine (regular maintenance) of Black top/ Gravel road in plain area (Terai) as per Technical Specifications and direction of the Engineer	Km-month	9936.00
117	29.1 B	2902	Carryout Routine (regular maintenance) of Black top/ Gravel road in Hilly area as per Technical Specifications and direction of the Engineer	Km-month	13972.50
	Activity : Section 2800 : BIO-ENGINEERING WORKS				
			Providing and laying in position Grass carpet (Dubo) etc. all complete as directed by engineer	m2	591.25
	Activity : Section 3100 : MISCELLANEOUS WORK				
118	31.3	3100	Providing and fixing Drainage Spouts complete as per Drawing and Technical specifications.	no.	16894.65
119	31.7	3105	Providing, fencing and erecting 50 mm dia heavy GI steel pipe railing in 3 rows on precast M 25 grade RCC vertical posts 1.8 metres high (1.2 m above GL) with 3 holes 50 mm dia for pipe, fixed 2 metres center to centre, complete as per Drawing and Technical Specifications.	Rm.	4529.27
120			Providing and installing Expansion Joints with minimum 10 mm thick rubber seal /tarfelt sheet including all necessaary axilliary and incidental works etc. complete as per drawing and specification. [SS 1901]*	m2	160.71
121			Providing and fixing ISA -100*100*8 mm armour angle with 200 mm long V-type 12 dia. Bars @300 mm C/C including fixing in position etc . all complete as directed by engineer	Rm.	1814.66
122			Providing, fencing and erecting 75 mm dia heavy GI steel pipe for railing , etc all complete as per Drawing and Technical Specifications.	Rm.	1629.21
123			providing and fixing C .I. Manhole cover of 24 " (600mm) dia. (Heavy duty) with frame at requird level including dismentalling , concreting nut bolting etc. all complete as per drawing and specification etc . all complete as directed by engineer	No.	41341.42
124			providing and fixing Grit cover of Iron . Grid size 450mm*300mm including fabrication ,fixing, painting with one coat redoxide at requird level including dismentalling, concreting nut bolting etc. all complete as per drawing and specification.	no.	2061.03

	Activity : Section : BUILDING NORMS & OTHERS				
125			Providing, laying and levelling of dry stone soling works in the foundation/floor etc. all complete as per specification.	m3	5301.35
126			Providing and fixing Sal wood work for Door and window Frame with well seasoned including MS Holdfasts of sizes (3x30x300mm) 6 Nos. for Door & 4 Nos. for window frame ,necessary screw ,cement concrete fixing the frame in position in perfect line and level etc all complete as per Drawing specification and instruction of Site Engineer.	m3	314884.76
127			Providing and fixing 38 mm th .sal wood panelled door shutter fixing in position in perfect line & level with 125mm.size 6nos.of steel butt hinges,150mm & 250mm size Tower bolts (heavy Almunium) 250mm aldrop of well reconised brand ,250mm heavy CP pull handles ,necessary screw and nails etc all complete as per drawing , specification and instruction of Site Engineer.	m2	17489.73
128			Supplying and fixing Aluminium framed Sliding window With ventilator and Mosquito Net (Aluminium :- Natural anodised 101mmx38mm x1.3mm , Glass 5mm clear)	m2	7151.10
129			Providing and fixing and fixing 4.5 mm*20 mm M . S. grill work all complete as per the specification and instruction of site incharge	kg	177.10
130			Suuplying ,making and fixing of 90 cm height stainless steel pipe railing work for staircase made with 50 mm dia handrail pipe 20 mm dia 3 rows pipe in between handrail and step floor 40mm dia pipe vertical post and 75 mm dia blauster pipe with all fancy fittings with all complete work as diricted by engineer.	Rm.	4526.40
131			Providing and laying Fancy type porcelain glazed /Non-glazed tile supply and fitting work in (1:4) cement sand mortar of good finish all complete work as per specification & instruction.	m2	3161.50
132			Providing and applying Two coat of enamel paint work over primer coat of approved colour and shade including cleaning,wetting and scaffolding all complete as per specification and instruction.	m2	384.36
133			Providing and applying Two coat of Plastic emulsion paint work over primer coat of approved colour and shade including cleaning,wetting and scaffolding all complete as per specification and instruction.	m2	402.73
134			Providing and applying Two coat of Apex paint (weather coat) work over primer coat of approved colour and shade including cleaning,wetting and scaffolding all complete as per specification and instruction.	m2	349.57
135			Cement sand punning (1:1) 3 mm thick work over cement sand plaster in line & level with trowelling the top surface to give a smooth finish on floor , wall & skirting etc in perfect line & level including clearing, curing with all complete.	m2	327.15
136			Back filling in foundation, floor etc with the earth from outside of the construction area as per instruction of site engineer	m3	258.75
137			Earth filling under floors with good quality earth including Tranportated from quarry site, compacting in 150 mm thick layers with sprinkling water , ramming & consolidating with all complete.	m3	839.50

Description of works:	Road way Excavation in all types of soil as per Drawing and technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instruction of the Engineer. (By Manual Means)	Unit : Cu.m
Spec. cl. No: 905		
Unit Considered : 12 Cu.m	by Manual Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
9.1 I (A)	Skilled	day	1.00	1200.00	1200.00					0.00					0.00
	Unskilled	day	8.00	900.00	7200.00					0.00					0.00
										0.00					0.00
				Sub total of A =	8400.00				Sub total of B =	0.00				Sub total of C =	0.00
				Sub total of A +B + C =	8400.00				Contractor's overhead expenses 15% =		1260.00			Unit Rate =	805.00

Description of works:	Road way Excavation in all types of soil as per Drawing and technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instruction of the Engineer.	Unit : Cu.m
Spec. cl. No: 905		
Unit Considered : 360 Cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
9.1 I (B)	Skilled	day	1.00	1200.00	1200.00					0.00	Hydraulic excavator	hr.	6.00	3070.48	18422.88
	Unskilled	day	3.00	900.00	2700.00					0.00					0.00
										0.00					0.00
				Sub total of A =	3900.00				Sub total of B =	0.00				Sub total of C =	18422.88
				Sub total of A +B + C =	22322.88				Contractor's overhead expenses 15% =		3348.43			Unit Rate =	71.30

Description of works:	Roadway Excavation in ordinary rock as per Drawing and Technical specification, including all lift and lead as per Drawing and instruction of the engineer.	Unit : Cu.m
Spec. cl. No: 905		
Unit Considered : 120 Cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
9.1 II (B)	Skilled	day	1.00	1200.00	1200.00					0.00	Hydraulic excavator	hr.	6.00	3070.48	18422.88
	Unskilled	day	3.00	900.00	2700.00					0.00					0.00
										0.00					0.00
				Sub total of A =	3900.00				Sub total of B =	0.00				Sub total of C =	18422.88
				Sub total of A +B + C =	22322.88				Contractor's overhead expenses 15% =		3348.43			Unit Rate =	213.92

Description of works:	Roadway Excavation in hard rock with rock breakers, including breaking rock, lifts and lead for disposal as per Drawing and Technical Specifications	Unit : Cu.m
Spec. cl. No: 905		
Unit Considered : 16 Cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
9.1 IV	Skilled	day	1.00	1200.00	1200.00					0.00	Hydraulic excavator	hr.	6.00	3070.48	18422.88
	Unskilled	day	10.00	900.00	9000.00					0.00	Credit for excavated rock deduct @ 50 % of excavated	Cum	-8.00	2716.56	-21732.48
										0.00					0.00
					Sub total of A =	10200.00				Sub total of B =	0.00			Sub total of C =	-3309.60
					Sub total of A +B + C =	6890.40				Contractor's overhead expenses 15% =	1033.56			Unit Rate =	495.24

Description of works:	Removal of unserviceable soil including excavation,loading and disposal upto 1000 meters lead etc. all complete	Unit : Cu.m
Spec. cl. No: 905		
Unit Considered : 360 Cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
9.2	Skilled	day	1.00	1200.00	1200.00					0.00	excavator	hr.	6.00	3070.48	18422.88
	Unskilled	day	4.00	900.00	3600.00					0.00	Tipper	hr.	18.00	1361.89	24514.02
										0.00					0.00
					Sub total of A =	4800.00				Sub total of B =	0.00			Sub total of C =	42936.90
					Sub total of A +B + C =	47736.90				Contractor's overhead expenses 15% =	7160.53			Unit Rate =	152.49

Description of works:	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No: 907		
Unit Considered : 240 Cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
9.4 (B) i	Skilled	day	1.00	1200.00	1200.00					0.00	excavator	hr.	6.00	3070.48	18422.88
	Unskilled	day	3.00	900.00	2700.00					0.00					0.00
										0.00					0.00
					Sub total of A =	3900.00				Sub total of B =	0.00			Sub total of C =	18422.88
					Sub total of A +B + C =	22322.88				Contractor's overhead expenses 15% =	3348.43			Unit Rate =	106.96

Description of works:	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No: 907		
Unit Considered : 10 Cu.m	by Manual Means . (Ordainary soil)	

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
9.4 (A) i	Skilled	day	1.00	1200.00	1200.00					0.00					0.00
	Unskilled	day	8.00	900.00	7200.00					0.00					0.00
										0.00					0.00
					Sub total of A =	8400.00				Sub total of B =	0.00			Sub total of C =	0.00
					Sub total of A +B + C =	8400.00				Contractor's overhead expenses 15% =	1260.00			Unit Rate =	966.00

Description of works:	Preparation and surface treatment of Formation by removing mud and slurry, watering to the extent needed to maintain desired moisture content ,compacting all complete as per Drawing and Technical Specifications.	Unit : Sq.m.
Spec. cl. No: 909,910		
Unit Considered : 3500 sq. m.	by Mechanical Means .	

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
9.7	Skilled	day	1.00	1200.00	1200.00	water	kl	18.0000	330.00	5940.00	roller	hr.	6.00	1776.57	10659.42
	Unskilled	day	10.00	900.00	9000.00					0.00					0.00
										0.00					0.00
					Sub total of A =	10200.00				Sub total of B =	5940.00			Sub total of C =	10659.42
					Sub total of A +B + C =	26799.42				Contractor's overhead expenses 15% =	4019.91			Unit Rate =	8.80

Description of works:	Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No: 909,910		
Unit Considered : 300 cu.m	by Mechanical Means .	

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
9.8	Skilled	day	1.00	1200.00	1200.00	water	kl	72.00	330.00	23760.00	excavator	hr.	6.00	3070.48	18422.88
	Unskilled	day	4.00	900.00	3600.00	borrowpit material soil	cum.	360.00	125.80	45288.00	tractor with rotavator	hr.	12.00	972.90	11674.80
										0.00	dozer	hr.	3.00	4156.88	12470.64
										0.00	grader	hr.	3.00	2893.16	8679.48
										0.00	vibratory roller	hr.	6.00	1776.57	10659.42
					Sub total of A =	4800.00				Sub total of B =	69048.00			Sub total of C =	61907.22
					Sub total of A +B + C =	135755.22				Contractor's overhead expenses 15% =	20363.28			Unit Rate =	520.39

Rate Analysis - 2080-81

Description of works:	Providing, laying, spreading and compacting embankment with roadway cutting material and compact to the required density as per Drawing and Technical Specifications. (With machine)	Unit : Cu.m
Spec. cl. No: 909,910		
Unit Considered : 300 cu.m	by Mechanical Means .	

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
9.9 (B)	Skilled	day	1.00	1200.00	1200.00	water	kl	72.00	330.00	23760.00					0.00
	Unskilled	day	10.00	900.00	9000.00					0.00					0.00
										0.00	dozer	hr.	6.00	4156.88	24941.28
										0.00	grader	hr.	6.00	2893.16	17358.96
										0.00	vibratory roller	hr.	6.00	1776.57	10659.42
				Sub total of A =	10200.00				Sub total of B =	23760.00				Sub total of C =	52959.66
				Sub total of A +B + C =	86919.66				Contractor's overhead expenses 15% =	13037.94				Unit Rate =	333.19

Description of works:	Providing suitable material and Back filling behind abutment with granular material, wing wall and return wall complete as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No: 908		
Unit Considered : 10 cu.m	by Mechanical Means .	

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
9.11 A	Skilled	day	0.20	1200.00	240.00	water	kl	1.00	330.00	330.00	plate compactor/power rammer	hr.	2.50	420.63	1051.57
	Unskilled	day	5.00	900.00	4500.00	granular material	cum.	11.00	550.00	6050.00					0.00
				Sub total of A =	4740.00				Sub total of B =	6380.00				Sub total of C =	1051.57
				Sub total of A +B + C =	12171.57				Contractor's overhead expenses 15% =	1825.73				Unit Rate =	1399.73

Description of works:	Providing suitable material and Back filling behind abutment with Local available material including compaction, wing wall and return wall complete as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No: 908		
Unit Considered : 10 cu.m	by Mechanical Means .	

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
9.11 C	Skilled	day	0.20	1200.00	240.00	water	kl	1.00	330.00	330.00	Tamping 3% of labour cost				142.20
	Unskilled	day	5.00	900.00	4500.00	Local Material	cum.	12.00	125.80	1509.60					0.00
				Sub total of A =	4740.00				Sub total of B =	1839.60				Sub total of C =	142.20
				Sub total of A +B + C =	6721.80				Contractor's overhead expenses 15% =	1008.27				Unit Rate =	773.00

Rate Analysis - 2080-81

Description of works:	Scarifying the existing road surface upto a depth of 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	Unit : Sq. m.
Spec. cl. No: 1003		
Unit Considered : 600 sq.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
10.2 A	Skilled	day	1.00	1200.00	1200.00					0.00	tractor with ripper	hr.	6.00	972.90	5837.40
	Unskilled	day	6.00	900.00	5400.00					0.00					0.00
										0.00					0.00
				Sub total of A =	6600.00				Sub total of B =	0.00				Sub total of C =	5837.40
				Sub total of A +B + C =	12437.40				Contractor's overhead expenses 15% =		1865.61			Unit Rate =	23.83

Description of works:	Scarifying the existing road surface upto a depth of 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	Unit : Cu. m.
Spec. cl. No: 1003		
Unit Considered : 600 sq.m (600*0.05 = 30 m3)	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
10.2 A	Skilled	day	1.00	1200.00	1200.00					0.00	tractor with ripper	hr.	6.00	972.90	5837.40
	Unskilled	day	6.00	900.00	5400.00					0.00					0.00
										0.00					0.00
				Sub total of A =	6600.00				Sub total of B =	0.00				Sub total of C =	5837.40
				Sub total of A +B + C =	12437.40				Contractor's overhead expenses 15% =		1865.61			Unit Rate =	476.76

Description of works:	Scarifying the existing bituminous road surface to a depth upof 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	Unit : Sq. m.
Spec. cl. No: 1003		
Unit Considered : 3000 sq.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
10.2 B	Skilled	day	1.00	1200.00	1200.00					0.00	tractor with ripper	hr.	6.00	972.90	5837.40
	Unskilled	day	6.00	900.00	5400.00					0.00	loader	hr.	6.00	2320.86	13925.16
										0.00	tipper	hr.	6.00	1361.89	8171.34
				Sub total of A =	6600.00				Sub total of B =	0.00				Sub total of C =	27933.90
				Sub total of A +B + C =	34533.90				Contractor's overhead expenses 15% =		5180.08			Unit Rate =	13.23

Rate Analysis - 2080-81

Description of works:	Scarifying the existing bituminous road surface to a depth upof 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	Unit : Cu. m.
Spec. cl. No: 1003		

Unit Considered : 3000 sq.m (3000*0.05 = 150 m3)

by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
10.2 B	Skilled	day	1.00	1200.00	1200.00					0.00	tractor with ripper	hr.	6.00	972.90	5837.40
	Unskilled	day	6.00	900.00	5400.00					0.00	loader	hr.	6.00	2320.86	13925.16
										0.00	tipper	hr.	6.00	1361.89	8171.34
					Sub total of A =	6600.00				Sub total of B =	0.00				Sub total of C =	27933.90
					Sub total of A +B + C =	34533.90				Contractor's overhead expenses 15% =	5180.08				Unit Rate =	264.75

Description of works:	Construction of subgrade by Providing and laying sub-grade and earthen shoulders with approved Material obtained from borrow pits with all lifts & leads as per Drawing and Technical Specifications. (Capping layer-with granular material)	Unit : Cu.m.
Spec. cl. No: 1004		

Unit Considered : 600 cu.m

by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
10.3	Skilled	day	1.00	1200.00	1200.00	water	kl	72.00	330.00	23760.00	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	6.00	900.00	5400.00	capping layer material	cum	750.00	550.00	412500.00	vibrator roller	hr.	6.00	1776.57	10659.42
										0.00					0.00
					Sub total of A =	6600.00				Sub total of B =	436260.00				Sub total of C =	28018.38
					Sub total of A +B + C =	470878.38				Contractor's overhead expenses 15% =	70631.75				Unit Rate =	902.51

Description of works:	Subgrade construction with loose untreated materials; preparation and formation of subgrade in fill areas all complete as per specification [SS 1003]*	Unit : Cu.m.
Spec. cl. No: 1003 & 1005		

Unit Considered : 600 cu.m

by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
10.3	Skilled	day	1.00	1200.00	1200.00	water	kl	72.00	330.00	23760.00	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	6.00	900.00	5400.00	capping layer material	cum	750.00	550.00	412500.00	vibrator roller	hr.	6.00	1776.57	10659.42
										0.00					0.00
					Sub total of A =	6600.00				Sub total of B =	436260.00				Sub total of C =	28018.38
					Sub total of A +B + C =	470878.38				Contractor's overhead expenses 15% =	70631.75				Unit Rate =	902.51

Description of works:	Compacting original ground supporting sub-grade Loosening of the ground upto a level of 500 mm below the sub-grade level, watered, graded and compacted in layers as per Drawing and Technical Specifications. (SS 1003 & 1005)	Unit : Cu.m.
Spec. cl. No: 1003,1005		

Unit Considered : 600 cu.m — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
10.4 Case-I	Skilled	day	1.00	1200.00	1200.00	water	kl	24.00	330.00	7920.00	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	5.00	900.00	4500.00					0.00	vibrator roller	hr.	12.00	1776.57	21318.84
										0.00	tractor with ripper	hr.	12.00	972.90	11674.80
				Sub total of A =	5700.00				Sub total of B =	7920.00				Sub total of C =	50352.60
				Sub total of A +B + C =	63972.60				Contractor's overhead expenses 15% =		9595.89			Unit Rate =	122.61

Description of works:	Loosening, leveling and Compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rolling so as to achieve dry density as per Drawing and Technical Specifications.	Unit : Cu.m.
Spec. cl. No: 1003,1005		

Unit Considered : 600 cu.m — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
10.4 Case-II	Skilled	day	1.00	1200.00	1200.00	water	kl	24.00	330.00	7920.00	tractor with ripper	hr.	6.00	972.90	5837.40
	Unskilled	day	4.00	900.00	3600.00					0.00	vibrator roller	hr.	12.00	1776.57	21318.84
										0.00					5837.40
				Sub total of A =	4800.00				Sub total of B =	7920.00				Sub total of C =	32993.64
				Sub total of A +B + C =	45713.64				Contractor's overhead expenses 15% =		6857.04			Unit Rate =	87.61

Description of works:	Providing and laying of hand pack Stone soling with 150 to 200 mm thick stones and packing with smaller stone on prepared surface as per Drawing and Technical Specifications.	Unit : Cu.m.
Spec. cl. No: 1003,1005		

Unit Considered : 5 cu.m — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
10.8	Skilled	day	6.00	1200.00	7200.00	stone	m3	6.00	2716.56	16299.36					0.00
	Unskilled	day	12.00	900.00	10800.00					0.00					0.00
										0.00					0.00
				Sub total of A =	18000.00				Sub total of B =	16299.36				Sub total of C =	0.00
				Sub total of A +B + C =	34299.36				Contractor's overhead expenses 15% =		5144.90			Unit Rate =	7888.85

Description of works:	Providing and laying granular sub-base on prepared surface, mixing at OMC, and compacting to achieve the desired density, complete as per Table 12.1 grading IV, Technical Specifications, etc all complete	Unit : Cu.m.
Spec. cl. No: 1201		
Unit Considered : 300 cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.1 A	Skilled	day	2.00	1200.00	2400.00	sub-base material	m3	384.00	2152.08	826398.72	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	12.00	900.00	10800.00	water	kl	18.00	330.00	5940.00	vibrator roller	hr.	12.00	1776.57	21318.84
										0.00	tractor	hr.	12.00	972.90	11674.80
					Sub total of A =	13200.00				Sub total of B =	832338.72			Sub total of C =	50352.60
					Sub total of A +B + C =	895891.32				Contractor's overhead expenses 15% =	134383.69			Unit Rate =	3434.25

Description of works:	Providing and laying Crusher Run sub-base on prepared surface, mixing at OMC, and compacting to achieve the desired density, complete as per Table 12.1 grading IV, Technical Specifications, etc all Complete	Unit : Cu.m.
Spec. cl. No: 1201		
Unit Considered : 300 cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.1 A	Skilled	day	2.00	1200.00	2400.00	sub-base material	m3	384.00	2363.76	907683.84	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	12.00	900.00	10800.00	water	kl	18.00	330.00	5940.00	vibrator roller	hr.	12.00	1776.57	21318.84
										0.00	tractor	hr.	12.00	972.90	11674.80
					Sub total of A =	13200.00				Sub total of B =	913623.84			Sub total of C =	50352.60
					Sub total of A +B + C =	977176.44				Contractor's overhead expenses 15% =	146576.46			Unit Rate =	3745.84

Description of works:	Providing, laying, spreading, watering, levelling and compaction of scarified base and subbase material to construct subbase grading as per table 12.1 of standard specification all completed as directed by engineer [SS 1201]	Unit : Cu.m.
Spec. cl. No: 1201		
Unit Considered : 300 cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.1 A	Skilled	day	2.00	1200.00	2400.00	sub-base material	m3	384.00		0.00	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	12.00	900.00	10800.00	water	kl	18.00	330.00	5940.00	vibrator roller	hr.	12.00	1776.57	21318.84
										0.00	tractor	hr.	12.00	972.90	11674.80
					Sub total of A =	13200.00				Sub total of B =	5940.00			Sub total of C =	50352.60
					Sub total of A +B + C =	69492.60				Contractor's overhead expenses 15% =	10423.89			Unit Rate =	266.38

Description of works: Providing, laying and spreading Cement Treated Crushed Rock having grading requirement as per specification for Base Material on a prepared

Spec. cl. No: 1202	Providing, laying and spreading Cement Treated Crushed Rock having grading requirement as per specification for Base Material on a prepared surface, adding the designed quantity of cement to the spread Material, grading and compacting at OMC to achieve the desired unconfined compressive strength and to form a layer of base as per Drawing and Technical Specifications.	Unit : Cu.m.
Unit Considered : 300 cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.3	Skilled	day	3.00	1200.00	3600.00	cement	mt	24.00	14000.00	336000.00	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	15.00	900.00	13500.00	Material for base as per grading required	cum	384.00	2751.84	1056706.56	vibrator roller	hr.	6.00	1776.57	10659.42
						water	kl	72.00	330.00	23760.00	tractor/loader	hr.	12.00	972.90	11674.80
										0.00					0.00
					Sub total of A =	17100.00				Sub total of B =	1416466.56				Sub total of C =	39693.18
					Sub total of A +B + C =	1473259.74				Contractor's overhead expenses 15% =	220988.96				Unit Rate =	5647.49

Description of works: Spec. cl. No: 1204	Providing and laying Crusher Run Macadam on a prepared surface, spreading and mixing , watering and compacting to form a layer of Base course as per 53 mm nominal size grading and TechnicalSpecifications.	Unit : Cu.m.
Unit Considered : 360 cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.7	Skilled	day	3.00	1200.00	3600.00	63 mm to 45 mm	m3	157.46	2963.52	466635.86	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	14.00	900.00	12600.00	22.5 mm to 5.6 mm	m3	151.06	3175.20	479645.71	vibrator roller	hr.	6.00	1776.57	10659.42
						below 5.6 mm	m3	166.68	2857.68	476318.10					0.00
						water	kl	36.00	330.00	11880.00					0.00
					Sub total of A =	16200.00				Sub total of B =	1434479.67				Sub total of C =	28018.38
					Sub total of A +B + C =	1478698.05				Contractor's overhead expenses 15% =	221804.70				Unit Rate =	4723.61

Description of works: Spec. cl. No: 1204	Providing and laying Crusher Run Macadam on a prepared surface, spreading and mixing , watering and compacting to form a layer of Base course as per 37.50 mm nominal size grading and TechnicalSpecifications, etc. all complete	Unit : Cu.m.
Unit Considered : 360 cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.7	Skilled	day	3.00	1200.00	3600.00	45 mm to 22.5 mm	m3	24.12	2963.52	71480.10	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	14.00	900.00	12600.00	22.4 mm to 5.6 mm	m3	237.60	3175.20	754427.52	vibrator roller	hr.	6.00	1776.57	10659.42
						below 5.6 mm	m3	213.48	2857.68	610057.53					0.00
						water	kl	36.00	330.00	11880.00					0.00
					Sub total of A =	16200.00				Sub total of B =	1447845.15				Sub total of C =	28018.38
					Sub total of A +B + C =	1492063.52				Contractor's overhead expenses 15% =	223809.52				Unit Rate =	4766.31

Description of works:	Providing and laying Crusher Run Macadam on a prepared surface, spreading and mixing , watering and compacting to form a layer of Sub-Base course 63 mm down size grading and TechnicalSpecifications.	Unit : Cu.m.
Spec. cl. No: 1204		
Unit Considered : 360 cu.m	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.7	Skilled	day	3.00	1200.00	3600.00	63 mm to 45 mm	m3	475.20	2363.76	1123258.75	grader	hr.	6.00	2893.16	17358.96
	Unskilled	day	14.00	900.00	12600.00	22.5 mm to 5.6 mm	m3			0.00	vibrator roller	hr.	6.00	1776.57	10659.42
						below 5.6 mm	m3			0.00					0.00
						water	kl	36.00	330.00	11880.00					0.00
					Sub total of A =	16200.00				Sub total of B =	1135138.75			Sub total of C =	28018.38
					Sub total of A +B + C =	1179357.13				Contractor's overhead expenses 15% =	176903.56			Unit Rate =	3767.39

Description of works:	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC laying in uniform layers in sub- base / base course on well prepared surface and compacting to achieve required density as per Drawing and Technical Specifications.Base course with B1 material	Unit : Cu.m.
Spec. cl. No: 1208		
Unit Considered : 225 cu.m (495 Tones)	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
12.14 (A)	Skilled	day	3.00	1200.00	3600.00	45 mm to 22.5 mm	m3	89.10	2963.52	264049.63	wet mix plant	hr.	9.00	1138.80	10249.20
	Unskilled	day	10.00	900.00	9000.00	22.4 mm to 2.36 mm	m3	118.80	3175.20	377213.76	Electric generator	hr.	6.00	840.56	5043.36
						2.36 mm to 75 micron	m3	89.10	2857.68	254619.29	Paver finisher	hr.	6.00	2351.14	14106.84
						water	kl	18.00	330.00	5940.00	Vibratory roller	hr.	6.00	1776.57	10659.42
					Sub total of A =	12600.00				Sub total of B =	901822.68			Sub total of C =	40058.82
					Sub total of A +B + C =	954481.50				Contractor's overhead expenses 15% =	143172.22			Unit Rate =	4878.46

Description of works:	Providing and applying prime coat with MC 30/70 of Hot Bitumen (including cutter) on prepared surface of granular base including cleaning of road surface and spraying (Spray Rate @ 0.90 per Sq.m) as per Technical Specification .	Unit : litre
Spec. cl. No: 1302		

Unit Considered : 5000 litre — by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
13.1 (A)	Skilled	day	3.00	1200.00	3600.00	bitumen (cutback MC-70)	tonne	5.25	115000.00	603750.00	mechnical broom	hr.	8.00	1375.88	11007.04
	Unskilled	day	50.00	900.00	45000.00	water	kl	10.00	330.00	3300.00	air compressor	hr.	8.00	1174.31	9394.48
										0.00	bitumen distributor	hr.	6.00	2655.10	15930.60
										0.00	boiler	hr.	8.00	950.23	7601.84
										0.00	generator	hr.	8.00	840.56	6724.48
					Sub total of A =	48600.00				Sub total of B =	607050.00				Sub total of C =	50658.44
					Sub total of A +B + C =	706308.44				Contractor's overhead expenses 15% =	105946.26				Unit Rate =	162.45

Description of works:	Providing and applying tack coat with hot Bitumen at specified rate on the prepared non-bituminous surfaces including cleaning as per Technical Speciation . (Spray Rate @ 0.50 per Sq.m)	Unit : litre
Spec. cl. No: 1302		

Unit Considered : 5000 litre — by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
13.2 A	Skilled	day	3.00	1200.00	3600.00	bitumen paving grade	tonne	5.25	115000.00	603750.00	air compressor	hr.	6.00	1174.31	7045.86
	Unskilled	day	20.00	900.00	18000.00	water	kl	10.00	330.00	3300.00	bitumen distributor	hr.	6.00	2655.10	15930.60
										0.00	boiler	hr.	6.00	950.23	5701.38
										0.00	generator	hr.	6.00	840.56	5043.36
										0.00					0.00
					Sub total of A =	21600.00				Sub total of B =	607050.00				Sub total of C =	33721.20
					Sub total of A +B + C =	662371.20				Contractor's overhead expenses 15% =	99355.68				Unit Rate =	152.34

Description of works:	Providing and laying dense bituminous macadam using crushed aggregates of specified grading, premixed with bituminous binder and filler as per Drawing and Technical Specifications.	Unit : cu.m
Spec. cl. No: 1308		

Unit Considered : 97.5 cu.m (225 tonne) by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
13.5	Skilled	day	5.00	1200.00	6000.00	bitumen paving grade	tonne	9.56	115000.00	1099400.00	Batch mix HMP @ 75 tonne per hour	hr.	6.00	28219.92	169319.52
	Unskilled	day	14.00	900.00	12600.00	Aggregate grading - I					Paver finisher	hr.	6.00	2351.14	14106.84
						37.5-25 mm	cum	31.60	2963.52	93647.23	generator	hr.	6.00	840.56	5043.36
						25-10 mm	cum	18.67	3175.20	59280.98	Pneumatic roller	hr.	6.00	2100.14	12600.84
						10-4.75 mm	cum	27.29	2998.80	81837.25	Vibratory roller	hr.	6.00	1776.57	10659.42
						4.75 mm and below	cum	63.20	2998.80	189524.16	smooth wheeled tandem roller	hr.	6.00	1073.68	6442.08
						filler-stone dust	tonne	4.31	914.67	3942.21					
					Sub total of A =	18600.00				Sub total of B =	1527631.84				Sub total of C =	218172.06
					Sub total of A +B + C =	1764403.90				Contractor's overhead expenses 15% =	264660.58				Unit Rate =	20810.91

Description of works:	Providing and laying Bituminous concrete/ Asphalt concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler as per Drawing and Technical Specifications.	Unit : cu.m
Spec. cl. No: 1309		

Unit Considered : 95.5 cu.m (225 tonne) by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
13.6	Skilled	day	5.00	1200.00	6000.00	bitumen paving grade	tonne	12.94	115000.00	1488100.00	Batch mix HMP @ 75 tonne per hour	hr.	6.00	28219.92	169319.52
	Unskilled	day	15.00	900.00	13500.00	Aggregate grading - II					Paver finisher	hr.	6.00	2351.14	14106.84
						13.2 - 10 mm	cum	42.41	3175.20	134660.23	generator	hr.	6.00	840.56	5043.36
						10 - 5 mm	cum	35.34	2998.80	105977.59	Pneumatic roller	hr.	6.00	2100.14	12600.84
						5 mm and below	cum	60.79	2857.68	173718.37	smooth wheeled tandem roller	hr.	12.00	1073.68	12884.16
						filler-stone dust	tonne	2.83	914.67	2588.51					
					Sub total of A =	19500.00				Sub total of B =	1905044.70				Sub total of C =	213954.72
					Sub total of A +B + C =	2138499.41				Contractor's overhead expenses 15% =	320774.91				Unit Rate =	25751.56

Description of works:	Providing and laying dense bituminous macadam (DBM) using crushed aggregates of (26.5 mm nominal aggregate size) specified grading, premixed with bituminous binder (VG 20) and filler as a cement 2 % weight of aggregate, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per SS clause No. 1308 etc. all complete in all respects.	Unit : cu.m
Spec. cl. No: 1308		

Unit Considered : 97.5 cu.m (225 tonne) by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
13.5	Skilled	day	5.00	1200.00	6000.00	bitumen paving grade	tonne	9.56	115000.00	1099400.00	Batch mix HMP @ 75 tonne per hour	hr.	6.00	28219.92	169319.52
	Unskilled	day	14.00	900.00	12600.00	Aggregate grading - I					Paver finisher hydrostatic with sensor control @ 75 cum per hour	hr.	6.00	2351.14	14106.84
						37.5-25 mm	cum	31.60	2963.52	93647.23	generator	hr.	6.00	840.56	5043.36
						25-10 mm	cum	18.67	3175.20	59280.98	Pneumatic roller	hr.	6.00	2100.14	12600.84
						10-4.75 mm	cum	27.29	2998.80	81837.25	Vibratory roller	hr.	6.00	1776.57	10659.42
						4.75 mm and below	cum	63.20	2998.80	189524.16	smooth wheeled tandem roller	hr.	6.00	1073.68	6442.08
						Cement	tonne	4.31	14000.00	60340.00					
					Sub total of A =	18600.00			Sub total of B =	1584029.63				Sub total of C =	218172.06
					Sub total of A +B + C =	1820801.68			Contractor's overhead expenses 15% =		273120.25			Unit Rate =	21476.12

Description of works:	Providing and laying Bituminous concrete/Asphalt concrete using crushed aggregates of (13 mm nominal size) specified grading, premixed with bituminous binder (VG 20) and filler as a cement 2 % weight of aggregate, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per SS clause No. 1309 etc all complete in all respects.	Unit : cu.m
Spec. cl. No: 1309		

Unit Considered : 95.5 cu.m (225 tonne) by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
13.6	Skilled	day	5.00	1200.00	6000.00	bitumen paving grade	tonne	12.94	115000.00	1488100.00	Batch mix HMP @ 75 tonne per hour	hr.	6.00	28219.92	169319.52
	Unskilled	day	15.00	900.00	13500.00	Aggregate grading - II					Paver finisher hydrostatic with sensor control @ 75 cum per hour	hr.	6.00	2351.14	14106.84
						13.2 - 10 mm	cum	42.41	3175.20	134660.23	generator	hr.	6.00	840.56	5043.36
						10 - 5 mm	cum	35.34	2998.80	105977.59	Pneumatic roller	hr.	6.00	2100.14	12600.84
						5 mm and below	cum	60.79	2857.68	173718.37	smooth wheeled tandem roller	hr.	12.00	1073.68	12884.16
						cement	tonne	2.83	35000.00	99050.00					

Rate Analysis - 2080-81

Sub total of A =	19500.00	Sub total of B =	2001506.19				Sub total of C =	213954.72
Sub total of A +B + C =	2234960.91	Contractor's overhead expenses 15% =		335244.13			**Unit Rate =**	**26913.14**

Description of works:	Providing and laying penetration macadam over prepared Base by providing a layer of compacted crushed coarse aggregate with applications of bituminous binder and key aggregates as per Drawing and Technical Specifications.Bituminous Penetration Macadam. A) 50 mm thick	Unit : cu.m
Spec. cl. No: 1304		

Unit Considered : 225 cu.m — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
13.4	Skilled	day	3.00	1200.00	3600.00	bitumen	tonne	15.30	115000.00	1759500.00	Chips Spreader (with truck)	hr.	6.00	1464.65	8787.90
	Unskilled	day	9.00	900.00	8100.00	Coarse aggregate ((45 - 2.8 mm)	cum	270.00	2963.52	800150.40	Bitumen Distributor	hr.	6.00	2655.10	15930.60
						Key aggregates (22.4 - 2.8 mm)	cum	67.50	3175.20	214326.00	Vibratory roller	hr.	6.00	1776.57	10659.42
				Sub total of A =	11700.00				Sub total of B =	2773976.40				Sub total of C =	35377.92
				Sub total of A +B + C =	2821054.32				Contractor's overhead expenses 15% =		423158.14			Unit Rate per Cu.m. =	14418.72
														Unit Rate per sq.m. =	720.93

Description of works:	Providing and laying open-graded premix carpet of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates as wearing course on a previously prepared base as per drawing and Technical Specifications .Technical Specifications. (13mm Nominal Size)	Unit : cu.m
Spec. cl. No: 1311		

Unit Considered : 80 cu.m (4000 sqm) — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
13.90	Skilled	day	5.00	1185.00	5925.00	bitumen paving grade	tonne	5.84	115000.00	671600.00	Hot mixed plant	hr.	6.00	28219.92	169319.52
	Unskilled	day	16.00	870.00	13920.00	Aggregate grading - II					Generator	hr.	6.00	840.56	5043.36
						13.2 - 5.6 mm	cum	108.00	3175.20	342921.60	Paver	hr.	6.00	2351.14	14106.84
											Smooth wheeled/ Tandem roller	hr.	6.00	1869.00	11214.00
				Sub total of A =	19845.00				Sub total of B =	1014521.60				Sub total of C =	199683.72
				Sub total of A +B + C =	1234050.32				Contractor's overhead expenses 15% =		185107.55			Unit Rate =	17739.47
														Unit Rate per sq.m. =	354.78

Description of works:	Providing and laying of M20 precast cement concrete Kerb 38 cm * 20 cm * 25 cm (H*B*L) with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material, all complete as per Drawing and Technical Specifications.	Unit : R.m.
Spec. cl. No: 1401		

Unit Considered : 400 R.m — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.1	Skilled	day	3.00	1200.00	3600.00	Precast / cast in situ concrete block of /20 Concrete (0.38 m *0.20 m * 0.25 m (H*B*L)	Rm	400.00	1190.64	476256.00	Kerb casting machine	hr.	6.00	1596.00	9576.00
	Unskilled	day	16.00	900.00	14400.00	sand	m3	1.20	3104.64	3725.57	Concrete mixer	hr.	12.00	293.06	3516.72
						cement	tonne	0.5200	14000.00	7280.00					0.00
						water	kl	0.2000	330.00	66.00					0.00
					Sub total of A =	18000.00				Sub total of B =	487327.57			Sub total of C =	13092.72
					Sub total of A +B + C =	518420.28				Contractor's overhead expenses 15% =	77763.04			Unit Rate =	1490.45

Description of works:	Providing and laying of M25 precast cement concrete Kerb 38 cm * 20 cm * 25 cm (H*B*L) with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material, all complete as per Drawing and Technical Specifications.	Unit : R.m.
Spec. cl. No: 1401		

Unit Considered : 400 R.m — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.1	Skilled	day	3.00	1200.00	3600.00	Precast / cast in situ concrete block of /20 Concrete (0.38 m *0.20 m * 0.25 m (H*B*L)	Rm	400.00	1682.64	673056.00	Kerb casting machine	hr.	6.00	1596.00	9576.00
	Unskilled	day	16.00	900.00	14400.00	sand	m3	1.20	3104.64	3725.57	Concrete mixer	hr.	12.00	293.06	3516.72
						cement	tonne	0.5200	14000.00	7280.00					0.00
						water	kl	0.2000	330.00	66.00					0.00
					Sub total of A =	18000.00				Sub total of B =	684127.57			Sub total of C =	13092.72
					Sub total of A +B + C =	715220.28				Contractor's overhead expenses 15% =	107283.04			Unit Rate =	2056.25

Description of works:	Providing and laying of M20 precast cement concrete median Kerb (45 cm*20 cm Avg.)with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material, all complete as per Drawing and Technical Specifications.	Unit : R.m.
Spec. cl. No: 1401		

Unit Considered : 400 R.m | by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.1	Skilled	day	3.00	1200.00	3600.00	Precast / cast in situ concrete block of /20 Concrete (0.45 m *0.20 m m (H*B)	m3	33.48	11892.45	398159.30	Kerb casting machine	hr.	6.00	1596.00	9576.00
	Unskilled	day	16.00	900.00	14400.00	sand	m3	1.20	3104.64	3725.57	Concrete mixer	hr.	12.00	293.06	3516.72
						cement	tonne	0.52	14000.00	7280.00					0.00
						water	kl	0.20	330.00	66.00					0.00
					Sub total of A =	18000.00				Sub total of B =	409230.87			Sub total of C =	13092.72
					Sub total of A +B + C =	440323.58				Contractor's overhead expenses 15% =	66048.53			Unit Rate =	1265.93

Description of works:	Providing and laying of M25 precast cement concrete Kerb 35 cm * 20 cm * 30 cm (H*B*L) with 12 mm thick 1:3 cement sand mortar bedding and joints including foundation excavation levelling but excluding foundation concrete for foundation or sand gravel material, all complete as per Drawing and Technical Specifications.	Unit : R.m.
Spec. cl. No: 1401		

Unit Considered : 400 R.m | by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.1	Skilled	day	3.00	1200.00	3600.00	Precast / cast in situ concrete block of /20 Concrete (0.35 m *0.20 m * 0.30 m (H*B*L)	Rm	400.00	1315.28	526112.00	Kerb casting machine	hr.	6.00	1596.00	9576.00
	Unskilled	day	16.00	900.00	14400.00	sand	m3	1.20	3104.64	3725.57	Concrete mixer	hr.	12.00	293.06	3516.72
						cement	tonne	0.52	14000.00	7280.00					0.00
						water	kl	0.20	330.00	66.00					0.00
					Sub total of A =	18000.00				Sub total of B =	537183.57			Sub total of C =	13092.72
					Sub total of A +B + C =	568276.28				Contractor's overhead expenses 15% =	85241.44			Unit Rate =	1633.79

Description of works:	Tactile block for footpath; Providing and laying Tactile Matrix Slab (Single Color) with Compressive Strength M35 or Above. 40mm thickness dimension: 400mmx400mmx40mm all complete as per specification.	Unit : Sq.m
Spec. cl. No: 1401		

Unit Considered : 20 sq.m. by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
14.2	Skilled	day	1.50	1200.00	1800.00	Tactile block	sqm	20.00	1507.00	30140.00					0.00
	Unskilled	day	4.00	900.00	3600.00	stone dust	m3	1.40	1235.85	1730.19					0.00
										0.00					0.00
				Sub total of A =	5400.00				Sub total of B =	31870.19				Sub total of C =	0.00
				Sub total of A +B + C =	37270.19				Contractor's overhead expenses 15% =		5590.52			Unit Rate =	2143.03

Description of works:	Providing and Laying of 60mm thick cement concrete M20 intrlocking block (Grey colour) for footpath over 50 mm thick stone dust, all complete(1401)	Unit : Sq.m
Spec. cl. No: 1401		

Unit Considered : 10 sq.m. by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
14.2	Skilled	day	1.50	1200.00	1800.00	60 mm thick interlocking block	sqm	11.00	569.75	6267.25					0.00
	Unskilled	day	4.00	900.00	3600.00	stone dust	m2	0.55	74.15	40.78					0.00
						stone dust	m3	0.71	1235.85	877.45					
															0.00
				Sub total of A =	5400.00				Sub total of B =	7185.49				Sub total of C =	0.00
				Sub total of A +B + C =	12585.48				Contractor's overhead expenses 15% =		1887.82			Unit Rate =	1447.33

Description of works:	Providing and Laying of 60mm thick cement concrete M35 Hexagonal intrlocking block (Grey colour) for footpath over 50 mm thick stone dust, etc. all complete(1401)	Unit : Sq.m
Spec. cl. No: 1401		

Unit Considered : 10 sq.m. by Mechanical Means .

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
14.2	Skilled	day	1.50	1200.00	1800.00	60 mm thick interlocking block	sqm	11.00	1490.00	16390.00					0.00
	Unskilled	day	4.00	900.00	3600.00	stone dust	m2	0.55	74.15	40.78					0.00
						stone dust	m3	0.71	1235.85	877.45					
															0.00
				Sub total of A =	5400.00				Sub total of B =	17308.24				Sub total of C =	0.00
				Sub total of A +B + C =	22708.23				Contractor's overhead expenses 15% =		3406.23			Unit Rate =	2611.44

Description of works:	Providing and Laying of 60mm thick cement concrete M35 Hexagonal intrlocking block (Multi colour) for footpath over 50 mm thick stone dust, etc. all complete(1401)	Unit : Sq.m
Spec. cl. No: 1401		
Unit Considered : 10 sq.m.	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.2	Skilled	day	1.50	1200.00	1800.00	60 mm thick interlocking block	sqm	11.00	1572.00	17292.00					0.00
	Unskilled	day	4.00	900.00	3600.00	stone dust	m2	0.55	74.15	40.78					0.00
						stone dust	m3	0.71	1235.85	877.45					
						Water	kl	0.02	330.00	6.60					0.00
					Sub total of A =	5400.00	Sub total of B =			18216.84	Sub total of C =				0.00
					Sub total of A +B + C =	23616.83	Contractor's overhead expenses 15% =				3542.52	Unit Rate =			2715.93

Description of works:	Providing and Laying of 60mm thick cement concrete M35 Rectangular intrlocking block (Grey colour) for footpath over 50 mm thick stone dust, etc. all complete(1401)	Unit : Sq.m
Spec. cl. No: 1401		
Unit Considered : 10 sq.m.	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.2	Skilled	day	1.50	1200.00	1800.00	60 mm thick interlocking block	sqm	11.00	1784.00	19624.00					0.00
	Unskilled	day	4.00	900.00	3600.00	stone dust	m2	0.55	74.15	40.78					0.00
						stone dust	m3	0.71	1235.85	877.45					
						Water	kl	0.02	330.00	6.60					0.00
					Sub total of A =	5400.00	Sub total of B =			20548.84	Sub total of C =				0.00
					Sub total of A +B + C =	25948.83	Contractor's overhead expenses 15% =				3892.32	Unit Rate =			2984.11

Description of works:	Providing and Laying of 60mm thick cement concrete M35 Rectangular intrlocking block (Multi colour) for footpath over 50 mm thick stone dust, etc. all complete(1401)	Unit : Sq.m
Spec. cl. No: 1401		
Unit Considered : 10 sq.m.	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.2	Skilled	day	1.50	1200.00	1800.00	60 mm thick interlocking block	sqm	11.00	2814.00	30954.00					0.00
	Unskilled	day	4.00	900.00	3600.00	stone dust	m2	0.55	74.15	40.78					0.00
						stone dust	m3	0.71	1235.85	877.45					
															0.00
					Sub total of A =	5400.00				Sub total of B =	31872.24			Sub total of C =	0.00
					Sub total of A +B + C =	37272.23				Contractor's overhead expenses 15% =	5590.83			Unit Rate =	4286.30

Description of works:	Providing and laying flat brick over 60 mm thick sand bed in footpath including excavation sand bedding all complete as per specification.	Unit : Sq.m
Spec. cl. No: 1403		
Unit Considered : 20 sq.m.		

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
14.5 B	Skilled	day	1.50	1200.00	1800.00	brick	nos	750.00	15.43	11571.75					0.00
	Unskilled	day	4.00	900.00	3600.00	sand	m3		3104.64	0.00					0.00
					Sub total of A =	5400.00				Sub total of B =	11571.75			Sub total of C =	0.00
					Sub total of A +B + C =	16971.75				Contractor's overhead expenses 15% =	2545.76			Unit Rate =	975.87

Description of works:	Providing and fixing 60cm. Dia. Circular, 60cm. equilateral traingle and 80cm.x 60cm. rectangular shaped sign (single post) of warning, mandatory and informatory sign board of 2 mm thick MS Sheet with back support angle 50 x 50 x 6 mm frame fixed on 50 mm heavy grade steel tube firmly fixed to the ground by means of properly designed foundation with M 20 grade cement concrete 300 mm x 300 mm x 300 mm, I as per drawings and Technical Specification/ DOR Publication..	Unit : No.
Spec. cl. No: 1501		

Unit Considered : 4 no.

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
15.1	Skilled	day	1.00	1200.00	1200.00	E/W for foundation	m3	0.21	840.00	176.40	tractor-trolley	hr.	3.00	972.90	2918.70
	Unskilled	day	2.00	900.00	1800.00	M20 concrete	m3	0.11	11892.45	1308.17					
						Enamel paint	sq.m	3.51	208.59	732.15					
						Heavy duty steel tube of internal dia 50 mm (6.19 kg/m), 3 m long including 5 % wastage	rm	12.60	573.81	7230.01					
						Angle iron 50 x 50 x 6 mm for hold fast including 5% wastage	kg	4.24	93.00	394.32					
						Add 2 per cent of cost of angle iron/ steel tube towards cost of drilling holes, nuts, bolts etc.				152.48					
						Steel plate	sq.m	1.31	2527.70	3302.86					
					Sub total of A =	3000.00				Sub total of B =	13296.39			Sub total of C =	2918.70
					Sub total of A +B + C =	19215.08				Contractor's overhead expenses 15% =	2882.26			Unit Rate =	5524.33

Description of works:	Providing and Painting two coats after filling the surface with synthetic enamel paint after filling the surface with primer in all shades on concrete / plaster surfaces etc all completeas per Drawing and Technical Specifications.	Unit : m2
Spec. cl. No: 1501		

Unit Considered : 10 m2

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
15.4	Skilled	day	3.00	1200.00	3600.00	enamel paint	lit	6.00	542.00	3252.00	Add @ 5 per cent cost of Labour and Materials to prepare the surface by filling minutes roughness on the surface and priming the surface before laying 2 coats of painting.				432.60
	Unskilled	day	2.00	900.00	1800.00					0.00					
										0.00					
										0.00					
					Sub total of A =	5400.00				Sub total of B =	3252.00			Sub total of C =	432.60
					Sub total of A +B + C =	9084.60				Contractor's overhead expenses 15% =	1362.69			Unit Rate =	1044.72

Description of works:	Providing and applying two coats of ready mix paint enamel on steel surface with priming, after through cleaning of surface to give an even shade as per Drawing and Technical Specifications.	Unit : m2
Spec. cl. No: 1501		

Unit Considered : 20 m2

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
15.5	Skilled	day	1.00	1200.00	1200.00	enamel paint	lit	2.50	542.00	1355.00	Add @ 5 per cent cost of Labour and Materials to prepare the surface by filling minutes roughness on the surface and priming the surface before laying 2 coats of painting.				172.75
	Unskilled	day	1.00	900.00	900.00					0.00					
										0.00					
										0.00					
				Sub total of A =	2100.00				Sub total of B =	1355.00				Sub total of C =	172.75
				Sub total of A +B + C =	3627.75				Contractor's overhead expenses 15% =		544.16			Unit Rate =	208.59

Description of works:	Providing and applying two coats of ready mix enamel paint of approved brand on wood surface with priming after thorough cleaning of surface to give an even shade as per Drawing and Technical Specifications.	Unit : m2
Spec. cl. No: 1509		

Unit Considered : 15 m2

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
15.6	Skilled	day	1.00	1200.00	1200.00	enamel paint	lit	2.25	542.00	1219.50	Add @ 5 per cent cost of Labour and Materials to prepare the surface by filling minutes roughness on the surface and priming the surface before laying 2 coats of painting.				165.97
	Unskilled	day	1.00	900.00	900.00					0.00					
										0.00					
										0.00					
				Sub total of A =	2100.00				Sub total of B =	1219.50				Sub total of C =	165.97
				Sub total of A +B + C =	3485.47				Contractor's overhead expenses 15% =		522.82			Unit Rate =	200.41

Description of works:	Providing and laying of hot applied thermoplastic (paint) compound On smooth surface (similar to Asphalt concrete and rigid pavement) at least 2 mm thick including reflectorizing glass beads as per DOR Traffic sign manual/ Specifications .The finished surface to be level, uniform and free from streaks and holes.	Unit : m2
Spec. cl. No: 1504		

Unit Considered : 400 m2

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
15.9 i	Skilled	day	2.00	1200.00	2400.00	Hot applied thermoplastic compound	lit	930.00	296.00	275280.00	road marking machine	hr.	10.00	288.96	2889.60
	Unskilled	day	4.00	900.00	3600.00	Reflectorizing glass beads	kg	100.00	168.00	16800.00	tractor-trolley	hr.	10.00	972.90	9729.00
										0.00					
										0.00					
					Sub total of A =	6000.00				Sub total of B =	292080.00			Sub total of C =	12618.60
					Sub total of A +B + C =	310698.60				Contractor's overhead expenses 15% =	46604.79			Unit Rate =	893.25

Description of works:	Providing and laying of hot applied thermoplastic (paint) compound On rough surface (similar to surface dressing) at least 2 mm thick including reflectorizing glass beads as per DOR Traffic sign manual/ Specifications .The finished surface to be level, uniform and free from streaks and holes.	Unit : m2
Spec. cl. No: 1504		

Unit Considered : 300 m2

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
15.9 i	Skilled	day	2.00	1200.00	2400.00	Hot applied thermoplastic compound	lit	1200.00	296.00	355200.00	road marking machine	hr.	10.00	288.96	2889.60
	Unskilled	day	4.00	900.00	3600.00	Reflectorizing glass beads	kg	150.00	168.00	25200.00	tractor-trolley	hr.	10.00	972.90	9729.00
										0.00					
										0.00					
					Sub total of A =	6000.00				Sub total of B =	380400.00			Sub total of C =	12618.60
					Sub total of A +B + C =	399018.60				Contractor's overhead expenses 15% =	59852.79			Unit Rate =	1529.57

Description of works:	Supplying and placing Standard R.C.C. Kilometer post placed at each kilometer (concrete M15/40) including excavation, back filling, painting and writing etc. all complete as per design, drawing and specification. [SS 1506]*	Unit : No.
Spec. cl. No: 1501		
Unit Considered : 6 no.		

Labour (A)

Norms No.	Type	Unit	Qty.	Rate	Amount
15.11 (i)	Skilled	day	1.00	1200.00	1200.00
	Unskilled	day	6.00	900.00	5400.00
				Sub total of A =	6600.00
				Sub total of A +B + C =	54934.40

Material (B)

Type	Unit	Qty.	Rate	Amount
M20 concrete	m3	1.20	11947.59	14337.11
M10 concrete	m3	1.20	9261.70	11114.03
reinforcement	kg	63.60	122.65	7800.41
E/W in foundation	m3	1.20	840.00	1008.00
Painting	sq.m	10.20	1044.72	10656.14
Lettering on Km post	Ls	1.00	500.00	500.00
			Sub total of B =	45415.70

Equipment (C)

Type	Unit	Qty.	Rate	Amount
tractor-trolley	hr.	3.00	972.90	2918.70
			Sub total of C =	2918.70
			Contractor's overhead expenses 15% =	8240.16
			Unit Rate =	10529.09

Description of works:	Supplying and placing Bigger (placed at each 5 km.) R.C.C. kilometer post (concrete M20/20) including excavation, back filling, painting and writing etc. all complete as per design, drawing and specification. [SS 1506]*	Unit : No.
Spec. cl. No: 1501		
Unit Considered : 6 no.		

Labour (A)

Norms No.	Type	Unit	Qty.	Rate	Amount
15.11 (ii)	Skilled	day	2.00	1200.00	2400.00
	Unskilled	day	7.00	900.00	6300.00
				Sub total of A =	8700.00
				Sub total of A +B + C =	75484.59

Material (B)

Type	Unit	Qty.	Rate	Amount
M20 concrete	m3	1.40	11947.59	16726.63
M10 concrete	m3	2.38	9261.70	22042.84
reinforcement	kg	82.88	122.65	10165.07
E/W in foundation	m3	2.38	840.00	1999.20
Painting	sq.m	11.90	1044.72	12432.17
Lettering on Km post	Ls	1.00	500.00	500.00
			Sub total of B =	63865.90

Equipment (C)

Type	Unit	Qty.	Rate	Amount
tractor-trolley	hr.	3.00	972.90	2918.70
			Sub total of C =	2918.70
			Contractor's overhead expenses 15% =	11322.68
			Unit Rate =	14467.87

Rate Analysis - 2080-81

Description of works:	Providing and installation of 150 mm * 150 mm 1. 5 m (M20 grade concrete) long delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 20 cm wide strips, buried or pressed into the ground and conforming to the drawings and Technical Specifications.	Unit : No.
Spec. cl. No: 1507		

Unit Considered : 30 no.

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
15.12	Skilled	day	1.00	1200.00	1200.00	M20 concrete	m3	1.01	11947.59	12067.07	tractor-trolley	hr.	3.00	972.90	2918.70
	Unskilled	day	7.00	900.00	6300.00	reinforcement	kg	112.80	122.65	13834.69					
						E/W in foundation	m3	0.47	840.00	394.80					
						Painting	sq.m	14.40	1044.72	15043.97					
										0.00					
										0.00					
					Sub total of A =	7500.00				Sub total of B =	41340.53			Sub total of C =	2918.70
					Sub total of A +B + C =	51759.22				Contractor's overhead expenses 15% =	7763.88			Unit Rate =	1984.10

Description of works:	Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m center to center, 1.8 m high, 1.1 m below ground/road level metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per Drawing and Technical Specifications.	Unit : Rm.
Spec. cl. No: 1507		

Unit Considered : 40 m

Norms No.	Labour (A) Type	Unit	Qty.	Rate	Amount	Material (B) Type	Unit	Qty.	Rate	Amount	Equipment (C) Type	Unit	Qty.	Rate	Amount
15.14 A	Skilled	day	1.00	1200.00	1200.00	Hot dip galvanized Corrugated W beam sheet 3 mm thick	kg	563.61	96.00	54106.56	tractor-trolley	hr.	3.00	972.90	2918.70
	Unskilled	day	10.00	900.00	9000.00	Hot dip galvanized Channel post 150 x 75 x 5 mm,	kg	695.52	96.00	66769.92					
						Hot dip galvanized Spacer Channel 150 x 75 x 5 mm	kg	127.51	96.00	12240.96					
						M 20 grade concrete	m3	0.99	11947.59	11828.12					
						E/W excavation for post	m3	0.99	840.00	831.60					
						Add 25 per cent of the cost of Material for fabrication, nuts, bolts and washers etc.)				36444.28					
					Sub total of A =	10200.00				Sub total of B =	182221.44			Sub total of C =	2918.70
					Sub total of A +B + C =	195340.13				Contractor's overhead expenses 15% =	29301.01			Unit Rate =	5616.02

Rate Analysis - 2080-81

Description of works:	Providing and fixing Solar powered LED Street Lighting Systems automatically switched on and off including excavation, fixing in position and concreting (M25 - 1.00m*0.50m*0.50m) etc. all complete as per specification and drawing in median and tapered portion of intersection etc all complete as per specification. (Specification :- Twin Arm circular type - 30 Watt X 2, Luminous Efficiency at least 100 Lumen/watt , Operational hour 12, Back up time 12 hrs, Battery bank 12 volt 2 X 75 AH SOLAR TUBULAR OR GEL, Working Temperature & Humidity -5 to +55 degree Celcius to 85% RH, Pole Height 7m (4 inch dia - 4.5m length + 3 inch dia - 2.5m length) Galvanized pole at least 75 kg weight of per pole, Minimum guarentee period 10 years in solar panals and 2 years in battery and electronics). All the specification should be fulfilled and satisfied by the manufacturer and is the responsibility of the contractor - should submit for approval prior to the supply and Installation of solar light.	Unit : nos

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
Ref : Norms 15.16	Skilled	md	1.00	1200	1200.00	30 Watt bulb with 7m height pole double arm	Nos	1.000	114904.00	114904.00					
	Unskilled	md	1.00	900	900	E/W Excavation	Cum	0.125	840.00	105.00					
						M15/40 Concrete	Cum	0.125	13732.74	1716.59					
									Sub total of B =	116725.59				Sub total of C =	0.00
					Sub total of A =	2100.00									
					Sub total of A +B + C =	118825.59				Contractor's overhead expenses 15% =	17823.84			Unit Rate =	136649.43

Description of works:	Providing and fixing Street Lighting Systems automatically switched on and off and auto dimming opetion, including excavation, fixing in position and concreting (including M25/20 concrete,reinforcement as schedule - 1.40m*0.50m*0.50m as per drawing) etc. all complete as per specification and drawing in median,footpath and tapered portion of intersection etc all complete as per specification. (Specification :- 1.8 meter overhang Twin Arm if fixed in the medain and on one side if fixed on the footpath, 2 X 100 Watt LED AC Street light with auto on-off switch and auto dimming option system, heavy octagonal conical Pole of Height 10 meter, no. of side-8, Top dia.-90 mm, base dia.-200 mm,wall thickness minimum-3 mm,Base plate of (300*300*20 mm), anchor of base plate with 24 mm. dia bolt of 750 mm length, door length (opening)-500mm, Galvanized pole with all electrical accessories fittings system etc. all complete). All the specification should be fulfilled and satisfied by the manufacturer and is the responsibility of the contractor - should submit for approval prior to the supply and Installation of street light all complete as per specification and as directed by the Engineer.	Unit : no
unit consider : 1 No.		

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
Ref : Norms 15.16	Skilled	md	1.00	1200.00	1200.00	100 Watt Led bulb with accessories	no	2.000	16000.00	32000.00					
	Unskilled	md	1.00	900.00	900.00	E/W Excavation	Cum	0.320	840.00	268.80					
						M25/20 Concrete	Cum	0.350	13732.74	4806.46					
						reinforcement	mt	0.020	141045.20	2820.90					
						tubler pole, 10 mtr	no	1.000	18170.00	18170.00					
									Sub total of B =	58066.16				Sub total of C =	0.00
					Sub total of A =	2100.00									
					Sub total of A +B + C =	60166.16				Contractor's overhead expenses 15% =	9024.92			Unit Rate =	69191.09

L B H Q

Description of works:	Supply and installation of 11/0.4, 50 KVA three phase transformer including dropout fuse set, lighting arrestor,earthing set cable logs, channels, pole clamp, angle bracing, switching system for street light,stay set, stay insulator, nut bolts including all necessary ancillaries as directed by engineer.	Unit : No.

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount

Rate Analysis - 2080-81

1	Supervisor	md	10	1000	10000	Transformer	no	1	373000	373000					
2	Lineman	md	2.0000	1000.00	2000	dropout fuse set	set	1.00	5000.00	5000					
3	Helper	md	2.0000	550.00	1100	Lighting arrestor	set	1.00	6325.00	6325					
4	Labour	md	10.0000	900.00	9000	earthing set	no	1.00	2800.00	2800					
						earthing wire	set	1.00	1800.00	1800					
						cable logs	no	1.00	350.00	350					
						Stay insulators	no	1.00	91.02	91.02					
						disconnecting switch	set	1.00	24500.00	24500					
									Sub total of B =	413866.02				Sub total of C =	0.00
					Sub total of A =	22100.00								Rate =	501360.92
					Sub total of A +B + C =	435966.02				Contractor's overhead expenses 15% =	65394.90				

Description of works:	Supply and installation of 11m P.S.c Pole etc, all complete as per standard specification.														Unit : no
	Labour (A)					Material (B)					Equipment (C)				
Norms No.	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
1	supervisor	md	0.5000	1000.00	500.00	11m psc pole	nos.	1.00	16500.00	16500.00	Tools and plants	%	3.00		907.50
2	line man	md	2.0000	1000.00	2000.00										
3	Labour	md	12.5000	900.00	11250.00										
				Sub total of A =	13750.00				Sub total of B =	16500.00				Sub total of C =	907.50
				Sub total of A +B + C =	31157.50				Contractor's overhead expenses 15% =		4673.62			Rate =	35831.12

Description of works:	Supply and installation of 6 Sq. mm Copper conductor Armoured power cable for street light, underground (minimum depth 60 cm. below the earth surface) in 6 kg/cm2 HDP 50 mm. dia pipe, including all required accessories, ancillaries etc all complete as directed by engineer.														meter
for length 1 Rm															
	Labour (A)					Material (B)					Equipment (C)				
Norms No.	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
1	Lineman	md	0.0093	1000.00	9.28	6 sq. mm copper conductor armoured cable 2 core	m	1.00	247.00	247.00	Tools and plants	%	3.00		13.89
2	Labour	md	0.0448	900.00	40.32	E/W for trench	m3	0.18	62.00	11.16					
						HDP Pipe	r.m	1.000	155.55	155.55					
				Sub total of A =	49.60				Sub total of B =	413.71				Sub total of C =	13.89
				Sub total of A +B + C =	477.20				Contractor's overhead expenses 15% =		71.58			Rate =	548.78

Description of works:	Providing and laying of Plain Cement Concrete M 10 (or1:3:6 for nominal mix) in Foundation complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		

Unit Considered : 15 cum — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.1	Skilled	day	2.00	1200.00	2400.00	40 mm aggregate	m3	13.50	2963.52	40007.52	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	22.00	900.00	19800.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
						cement	tonne	3.45	14000.00	48300.00					
						water	kl	2.00	330.00	660.00					
					Sub total of A =	22200.00				Sub total of B =	109923.84			Sub total of C =	6801.72
					Sub total of A +B + C =	138925.56				Contractor's overhead expenses 15% =	20838.83			Unit Rate =	10650.95

Description of works:	Providing and laying of Plain Cement Concrete grade M15 in Foundation including formwork etc. all complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		

Unit Considered : 15 cum — by Mechanical Means .

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.2 A	Skilled	day	3.00	1200.00	3600.00	cement	tonne	4.13	14000.00	57820.00	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	30.00	900.00	27000.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
						40 mm aggregate	m3	8.10	2963.52	24004.51					
						20 mm aggregate	m3	4.05	2963.52	12002.26					
						10 mm aggregate	m3	1.35	2998.80	4048.38					
						water	kl	2.00	330.00	660.00					
					Sub total of A =	30600.00				Sub total of B =	119491.47			Sub total of C =	6801.72
					Sub total of A +B + C =	156893.18	Formwork @ 4 % on cost of concrete i.e. cost of material,labour,and equipment (D)=		6275.72	Sub total (A+B+C+D) =	163168.90	Contractor's overhead expenses 15% =		24475.33	Unit Rate =	12509.61

Description of works:	Providing and laying of Plain Cement Concrete (PCC) grade M20 in Foundation/sub-structure including formwork etc. all complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		
Unit Considered : 15 cum	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.2 C	Skilled	day	3.00	1200.00	3600.00	cement	tonne	5.16	14000.00	72240.00	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	30.00	900.00	27000.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
						40 mm aggregate	m3	5.40	2963.52	16003.01					
						20 mm aggregate	m3	5.40	2963.52	16003.01					
						10 mm aggregate	m3	2.70	2998.80	8096.76					
						water	kl	2.50	330.00	825.00					
					Sub total of A =	30600.00				Sub total of B =	134124.10				Sub total of C =	6801.72
					Sub total of A +B + C =	171525.81	Formwork @ 4 % on cost of concrete i.e. cost of material,labour,and		6861.03	Sub total (A+B+C+D) =	178386.84	Contractor's overhead expenses 15% =		26758.02	Unit Rate =	13676.32

Description of works:	Providing and laying of Reinforced Cement Concrete (RCC) grade M20 in Foundation/sub-structure including formwork etc. all complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		
Unit Considered : 15 cum	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.2 C	Skilled	day	3.00	1200.00	3600.00	cement	tonne	5.21	14000.00	72940.00	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	30.00	900.00	27000.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
										0.00					
						20 mm aggregate	m3	8.10	2963.52	24004.51					
						10 mm aggregate	m3	5.40	2998.80	16193.52					
						water	kl	2.50	330.00	825.00					
					Sub total of A =	30600.00				Sub total of B =	134919.35				Sub total of C =	6801.72
					Sub total of A +B + C =	172321.07	Formwork @ 4 % on cost of concrete i.e. cost of material,labour,and		6892.84	Sub total (A+B+C+D) =	179213.91	Contractor's overhead expenses 15% =		26882.08	Unit Rate =	13739.73

Description of works:	Providing and laying of Plain Cement Concrete (PCC) grade M25 in Foundation/sub-structure including formwork,admixture etc. all complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		
Unit Considered : 15 cum	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.2 D	Skilled	day	3.00	1200.00	3600.00	cement	tonne	5.99	14000.00	83860.00	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	30.00	900.00	27000.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
						40 mm aggregate	m3	5.40	2963.52	16003.01					
						20 mm aggregate	m3	5.40	2963.52	16003.01					
						10 mm aggregate	m3	2.70	2998.80	8096.76					
						water	kl	3.00	330.00	990.00					
						admixture @ 0.4 % of cement	kg	23.96	351.00	8409.96					
					Sub total of A =	30600.00				Sub total of B =	154319.06				Sub total of C =	6801.72
					Sub total of A +B + C =	191720.77	Formwork @ 3.75 % on cost of concrete i.e. cost of		7189.52	Sub total (A+B+C+D) =	198910.29	Contractor's overhead expenses 15% =		29836.54	Unit Rate =	15249.78

Description of works:	Providing and laying of Reinforced Cement Concrete (RCC) grade M25 in Foundation/sub-structure including formwork,admixture etc. all complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		
Unit Considered : 15 cum	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.2 E	Skilled	day	3.00	1200.00	3600.00	cement	tonne	6.05	14000.00	84700.00	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	30.00	900.00	27000.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
										0.00					
						20 mm aggregate	m3	8.10	2963.52	24004.51					
						10 mm aggregate	m3	5.40	2998.80	16193.52					
						water	kl	3.00	330.00	990.00					
						admixture @ 0.4 % of cement	kg	24.20	351.00	8494.20					
					Sub total of A =	30600.00				Sub total of B =	155338.55				Sub total of C =	6801.72
					Sub total of A +B + C =	192740.27	Formwork @ 3.75 for foundation % & 10 % for sub-structuer upto height 5m. (Average 6.875 % adopted)on cost of concrete i.e. cost of material,labour,and equipment (D)=		13250.89	Sub total (A+B+C+D) =	205991.16	Contractor's overhead expenses 15% =		30898.67	Unit Rate =	15792.65

Description of works:	Providing and laying of Plain Cement Concrete (PCC) grade M30 in Foundation/sub-structure including formwork,admixture etc. all complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		
Unit Considered : 15 cum	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.2 F	Skilled	day	3.00	1200.00	3600.00	cement	tonne	6.08	14000.00	85120.00	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	30.00	900.00	27000.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
						40 mm aggregate	m3	5.40	2963.52	16003.01					
						20 mm aggregate	m3	5.40	2963.52	16003.01					
						10 mm aggregate	m3	2.70	2998.80	8096.76					
						water	kl	3.00	330.00	990.00					
						admixture @ 0.4 % of cement	kg	24.32	351.00	8536.32					
					Sub total of A =	30600.00				Sub total of B =	155705.42			Sub total of C =	6801.72
					Sub total of A +B + C =	193107.13	Formwork @ 3.5 % on cost of concrete i.e. cost of		6758.74	Sub total (A+B+C+D) =	199865.87	Contractor's overhead expenses 15% =		29979.88	Unit Rate =	15323.05

Description of works:	Providing and laying of Reinforced Cement Concrete (RCC) grade M30 in Foundation/sub-structure including formwork,admixture etc. all complete as per Drawing and Technical Specifications.	Unit : Cum.
Spec. cl. No: 2000		
Unit Considered : 15 cum	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.2 G	Skilled	day	3.00	1200.00	3600.00	cement	tonne	6.10	14000.00	85400.00	Concrete mixer	hr.	6.00	293.06	1758.36
	Unskilled	day	30.00	900.00	27000.00	sand	m3	6.75	3104.64	20956.32	generator	hr.	6.00	840.56	5043.36
										0.00					
						20 mm aggregate	m3	8.10	2963.52	24004.51					
						10 mm aggregate	m3	5.40	2998.80	16193.52					
						water	kl	3.00	330.00	990.00					
						admixture @ 0.4 % of cement	kg	24.40	351.00	8564.40					
					Sub total of A =	30600.00				Sub total of B =	156108.75			Sub total of C =	6801.72
					Sub total of A +B + C =	193510.47	Formwork @ 3.50 for foundation % & 10 % for sub-structuer upto height 5m. (Average 6.75 % adopted)on cost of concrete i.e. cost of material,labour,and equipment (D)=		13061.95	Sub total (A+B+C+D) =	206572.42	Contractor's overhead expenses 15% =		30985.86	Unit Rate =	15837.21

Description of works:	Providing and laying Reinforcement Fe 500 including cutting, bending, binding, fixing in position etc. all complete in foundation/sub-structure as per drawing and technical specification	Unit : Mt.
Spec. cl. No: 2014		
Unit Considered : 1 Mt.	Foundation/sub -structure	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.3 & 20.5	Skilled	day	4.00	1200.00	4800.00	Ms bars	mt	1.10	99000.00	108900.00					0.00
	Unskilled	day	9.00	900.00	8100.00	Binding wire	kg	8.00	106.00	848.00					0.00
										0.00					
				Sub total of A =	12900.00				Sub total of B =	109748.00				Sub total of C =	0.00
				Sub total of A +B + C =	122648.00				Contractor's overhead expenses 15% =		18397.20			Unit Rate =	141045.20

Description of works:	Providing and laying Reinforcement Fe 500 including cutting, bending, binding, fixing in position etc. all complete in sub-structure as per drawing and Technical Specification.	Unit : Mt.
Spec. cl. No: 2014		
Unit Considered : 1 Mt.	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.6	Skilled	day	4.00	1200.00	4800.00	Ms bars	mt	1.15	99000.00	113850.00					0.00
	Unskilled	day	10.00	900.00	9000.00	Binding wire	kg	9.00	106.00	954.00					0.00
										0.00					
				Sub total of A =	13800.00				Sub total of B =	114804.00				Sub total of C =	0.00
				Sub total of A +B + C =	128604.00				Contractor's overhead expenses 15% =		19290.60			Unit Rate =	147894.60

Description of works:	Providing and laying Reinforcement Fe 500 including cutting, bending, binding, fixing in position etc. all complete in super-structure complete as per drawing and technical specifications.	Unit : Mt.
Spec. cl. No: 2014		
Unit Considered : 1 Mt.	by Mechanical Means .	

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
20.9	Skilled	day	4.00	1200.00	4800.00	Ms bars	mt	1.10	99000.00	108900.00					0.00
	Unskilled	day	12.00	900.00	10800.00	Binding wire	kg	8.00	106.00	848.00					0.00
										0.00					
				Sub total of A =	15600.00				Sub total of B =	109748.00				Sub total of C =	0.00
				Sub total of A +B + C =	125348.00				Contractor's overhead expenses 15% =		18802.20			Unit Rate =	144150.20

Description of works:	Providing and laying Brick Masonry Work in Cement sand mortar (1:4) in Foundation / structure,mixing mortar with concrete mixture, First class Brick, etc all complete , as per Drawing and Technical Specifications.(SS2500)	Unit : Cu.m
Spec. cl. No: 2500		

Unit Considered : 5 Cu.m

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
25.1 C	Skilled	day	6.00	1200.00	7200.00	brick Ist class	nos	2800.00	15.43	43201.20	concrete mixer	hr.	0.75	293.06	219.80
	Unskilled	day	9.00	900.00	8100.00	cement	tonne	0.48	14000.00	6720.00					0.00
						sand	m3	1.35	3104.64	4191.26					0.00
						water	kl	0.10	330.00	33.00					
				Sub total of A =	15300.00				Sub total of B =	54145.46				Sub total of C =	219.80
				Sub total of A +B + C =	69665.25				Contractor's overhead expenses 15% =		10449.78			Unit Rate =	16023.00

Description of works:	Providing and laying Brick Masonry Work in Cement sand mortar (1:4) in superstructure/sub-structure mixing mortar with concrete mixer etc allcomplete , as per Drawing and Technical Specifications.(SS2500)	Unit : Cu.m
Spec. cl. No: 2500		

Unit Considered : 5 Cu.m

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
25.2 C	Skilled	day	6.00	1200.00	7200.00	brick Ist class	nos	2800.00	15.43	43201.20	For scaffolding	5 % of labour cost			765.00
	Unskilled	day	9.00	900.00	8100.00	cement	tonne	0.48	14000.00	6720.00	concrete mixer	hr.	0.75	293.06	219.80
						sand	m3	1.35	3104.64	4191.26					0.00
						water	kl	0.10	330.00	33.00					
				Sub total of A =	15300.00				Sub total of B =	54145.46				Sub total of C =	984.80
				Sub total of A +B + C =	70430.25				Contractor's overhead expenses 15% =		10564.53			Unit Rate =	16198.95

Average rate adopted for foundation/sub-structure/superstructure per Cu.m = 16110.97

Description of works:	Providing and applying 12.5 mm thick Plaster with cement mortar 1:4 (1 cement : 4 sand) on brick work structure as per Technical Specifications.	Unit : Sq.m
Spec. cl. No: 2500		

Unit Considered : 100 sq.m

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
25.4 C	Skilled	day	10.00	1200.00	12000.00	cement	tonne	0.58	14000.00	8120.00					0.00
	Unskilled	day	12.00	900.00	10800.00	sand	m3	1.60	3104.64	4967.42					0.00
						water	kl	0.17	330.00	56.10					0.00
				Sub total of A =	22800.00				Sub total of B =	13143.52				Sub total of C =	0.00
				Sub total of A +B + C =	35943.52				Contractor's overhead expenses 15% =		5391.52			Unit Rate =	413.35

Description of works:	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:4 in Foundation complete as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No: 2602,2603,2607		

Unit Considered : 5 Cu.m

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
26.3 (B)	Skilled	day	7.00	1200.00	8400.00	stone	Cu.m	5.75	2716.56	15620.22	Concrete mixer or otherTools	5 % of labour cost			1050.00
	Unskilled	day	14.00	900.00	12600.00	Cement	tonne	0.62	14000.00	8680.00					0.00
						sand	Cu.m	1.74	3104.64	5402.07					0.00
						Water	KL	1.00	330.00	330.00					
					Sub total of A = 21000.00					Sub total of B = 30032.29					Sub total of C = 1050.00
					Sub total of A +B + C = 52082.29					Contractor's overhead expenses 15% =	7812.34				Unit Rate = 11978.92

Description of works:	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:4 in structure complete as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No: 2602,2603,2607		

Unit Considered : 5 Cu.m

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
26.5 (A)	Skilled	day	7.00	1200.00	8400.00	stone	Cu.m	5.75	2716.56	15620.22	Concrete mixer or otherTools	5 % of labour cost			1320.00
	Unskilled	day	20.00	900.00	18000.00	Cement	tonne	0.66	14000.00	9240.00					0.00
						sand	Cu.m	1.85	3104.64	5743.58					0.00
						Water	KL	1.00	330.00	330.00					
					Sub total of A = 26400.00					Sub total of B = 30933.80					Sub total of C = 1320.00
					Sub total of A +B + C = 58653.80					Contractor's overhead expenses 15% =	8798.07				Unit Rate = 13490.37

Average rate adopted for foundation/structure per Cu.m = 12734.6

Description of works:	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:6 in Foundation complete as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No. 2602 2603 2607		

Unit Considered : 5 Cu.m

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
26.3 (B)	Skilled	day	7.00	1200.00	8400.00	stone	Cu.m	5.75	2716.56	15620.22	Concrete mixer or otherTools	5 % of labour cost			1050.00
	Unskilled	day	14.00	900.00	12600.00	Cement	tonne	0.45	14000.00	6300.00					0.00
						sand	Cu.m	2.08	3104.64	6457.65					0.00
						Water	KL	1.00	330.00	330.00					
				Sub total of A =	21000.00				Sub total of B =	28707.87				Sub total of C =	1050.00
				Sub total of A +B + C =	50757.87				Contractor's overhead expenses 15% =		7613.68			Unit Rate =	11674.31

Description of works:	Providing and laying of Random Rubble Stone Masonry Work in Cement Mortar 1:6 in structure complete as per Drawing and Technical Specifications.	Unit : Cu.m
Spec. cl. No. 2602 2603 2607		

Unit Considered : 5 Cu.m

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
26.5 (A)	Skilled	day	7.00	1200.00	8400.00	stone	Cu.m	5.75	2716.56	15620.22	Concrete mixer or otherTools	5 % of labour cost			1320.00
	Unskilled	day	20.00	900.00	18000.00	Cement	tonne	0.48	14000.00	6720.00					0.00
						sand	Cu.m	1.98	3104.64	6147.19					0.00
						Water	KL	1.00	330.00	330.00					
				Sub total of A =	26400.00				Sub total of B =	28817.41				Sub total of C =	1320.00
				Sub total of A +B + C =	56537.40				Contractor's overhead expenses 15% =		8480.61			Unit Rate =	13003.60

Average rate adopted for foundation/structure per Cu.m = 12339

Providing and Pointing with cement mortar on masonary work in structure as per technical specification cement mortar 1:3

Norms No.	Labour (A)					Material (B)					Equipment (C)				
	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount	Type	Unit	Qty.	Rate	Amount
26.7 A	Skilled	day	9.00	1200.00	10800.00	Cement	tonne	0.31	14000.00	4340.00					0.00
	Unskilled	day	9.00	900.00	8100.00	sand	Cu.m	0.63	3104.64	1955.92					0.00
						Water	KL	0.05	330.00	16.50					0.00
										0.00					
				Sub total of A =	18900.00				Sub total of B =	6312.42				Sub total of C =	0.00
				Sub total of A +B + C =	25212.42				Contractor's overhead expenses 15% =		3781.86			Unit Rate =	289.94