SI. No.	Description	Cost In INR
1	Road and Junction Pavement and Bus Shelter	34092488
2	Footpath and Parking	12172584
3	Storm Water Drainage	1733760
4	Water Supply	1125250
5	Street Lighting	5355428
6	Hardscape and Landscape	3962490
	Sub Total	5,84,42,000
	Add 3% Contengency	17,53,260
	Add Amount for Taxes as applicable	70,13,040
	Tender Premium @ 10%	58,44,200
	For Periodic maintenance of lawn,painting etc. complete & Misc.Work	25,47,500
	Grand Total	7,56,00,000

Project Name: Manglore Smart City Grand Summary for Maidan Road

Executive Engineer MSCL Mangaluru Superintendent Engineer MSCL Mangaluru

Managing Director MSCL Mangaluru

Name of the Work :- Mangalore Smart City 3.1 BOQ of Road and Junction Pavement for Maidan Road

SI.No.	Specification	Unit	Qty.	Rate	Amount	Remarks
1.00	KSRRB M200-14.2 Dismantaling brick/Tile work /Paver Block B.in Cement Mortar retaining walls and other structure comprising of masonarycement concrete,wood work, Including T and P.sorting and dismatled material, disposal of unserviceble material and stacking the servicable material with all lifts complete as per specification. (Page No 137,SI No : 18.23)	Cum	288.72	291.48	84,156	
2.00	KSRRB M200-15.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry. A. Rubble Stone masonry in lime mortar. MORTH Specification No. 202. KSRRB M200-17.1-do-v) Dismantaling Steel work in all types of sections upto a heigh of 5m above plinth level including cutting of dismembering (Page No 138,SI No : 18.33)	МТ	9.87	1346.24	13,292	
3.00	KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i)Lime/cement concrete by mechanical means. (Page No 137,SI No : 18.22)	Cum	46.16	200.48	9,254	
4.00	KSRRB M800-Portable barricade in construction zone KSEEB M800-43.Installation of a steel portable barricade with horizontal rail 300mm wide.2.5m in length fitted on a 'A" frame made with 45x45x5mm angle iron section,1.5m height horizontal rail painted(2 coats) with yellow and white stripes,150mm in width at an angle of 45 degree,'A" Frame painted with 2 Coats of yellow paint,complete as per IRC:SP:55-2001 Complete as per specifications. (Page No 190,SI No : 24.44)	Each	120.00	2656.64	3,18,797	
5.00	KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications. MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	37.68	11.20	422	
6.00	Removing existing Sculpture from Junction Round about and preserving at safe place and to be installed after completion of the work as directed by engineer incharge (If any damages the reponsibility will be at the cost of contractor) (Non SOR Item)	Nos.	1.00	100000.00	1,00,000	
7.00	KSRRB M300-14. Excavation for roadwork in all types of soil with hydraulic excavator of 0.9 bucket capacity including cutting and loading in tippers,trimming bottom and side slopes,in accordance with requirements of lines and grades and cross sections,and transporting disposal location up to a lead of 5.00Km and complete as per specifications. MORTH specification No.301(Including transporting charges,loading and unloading for lead 5km) (Page No 143,SI No : 19.14)	Cum	1416.1	69.44	98,334	
8.00	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 (Page No.149,SI No.19.64)	Sqm	2406.00	5.60	13,474	
9.00	KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra)	Cum	59.89	969.08	58,042	

SI.No.	Specification	Unit	Qty.	Rate	Amount	Remarks
10.00	KSRB 4-1-6 Providing and laying in position plain cement concrete of Mix 1:2:4 with cement @240Kgs,with 20mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregate @0.530 cum machine mixed,concrete laid in layers not exceeding 15cms. thick,well compacted in foundation,plinth and cills,including cost of all materials,labour,HOM of machinery ,curing complete as per specification No.KBS4.1,4.2 (Page No 12,SI No : 4.6)	Cum	47.67	5886.56	2,80,590	
	KSRB 2.8 :Providing and Filling in Foundation with Granite /Trap broken metal 100mm and down size,with approved sand including hand packing,ramming,watering including cost of all materials and labour with all leads and lift.complete as per specifications. (Page No 6,SI No : 2.15)	Cum	74.14	2367.68	1,75,549	
	KSRB 4.2.1 : Providing and laying in position reiforcement cement concrete of design Mix M25 with OPC cement @240Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum with super plasticisers @3 liters confirming to IS 9103-1999 reafirmed -2008 at machine mixed,concrete laid in layers not exceeding 15cms thick,vibrated for all works in foundation for footings,pedastals,retaining walls,return walls,walls (any thickness)including attached pilasters,columnspillars,posts,struts,buttresses,bed blocks,anchor blocks & plinths etc.,Including cost of labour,HOM of machinery,curing,complete but excluding cost of reinforcement as per specifications. (Page No 13,SI No : 4.10)	Cum	206.92	6760.16	13,98,812	
13.00	KSRB 4.6.1 Providing and removing centering,shuttering,strutting,propping etc.,and removal of formwork for foundations,footings,bases of columns for mass concrete including cost of all materials,labour complete as per specifications. Specification No. KSB 4.6.2 (Page No 15.SI No : 4.28)	Sqm	313.20	258.72	81,031	
	KSRB 4.9.2 :Providing T.M.T steel reinforcement for RCC work including straighting, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to thr adjoing members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinary complete as per specifications. Specification No. KBS4.6.3. do with TMT bars Fe500	MT	13.10	79156.00	10,36,557	
15.00	KSRRB M400-6.2.Construction of granular sub base by providing close graded crushed stone aggregate of granite/trap/basalit material,spreading in uniform layers with motor on prepared surface,mixing by mix in place methode by rotavator at OMC, and compacting with vibratory power roller to achieve the desired density,complete as per specification.B.By Mix in Place Methode. Close graded granular sub base material as per 400-1 For Grading II material (Page No 155,SI No : 20.5.2)	Cum	423.54	1576.96	6,67,909	
16.00	KSRRB M600-1.Construction of dry lean cement concrete mix M15 with OPC cement @160Kgs,with 25mm and down size graded granite/trap/basalt metal coarse aggregate at 0.86cum and fine aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement ration not to excee 15:1.Aggregate gradation after blending to be as per Table 600-1,cement content to be determined during trail length construction,concrete strength not to be less than 10Mpa at 7 days,mixed in a batching plant,transported to site,laid with a paver with electronic sensor,compacting with 8-10 tonnes vibratory roller,finishing and curing complete as per specifications.Morth specification No.601 (Page No 176,SI No : 22.1)	Cum	282.36	4074.08	11,50,364	

SI.No.	Specification	Unit	Qty.	Rate	Amount	Remarks
17.00	KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 Its confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form or slip form paver spread,compacted and finished in a continuos operation including provision of contraction,expansio,construction and longitudinal joints,including groove cutting chrges,joints filler,separation memberane,sealent primer,joints sealant,debonding strip,dowel bars at 4.5m intervals,tie rod,admixtures as approved,curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602. do with M40 (420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)	Cum	847.08	7663.04	64,91,244	
18.00	Providing and placing joint sealant compound of cold polysulphide in the grooves after widening the groove to required width, sand blasting the groove face if recommended by the sealant manufacturer, cleaning the groove with air compressor, insertion of debonding strip, priming the sides of the sealant if the sealant manufacturer recommends and pouring the sealant all complete including material, manpower (Non SOR Item)	Rmt	4243.53	129.00	5,47,415	
19.00	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction joints longitudinal joints and expansion joints in concrete pavement using epoxy mortar concrete complete as per specifications.Morth specification No.3005.1 (Page No 257,SI No : 35.8)	Rmt	4243.53	385.28	16,34,947	
20.00	Providing and laying at or near ground level factory made kerb stone of M- 20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in- charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge). Kerb Dimension= Top Width=0.25m, Bottom Width=0.3 m, Height =0.9 m (Non SOR Item,RA Attached)	Nos	574	1579.00	9,06,346	
21.00	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge. 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier. 900MM Equilateral Triangle-TYPE XI	No.	17.00	5807.20	98,722	

SI.No.	Specification	Unit	Qty.	Rate	Amount	Remarks
22.00	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge. 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.	Nos.	6.00	8471.68	50,830	
23.00	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in-charge. 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product	Nos.	2.00	5299.84	10,600	
24.00	Road Marking with hot applied Thermoplastic Compound with Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level, uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192,SI No : 24.57)	Sqm	919.38	724.64	6,66,221	
25.00	KSRRB 800-1.Painting two coats after filling the surface with synthetic enamel paint in approved shades on new palstered concrete surfaces,with materials,labour complete as per specification.for Kerb Stone (Page No 182,SI No : 24.1)	Sqm	124.57	67.20	8,371	

SI.No.	Specification	Unit	Qty.	Rate	Amount	Remarks
26.00	Providing and Fixing of Bus shelter(on prepared foundation) made of SS 304 frame work with brush steel finish, Galvanised Aluminium powder coated roofing and electronic circuit to control its lighting. The seating shall be made of SS 304 tubular sections for seat and back rest.each unit size of 4500mm x 600mm with a minimum backrest support of 450mm.Bus shelter shall have the Side Display board to have 1100X400mm Electronic display. The electronic display board to be of LED Scrolling type with Oval, 4.3 x 5.1mm dia. Diffused. LED's having Amber colour.Dual bin system should be adopted one for recycle waste & other for dry waste.Each bin shall be with minimum capacity of 70Ltrs.Interactive Information Panel-display panel of area not less than 600-900mm with integrated 8mm toughened glass.Advertisement Area 2 nos of size 4500mm x 1650mm and 2100mm x 2000mm shall be integrated within the design of the Bus Shelter. This shall be backlit type with SS box framing sides and back complete.Provision for installing outdoor WiFi Router.The Foundation slab shall be made in min M25 concrete. The cast iron nuts, bolts shall be rust proof hot deep galvanized powder coated etc.The materials used shall be Nonflammable (NON SOR Item)	Nos.	8.00	150000.00	1,20,00,000	
27.00	KSRB 14.6-1:Providing and laying heavy duty cobble stones 60mm thick interlocking pavers, using cement and course sand for manufacture of blocks of approved size, shapes and colour with a minimum commpressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specification (Page No 101.SI No : 14.6)	Sqm	172.50	1021.44	1,76,198	
28.00	Providing & installing of E- toilet with Super structure of the electronic toilet to have asthetic ambience with inner room size 1.2 x 0.8 x 2.4 (LXWXH)meters and Size of electronic toilet overall size in meters 2.30x1.25x2.80 (LXWXH) Total area 35 Sft. with Built-acess controlled main door and side walls made of SS Grade 304,Toilet floor and closet are to be stainless steel of grade 304.E-Toilet shall have Built-in water tank with minimum 225 Lit capacity and Acess controll using coin validator for entering the unit based on automatic payment collection mechanism exit from the unit should be manual.Automatic lights inside the unit with gloves on opening the door.E-Toilet shall be Automatic flushing system which includes Automatic Pre flush cleaning before use,Automatic closet washing mechanism after use and Automatic platform cleaning mechanism programmed after specific numbers.In addition to these flush switch is to be provided for manual operation.Standard features should include heath faucet,exhaust fan and cloth hanger.The E-Toilet shall have Alert to users-different indication on 'ready to use',busy are to be provided in the unit also with Voice guidence in the unit for users. Web enabled support-GPRS based Real time data to be provided from the unit through web for knowing the health status like number of users per day and coins collected.E-toilet shall have Modular and portable design enabling easy assembling and installation at site.Call ceneter and web portal facilities for registering complience and tracking usage,coin collection etc.Status display in LED Printed instruction stickers are to be provided Eor Advertisment	Nos	6.00	575000.00	34,50,000	
29.00	Providing and Installing Waste water treatment and recycling unit for each E-Toilet: Bio digester tank suitable for maintenance free processing the soil waste with 2000 litre capacity, made of FRP. The bio digester shall be of anaerobic type with compartments followed by disinfection. The compartments shall have polygrass mats for protection of bacteria on side partition walls. The bio digester shall be fitted with ball valve or bypass arrangement. Dosed with approved microbial solution at recommended interval (NON SOR Item)	Nos.	6.00	150000.00	9,00,000	

SI.No.	Specification	Unit	Qty.	Rate	Amount	Remarks
30.00	Supply and Fixing of Traffic signal Straight pole of 6 mtr, inner dia 100 mm from resistant to peeling with base plate size of (LXWXT) 200mm X200mmX6mm painted with redoxide and double coat with synthetic enamel paint of yellow colour assembly G.I., class B, as per technical specification (NON SOR Item)	Nos.	10.00	18691.00	1,86,910	
31.00	Supply and fixing of Traffic signal Cantilever pole Class B having inner diameter of 100 mm or more with a height of 6m including extension arm assembly having outer diameter of 75mm with arm span of 4 mtr length and base plate of size 300mm X 300mm with thickness of 6 mm welded at the bottom of the pole base as per technical specification & drawings. (NON SOR Item)	Nos.	7.00	52850.00	3,69,950	
32.00	Supply and fixing of 300 mm dia – single source – LED retrofit - Red (blow) as per Specification (NON SOR Item)	Nos.	17.00	11082.00	1,88,394	
33.00	Supply and fixing of 300 mm dia – single source – LED retrofit - Amber (blow) as per Specification (NON SOR Item)	Nos.	17.00	11082.00	1,88,394	
34.00	Supply and fixing of 300mm dia – single source – LED retrofit - Green (arrow/U- Turn) EN-12368 as per Specification (NON SOR Item)	Nos.	17.00	13973.00	2,37,541	
35.00	Supply and fixing of 300 mm dia – single source – LED retrofit - Red (ped. standing) EN-12368 as per Specification (NON SOR Item)	Nos.	16.00	11082.00	1,77,312	
36.00	Supply and fixing of 300 mm dia – single source – LED retrofit - Green (ped.walking) EN-12368 as per Specification (NON SOR Item)	Nos.	16.00	13973.00	2,23,568	
37.00	Supply and fixing of 300 mm dia - No Right Turn/No Left turn/No Straight/No 'U' Turn aspects by using UV stabilized ink on face plate EN-12368 as per Specification (NON SOR Item)	Nos.	15.00	6196.00	92,940	
			Tota		3,40,92,488	

EXECUTIVE ENGINEER MSCL MANGALURU SUPERINTENDING ENGINEER MSCL MANGALURU

Name of the Work :- Mangalore Smart City 3.1.1 Measurement Sheet of Road and Junction Pavement for Maidan Road

SI. No.	Description	Unit	No's	L	laidan Road B		04-
5I. NO.	Description			_	В	Н	Qty.
	Road and Junction Pavr	nent and O	ther wo	rks			
1	KSRRB M200-14.2 Dismantaling brick/Tile work /Paver Block B.in Cement Mortar retaining walls and other structure comprising of masonarycement concrete,wood work, Including T and P.sorting and dismatled material,disposal of unserviceble material and stacking the servicable material with all lifts complete as per specification. (Page No 137,SI No : 18.23)						
а	Maidan Side-Paver Block on Carriageway(LHS)						
1	Ch. 0.0 to 100.0	Cum	1	100	2.93	0.12	35.16
2	Ch. 100. to 180.00	Cum	1	80	2.565	0.12	24.62
3	Ch.180.0 to 190.0	Cum	1	10	3.85	0.12	4.62
4 b	Ch.190.0 to 445.22 Clock tower Junction Area-(Paver Block area)	Cum Cum	1	255.22	2.6	0.12	79.63 0.00
1	Trapezoidal area	Cum	1	28.055	39.4	0.12	132.64
2	Ded. Triangular portion	Cum	-0.5	14.115	2.17	0.12	-1.84
3	Ded.Circle-Dia 6.0m	Cum	-1	3.14	9	0.12	-3.39
4	Add triangular area -1	Cum	0.5	26.03	8.84	0.12	13.81
	Ded. Area	Cum	-1		57	0.12	-6.84
5	Add triangular area -2	Cum	0.5	31.49	11.73	0.12	22.16
	Ded. Area	Cum Cum	-1		98.81	0.12 Total	-11.86 288.72
		Guill					200.12
2	KSRRB M200-15.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry. A. Rubble Stone masonry in lime mortar. MORTH Specification No. 202. KSRRB M200-17.1-do-v) Dismantaling Steel work in all types of sections upto a heigh of 5m above plinth level including cutting of dismembering						
	Total Bus stop =9 Nos.				Thk.		
1	Vertical Support-Dia 150mm Pipe	Sqm	6	0.471	0.0032	5	0.045
2	Truss(2 nos. per Bus stop)	- 4		0	0.0002		0.000
3	Bottom Chord - Dia.50mm Hollow Pipe	Sqm	2	7.5	0.002	0.157	0.005
4	Top Chord -Dia 50mm Hollow Pipe	Sqm	4	4	0.002	0.157	0.005
5 6	Vertical member	Sqm	2	1	0.002	0.157	0.001
a	Web Longer to shorter Web-1	Sqm	4	1.5	0.002	0.157	0.000
b	Web-2	Sqm	4	1.0	0.002	0.157	0.002
C	Web-3	Sqm	4	0.8	0.002	0.157	0.001
7	MS sheet at back side of Truss	Sqm	0.5	7.5	0.001	1	0.004
8	MS Grill at front side	Sqm	0.25	7.5	0.002	1	0.004
9	Benche-4 Nos at each bus stop	Sqm	0	0 4 5 7	0.000	4	0.000
<u>10</u> 11	Verical support Horizontal Support	Sqm	8	0.157 0.157	0.002	1.2	0.003
12	Side Advertisment Board-2 nos each bustop	Sqm	4	1.2	0.002	3.5	0.034
		Sqm				Total	0.10
		KG					823.01
		MT				Sub Total A	0.82
13	Purlin	D	10	~ -			05 000
a b	ISA 50 x 50 x 4 (10 nos. in each bus stop)	Rm Rm	10 4	2.5 3.9			25.000 15.600
U	Granite support -ISA 50 x 50 x 4 Total	Rm	4	3.9			40.60
		Kg/ Rm					3.00
		Kg/ Rm					121.80
		MT				Sub Total B	0.12
	MS Roofing Sheet @0.4 mm thk	Sqm	1	7		2.5	17.500
		Kg/Sqm Kg					3.00 52.50
		MT				Sub Total C	<u> </u>
	Total Weight (A+B+C)	мт					0.997
					1		0.001
	Consider 10% Extra for Misc Items	MT	Nos.			Total	1.10
		МТ	9	Tot	al Qty for 9 E	Sus Stop	9.87
						· · · · · · · · · · · · · · · · · · ·	

SI. No.	Description	11:0:4	Nela	L	В	н	044
51. NO.	Description	Unit	No's	L	В	н	Qty.
	KSRRB M200-12.1. Dismantling of existing structures like culverts,						
	bridges, retaining walls and other structure comprising of masonary, cement concrete, woodwork, steel work, including T&P and						
	scaffolding wherever necessary, sorting the dismantled material,						
3	disposal of unserviceable material and stacking the serviceable						
	material with all lifts complete as per specifications.						
	i)Lime/cement concrete by mechanical means.						
	(Page No 137 SI No 18 22)	0		244	40.00	0.00	40.40
	A B Shetty Circle Kerb Stone	Cum	1	3.14	49.00	0.30	46.16
	KSRRB M800-Portable barricade in construction zone						
	KSEEB M800-43.Installation of a steel portable barricade with						
	horizontal rail 300mm wide.2.5m in length fitted on a 'A" frame made						
4	with 45x45x5mm angle iron section,1.5m height horizontal rail painted(2 coats) with yellow and white stripes,150mm in width at an	Each	120				120.00
-	angle of 45 degree, 'A" Frame painted with 2 Coats of yellow	Luon	120				120.00
	paint,complete as per IRC:SP:55-2001 Complete as per						
	specifications.						
	(Page No 190 SI No · 24 44)						
	KSRRB M200-Dismantaling of kerb Stone and Channel					<u> </u>	
	KSRRB M200-26. Dismantling Kerb stone by Manual means and						
5	disposal of dismantled materials with all lifts and complete as per					1	
5	specifications.					1	
	MORTH Specification No.202.						
	(Page No.139.S.I.No.18.49) Kerb Stone					<u> </u>	
	Clock tower Junction @ Ch.0.00						
	Circle Dia.6m	Rmt	1	18.84			18.84
	A B shetty Junction @ Ch. 520.00	Dure (40.04			40.04
	Circle Dia.6m	Rmt Rmt	1	18.84		Total	18.84 37.68
		- TKIIK				lotai	01.00
	Removing existing Sculpture from Junction Round about and						
6	preserving at safe place and to be installed after completion of the	Nos.	1				1.00
-	work as directed by engineer incharge (If any damages the reponsibility will be at the cost of contractor)						
	KSRRB M300-14. Excavation for roadwork in all types of soil with						
	hydraulic excavator of 0.9 bucket capacity including cutting and						
	loading in tippers, trimming bottom and side slopes, in accordance						
-	with requirements of lines and grades and cross sections, and						
7	transporting disposal location up to a lead of 5.00Km and complete						
	as per specifications. MORTH specification No.301(Including transporting charges,loading						
	and unloading for lead 5km)						
	(Page No 143 SI No 19 14)						
	For Concrete Road						
a 1	Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0	Cum	1	100	2.93	0.43	125.99
2	Ch. 100. to 180.00	Cum	1	80	2.565	0.43	88.24
3	Ch.180.0 to 190.0	Cum	1	10	3.85	0.43	16.56
4	Ch.190.0 to 445.22	Cum	1	255.22	2.6	0.43	285.34
b	Clock tower Junction Area-(Paver Block area)			00.077		0.40	0.00
1 2	Trapezoidal area Ded. Triangular portion	Cum Cum	1 -0.5	28.055 14.115	39.4 2.17	0.43	475.31 -6.59
3	Ded.Circle area	Cum	-0.5	3.14	2.17	0.43	-6.59 -12.15
4	Add triangular area -1	Cum	0.5	26.03	8.84	0.43	49.47
	Ded. Area	Cum	-1		57	0.43	-24.51
5	Add triangular area -2	Cum	0.5	31.49	11.73	0.43	79.42
	Ded. Area	Cum	-1		98.81	0.43	-42.49 0.00
b	For Bus Pedstal	Cum	8	14	2.5	0.50	140.00
С	Bus stop foundation	Cum	32	1.5	1.5	1.30	93.60
d	AB Shetty Junction	Cum	1	3.14	36	0.50	56.52
e f	Clock tower Signal Pole RCC Pedstal at AB shetty Circle	Cum Cum	1 16	3.14	<u>36</u> 1.50	0.50 0.50	56.52 18.00
q	Signal Pole RCC Pedstal at AB shetty Circle	Cum	16	1.5 1.5	1.50	0.50	16.88
		Cum				Total	1416.09
	KSDDB 200 Compaction KSDDD 200 59 Compaction of articles						
	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller						
8	including filling in depression occuring during rolling including cost of	Sqm					
Ŭ	all labour, HOM of machinery complete as per specifications.						
	MORTH / Chapter 3 (Page No.149, SI No.19.64)						
	For Concrete Road						
a 1	Maidan Side-Paver Block on Carriageway(LHS)		1	100	2.02		202.00
I	Ch. 0.0 to 100.0 9			100	2.93	L	293.00

SI. No.	Description	Unit	No's	L	В	н	Qty.
2	Ch. 100. to 180.00		1	80	2.565		205.20
3	Ch.180.0 to 190.0		1	10	3.85		38.50
4	Ch.190.0 to 445.22		1	255.22	2.6		663.57
b	Clock tower Junction Area-(Paver Block area)			LOO.LL	2.0		000.01
1	Trapezoidal area		1	28.055	39.4		1105.37
2	Ded. Triangular portion		-0.5	14.115	2.17		-15.31
3	Ded.Circle area		-1	3.14	9		-28.26
4	Add triangular area -1		0.5	26.03	8.84		115.05
	Ded. Area		-1		57		-57.00
5	Add triangular area -2		0.5	31.49	11.73		184.69
	Ded. Area		-1		98.81		-98.81
		Sqm					2406.00
9	KSRRB M200.Dismantling of cement concrete pavement by mechanical means using pueumatic tools,breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled material stacking serviceble and unserviceable materials separately complete as per specifications.MORTH specification No.202.(Including transporting charges,loading and unloading for lead 5km-Extra) (Page No 138,SI No : 18.47)						
				-			
<u>a</u>	At Junction-Clock Tower Round About-Kerb Stone	Cum	1	314	0.365	0.3	34.38
b	At Junction-A B Shetty	Cull		514	0.505	0.3	34.30
i	Round About-Kerb Stone	Cum	1	21.98	0.365	0.3	2.41
c	Junction -1 Clock Tower	Juill		21.00	0.000	0.0	2.71
ii	Maidan road	Cum	1	45	0.365	0.3	4.93
ii	Bibi alabi road	Cum	1	41	0.365	0.3	4.49
iii	Maidan 1st cross road	Cum	1	22	0.365	0.3	2.41
iv	Balmata Road	Cum	1	31	0.365	0.3	3.39
d	Junction -2 A B Shetty						
<u> i </u>	Miadan road	Cum	1	21	0.365	0.3	2.30
ii	Old kent road	Cum	1	0	0.365	0.3	0.00
iii	Mangladevi road	Cum	1	10	0.365	0.3	1.10
iv	Miadan Road (Towards Hamilton Circle)	Cum	1	41	0.365	0.3	4.49
		Cum				Total	59.89
10	Mix 1:2:4 with cement @240Kgs,with 20mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregate @0.530 cum machine mixed,concrete laid in layers not exceeding 15cms. thick,well compacted in foundation,plinth and cills,including cost of all materials,labour,HOM of machinery ,curing complete as per specification No.KBS4.1,4.2 (Page No 12 SL No : 4.6)						
	Road	0			0.50	0.40	
	For Bus Pedstal	Cum	8 32	14	2.50	0.10	28.00
	Rcc foundation Signal Pole RCC Pedstal at AB shetty Circle	Cum Cum	32 16	1.2 1.2	1.20 1.20	0.10	4.61 2.30
	Signal Pole RCC Pedstal at Clock tower Circle	Cum	10	1.2	1.20	0.10	2.30
		Cum	15	1.2	1.20	Total A=	37.07
а	At Junction-Clock Tower	Call				Total / L	01101
i	Round About -Base of Kerb	Cum	1	12.56	0.365	0.1	0.46
ii	Round About -Side of Kerb	Cum	2	12.56	0.135	0.175	0.59
b	At Junction-A B Shetty						
i	Round About	Cum	1	21.98	0.365	0.1	0.80
ii	Round About -Side of Kerb	Cum	2	21.98	0.135	0.175	1.04
С	At Junction-Clock Tower						
<u>i</u>	Maidan road	Cum	1	45	0.365	0.1	1.64
<u> </u>	Bibi alabi road	Cum	1	41	0.365	0.1	1.50
iii	Maidan 1st cross road	Cum	1	22	0.365	0.1	0.80
iv d	Balmata Road At Junction-A B Shetty	Cum		31	0.365	0.1	1.13
<u>a</u> i	At Junction-A B Snetty Miadan road	Cum	1	21	0.365	0.1	0.77
ii	Old kent road	Cum	1	0	0.365	0.1	0.00
iii	Mangladevi road	Cum	1	10	0.365	0.1	0.37
iv	Miadan Road (Towards Hamilton Circle)	Cum	1	41	0.365	0.1	1.50
		Cum	1	280.08		Total B=	10.59
		Cum			Total Qty.(A	+B)	47.67
	KSRB 2.8 :Providing and Filling in Foundation with Granite /Trap broken metal 100mm and down size,with approved sand including hand packing,ramming,watering including cost of all materials and						
11	labour with all leads and lift.complete as per specifications. (Page No 6,SI No : 2.15)						
11 a	labour with all leads and lift.complete as per specifications.	Cum	8	14	2.50	0.20	56.00
	labour with all leads and lift.complete as per specifications. (Page No 6,SI No : 2.15)	Cum Cum Cum	8 32 16	14 1.2 1.2	2.50 1.20 1.2	0.20 0.20 0.20	56.00 9.22 4.61

SI. No.	Description	Unit	No's	L	В	н	Qty.
f	Signal Pole RCC Pedstal at clock tower Circle	Cum	15	1.2	1.2	0.20	4.32
		Cum				Total	74.14
	KSRB 4.2.1 : Providing and laying in position reiforcement cement						
	concrete of design Mix M25 with OPC cement @240Kgs,with 20mm and down size graded granite metal coarse aggregate @ 0.47 cum						
	with super plasticisers @3 liters confirming to IS 9103-1999						
	reafirmed -2008 at machine mixed, concrete laid in layers not						
	exceeding 15cms thick, vibrated for all works in foundation for						
12	footings,pedastals,retaining walls,return walls,walls (any						
	thickness)including attached						
	pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor						
	blocks & plinths etc., Including cost of labour, HOM of						
	machinery,curing,complete but excluding cost of reinforcement as						
	per specifications.						
	(Page No 13,SI No : 4.10)	0	00	4.00	1.00	0.00	0.00
	Bus Stop RCC Foundation Base	Cum	32 32	1.20	1.20	0.20	9.22
	Bus Stop RCC Foundation Column Bus Stop Pedstal	Cum Cum	32	1.00 13.70	1.00 2.20	0.70	22.40 144.67
	Signal Pole RCC Pedstal at AB shetty Circle	Cum	52	13.70	2.20	0.15	144.07
	Base	Cum	16	1.20	1.20	0.20	4.61
	Column	Cum	16	1.00	1.00	0.70	11.20
	Signal Pole RCC Pedstal at clock tower Circle						
	Base	Cum	15	1.20	1.20	0.20	4.32
	Column	Cum	15	1.00	1.00	0.70	10.50
		Cum				Total	206.92
	KSRB 4.6.1 Providing and removing						
	centering, shuttering, strutting, propping etc., and removal of formwork		1				
13	for foundations, footings, bases of columns for mass concrete						
	including cost of all materials, labour complete as per specifications. Specification No. KSB 4.6.2						
	(Page No 15.SI No : 4.28)						
	Bus Stop RCC Foundation Base	Sqm	128	1.20		0.20	30.72
	Bus Stop RCC Foundation Column	Sqm	128	1.00		0.70	89.60
	Bus Stop Pesdtal	Sqm	32	13.70		0.15	65.76
		Sqm	32	2.20		0.15	10.56
	Signal Pole RCC Pedstal at AB shetty Circle	Sqm					
	Base	Sqm	64	1.20		0.20	15.36
	Column	Sqm	64	1.00		0.70	44.80
	Signal Pole RCC Pedstal at clock towerCircle Base	Sqm Sqm	60	1.20		0.20	14.40
	Column	Sqm	60	1.00		0.70	42.00
		Sqm				Total	313.20
		•					
	KSRB 4.9.2 : Providing T.M.T steel reinforcement for RCC work						
	including straighting, cutting, bending, hooking, placing in						
	position, lapping and/or welding wherever required, tying with binding						
14	wire and anchoring to thr adjoing members wherever necessary				Kg/Cum	Kg	МТ
	complete as per design (laps,hooks and wastage shall not be				_		
	measured and paid) cost of materials, labour, HOM of machinary complete as per specifications. Specification No. KBS4.6.3.						
	do with TMT bars Fe500						
	Footing	MT	1	18.144	80.00	1451.52	1.45
	Column	MT	1	44.1	100.00	4410.00	4.41
	Bus Stand Base	MT	1	144.672	50.00	7233.60	7.23
		MT				Total	13.10
			<u> </u>				
	Concrete Pavement Layer						
	KSRRB M400-6.2. Construction of granular sub base by providing						
	close graded crushed stone aggregate of granite/trap/basalit						
	material, spreading in uniform layers with motor on prepared surface, mixing by mix in place methode by rotavator at OMC, and		1				
15	compacting with vibratory power roller to achieve the desired						
10	density,complete as per specification.B.By Mix in Place Methode.						
	service as por opcontouron. D. Dy Mix in Fidde Mounde.		1				
	Close graded granular sub base material as per 400-1		1				
	Close graded granular sub base material as per 400-1 For Grading II material						
а	For Grading II material						
1	For Grading II material (Page No 155,Sl No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0	Cum	1	100	2.93	0.15	43.95
1 2	For Grading II material (Page No 155,Sl No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00	Cum	1	80	2.565	0.15	30.78
1 2 3	For Grading II material (Page No 155,Sl No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00 Ch.180.0 to 190.0	Cum Cum	1	80 10	2.565 3.85	0.15 0.15	30.78 5.78
1 2 3 4	For Grading II material (Page No 155,Sl No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00 Ch.180.0 to 190.0 Ch.190.0 to 445.22	Cum	1	80	2.565	0.15	30.78
1 2 3 4 b	For Grading II material (Page No 155,SI No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00 Ch.180.0 to 190.0 Ch.190.0 to 445.22 Clock Tower Junction Area-(Paver Block area)	Cum Cum Cum	1 1 1	80 10 255.22	2.565 3.85 2.6	0.15 0.15 0.15	30.78 5.78 99.54
1 2 3 4 b 1	For Grading II material (Page No 155,SI No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00 Ch.180.0 to 190.0 Ch.190.0 to 445.22 Clock Tower Junction Area-(Paver Block area) Trapezoidal area	Cum Cum Cum Cum	1 1 1 1	80 10 255.22 28.055	2.565 3.85 2.6 39.4	0.15 0.15 0.15 0.15	30.78 5.78 99.54 165.81
1 2 3 4 b 1 2	For Grading II material (Page No 155,SI No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00 Ch.180.0 to 190.0 Ch.190.0 to 445.22 Clock Tower Junction Area-(Paver Block area) Trapezoidal area Ded. Triangular portion	Cum Cum Cum Cum Cum	1 1 1 -0.5	80 10 255.22 28.055 14.115	2.565 3.85 2.6 39.4 2.17	0.15 0.15 0.15 0.15 0.15	30.78 5.78 99.54 165.81 -2.30
1 2 3 4 b 1 2 3	For Grading II material (Page No 155,SI No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00 Ch.180.0 to 190.0 Ch.190.0 to 445.22 Clock Tower Junction Area-(Paver Block area) Trapezoidal area Ded. Triangular portion Ded.Circle area	Cum Cum Cum Cum Cum Cum	1 1 1 -0.5 -1	80 10 255.22 28.055 14.115 3.14	2.565 3.85 2.6 39.4 2.17 9	0.15 0.15 0.15 0.15 0.15 0.15 0.15	30.78 5.78 99.54 165.81 -2.30 -4.24
1 2 3 4 b 1 2	For Grading II material (Page No 155,SI No : 20.5.2) Maidan Side-Paver Block on Carriageway(LHS) Ch. 0.0 to 100.0 Ch. 100. to 180.00 Ch.180.0 to 190.0 Ch.190.0 to 445.22 Clock Tower Junction Area-(Paver Block area) Trapezoidal area Ded. Triangular portion	Cum Cum Cum Cum Cum	1 1 1 -0.5	80 10 255.22 28.055 14.115	2.565 3.85 2.6 39.4 2.17	0.15 0.15 0.15 0.15 0.15	30.78 5.78 99.54 165.81 -2.30

SI. No.	Description	Unit	No's	L	В	н	Qty.
	Ded. Area	Cum	-1		98.81	0.15	-14.82
					10	0.45	
6	A B Shetty Circle Area (Dia 14.m) Clock Tower Junction with 10m Radius	Cum Cum	1	3.14 3.14	49 100	0.15	23.08 47.10
	Ded. New Junction of 4m Radius	Cum	-1	3.14	100	0.15	-7.54
		Cum	- 1	5.14	10	Total	423.54
	KSRRB M600-1. Construction of dry lean cement concrete mix M15						
	with OPC cement @160Kgs,with 25mm and down size graded						
	granite/trap/basalt metal coarse aggregate at 0.86cum and fine						
	aggregate @ 0.58cum Sub-base over prepared sub grade with (coarse and fine aggregate confirming to IS:383) aggregate cement						
	ration not to excee 15:1.Aggregate gradation after blending to be as						
16	per Table 600-1, cement content to be determined during trail length						
	construction, concrete strength not to be less than 10Mpa at 7						
	days, mixed in a batching plant, transported to site, laid with a paver						
	with electronic sensor, compacting with 8-10 tonnes vibratory						
	roller, finishing and curing complete as per specifications. Morth						
	specification No.601 (Page No.176 SLNo.: 22.1)						
а	Maidan Side-Paver Block on Carriageway(LHS)						
1	Ch. 0.0 to 100.0	Cum	1	100	2.93	0.10	29.30
2	Ch. 100. to 100.25	Cum	1	80	2.565	0.10	20.52
3 4	Ch.100.25 to 180.00 Ch.180.0 to 190.0	Cum Cum	1	10 255.22	3.85 2.6	0.10	3.85 66.36
4 b	Clock Tower Junction Area-(Paver Block area)	Cum	1	200.22	2.0	0.10	00.30
1	Trapezoidal area	Cum	1	28.055	39.4	0.10	110.54
2	Ded. Triangular portion	Cum	-0.5	14.115	2.17	0.10	-1.53
3	Ded.Circle area	Cum	-1	3.14	9	0.10	-2.83
4	Add triangular area -1	Cum	0.5	26.03	8.84	0.10	11.51
	Ded. Area	Cum	-1	04.40	57	0.10	-5.70
5	Add triangular area -2 Ded. Area	Cum Cum	0.5	31.49	11.73 98.81	0.10	<u>18.47</u> -9.88
		Oum	- 1		30.01	0.10	-3.00
6	A B Shetty Circle Area (Dia 14.m)	Cum	1	3.14	49	0.10	15.39
	Clock Tower Junction with of10m Radius	Cum	1	3.14	100	0.10	31.40
	Ded. New Junction of 4m Radius	Cum	-1	3.14	16	0.10	-5.02
		Cum				Total	282.36
	KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain						
	cement concrete pavement over a prepared sub base with 25mm						
	and down size graded granite metal coarse aggregate with						
	superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed						
	2008(Coarse and fine aggregate conforming to IS:383) mixed in a						
	batching and mixing plant as per approved mix design, transported to						
	site, laid with a fixed form or slip form paver spread, compacted and						
17	finished in a continuos operation including provision of contraction, expansio, construction and longitudinal joints, including						
	groove cutting chrges, joints filler, separation memberane, sealent						
	primer, joints sealant, debonding strip, dowel bars at 4.5m intervals, tie						
	rod,admixtures as approved,curing compound,finishing to lines and						
	grades as per drawing complete as per sprcifications MORTH						
	specification No.602.						
	do with M40(420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176 SI No · 22 2 2)						
а	Maidan Side-Paver Block on Carriageway(LHS)						
1	Ch. 0.0 to 100.0	Cum	1	100	2.93	0.30	87.90
2	Ch. 100. to 180.00	Cum	1	80	2.565	0.30	61.56
3	Ch.180.0 to 190.0	Cum	1	10	3.85	0.30	11.55
4 b	Ch.190.0 to 445.22 Clock Tower Junction Area-(Paver Block area)	Cum	1	255.22	2.6	0.30	199.07
b 1	Trapezoidal area	Cum	1	28.055	39.4	0.30	331.61
2	Ded. Triangular portion	Cum	-0.5	14.115	2.17	0.30	-4.59
3	Ded.Circle area	Cum	-1	3.14	9	0.30	-8.48
4	Add triangular area -1	Cum	0.5	26.03	8.84	0.30	34.52
	Ded. Area	Cum	-1		57	0.30	-17.10
5	Add triangular area -2	Cum	0.5	31.49	11.73	0.30	55.41
6	Ded. Area	Cum	-1	2.4.4	98.81	0.30	-29.64
6	A B Shetty Circle Area (Dia 14.m) Clock Tower Junction with of10m Radius	Cum Cum	1	3.14 3.14	<u>49</u> 100	0.30	46.16 94.20
	Ded. New Junction of 4m Radius	Cum	-1	3.14	100	0.30	-15.07
		Cum	+ ·	J. 1 T		Total	847.08

SI. No.	Description	Unit	No's	L	В	Н	Qty.
	Providing and placing joint sealant compound of cold polysulphide in						
	the grooves after widening the groove to required width, sand						
	blasting the groove face if recommended by the sealant						
18	manufacturer, cleaning the groove with air compressor, insertion of						
10	debonding strip, priming the sides of the sealant if the sealant						
	manufacturer recommends and pouring the sealant all complete						
	including material, manpower						
	(Non SOR Item)						
	New Road						
	Maidan Side-New Road (LHS)	Dent	4	445			445.00
a b	Longitidinal Joint Ch.0.00 to 445.00 Joints across road	Rmt	1	445			445.00
D	Ch. 0.0 to 100.0	Rmt	22	2.93			64.46
	Ch. 100. to 180.00	Rmt	18	2.95			46.17
	Ch.180.0 to 190.0	Rmt	2	3.85			7.70
	Ch.190.0 to 445.22	Rmt	57	2.6			148.20
	Existing Road (LHS)	Kint	57	2.0			140.20
а	Joints across roadCh. 0.00 to 520	Rmt	116	7			812.00
b	Longitidinal Joint Ch. 0.00 to 520	Rmt	1	520			520.00
~	Existing Road (RHS)	1 1111		520		1	520.00
а	Longitidinal Joint Ch. 0.00 to 520	Rmt	2	520		1	1040.00
b	Joints across road Ch. 0.00 to 520	Rmt	116	10		1	1160.00
-		Rmt				Total	4243.53
	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar						
	KSRRB M3000-8 Repairs of spalled joints grooves of contraction						
40	joints longitudinal joints and expansion joints in concrete pavement						
19	using epoxy mortar concrete complete as per specifications.Morth						
	specification No.3005.1						
	(Page No 257.SI No : 35.8)						
	Consider Same Qty of Joint Filling	Rmt					4243.53
	Providing and laying at or near ground level factory made kerb stone						
	of M-20 grade cement concrete in position to the required line, level						
	and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse						
	sand), including making joints with or without grooves (thickness of						
	joints except at sharp curve shall not to more than 5mm), including						
	making drainage opening wherever required complete etc. as per						
20	direction of Engineer-in-charge (length of finished kerb edging shall						
	be measured for payment).						
	(Precast C.C. kerb stone shall be approved by Engineer-in-charge).						
	Kerb Dimension=						
	Top Width=0.25m,						
	Bottom Width=0.3 m,						
	Height =0.9 m						
	(Non SOR Item RA Attached)						
a	At Junction-Clock Tower	D~+	4	45			45.00
 	Maidan road	Rmt Pmt	1	45 41			45.00
ii iii	Bibi alabi road Maidan 1st cross road	Rmt Rmt	1	<u>41</u> 0		+	41.00
iv	Balmata Road	Rmt Rmt	0	32		+	0.00 32.00
b	At Junction-A B Shetty	MIII		52		+ +	52.00
i i	Miadan road	Rmt	1	21	}	+	21.00
 ii	Old kent road	Rmt	1	0		+	0.00
 iii	Mangladevi road	Rmt	1	10			10.00
iv	Miadan Road (Towards Hamilton Circle)	Rmt	1	41		+ +	41.00
		Rmt				Sub Total	190.00
							100.00
b	Kerb Stone-at Junction Roundabout					1	
	At Junction-Clock Tower				1	1	
а				40.50	ł	1	39.44
a i		Rmt	314	1255			
	Round About	Rmt Rmt	3.14	12.56		Sub Total 2	
		Rmt Rmt	3.14	12.50		Sub Total 2	39.44
		Rmt	3.14	12.50			39.44
		Rmt Rmt	3.14	12.50		Sub Total 2 Total 1+2	39.44 229.44
		Rmt	3.14	12.56			39.44

21 SRPRE M00-2: Retro-Reflexioned Traffic Signs - Moundatory in mattery 5 Image: Signs - Moundation - Signs - Moundatory - Moundatory - Moundatory - Signs -	SI. No.	Description	Unit	No's	L	В	н	Qty.
Supply and installation of reto-reflective cautionary, mandatory & Informatory sightbacks made out of cube corner micro prematic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4rm thick atuminum of more than discussed and mounted in 75 mm dia OR 75X75/6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the board board at 60mm below ground level. The ground level to the board be painted with be coat of red odde paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height atternatively firmly fixed to the ground by means of foundation with X20 grade cement concrete of 45mX45cmX6cm for an another with a leads and IIIs, loading charges necessary for satisfactory completion of the works as directed be engineer in charge. 10 years warranty for free Related shall be obtained from the significations at fixed or error micro prismatic grade table to early and tradition of retor-reflective autionary. mandatory & informatory signbacks made out of cube corner micro prismatic grade table angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground by the cost of red odde paint and two costs of fixed over a support frame of 25X25X3mm MS angle and mourted on 75 mm dia OR 75X75Kmm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground by means of foundation with bloc and form date control of marketuring to type X X1 standards of IRC:72012 specifications & fixed over at mutick atuminum composite panel sheets provide in the out of works as directed be engineer in charge. 10 years warranty for Reade angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign back and this coatis for the out of works as directed be engineer in charge. 10 years warranty for Reade angle to Total height 2.70 m from the ground level to the bottom of the sign back and	21	Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer incharge. 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from the supplier.	Nos.	17				17.00
KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube correr micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over mm thick aluminum composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75K8mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 450mX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in- charge.10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offe	22	Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminum skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer incharge. 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from	Nos.	6				6.00
Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192 SI No : 24 57) Area Roads Roads Image: Area	23	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufacturing, Supply and Installation of retro-reflective cautionary, mandatory & Informatory signboards made out of cube corner micro prismatic grade sheeting confirming to type XI standards of IRC:67:2012 specifications & fixed over 4mm thick aluminium composite panel sheet having minimum 0.30 mm thick aluminium skin on both sides & fixed over a support frame of 25X25X3mm MS angle and mounted on 75 mm dia OR 75X75X6mm mild steel angle to Total height 2.70 m with clear height of not less than 2.10 m from the ground level to the bottom of the sign board & 60mm below ground level. the sign post should be painted with be coat of red oxide paint and two coats of synthetic enamel paint of black and white colour with bands of 30 cm height alternatively firmly fixed to the ground by means of foundation with M20 grade cement concrete of 45cmX45cmX60cm including cost & conveyance of all materials, equipment, machinery & labour with all leads and lifts, loading charges necessary for satisfactory completion of the works as directed be engineer in- charge. 10 years warranty for Retro Reflective Sheeting from the original sheeting manufactures as per clause 6.9 in IRC: 2012 & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be obtained from	Nos.	2				2.00
	24	Reflectrising Glass Beads on Concrete Surface:Providing and laying of hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads at 250 gms and 2 ltr of primer per sqm area,thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35.The finished surface to be level,uniform and free from streak and holes complete as per specifications.MORTH specification No.803 (Page No 192 Sl No 24 57)			Area			
b Arrows 2 1, Sqm 2 0.95 1.90	a			125	0.76			95.00

SI. No.	Description	Unit	No's	L	В	н	Qty.
с	Arrows 3	Sqm	1	0.95			0.95
d	Arrows 4	Sqm	1	0.69	14/2-141-		0.69
•	Dashed lines	Sqm	4	Length 350	Width 0.10		140.00
e f	Lines on road Edge	Sqm	4	<u>350</u> 500	0.10		300.00
1		Sqm	4	500		Total A	538.54
		oqiii			- Cun		550.54
а	Arrow	Sqm	9	0.76			6.84
b	Pedstrian Crossing	Sqm	1	374			374.00
	Y	Sqm				Sub Total B	380.84
		Sqm				Total (A+B)	919.38
	KSRRB 800-1. Painting two coats after filling the surface with						
25	synthetic enamel paint in approved shades on new palstered						
25	concrete surfaces, with materials, labour complete as per						
	specification.for Kerb Stone (Page No 182.SI No : 24.1)						
а	At Junction-Clock Tower						
i	Maidan road	Sqm	1	45.00		0.62	27.68
ii	Bibi alabi road	Sqm	1	41.00		0.62	25.22
iii	Maidan 1st cross road	Sqm	0	0.00		0.62	0.00
iv	Balmata Road	Sqm	1	32.00		0.62	19.68
b	At Junction-A B Shetty						
i	Maidan road	Sqm	1	21.00		0.62	12.92
ii	Old kent road						
iii	Mangladevi road	Sqm	1	10.00		0.62	6.15
iv	Miadan Road (Towards Hamilton Circle)	Sqm	1	41.00		0.62	25.22
b	Kerb Stone-at Junction Roundabout						
a	At Junction-Clock Tower						
<u>а</u> і	Round About	Sqm	1	12.56		0.62	7.72
•		Sqm		12.00		Total	124.57
		- oqn				. otai	121101
26	Providing and Fixing of Bus shelter(on prepared foundation) made of SS 304 frame work with brush steel finish, Galvanised Aluminium powder coated roofing and electronic circuit to control its lighting. The seating shall be made of SS 304 tubular sections for seat and back rest.each unit size of 4500mm x 600mm with a minimum backrest support of 450mm.Bus shelter shall have the Side Display board to have 1100X400mm Electronic display. The electronic display board to be of LED Scrolling type with Oval, 4.3 x 5.1mm dia. Diffused. LED's having Amber colour.Dual bin system should be adopted one for recycle waste & other for dry waste.Each bin shall be with minimum capacity of 70Ltrs.Interactive Information Panel-display equipment with information area of 1400 x 1400 and touch screen LED display panel of area not less than 600-900mm with integrated 8mm toughened glass.Advertisement Area 2 nos of size 4500mm x 1650mm and 2100mm x 2000mm shall be integrated within the design of the Bus Shelter. This shall be backlit type with SS box framing sides and back complete.Provision for installing outdoor WiFi Router.The Foundation slab shall be made in min M25 concrete. The	Nos.	8				8.00
27	KSRB 14.6-1:Providing and laying heavy duty cobble stones 60mm thick interlocking pavers, using cement and course sand for manufacture of blocks of approved size, shapes and colour with a minimum commpressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specification (Page No 101 St No 14.6)						
	Bus Stop at Ch.170.00 to 200.00	Sqm	1	26.00	2.50	├	65.00
	Bus Stop at Ch.230.00 to 250.01	Sqm	1	26.00	2.50		65.00
	Bus Stop at Ch.330.00 to 350.0	Sqm SQm	1	17.00	2.50		42.50 172.50
		3911				1	172.00

SI. No.	Description	Unit	No's	L	В	н	Qty.
28	Providing & installing of E- toilet with Super structure of the electronic toilet to have asthetic ambience with inner room size 1.2 x 0.8 x 2.4 (LXWXH)meters and Size of electronic toilet overall size in meters 2.30x1.25x2.80 (LXWXH) Total area 35 Sft. with Built-acess controlled main door and side walls made of SS Grade 304,Toilet floor and closet are to be stainless steel of grade 304.E-Toilet shall have Built-in water tank with minimum 225 Lit capacity and Acess controll using coin validator for entering the unit based on automatic payment collection mechanism exit from the unit should be manual.Automatic lights inside the unit with gloves on opening the door.E-Toilet shall be Automatic flushing system which includes Automatic Pre flush cleaning before use,Automatic closet washing mechanism after use and Automatic platform cleaning mechanism programmed after specific numbers.In addition to these flush switch is to be provided for manual operation.Standard features should include heath faucet,exhaust fan and cloth hanger.The E-Toilet shall have Alert to users-different indication on 'ready to use',busy are to be provided in the unit also with Voice guidence in the unit for users.	Nos.	6				6.00
29	Providing and Installing Waste water treatment and recycling unit for each E-Toilet: Bio digester tank suitable for maintenance free processing the soil waste with 2000 litre capacity, made of FRP. The bio digester shall be of anaerobic type with compartments followed by disinfection. The compartments shall have polygrass mats for protection of bacteria on side partition walls. The bio digester shall be fitted with ball valve or bypass arrangement. Dosed with approved microbial solution at recommended interval (NON SOR Item)	Nos.	6				6.00
30	Supply and Fixing of Traffic signal Straight pole of 6 mtr, inner dia 100 mm from resistant to peeling with base plate size of (LXWXT) 200mm X200mmX6mm painted with redoxide and double coat with synthetic enamel paint of yellow colour assembly G.I., class B, as per technical specification (NON SOR Item)	Nos.	10				10.00
31	Supply and fixing of Traffic signal Cantilever pole Class B having inner diameter of 100 mm or more with a height of 6m including extension arm assembly having outer diameter of 75mm with arm span of 4 mtr length and base plate of size 300mm X 300mm with thickness of 6 mm welded at the bottom of the pole base as per technical specification & drawings. (NON SOR Item)	Nos.	7				7.00
32	Supply and fixing of 300 mm dia – single source – LED retrofit - Red (blow) as per Specification (NON SOR Item)	Nos.	17				17.00
33	Supply and fixing of 300 mm dia – single source – LED retrofit - Amber (blow) as per Specification (NON SOR Item)	Nos.	17				17.00
34	Supply and fixing of 300 mm dia – single source – LED retrofit - Green (arrow/U- Turn) EN-12368 as per Specification (NON SOR Item)	Nos.	17				17.00
35	Supply and fixing of 300 mm dia – single source – LED retrofit - Red (ped. standing) EN-12368 as per Specification (NON SOR Item)	Nos.	16				16.00
36	Supply and fixing of 300 mm dia – single source – LED retrofit - Green (ped.walking) EN-12368 as per Specification (NON SOR Item)	Nos.	16				16.00
37	Supply and fixing of 300 mm dia - No Right Turn/No Left turn/No Straight/No 'U' Turn aspects by using UV stabilized ink on face plate EN-12368 as per Specification (NON SOR Item)	Nos.	15				15.00

Name of the Work :- Mangalore Smart City 3.1.2 Rate Analysis of Road & Junction for Maidan Road

RATE ANALYSIS -ROAD & JUNCTION PAVEMENT FOR MAIDAN ROAD

1	KSRRB M200-14.2 Dismantaling brick/Tile work /Paver Block B.in Cement Mortar retaining walls and other structure comprising of masonarycement concrete,wood work, Including T and P.sorting and dismatled material,disposal of unserviceble material and stacking the servicable material with all lifts complete as per specification.							
	Basic rate		244					
	Lead & Lift Charges As per page no.140 of S.R. (upto 5km)		16.25					
	Total		260.25					
	Add 12% For area weightage (Mangalore City)		31.23					
		Rate	291.48	Cum				
2	KSRRB M200-15.1. Dismantling of existing structures like culve comprising of masonry, cement concrete, wood work, steel wor necessary, sorting the dismantled material, disposal of unservic material with all lifts complete as per specifications. iii) Dismantl lime mortar. MORTH Specification No. 202. KSRRB M200-17.1-do-v) Dismantaling Steel work in all types o including cutting of dismembering	k, including eable mater ing Stone M	T&P and scaffold ial and stacking asonry. A. Rubb	ding wherever the serviceable le Stone masonry in				
	Basic rate		1202					
	Add 12% For area weightage		144.24					
		Rate	1346.24	MT				
3	KSRRB M200-12.1. Dismantling of existing structures like culve comprising of masonary, cement concrete, woodwork, steel wo necessary, sorting the dismantled material, disposal of unservic material with all lifts complete as per specifications. i)Lime/cement concrete by mechanical means.	rk, including	T&P and scaffol	ding wherever				
	Basic rate		179					
	Add 12% For area weightage		21.48					
		Rate	200.48	cum				
4	KSRRB M800-Portable barricade in construction zone KSEEB M800-43.Installation of a steel portable barricade with h a 'A" frame made with 45x45x5mm angle iron section,1.5m heig white stripes,150mm in width at an angle of 45 degree,'A" Fram per IRC:SP:55-2001 Complete as per specifications.	ght horizonta	Il rail painted(2 c	oats) with yellow and				
	Basic rate		2372					
	Add 12% For area weightage		284.64					
		Rate	2656.64	Each				
5	KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means ar complete as per specifications.	nd disposal c	of dismantled ma	terials with all lifts and				
	Basic rate		10					
	Add 12% For area weightage		1.2					
		Rate	11.20	Rmt				
6	Removing existing Sculpture from Junction Round about and p completion of the work as directed by engineer incharge (If any contractor)	•	•					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.1	Rate	100000	Nos.				

	KODDD M200.44. Every stign for ready and in all types of acity	والمراجب والمالية	average set of 0.0	
	KSRRB M300-14. Excavation for roadwork in all types of soil w	•		• •
	including cutting and loading in tippers, trimming bottom and side			
7	and grades and cross sections, and transporting disposal location	on up to a le	ad of 5.00Km an	id complete as per
	specifications.			
	MORTH specification No.301 (Including transporting charges, lo	ading and ur	loading for lead	5km)
		1		
	Basic rate	-	46	
	Lead & Lift Charges As per page no.140 of S.R. (upto 5km)		16	
	Total		62	
	Add 12% For area weightage (Mangalore City)		7.44	
		Rate	69.44	Cum
	KSRRB 300-Compaction KSRRB 300-58. Compaction of origin	al around w	ith maximum of i	6 nasses of 8 to 10
	tonnes power roller including filling in depression occuring durin	•		•
8		• •	-	
	machinery complete as per specifications. MORTH / Chapter 3	(Page No.1	49,51 NO.19.64)	
	Basic Rate		5	
	Add 12% For Area weightage		0.6	
		Rate		Sqm
		Rale	5.00	Sym
	KSRRB M200.Dismantling of cement concrete pavement by m			
	to pieces not exceeding 0.02 cum in volume and stock pilling at	t designated	locations and dis	sposal of dismantled
9	material stacking serviceble and unserviceable materials separ	ately comple	ete as per specifi	cations.MORTH
-	specification No.202.(Including transporting charges, loading an	d unloading	for lead 5km-Ext	tra)
	(Page No 138,SI No : 18.47)	5		/
			704	
	Basic Rate		781	
	Lead & Lift Charges As per page no.140 of S.R. (upto 5km)		16.25	
	Loading & Unloading Charges As per page no.134,SI No.17.1			
	of S.R.		68	
	Total		865.25	
	Add 12% For area weightage (Mangalore City)		103.83	
		Rate	969.08	
		Trate	000.00	Udin
	KCDD 4.4.6 Dreviding and laving in position plain coment cone	Late of Mix 4		
	KSRB 4-1-6 Providing and laying in position plain cement conc			-
	20mm and down size graded granite metal coarse aggregates			
10	machine mixed, concrete laid in layers not exceeding 15cms. th			
	cills, including cost of all materials, labour, HOM of machinery, cu	iring comple	te as per specific	cation No.KBS4.1,4.2
	(Page No 12,SI No : 4.6)			
	Basic Rate		5441	
	Ded.Cement Cost (7.2 Rs./kg x240 kg)		-1728	
	Total		3713	
	Add 12% For Area weightage		445.56	
	Cement cost(7.2Rs./kg x 240 kg)		1728	
		Rate	5886.56	Cum
	Note: for cement basic price refer "material components"-			
	S.I.132=Rs.720 / Quintal			
		-	-	•
	KSRB 2.8 : Providing and Filling in Foundation with Granite /Tra	n broken me	tal 100mm and	down size with
	approved sand including hand packing,ramming,watering including	•		
11		ung cost of a		labour with an leads
	and lift.complete as per specifications.			
	Basic Rate		2114	
	Add 12% For Area weightage		253.68	
		Rate	2367.68	
			2007.00	
		1		

	KSRB 4.2.1 : Providing and laying in position reiforcement cen	nent concrete	of design Mix M	125 with OPC cement
	@240Kgs,with 20mm and down size graded granite metal coa	rse aggregate	e @ 0.47 cum w	ith super plasticisers
	@3 liters confirming to IS 9103-1999 reafirmed -2008 at mach			
10	15cms thick, vibrated for all works in foundation for footings, pe			5
12	thickness)including attached pilasters,columnspillars,posts,stru			
	,			•
	etc.,Including cost of labour,HOM of machinery,curing,complet	e but excluair	ng cost of reinfor	cement as per
	specifications.			
	Basic Rate without cement(6221.0 -7.2 Rs./kg x240 kg =			
	4493.0)		4493	
	Add 12% For Area weightage		539.16	
	Cement cost (7.20 Rs./kg x 240 kg)	1	1728	
		Data		
		Rate	6760.16	Cum
	Note: for cement basic price refer "material components"-			
	S.I.132=Rs.720 / Quintal			
	KSRB 4.6.1 Providing and removing centering, shuttering, strutt	ing,propping	etc.,and remova	l of formwork for
13	foundations, footings, bases of columns for mass concrete inclu	ding cost of a	all materials,labo	ur complete as per
	specifications.	0		
	Basic Rate		231	
	Add 12% For Area weightage		27.72	
		Rate	258.72	Sqm
	KSRB 4.9.2 : Providing T.M.T steel reinforcement for RCC wor	k including		
	straighting,cutting,bending,hooking,placing in position,lapping a	nd/or welding	g wherever requi	red,tying with binding
14	wire and anchoring to thr adjoing members wherever necessar	-		
	shall not be measured and paid) cost of materials, labour, HOM	• •	• • • •	-
	specifications.Specification No. KBS4.6.3.		,	-
	Basic Rate	1 1	70075	
	IBasic Rate		///6//5	
			70675	
	Add 12% For Area weightage		8481	
		Rate		
	Add 12% For Area weightage		8481 79156.00	МТ
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid	ling close gra	8481 79156.00 ded crushed sto	MT ne aggregate of
	Add 12% For Area weightage	ling close gra	8481 79156.00 ded crushed sto	MT ne aggregate of
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid	ling close grad	8481 79156.00 ded crushed sto red surface,mixi	MT ne aggregate of ng by mix in place
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p	ling close grad otor on prepa	8481 79156.00 ded crushed sto red surface,mixi	MT ne aggregate of ng by mix in place
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho	ling close grad otor on prepa	8481 79156.00 ded crushed sto red surface,mixi	MT ne aggregate of ng by mix in place
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1	ling close grad otor on prepa	8481 79156.00 ded crushed sto red surface,mixi achieve the de	MT ne aggregate of ng by mix in place sired
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with m methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate	ling close grad otor on prepa	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408	MT ne aggregate of ng by mix in place sired
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1	ling close gra- otor on prepa power roller to de.	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96	MT ne aggregate of ng by mix in place sired
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with m methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate	ling close grad otor on prepa	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408	MT ne aggregate of ng by mix in place sired
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with m methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage	ling close gra- otor on prepa oower roller to de. Rate	8481 79156.00 ded crushed sto red surface,mixi b achieve the de 1408 168.96 1576.96	MT ne aggregate of ng by mix in place sired Cum
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix	ling close gra- potor on prepa power roller to de. Rate M15 with OF	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with m methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage	ling close gra- potor on prepa power roller to de. Rate M15 with OF	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix	ling close gra- potor on prepa power roller to de. Rate M15 with OF at 0.86cum ar	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160 ad fine aggregate	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub-
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate	ling close gra- power roller to de. Rate M15 with OF at 0.86cum ar confirming to	8481 79156.00 ded crushed sto red surface,mixi b achieve the dea 1408 168.96 1576.96 PC cement @160 nd fine aggregate b IS:383) aggreg	MT ne aggregate of ng by mix in place sired Cum OKgs,with 25mm and e @ 0.58cum Sub- jate cement ration not
15	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per	Rate M15 with OF at 0.86cum ar confirming to Table 600-1,0	8481 79156.00 ded crushed sto red surface,mixi b achieve the dea 1408 168.96 1576.96 PC cement @160 nd fine aggregate to IS:383) aggreg cement content t	MT ne aggregate of ng by mix in place sired Cum OKgs,with 25mm and e @ 0.58cum Sub- jate cement ration not to be determined
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less	Rate M15 with OF to 0.86cum ar confirming to table 600-1,0 than 10Mpa	8481 79156.00 ded crushed sto red surface,mixi o achieve the dea 1408 168.96 1576.96 PC cement @160 nd fine aggregate o IS:383) aggreg cement content t at 7 days,mixed	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- ate cement ration not to be determined in a batching
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160 od fine aggregate o IS:383) aggreg cement content to at 7 days,mixed with 8-10 tonnes	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- ate cement ration not to be determined in a batching
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160 od fine aggregate o IS:383) aggreg cement content to at 7 days,mixed with 8-10 tonnes	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- ate cement ration not to be determined in a batching
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1)	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi b achieve the dea 1408 168.96 1576.96 PC cement @160 nd fine aggregate b IS:383) aggreg cement content t at 7 days,mixed with 8-10 tonnes No.601	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- jate cement ration not to be determined in a batching
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160 od fine aggregate o IS:383) aggreg cement content t at 7 days,mixed with 8-10 tonnes No.601	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- jate cement ration not to be determined in a batching
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate as base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate Deduction of Cement Cost (7.2 Rs/Kg X 160Kg)	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi o achieve the dea 1408 168.96 1576.96 C cement @ 160 od fine aggregate o IS:383) aggreg cement content to at 7 days,mixed with 8-10 tonnes No.601 <u>3761</u> -1152	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- ate cement ration not to be determined in a batching
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160 od fine aggregate o IS:383) aggreg cement content t at 7 days,mixed with 8-10 tonnes No.601	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- ate cement ration not to be determined in a batching
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate as base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate Deduction of Cement Cost (7.2 Rs/Kg X 160Kg)	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi o achieve the dea 1408 168.96 1576.96 C cement @ 160 od fine aggregate o IS:383) aggreg cement content to at 7 days,mixed with 8-10 tonnes No.601 <u>3761</u> -1152	MT ne aggregate of ng by mix in place sired Cum OKgs,with 25mm and @ 0.58cum Sub- pate cement ration not to be determined in a batching s vibratory
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate Deduction of Cement Cost (7.2 Rs/Kg X 160Kg) Total	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi b achieve the dea 1408 168.96 1576.96 PC cement @160 ad fine aggregate b IS:383) aggreg cement content t at 7 days,mixed with 8-10 tonnes No.601 3761 -1152 2609	MT ne aggregate of ng by mix in place sired Cum DKgs,with 25mm and e @ 0.58cum Sub- ate cement ration not to be determined in a batching s vibratory
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate Deduction of Cement Cost (7.2 Rs/Kg X 160Kg) Total Add 12% For Area weightage	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa a r,compacting specification	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160 ad fine aggregate o IS:383) aggreg cement content t at 7 days,mixed with 8-10 tonnes No.601 3761 -1152 2609 313.08 1152	MT ne aggregate of ng by mix in place sired Cum OKgs,with 25mm and @ 0.58cum Sub- ate cement ration not to be determined in a batching s vibratory
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate Deduction of Cement Cost (7.2 Rs/Kg X 160Kg) Total Add 12% For Area weightage Add Cement cost(7.2Rs./kg x 160 kg)	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa ar r,compacting	8481 79156.00 ded crushed sto red surface,mixi o achieve the dea 1408 168.96 1576.96 PC cement @160 nd fine aggregate o IS:383) aggreg cement content t at 7 days,mixed with 8-10 tonnes No.601 3761 -1152 2609 313.08	MT ne aggregate of ng by mix in place sired Cum OKgs,with 25mm and @ 0.58cum Sub- ate cement ration not to be determined in a batching s vibratory
	Add 12% For Area weightage KSRRB M400-6.2.Construction of granular sub base by provid granite/trap/basalit material,spreading in uniform layers with me methode by rotavator at OMC, and compacting with vibratory p density,complete as per specification.B.By Mix in Place Metho Close graded granular sub base material as per 400-1 Basic Rate Add 12% For Area weightage KSRRB M600-1.Construction of dry lean cement concrete mix down size graded granite/trap/basalt metal coarse aggregate a base over prepared sub grade with (coarse and fine aggregate to excee 15:1.Aggregate gradation after blending to be as per during trail length construction,concrete strength not to be less plant,transported to site,laid with a paver with electronic senso roller,finishing and curing complete as per specifications.Morth (Page No 176,SI No : 22.1) Basic Rate Deduction of Cement Cost (7.2 Rs/Kg X 160Kg) Total Add 12% For Area weightage	Rate M15 with OF at 0.86cum ar confirming to Table 600-1, than 10Mpa a r,compacting specification	8481 79156.00 ded crushed sto red surface,mixi o achieve the de 1408 168.96 1576.96 PC cement @160 ad fine aggregate o IS:383) aggreg cement content t at 7 days,mixed with 8-10 tonnes No.601 3761 -1152 2609 313.08 1152	MT ne aggregate of ng by mix in place sired Cum OKgs,with 25mm and @ 0.58cum Sub- ate cement ration not to be determined in a batching s vibratory

17	KSSRRB M600-2.Construction of unreinforced,dowel jointed,plain cement concrete pavement over a prepared sub base with 25mm and down size graded granite metal coarse aggregate with superplastisizer at 3 lts confirming to IS9103-1999 reaffirmed 2008(Coarse and fine aggregate conforming to IS:383) mixed in a batching and mixing plant as per approved mix design,transported to site,laid with a fixed form or slip form paver spread,compacted and finished in a continuos operation including provision of contraction,expansio,construction and longitudinal joints,including groove cutting chrges,joints filler,separation memberane,sealent primer,joints sealant,debonding strip,dowel bars at 4.5m intervals,tie rod,admixtures as approved,curing compound,finishing to lines and grades as per drawing complete as per sprcifications MORTH specification No.602. do with M40(420Kg per cum Cement,C.A,0.67 cum F.A.044Cum (Page No 176,SI No : 22.2.2)							
	Basic Rate		7166					
	Basic Rate without cement (7.2 Rs./kg x420kg)		-3024					
	Total		4142					
	Add 12% For Area weightage		497.04					
	Add Cement cost(7.2Rs./kg x420 kg)		3024					
		Rate	7663.04	Cum				
	Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal							
18	Providing and placing joint sealant compound of cold polysulphi required width, sand blasting the groove face if recommended to with air compressor, insertion of debonding strip, priming the sid recommends and pouring the sealant all complete including ma (Non SOR Item)	by the sealar des of the se	nt manufacturer, alant if the seala	cleaning the groove				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.2	Rate	129	Rmt				
19	KSRRB 3000 Repair of Joint Grooves with Epoxy Mortar KSRRB M3000-8 Repairs of spalled joints grooves of contraction concrete pavement using epoxy mortar concrete complete as p		ions.Morth speci	• •				
	Basic Rate		344					
	Add 12% For Area weightage		41.28					
		Rate	385.28	Rmt				
20	Providing and laying at or near ground level factory made kerb to the required line, level and curvature, jointed with cement mo making joints with or without grooves (thickness of joints except including making drainage opening wherever required complete of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-char Kerb Dimension=	ortar 1:3 (1 c at sharp cu etc. as per	ement: 3 coarse rve shall not to m	sand), including hore than 5mm),				
	Rate Arrived as per Rate analysis		4570					
	Basic Rate	D-1	1579	Nee				
		Rate	1579.00	INOS				
	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufactu	• • • •						
21	cautionary, mandatory & Informatory signboards made out of cu confirming to type XI standards of IRC:67:2012 specifications & sheet having minimum 0.30 mm thick aluminum skin on both sid MS angle and mounted on 75 mm dia OR 75X75X6mm mild sta not less than 2.10 m from the ground level to the bottom of the post should be painted with be coat of red oxide paint and two of colour with bands of 30 cm height alternatively firmly fixed to the cement concrete of 45cmX45cmX60cm including cost & convey labour with all leads and lifts, loading charges necessary for safe engineer in-charge. 10 years warranty for Retro Reflective Shee per clause 6.9 in IRC: 2012 & a certified copy of three years ou lab for the product offered shall be obtained from the supplier. 900MM Equilateral Triangle-TYPE XI	tixed over 4 des & fixed o eel angle to sign board & coats of synt e ground by yance of all n isfactory con eting from th	Amm thick alumin over a support fra Total height 2.70 60mm below gr hetic enamel pai means of founda materials, equipn mpletion of the w e original sheetin	nium composite panel ame of 25X25X3mm m with clear height of round level. the sign nt of black and white ation with M20 grade nent, machinery & rorks as directed be ng manufactures as				

	Add 12% For Area weightage		622.2	
		Rate	5807.20	Nos
22	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufactu cautionary, mandatory & Informatory signboards made out of cu confirming to type XI standards of IRC:67:2012 specifications & sheet having minimum 0.30 mm thick aluminum skin on both sig MS angle and mounted on 75 mm dia OR 75X75X6mm mild ste not less than 2.10 m from the ground level to the bottom of the post should be painted with be coat of red oxide paint and two of colour with bands of 30 cm height alternatively firmly fixed to the cement concrete of 45cmX45cmX60cm including cost & convey labour with all leads and lifts, loading charges necessary for safe engineer in-charge. 10 years warranty for Retro Reflective Shee per clause 6.9 in IRC: 2012 & a certified copy of three years ou	ube corner n fixed over 4 des & fixed o eel angle to sign board 8 coats of synt e ground by yance of all n isfactory con eting from th	nicro prismatic gr 4mm thick alumir over a support fra Total height 2.70 60mm below gr hetic enamel pai means of founda materials, equipn mpletion of the w ie original sheetir	ade sheeting hium composite panel ame of 25X25X3mm m with clear height of round level. the sign nt of black and white ation with M20 grade nent, machinery & rorks as directed be ng manufactures as
	lab for the product offered shall be obtained from the supplier.			
	900MM Octagon Stop Board-TYPE XI		7504	
	Basic Rate Add 12% For Area weightage		7564 907.68	
		Rate	8471.68	
		Nate	0471.00	1103
23	KSRRB M800-2. Retro-Reflectorised Traffic Signs - Manufactu cautionary, mandatory & Informatory signboards made out of co confirming to type XI standards of IRC:67:2012 specifications & sheet having minimum 0.30 mm thick aluminum skin on both sig MS angle and mounted on 75 mm dia OR 75X75X6mm mild ste not less than 2.10 m from the ground level to the bottom of the post should be painted with be coat of red oxide paint and two of colour with bands of 30 cm height alternatively firmly fixed to the cement concrete of 45cmX45cmX60cm including cost & convey labour with all leads and lifts, loading charges necessary for safe engineer in-charge. 10 years warranty for Retro Reflective Shee per clause 6.9 in IRC: 2012 & a certified copy of three years ou lab for the product offered shall be obtained from the supplier. 600MM Circle-TYPE XI	ube corner n fixed over 4 des & fixed o eel angle to sign board 8 coats of synt e ground by yance of all n isfactory con eting from th	hicro prismatic gr fmm thick alumir over a support fra Total height 2.70 60mm below gr hetic enamel pai means of founda materials, equipn mpletion of the w le original sheetir ure report from a	ade sheeting hium composite panel ame of 25X25X3mm m with clear height of round level. the sign nt of black and white ation with M20 grade nent, machinery & rorks as directed be ng manufactures as
	Basic Rate Add 12% For Area weightage		4732 567.84	
		Rate	5299.84	Nos
			0200.04	
24	Road Marking with hot applied Thermoplastic Compound with F Surface:Providing and laying of hot applied thermoplastic comp beads at 250 gms and 2 ltr of primer per sqm area,thickness of beads as per IRC:35.The finished surface to be level,uniform and specifications.MORTH specification No.803	ound 2.5mm 2.5mm is ex	n thick including r clusive of surfac streak and holes	eflectorising glass ce applied glass
	Basic Rate		647	
	Add 12% For Area weightage	Det-	77.64	Carro
		Rate	724.64	Sqm
25	KSRRB 800-1.Painting two coats after filling the surface with sy palstered concrete surfaces,with materials,labour complete as p (Page No 182,SI No : 24.1)		tion.for Kerb Sto	
	Basic Rate		60	
	Add 12% For Area weightage	Rate	7.2	Sam
		Rate	67.20	Sym

26	Providing and Fixing of Bus shelter(on prepared foundation) made of SS 304 frame work with brush steel finish, Galvanised Aluminium powder coated roofing and electronic circuit to control its lighting. The seating shall be made of SS 304 tubular sections for seat and back rest.each unit size of 4500mm x 600mm with a minimum backrest support of 450mm. Bus shelter shall have the Side Display board to have 1100X400mm Electronic display. The electronic display board to be of LED Scrolling type with Oval, 4.3 x 5.1mm dia. Diffused. LED's having Amber colour. Dual bin system should be adopted one for recycle waste & other for dry waste. Each bin shall be with minimum capacity of 70Ltrs. Interactive Information Panel-display equipment with information area of 1400 x 1400 and touch screen LED display panel of area not less than 600-900mm with integrated 8mm toughened glass. Advertisement Area 2 nos of size 4500mm x 1650mm and 2100mm x 2000mm shall be integrated within the design of the Bus Shelter. This shall be backlit type with SS box framing sides and back complete. Provision for installing outdoor WiFi Router. The Foundation slab shall be made in min M25 concrete. The cast iron nuts, bolts shall be rust proof hot deep galvanized powder coated etc. The materials used shall be Nonflammable								
	Rate Approved as per EOI by MD MSCL Mangalore,Refer								
	Sr.No.3	Rate	1500000	Nos.					
27	KSRB 14.6-1:Providing and laying heavy duty cobble stones 60 course sand for manufacture of blocks of approved size,shapes strength of 281 kg per sqm over 50mm thick sand bed (average having 3 tons compaction force thereby forcing part of sand und compaction of paver surface joints into its final level,including co complete as per specification	s and colour e thickness)a derneath to o	with a minimum and compacting v come up in betwe ials,labour and H	commpressive with plate vibrator een joints,final					
	Basic Rate		912						
	Add 12% For Area weightage	Dete	109.44						
		Rate	1021.44	Sqiii					
28	Providing & installing of E- toilet with Super structure of the electron size 1.2 x 0.8 x 2.4 (LXWXH)meters and Size of electroni (LXWXH) Total area 35 Sft. with Built-acess controlled main do floor and closet are to be stainless steel of grade 304.E-Toilet scapacity and Acess controll using coin validator for entering the mechanism exit from the unit should be manual. Automatic lights Toilet shall be Automatic flushing system which includes Autom closet washing mechanism after use and Automatic platform clean numbers. In addition to these flush switch is to be provided for m heath faucet, exhaust fan and cloth hanger. The E-Toilet shall hause', busy are to be provided in the unit also with Voice guidence GPRS based Real time data to be provided from the unit throug users per day and coins collected. E-toilet shall have Modular are installation at site. Call ceneter and web portal facilities for regist collection etc. Status display in LED, Printed instruction stickers a space for advertisement dispaly to be provided to supplement Base of the unit to be placed on a suitable concrete structure w (Non SOR Item)	c toilet overa or and side shall have Br unit based of sinside the unit patic Pre flus eaning mech nanual opera ave Alert to u ce in the unit gh web for kin nd portable of tering compl are to be pro f the unit for upto 30 Min	all size in meters walls made of SS uilt-in water tank on automatic pay unit with gloves of sh cleaning befor nanism programn ation.Standard fe users-different ind for users. Web e nowing the health design enabling e ience and trackir ovided.For Adver income generati	2.30x1.25x2.80 S Grade 304,Toilet with minimum 225 Lit ment collection on opening the door.E- e use,Automatic ned after specific atures should include dication on 'ready to enabled support- n status like number of easy assembling and ng usage,coin tisment purpose					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer	Poto	575000	Noc					
	Sr.No.1	Rate	575000	1105.					
29	Providing and Installing Waste water treatment and recycling un Bio digester tank suitable for maintenance free processing the The bio digester shall be of anaerobic type with compartments f have polygrass mats for protection of bacteria on side partition valve or bypass arrangement. Dosed with approved microbial s (NON SOR Item)	soil waste w followed by o walls. The b	rith 2000 litre cap disinfection. The io digester shall l	compartments shall be fitted with ball					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.4	Rate	150000	Nos.					
1									

30	Supply and Fixing of Traffic signal Straight pole of 6 mtr, inner dia 100 mm from resistant to peeling with base plate size of (LXWXT) 200mm X200mmX6mm painted with redoxide and double coat with synthetic enamel paint of yellow colour assembly G.I., class B, as per technical specification (NON SOR Item)						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.5	Rate	18691	Nos.			
31	Supply and fixing of Traffic signal Cantilever pole Class B havin 100 mm or more with a height of 6m including extension arm as having outer diameter of 75mm with arm span of 4 mtr length and base plate of size 300mm X 300mm with thickness of mm welded at the better of the pole base on per technical and	sembly of 6					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.6	Rate	52850	Nos.			
32	Supply and fixing of 300 mm dia – single source – LED retrofit - Specification (NON SOR Item)	Red (blow) :	as per				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.7	Rate	11082	Nos.			
33	Supply and fixing of 300 mm dia – single source – LED retrofit - Specification (NON SOR Item)	Amber (blov	v) as per				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.7	Rate	11082	Nos.			
34	Supply and fixing of 300 mm dia – single source – LED retrofit - EN-12368 as per Specification	Green (arro	w/U- Turn)				
	Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.8	Rate	13973	Nos.			
35	Supply and fixing of 300 mm dia – single source – LED retrofit - Red (ped. standing) EN-12368 as per Specification						
	Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.9	Rate	11082	Nos.			
36	Supply and fixing of 300 mm dia – single source – LED retrofit - EN-12368 as per Specification	Green (ped.	walking)	<u> </u>			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.10	Rate	13973	Nos.			
37	Supply and fixing of 300 mm dia - No Right Turn/No Left turn/No aspects by using UV stabilized ink on face plate EN-12368 as p	•		I			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.11	Rate	6196	Nos.			

Executive Engineer MSCL Mangaluru Superintendent Engineer MSCL Mangaluru

Name of the Work :- Mangalore Smart City 3.2 BOQ of Footpath and Parking area for Maidan Road

-	3.2 BOQ of Footpath and		gaioaiori	nardan no	uu	
SI.No.	Specification	Unit	Quantity	Rate	Amount	Remarks
1.00	KSRRB M200-14.2 Dismantaling brick/Tile work /Paver Block B.in Cement Mortar retaining walls and other structure comprising of masonarycement concrete,wood work, Including T and P.sorting and dismatled material,disposal of unserviceble material and stacking the servicable material with all lifts complete as per specification. (Page No 137 SL No 18.23)	Cum	485	291.48	1,41,475	
2.00	KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means and disposal of dismantled materials with all lifts and complete as per specifications. MORTH Specification No.202. (Page No.139,S.I.No.18.49)	Rmt	1,936	11.20	21,683	
3.00	Earth work excavation for foundation of structures upto 3 mtrs. by mechanical means as per drawing and technical specification, including setting out, providing shoring, strutting and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom, filling back the excavated earth to the extent required and utilising / transporting the remaining earth upto 1.00km lead. including cost of labour, materials and HOM of machineries etc., complete. up to 3.0 m deep	Cum	1,201.49	59.36	71,321	
4.00	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 (Page No.149,SI No 19 64)	Sqm	3,801.27	5.60	21,287	
5.00	Granular Sub Base (GSB): KSRRB 400-1. Providing, laying, spreading and compacting specified graded, gravel or any other course material 60% and crushed stone aggregates of granite/ trap/ basalt 40% in sub-base course, close grading-I including premixing the material at OMC in mechanical mixer, carraige of mixed material, spreading in uniform layers with motor grader on a prepared base and compacting with power roller to achieve the desired density including all materials, labour, HOM of machinery, lighting, guarding, barricading and maintenance of diversion complete as per specifications. MORTH Chapter 4. (Page No 155,SI No : 20.2)	Cum	833.42	1,357.44	11,31,323	
6.00	KSRB 4.1.6 Providing and laying in position plain cement concrete of mix 1:2:4 with OPC cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregates @ 0.459cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SLND: 4.6 Pg No 12)	Cum	76.95	5,886.56	4,52,975	

SI.No.	Specification	Unit	Quantity	Rate	Amount	Remarks
7.00	Providing and laying heavy duty cobble stones 60mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Page No 101,SI No : 14.6)	Sqm	3,677	1,021.44	37,55,902	
8.00	Providing and laying heavy duty Tactile Tiles (Direction and Stop tiles-300 x 300 mm) 60mm thick and Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item)	Sqm	289	912.00	2,63,638	
9.00	Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Page No 101,SI No : 14.7)	Sqm	445	1,086.40	4,83,893	
10.00	Providin and fixing pre cast solid concrete Kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively,400mm high and 450mm in length finished with CM 1:3 Plastering and finishing cutting, including cost of all materials,labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc.,complete (Page No 25,SI No : 5.3)	Nos.	5,367	350.56	18,81,456	

Providing and laying at or near ground level factory made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge). Nos. 2,235 1,579.00 35,29,065 12.00 KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Pane No 182 SI No : 24 1) Sqm 1,043 67.20 70,118 13.00 Supplying chainlink fencing 50mm size of 8 gauge properly stretched between existing rectangular poles and fixing suitable bolts and nuts,the free ends shall bow relead to pole and block pipe at top and bottom as required including tox of all materials, labour, lead and lifts and as per the directions of the engineer in charge of work including tox cost of approved quality pain over one cost of shop paint (Page No 262, SI No : 37.3) Sqm 10 4,500.00 45,000 14.00 Providing and fixing of S.S. Bollards(SS304) on foroptath as specified and directed by Engineer -in-charge (NON SOR Item) No.s 8 7,500.00 60,000 15.00 Providing and Fixing SS 304 Outdoor Dustbin of 55 Nos. 8 <th>SI.No.</th> <th>Specification</th> <th>Unit</th> <th>Quantity</th> <th>Rate</th> <th>Amount</th> <th>Remarks</th>	SI.No.	Specification	Unit	Quantity	Rate	Amount	Remarks
12.00surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182 SI No : 24 1)Sqm1,04367.2070,118Supplying chainlink fencing 50mm size of 8 gauge properly stretched between existing rectangular poles and fixing suitable bolts and nuts, the free ends shall be welded to pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the engineer in charge of work including two coats of approved quality paint over one coat of shop paint (Page No 262, SI No : 37.3)SqmSqm235738.081,73,449Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in- charge (NON SOR Item)No.s104,500.0045,000Providing and Fixing SS 304 Outdoor Dustbin of 55 liters capacity (NON SOR Item)Nos.87,500.0060,000	11.00	made kerb stone of M-20 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).		2,235	1,579.00	35,29,065	
properly stretched between existing rectangular poles and fixing suitable bolts and nuts, the free ends shall be welded to pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the engineer in charge of work including two coats of approved quality paint over one coat of shop paint (Page No 262, SI No : 37.3)Sqm235738.081,73,44914.00Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in- charge (NON SOR Item)No.s104,500.0045,00015.00Providing and Fixing SS 304 Outdoor Dustbin of 55 liters capacity (NON SOR Item)Nos.87,500.0060,000	12.00	surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8	Sqm	1,043	67.20	70,118	
14.00footpath as specified and directed by Engineer -in- charge (NON SOR Item)No.s104,500.0045,00010No.s SOR Item)No.s104,500.0045,00045,00015.00Providing and Fixing SS 304 Outdoor Dustbin of 55 liters capacity (NON SOR Item)Nos.87,500.0060,000	13.00	properly stretched between existing rectangular poles and fixing suitable bolts and nuts, the free ends shall be welded to pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the engineer in charge of work including two coats of approved quality paint over one coat of shop paint		235	738.08	1,73,449	
15.00 liters capacity Nos. 8 7,500.00 60,000 (NON SOR Item)	14.00	footpath as specified and directed by Engineer -in- charge	No.s	10	4,500.00	45,000	
Providing and Fixing Recessed Incention chamber	15.00	liters capacity	Nos.	8	7,500.00	60,000	
16.00 cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron (NON SOR Item) No.s 20 3,500.00 70,000	16.00	Iron / Ductile Iron	No.s		3,500.00		

Executive Engineer MSCL Mangaluru Superintendent Engineer MSCL Mangaluru

Name of the Work :- Mangalore Smart City

SI.No.	Description	Unit	No's	L	В	D	Qty.
01.110.	-	Onit	110 3	L	D		ety.
	KSRRB M200-14.2 Dismantaling brick/Tile work /Paver Block B.in Cement Mortar retaining walls and other						
	structure comprising of masonarycement concrete,wood						
1.00	work, Including T and P.sorting and dismatled						
	material, disposal of unserviceble material and stacking the						
	servicable material with all lifts complete as per						
	specification.						
	(Page No 137,SI No : 18.23)						
	Footpath						
	Left Side (Govt. Office Side)						
	University College to Ch.0.0		1	137.00	2.20	0.12	36.17
	Ch.0.0 to 110.0		1	130.76	3.62	0.12	56.80
	Ch. 117.5 to Ch.141.8 (Rectangular Portion)		1	41.00	3.70	0.12	18.20
				Area			
	Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1	8.19	3.70	0.12	3.64
				Area			
	Ch.150.05 to Ch.154.00(Quarter of Circle)		1	7.32	8.19	0.12	7.19
	Ch.154.0 to Ch.266.4(Rectangular Portion)		1	111.80	3.40	0.12	45.61
				Area			
	Ch.266.4 to Ch.270.0 (Quarter of Circle)		1	6.47		0.12	0.78
				Area			
	Ch.275.0 to Ch.278.4 (Quarter of Circle)		1	6.7		0.12	0.80
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33.2	3.6	0.12	14.34
				Area			
	Ch.311.6 to Ch.314.9(Quarter of Circle)		1	7.9		0.12	0.94
	Ch.320.0 to Ch.323.4(Quarter of Circle)		1	8.0			7.95
	Ch.323.4 to Ch.372.5 (Rectangular Portion)		1	49.2	4.0	0.12	23.32
	Ch.372.5 to Ch.376.0(Quarter of Circle)		1	9.18		0.12	1.10
				Area			
	Ch.380 to Ch.384.00(Quarter of Circle)		1	9.88		0.12	1.19
	Ch.384.0 to Ch.327.8(Rectangular Portion)		1	43.9	4.8	0.12	25.29
				Area			
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	12		0.12	1.48
				Area			
	Ch.438.5 to Ch.441.7(Quarter of Circle)		1	7.3		0.12	0.88
	Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30.1	3.1	0.12	11.02
				Area			
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4.8		0.12	0.58
			Ì				•
			1	Area			
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4.84		0.12	0.58
	Ch.488.1 to Old kent Road		1	66	2.6	0.12	20.90
	Footpath		1				_0.00
	Right Hand Side(Maidan Side)		1				
L	Bibi Alabi Road to Ch.0.00		1	29	2	0.12	5.39
L	Ch.0.00 to 100.00		1	84	2	0.12	20.50
	Ch.100.0 to Ch.102.8		1	3	2	0.12	0.67
l	Ch.102.8 to Ch.177.5		1	74.7	2	0.12	13.45
				Area	2	0.12	10.40
	Ch. 177.5 to Ch.179.4(Quarter of Circle)		1	Aiea 1.8		0.12	0.21
				1.0		0.12	0.21
				Area			
	Ch.184.4 to Ch.192.8		1	31.68		0.12	3.80
			1		5.40	0.12	
	Ch.192.8 to Ch.199.40	ļ	1	6.60	5.40 4.25	0.12	4.28
	Ch.199.4 to Ch.201.8	ļ	1	2.30 9.00	4.25	0.12	1.17
	Ch.201.80 to Ch.210.08		1				3.35
	Ch.210.08 to Ch.213.1			2.40	4.25	0.12	1.22
	Ch. 213.1 to Ch.214.8		1	1.70	5.40	0.12	1.10

3.2.1 Measurement Sheet of Footpath and Parking area for Maidan Road

Ch.214.8 to Ch.217.2

2.40

4.25

0.12

1.22

1

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Ch.217.2 to Ch.220.07		1	3.50	3.14	0.12	1.32
	Ch.220.07 to Ch.223.0		1	2.40	4.25	0.12	1.22
	Ch.223.0 to Ch.226.4		1	3.20	5.40	0.12	2.07
	Ch. 226.4 to Ch.228.7		1	2.40	4.20	0.12	1.21
	Ch.228.7 to Ch.264.2		1	35.50	3.00	0.12	12.78
	Ch.264.2 to Ch.266.7		1	2.50	4.20	0.12	1.26
	Ch. 266.7 to Ch.268.9		1	2.10	5.40	0.12	1.36
	Ch.268.9 to Ch.271.2		1	2.30	4.20	0.12	1.16
	Ch.271.2 to Ch.274.4		1	3.20	3.00	0.12	1.15
	Ch. 274.4 to Ch.276.8		1	2.50	4.25	0.12	1.28
	Ch.276.8 to Ch.280.00		1	3.20	5.50	0.12	2.11
	Ch.280.0 to Ch.282.4		1	2.40	4.25	0.12	1.22
	Ch.282.4 to Ch.286.0		1	3.70	3.00	0.12	1.33
	Ch.286.0 to Ch.288.5		1	2.50	4.20	0.12	1.26
	Ch.288.5 to Ch.290.0		1	1.40	5.40	0.12	0.91
	Ch.290.0 to Ch.292.4		1	2.40	4.20	0.12	1.21
	Ch.292.4 to Ch.298.7		1	6.50	3.00	0.12	2.34
	Ch.298.7 to Ch.301.2		1	2.40	4.20	0.12	1.21
	Ch.301.2 to Ch.305.1		1	3.90	5.40	0.12	2.53
	Ch.305.1 to Ch.307.5		1	2.40	4.20	0.12	1.21
	Ch.307.5 to Ch.311.3	-	1	3.90	3.00	0.12	1.40
	Ch.311.3 to Ch.314.1		1	2.80	3.70	0.12	1.24
	Ch.314.1 to Ch.316.6		1	2.50	3.00	0.12	0.90
	Ch.316.6 to Ch.321.4		1	4.80	4.20	0.12	2.42
	Ch.321.4 to Ch.342.8		1	21.30	3.00	0.12	7.67
	Ch.342.8 to Ch.348.8		1	6.00	5.40	0.12	3.89
	Ch.348.8 to Ch.354.1		1	5.30	3.00	0.12	1.91
	Ch.354.1 to Ch.362.8		1	8.60	4.20	0.12	4.33
	Ch.362.8 to Ch.434.5		1	71.70	3.05	0.12	26.24
	Ch.434.5 to Ch.436.9		1	2.40	4.30	0.12	1.24
	Ch.436.9 to Ch.490.0		1	51.80 23.15	5.60 5.50	0.12 0.12	34.81
	Ch.490.0 to Ch.500.0 Ch.500 to Maidan Road-RHS (Towards Hamilton circle)		I	23.15	5.50	0.12	15.28
			1	45.60	1.60	0.12	8.76
		Cum				Total	485.37
		•					100101
	KSRRB M200-Dismantaling of kerb Stone and Channel						
	KSRRB M200-26. Dismantling Kerb stone by Manual						
	means and disposal of dismantled materials with all lifts						
2.00	and complete as per specifications.						
	MORTH Specification No.202.						
	(Page No.139,S.I.No.18.49)						
	Median						
	Ch.41.0 to 488.0		2	447			894.00
	Maidan Side Kerb Stone		_				0.00
	Ch.0.0 to Ch.180.0		1	180			180.00
	Ch.190.0 to Ch.550.0		1	360			360.00
	Bldg. Side Kerb Stone						0.00
	Ch.0.0 to Ch.100.0		1	100			100.00
	Ch.110 to Ch.137.0		1	27			27.00
	Ch.143.0 to Ch.262.0		1	119			119.00
	Ch.267.0 to Ch.307.0		1	40			40.00
	Ch.312.0 to Ch.370.0		1	58			58.00
	Ch.372.0 to Ch.424.0	1	1	52			52.00
	Ch.434.0 to Ch.470.0		1	36			36.00
	Ch.480.0 to Ch.550.0		1	70			70.00
		Rmt	1	10			1936.00
1							1920.00

	Description	Unit	No's	L	В	D	Qty.
	Earth work excavation for foundation of structures upto 3						
	mtrs. by mechanical means as per drawing and technical						
	specification, including setting out, providing shoring,						
	strutting and bracing, removal of stumps and other						
2 (1(1)	deleterious matter, dressing of sides and bottom, filling back the excavated earth to the extent required and						
	utilising / transporting the remaining earth upto 1.00km						
	lead. including cost of labour, materials and HOM of						
	machineries etc., complete.						
	up to 3.0 m deep						
	Footpath						
	Left Side (Govt. Office Side)						
	University College to Ch.0.0		1	137	2.20	0.3	90.42
	Ch.0.0 to 110.0		1	130.76	3.62	0.3	142.01
	Ch. 117.5 to Ch.141.8 (Rectangular Portion)		1	41	3.70	0.3	45.51
			-	Area	0.70	0.0	+0.01
	Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1	8.19	3.70	0.3	9.09
				Area	0.10		1
	Ch.150.05 to Ch.154.00(Quarter of Circle) Ch.154.0 to Ch.266.4(Rectangular Portion)		1	7.32 111.8	8.19 3.40	0.3	17.99 114.04
	Ch. 154.0 to Ch. 266.4 (Rectangular Portion)			Area	3.40	0.3	114.04
	Ch.266.4 to Ch.270.0 (Quarter of Circle)		1	6.47		0.3	1.94
				0		0.0	1101
				Area			
	Ch.275.0 to Ch.278.4 (Quarter of Circle)		1	6.7		0.3	2.01
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33.2	3.60	0.3	35.86
	Ch 211 6 to Ch 211 0(Quarter of Circle)		1	Area 7.86		0.3	2.26
	Ch.311.6 to Ch.314.9(Quarter of Circle)		1	7.00		0.5	2.36
	Ch.320.0 to Ch.323.4(Quarter of Circle)		1	7.95			7.95
	Ch.323.4 to Ch.372.5 (Rectangular Portion)		1	49.2	3.95	0.3	58.30
	Ch.372.5 to Ch.376.0(Quarter of Circle)		1	9.18		0.3	2.75
			1	Area		0.2	0.00
	Ch.380 to Ch.384.00(Quarter of Circle) Ch.384.0 to Ch.327.8(Rectangular Portion)		1	9.88 43.9	4.80	0.3	2.96 63.22
				Area	4.00	0.0	00.22
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	12.35		0.3	3.71
				Area			
	Ch.438.5 to Ch.441.7(Quarter of Circle)		1	7.3	2.05	0.3	2.19
	Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30.1 Area	3.05	0.3	27.54
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4.82		0.3	1.45
						0.0	1.10
				Area			
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4.84		0.3	1.45
	Ch.488.1 to Old kent Road		1	66.14	2.63	0.3	52.25
	Footpath		<u> </u>				
	Right Hand Side(Maidan Side)						
	Bibi Alabi Road to Ch.0.00		1	29	1.55	0.3	13.49
	Ch.0.00 to 100.00		1	84	2.03	0.3	51.24
	Ch.100.0 to Ch.102.8		1	2.8	2.00	0.3	1.68
	Ch.102.8 to Ch.177.5		1	74.7	1.50	0.3	33.62
	Ch. 177.5 to Ch. 170.4(Quarter of Circle)		1	<u>Area</u> 1.78		0.3	0.52
	Ch. 177.5 to Ch.179.4(Quarter of Circle)			1.70		0.3	0.53
				Area			
	Ch.184.4 to Ch.192.8		1	31.68		0.3	9.50
	Ch.192.8 to Ch.199.40		1	6.6	5.40	0.3	10.69
	Ch.199.4 to Ch.201.8		1	2.3	4.25	0.3	2.93
				0		~ ~ ~	
	Ch.201.80 to Ch.210.08		1	9	3.10	0.3	8.37
	Ch.201.80 to Ch.210.08 Ch.210.08 to Ch.213.1 Ch. 213.1 to Ch.214.8		1 1 1	<u>9</u> 2.4 1.7	4.25 5.40	0.3	8.37 3.06 2.75

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Ch.217.2 to Ch.220.07		1	3.5	3.14	0.3	3.30
	Ch.220.07 to Ch.223.0		1	2.4	4.25	0.3	3.06
	Ch.223.0 to Ch.226.4		1	3.2	5.40	0.3	5.18
	Ch. 226.4 to Ch.228.7 Ch.228.7 to Ch.264.2		1 1	2.4 35.5	4.20 3.00	0.3	3.02 31.95
	Ch.264.2 to Ch.266.7		1	2.5	4.20	0.3	3.15
	Ch. 266.7 to Ch.268.9		1	2.1	5.40	0.3	3.40
	Ch.268.9 to Ch.271.2		1	2.3	4.20	0.3	2.90
	Ch.271.2 to Ch.274.4		1	3.2	3.00	0.3	2.88
	Ch. 274.4 to Ch.276.8		1	2.5 3.2	4.25 5.50	0.3	3.19
	Ch.276.8 to Ch.280.00 Ch.280.0 to Ch.282.4		1	2.4	4.25	0.3	5.28 3.06
	Ch.282.4 to Ch.286.0		1	3.7	3.00	0.3	3.33
	Ch.286.0 to Ch.288.5		1	2.5	4.20	0.3	3.15
	Ch.288.5 to Ch.290.0		1	1.4	5.40	0.3	2.27
	Ch.290.0 to Ch.292.4		1	2.4	4.20	0.3	3.02
	Ch.292.4 to Ch.298.7		1	6.5	3.00 4.20	0.3	5.85
	Ch.298.7 to Ch.301.2 Ch.301.2 to Ch.305.1		1	2.4 3.9	4.20 5.40	0.3	3.02 6.32
	Ch.305.1 to Ch.307.5		1	2.4	4.20	0.3	3.02
	Ch.307.5 to Ch.311.3		1	3.9	3.00	0.3	3.51
	Ch.311.3 to Ch.314.1		1	2.8	3.70	0.3	3.11
	Ch.314.1 to Ch.316.6		1	2.5	3.00	0.3	2.25
	Ch.316.6 to Ch.321.4 Ch.321.4 to Ch.342.8		1 1	4.8 21.3	4.20 3.00	0.3 0.3	6.05
	Ch.321.4 to Ch.342.8 Ch.342.8 to Ch.348.8		1	6	3.00 5.40	0.3	<u>19.17</u> 9.72
	Ch.348.8 to Ch.354.1		1	5.3	3.00	0.3	4.77
	Ch.354.1 to Ch.362.8		1	8.6	4.20	0.3	10.84
	Ch.362.8 to Ch.434.5		1	71.7	3.05	0.3	65.61
	Ch.434.5 to Ch.436.9		1	2.4	4.30	0.3	3.10
	Ch.436.9 to Ch.490.0		1	51.8	5.60	0.3	87.02
	Ch.490.0 to Ch.500.0 Ch.500 to Maidan Road-RHS (Towards Hamilton circle)		1	23.15	5.50	0.3	38.20
			1	45.6	1.60	0.3	21.89
		Cum				Total	1201.49
	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10						
	tonnes power roller including filling in depression occuring						
4.00	during rolling including cost of all labour, HOM of	Sqm					
	machinery complete as per specifications. MORTH /						
	Chapter 3 (Page No.149,SI No.19.64)						
	Footpath						
	Left Side (Govt. Office Side)						
	University College to Ch.0.0		1	137	2.2		301.40
	Ch.0.0 to 110.0		1	130.76	3.62		473.35
	Ch. 117.5 to Ch.141.8 (Rectangular Portion)						
				Area			
	Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1	8.19	3.7		30.30
				Area			
	Ch.150.05 to Ch.154.00(Quarter of Circle)		1	7.32	8.19		59.95
	Ch.154.0 to Ch.266.4(Rectangular Portion)		1	111.8 Area	3.4		380.12
	Ch.266.4 to Ch.270.0 (Quarter of Circle)		1	6.47			6.47
				Area			
	Ch.275.0 to Ch.278.4 (Quarter of Circle)		1	6.7			6.70
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33.2 Aroa	3.6		119.52
	Ch.311.6 to Ch.314.9(Quarter of Circle)		1	Area 7.86			7.86
				7.00			1.00
	Ch.320.0 to Ch.323.4(Quarter of Circle)		1	7.95			7.95
			1	49.2	3.95		194.34
	Ch.323.4 to Ch.372.5 (Rectangular Portion)				0.00		
	Ch.372.5 to Ch.372.5 (Rectangular Portion) Ch.372.5 to Ch.376.0(Quarter of Circle)		1	9.18			9.18

SI.No.	Description	Unit	No's	L	В	D	Qty.
				Area			
	Ch.380 to Ch.384.00(Quarter of Circle)		1	9.88	1.0		9.88
	Ch.384.0 to Ch.327.8(Rectangular Portion)		1	43.9	4.8		210.72
	Ch. 227 0 Ch. 424 0(Quarter of Circle)		1	Area 12.35			40.05
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	12.35			12.35
				Area			
	Ch.438.5 to Ch.441.7(Quarter of Circle)		1	7.3			7.30
	Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30.1	3.05		91.81
				Area			0.00
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4.82			4.82
				Area			
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4.84			4.84
	Ch.488.1 to Old kent Road		1	66.14	2.6333		174.17
	Footpath						
	Right Hand Side(Maidan Side)						
	Bibi Alabi Road to Ch.0.00		1	29	1.55		44.95
	Ch.0.00 to 100.00		1	84	2.0333		170.80
	Ch.100.0 to Ch.102.8		1	2.8	2		5.60
	Ch.102.8 to Ch.177.5		1	74.7	1.5		112.05
	Ch. 177.5 to Ch.179.4(Quarter of Circle)		1	Area 1.78			
			1	1.70			
				Area			L
	Ch.184.4 to Ch.192.8		1	31.68			
	Ch.192.8 to Ch.199.40		1	6.6	5.4		35.64
	Ch.199.4 to Ch.201.8		1	2.3	4.25		9.78
	Ch.201.80 to Ch.210.08		1	9	3.1		27.90
	Ch.210.08 to Ch.213.1		1	2.4	4.25		10.20
	Ch. 213.1 to Ch.214.8		1	1.7	5.4		9.18
	Ch.214.8 to Ch.217.2		1	2.4	4.25		10.20
	Ch.217.2 to Ch.220.07		1	3.5	3.14		10.99
	Ch.220.07 to Ch.223.0		1	2.4	4.25		10.20
	Ch.223.0 to Ch.226.4		1	3.2 2.4	5.4		17.28
	Ch. 226.4 to Ch.228.7 Ch.228.7 to Ch.264.2		1	35.5	4.2 3		10.08 106.50
	Ch.264.2 to Ch.266.7		1	2.5	4.2		10.50
	Ch. 266.7 to Ch.268.9		1	2.1	5.4		11.34
	Ch.268.9 to Ch.271.2		1	2.3	4.2		9.66
	Ch.271.2 to Ch.274.4		1	3.2	3		9.60
	Ch. 274.4 to Ch.276.8		1	2.5	4.25		10.63
	Ch.276.8 to Ch.280.00		1	3.2	5.5		17.60
	Ch.280.0 to Ch.282.4		1	2.4	4.25		10.20
	Ch.282.4 to Ch.286.0		1	3.7	3		11.10
	Ch.286.0 to Ch.288.5		1	2.5	4.2		10.50
	Ch.288.5 to Ch.290.0		1	1.4 2.4	5.4 4.2		7.56
	Ch.290.0 to Ch.292.4		1	6.5	4.2 3		10.08
	Ch.292.4 to Ch.298.7 Ch.298.7 to Ch.301.2		1	2.4	4.2		19.50 10.08
	Ch.301.2 to Ch.305.1		1	3.9	4.2 5.4		21.06
	Ch.305.1 to Ch.307.5	1	1	2.4	4.2		10.08
	Ch.307.5 to Ch.311.3		1	3.9	3		11.70
	Ch.311.3 to Ch.314.1	1	1	2.8	3.7		10.36
	Ch.314.1 to Ch.316.6	1	1	2.5	3		7.50
	Ch.316.6 to Ch.321.4		1	4.8	4.2		20.16
	Ch.321.4 to Ch.342.8		1	21.3	3		63.90
	Ch.342.8 to Ch.348.8		1	6	5.4		32.40
	Ch.348.8 to Ch.354.1		1	5.3	3		15.90
	Ch.354.1 to Ch.362.8		1	8.6	4.2		36.12
	Ch.362.8 to Ch.434.5		1	71.7	3.05		218.69
	Ch.434.5 to Ch.436.9		1	2.4	4.3		10.32
	Ch.436.9 to Ch.490.0 Ch.490.0 to Ch.500.0	+	1	51.8 23.15	5.6 5.5		290.08 127.33
	Ch.500 to Maidan Road-RHS (Towards Hamilton circle)						
		Sqm	1	45.6	1.6	Total	72.96

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Granular Sub Base (GSB): KSRRB 400-1. Providing,						
	laying, spreading and compacting specified graded, gravel or any other course material 60% and crushed stone						
	aggregates of granite/ trap/ basalt 40% in sub-base						
	course, close grading-I including premixing the material at						
	OMC in mechanical mixer, carraige of mixed material,						
5.00	spreading in uniform layers with motor grader on a						
	prepared base and compacting with power roller to						
	achieve the desired density including all materials, labour,						
	HOM of machinery, lighting, guarding, barricading and						
	maintenance of diversion complete as per specifications.						
	MORTH Chapter 4.						
	(Page No 155 SI No : 20 2)						
	Footpath						
	Left Side (Govt. Office Side)			107.0			
	University College to Ch.0.0		1	137.0	2.2	0.2	60.28
	Ch.0.0 to 110.0		1	130.8	3.6	0.2	94.67
	Ch. 117.5 to Ch. 111.8 (Postongular Dartion)		1	41.0	3.7	0.2	20.24
	Ch. 117.5 to Ch.141.8 (Rectangular Portion)			Area	3.1	0.2	30.34 0.20
	Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1	8.2	3.7	0.2	6.06
				0.2	0.1	0.2	0.00
				Area			
	Ch.150.05 to Ch.154.00(Quarter of Circle)		1	7.3	8.2	0.2	11.99
	Ch.154.0 to Ch.266.4(Rectangular Portion)		1	111.8	3.4	0.2	76.02
				Area			
	Ch.266.4 to Ch.270.0 (Quarter of Circle)		1	6.5		0.2	1.29
				Area			
	Ch.275.0 to Ch.278.4 (Quarter of Circle)		1	<u>6.7</u> 33.2	2.6	0.2	1.34
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	Area	3.6	0.2	23.90
	Ch.311.6 to Ch.314.9(Quarter of Circle)		1	7.9		0.2	1.57
			1	7.5		0.2	1.07
	Ch.320.0 to Ch.323.4(Quarter of Circle)		1	8.0		0.2	1.59
	Ch.323.4 to Ch.372.5 (Rectangular Portion)		1	49.2	4.0	0.2	38.87
	Ch.372.5 to Ch.376.0(Quarter of Circle)		1	9.2		0.2	1.84
				Area			
	Ch.380 to Ch.384.00(Quarter of Circle)		1	9.9	1.0	0.2	1.98
	Ch.384.0 to Ch.327.8(Rectangular Portion)		1	43.9	4.8	0.2	42.14
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	Area 12.4		0.2	2.47
			I	12.4		0.2	2.47
				Area			
	Ch.438.5 to Ch.441.7(Quarter of Circle)		1	7.3		0.2	1.46
	Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30.1	3.1	0.2	18.36
				Area			
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4.8		0.2	0.96
				Area			
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4.8		0.2	0.97
	Ch.488.1 to Old kent Road		1	66.1	2.6	0.2	34.83
	Madian						
	Median Ch.41.0 to 488.0		1	894.0	0.2	0.2	35.76
		<u> </u>		034.0	0.2	0.2	55.70
	Footpath						
	Right Hand Side(Maidan Side)						
	Bibi Alabi Road to Ch.0.00		1	29.0	1.6	0.2	8.99
	Ch.0.00 to 100.00		1	84.0	2.0	0.2	34.16
	Ch.100.0 to Ch.102.8		1	2.8	2.0	0.2	1.12
	Ch.102.8 to Ch.177.5		1	74.7	1.5	0.2	22.41
	Ch. 177.5 to Ch.179.4(Quarter of Circle)		1	1.8	1.5	0.2	0.53
				٨			
	Ch 404 4 to Ch 400 0		4	Area		0.0	0.04
	Ch.184.4 to Ch.192.8		1	31.7		0.2	6.34

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Ch.192.8 to Ch.199.40		1	6.6	5.4	0.2	7.13
	Ch.199.4 to Ch.201.8		1	2.3	4.3	0.2	1.96
	Ch.201.80 to Ch.210.08		1	9.0	3.1	0.2	5.58
	Ch.210.08 to Ch.213.1		1	2.4	4.3	0.2	2.04
	Ch. 213.1 to Ch.214.8		1	1.7	5.4	0.2	1.84
	Ch.214.8 to Ch.217.2		1	2.4	4.3	0.2	2.04
	Ch.217.2 to Ch.220.07		1	3.5	3.1	0.2	2.20
	Ch.220.07 to Ch.223.0		1	2.4	4.3	0.2	2.04
	Ch.223.0 to Ch.226.4		1	3.2	5.4	0.2	3.46
	Ch. 226.4 to Ch.228.7		1 1	2.4 35.5	4.2 3.0	0.2 0.2	2.02
	Ch.228.7 to Ch.264.2 Ch.264.2 to Ch.266.7		1	2.5	4.2	0.2	21.30 2.10
	Ch. 266.7 to Ch.268.9		1	2.5	4.2 5.4	0.2	2.10
	Ch.268.9 to Ch.271.2		1	2.3	4.2	0.2	1.93
	Ch.271.2 to Ch.274.4		1	3.2	3.0	0.2	1.92
	Ch. 274.4 to Ch.276.8		1	2.5	4.3	0.2	2.13
	Ch.276.8 to Ch.280.00		1	3.2	5.5	0.2	3.52
	Ch.280.0 to Ch.282.4		1	2.4	4.3	0.2	2.04
	Ch.282.4 to Ch.286.0		1	3.7	3.0	0.2	2.22
	Ch.286.0 to Ch.288.5		1	2.5	4.2	0.2	2.10
	Ch.288.5 to Ch.290.0		1	1.4	5.4	0.2	1.51
	Ch.290.0 to Ch.292.4		1	2.4	4.2	0.2	2.02
	Ch.292.4 to Ch.298.7		1	6.5	3.0	0.2	3.90
	Ch.298.7 to Ch.301.2		1	2.4	4.2	0.2	2.02
	Ch.301.2 to Ch.305.1		1	3.9	5.4	0.2	4.21
	Ch.305.1 to Ch.307.5		1	2.4	4.2	0.2	2.02
	Ch.307.5 to Ch.311.3		1	3.9	3.0	0.2	2.34
	Ch.311.3 to Ch.314.1		1	2.8	3.7	0.2	2.07
	Ch.314.1 to Ch.316.6		1	2.5	3.0	0.2	1.50
	Ch.316.6 to Ch.321.4		1	4.8	4.2	0.2	4.03
	Ch.321.4 to Ch.342.8		1	21.3	3.0	0.2	12.78
	Ch.342.8 to Ch.348.8		1	6.0	5.4	0.2	6.48
	Ch.348.8 to Ch.354.1		1	5.3	3.0	0.2	3.18
	Ch.354.1 to Ch.362.8		1	8.6	4.2	0.2	7.22
	Ch.362.8 to Ch.434.5		1	71.7	3.1	0.2	43.74
	Ch.434.5 to Ch.436.9		1	2.4	4.3	0.2	2.06
	Ch.436.9 to Ch.490.0		1	51.8	5.6	0.2	58.02
	Ch.490.0 to Ch.500.0		I	23.2	5.5	0.2	25.47
	Ch.500 to Maidan Road-RHS (Towards Hamilton circle)		1	45.6	1.6	0.2	14.59
		Cum				Total	833.42
	KSRB 4.1.6 Providing and laying in position plain cement						
	concrete of mix 1:2:4 with OPC cement @ 240kgs, with						
	20mm and down size graded granite metal coarse						
	aggregates @0.878cum and fine aggregates @ 0.459cum						
6.00	machine mixed, concrete laid in layers not exceeding 15						
	cms. thick, well compacted, in foundation, including cost of						
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete						
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications						
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6,Pg No 12)						
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6,Pg No 12) Median		1	894	0.35	0.10	31 29
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6,Pg No 12)		1	894	0.35	0.10	31.29
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0		1	894	0.35	0.10	31.29
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0 Footpath-Kerb		1	894	0.35	0.10	31.29
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0		1	894	0.35	0.10	31.29
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side)						
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0		1	138.00	0.35	0.10	4.83
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0		1	138.00	0.35	0.10	4.83
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0 Ch.0.0 to 110.0 Ch. 117.5 to Ch.141.8 (Rectangular Portion)		1 1 1	138.00 130.00 41.00	0.35 0.35 0.35	0.10 0.10 0.10	4.83 4.55 1.44
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0 Ch.0.0 to 110.0		1	138.00 130.00	0.35 0.35	0.10 0.10	4.83 4.55
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6.Pg No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0 Ch.0.0 to 110.0 Ch. 117.5 to Ch.141.8 (Rectangular Portion)		1 1 1	138.00 130.00 41.00	0.35 0.35 0.35	0.10 0.10 0.10	4.83 4.55 1.44
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6,Pq No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0 Ch.0.0 to 110.0 Ch. 117.5 to Ch.141.8 (Rectangular Portion) Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1 1 1 1	138.00 130.00 41.00 5.30	0.35 0.35 0.35 0.35	0.10 0.10 0.10 0.10	4.83 4.55 1.44 0.19
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6,Pq No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0 Ch.0.0 to 110.0 Ch. 117.5 to Ch.141.8 (Rectangular Portion) Ch. 141.8 to Ch. 145.3(Quarter of Circle) Ch.150.05 to Ch.154.00(Quarter of Circle)		1 1 1 1 1	138.00 130.00 41.00 5.30 5.30	0.35 0.35 0.35 0.35 0.35	0.10 0.10 0.10 0.10 0.10	4.83 4.55 1.44 0.19 0.19
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6,Pq No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0 Ch.0.0 to 110.0 Ch. 117.5 to Ch.141.8 (Rectangular Portion) Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1 1 1 1	138.00 130.00 41.00 5.30	0.35 0.35 0.35 0.35	0.10 0.10 0.10 0.10	4.83 4.55 1.44 0.19
	cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications (SI No : 4.6,Pq No 12) Median Ch.41.0 to 488.0 Footpath-Kerb Left Side (Govt. Office Side) University College to Ch.0.0 Ch.0.0 to 110.0 Ch. 117.5 to Ch.141.8 (Rectangular Portion) Ch. 141.8 to Ch. 145.3(Quarter of Circle) Ch.150.05 to Ch.154.00(Quarter of Circle)		1 1 1 1 1	138.00 130.00 41.00 5.30 5.30	0.35 0.35 0.35 0.35 0.35	0.10 0.10 0.10 0.10 0.10	4.83 4.55 1.44 0.19 0.19

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Ch.275.0 to Ch.278.4 (Quarter of Circle)		1	4.78	0.35	0.10	0.17
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33.20	0.35	0.10	1.16
	Ch.311.6 to Ch.314.9(Quarter of Circle)		1	5.20	0.35	0.10	0.18
			1	E 20	0.05	0.10	0.40
	Ch.320.0 to Ch.323.4(Quarter of Circle) Ch.323.4 to Ch.372.5 (Rectangular Portion)		1	5.20 49.20	0.35 0.35	0.10 0.10	0.18
	Ch.372.5 to Ch.376.0(Quarter of Circle)		1	49.20	0.35	0.10	0.20
			1	5.02	0.55	0.10	0.20
	Ch.380 to Ch.384.00(Quarter of Circle)		1	5.87	0.35	0.10	0.21
	Ch.384.0 to Ch.327.8(Rectangular Portion)		1	43.90	0.35	0.10	1.54
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	6.57	0.35	0.10	0.23
			1	0.07	0.55	0.10	0.23
	Ch.438.5 to Ch.441.7(Quarter of Circle)		1	4.98	0.35	0.10	0.17
	Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30.10	0.35	0.10	1.05
				00110	0.00	0110	1100
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4	0.35	0.10	0.14
						0.10	
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4 68	0.35	0.10 0.10	0.14
	Ch.488.1 to Old kent Road		1	68	0.35	0.10	2.37
	Footpath RHS						
	Bibi alabi road to Ch.100.00		1	117	0.35	0.10	4.11
	Ch.100.0 to 180.00		1	80.68	0.35	0.10	2.82
	Ch.184.4 to Ch.525.195		1	400	0	0.10	14.00
		Cum				Total	76.95
7.00	thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Page No 101,SI No : 14.6)						
	Footpath						
	Left Side (Govt. Office Side)		4	407	2.00		204 40
	University College to Ch.0.0 Ch.0.0 to 110.0		1	137 130.76	2.20 3.62		301.40 473.35
	Ch. 117.5 to Ch.141.8 (Rectangular Portion)		1	41	3.70		151.70
			1	Area	-		151.70
	Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1	8.19	3.70		30.30
				Area	-		
	Ch.150.05 to Ch.154.00(Quarter of Circle)	ļ	1	7.32	- 8.19		59.95
	Ch.154.0 to Ch.266.4(Rectangular Portion)		1	111.8	3.40		380.12
	Ch.266.4 to Ch.270.0 (Quarter of Circle)		1	Area 6.47			6.47
				-			<i></i>
	Ch.275.0 to Ch.278.4 (Quarter of Circle)		1	Area 6.7			6.70
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33.2	3.60		119.52
			I	Area			
			4				7 0 0
	Ch.311.6 to Ch.314.9(Quarter of Circle)		1	7.86			7.86
	Ch.311.6 to Ch.314.9(Quarter of Circle) Ch.320.0 to Ch.323.4(Quarter of Circle) Ch.323.4 to Ch.372.5 (Rectangular Portion)		1 1 1 1		3.95		7.86 7.95 194.34

SI.No.	Description	Unit	No's	L	В	D	Qty.
				Area			
	Ch.380 to Ch.384.00(Quarter of Circle)		1	9.88			9.88
	Ch.384.0 to Ch.327.8(Rectangular Portion)		1	43.9	4.80		210.72
			1	Area 12.35			40.05
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	12.35			12.35
	Ch.438.5 to Ch.441.7(Quarter of Circle)		1	Area 7.3			7.20
	Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30.1	3.05		7.30 91.81
				Area	0.00		31.01
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4.82			4.82
				Area			
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4.84			4.84
	Ch.488.1 to Old kent Road		1	66.14	2.63		174.17
	Eastaath						
	Footpath Right Hand Side(Maidan Side)						
	Bibi Alabi Road to Ch.0.00		1	29	1.55		44.95
	Ch.0.00 to 100.00		1	84	2.03		170.80
	Ch.100.0 to Ch.102.8		1	2.8	2.00		5.60
	Ch.102.8 to Ch.177.5		1	74.7	1.50		112.05
	Ch. 177 5 to Ch. 170 4(Quarter of Cirola)		1	Area 1.78			1 70
	Ch. 177.5 to Ch.179.4(Quarter of Circle)		1	1.70			1.78
				Area			
	Ch.184.4 to Ch.192.8		1	31.68			31.68
	Ch.192.8 to Ch.199.40		1	6.6	5.40		35.64
	Ch.199.4 to Ch.201.8		1	2.3	4.25		9.78
	Ch.201.80 to Ch.210.08		1	9	3.10		27.90
	Ch.210.08 to Ch.213.1		1	2.4	4.25		10.20
	Ch. 213.1 to Ch.214.8		1	1.7	5.40		9.18
	Ch.214.8 to Ch.217.2		1	2.4	4.25		10.20
	Ch.217.2 to Ch.220.07		1	3.5	3.14		10.99
	Ch.220.07 to Ch.223.0		1	2.4	4.25		10.20
	Ch.223.0 to Ch.226.4 Ch. 226.4 to Ch.228.7		1	3.2 2.4	5.40 4.20		17.28
	Ch.228.7 to Ch.264.2		1	35.5	3.00		10.08 106.50
	Ch.264.2 to Ch.266.7		1	2.5	4.20		100.50
	Ch. 266.7 to Ch.268.9		1	2.1	5.40		11.34
	Ch.268.9 to Ch.271.2		1	2.3	4.20		9.66
	Ch.271.2 to Ch.274.4		1	3.2	3.00		9.60
	Ch. 274.4 to Ch.276.8		1	2.5	4.25		10.63
	Ch.276.8 to Ch.280.00		1	3.2	5.50		17.60
	Ch.280.0 to Ch.282.4		1	2.4	4.25		10.20
	Ch.282.4 to Ch.286.0		1	3.7	3.00		11.10
	Ch.286.0 to Ch.288.5 Ch.288.5 to Ch.290.0		1	2.5 1.4	4.20 5.40		10.50 7.56
	Ch.290.0 to Ch.292.4		1	2.4	4.20		10.08
	Ch.292.4 to Ch.298.7		1	6.5	3.00		19.50
	Ch.298.7 to Ch.301.2		1	2.4	4.20		10.08
	Ch.301.2 to Ch.305.1		1	3.9	5.40		21.06
	Ch.305.1 to Ch.307.5		1	2.4	4.20		10.08
	Ch.307.5 to Ch.311.3		1	3.9	3.00		11.70
	Ch.311.3 to Ch.314.1		1	2.8	3.70		10.36
	Ch.314.1 to Ch.316.6		1	2.5	3.00		7.50
	Ch.316.6 to Ch.321.4		1	4.8	4.20		20.16
	Ch.321.4 to Ch.342.8		1	21.3	3.00		63.90
	Ch.342.8 to Ch.348.8		1	6	5.40		32.40
	Ch.348.8 to Ch.354.1 Ch.354.1 to Ch.362.8		1	5.3 8.6	3.00 4.20		15.90 36.12
	Ch.362.8 to Ch.434.5		1	71.7	3.05		218.69
	Ch.434.5 to Ch.436.9		1	2.4	4.30		10.32
	Ch.436.9 to Ch.490.0		1	51.8	5.60		290.08
	Ch.490.0 to Ch.500.0		1	23.15	5.50		127.33

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Ch.500 to Maidan Road-RHS (Towards Hamilton circle)		1	45.6	1.60		72.96
	Ded. Tectile Tiles		-1	67.62	0.30		-20.29
	Govt. Bldg.Side Footpath						
	University College to Ch.0.00						
	Ch. 0.00 to 100.00		-1	115	0.30		-34.56
	Ch.110 to 134.5		-1 -1	38	0.30		-11.35
	Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion		-1 -1	23 35	0.30		-6.88 -20.82
	Ch.203.5 to Ch.225.0		-1	24	0.30		-7.28
	Ch.225.0 to Ch.252.1-Bus shelter portion		-1	27	0.60		-16.08
	Ch.252.1 to Ch. 260.00		-1	7	0.30		-2.10
	Ch.270.07 to Ch.303.40		-1	33	0.30		-9.77
	Ch.316.40 to Ch.327.50		-1	12	0.30		-3.58
	Ch.327.50 to Ch.353.40-Bus shelter portion		-1	26	0.60		-15.48
	Ch.353.40 to Ch.364.6		-1	12	0.30		-3.51
	Ch. 420 to Ch.376.7		-1	43	0.30		-12.99
	Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0		-1 -1	29 9	0.30		-8.82
	Ch.490.0 to old kent road		-1 -1	9 49	0.30		-2.68 -14.64
	Stop Tiles		-12	49	0.30		-14.64
	At Pedstal Crossing-Stop Square		-12	1	0.90		-3.24
	At Pedstal Crossing-Stop Strip		-1	3	0.30		-0.90
	Maidan Side Footpath			-			
	Ch.188.2 to Ch.490.00		-1	302	0.30		-90.57
	At Pedstal Crossing-Square		-1	0	0.90		-0.27
	At Pedstal Crossing-Strip		-1	1	0.90		-0.81
	Ch.490.0 to maidan road(Hamilton Circle)		-1	3	0.30		-0.90
			-1	70	0.30		-21.04
		sqm				Total	3677.07
8.00	blocks of approved size, shape with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing						
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications.						
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item)						
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath		1	115	0.30		34 56
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00		1	<u>115</u> 38	0.30		<u>34.56</u> 11.35
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath			115 38 23	0.30 0.30 0.30		34.56 11.35 6.88
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00		1	38	0.30		11.35
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion		1 1 1 1	38 23 35 24	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0		1 1 1 1 1	38 23 35 24 27	0.30 0.30 0.60 0.30 0.60		11.35 6.88 20.82 7.28 16.08
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion		1 1 1 1 1 1	38 23 35 24 27 7	0.30 0.30 0.60 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00		1 1 1 1 1 1 1	38 23 35 24 27 7 33	0.30 0.30 0.60 0.30 0.60 0.30 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40		1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12	0.30 0.30 0.60 0.30 0.60 0.30 0.30 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50		1 1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12 26	0.30 0.30 0.60 0.30 0.60 0.30 0.30 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion		1 1 1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12 26 12	0.30 0.60 0.30 0.60 0.30 0.30 0.30 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6		1 1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12 26	0.30 0.30 0.60 0.30 0.60 0.30 0.30 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30		1 1 1 1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12 26 12 43	0.30 0.30 0.60 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0		1 1 1 1 1 1 1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12 26 12 43 29 9 9	0.30 0.30 0.60 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0 Ch.490.0 to old kent road		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2	38 23 35 24 27 7 33 12 26 12 43 29 9 9 49 0	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64 3.24
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0 Ch.490.0 to old kent road Stop Tiles		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12 26 12 43 29 9 9 49 0 1	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64 3.24 0.81
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0 Ch.490.0 to old kent road Stop Tiles At Pedstal Crossing-Stop Square		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	38 23 35 24 27 7 33 12 26 12 43 29 9 9 49 0	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64 3.24 0.81 0.90
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.210.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0 Ch.490.0 to old kent road Stop Tiles At Pedstal Crossing-Stop Square At Pedstal Crossing-Stop Strip		$ \begin{array}{c} 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ $	38 23 35 24 27 7 33 12 26 12 43 29 9 9 49 0 1 1 3 3 -	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64 3.24 0.81 0.90 0.00
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0 Ch.490.0 to old kent road Stop Tiles At Pedstal Crossing-Stop Square At Pedstal Crossing-Stop Strip Maidan Side Footpath		$ \begin{array}{c} 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ $	38 23 35 24 27 7 33 12 26 12 26 12 43 29 9 9 49 0 1 1 3 3 - 302	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64 3.24 0.81 0.90 0.00 90.57
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0 Ch.490.0 to old kent road Stop Tiles At Pedstal Crossing-Stop Square At Pedstal Crossing-Stop Strip Maidan Side Footpath Ch.188.2 to Ch.490.00		$ \begin{array}{c} 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ $	38 23 35 24 27 7 33 12 26 12 26 12 43 29 9 9 49 0 11 33 - 302 0	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64 3.24 0.81 0.90 0.00 90.57 0.27
	part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Non SOR Item) Govt. Bldg.Side Footpath University College to Ch.0.00 Ch. 0.00 to 100.00 Ch.110 to 134.5 Ch.146.7 to Ch.170.0 Ch.170.0 to 203.5-Bus shelter portion Ch.203.5 to Ch.225.0 Ch.225.0 to Ch.252.1-Bus shelter portion Ch.252.1 to Ch. 260.00 Ch.270.07 to Ch.303.40 Ch.316.40 to Ch.327.50 Ch.327.50 to Ch.353.40-Bus shelter portion Ch.353.40 to Ch.364.6 Ch. 420 to Ch.376.7 Ch.434.7 to Ch. 464.30 Ch.480 to Ch.490.0 Ch.490.0 to old kent road Stop Tiles At Pedstal Crossing-Stop Square At Pedstal Crossing-Stop Strip Maidan Side Footpath		$ \begin{array}{c} 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ $	38 23 35 24 27 7 33 12 26 12 26 12 43 29 9 9 49 0 1 1 3 3 - 302	0.30 0.30 0.60 0.30		11.35 6.88 20.82 7.28 16.08 2.10 9.77 3.58 15.48 3.51 12.99 8.82 2.68 14.64 3.24 0.81 0.90 0.00 90.57

SI.No.	Description	Unit	No's	L	в	D	Qty.
		sqm				Total	289.08
	Dreviding and laving becauduly added a damag 75mm						
	Providing and laying heavy duty cobble stones 75mm						
	thick, using cement and course sand for manufacture of						
	blocks of approved size, shape and colour with a minimum						
	compressive strength of 281 kg per sqm over 50mm thick						
	sand bed (average thickness) and compacting with plate						
9.00	vibrator having 3 tons compaction force thereby forcing						
	part of sand underneath to come up in between joints, final						
	compaction of paver surface joints into its final level,						
	including cost of materials, labour and HOM of						
	machineries complete as per specifications.						
	(Page No 101,SI No : 14.7)						
	Right Hand Side(Maidan Side)						
	Ch.199.4 to Ch.201.8 (Triangular Portion)		0.5	2.40	2.40		2.88
	Ch.201.8 to Ch.210.08(Rectangular Portion)		1	9.00	2.40		21.60
	Ch.210.08 to Ch.213.2(Triangular Portion)		0.5	2.40	2.40		2.88
	Ch.214.8 to Ch.217.2(Triangular Portion)		0.5	2.40	2.40		2.88
	Ch.217.2 to Ch.220.07(Rectangular Portion)		1.0	5.8	2.4		13.92
	Ch.220.07 to Ch.223.0(Triangular Portion)		0.5	1.7	2.4		2.04
	Ch.223.0 to Ch.263.7(Triangular Portion)		0.5	1.8	2.4		2.16
	Ch.226.7 to Ch.264.2(Rectangular Portion)		1.0	37.6	2.4		90.24
	Ch.264.2 to Ch.266.7(Triangular Portion)		0.5	2.4	2.4		2.88
	Ch.268.9 to Ch.271.2(Triangular Portion)		0.5	2.4	2.4		2.88
	Ch.271.2 to Ch.274.4 (Rectangular Portion)		1.0	3.2	2.4		7.68
	Ch.274.4 to Ch.276.8(Triangular Portion)		0.5	2.4	2.4		2.88
	Ob. 000.0 (c. Ob. 000.5/Trian surley Dertion)		0.5	2.4	2.4		0.00
	Ch. 280.0 to Ch.282.5(Triangular Portion) Ch.282.5 to Ch.286.1 (Rectangular Portion)		0.5 1.0	3.6	2.4		<u>2.88</u> 8.64
	Ch. 286.1 to Ch.285.5 (Triangular Portion)		1.0	2.4	2.4		5.76
			1.0	2.1	2.1		0.70
	Ch.290.0 to Ch.292.3(Triangular Portion)		0.5	2.4	2.3		2.76
	Ch.292.3 to Ch.298.7(Rectangular Portion)		1.0	6.5	2.3		14.95
	Ch.298.7 to Ch.301.0(Triangular Portion)		0.5	2.4	2.3		2.76
	Ch.305.1 to Ch.307.5(Triangular Portion)		0.5	2.4	2.3		2.76
	Ch.307.5 to Ch.311.3(Rectangular Portion)		1.0	3.9	2.3		8.97
	Ch.311.3 to Ch.312.7(Trapezoidal Portion)		1.0	1.6	2.3		3.68
	Ch.312.7 to Ch.314.1 (Trapezoidal Portion)		1.0	1.6	2.3		3.68
	Ch.314.1 to Ch.316.5(Rectangular Portion)		1.0	2.5	2.3		5.75
	Ch.316.5 to Ch.318.9		0.5	2.3	2.3		2.65
	Ch.318.9 to Ch.319.3 (Trapezoidal Portion)		0.5	2.1 19.9	2.3 2.4		2.42
	Ch.319.3 to Ch.341.2 (Rectangular Portion)		1.0	19.9	2.4		47.76
	Ch.350.03 to Ch.354.2(Rectangular Portion)		1.0	4.2	2.4		10.08
	Ch.354.2 to Ch.357.4(Trapezoidal Portion)		0.5	2.9	2.4		3.48
	Ch.360.0 to Ch.362.9 (Triangular Portion)		0.5	2.4	2.4		2.88
	Ch.362.9 to Ch.381.1(Rectangular Portion)		1.0	18.3	2.4		43.92
	Ch.381.1 to Ch.383.0(Triangular Portion)		0.5	1.9	2.4		2.28
	Ch.384.8 to Ch.386.3(Triangular Portion)		0.5	1.4	2.4		1.68
	Ch.386.3 to Ch.405.2(Rectangular Portion)		1.0	18.9	2.4		45.36
	Ch.405.2 to Ch.407.6(Triangular Portion)		0.5	2.4	2.4		2.88
				<u> </u>	<i></i>		
	Ch.408.6 to Ch.410.8(Triangular Portion)		0.5	2.1	2.4		2.52
	Ch.410.8 to Ch.434.6(Rectangular Portion) Ch.434.6 to Ch.436.9(Triangular Portion)		1.0 0.5	23.8 2.4	2.4 2.4		57.12 2.88
		Sqm	0.5	2.4	2.4	Total	<u></u> 445.41
		Jun	├			iotai	

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Providin and fixing pre cast solid concrete Kerb stones						
	made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively,400mm high and 450mm in length						
	finished with CM 1:3 Plastering and finishing cutting,						
10.00	including cost of all materials, labour, hire charges of						
	machinery,loading,unloading,lead and lift,transportation						
	etc.,complete						
	(Page No 25,SI No : 5.3)						
	Footpath-Kerb						
	Left Side (Govt. Office Side)					 	
	University College to Ch.0.0		1	138			138.00
	Ch.0.0 to 110.0		1	130			130.00
	Ch. 117.5 to Ch.141.8 (Rectangular Portion)		1	41			41.00
	Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1	5			5.30
	Ch.150.05 to Ch.154.00(Quarter of Circle)		1	5			5.30
	Ch.154.0 to Ch.266.4(Rectangular Portion)		1	112			111.80
	Ch.266.4 to Ch.270.0 (Quarter of Circle)		1	5			4.70
	Ch.275.0 to Ch.278.4 (Quarter of Circle)		1	5			4.78
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33			33.20
	Ch 211 6 to Ch 214 0(Quarter of Circle)		1	5			5.20
	Ch.311.6 to Ch.314.9(Quarter of Circle)			5			5.20
	Ch.320.0 to Ch.323.4(Quarter of Circle)		1	5			5.20
	Ch.323.4 to Ch.372.5 (Rectangular Portion)		1	49			49.20
	Ch.372.5 to Ch.376.0(Quarter of Circle)		1	6			5.62
	Ch.380 to Ch.384.00(Quarter of Circle)		1	6			5.87
	Ch.384.0 to Ch.327.8(Rectangular Portion)		1	44			43.90
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	7			6.57
	Ch 429 E to Ch 441 7(Quarter of Cirola)		1	5			4.09
	Ch.438.5 to Ch.441.7(Quarter of Circle) Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30			4.98 30.10
				50			30.10
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4			4.08
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4			4.00
	Ch.488.1 to Old kent Road		1	68			67.77
	Footpath RHS						
	Bibi alabi road to Ch.100.00		1	117			117.34
	Ch.100.0 to 180.00		1	81			80.68
	Ch.184.4 to Ch.525.195		1	400			400.00
	Building Side Landscape -Kerb Stone		4.00	400.00			400.00
	Ch.10.0 to Ch.100.0(Compund wall Side)		1.00	102.60 95.77			102.60 95.77
	Ch.10.0 to Ch.100.0(Carriageway Side) Ch.110.0 to Ch.137.9(Compund Wall Side)		1.00	95.77 39.34			95.77 39.34
	Ch.110.0 to Ch.137.9(Carriageway Side)		1.00	34.64			34.64
	Ch.143.3 to Ch.167.9(Compound Wall Side)		1.00	24.80			24.80
	Ch.143.3 to Ch.167.9(Carriageway Side)		1.00	20.60			20.60
	Ch.204.2 to Ch.225.3 (Compound Wall Side)		1.00	21.68	ļ	 	21.68
	Ch.206.2 to Ch.221.3 (Carriageway Side)		1.00	16.20			16.20
	Ch.252.1 to Ch.261.6(Compound Wall Side) Ch.252.1 to Ch.261.6(Carriageway side)		1.00 1.00	10.10 4.90			10.10 4.90
	Ch.267.5 to Ch.307.3(Compound wall side)		1.00	41.10			4.90
	Ch.267.5 to Ch.307.3(Carriageway side)		1.00	36.70			36.70
	312.5 to Ch.327.6 (Compound Wall side)		1.00	15.70			15.70

SI.No.	Description	Unit	No's	L	В	D	Qty.
	312.5 to Ch.327.6 (Carriageway side)		1.00	10.10			10.10
	353.3 to Ch.368.5(Compound wall side)		1.00	15.80			15.80
	353.3 to Ch.368.5(Carriageway side)		1.00	8.80			8.80
	372.8 to Ch.424.3(Compound wall side)		1.00	52.40			52.40
	372.8 to Ch.424.3(Carriageway side)		1.00	43.20			43.20
	Maidan Side Landscape-Kerb Stone Ch.184.5 to 197.7(Shrub)Compound Wall Side		1.00	14.90			14.90
	Ch.190.0 to Ch.211.7(Shurb)-Carriagewayside		1.00	24.71			24.71
	217.20 to Ch.222.9 (Shrub)		1.00	7.40			7.40
	Ch.226.4 to Ch.266.2		1.00	41.10			41.10
	Ch. 270.0 to Ch.276.4		1.00	7.00			7.00
	Ch.280.4 to Ch.287.4		1.00	8.60			8.60
	291.4 to Ch.299.10		1.00	9.20			9.20
	Ch.306.3 to Ch.311.3		1.00	6.20			6.20
	Ch.311.3 to Ch.314.1		1.00	4.58			4.58
	Ch.214.10 to Ch.316.6		1.00	3.80			3.80
	Ch.322.9 to Ch.340.0		1.00	19.20			19.20
	Ch.351.2 to Ch.355.6		1.00	5.60			5.60
	Ch.363.0 to Ch.381.7		1.00	19.70			19.70
	Ch.386.2 to Ch.405.3		1.00	20.80			20.80
	Ch.434.5 to Ch.487.4	Direct	1.00	54.68		Tatal(A)	54.68
	B= A/0.4m(Width of Kerb Stone)	Rmt Nos				Total(A) Total(B)	2146.49 5367.00
		NUS				TOLAI(B)	5367.00
	Providing and laying at or near ground level factory made						
	kerb stone of M-20 grade						
	cement concrete in position to the required line, level and						
	curvature, jointed with						
	cement mortar 1:3 (1 cement: 3 coarse sand), including						
11.00	making joints with or without						
	grooves (thickness of joints except at sharp curve shall not						
	to more than 5mm),						
	including making drainage opening wherever required						
	complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for						
	(length of finished kerb edging shall be measured for navment)						
	Median						
	Ch.41.0 to 488.0	Rmt	2	447			894.00
	Width of Kerb stone=0.4m	Nos.		894/0.4			2235.00
						1	
	KSRRB 800-1. Painting two coats after filling the surface						
	with synthetic enamel paint in approved shades on new						
12.00	plastered concrete surfaces, with materials, labour						
12.00	complete as per specifications. MORTH Chapter 8						
	(Page No 182,SI No : 24.1)						
	Footpath-Kerb						
	Left Side (Govt. Office Side)		1	138		0.27	27 67
	University College to Ch.0.0 Ch.0.0 to 110.0		1	138		0.27	<u>37.67</u> 35.49
				130		0.27	55.49
	Ch. 117.5 to Ch.141.8 (Rectangular Portion)		1	41		0.27	11.19
				1		<u>, , , , , , , , , , , , , , , , , , , </u>	
	Ch. 141.8 to Ch. 145.3(Quarter of Circle)		1	5		0.27	1.45
	Ch.150.05 to Ch.154.00(Quarter of Circle)		1	5		0.27	1.45
	Ch.154.0 to Ch.266.4(Rectangular Portion)		1	112		0.27	30.52
				-		0.07	4.00
	Ch.266.4 to Ch.270.0 (Quarter of Circle)		1	5		0.27	1.28
			+	ł	ļ		
			1	5		0.27	1.30
	Ch 275.0 to Ch 278.4 (Quarter of Circle)					0.21	
	Ch.275.0 to Ch.278.4 (Quarter of Circle) Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33		0 27	9 06
	Ch.275.0 to Ch.278.4 (Quarter of Circle) Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33		0.27	9.06
	Ch. 278.4 to Ch.311.6 (Rectangular Portion)		1	33 5			
						0.27	9.06

SI.No.	Description	Unit	No's	L	В	D	Qty.
	Ch.323.4 to Ch.372.5 (Rectangular Portion)		1	49		0.27	13.43
	Ch.372.5 to Ch.376.0(Quarter of Circle)		1	6		0.27	1.53
				2		0.07	1.00
	Ch.380 to Ch.384.00(Quarter of Circle) Ch.384.0 to Ch.327.8(Rectangular Portion)		1	6 44		0.27	<u>1.60</u> 11.98
	on.oo+.o to on.oz7.o(Rectangular Portion)					0.21	11.00
	Ch. 327.8 Ch.431.8(Quarter of Circle)		1	7		0.27	1.79
	Ch.438.5 to Ch.441.7(Quarter of Circle)		1	5		0.27	1.36
	Ch.441.7 to Ch.471.8(Rectangular Portion)		1	30		0.27	8.22
	Ch.471.8 to Ch.474.3(Quarter of Circle)		1	4		0.27	1.11
	Ch.485.0 to Ch.488.1(Quarter of Circle)		1	4		0.27	1.09
	Ch.488.1 to Old kent Road		1	68		0.27	18.50
	Footpath RHS Bibi alabi road to Ch.100.00		1	117		0.27	32.03
	Ch.100.0 to 180.00		1	81		0.27	22.03
	Ch.184.4 to Ch.525.195		1	400		0.27	109.20
	Median						
	Ch.41.0 to 488.0		1	1,118		0.62	687.26
		Sqm				Total	1043.42
13.00	Supplying chainlink fencing 50mm size of 8 gauge properly stretched between existing rectangular poles and fixing suitable bolts and nuts, the free ends shall be welded to pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the engineer in charge of work including two coats of approved quality paint over one coat of shop paint (Page No 262, SI No : 37.3)						
	Ch.156.00 to Ch. 250.00 (Maidan Side)	Sqm	1	94	2.5		235.00
14.00	Providing and fixing of S.S. Bollards(SS304) on footpath as specified and directed by Engineer -in-charge (NON SOR Item)	No's					10.00
15.00	Providing and Fixing SS 304 Outdoor Dustbin of 55 liters capacity	No's					8.00
16.00	Providing and Fixing Recessed Inception chamber cover - size: (1250 x 1250 x 80)mm Material: Cast Iron / Ductile Iron	No's					20.00

	Name of the Work :- Mangalore Sn 3.2.2 Rate Analysis of Footpath and Parking a		lan Road	
RATE	ANALYSIS -FOOTPATH & PARKING AREA FOR MAIDAN RO	AD		
1	KSRRB M200-14.2 Dismantaling brick/Tile work /Paver Block other structure comprising of masonarycement concrete,wood dismatled material,disposal of unserviceble material and stack complete as per specification. (Page No 137,SI No : 18.23)	l work, Inclue	ding T and P.sor	ting and
	Basic rate		244	
	Lead & Lift Charges As per page no.140 of S.R. (upto 5km) Total		16.25	
			260.25	
	Add 12% For area weightage	Dete	31.23	
		Rate	291.48	Cum
2	KSRRB M200-Dismantaling of kerb Stone and Channel KSRRB M200-26. Dismantling Kerb stone by Manual means a all lifts and complete as per specifications. MORTH Specification No.202. (Page No.139,S.I.No.18.49)	and disposal	of dismantled m	naterials with
	Basic rate		10.00	
	Add 12% For area weightage		1.20	
		Rate	11.20	Rmt
3	stumps and other deleterious matter, dressing of sides and bo the extent required and utilising / transporting the remaining ea labour, materials and HOM of machineries etc., complete. up to 3.0 m deep	•		
	Basic rate		53	
	Add 12% For area weightage		6.36	
		Rate	59.36	Cum
4	KSRRB 300-Compaction KSRRB 300-58. Compaction of original to 10 tonnes power roller including filling in depression occur labour, HOM of machinery complete as per specifications. MO No.19.64)	ing during ro	blling including co ter 3 (Page No. ²	ost of all 149,SI
	Basic rate		5	
	Add 12% For area weightage	Bata	0.6	
		Rate		Sqm
5	Granular Sub Base (GSB): KSRRB 400-1. Providing, laying, s graded, gravel or any other course material 60% and crushed 40% in sub-base course, close grading-I including premixing th carraige of mixed material, spreading in uniform layers with mo compacting with power roller to achieve the desired density ind machinery, lighting, guarding, barricading and maintenance of MORTH Chapter 4. (Page No 155,SI No : 20.2)	stone aggre he material a ptor grader o cluding all m	egates of granite at OMC in mecha on a prepared ba aterials, labour,	/ trap/ basalt anical mixer, ise and HOM of
	Basic rate		1212	
	Add 12% For area weightage		145.44	
		Rate	1357.44	Cum
		1		

6			I:2:4 with OPC c					
6	240kgs, with 20mm and down size graded granite metal coars	e aggregate	s @0.878cum a	nd fine				
	aggregates @ 0.459cum machine mixed, concrete laid in layer	rs not excee	ding 15 cms. thi	ck, well				
	compacted, in foundation, including cost of all materials, labour	r, HOM of m	achinery, curing	complete as				
	per specifications			-				
	Basic Rate		5441					
	Ded.Cement Cost (7.2 Rs./kg x240 kg)		-1728					
	Total		3713					
	Add 12% For area weightage		445.56					
	Add Cement cost(7.2Rs./kg x 240 kg)		1728					
		Rate	5886.56	Per				
	Note: for cement basic price refer "material components"-							
	S.I.132=Rs.720 / Quintal							
	Providing and laying heavy duty cobble stones 60mm thick, us	ing cement	and course sand	d for				
	manufacture of blocks of approved size, shape and colour with	n a minimum	compressive st	rength of 281				
	kg per sqm over 50mm thick sand bed (average thickness) ar	nd compacti	ng with plate vib	rator having 3				
7	tons compaction force thereby forcing part of sand underneath	to come up	in between join	ts, final				
	compaction of paver surface joints into its final level, including cost of materials, labour and HOM of							
	machineries complete as per specifications.							
	(Page No 101,SI No : 14.6)							
	Basic rate		912					
	Add 12% For area weightage		109.44					
		Rate	1021.44	Sqm				
	Providing and laying heavy duty Tactile Tiles (Direction and Sto	•						
	Yellow in colour , using cement and course sand for manufacture of blocks of approved size, shape with							
	a minimum compressive strength of 281 kg per sqm over 50m							
8	and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level,							
			•					
	including cost of materials, labour and HOM of machineries complete as per specifications.							
			er specifications.					
	(Non SOR Item)		er specifications.					
			er specifications.					
	(Non SOR Item)	Rate						
	(Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer							
	(Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us	Rate	912 and course sand	Sqm d for				
	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with 	Rate ing cement	912 and course sand compressive st	Sqm d for rength of 281				
	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar 	Rate ing cement a minimum nd compacti	912 and course sand compressive st ng with plate vib	Sqm d for rength of 281 rator having 3				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath 	Rate ing cement a minimum d compacti to come up	912 and course sand compressive st ng with plate vible in between join	Sqm d for rength of 281 rator having 3 ts, final				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar 	Rate ing cement a minimum d compacti to come up	912 and course sand compressive st ng with plate vible in between join	Sqm d for rength of 281 rator having 3 ts, final				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. 	Rate ing cement a minimum d compacti to come up	912 and course sand compressive st ng with plate vib in between join erials, labour and	Sqm d for rength of 281 rator having 3 ts, final				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate 	Rate ing cement a minimum d compacti to come up	912 and course sand compressive st ng with plate vib in between join erials, labour and 970	Sqm d for rength of 281 rator having 3 ts, final				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. 	Rate ing cement a minimum of compaction to come up cost of mate	912 and course sand compressive st ng with plate vibit in between joint erials, labour and 970 116.4	Sqm d for rength of 281 rator having 3 ts, final I HOM of				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate 	Rate ing cement a minimum d compacti to come up	912 and course sand compressive st ng with plate vib in between join erials, labour and 970	Sqm d for rength of 281 rator having 3 ts, final I HOM of				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage 	Rate ing cement a minimum of compaction to come up cost of mate Rate	912 and course sand compressive st ng with plate vibit in between join erials, labour and 970 116.4 1086.40	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 	Rate sing cement a minimum d compaction to come up cost of mate Rate out of CC 1:	912 and course sand compressive st ng with plate vibio in between join erials, labour and 970 116.4 1086.40 2:4 with top and	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width				
	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 114 and 165mm respectively,400mm high and 450mm in lenge 	Rate ing cement a minimum of compaction to come up cost of mate Rate Dut of CC 1: th finished w	912 and course sand compressive st ng with plate vibio in between join erials, labour and 970 116.4 1086.40 2:4 with top and <i>v</i> ith CM 1:3 Plast	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width tering and				
9	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 114 and 165mm respectively,400mm high and 450mm in lengt finishing cutting, including cost of all materials,labour,hire charge 	Rate ing cement a minimum of compaction to come up cost of mate Rate Dut of CC 1: th finished w	912 and course sand compressive st ng with plate vibio in between join erials, labour and 970 116.4 1086.40 2:4 with top and <i>v</i> ith CM 1:3 Plast	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width tering and				
	(Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 114 and 165mm respectively,400mm high and 450mm in lenge finishing cutting, including cost of all materials,labour,hire charge and lift,transportation etc.,complete	Rate ing cement a minimum of compaction to come up cost of mate Rate Dut of CC 1: th finished w	912 and course sand compressive st ng with plate vibio in between join erials, labour and 970 116.4 1086.40 2:4 with top and <i>v</i> ith CM 1:3 Plast	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width tering and				
	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 114 and 165mm respectively,400mm high and 450mm in lengt finishing cutting, including cost of all materials,labour,hire charge 	Rate ing cement a minimum of compaction to come up cost of mate Rate Dut of CC 1: th finished w	912 and course sand compressive st ng with plate vibio in between join erials, labour and 970 116.4 1086.40 2:4 with top and <i>v</i> ith CM 1:3 Plast	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width tering and				
	(Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 114 and 165mm respectively,400mm high and 450mm in lenge finishing cutting, including cost of all materials,labour,hire charge and lift,transportation etc.,complete	Rate ing cement a minimum of compaction to come up cost of mate Rate Dut of CC 1: th finished w	912 and course sand compressive st ng with plate vibio in between joint erials, labour and 970 116.4 1086.40 2:4 with top and <i>v</i> ith CM 1:3 Plast inery,loading,und	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width tering and loading,lead				
	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 114 and 165mm respectively,400mm high and 450mm in lengt finishing cutting, including cost of all materials,labour,hire charge and lift,transportation etc.,complete (Page No 25,SI No : 5.3) 	Rate ing cement a minimum of compaction to come up cost of mate Rate Dut of CC 1: th finished w ges of mach	912 and course sand compressive st ng with plate vibu- in between join erials, labour and 970 116.4 1086.40 2:4 with top and <i>v</i> ith CM 1:3 Plast inery,loading,unl 313 37.56	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width tering and loading,lead				
	 (Non SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.12 Providing and laying heavy duty cobble stones 75mm thick, us manufacture of blocks of approved size, shape and colour with kg per sqm over 50mm thick sand bed (average thickness) ar tons compaction force thereby forcing part of sand underneath compaction of paver surface joints into its final level, including machineries complete as per specifications. Basic rate Add 12% For area weightage Providin and fixing pre cast solid concrete Kerb stones made of 114 and 165mm respectively,400mm high and 450mm in leng finishing cutting, including cost of all materials,labour,hire charge and lift,transportation etc.,complete (Page No 25,Sl No : 5.3) Basic rate 	Rate ing cement a minimum of compaction to come up cost of mate Rate Dut of CC 1: th finished w	912 and course sand compressive st ng with plate vibio in between joint erials, labour and 970 116.4 1086.40 2:4 with top and <i>v</i> ith CM 1:3 Plast inery,loading,und	Sqm d for rength of 281 rator having 3 ts, final I HOM of Sqm bottom width tering and loading,lead				

11	charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge). (NON SOR,Rate analysis attached)							
	Rate Arrived as per Rate analysis	Rate	1579.00	Nos.				
12	 KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No 182,SI No : 24.1) 							
	Basic Rate		60					
	Add 12% For Area weightage		7.2					
		Rate	67.20	Sqm				
13	Supplying chainlink fencing 50mm size of 8 gauge properly stretched between existing rectangular poles and fixing suitable bolts and nuts, the free ends shall be welded to pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the engineer in charge of work including two coats of approved quality paint over one coat of shop paint (Page No 262, SI No : 37.3)							
	Basic Rate		659					
	Add 12% For Area weightage		79.08					
		Rate	738.08	Sqm				
14	Providing and fixing of S.S. Bollards(SS304) on footpath as spectra charge (NON SOR Item)	ecified and	directed by Engi	neer -in-				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.13	Rate	4500.00	Nos.				
15	Providing and Fixing SS 304 Outdoor Dustbin of 55 liters capace (NON SOR Item)	city						
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.14	Rate	7500.00	Nos.				
16	Providing and Fixing Recessed Inception chamber cover - size Iron / Ductile Iron (NON SOR Item)	e: (1250 x 12	250 x 80)mm Ma	terial: Cast				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.15	Rate	3500.00	Nos.				

Name of the Work :- Mangalore Smart City

3.3 BOQ of Storm water Drain for Maidan Road

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
	STORM WATER DRAIN					
1	KSRB M200-15.2: dismantling of existing structures like culverts,bridges,retaining walls and other structure comprising of masinary, cement concrete,wood work,steel work including T&P and scaffolding wherever necessary ,sorting the dismantled material,disposal of unserviceable matrerial and stacking the serviceable materail with all the complete as per specifications.B.rubble stone masonary in cement mortar.MORTH specification No. 202 (Page no. 138,Item No.18.27 KPWD SOR 2016-17)	cum	40.5	273.28	11,068	
2	KSRB 2-2.1 Earth work excavation for foundation buildings,water supply, sanitary lines & electrical conduits ither in pits or in trenches 1.5 m above in width ,in ordinary soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead up to 50 m after breaking of clods complete as per specifications.Specification No.KBS 2.1 (a)/2.3.5 (Page No.5,Item No.2.3,KPWD SOR 2016-17)	cum	226.58	211.68	47,961	
	0-1.5 m depth below G.L(includes pipe bedding					
3	and Manhole) KSRB 2-2.1 Earth work excavation for foundation buildings,water supply, sanitary lines & electrical conduits ither in pits or in trenches 1.5 m above in width ,in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead up to 50 m after breaking of clods complete as per specifications.Specification No.KBS 2.1 (a)/2.3.5 (Page No.5,item No.2.4 KPWD SOR 2016-17)	cum	25.18	316.96	7,979	
	1.5 - 3.0 m depth below G.L(includes pipe bedding and Manhole)				-	
4	Providing gravel bedding for levelling the trench surface for laying Sewerage pipes including cost of materials, labours etc., complete as directed by the engineer in charge. (Page No.17, item No.6.1 ,KUWSDB SOR 2015-16)	Cum	20.25	276.64	5,602	
5	KSRB 4-1.7 ;Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @220kgs with 20 mm down size graded granitemetal coarse aggregates @0.56 cum and fine aggreagtes @0.465 cum machin e mixed concrete laid in layers not exceeding 15 cms,thick well compacted in foundation includingcost of all materials,labour,HOM of machinery, curing complete as per specifications (Page No.13,item No.4.7 KPWD SOR 2016-17)	cum	15.00	5725.76	85,886	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
6	KSRB 4.2.2: providing and latying in position reinforced cement concrete of design mix M-20 with OPC cement @ 320 Kgs.with 20 mm and down size graded granite metal coarse aggregate @0.69cum and fine aggreagte @0.40 cum with super plasticiser @ 3 ltrs conforming to IS 9103- 1989 reaffirmed -2008, machine mixed concrete laid and exceeding 15 cms thick,vibrated for all works in foundation for footings, pedestals,retaining walls, return walls,walls (any thickness) including attached plasters,columns,piers,pillars,posts,struts,buttress es,blovks,anchor blocks,plinths etc.,includingcost of all materails,labours,HOM of machinery,curing,complete asper specifications.Specification No.KBS 4.1,4.6 (page	cum	125.78	5886.56	7,40,382	
7	KSRB 4.9.2 Providing TMT steel reinforcement for RCC work including straightening, cutting,bending, hooking,placing in position,lapping and for welding wherever required,tieing with binding wire,anchoring to the adjoning members whereevr necessary, as per designs (laps,hooks,wastage shall not be measured and paid) including cost of all materials form work labour HOM of machinaries etc., complete as per specifications.Specification No KBS 4.6.3 TMT bars Fe 500 (Pg.No.17,item No. 4.46.2,KPWD SOR 2016-17)-Revised	МТ	7.95	79156.00	6,29,231	
8	KSRB 2.4 Refilling available earth aroud the pipe lines, cables in layers not exceeding 20 cm in depth , compacting each deposited layer by ramming after watering with all lead and lift including cost of all labour complete as per specifications.Specification No.KBS 2.10.2 (Page No. 6,Item No. 2.11 KPWD SOR 2016-17)	Cum	181.26	85.12	15,429	
9	Disposal of surplus earth including,loading, unloading coveyance within a distance of 5 Km and spreading as directed by the enginer incharge (page No.144,item No.19.20 KPWD SOR 2016- 17)	Cum	45.32	41.44	1,878	
10	Providing gully pipe lowering, laying of PVC 100 mm dia ppes to the required alignments including specials and grade as indicated in drawings/design and hydraulically testing of the pipe line. The rate shall include all jointing materials, testing apparatus and water for testi g etc as directed by the Engineer in charge (page No 41 Item No 7 KUWSDB SOR 2016-17)	Rmt	148.00	332.64	49,231	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
11	Providing and fixing CI grating (325 x325 mm) for road Gully cover, including fixing the cover and CM 1:3 plastering 20 mm thick to all exposed faces, curing for q0 days with all lead including cost of plastering but excluding cost of concrete etc., complete (NON SOR Item) RWH Structure	Nos	50.00	893.00	44,650	
12	Providing and filling in foundation with granite/trap broken metal 100mm and down size,with approved sand including hand packing,ramming,watering, including cost of all materials and labours with all lead and lift,complete as per specifications. (Page No 06.SI No : 2.15)	cum	22.5	2367.68	53,273	
13	Earthwork excavation in all soil dposits and filling sides of foundation upto plinth in layers not exceeding 20cms, in depth compacting each deposited layer by ramming after watering with all lead and lift including cost of all labour complete as per specificatons (Page No 06,SI No : 2.12)	cum	18.75	284.00	5,325	
14	Providing and filling sand in foundation upto plinth to required depth for sub soil tratement including watering,ramming with all lead and lift complete as per specifications. (Page No 06,SI No : 2.13)	cum	15.00	2391.00	35,865	
	Total	17,33,760				

Name of the Work :- Mangalore Smart City 3.3.1 Measurement Sheet of Storm Water Drain for Maidan Road

SI.No.	Description of Work	Unit	No	L	в	D	Qty
	KSRB M200-15.2: dismantling of existing structures						
	like culverts, bridges, retaining walls and other						
	structure comprising of masinary, cement						
	concrete,wood work,steel work including T&P and						
	scaffolding wherever necessary ,sorting the						
1	dismantled material, disposal of unserviceable						
	matrerial and stacking the serviceable materail with						
	all the complete as per specifications.B.rubble stone						
	masonary in cement mortar.MORTH specification No.						
	202 (Page no. 138, Item No. 18.27 KPWD SOR 2016-17)						
	a) Drain at RWH locations						
	at 50 m intervals						
	Concrete Walls (2.5 m length walls)						
	LHS						
	Ch- 30.0 m to 520 m	cum	10	5	0.15	1.5	11.25
	RHS						
	Ch- 30.0 m to 520 m	cum	10	5	0.15	1.5	11.25
	Base slab						
	LHS						
	Ch 30.0 m to 520 m	cum	10	2.5	1.8	0.2	9
	RHS						
	Ch-30.0 m to Ch-520.0 m		10	2.5	1.8	0.2	9
		cum					40.5
	KSRB 2-2.1 Earth work excavation for foundation						
	buildings,water supply, sanitary lines & electrical						
	conduits ither in pits or in trenches 1.5 m above in						
	width , in ordinary soil not exceeding 1.5 m in depth						
	including dressing the bottom and sides of pits and						
2	trenches, stacking the excavated soil clear from edges						
	of excavation with lead up to 50 m after breaking of						
	clods complete as per specifications. Specification						
	No.KBS 2.1 (a)/2.3.5 (Page No.5,Item No.2.3,KPWD						
	SOR 2016-17)						
	a) Road Gully chamber to drain						
	at 20 m intervals						
	LHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1.35	0.63	63.79
	RHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1.35	0.63	63.79
	b) RWHs inside drain						
	at 50 m intervals						
	LHS						
	Ch -30.0 m to Ch- 520.0 m	cum	10	2.5	2.4	0.9	54.00
	RHS						
	Ch -30.0 m to Ch- 520.0 m	cum	10	2.5	2	0.9	45.00
		cum					226.58

SI.No.	Description of Work	Unit	No	L	В	D	Qty
	KSRB 2-2.1 Earth work excavation for foundation						-
	buildings,water supply, sanitary lines & electrical						
	conduits ither in pits or in trenches 1.5 m above in						
	width , in hard soil not exceeding 1.5 m in depth						
	including dressing the bottom and sides of pits and						
3	trenches, stacking the excavated soil clear from edges						
	of excavation with lead up to 50 m after breaking of						
	clods complete as per specifications.Specification						
	No.KBS 2.1 (a)/2.3.5 (Page No.5,item No.2.4 KPWD						
	SOR 2016-17)						
	a) Road Gully chamber to drain						
	at 20 m intervals						
	LHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1.35	0.1	7.09
	RHS					•	
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1.35	0.1	7.09
	b) RWHs inside drain						
	at 50 m intervals						
	LHS						
	Ch -30.0 m to Ch- 520.0 m	cum	10	2.5	2.4	0.1	6.00
	RHS						
	Ch -30.0 m to Ch- 520.0 m	cum	10	2.5	2	0.1	5.00
		cum					25.18
	Providing gravel bedding for levelling the trench						
	surface for laying Sewerage pipes including cost of						
4	materials, labours etc., complete as directed by the						
	engineer in charge. (Page No.17,item No.6.1						
	,KUWSDB SOR 2015-16)						
	a) Road Gully chamber to drain						
	at 20 m intervals						
	LHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1.35	0.1	10.13
	RHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1.35	0.1	10.13
		cum					20.25
	KSRB 4-1.7 ; Providing and laying in position plain						
	cement concrete of mix 1:3:6 with OPC cement						
	@220kgs with 20 mm down size graded granitemetal						
	coarse aggregates @0.56 cum and fine aggreagtes						
5	@0.465 cum machin e mixed concrete laid in layers						
	not exceeding 15 cms, thick well compacted in						
	foundation includingcost of all materials, labour, HOM						
	of machinery, curing complete as per specifications (Page No.13, item No.4.7 KPWD SOR 2016-17)						
	(rage NO.15, Reff NO.4.7 Kr WD SOK 2010-17)						
	a) Road Gully chamber to drain						
	at 20 m intervals						
	LHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1	0.1	7.50
	RHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	1	0.1	7.50
		cum					15

SI.No.	Description of Work	Unit	No	L	В	D	Qty
	KSRB 4.2.2: providing and latying in position						
	reinforced cement concrete of design mix M-20 with						
	OPC cement @ 320 Kgs.with 20 mm and down size						
	graded granite metal coarse aggregate @0.69cum						
	and fine aggreagte @0.40 cum with super plasticiser						
C	@ 3 ltrs conforming to IS 9103-1989 reaffirmed -						
6	2008, machine mixed concrete laid and exceeding 15						
	cms thick, vibrated for all works in foundation for						
	footings, pedestals, retaining walls, return walls, walls (
	any thickness) including attached						
	plasters, columns, piers, pillars, posts, struts, buttresses, b						
	lovks,anchor blocks,plinths etc.,includingcost of all						
	a) Road Gully chamber to drain						
	at 20 m intervals						
	Walls from Road gully chmanber to drain						
	Ch -30.0 m to Ch- 520.0 m	cum	25	6	0.15	0.45	10.13
	RHS				0.10	5.45	10.10
	Ch -30.0 m to Ch- 520.0 m	cum	25	6	0.15	0.45	10.13
	Cover slab				0.10	5.45	10.10
	LHS						
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	0.75	0.15	8.44
	RHS	Cull	25	5	0.75	0.10	0.74
	Ch -30.0 m to Ch- 520.0 m	cum	25	3	0.75	0.15	8.44
	Drain walls	cum	25	5	0.75	0.15	0.77
	at 50 m intervals						
	LHS						
	Ch- 30.0 m to 520 m	cum	10	5	0.15	1.5	11.25
	RHS	cum	10	5	0.15	1.5	11.25
	Ch- 30.0 m to 520 m	cum	10	5	0.15	1.5	11.25
	Drain cover slabs (Replacing of damaged slabs)	cum	10	5	0.15	1.5	11.25
	Drain		(30% of tc	tal length	of drain)		
	LHS		(30%) 01 10		oruranıj		
	Cover slab	cum		147	1.5	0.15	33.08
	RHS	cum		147	1.5	0.15	55.00
	Cover slab	cum		147	1.5	0.15	33.08
		cum		147	1.5	0.15	125.78
	KSRB 4.9.2 Providing TMT steel reinforcement for	cum					125.70
	RCC work including straightening, cutting, bending,						
	hooking, placing in position, lapping and for welding						
	wherever required, tieing with binding wire, anchoring						
	to the adjoning members whereevr necessary, as per						
7	designs (laps,hooks,wastage shall not be measured						
-	and paid) including cost of all materials form work						
	labour HOM of machinaries etc., complete as per						
	specifications.Specification No KBS 4.6.3 TMT bars Fe						
	500 (Pg.No.17,item No. 4.46.2,KPWD SOR 2016-17)						
	a) Road Gully chamber to drain						
	at 20 m intervals				ļ		
	Walls from Road gully chmanber to drain	Kg	50	kg/cum	20.25		1012.5
	Cover slab	Kg		kg/cum	16.88		1181.25
	Drain walls	Kg		kg/cum	22.50		1181.25
		116	1 50	NS/ Cull	22.50		
	Drain cover slah (30% of total covers)	Ka	70	ka/cum	66 15		163U E
	Drain cover slab (30% of total covers)	Kg Kg	70	kg/cum	66.15		4630.5 7949.3

SI.No.	Description of Work	Unit	No	L	В	D	Qty
	KSRB 2.4 Refilling available earth aroud the pipe						
	lines, cables in layers not exceeding 20 cm in depth,						
	compacting each deposited layer by ramming after						
8	watering with all lead and lift including cost of all						
	labour complete as per specifications.Specification						
	No.KBS 2.10.2 (Page No. 6,Item No. 2.11 KPWD SOR						
	2016-17)						
		cum	80% of Ea	rth work E	xcavation		181.26
	Disposal of surplus earth including, loading, unloading						
	coveyance within a distance of 5 Km and spreading as						
9	directed by the enginer incharge (page No.143,item						
	No.19.20 KPWD SOR 2016-17)						
		cum	20% of Ea	rth work e	xcavation		45.315
	Providing gully pipe lowering, laying of PVC 100 mm						
	dia ppes to the required alignments including specials						
	and grade as indicated in drawings/design and						
	hydraulically testing of the pipe line. The rate shall						
10	include all jointing materials, testing apparatus and						
	water for testi g etc as directed by the Engineer in						
	charge (page No.41, Item No.7, KUWSDB SOR 2016-						
	17)						
	a) Gully Chamber to existing drain						
	at 20 m intervals with 3 m length pipe						
	LHS						
	Ch -30.0 m to Ch- 520.0 m	Rmt	1	490	(490 m x	3m /20)	74
	RHS				\	- , -,	
	Ch-30.0 m to Ch-520.0 m	Rmt	1	490	(490 m x	3m /20)	74
		Rmt					148
	Providing and fixing CI grating (325 x325 mm) for road						
	Gully cover, including fixing the cover and CM 1:3						
11	plastering 20 mm thick to all exposed faces, curing for						
11	q0 days with all lead including cost of plastering but						
	excluding cost of concrete etc.,complete (NON SOR						
	Item)						
	Gully Chamber cover						
	at 20 m intervals LHS						
	Ch -30.00 m to 520 m	Nos	1	/00	(190 m / 2)	1 20 m) =24.5	25
	RHS	1103		430	(45011172	20 m) =24.3	25
	Ch -30.00 m to 520 m	Nos	1	490	(490 m /2	0 m)= 24.5	25
		Nos					50
	Providing and filling in foundation with granite/trap						
	broken metal 100mm and down size, with approved						
	sand including hand packing,ramming,watering,						
12	including cost of all materials and labours with all lead						
	and lift, complete as per specifications.						
	(Page No 06,Sl No : 2.15)						
	RWH		1				
	at 50 m intervals						
	LHS	0	10	25	4 -	0.0	11 25
	Ch 30.0 m to 520 .0 m RHS	cum	10	2.5	1.5	0.3	11.25
	Ch 30.0 m to 520 .0 m	cum	10	2.5	1.5	0.3	11.25
		cum	10	2.5	1.5	0.5	22.5
	E0	cum					22.3

SI.No.	Description of Work	Unit	No	L	В	D	Qty
	Earthwork excavation in all soil dposits and filling						
	sides of foundation upto plinth in layers not exceeding						
	20cms, in depth compacting each deposited layer by						
13	ramming after watering with all lead and lift including						
	cost of all labour complete as per specificatons						
	(Page No 06,Sl No : 2.12)						
	RWH						
	at 50 m intervals						
	LHS						
	Ch 30.0 m to 520 .0 m	cum	10	2.5	1.5	0.25	9.38
	RHS						
	Ch 30.0 m to 520 .0 m	cum	10	2.5	1.5	0.25	9.38
		cum					18.75
	Providing and filling sand in foundation upto plinth to						
14	required depth for sub soil tratement including						
14	watering, ramming with all lead and lift complete as						
	per specifications.						
	RWH						
	at 50 m intervals						
	LHS						
	Ch 30.0 m to 520 .0 m	cum	10	2.5	1.5	0.2	7.50
	RHS						
	Ch 30.0 m to 520 .0 m	cum	10	2.5	1.5	0.2	7.50
		cum					15

Name of the Work :- Mangalore Smart City 3.3.2 Rate Analysis of Storm water drain for Maidan Road

RATE ANALYSIS -STORM WATER DRAIN

	comprising of masinary, cement concrete, wood wo		-
1	necessary ,sorting the dismantled material,disposa		-
	materail with all the complete as per specifications	•	ment mortar.MORTH
	specification No. 202 (Page no. 138, Item No. 18.27	KPWD SOR 2016-17)	
	Basic rate		244
	Add 12% For area weightage		29.28
	KCDD 2.2.4 Forth words according for four dations	Rate	273.28 Cum
	KSRB 2-2.1 Earth work excavation for foundation b		
C	ither in pits or in trenches 1.5 m above in width ,in		
2	dressing the bottom and sides of pits and trenches excavation with lead up to 50 m after breaking of c	_	-
	2.1 (a)/2.3.5 (Page No.5,Item No.2.3,KPWD SOR 20		
	0-1.5 m depth below G.L(includes pipe bedding and		
			100
	Basic rate		189 22.68
	Add 12% For area weightage	Rate	22.08 211.68 Cum
	KSPP 2 2 1 Earth work averyation for foundation h		
	KSRB 2-2.1 Earth work excavation for foundation b ither in pits or in trenches 1.5 m above in width ,in		
3	the bottom and sides of pits and trenches, stacking		
5	lead up to 50 m after breaking of clods complete a		-
	(Page No.5, item No.2.4 KPWD SOR 2016-17)	is per specifications.specificatio	11 NO.KD3 2.1 (a)/ 2.3.3
	15-30 m denth below G L (includes nine bedding	and Manhole)	
	1.5 - 3.0 m depth below G.L(includes pipe bedding	g and Manhole)	202
	Basic rate	g and Manhole)	283
			33.96
	Basic rate Add 12% For area weightage	Rate	33.96 316.96 Cum
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench su	Rate Rate Irface for laying Sewerage pipes	33.96 316.96 Cum including cost of
4	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench su materials, labours etc., complete as directed by the	Rate Rate Irface for laying Sewerage pipes	33.96 316.96 Cum including cost of
4	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench su materials,labours etc., complete as directed by the SOR 2015-16)	Rate Rate Irface for laying Sewerage pipes	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS
4	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench su materials,labours etc., complete as directed by the SOR 2015-16) Basic rate	Rate Rate Irface for laying Sewerage pipes	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS 247
4	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench su materials,labours etc., complete as directed by the SOR 2015-16)	Rate Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS 247 29.64
4	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench su materials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage	Rate Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS 247 29.64 276.64 Cum
4	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench su materials,labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7 ;Providing and laying in position plain c	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS 247 29.64 276.64 Cum th OPC cement @2206
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7 ;Providing and laying in position plain combined granitemetal coarse	Rate Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate ement concrete of mix 1:3:6 with aggregates @0.56 cum and fine	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS 247 29.64 276.64 Cum th OPC cement @220k e aggreagtes @0.465 c
4	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7 ;Providing and laying in position plain conservation with 20 mm down size graded granitemetal coarsermachin e mixed concrete laid in layers not exceed	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with e aggregates @0.56 cum and fine ing 15 cms,thick well compacted	33.96 316.96 Cum including cost of 17, item No.6.1, KUWS 247 29.64 276.64 Cum th OPC cement @220k 29.465 c aggreagtes @0.465 c d in foundation
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7; Providing and laying in position plain complete as directed by the size graded granitemetal coarse machin e mixed concrete laid in layers not exceed includingcost of all materials, labour, HOM of machine	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with e aggregates @0.56 cum and fine ing 15 cms,thick well compacted	33.96 316.96 Cum including cost of 17, item No.6.1, KUWS 247 29.64 276.64 Cum th OPC cement @220k 29.465 c aggreagtes @0.465 c d in foundation
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7 ;Providing and laying in position plain conservation with 20 mm down size graded granitemetal coarsermachin e mixed concrete laid in layers not exceed	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with e aggregates @0.56 cum and fine ing 15 cms,thick well compacted	33.96 316.96 Cum including cost of 17, item No.6.1, KUWS 247 29.64 276.64 Cum th OPC cement @220k 29.465 c aggreagtes @0.465 c d in foundation
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7; Providing and laying in position plain constraint with 20 mm down size graded granitemetal coarse machin e mixed concrete laid in layers not exceed includingcost of all materials, labour, HOM of machin No.13, item No.4.7 KPWD SOR 2016-17)	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with e aggregates @0.56 cum and fine ing 15 cms,thick well compacted	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS 247 29.64 276.64 Cum th OPC cement @220k e aggreagtes @0.465 c d in foundation pecifications (Page
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7 ;Providing and laying in position plain construction with 20 mm down size graded granitemetal coarse machin e mixed concrete laid in layers not exceed includingcost of all materials, labour, HOM of machin No.13, item No.4.7 KPWD SOR 2016-17) Basic Rate	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with e aggregates @0.56 cum and fine ing 15 cms,thick well compacted	33.96 316.96 Cum including cost of 17,item No.6.1 ,KUWS 247 29.64 276.64 Cum th OPC cement @220k e aggreagtes @0.465 c d in foundation pecifications (Page 5282
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7 ;Providing and laying in position plain cwith 20 mm down size graded granitemetal coarse machin e mixed concrete laid in layers not exceed includingcost of all materials, labour, HOM of machin No.13, item No.4.7 KPWD SOR 2016-17) Basic Rate Deduct the cost of cement(7.2 Rs/kg x 220 kg)	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with e aggregates @0.56 cum and fine ing 15 cms,thick well compacted	33.96316.96Cumincluding cost of17,item No.6.1 ,KUWSI24729.64276.64Cumth OPC cement @220ke aggreagtes @0.465 cd in foundationbecifications (Page5282-1584
	Basic rate Add 12% For area weightage Providing gravel bedding for levelling the trench sumaterials, labours etc., complete as directed by the SOR 2015-16) Basic rate Add 12% For area weightage KSRB 4-1.7; Providing and laying in position plain cwith 20 mm down size graded granitemetal coarse machin e mixed concrete laid in layers not exceed includingcost of all materials, labour, HOM of machin No.13, item No.4.7 KPWD SOR 2016-17) Basic Rate Deduct the cost of cement(7.2 Rs/kg x 220 kg) Total	Rate Inface for laying Sewerage pipes e engineer in charge. (Page No.1 Rate Rate cement concrete of mix 1:3:6 with e aggregates @0.56 cum and fine ing 15 cms,thick well compacted	33.96316.96Cumincluding cost of17,item No.6.1 ,KUWS24729.64276.64Cumth OPC cement @220ke aggreagtes @0.465 cd in foundationbecifications (Page5282-15843698

	KSRB 4.2.2: providing and latying in position reinforced cement c	oncrete of desig	n mix M-20 with	n OPC
	cement @ 320 Kgs.with 20 mm and down size graded granite m	etal coarse aggre	egate @0.69cun	n and fine
	aggreagte @0.40 cum with super plasticiser @ 3 ltrs conforming	to IS 9103-1989	reaffirmed -200	08,
_	machine mixed concrete laid and exceeding 15 cms thick, vibrate			
6	pedestals, retaining walls, return walls, walls (any thickness) inclu			0,
	plasters, columns, piers, pillars, posts, struts, buttresses, blovks, and	-	etcincludingco	ost of all
	materails, labours, HOM of machinery, curing, complete asper spec	•	-	
	page No.13,item No.4.11,KPWD SOR 2016-17))(
	Basic Rate		5441	
	Deduct the cost of cement(7.2 Rs/kg x 240 kg)		-1728	
	Total		3713	
	Add 12% For area weightage		445.56	
	Cement cost(7.2Rs./kg x240 kg)		1728	
		Rate	5886.56	Cum
	Note: for cement basic price refer "material components"-			
	S.I.132=Rs.720 / Quintal			
	KSRB 4.9.2 Providing TMT steel reinforcement for RCC work inc	luding straighten	ing, cutting,ben	iding,
	hooking, placing in position, lapping and for welding wherever rec			-
	the adjoning members whereevr necessary, as per designs (laps		-	-
7	paid) including cost of all materials form work labour HOM of m	-		
	specifications.Specification No KBS 4.6.3 TMT bars Fe 500 (Pg.No			2016-17)-
	Revised	,	,	
	Basic rate		70675	
	Add 12% For area weigthtage		8481	
		Rate	79156.00	MT
	KSRB 2.4 Refilling available earth aroud the pipe lines, cables in	lavers not excee		
	KSRB 2.4 Refilling available earth aroud the pipe lines, cables in compacting each deposited layer by ramming after watering with	•	ding 20 cm in de	epth ,
8	compacting each deposited layer by ramming after watering wit	h all lead and lift	ding 20 cm in de including cost o	epth , of all
8	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.2	h all lead and lift	ding 20 cm in de including cost o	epth , of all
8	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.2 2016-17)	h all lead and lift	ding 20 cm in de including cost o m No. 2.11 KPW	epth , of all
8	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.2 2016-17) Basic Rate	h all lead and lift	ding 20 cm in de including cost o m No. 2.11 KPW 76	epth , of all
8	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.2 2016-17)	h all lead and lift 2 (Page No. 6,Iter	ding 20 cm in de including cost o m No. 2.11 KPW 76 9.12	epth , of all /D SOR
8	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage	h all lead and lift 2 (Page No. 6,Iter Rate	ding 20 cm in de including cost o m No. 2.11 KPW 76 9.12 85.12	epth , of all /D SOR Cum
8	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance	h all lead and lift 2 (Page No. 6,Ite Rate within a distance	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp	epth , of all /D SOR Cum
	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF	h all lead and lift 2 (Page No. 6,Ite Rate within a distance	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7)	epth , of all /D SOR Cum
	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate	h all lead and lift 2 (Page No. 6,Ite Rate within a distance	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37	epth , of all /D SOR Cum
	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF	Rate WD SOR 2016-1	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44	epth , of all /D SOR Cum oreading as
	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage	Rate Rate Rate Rate WD SOR 2016-1 Rate	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44	epth , of all /D SOR Cum oreading as
	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to the	h all lead and lift 2 (Page No. 6,Iter Rate within a distance WD SOR 2016-1 Rate he required align	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including	epth , of all /D SOR Cum preading as Cum g specials
	 compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.3 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi 	h all lead and lift 2 (Page No. 6,Iter Rate within a distance PWD SOR 2016-1 Rate he required align ng of the pipe lir	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including ie.The rate shall	epth , of all /D SOR Cum oreading as Cum g specials I include all
9	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KB Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d	h all lead and lift 2 (Page No. 6,Iter Rate within a distance PWD SOR 2016-1 Rate he required align ng of the pipe lir	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including ie.The rate shall	epth , of all /D SOR Cum oreading as Cum g specials I include all
9	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17)	h all lead and lift 2 (Page No. 6,Iter Rate within a distance PWD SOR 2016-1 Rate he required align ng of the pipe lir	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including the The rate shall ngineer in charg	epth , of all /D SOR Cum oreading as Cum g specials I include all
9	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17) Basic Rate	h all lead and lift 2 (Page No. 6,Iter Rate within a distance PWD SOR 2016-1 Rate he required align ng of the pipe lir	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including the rate shall ngineer in charg	epth , of all /D SOR Cum oreading as Cum g specials I include all
9	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17)	h all lead and lift 2 (Page No. 6,Iter Rate within a distance PWD SOR 2016-1 Rate he required align ng of the pipe lir lirected by the Er	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including ne.The rate shall ngineer in charg 297 35.64	epth , of all /D SOR Cum oreading as Cum g specials I include all ge (page
9	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17) Basic Rate Add 12% For Area weightage	h all lead and lift 2 (Page No. 6,Iter Rate within a distance WD SOR 2016-1 Rate he required align ng of the pipe lir lirected by the Er Rate Rate	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including ie.The rate shall ngineer in charg 297 35.64 332.64	epth , of all /D SOR Cum oreading as cum g specials l include all ge (page Rmt
9	 compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.3 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to the and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17) Basic Rate Add 12% For Area weightage Providing and fixing CI grating (325 x325 mm) for road Gully cover 	Rate Rate Rate Rate Rate Rate Rate Rate	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including the rate shall ngineer in charg 297 35.64 332.64 g the cover and	epth , of all /D SOR Cum oreading as creading creating creading creating
9	 compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17) Basic Rate Add 12% For Area weightage Providing and fixing CI grating (325 x325 mm) for road Gully cover plastering 20 mm thick to all exposed faces,curing for q0 days wi 	Rate Rate Rate Rate Rate Rate Rate Rate	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including the rate shall ngineer in charg 297 35.64 332.64 g the cover and	epth , of all /D SOR Cum oreading as oreading as ce (page l include all ge (page Rmt CM 1:3
9	 compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to thand grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17) Basic Rate Add 12% For Area weightage Providing and fixing CI grating (325 x325 mm) for road Gully cover plastering 20 mm thick to all exposed faces,curing for q0 days wi excluding cost of concrete etc.,complete (NON SOR Item) 	Rate Rate Rate Rate Rate Rate Rate Rate	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including the rate shall ngineer in charg 297 35.64 332.64 g the cover and	epth , of all /D SOR Cum oreading as oreading as ce (page l include all ge (page Rmt CM 1:3
9	compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.2 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to th and grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17) Basic Rate Add 12% For Area weightage Providing and fixing CI grating (325 x325 mm) for road Gully cove plastering 20 mm thick to all exposed faces,curing for q0 days wi excluding cost of concrete etc.,complete (NON SOR Item) Rate Approved as per EOI by MD MSCL Mangalore,Refer	Rate Rate Rate Rate Rate Rate Rate Rate	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including ne.The rate shall ngineer in charg 297 35.64 332.64 g the cover and ing cost of plast	epth , of all /D SOR Cum oreading as creading as cread
9	 compacting each deposited layer by ramming after watering wit labour complete as per specifications.Specification No.KBS 2.10.7 2016-17) Basic Rate Add 12% For Area weightage Disposal of surplus earth including,loading, unloading coveyance directed by the enginer incharge (page No.144,item No.19.20 KF Basic Rate add 12% For Area weightage Providing gully pipe lowering,laying of PVC 100 mm dia ppes to thand grade as indicated in drawings/design and hydraulically testi jointing materials,testing apparatus and water for testi g etc as d No.41,Item No.7,KUWSDB SOR 2016-17) Basic Rate Add 12% For Area weightage Providing and fixing CI grating (325 x325 mm) for road Gully cover plastering 20 mm thick to all exposed faces,curing for q0 days wi excluding cost of concrete etc.,complete (NON SOR Item) 	Rate Rate Rate Rate Rate Rate Rate Rate	ding 20 cm in de including cost of m No. 2.11 KPW 76 9.12 85.12 e of 5 Km and sp 7) 37 4.44 41.44 ments including the rate shall ngineer in charg 297 35.64 332.64 g the cover and	epth , of all /D SOR Cum oreading as creading as cread

	Providing and filling in foundation with granite/trap br	oken metal 100mm and dov	wn size,with ap	proved
	sand including hand packing, ramming, watering, includ		•	•
12	lift,complete as per specifications.	C		
	(Page No 06,Sl No : 2.15)			
	Basic Rate		2114.00	
	Add 12% For Area weightage		253.68	
		Rate	2367.68	Cum
	Earthwork excavation in all soil dposits and filling sides	of foundation upto plinth i	n layers not ex	ceeding
	20 ame in death compositing each deposited lower by re		الممما مما الم	£
40	20cms, in depth compacting each deposited layer by ra	amming after watering wit	n all lead and ll	rt inclual
13	cost of all labour complete as per specificatons	amming after watering wit	n all lead and li	rt incluai
13		amming after watering wit	n all lead and li	rt includi
13	cost of all labour complete as per specificatons	amming after watering wit	254.00	
13	cost of all labour complete as per specificatons (Page No 06,Sl No : 2.12)	amming after watering wit		
13	cost of all labour complete as per specificatons (Page No 06,Sl No : 2.12) Basic Rate	Rate	254.00	
13	cost of all labour complete as per specificatons (Page No 06,Sl No : 2.12) Basic Rate	Rate	254.00 30.48 284.00	Cum
13	cost of all labour complete as per specificatons (Page No 06,Sl No : 2.12) Basic Rate Add 12% For Area weightage	Rate required depth for sub soil t	254.00 30.48 284.00	Cum
	cost of all labour complete as per specificatons (Page No 06,Sl No : 2.12) Basic Rate Add 12% For Area weightage Providing and filling sand in foundation upto plinth to r	Rate required depth for sub soil t	254.00 30.48 284.00	Cum
	 cost of all labour complete as per specificatons (Page No 06,Sl No : 2.12) Basic Rate Add 12% For Area weightage Providing and filling sand in foundation upto plinth to r watering, ramming with all lead and lift complete as per specification. 	Rate required depth for sub soil t	254.00 30.48 284.00	Cum ding
	 cost of all labour complete as per specificatons (Page No 06,Sl No : 2.12) Basic Rate Add 12% For Area weightage Providing and filling sand in foundation upto plinth to r watering,ramming with all lead and lift complete as per (Page No 06,Sl No : 2.13) 	Rate required depth for sub soil t	254.00 30.48 284.00 tratement inclu	Cum ding

Name of the Work :- Mangalore Smart City 3.4 BOQ OF WATER SUPPLY FOR MAIDAN ROAD

BOQ item No.	Description of work	Unit	Quantity	Rate	Amount	Remarks
Α	WATER SUPPLY MAIN LINES					
1	KSRB 2-2.1 : earth work excavation for foundations of buildings, water supply & sanitary lines and electrical conduits etc., either in pits or in trenches 1.50 m and above in width ,in ordinary soil not exceeding 1.5 m in depth including dressing the bottom of sides of pits and trenches ,stacking the excavated stuff clear from edges of excavation with lead upto 50 m after braking of clods compliance as per specifications,Specificaation No.KBS .2.1(a)/2.3.5 (Page No.5,item No.2.3 KPWD SOR 2016-17)	cum	705.03	211.68	1,49,241	
2	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5. (P.No. 5/I.No. 2.4 of CSR 2015-16)	Cum	705.03	316.96	2,23,466	
	KSRB 13-9.1 : Providing and fixing to wall, ceiling and			┨		ļ
3	floor high density poly ethelene pipes 6.00 kgf/sq.cm working pressure following outside diameter raising mains & exposed dostribution pipes with special flanges, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges,HOM of equipments and testing complete as per specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 Item No. 13.73.3/13.73.5 PWD SOR-2016-17)					
	75 mm dia	Rmt	490.00	449.12	2,20,069	
	110 mm dia	Rmt	545.00	639.52	3,48,538	
4	Supplying & fixing of AMR water meter size 15 mm inferential type,mangnbetically coupled, having dry dial, hermitically sealed totalizer conforming to MID standards (Page No.61,BWSSB SOR 2015-16)	No	2.00	37200.00	74,400	
5	KSRB 2-4 Refilling available earth around the pipe lines, cables in layers not exceeding 20 cms in depth , compacting each deposited layer by ramming after watering with all lead and lift includimng cost of all labour complete as per specifications. (Page No. 6 item No.2.11, KPWD SOR 2016-17)	cum	1128.048	85.12	96,019	
6	KSRB M300-19 removal of unserviceable soil includimng excavation, loiading and disposal but excluding replacemnet by suitable soil which shall be paid seperatelky as per clause 300.5 complete as per specifications,MORTH specifications No. 301 (page No.144, item No. 19.20 ,KPWD SOR 2016-17)	cum	282.012	41.44	11,687	

BOQ item No.	Description of work	Unit	Quantity	Rate	Amount	Remarks
В	WATER SUPPLY- Tapping					
7	KSRB 2-2.1 : earth work excavation for foundation buildings, water supply, sanitary lines & elctrical of conduits either in pits or in trenches 1.5 m and above in width , in ordinary soil not exceeding 1.5 m in depth incuding dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edgesof excavation with lead up to 50 m.after breaking of clods complete as per specification No. KSRB 2.1 (a)/2.3.5(Pg.No.5,item No.2.3,KPWD SOR 2016-17).	cum	0.36	211.68	76	
8	KSRB 4-1.7 ;Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @220kgs with 20 mm down size graded granitemetal coarse aggregates @0.56 cum and fine aggreagtes @0.465 cum machin e mixed concrete laid in layers not exceeding 15 cms,thick well compacted in foundation includingcost of all materials,labour,HOM of machinery, curing complete as per specifications (Page No.13,item No.4.7 KPWD SOR 2016-17)	cum	0.05	5725.76	292	
9	KSRB 4.2.7 Providing and laying vibrated M25 design mix for RCC work (excluding cost of reinforcement) with 20 mm down size of approved gradation hard broken granite,trap basalt or any other approved hard aggregate including cost and conveyance of all materials with all lead & lift including weigh batch plant mixing,plywood /steel form work, centering,scoffolding,curing, plastering and smoothfinishing the exposed faces in CM 1:3 12 mm thick as per designs etc., complete for RCC shaft (minimum cementb @ 340 kgs)(Pg No.13,item.4.12,KPWD SOR 2016-17)	cum	0.03	6837.28	175	
	Top slab					
10	KSRB 4.9.2 Providing TMT steel reinforcement for RCC work including straightening,cutting, bending hooking, placing position,lapping and /or welding wherever required,tieing with bending wire , anchoring to the adjoining memebers wherever necessary complete as per design.(laps,hooks and wastage shall not be measured and paid)cost of materials,labour,HOM of machinery complete as per specifications.Specification No. KBS 4.6.3 (Page No. 17, item No. 4.46 and KPWD SOR 2016- 17)	МТ	0.003	79156.00	202	
11	KSRB 6-1.3:Providing and constructing burnt brick masonary for basement and super structure with approved quality of non-modular bricks of stadard size of class designation 3.5N with cement mortar 1:6 including cost of all materials,labour charges,scoffoding,curing complete as per specifications.specification No. KBS 6.3 (Page No.27 , Item No 6.3 and KPWD SOR 2016-17) Chamber for meter	cum	0.15	7021.28	1,085	
			TOTAL		11,25,250	

Name of the Work :- Mangalore Smart City 3.4.1 MEASUREMENT SHEET OF WATER SUPPLY FOR MAIDAN ROAD

SI.No.	Description of Work	Unit	Nos.	L	в	D	Quantity
А	WATER SUPPLY MAIN LINES						
	KSRB 2-2.1 : earth work excavation for foundations						
	of buildings, water supply & sanitary lines and						
	electrical conduits etc., either in pits or in trenches						
	1.50 m and above in width ,in ordinary soil not						
	exceeding 1.5 m in depth including dressing the						
1	bottom of sides of pits and trenches ,stacking the						
	excavated stuff clear from edges of excavation with						
	lead upto 50 m after braking of clods compliance						
	as per specifications, Specificaation No.KBS						
	.2.1(a)/2.3.5 (Page No.5,item No.2.3 KPWD SOR						
	2016-17)						
	a) water supply						
	Along Maidan road						
	Rider main						
	LHS						
	Ch-30.0m to 520.00 m	Cum	0	490	0.675	1.08	0.00
	Rider and Distribution main						
	RHS						
	Ch- 30.00 m to 520.00 m	Cum	1	490	0.71	1.2	417.48
	Feeder main						
а	Along Maidan road						
	LHS						
	CH 0.0 to 110 m		0.5	110	0.675	1.2	44.55
b	From Maidan road to Railway quarters (railway						
0	road)						
	LHS						
	Ch-0.00 m to 300.00m	Cum	1	300	0.675	1.2	243.00
		Cum					705.03
	KSRB 2-2.2 : Earthwork excavation for foundation						
	of buildings, water supply, sanitary lines and						
	electrical conduits either in pits or in trenches 1.5m						
	and above in width, in hard soil not exceeding 1.5						
~	m. in depth including dressing the bottom and sides						
2	of pits and trenches, stacking the excavated soil						
	clear from edges of excavation with lead upto 50						
	m. after breaking of clods complete as per						
	specifications. specification. No. KBS 2.1(b) / 2.3.5. (P.No. 5/I.No. 2.4 of CSR 2015-16)						
	2.3.5. (F.NO. 5/1.NO. 2.4 01 CSR 2015-10)						
	a) water supply						
	Along Maidan road						
	Rider main						
	LHS						
	Ch-30.0m to 520.00 m	Cum	0	490	0.675	0.12	0.00
	Rider and Distribution main						
	RHS						
	Ch- 30.00 m to 520.00 m	Cum	1	490	0.71	1.2	417.48
	Feeder main						
а	Along Maidan road						
	LHS						
	CH 0.0 to 110 m		0.5	110	0.675	1.2	44.55
b	From Maidan road to Railway quarters (railway						
5	road)						
	LHS				_		
		Cum	1	300	0.675	1.2	243.00
	Ch-0.00 m to 300.00m	Cum Cum	1	300	0.075	۲.۷	705.03

SI.No.	Description of Work	Unit	Nos.	L	В	D	Quantity
	KSRB 13-9.1 : Providing and fixing to wall, ceiling and floor high density poly ethelene pipes 6.00						
	kgf/sq.cm working pressure following outside						
	diameter raising mains & exposed dostribution						
	pipes with special flanges, compression type						
3	fittings, wall clips, making good the wall, ceiling and						
	floor, including cost of all materials, labour						
	charges, HOM of equipments and testing complete						
	as per specifications.Specification No. KBS						
	13.2,15.2/13.9 (Page No.94 Item No.						
	13.73.3/13.73.5 PWD SOR-2016-17)						
	a) water supply						
	Along Maidan road						
	75 mm dia						
	LHS						
	Ch-30.0m to 520.00 m	Rmt	0	490			0.00
	75 mm dia -1No.and 110 mm doia -1No					ļ	
	RHS	_					
	Ch- 30.00 m to 520.00 m	Rmt	1	490			490.00
				Total length	n of pipe	/5m	490.00
	Feeder main-110mm						
	Along Maidan road	Durat	0.5	100			0.45.00
	CH 0.0 to 520.0	Rmt	0.5	490			245.00
	From Maidan road to Railway quarters (railway						
	road) LHS						
	Ch-0.00 m to 300.00m	Rmt	1	300			300.00
		NIII		300			300.00
		Rmt		Total length	n of pipe	110m	545.00
	Supplying & fixing of AMR water meter size 15 mm			- e ten te tign			
	inferential type,mangnbetically coupled, having dry						
4	dial, hermitically sealed totalizer conforming to MID	No	2	1			2.00
	standards (Page No.61,BWSSB SOR 2015-16)		_				
	KSRB 2-4 Refilling available earth around the						
	pipe lines, cables in layers not exceeding 20 cms						
	in depth , compacting each deposited layer by						
5	ramming after watering with all lead and lift						
Ũ	includimng cost of all labour complete as per						
	specifications. (Page No. 6 item No.2.11,						
	KPWD SOR 2016-17)						
	a) For one House connection	Cum		80%of Exca	avation		1128.048
	KSRB M300-19 removal of unserviceable soil	U		20,001 200			
	includimng excavation, loiading and disposal but						
	excluding replacemnet by suitable soil which shall						
6	be paid seperatelky as per clause 300.5 complete						
Ŭ	as per specifications, MORTH specifications No.						
	301 (page No.144, item No. 19.20 ,KPWD SOR						
	2016-17)						
		Cum		20%of Exca	avation		282.012
		0.000		<u>-</u> /(0)			

SI.No.	Description of Work	Unit	Nos.	L	В	D	Quantity
	WATER SUPPLY- HOUSE SERVICE CONNECTION	NS		(Qty for one	e House c	oonec tior	ו)
7	KSRB 2-2.1 : earth work excavation for foundation buildings, water supply, sanitary lines & elctrical of conduits either in pits or in trenches 1.5 m and above in width , in ordinary soil not exceeding 1.5 m in depth incuding dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edgesof excavation with lead up to 50 m.after breaking of clods complete as per specification No. KSRB 2.1 (a)/2.3.5(Pg.No.5,item No.2.3,KPWD SOR 2016-17).			0.045			
	KSRB 4-1.7 ;Providing and laying in position plain	cum	2	0.615	0.415	0.7	0.36
8	cement concrete of mix 1:3:6 with OPC cement @220kgs with 20 mm down size graded granitemetal coarse aggregates @0.56 cum and fine aggreagtes @0.465 cum machin e mixed concrete laid in layers not exceeding 15 cms,thick well compacted in foundation includingcost of all materials,labour,HOM of machinery, curing complete as per specifications (Page No.13,item No.4.7 KPWD SOR 2016-17)						
	KSRB 4.2.7 Providing and laying vibrated M25	cum	2	0.615	0.415	0.1	0.05
9	design mix for RCC work (excluding cost of reinforcement) with 20 mm down size of approved gradation hard broken granite,trap basalt or any other approved hard aggregate including cost and conveyance of all materials with all lead & lift including weigh batch plant mixing,plywood /steel form work, centering,scoffolding,curing, plastering and smoothfinishing the exposed faces in CM 1:3 12 mm thick as per designs etc., complete for RCC shaft (minimum cementb @ 340 kgs)(Pg No.13,item.4.12,KPWD SOR 2016-17)						
		cum	2	0.615	0.415	0.05	0.03
10	KSRB 4.9.2 Providing TMT steel reinforcement for RCC work including straightening,cutting, bending hooking, placing position,lapping and /or welding wherever required,tieing with bending wire , anchoring to the adjoining memebers wherever necessary complete as per design.(laps,hooks and wastage shall not be measured and paid)cost of materials,labour,HOM of machinery complete as per specifications.Specification No. KBS 4.6.3 (Page No. 17, item No. 4.46 and KPWD SOR 2016 17)						
	a) For one House connection	MT	50	kg/cum	0.051		0.0026
11	KSRB 6-1.3:Providing and constructing burnt brick masonary for basement and super structure with approved quality of non-modular bricks of stadard size of class designation 3.5N with cement mortar 1:6 including cost of all materials,labour charges,scoffoding,curing complete as per specifications.specification No. KBS 6.3 (Page No.27, Item No 6.3 and KPWD SOR 2016-17) Chamber for meter						
	a) For one House connection	cum	4	1.03	0.125	0.3	0.15
	Executive Engineer MSCL Mangaluru		I	<u>.</u>		intendent SCL Mang	t Engineer galuru

Name of the Work :- Mangalore Smart City 3.4.2 Rate Analysis of Water Supply for Maidan Road

RATE ANALYSIS -WATER SUPPLY

	KSRB 2-2.1 : earth work excavation for foundations of buildings,	water supp	ly & sanitary	lines and
	electrical conduits etc., either in pits or in trenches 1.50 m and a	bove in wic	lth ,in ordina	ry soil not
	exceeding 1.5 m in depth including dressing the bottom of sides			•
1	excavated stuff clear from edges of excavation with lead upto 50			-
	compliance as per specifications, Specificaation No.KBS .2.1(a)/2.		-	
	SOR 2016-17)	J.J (Fage N	10. <i>5,</i> 11em 110	.2.3 KF VVL
	Basic rate		189	
	Add 12% For area weightage		22.68	
		Rate	211.68	
	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, w			
	electrical conduits either in pits or in trenches 1.5m and above ir		•	
	1.5 m. in depth including dressing the bottom and sides of pits an			-
2	soil clear from edges of excavation with lead upto 50 m. after bro		-	
	-	-		e as pei
	specifications. specification. No. KBS 2.1(b) / 2.3.5. (P.No. 5/I.No.). 2.4 01 CSF	(2015-10)	
	Basic rate		283	
	Add 12% For area weightage		33.96	
		Rate	316.96	Cum
	KSRB 13-9.1 : Providing and fixing to wall, ceiling and floor high d	ensity poly		
	IKet/so.cm working pressure tollowing outside diameter raising m			
	kgf/sq.cm working pressure following outside diameter raising m with special flanges, compression type fittings, wall clins, making			
3	with special flanges, compression type fittings, wall clips, making	good the v	wall, ceiling a	ind floor,
3	with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment	good the v ts and testi	wall, ceiling a ng complete	ind floor, as per
3	with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94	good the v ts and testi	wall, ceiling a ng complete	ind floor, as per
	with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17)	good the v ts and testi	wall, ceiling a ng complete	ind floor, as per
3 a	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia 	good the v ts and testi	vall, ceiling a ng complete 13.73.3/13.7	ind floor, as per
	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate 	good the v ts and testi	wall, ceiling a ng complete 13.73.3/13.7 571	ind floor, as per
	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia 	good the v ts and testi Item No. 1	wall, ceiling a ng complete 13.73.3/13.7 571 68.52	as per 3.5 PWD
	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 	good the v ts and testi	wall, ceiling a ng complete 13.73.3/13.7 571	as per 3.5 PWD
	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia 	good the v ts and testi Item No. 1	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52	as per 3.5 PWD
а	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate 	good the v ts and testi Item No. 1	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401	Rmt
а	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia 	good the v ts and testi Item No. 1	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12	Rmt
а	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate 	good the v ts and testi Item No. 1	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401	Rmt
а	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2, 15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Add 12% For Area wightage 	good the v ts and testi Item No. 2 Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12	Rmt
а	with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges,HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty	good the v ts and testi Item No. 2 Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12 petically coup	Rmt Rmt
а	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2, 15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Add 12% For Area wightage 	good the v ts and testi Item No. 2 Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12 petically coup	Rmt Rmt
a b	with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges,HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty	good the v ts and testi Item No. 2 Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12 petically coup	Rmt Rmt
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications. Specification No. KBS 13.2, 15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 	good the v ts and testi Item No. 2 Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12 petically coup	Rmt
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 16) 	good the v ts and testi Item No. 2 Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12 oetically coup 5.61,BWSSB S	Rmt
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 16) Basic rate 	Rate Rate Rate Rate Rate Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 639.52 401 48.12 449.12 0etically coup 0.61,BWSSB S 37200 37200.00	Rmt Rmt Rmt No
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges,HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 16) Basic rate KSRB 2-4 Refilling available earth around the pipe lines, cables 	Rate Rate Rate Rate Rate Rate	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12 0etically coup 0.61,BWSSB 5 37200 37200.00 ot exceeding	Rmt Rmt SOR 2015- No g 20 cms in
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges,HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 16) Basic rate KSRB 2-4 Refilling available earth around the pipe lines, cables depth , compacting each deposited layer by ramming after water 	Rate Rate Rate Rate npe,mangnh ds (Page No	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 639.52 401 48.12 449.12 0etically coup 0.61,BWSSB 5 37200 37200.00 ot exceeding all lead and l	Rmt Rmt Bled, havir SOR 2015- No g 20 cms in ift
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges,HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 16) Basic rate KSRB 2-4 Refilling available earth around the pipe lines, cables depth , compacting each deposited layer by ramming after water includimng cost of all labour complete as per specifications. (Page No.94 SOR-2016-17) 	Rate Rate Rate Rate npe,mangnh ds (Page No	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 639.52 401 48.12 449.12 0etically coup 0.61,BWSSB 5 37200 37200.00 ot exceeding all lead and l	Rmt Rmt Bled, havir SOR 2015- No g 20 cms in ift
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges, HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 16) Basic rate KSRB 2-4 Refilling available earth around the pipe lines, cables depth , compacting each deposited layer by ramming after wate includimng cost of all labour complete as per specifications. (Page No.94 SOR 2016-17) 	Rate Rate Rate Rate npe,mangnh ds (Page No	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 401 48.12 449.12 0etically coup 0.61,BWSSB S 37200 37200.00 ot exceeding all lead and l item No.2.1	Rmt Rmt Rmt SOR 2015- No g 20 cms in ift 11, KPWD
a b	 with special flanges, compression type fittings, wall clips, making including cost of all materials, labour charges,HOM of equipment specifications.Specification No. KBS 13.2,15.2/13.9 (Page No.94 SOR-2016-17) 110 mm dia Basic rate Add 12% For area wightage 75 mm dia Basic rate Add 12% For Area wightage Supplying & fixing of AMR water meter size 15 mm inferential ty dry dial, hermitically sealed totalizer conforming to MID standard 16) Basic rate KSRB 2-4 Refilling available earth around the pipe lines, cables depth , compacting each deposited layer by ramming after water includimng cost of all labour complete as per specifications. (Page No.94 SOR-2016-17) 	Rate Rate Rate Rate npe,mangnh ds (Page No	wall, ceiling a ng complete 13.73.3/13.7 571 68.52 639.52 639.52 401 48.12 449.12 0etically coup 0.61,BWSSB 5 37200 37200.00 ot exceeding all lead and l	Rmt

	KSRB M300-19 removal of unserviceable soil includimng excava	ation, loiading	g and dispos	al but
C	excluding replacemnet by suitable soil which shall be paid sep			
6	complete as per specifications, MORTH specifications No. 301 (page No.144	l, item No. 1	19.20
	,KPWD SOR 2016-17)			
	Basic rate		37	
	Add 12% for area wightage		4.44	
		Rate	41.44	Cum
	KSRB 2-2.1 : earth work excavation for foundation buildings, wa	ater supply, s	anitary lines	& elctrical
	of conduits either in pits or in trenches 1.5 m and above in wid	lth , in ordina	ry soil not e	ceeding 1.5
7	m in depth incuding dressing the bottom and sides of pits and	d trenches, st	acking the e	xcavated
/	soil clear from edgesof excavation with lead up to 50 m.after l	breaking of cl	ods complet	e as per
	specification No. KSRB 2.1 (a)/2.3.5(Pg.No.5,item No.2.3,KPWD	SOR 2016-17	7).	
	Basic rate		189	
	Add 12% For area weightage		22.68	
		Rate	211.68	
	KSRB 4-1.7 ;Providing and laying in position plain cement conci	rete of mix 1:	3:6 with OP	C cement
	@220kgs with 20 mm down size graded granitemetal coarse ag			
8	aggreagtes @0.465 cum machin e mixed concrete laid in layers	not exceedi	ng 15 cms,tł	nick well
0	compacted in foundation includingcost of all materials, labour, H	IOM of mach	inery, curing	g complete
	as per specifications (Page No.13, item No.4.7 KPWD SOR 2016-	-17)		
	Basic Bate		5282	
	Basic Rate Ded.Cement cost(7.2 Rs./kg x220 kg)		5282	
	Ded.Cement cost(7.2 Rs./kg x220 kg)		-1584	
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total		-1584 3698	
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage		-1584 3698 443.76	
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total	Rate	-1584 3698 443.76 1584	Cum
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg)	Rate	-1584 3698 443.76	Cum
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage	Rate	-1584 3698 443.76 1584	Cum
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal		-1584 3698 443.76 1584 5725.76	
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for Reference of the second	CC work (exc	-1584 3698 443.76 1584 5725.76	of
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.1.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h	CC work (exc	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap	of basalt or
	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya	CC work (exc nard broken g nce of all ma	-1584 3698 443.76 1584 5725.76 Iluding cost of granite,trap terials with a	of basalt or all lead & lif
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.1.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or	CC work (exc nard broken g nce of all ma centering,sco	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap terials with a ffolding,curi	of basalt or all lead & lif ng,
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or plastering and smoothfinishing the exposed faces in CM 1:3 12	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap terials with a ffolding,curi per designs	of basalt or all lead & lif ng, etc.,
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.1.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap terials with a ffolding,curi per designs	of basalt or all lead & lif ng, etc.,
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or plastering and smoothfinishing the exposed faces in CM 1:3 12	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap terials with a ffolding,curi per designs	of basalt or all lead & lift ng, etc.,
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or plastering and smoothfinishing the exposed faces in CM 1:3 12 complete for RCC shaft (minimum cementb @ 340 kgs)(Pg Note)	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 Iluding cost of granite,trap terials with a ffolding,curi per designs 2,KPWD SOF	of basalt or all lead & lift ng, etc.,
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.1.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation hany other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or plastering and smoothfinishing the exposed faces in CM 1:3 12 complete for RCC shaft (minimum cementb @ 340 kgs)(Pg Nc) Basic Rate	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap terials with a ffolding,curi per designs 2,KPWD SOR 6367	of basalt or all lead & lift ng, etc.,
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.1.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, o plastering and smoothfinishing the exposed faces in CM 1:3 12 complete for RCC shaft (minimum cementb @ 340 kgs)(Pg Nc) Basic Rate Ded.Cement cost(7.2 Rs./kg x340kg)	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 Uuding cost of granite,trap terials with a ffolding,curi per designs 2,KPWD SOF 6367 -2448	of basalt or all lead & lift ng, etc.,
9	Ded.Cement cost(7.2 Rs./kg x220 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or plastering and smoothfinishing the exposed faces in CM 1:3 12 complete for RCC shaft (minimum cementb @ 340 kgs)(Pg Not Basic Rate Ded.Cement cost(7.2 Rs./kg x340kg) Total	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap terials with a ffolding,curi per designs 2,KPWD SOR 6367 -2448 3919	of basalt or all lead & lift ng, etc.,
9	Ded.Cement cost(7.2 Rs./kg x220 kg)TotalAdd 12% For area weightageCement cost(7.2Rs./kg x 220 kg)Note: for cement basic price refer "material components"- S.1.132=Rs.720 / QuintalKSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or plastering and smoothfinishing the exposed faces in CM 1:3 12 complete for RCC shaft (minimum cementb @ 340 kgs)(Pg NoBasic RateDed.Cement cost(7.2 Rs./kg x340kg)TotalAdd 12% For area weightage	CC work (exc nard broken g nce of all ma centering,sco mm thick as	-1584 3698 443.76 1584 5725.76 cluding cost of granite,trap terials with a ffolding,curi per designs 2,KPWD SOF 6367 -2448 3919 470.28	of basalt or all lead & lift ng, etc., 2016-17)
9	Ded.Cement cost(7.2 Rs./kg x220 kg)TotalAdd 12% For area weightageCement cost(7.2Rs./kg x 220 kg)Note: for cement basic price refer "material components"- S.1.132=Rs.720 / QuintalKSRB 4.2.7 Providing and laying vibrated M25 design mix for RG reinforcement) with 20 mm down size of approved gradation h any other approved hard aggregate including cost and conveya including weigh batch plant mixing,plywood /steel form work, or plastering and smoothfinishing the exposed faces in CM 1:3 12 complete for RCC shaft (minimum cementb @ 340 kgs)(Pg NoBasic RateDed.Cement cost(7.2 Rs./kg x340kg)TotalAdd 12% For area weightage	CC work (exc nard broken g nce of all ma centering,sco mm thick as 0.13,item.4.12	-1584 3698 443.76 1584 5725.76 Uuding cost of granite,trap terials with a ffolding,curi per designs 2,KPWD SOF 6367 -2448 3919 470.28 2448	of basalt or all lead & lift ng, etc., 2016-17)

	Add 12% For area weightage		752.28						
	Basic Rate		6269						
	Chamber for meter								
11	cement mortar 1:6 including cost of all materials, labour charges specifications.specification No. KBS 6.3 (Page No.27, Item No 6.	-							
	with approved quality of non-modular bricks of stadard size of c	-							
	KSRB 6-1.3:Providing and constructing burnt brick masonary fo		•						
		Rate	79156.00						
	Add 12% area weightage		8481						
	Basic Rate		70675						
	(Page No. 17 , item No. 4.46 and KPWD SOR 2016-17)	-	-						
	machinery complete as per specifications.Specification No. KBS 4	.6.3							
10	design.(laps,hooks and wastage shall not be measured and paid)	cost of mat	terials,labour	,HOM of					
10	wire, anchoring to the adjoining memebers wherever necessary	complete	as per						
	bending hooking, placing position, lapping and /or welding where	ver requir	ed,tieing wit	h bending					
	KSRB 4.9.2 Providing TMT steel reinforcement for RCC work including straightening, cutting,								

Name of the Work :- Manglore Smart City 3.5 BOQ Of Electrical Lighting for Maidan Road

Item No.	Description	Unit	Qty	Rate	Amount	Remarks
1.0	Lighting Fixtures					
1.1	LED Post Top Lantern Garden Supply of LED Post top lantern with system 24 wattage, housing & frame shall be of powder coated, die cast, aluminium, diffuser with high density polyethylene IP 65EPDM Gasket, life 50000 Hrs. @L70 shall be conforming to IS 10322/part 5/section 5 @230V. 5 years Warranty against any manufacturing defect working under standard electrical condition	Nos.	108	15,930.00	17,20,440	
1.2	Fixing charges for 1.1 (Non SOR Item)	Nos.	108	200.00	21,600	
1.3	LED Street Light Supply of 180 Watt LED street light with pressure die cast aluminium housing body with optimal heat sink for better thermal dissipation. Diffuser with injection moulded & is made of polycarbonate material with high transmission index delivering superior high light output. Rated life burning Hrs 50000 hr@lumen maintenance of 70%. CCT >5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare >IK 08. Power factor>0.9 with mains current should not be greater than 0.1A to 0.7A & surge protection min 4 KV along with over voltage/over load, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40 mm to 50 mm. Universal voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & short circuit protection ensures reliable oepration in spite of problem in out put side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80.	Nos.	36	54,000.00	19,44,000	
1.4	Fixing charges for 1.3 (Non SOR Item)	Nos.	72	250.00	18,000	
2.0	Lighting Poles					
2.1	Lighting Pole, 4 m Fabrication, supply and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 4 pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding	Nos	108	7,398.00	7,98,984	
2.2	Lighting Pole, 9 m Fabrication, suppl and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micros as per ASTM A123 and 152 ote (overluding	Nos.	6	17,118.00	1,02,708	
2.3	Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm (Ref Electrical SOR SI No.5.18.5)	Nos.	6	3,540.00	21,240	

ltem No.	Description	Unit	Qty	Rate	Amount	Remarks
/4	Fixing charges for 2.3 (Non SOR Item)	Nos.	6	250.00	1,500	
2.5	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos.	18	700.00	12,600	

Item No.	Description	Unit	Qty	Rate	Amount	Remarks
3.0	Lighting Panel					
3.1 4.0	Street Light Control Panel (SLCP) Supply, installation, testing and commissioning of SLCP Shall be conforming following IS standards – IS: 2147 – 1962 Degree of protection Floor / wall/ structure mounted, free standing, suitable for cable entry from bottom side, dust proof, vermin proof, 3 phase and neutral, bus bar, aluminium, neutral bus shall be of same size as phase bus bars, Short circuit capacity for the bus bars and switches shall be 10 kA, as SLD No. 1.01 (Non SOR Item) Cabling	No.	1	50,000.00	50,000	
4.0	LT cable					
4.1	Supplying of 1.1 kV LT UG cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS- 3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor	Rmt	3,000	117.00	3,51,000	
4.2	Supply and drawing Flexible Multicore cable manufactured with electrolytic grade flexible copper with low conductor conforming to table 3 class of 5 of IS:8130-1984 and (Virgin) PVC insulation and sheathed suitable for working voltage up to 1100 Volts as per IS-694:1990 & conforming to GTP of GROUP - A 2Cx2.5 Sg.mm	Rmt	583	59.10	34,455	
4.3	Supply and laying of sand, cables for 4.1	Cum	39.60	1,700.00	67,320	
4.4	(Ref KPWD SOR Material Component, SI No.56, Page. No.II) Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	912	11.31	10,315	
4.5	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	456	3.12	1,423	
5.0	Dismantling					
5.1	Dismantling, removal, transportation to client's storage place existing lighting poles (Non SOR Item)	Nos.	6	1,000.00	6,000	
5.2	Dismantling, removal, transportation to client's storage place existing Street light fixtures (Non SOR Item)	Nos.	36	250.00	9,000	
6.0	Civil work					
6.2	Earth Work Excavation for laying of lighting cable KSRRB 300 1 Erthwork excavation by manual means in ordinary soil involving an average horizontal throow up to 2 m and an average lift up to 1.5 m, excavated surfaceleveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications MORTH/Chapter 3	Cum	198	91.84	18,184	
6.3	Excavation for civil foundation for 4 m lighting poles Earth work excavation for foundation of structures upto 3 mtrs. by mechanical means as per drawing and technical specification, including setting out, providing shoring, strutting and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom, filling back the excavated earth to the extent required and utilising / transporting the remaining earth upto 1.00km lead. including cost of labour, materials and HOM of machineries etc., complete. up to 3.0 m deep	Cum	17.50	59.36	1,039	

Item No.	Description	Unit	Qty	Rate	Amount	Remarks
6.4	For 4 m poles foundation : Shuttering Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, laborir complete as per specificaitons. (KPWD SOR,Page No 15,SI No : 4.28)	Sqm	69.98	258.72	18,106	
6.5	For 4 m poles : Casting KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (KPWD	Cum	17.50	5,886.56	1,02,991	
7.0	Earthing system					
7.1	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the mter boardby using copper /SS rod with earth enhancing backfill compound which is non corrosive ,thermally,conductive,potential,to permissible,limits,superior,fault,conductive capacity,non toxic,weather resistance and capable of achieving ohmic value less than one ohm	Kit	4	5,500.00	22,000	
7.2	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG	Rmt	1155	19.50	22,523	
	TOTAL FOR STREET LIGHTING S	SYSTEM			53,55,428	

Name of the Work :- Mangalore Smart City 3.5.1 MEASUREMENT SHEET OF ELECTRICAL LIGHTING FOR MAIDAN ROAD

SI.No.	Description of Work	Unit	Nos.	L	В	D	Quantity
1	Lighting Fixtures						
1.1	LED Post Top Lantern Garden Supply of LED Post top lantern with system 24 wattage, housing & frame shall be of powder coated, die cast, aluminium, diffuser with high density polyethylene IP 65EPDM Gasket, life 50000 Hrs. @L70 shall be conforming to IS 10322/part 5/section 5 @230V. 5 years Warranty against any manufacturing defect working under standard electrical condition	Nos	108				108
1.2	Fixing charges for 1.1 (Non SOR Item)	Nos	108				108
1.3	LED Street Light Supply of 180 Watt LED street light with pressure die cast aluminium housing body with optimal heat sink for better thermal dissipation. Diffuser with injection moulded & is made of polycarbonate material with high transmission index delivering superior high light output. Rated life burning Hrs 50000 hr@lumen maintenance of 70%. CCT >5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare >IK 08. Power factor>0.9 with mains current should not be greater than 0.1A to 0.7A & surge protection min 4 KV along with over voltage/over load, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40 mm to 50 mm. Universal voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & short circuit protection ensures reliable oepration in spite of problem in out put side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80. Adherence with ROHs. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED light fixture with watt system Power consumption, LED efficiency>130Im/W at 1 W & fixture efficiency >80Im/W with nominal CRI>75. Luminaire manufacturer should have in house facility accredited by NABL/CPRI & any Government certified agency & Design & development facility cerified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved /Embossing on the die cast housing/body part. Warranty of 5 years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 roads as per IS 1944 part I & Part II.	Nos	36				36
1.4	Fixing charges for 1.3	Nos	72				72
	(Non SOP Itom)						
2	Lighting Poles Lighting Pole, 4 m						
2.1	Fabrication, supply and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 4 pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No.5.14.2)	Nos	108				108
2.2	Lighting Pole, 9 m Fabrication, suppl and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with oor opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 m pole in single section and single joint welded as per IS 9595/IS 10178 AWG having dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, suitable base plate and 4 nos. of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65 micron as per ASTM - A123 and 153 etc., (excluding foundation) as per drawing appended (Ref Electrical SOR SI No. 5.14.7)	Each	6				6
2.3	Supplying and fixing of hot dip Galvinized M.S.bracket Suitable for outdoor luminaries and mounted on Octagonal pole using necessary bolts,nuts, etc. complete Double Cross arm - 1500 mm	Each	6				6
2.4	Fixing charges for 2.3 (Non SOR Item)	Nos	6				6
						1	

SI.No.	Description of Work	Unit	Nos.	L	В	D	Quantity
2.5	Painting of Existing street light pole after scrapping the old paint and painted with suitable colour enamel including coping/footing of the pole8mtr and above street light pole (Ref Electrical SOR SI No.16.28.3)	Nos	18				18
3	Lighting Panel						
3.1	Street Light Control Panel (SLCP) Supply, installation, testing and commissioning of SLCP Shall be conforming following IS standards – IS: 2147 – 1962 Degree of protection Floor / wall/ structure mounted, free standing, suitable for cable entry from bottom side, dust proof, vermin proof, 3 phase and neutral, bus bar, aluminium, neutral bus shall be of same size as phase bus bars, Short circuit capacity for the bus bars and switches shall be 10 kA, as SLD No. 1.01	Nos	1				1
4	Cabling						
4.1	LT cable Supplying of 1.1 kV LT UG cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and extruded PVC outer sheathed armoured cable as per IS - 1554 Part 1:1988 & conforming to GTP of GROUP B 4 Core x16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.5,7.5.4)	Rmt	1	3000			3000
4.2	Supply and drawing Flexible Multicore cable manufactured with electrolytic grade flexible copper with low conductor conforming to table 3 class of 5 of IS:8130-1984 and (Virgin) PVC insulation and sheathed suitable for working voltage up to 1100 Volts as per IS-694:1990 & conforming to GTP of GROUP - A 2Cx2.5 Sq.mm (Ref Electrical SOR SI No.2.8,2.8.7)	Rmt	1	583			583
4.3	Supply and laying of sand, cables for 4.1 (Ref KPWD SOR Material Component,SI No.56,Page. No.II)	Cum	1	1320	0.3	0.1	39.6
4.4	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 16 Sq.mm PVC Aluminium Conductor (Ref Electrical SOR SI No.7.21,7.21.6)	Nos	912				912
4.5	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of following sizes 2.5 sq. mm copper conductor (Ref Electrical SOR SI No.7.21.2)	Nos	456				456
5	Dismantling						
5.1	Dismantling, removal, transportation to client's storage place existing lighting poles (Non SOR Item)	Nos	6				6
5.2	Dismantling, removal, transportation to client's storage place existing Street light fixtures	Nos	36				36
6	Civil work						
6.1	Earth Work						
6.2	Excavation for laying of lighting cable KSRRB 300 1 Erthwork excavation by manual means in ordinary soil involving an average horizontal throow up to 2 m and an average lift up to 1.5 m, excavated surfaceleveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications MORTH/Chapter 3 (KPWD SOR Page No 142,SI No : 19.1)	Cum	1	1320	0.5	0.3	198

SI.No.	Description of Work	Unit	Nos.	L	В	D	Quantity
6.3	Excavation for civil foundation for 4 m lighting poles Earth work excavation for foundation of structures upto 3 mtrs. by mechanical means as per drawing and technical specification, including setting out, providing shoring, strutting and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom, filling back the excavated earth to the extent required and utilising / transporting the remaining earth upto 1.00km lead. including cost of labour, materials and HOM of machineries etc., complete. up to 3.0 m deep (Page No 7,KPWD Banglore circle SI No : 2.23,2.23.1)	Cum	108	0.3	0.3	1.8	17.50
6.4	For 4 m poles foundation : Shuttering Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, laborir complete as per specificaitons. (KPWD SOR,Page No 15,SI No : 4.28)	Sqm	432	0.3	0.3	1.8	69.98
6.5	For 4 m poles : Casting KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (KPWD SOR,P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	108	0.3	0.3	1.8	17.50
7	Earthing system						
7.1	Chemical Earthing for grounding,conduits,IC cut outs and otherequipmentson the	Kit	4				4
7.2	Supply and running GI conductor for grounding and (along with other wires in conduits system of wiring) using necessasary suitable size clamps, nails, guttas/spacers etc-8 SWG (Ref Electrical SOR SI No.7.22.3)	Rmt	2	577.5			1155

Name of the Work :- Mangalore Smart City 3.5.2 Rate Analysis of Electrical Lighting for Maidan Road

RATE ANALYSIS -ELECTRICAL LIGHTING

1	Lighting Fixtures							
	LED Post Top Lantern Garden							
	Supply of LED Post top lantern with system 24 wattage, housing & frame shall be of powder coate							
1.1	die cast, aluminium, diffuser with high density polyethylene IP 6	65EPDM G	asket, life 50	000 Hrs.				
	@L70 shall be conforming to IS 10322/part 5/section 5 @230V. 5 years Warranty against any							
	manufacturing defect working under standard electrical condition	on						
	Basic rate		15930					
		Rate	15930.00	Nos.				
1.2	Fixing charges for 1.1							
1.2	(Non SOR Item)							
	Rate Approved as per EOI by MD MSCL Mangalore, Refer							
	Sr.No.17	Rate	200.00	Nos.				
	LED Street Light		ing had					
	Supply of 180 Watt LED street light with pressure die cast alumin		0,	i optimal				
	heat sink for better thermal dissipation. Diffuser with injection r			Date 10				
	polycarbonate material with high transmission index delivering	-						
	burning Hrs 50000 hr@lumen maintenance of 70%. CCT >5500K,	-						
	compartment & impact resistance of complete luminare >IK 08.							
	current should not be greater than 0.1A to 0.7A & surge protect		-					
	voltage/over load, short circuit/ miswiring protection. Compatib	-	-					
	of 40 mm to 50 mm. Universal voltage driver to operate wide vo							
1.3	50/60Hz application. Over load & short circuit protection ensure		•	-				
	problem in out put side. Compliance to IS 10322/IEC 60598, LM							
	UL approved MCPCB. Top access street light with single screw to							
	sight site location with minimized minimal tools. LED light fixture		-					
	consumption, LED efficiency>130lm/W at 1 W & fixture efficience	•						
	Luminaire manufacturer should have in house facility accredited							
	certified agency & Design & development facility cerified by ISO		-	• •				
	word mark /name shall be Engraved /Embossing on the die cast	-		-				
	years against any manufacturing defect working under standard							
	above should be given by LED source manufacture. Suitable for	B1/B2 road	ds as per IS 1	944 part i &				
	Basic rate		54000					
		Rate	54000.00	Nos.				
1.4	Fixing charges for 1.3							
	Rate Approved as per EOI by MD MSCL Mangalore, Refer							
	Sr.No.7	Rate	250.00	Nos.				
	Lishding Dalas							
2	Lighting Poles							

	Lighting Pole, 4 m					
2.1	Fabrication, supply and erection of 4 meters long hot dip Galvanised Octagonal pole with BSE 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, icluding suitable boards, bakelite sheet and MCBs as per IS specifications suitable for wind speed of 47 m/sec for 5 4 pole in single section and single joint welded as per IS 9595/IS 10178 AWG having					
	dimensions bottom 130 mm dia, top 70 mm with 3 mm thick, su					
	J bolts along with template and the pole shall be hot dip galvan					
	than 65 micron as per ASTM - A123 and 153 etc., (excluding fou	ndation) as	s per drawing appended			
	Basic rate		7398			
		Rate	7398.00 Nos.			
	Lighting Pole, 9 m					
	Fabrication, suppl and erection of 4 meters long hot dip Galvani	ised Octago	onal pole with BSE 10025			
	grade S 355 JO steel plate for shaft, IS 2062 for base plate with o	oor openin	g arrangement, icluding			
	suitable boards, bakelite sheet and MCBs as per IS specification	s suitable f	or wind speed of 47			
2.2	m/sec for 5 m pole in single section and single joint welded as p	er IS 9595/	IS 10178 AWG having			
	dimensions bottom 155 mm dia, top 70 mm with 3 mm thick, su	uitable base	e plate and 4 nos. of			
	long J bolts along with template and the pole shall be hot dip ga	alvanized ir	n single dipping with not			
	less than 65 micron as per ASTM - A123 and 153 etc., (excluding	, foundatio	n) as per drawing			
	appended					
	Basic rate		17118			
		Rate	17118.00 Nos.			
	Supplying and fixing of hot dip Galvinized M.S.bracket Suitable	for outdoo	r luminaries and mounted			
2.3	on Octagonal pole using necessary bolts, nuts, etc. complete					
2.5	Double Cross arm - 1500 mm					
	(Ref Electrical SOR SI No.5.18.5)					
	Basic rate		3540			
		Rate	3540.00 Nos.			
2.4	Fixing charges for 2.3					
	(Non SOR Item)					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer					
	Sr.No.18	Rate	250.00 Nos.			
	Painting of Existing street light pole after scrapping the old pain	•				
2.5	enamel including coping/footing of the pole8mtr and above st	reet light p	ole			
	(Ref Electrical SOR SI No.16.28.3)	1	700			
	Basic Rate	Data	700			
	Lighting Danol	Rate	700.00 Nos.			
3	Lighting Panel Street Light Control Panel (SLCP)					
	Supply, installation, testing and commissioning of SLCP					
3.1	Shall be conforming following IS standards – IS: 2147 – 1962 Degree of protection					
	Floor / wall/ structure mounted, free standing, suitable for cable	o ontry fro	m hottom side dust			
	proof, vermin proof, 3 phase and neutral, bus bar, aluminium,	•				
	Rate Approved as per EOI by MD MSCL Mangalore,Refer	Det				
4	Sr.No.20 Cabling	Rate	50000.00 Nos.			
1 4						

	LT cable							
	Supplying of 1.1 kV LT UG cable having aluminium conductor P	/C insulated	d, extruded i	nner				
4.1	sheathed, galvanised, steel strips (except 2C x 10 sq. mm wire armoured) as per IS-3975:1990 and							
	extruded PVC outer sheathed armoured cable as per IS - 1554 P	Part 1:1988	& conformin	g to GTP of				
	GROUP B			0				
	Basic Rate		117					
		Rate	117.00	Rmt				
	Supply and drawing Flexible Multicore cable manufactured with	h electrolyt	ic grade flexi	ble copper				
	with low conductor conforming to table 3 class of 5 of IS:8130-1	1984 and (V	'irgin) PVC in	sulation and				
4.2	sheathed suitable for working voltage up to 1100 Volts as per IS	5-694:1990	& conformin	g to GTP of				
	GROUP - A							
	Basic Rate		59.1					
		Rate	59.10	Rmt				
4.2	Supply and laying of sand, cables for 4.1			-				
4.3	(Ref KPWD SOR Material Component,SI No.56,Page. No.II)							
	Basic Rate		1700					
		Rate	1700.00	Cum				
	Supplying tinned copper lugs and crimping and wiring to termin	nal point fo	r wire of follo	owing sizes				
4.4	16 Sq.mm PVC Aluminium Conductor							
	Basic Rate	T	11.31					
		Rate	11.31	Nos.				
	Supplying tinned copper lugs and crimping and wiring to termir							
4.5	2.5 sq. mm copper conductor			0				
	Basic Rate		3.12					
		Rate	3.12	Nos.				
5	Dismantling	•		•				
F 4	Dismantling, removal, transportation to client's storage place ex	xisting light	ing poles					
5.1	(Non SOR Item)							
	Rate Approved as per EOI by MD MSCL Mangalore, Refer							
	Sr.No.22	Rate	1000.00	Nos.				
5.2	Dismantling, removal, transportation to client's storage place ex	xisting Stre	et light fixtur	es				
5.2	(Non SOR Item)							
	Rate Approved as per EOI by MD MSCL Mangalore, Refer							
	Sr.No.23	Rate	250.00	Nos.				
6	Civil work		-					
6.1	Earth Work							
	Excavation for laying of lighting cable							
	KSRRB 300 1 Erthwork excavation by manual means in ordinar	y soil invol	ving an avera	ige				
6.2	horizontal throow up to 2 m and an average lift up to 1.5 m, exe	cavated sur	faceleveled	and sides				
	neatly dressed, the disposed earth to be leveled neatly after broken	eaking of cl	ods complet	e as per				
	specifications MORTH/Chapter 3							
	Basic rate		82					
	Add 12% For area weightage	1	9.84					
		Rate	91.84					

6.3	Excavation for civil foundation for 4 m lighting poles Earth work excavation for foundation of structures upto 3 mtrs. drawing and technical specification, including setting out, provid removal of stumps and other deleterious matter, dressing of side excavated earth to the extent required and utilising / transportin lead. including cost of labour, materials and HOM of machinerie	ling shoring es and both ng the rem	g, strutting a tom, filling b aining earth	nd bracing, ack the
	up to 3.0 m deep			
	Basic rate		53	
	Add 12% For area weightage	Rate	6.36 59.36	C
6.4	For 4 m poles foundation : Shuttering Providing and removing centering, shuttering, strutting, proppin for foundations, footings, bases of columns for mass concrete in complete as per specificaitons.	g etc., and	removal of	form work
	Basic rate		231	
	Add 12% For area weightage		27.72	
		Rate	258.72	Sqm
	For 4 m poles : Casting KSRB 4-1.6 ; Providing and laying in position plain cement concre 240kgs, with 20mm and down size graded granite metal coarse a			
6.5	KSRB 4-1.6; Providing and laying in position plain cement concre	aggregates ot exceedi aterials, lat	@ 0.69 cum ng 15 cms. tl pour, HOM c	and fine hick, well of machinery .2, I.No. 4.6
6.5 7	 KSRB 4-1.6 ; Providing and laying in position plain cement concrected 240kgs, with 20mm and down size graded granite metal coarse a aggregtes @ 0.459cum, machine mixed, concrete laid in layers n compacted, in foundation, plinth and cills, ncluding cost of all m curing complete as per specifications. Specification No. KBS 4.1, Basic Rate Ded.Cement Cost (7.2 Rs./kg x240 kg) Total Add 12% For area weightage 	aggregates ot exceedi aterials, lab 4.2. (KPWD	@ 0.69 cum ng 15 cms. tl bour, HOM c SOR,P.No.1 5441.00 -1728 3713.00 445.56 1728	and fine hick, well of machinery .2, I.No. 4.6
	KSRB 4-1.6 ; Providing and laying in position plain cement concrect 240kgs, with 20mm and down size graded granite metal coarse a aggregtes @ 0.459cum, machine mixed, concrete laid in layers n compacted, in foundation, plinth and cills, ncluding cost of all m curing complete as per specifications. Specification No. KBS 4.1, Basic Rate Ded.Cement Cost (7.2 Rs./kg x240 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 240 kg)	aggregates ot exceedi aterials, lak 4.2. (KPWD 4.2. (KPWD A.2. (KPWD) A.2. (KPWD A.2. (KPWD) A.2. (KPWD)	@ 0.69 cum ng 15 cms. tl oour, HOM c 50 SOR,P.No.1 5441.00 -1728 3713.00 445.56 1728 5886.56 son the mter	and fine hick, well of machinery, .2, I.No. 4.6 Cum
7	 KSRB 4-1.6 ; Providing and laying in position plain cement concrect 240kgs, with 20mm and down size graded granite metal coarse are aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m curing complete as per specifications. Specification No. KBS 4.1, Basic Rate Ded.Cement Cost (7.2 Rs./kg x240 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 240 kg) Earthing system Chemical Earthing for grounding, conduits, IC cut outs and othered using copper /SS rod with earth enhancing backfill compound w ,thermally, conductive, potential, to permissible, limits, superior, far toxic, weather resistance and capable of achieving ohmic value 	aggregates ot exceedi aterials, lak 4.2. (KPWD 4.2. (KPWD A.2. (KPWD) A.2. (KPWD A.2. (KPWD) A.2. (KPWD)	@ 0.69 cum ng 15 cms. tl oour, HOM c 50 SOR,P.No.1 5441.00 -1728 3713.00 445.56 1728 5886.56 son the mter	and fine hick, well of machinery 2, I.No. 4.6 Cum
7	 KSRB 4-1.6 ; Providing and laying in position plain cement concrect 240kgs, with 20mm and down size graded granite metal coarse are aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m curing complete as per specifications. Specification No. KBS 4.1, Basic Rate Ded.Cement Cost (7.2 Rs./kg x240 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 240 kg) Earthing system Chemical Earthing for grounding, conduits, IC cut outs and otherer using copper /SS rod with earth enhancing backfill compound w, thermally, conductive, potential, to permissible, limits, superior, fait toxic, weather resistance and capable of achieving ohmic value less than one ohm 	aggregates ot exceedi aterials, lak 4.2. (KPWD 4.2. (KPWD A.2. (KPWD) A.2. (KPWD A.2. (KPWD) A.2. (KPWD)	@ 0.69 cum ng 15 cms. tl oour, HOM c 50 SOR,P.No.1 5441.00 -1728 3713.00 445.56 1728 5886.56 son the mter corrosive tive capacity	and fine hick, well of machinery .2, I.No. 4.6 Cum boardby ,non
7	 KSRB 4-1.6 ; Providing and laying in position plain cement concrect 240kgs, with 20mm and down size graded granite metal coarse are aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m curing complete as per specifications. Specification No. KBS 4.1, Basic Rate Ded.Cement Cost (7.2 Rs./kg x240 kg) Total Add 12% For area weightage Cement cost(7.2Rs./kg x 240 kg) Earthing system Chemical Earthing for grounding, conduits, IC cut outs and otherer using copper /SS rod with earth enhancing backfill compound w, thermally, conductive, potential, to permissible, limits, superior, fait toxic, weather resistance and capable of achieving ohmic value less than one ohm 	aggregates ot exceedi aterials, lak 4.2. (KPWE Rate Rate Aquipments hich is nor ult,conduct Rate other wire	@ 0.69 cum ng 15 cms. th pour, HOM c 500R,P.No.1 5441.00 -1728 3713.00 445.56 1728 5886.56 5886.56 son the mter corrosive tive capacity 5500 5500.00 s in conduits	and fine hick, well of machinery .2, I.No. 4.6 Cum Cum boardby ,non
7 7.1	KSRB 4-1.6 ; Providing and laying in position plain cement concrect 240kgs, with 20mm and down size graded granite metal coarse a aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m curing complete as per specifications. Specification No. KBS 4.1, Basic RateDed.Cement Cost (7.2 Rs./kg x240 kg)TotalAdd 12% For area weightage Cement cost(7.2Rs./kg x 240 kg)Earthing systemChemical Earthing for grounding, conduits, IC cut outs and otherer using copper /SS rod with earth enhancing backfill compound w , thermally, conductive, potential, to permissible, limits, superior, fait toxic, weather resistance and capable of achieving ohmic value less than one ohmBasic rateSupply and running GI conductor for grounding and (along with wiring) using necessasary suitable size clamps, nails, guttas/space	aggregates ot exceedi aterials, lak 4.2. (KPWE Rate Rate Aquipments hich is nor ult,conduct Rate other wire	@ 0.69 cum ng 15 cms. th pour, HOM c 500R,P.No.1 5441.00 -1728 3713.00 445.56 1728 5886.56 5886.56 son the mter corrosive tive capacity 5500 5500.00 s in conduits	and fine hick, well of machinery, 2, I.No. 4.6 Cum Cum

Name of the Work :- Manglore Smart City 3.6 BOQ of Hardscape for Maidan Road

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SI.No.	Item	Unit	Quantity	Unit Rate	Amount	Remarks
1	SEAT					
1.1	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5.(KPWD SR16-17,Page No.5,SI No.2.3)	Cum	36.84	211.68	7,798	
1.2	KSRB 2.8 : Providing anf Filling in foundation with granite/trap broken metal 100mm and down size,with approved sand including hand packing,ramming,watering,including cost of all materials and labour with all leads and lift.complete as per specifications.Specification No.KBS (2.15-KSRB 2.8) (Page No.6,SI.No.2.15)	Cum	14.12	2367.68	33,436	
1.3	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	6.14	5886.56	36,143	
1.4	KSRB 6-2.3 : Providing and constructing burnt brick masonry with approved quality of non-modular bricks of standard size of class designation 5.0Newton per sqmm (table moulded) with cement mortar 1:6 for basement and superstructu/re including cost of materials, labour charges, scaffolding, curing complete as per specifications. Specification No. KBS 6.2. (Page No.27,SI.No.6.7)	Cum	19.20	7487.20	1,43,744	
1.5	KSRB15-3.8 : Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.(Page No.114,SI No.15.16)	Sqm	87.08	247.52	21,554	
1.6	Providing and fixing 450mm wide X 600mmX 20mm thk.RIVERWASHED BLACK GRANITE CLADDING on surface of seating as mentioned in drawing 192-MSC-NR-WD- 04 (Non SOR Item)	Sqm	46.50	3527.00	1,64,006	
1.7	Providing and fixing of MS flat 100 mm, 5 mm thick for length of seat i.e. total of 66.83 m, with vertical support of 10 gauge thick M.S sheet laser cut to profile shown in drawing 192-MSC- NR-WD-04 and c/c 1000 mm (approved shop drawing), screw plate at fixing with seat, Including Painting all complete to the satisfaction of the Landscape architect. (Non SOR Item)	МТ	0.72	100000.00	72,103	
2	Fabrication of M.S.Railing				-	
2.1	Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars (shop drawing to be approved),with vertical support of 0.9m @2.2mc/c , all complete to the satisfaction of the Landscape architect. (Non SOR Item)	МТ	7.62	100000.00	7,62,320	

SI.No.	Item	Unit	Quantity	Unit Rate	Amount	Remarks
2.2	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5.(KPWD SR16-17,Page No.5,SI No.2.3)	Cum	8.30	211.68	1,757	
2.3	KSRB 2.8 : Providing anf Filling in foundation with granite/trap broken metal 100mm and down size,with approved sand including hand packing,ramming,watering,including cost of all materials and labour with all leads and lift.complete as per specifications.Specification No.KBS (2.15-KSRB 2.8) (Page No.6,SI.No.2.15)	Cum	3.18	2367.68	7,533	
2.4	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)	Cum	1.38	5886.56	8,143	
2.5	Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Page No 101 SI No : 14 7)	Sqm	24.48	1086.40	26,595	
	(Pade No 101 SLNO : 14 /)		Total	I	12,85,133	

Name of the Work :- Manglore Smart City 3.6.1 Measurement Sheet of Hardscape for Maidan Road

	3.6.1 Measurement Sheet	OF HATU	scape in		Roau		
SI.No.	Item	Unit	No.	L	В	н	Qty.
1	SEAT						
1.1	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of						
	excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5.(KPWD SR16-17,Page No.5,SI No.2.3)						
	Interactive Seating						
	Ch.214.10	Cum	2	3.3	1	0.6	3.96
	Ch.224.70	Cum	2	3.3	1	0.6	3.96
	Ch.268.00	Cum	2	3.3	1	0.6	3.96
	Ch.278.40	Cum	2	3.3	1	0.6	3.96
	Ch.289.22	Cum	2	3.3	1	0.6	3.96
	Ch.302.8	Cum	2	4.3	1	0.6	5.16
	Ch.320.0	Cum	2	3.3	1	0.6	3.96
	Ch.383.74	Cum	2	3.3	1	0.6	3.96
	Ch.347.87	Cum	2	3.3	1	0.6	3.96
		Cum				Total	36.84
	KSRB 2.8 : Providing anf Filling in foundation with granite/trap broken metal 100mm and down size,with approved sand including hand						
1.2	packing,ramming,watering,including cost of all materials and labour with all leads and lift.complete as per specifications.Specification No.KBS (2.15-KSRB 2.8)						
	Interactive Seating						
	Ch.214.10	Cum	2	3.3	1	0.23	1.52
	Ch.224.70	Cum	2	3.3	1	0.23	1.52
	Ch.268.00	Cum	2	3.3	1	0.23	1.52
	Ch.278.40	Cum	2	3.3	1	0.23	1.52
	Ch.289.22	Cum	2	3.3	1	0.23	1.52
	Ch.302.8	Cum	2	4.3	1	0.23	1.98
	Ch.320.0	Cum	2	3.3	1	0.23	1.52
	Ch.383.74	Cum	2	3.3	1	0.23	1.52
	Ch.347.87	Cum	2	3.3	1	0.23	1.52
		Cum				Total	14.12
	KSRB 4-1.6; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs,						
	with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15						
1.3	cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of						
	machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)						
	Interactive Seating						
	Ch.214.10	Cum	2	3.3	1	0.1	0.66
	Ch.224.70	Cum	2	3.3	1	0.1	0.66
	Ch.268.00	Cum	2	3.3	1	0.1	0.66

SI.No.	Item	Unit	No.	L	В	н	Qty.
	Ch.278.40	Cum	2	3.3	1	0.1	0.66
	Ch.289.22	Cum	2	3.3	1	0.1	0.66
	Ch.302.8	Cum	2	4.3	1	0.1	0.86
	Ch.320.0	Cum	2	3.3	1	0.1	0.66
	Ch.383.74	Cum	2	3.3	1	0.1	0.66
	Ch.347.87	Cum	2	3.3	1	0.1	0.66
		Cum				Total	6.14
	KSRB 6-2.3 : Providing and constructing burnt brick						
	masonry with approved quality of non-modular bricks of						
	standard size of class designation 5.0Newton per sqmm						
1.4	(table moulded) with cement mortar 1:6 for basement						
_	and superstructu/re including cost of materials, labour						
	charges, scaffolding, curing complete as per						
	specifications. Specification No. KBS 6.2.						
	(Page No.27,SI.No.6.7)						
	Interactive Seating						
1	Ch.214.10						
	Long Wall	Cum	4	3	0.23	0.671	1.85
	Short Wall	Cum	4	0.6	0.23	0.671	0.37
2	Ch.224.70				-		
	Long Wall	Cum	4	3	0.23	0.671	1.85
	Short Wall	Cum	4	0.6	0.23	0.671	0.37
3	Ch.268.00			0.0	0.20	0.072	0.07
5	Long Wall	Cum	4	3	0.23	0.671	1.85
	Short Wall	Cum	4	0.6	0.23	0.671	0.37
4	Ch.278.40	cum	-	0.0	0.25	0.071	0.37
-	Long Wall	Cum	4	3	0.23	0.671	1.85
	Short Wall	Cum	4	0.6	0.23	0.671	0.37
5	Ch.289.22	Cum		0.0	0.25	0.071	0.57
5	Long Wall	Cum	4	3	0.23	0.671	1.85
	Short Wall	Cum	4	0.6	0.23	0.671	0.37
6	Ch.302.8	Cum	4	0.0	0.23	0.071	0.37
0		Cum	2	4	0.22	0.671	1 22
	Long Wall	Cum	2	4	0.23	0.671	1.23
7	Short Wall	Cum	Z	0.6	0.23	0.671	0.19
7	Ch.320.0	Curre	4	2	0.22	0.671	1.05
	Long Wall	Cum	4	3	0.23	0.671	1.85
	Short Wall	Cum	4	0.6	0.23	0.671	0.37
8	Ch.383.74			-	0.00	0.674	1.05
	Long Wall	Cum	4	3	0.23	0.671	1.85
-	Short Wall	Cum	4	0.6	0.23	0.671	0.37
9	Ch.347.87					0.074	1.07
	Long Wall	Cum	4	3	0.23	0.671	1.85
	Short Wall	Cum	4	0.6	0.23	0.671	0.37
		Cum				Total	19.20
	KSRB15-3.8 : Providing 18mm thick cement plaster in			1			
	single coat with cement mortar 1:4, to brick masonry						
	including rounding off corners wherever required						
1.5	smooth rendering, : Providing and removing scaffolding,						
1.5	including cost of materials, labour, curing complete as						
	per specifications.(Page No.114,SI No.15.16)						
	per specifications.(rage 190.114,st 190.13.10)						
	Interactive Seating-Sides						
	Ch.214.10						
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6		0.7	1.68
	Ch.224.70						
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6		0.7	1.68

SI.No.	Item	Unit	No.	L	В	н	Qty.
	Ch.268.00						
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6		0.7	1.68
	Ch.278.40						
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6		0.7	1.68
	Ch.289.22						
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6		0.7	1.68
	Ch.302.8						
	Long Wall	Sqm	2	4		0.7	5.60
	Short Wall	Sqm	2	0.6		0.7	0.84
	Ch.320.0						
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6		0.7	1.68
	Ch.383.74		· ·	0.0			1.00
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6		0.7	1.68
	Ch.347.87	5411		5.0		0.7	1.00
	Long Wall	Sqm	4	3		0.7	8.40
	Short Wall	Sqm	4	0.6	1	0.7	1.68
			4	0.0		Total	87.08
		Sqm				TOLAI	87.08
	Providing and fixing 450mm wide X 600mmX 20mm						
	thk.RIVERWASHED BLACK GRANITE CLADDING on						
1.6	surface of seating as mentioned in drawing 192-MSC-NR-						
	WD-04						
	/··· •••• ·						
	Interactive Seating	Sqm					
	Ch.214.10	Sqm	2	3		0.75	4.50
	Ch.224.70	Sqm	2	3		0.75	4.50
	Ch.268.00	Sqm	2	3		0.75	4.50
	Ch.278.40	Sqm	2	3		0.75	4.50
	Ch.289.22	Sqm	2	3		0.75	4.50
	Ch.302.8	Sqm	2	4		0.75	6.00
	Ch.320.0	Sqm	2	3		0.75	4.50
	Ch.383.74	Sqm	2	3		0.75	4.50
	Ch.347.87	Sqm	4	3		0.75	9.00
		Sqm	20	25		Total	46.50
	Providing and fixing of MS flat 100 mm, 5 mm thick for						
	length of seat i.e. total of 66.83 m, with vertical support						
	of 10 gauge thick M.S sheet laser cut to profile shown in						
47	drawing 192-MSC-NR-WD-04 and c/c 1000 mm (
1.7	approved shop drawing), screw plate at fixing with seat,						
	Including Painting all complete to the satisfaction of the						
	Landscape architect.						
	(Non SOR Item)						
	50 x 100 hollow Box Section with 5mm thk						
	Ch.214.10	Rmt	2	3			6.00
	Ch.224.70	Rmt	2	3			6.00
	Ch.268.00						6.00
		Rmt	2	3			
	Ch.278.40	Rmt	2	3			6.00
	Ch.289.22	Rmt	2	3			6.00
	Ch.302.8	Rmt	2	4			8.00
	Ch.320.0	Rmt	2	3			6.00
	Ch.383.74	Rmt	2	3			6.00
	Ch.347.87	Rmt	4	3			12.00
		Rmt	20			Total	62.00

SI.No.	Item	Unit	No.	L	В	н	Qty.
		KG/RM T					10.3
		KG				Total Weight	638.6
		МТ				Total Weight	0.6386
						(A)	0.0380
			Nos.	Area	Thk.	MT/Cum	Total Wight(B)
	MS Plate Support of 5mm Thk @ 1000 c/c	MT	60	0.035	0.005	7.85	0.082
	Total Weight of Backrest with Support	MT				Total(A+B)	0.72
2	FABRICATION						
	Providing and fixing of railing as detail design in MS HOLLOW SECTION and bars (shop drawing to be						
2.1	approved), with vertical support of 0.9m @2.2mc/c , all						
	complete to the satisfaction of the Landscape architect.						
	(Non SOR Item)						
	Handrail Maidan Side Road						
	Ch.0.00 to Ch.180.00 (Town Hall Side footpath)	Rm		1	156		156.00
	Ch.350.00 to Ch.360.00(Maidan Side)	Rm		1	5		5.00
	Ch.370 to Ch.380 (maidan Side)	Rm		1	10		10.00
	Ch.410.0 to Ch.485.0 (Maidan Side)	Rm		1	76.5		76.50
	Ch.435.0 to Ch.525.0(Bldg Side)	Rm		1	113		113.00
	At Bus Stop Ch.330.0 and 350.00	Rm		2	3	-	6.00
		Rm				A=	366.50
	Hand Rail of length2.4 meter Steel Qty.					Wt/Rm	
	Horizontal Member-M.S.Box 25x25x3.2mm thk.	KG		3	2.4	4.536	32.66
	Vertical Member-M.S. Box 50x25x3.2mm thk.	KG		1	1.375	7.368	10.13
	Verical Bar-Dia 16mm	KG		20	0.475	0.7493296	7.12
					Area	Thk	
	Logo Plate	KG		1	0.07065	0.001	0.000071
		KG				Total Wight for 2.4 m Railing (A)	49.91
	Railing per 1m Weight(A / 2.4 m)	KG				(A) B=	20.8
	Total Railing Weight (A x B)	МТ					7.62
	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical						
	conduits either in pits or in trenches 1.5m and above in						
	width, in ordinary soil not exceeding 1.5 m. in depth						
	including dressing the bottom and sides of pits and						
2.2	trenches, stacking the excavated soil clear from edges of						
	excavation with lead upto 50 m. after breaking of clods						
	complete as per specifications. specification. No. KBS						
	2.1(a) / 2.3.5.(KPWD SR16-17,Page No.5,SI No.2.3)						
	Foundation at 2.4m c/c for 311 m Railing	Cum	154	0.3	0.3	0.6	8.30
	KSRB 2.8 : Providing anf Filling in foundation with					<u> </u>	
	granite/trap broken metal 100mm and down size, with						
	approved sand including hand						
2.3	packing, ramming, watering, including cost of all materials						
	and labour with all leads and lift.complete as per						
	specifications.Specification No.KBS						
	(2.15-KSRB 2.8)						
	Foundation at 2.4m c/c for 311 m Railing	Cum	154	0.3	0.3	0.23	3.18

SI.No.	Item	Unit	No.	L	В	н	Qty.
2.4	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)						
	Foundation at 2.4m C/c for 311 m Railing	Cum	154	0.3	0.3	0.1	1.38
2.5	Providing and laying heavy duty cobble stones 75mm thick, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. (Page No 101,Sl No : 14.7)	Sqm	17	1.2	1.2		24.48

Name of the Work :- Mangalore Smart City 3.6.2 Rate Analysis of Hardscape for Maidan Road

RATE ANALYSIS -HARDSCAPE

	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, v	vater supply	, sanitary li	nes and				
	electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not							
	exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking							
1.1	the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods							
	complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5.(KPWD SR16-17,Page No.5,SI							
	No.2.3)	,	, 0	,				
	Basic rate		189					
	Add 12% For area weightage		22.68					
		Rate	211.68	Cum				
	KSRB 2.8 : Providing anf Filling in foundation with granite/trap b	roken meta	l 100mm an	d down				
1.2	size, with approved sand including hand packing, ramming, water	ing,includin	g cost of all	materials				
1.2	and labour with all leads and lift.complete as per specifications.	Specificatio	n No.KBS					
	(2.15-KSRB 2.8)							
	Basic rate		2114					
	Add 12% For area weightage		253.68					
		Rate	2367.68	Cum				
1.3	240kgs, with 20mm and down size graded granite metal coarse aggregtes @ 0.459cum, machine mixed, concrete laid in layers r	not exceedir	ng 15 cms. th	nick, well				
1.3	aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total Add 12% For area wightage	not exceedir aterials, lab	ng 15 cms. th our, HOM o 4.2. (P.No.1 5441 -1728 3713 445.56	nick, well f				
1.3	aggregtes @ 0.459cum, machine mixed, concrete laid in layers r compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total	not exceedin aterials, lab No. KBS 4.1,	ng 15 cms. th our, HOM o 4.2. (P.No.1 5441 -1728 3713 445.56 1728	nick, well f 2, I.No. 4.6				
1.3	aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total Add 12% For area wightage Add Cement cost(7.2Rs./kg x 220 kg)	not exceedir aterials, lab	ng 15 cms. th our, HOM o 4.2. (P.No.1 5441 -1728 3713 445.56	nick, well f 2, I.No. 4.6				
1.3	aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total Add 12% For area wightage	not exceedin aterials, lab No. KBS 4.1,	ng 15 cms. th our, HOM o 4.2. (P.No.1 5441 -1728 3713 445.56 1728	nick, well f 2, I.No. 4.6				
1.3	aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total Add 12% For area wightage Add Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal	not exceedin aterials, lab No. KBS 4.1, Rate	ng 15 cms. th our, HOM o 4.2. (P.No.1 5441 -1728 3713 445.56 1728 5886.56	nick, well f 2, I.No. 4. Cum				
1.3	aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total Add 12% For area wightage Add Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"-	Rate Rate not exceeding to KBS 4.1, Rate	ng 15 cms. th our, HOM o 4.2. (P.No.1 5441 -1728 3713 445.56 1728 5886.56 9886.56	nick, well f 2, I.No. 4.0 Cum Cum				
	aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total Add 12% For area wightage Add Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 6-2.3 : Providing and constructing burnt brick masonry with bricks of standard size of class designation 5.0Newton per sqmm mortar 1:6 for basement and superstructu/re including cost of r scaffolding, curing complete as per specifications. Specification	Rate Rate not exceeding to KBS 4.1, Rate	ng 15 cms. th our, HOM o 4.2. (P.No.1 5441 -1728 3713 445.56 1728 5886.56 9886.56	nick, well f 2, I.No. 4.6 Cum Cum				
	aggregtes @ 0.459cum, machine mixed, concrete laid in layers in compacted, in foundation, plinth and cills, ncluding cost of all m machinery, curing complete as per specifications. Specification I of PWD SR 2015-16) Basic Rate Ded.Cement Cost (7.2 Rs./kg x220 kg) Total Add 12% For area wightage Add Cement cost(7.2Rs./kg x 220 kg) Note: for cement basic price refer "material components"- S.I.132=Rs.720 / Quintal KSRB 6-2.3 : Providing and constructing burnt brick masonry with bricks of standard size of class designation 5.0Newton per sqmm mortar 1:6 for basement and superstructu/re including cost of r scaffolding, curing complete as per specifications. Specification (Page No.27,SI.No.6.7)	Rate Rate not exceeding to KBS 4.1, Rate	ng 15 cms. th our, HOM or 4.2. (P.No.1 5441 -1728 3713 445.56 1728 5886.56 quality of n ulded) with o bour charge	nick, well f 2, I.No. 4.6 Cum Cum				

	KSRB15-3.8 : Providing 18mm thick cement plaster in single coar masonry including rounding off corners wherever required smo			
1.5	removing scaffolding, including cost of materials, labour, curing		-	.6 unu
	specifications.(Page No.114,SI No.15.16)	,		
	Basic rate		221	
	Add 12% For area wightage		26.52	
		Rate	247.52	Sam
	Providing and fixing 450mm wide X 600mmX 20mm thk.RIVER			
1.6	CLADDING on surface of seating as mentioned in drawing 192-1			-
1.0	(Non SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore, Refer			
	Sr.No.24	Rate	3527.00	Sam
	SI:N0.24	Nate	3327.00	Juli
	Providing and fixing of MS flat 100 mm, 5 mm thick for length c	l Infseatie to	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	m with
	vertical support of 10 gauge thick M.S sheet laser cut to profile			-
1.7	04 and c/c 1000 mm (approved shop drawing), screw plate at		-	
1.7	all complete to the satisfaction of the Landscape architect.			8 ' unitin
	(Non SOR Item)			
	Basic Rate		100000	
	Rate Approved as per EOI by MD MSCL Mangalore, Refer		100000	
	Sr.No.25	Rate	100000.00	мт
	Providing and fixing of railing as detail design in MS HOLLOW SI			
1.8	be approved), with vertical support of 0.9m @2.2mc/c , all co			-
1.0	be approved ,, with vertical support of o.s.in @2.2.ind/e , an eol	inpiece to ti		i or the
	Landscape architect			
	Landscape architect. Basic Bate		100000	-
	Basic Rate		100000	
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore,Refer	Rate		мт
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.26	Rate	100000.00	
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings,	water suppl	100000.00 y, sanitary li	nes and
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above	water suppl in width, in	100000.00 y, sanitary li ordinary soi	nes and I not
1.9	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and since the statement of the statement	water suppl in width, in des of pits a	100000.00 y, sanitary li ordinary soi nd trenches,	nes and I not stacking
1.9	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and since the excavated soil clear from edges of excavation with lead uptility	water suppl in width, in des of pits a o 50 m. afte	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o	nes and I not stacking f clods
1.9	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sin the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2.	water suppl in width, in des of pits a o 50 m. afte	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o	nes and I not stacking f clods
1.9	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and since the excavated soil clear from edges of excavation with lead uptility	water suppl in width, in des of pits a o 50 m. afte	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o	nes and I not stacking f clods
1.9	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and since the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3)	water suppl in width, in des of pits a o 50 m. afte	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page	nes and I not stacking f clods e No.5,SI
1.9	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sit the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3) Basic Rate	water suppl in width, in des of pits a o 50 m. afte	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page 189	nes and I not stacking f clods e No.5,SI
1.9	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sit the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3) Basic Rate	water suppl in width, in des of pits a o 50 m. afte 3.5.(KPWD Rate	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page 189 22.68 211.68	nes and I not stacking f clods e No.5,SI
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sit the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3) Basic Rate Add 12% For area weightage	water suppl in width, in des of pits a o 50 m. afte 3.5.(KPWD 3.5.(KPWD Rate proken meta	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page 189 22.68 211.68 al 100mm an	nes and I not stacking f clods e No.5,SI Cum d down
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sit the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3) Basic Rate Add 12% For area weightage KSRB 2.8 : Providing anf Filling in foundation with granite/trap	water suppl in width, in des of pits a o 50 m. afte 3.5.(KPWD 3.5.(KPWD Rate proken meta ring,includir	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page 189 22.68 211.68 al 100mm an ng cost of all	nes and I not stacking f clods e No.5,SI Cum d down
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore, Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sitthe excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3) Basic Rate Add 12% For area weightage KSRB 2.8 : Providing and Filling in foundation with granite/trap is size, with approved sand including hand packing, ramming, wate	water suppl in width, in des of pits a o 50 m. afte 3.5.(KPWD 3.5.(KPWD Rate proken meta ring,includir	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page 189 22.68 211.68 al 100mm an ng cost of all	nes and I not stacking f clods e No.5,SI Cum d down
	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sit the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3) Basic Rate Add 12% For area weightage KSRB 2.8 : Providing and Filling in foundation with granite/trap is size, with approved sand including hand packing, ramming, wate and labour with all leads and lift.complete as per specifications (2.15-KSRB 2.8)	water suppl in width, in des of pits a o 50 m. afte 3.5.(KPWD 3.5.(KPWD Rate proken meta ring,includir	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page 189 22.68 211.68 al 100mm an ng cost of all in No.KBS	nes and I not stacking f clods e No.5,SI Cum d down
2.0	Basic Rate Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.26 KSRB 2-2.1 : Earthwork excavation for foundation of buildings, electrical conduits either in pits or in trenches 1.5m and above exceeding 1.5 m. in depth including dressing the bottom and sit the excavated soil clear from edges of excavation with lead upt complete as per specifications. specification. No. KBS 2.1(a) / 2. No.2.3) Basic Rate Add 12% For area weightage KSRB 2.8 : Providing anf Filling in foundation with granite/trap is size, with approved sand including hand packing, ramming, wate and labour with all leads and lift.complete as per specifications	water suppl in width, in des of pits a o 50 m. afte 3.5.(KPWD 3.5.(KPWD Rate proken meta ring,includir	100000.00 y, sanitary li ordinary soi nd trenches, er breaking o SR16-17,Page 189 22.68 211.68 al 100mm an ng cost of all	nes and I not stacking f clods e No.5,SI Cum d down materials

2.1	KSRB 4-1.6 ; Providing and laying in position plain cement concre 240kgs, with 20mm and down size graded granite metal coarse a aggregtes @ 0.459cum, machine mixed, concrete laid in layers n compacted, in foundation, plinth and cills, ncluding cost of all ma machinery, curing complete as per specifications. Specification N of PWD SR 2015-16)	aggregates ot exceedi aterials, lat	@ 0.69 cum ng 15 cms. tl oour, HOM o	and fine nick, well f
	Basic Rate		5441	
	Ded. Cement cost (7.2 Rs./kg x220 kg)		-1728	
	Total		3713	
	Add 12% For area weightage		445.56	
	Cement cost(7.2Rs./kg x 220 kg)		1728	
		Rate	5886.56	Cum
	Note: for cement basic price refer "material components"-			
	S.I.132=Rs.720 / Quintal			
2.2	Providing and laying heavy duty cobble stones 75mm thick, using manufacture of blocks of approved size, shape and colour with a 281 kg per sqm over 50mm thick sand bed (average thickness) a having 3 tons compaction force thereby forcing part of sand und joints, final compaction of paver surface joints into its final level, and HOM of machineries complete as per specifications. (Page No 101,Sl No : 14.7)	minimum nd compa erneath to	compressive cting with pla come up in	e strength of ate vibrator between
	Basic Rate		970	
	Add 12% For area weightage		116.4	
		Rate	1086.40	Sqm

Name of the Work :- Manglore Smart City

3.7 BOQ OF SOFTSCAPE NEAR BUILDING SIDE FOR MAIDAN ROAD

SI.No	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.1	SOIL MIXES and Ground Preparation					
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	132.62	140.00	18,567	
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No. 152, SLNo. 19.90)	Cum	66.31	228.48	15,150	
1.1.3	Supplying and stacking at site dump manure from approved source, including carriage upto 5 k.m. lead complete (manure measured in stacks will be reduced by 8% for payment) : (KBSR 19.90)	Cum	66.31			
1.1.4	Screened through sieve of I.S. designation 20 mm	Cum	132.62	228.48	30,301	
1.1.5	Screened through sieve of I.S. designation 4.75 mm	Cum	66.31	228.48	15,150	
1.1.6	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	Cum	198.93	72.80	14,482	
1.1.7	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in- charge (Non SOR item)	Cum	198.93	23.91	4,756	
1.1.8	Soil preparation of Lawn					
	KSRRB M300-3. Making lawns including ploughing and breaking of clod, removal of rubbish, dressing and supplying doobs grass roots and planting at 15 cm apart, including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications. MORTH Specification No.307 (KSRRB 19.80)	Sqm	196.16	15.68	3,076	
1.1.9	Bed Prepartion for , Ground covers , Climbers/ creepers, Shrubs					

SI.No	Specifications	Unit	Quantity	Rate	Amount	Remarks
	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately).	Cum	198.93	146.00	29,043	
1.2	CHDUDC: Cumply and Staaking of Chrysto					
1.2.1	SHRUBS: Supply and Stacking of Shrubs Ficus Blackeana 5'-0" ht with 4-5 branches and bushy form (Non SOR Item)	Nos.	366.00	840.00	3,07,440	
1.2.2	Nerium Oleander variegated - 5'0" ht , 5-6 branches and bushy in form (Non SOR Item)	Nos.	201.00	840.00	1,68,840	
1.3	TURF					
1.3.1	ZOYSIA JAPONICA (MAT) (Non SOR Item)	Sqm	129.00	156.80	20,227	
1.3.2	PASPALAM (Non SOR Item)	Sqm	64.50	156.80	10,114	
1.4	IRRIGATION					
1.4.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	331.55	560.00	1,85,665	
			Total		8,22,811	

Name of the Work :- Manglore Smart City 3.7.1 Measurement Sheet of softscape Building Side

SI.No	ltem	Unit	No.	L	В	Н	Qty.
1.1	SOIL MIXES and Ground Preparation						
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)						
	Consider 2/3rd Qty of Item No.1.1.7	Cum	0.67	198.93			132.62
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)						
	Consider 1/3rd Qty of Item No.1.1.7	Cum	0.33	198.93			66.31
1.1.3	Supplying and stacking at site dump manure from approved source, including carriage upto 5 k.m. lead complete (manure measured in stacks will be reduced by 8% for payment) : (KBSR 19.90)						
	Consider Same Qty. of Item No.1.1.2	Cum					66.31
1.1.4	Screened through sieve of I.S. designation 20 mm						
	Consider Same Qty. of Item No.1.1.1	Cum					132.62
1.1.5	Screened through sieve of I.S. designation 4.75						
	Consider Same Qty. of Item No.1.1.2	Cum					66.31
4.4.0	Fine dressing of the ground.						
1.1.6		0		100	0.0		64.00
	Ch.10.0 to Ch.100.0(Compund wall Side)	Sqm	1	102	0.6		61.20
	Ch.10.0 to Ch.100.0(Carriageway Side) Ch.110.0 to Ch.137.9(Compund Wall Side)	Sqm Sam	1	95.3 38.64	0.47 0.7		44.47 27.05
	Ch.110.0 to Ch.137.9(Carriageway Side)	Sqm Sqm	1	34.24	0.7		13.70
	Ch.143.3 to Ch.167.9(Compound Wall Side)	Sqm	1	24.2	0.6		14.52
	Ch.143.3 to Ch.167.9(Carriageway Side)	Sqm	1	20.1	0.5		10.05
	Ch.204.2 to Ch.225.3 (Compound Wall Side)	Sqm	1	21.08	0.6		12.65
	Ch.206.2 to Ch.221.3 (Carriageway Side)	Sqm	1	15.8	0.4		6.32
	Ch.252.1 to Ch.261.6(Compound Wall Side)	Sqm	1	9.5	0.6		5.70
	Ch.252.1 to Ch.261.6(Carriageway side)	Sqm	1	4.5	0.4		1.80
	Ch.267.5 to Ch.307.3(Compound wall side)	Sqm	1	40.3	0.8		32.24
	Ch.267.5 to Ch.307.3(Carriageway side)	Sqm	1	36.2	0.5		18.10
	312.5 to Ch.327.6 (Compound Wall side)	Sqm	1	15.1	0.6		9.06
	312.5 to Ch.327.6 (Carriageway side)	Sqm	1	9.7	0.4		3.88
	353.3 to Ch.368.5(Compound wall side)	Sqm	1	15.2	0.6	ļ	9.12
	353.3 to Ch.368.5(Carriageway side)	Sqm	1	8.3	0.5		4.15
	372.8 to Ch.424.3(Compound wall side)	Sqm	1	51.7	0.7		36.19
	372.8 to Ch.424.3(Carriageway side)		1	42.7	0.5	Total	21.35 331.55

SI.No	ltem	Unit	No.	L	В	Н	Qty.
1.1.7	KSRRB M300-Horticulture KSRRB M300- Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307						
	Ch.10.0 to Ch.100.0(Compund wall Side)	Cum	1	102	0.6	0.6	36.72
	Ch.10.0 to Ch.100.0(Carriageway Side)	Cum	1	95.3	0.47	0.6	26.68
	Ch.110.0 to Ch.137.9(Compund Wall Side)	Cum	1	38.64	0.7	0.6	16.23
	Ch.110.0 to Ch.137.9(Carriageway Side)	Cum	1	34.24	0.4	0.6	8.22
	Ch.143.3 to Ch.167.9(Compound Wall Side)	Cum	1	24.2	0.6	0.6	8.71
	Ch.143.3 to Ch.167.9(Carriageway Side)	Cum	1	20.1	0.5	0.6	6.03
	Ch.204.2 to Ch.225.3 (Compound Wall Side)	Cum	1	21.08	0.6	0.6	7.59
	Ch.206.2 to Ch.221.3 (Carriageway Side)	Cum	1	15.8	0.4	0.6	3.79
	Ch.252.1 to Ch.261.6(Compound Wall Side)	Cum	1	9.5	0.6	0.6	3.42
	Ch.252.1 to Ch.261.6(Carriageway side)	Cum	1	4.5	0.4	0.6	1.08
	Ch.267.5 to Ch.307.3(Compound wall side)	Cum	1	40.3	0.8	0.6	19.34
	Ch.267.5 to Ch.307.3(Carriageway side)	Cum	1	36.2	0.5	0.6	10.86
	312.5 to Ch.327.6 (Compound Wall side)	Cum	1	15.1	0.6	0.6	5.44
	312.5 to Ch.327.6 (Carriageway side)	Cum	1	9.7	0.4	0.6	2.33
	353.3 to Ch.368.5(Compound wall side)	Cum	1	15.2	0.6	0.6	5.47
	353.3 to Ch.368.5(Carriageway side)	Cum	1	8.3 51.7	0.5	0.6 0.6	2.49 21.71
	372.8 to Ch.424.3(Compound wall side) 372.8 to Ch.424.3(Carriageway side)	Cum Cum	1	42.7	0.7	0.6	12.81
						Total	198.93
1.1.8	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)						
	Consider Same Qty. of 1.1.7	Cum					198.93
1.1.10	Soil preparation of Lawn						
	KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications. MORTH Specification No.307 (KSRRB 19.80) In rows 5 cm apart in both directions						
	· · · · · · · · · · · · · · · · · · ·	Cam	0	100.00		0.15	20.70
	Ch.10.0 to Ch.100.0(Compund wall Side) Ch.10.0 to Ch.100.0(Carriageway Side)	Sqm Sqm	2	102.60 95.77		0.15	30.78 28.73
	Ch.110.0 to Ch.137.9(Compund Wall Side)	Sqm	2	39.34		0.15	11.80
	Ch.110.0 to Ch.137.9(Carriageway Side)	Sqm	2	34.64		0.15	10.39
	Ch.143.3 to Ch.167.9(Compound Wall Side)	Sqm	2	24.80		0.15	7.44
	Ch.143.3 to Ch.167.9(Carriageway Side)	Sqm	2	20.60		0.15	6.18
	Ch.204.2 to Ch.225.3 (Compound Wall Side)	Sqm	2	21.68		0.15	6.50
	Ch.206.2 to Ch.221.3 (Carriageway Side)	Sqm	2	16.20		0.15	4.86
	Ch.252.1 to Ch.261.6(Compound Wall Side)	Sqm	2	10.10		0.15	3.03
	Ch.252.1 to Ch.261.6(Carriageway side)	Sqm	2	4.90		0.15	1.47
	Ch.267.5 to Ch.307.3(Compound wall side)	Sqm	2	41.10		0.15	12.33
	Ch.267.5 to Ch.307.3(Carriageway side)	Sqm	2	36.70		0.15	11.01
	312.5 to Ch.327.6 (Compound Wall side)	Sqm	2	15.70		0.15	4.71
	312.5 to Ch.327.6 (Carriageway side)	Sqm	2	10.10		0.15	3.03

SI.No	Item	Unit	No.	L	В	Н	Qty.
	353.3 to Ch.368.5(Compound wall side)	Sqm	2	15.80		0.15	4.74
	353.3 to Ch.368.5(Carriageway side)	Sqm	2	8.80		0.15	2.64
	372.8 to Ch.424.3(Compound wall side)	Sqm	2	52.40		0.15	15.72
	372.8 to Ch.424.3(Carriageway side)	Sqm	2	43.20		0.15	12.96
							178.33
				Consid	der 10% Ext	ra Qty.	196.16
1.1.11	Bed Prepartion for , Ground covers , Climbers/ creepers, Shrubs						
	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure ar othe acth to be paid for concented).						
	manure or extra earth to be paid for separately).			400			00.70
	Ch.10.0 to Ch.100.0(Compund wall Side)	Cum	1	102	0.6	0.6	36.72
	Ch.10.0 to Ch.100.0(Carriageway Side)	Cum	1	95.3	0.466667	0.6	26.68
	Ch.110.0 to Ch.137.9(Compund Wall Side)	Cum	1	38.64	0.7	0.6	16.23
	Ch.110.0 to Ch.137.9(Carriageway Side)	Cum	1	34.24	0.4	0.6	8.22
	Ch.143.3 to Ch.167.9(Compound Wall Side)	Cum	1	24.2	0.6	0.6	8.71
	Ch.143.3 to Ch.167.9(Carriageway Side)	Cum	1	20.1	0.5	0.6	6.03
	Ch.204.2 to Ch.225.3 (Compound Wall Side)	Cum	1	21.08	0.6	0.6	7.59
	Ch.206.2 to Ch.221.3 (Carriageway Side)	Cum	1	15.8	0.4	0.6	3.79
	Ch.252.1 to Ch.261.6(Compound Wall Side)	Cum	1	9.5	0.6	0.6	3.42
	Ch.252.1 to Ch.261.6(Carriageway side)	Cum	1	4.5	0.4	0.6	1.08
	Ch.267.5 to Ch.307.3(Compound wall side)	Cum	1	40.3	0.8	0.6	19.34
	Ch.267.5 to Ch.307.3(Carriageway side)	Cum	1	36.2	0.5	0.6	10.86
	312.5 to Ch.327.6 (Compound Wall side)	Cum	1	15.1	0.6	0.6	5.44
	312.5 to Ch.327.6 (Carriageway side)	Cum	1	9.7	0.4	0.6	2.33
	353.3 to Ch.368.5(Compound wall side)	Cum	1	15.2	0.6	0.6	5.47
	353.3 to Ch.368.5(Carriageway side)	Cum	1	8.3	0.5	0.6	2.49
	372.8 to Ch.424.3(Compound wall side)	Cum	1	51.7	0.7	0.6	21.71
	372.8 to Ch.424.3(Carriageway side)	Cum	1	42.7	0.5	0.6	12.81
4.0	SHRUBS: Supply and Stacking of					Total	198.93
1.2	Ficus Blackeana 5'-0" ht with 4-5						
1.2.1	branches and bushy form (Non SOR Item)	Nos.					366.00
1.2.2	Nerium Oleander variegated - 5'0" ht , 5- 6 branches and bushy in form (Non SOR Item)	Nos.					201.00
	Total	Nos.					567.00
1.3	TURF						
1.3		Sqm					129.00
1.3.1	ZOYSIA JAPONICA (MAT)(Non SOR Iter			<u> </u>			64.50
1.3.2	PASPALAM (Non SOR Item) Total	Sqm Sqm					64.50 193.50
		Sqm					199'90
1.4	IRRIGATION				1		h

SI.No	Item	Unit	No.	L	В	Н	Qty.
1.4.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees , sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Consider Same Qty. of 1.1.6) (Non SOR Item)	Sqm					331.55

Name of the Work :- Mangalore Smart City 3.7.2 Rate Analysis of SOFTSCAPE Building side for Maidan Road

RATE ANALYSIS - SOFTSCAPE

1.1.1	Supplying and stacking of good earth at site including royalty a complete (earth measured in stacks will be reduced by 20% for (Non SOR Item)		oto 5 k.m. le	ad
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27	Rate	140.00	Cum
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard ma of work well decayed farm yard manure, from any available so charge including screening and stackin complete as per specific 308.2(Page No.152.SI.No.19.90)	ource, approve	ed by the en TH Specifica	gineer in
	Basic rate		204	
	Add 12% For area weightage		24.48	
		Rate	228.48	
1.1.3	Supplying and stacking at site dump manure from approved so lead complete (manure measured in stacks will be reduced by (KBSR 19.90)			pto 5 k.m.
1.1.4	Screened through sieve of I.S. designation 20 mm			
	Basic rate		204	
	Add 12% For area wightage		24.48	
		Rate	228.48	Cum
1.1.5	Screened through sieve of I.S. designation 4.75 mm			
	Basic rate		204	
	Add 12% For area wightage		24.48	
			24.40	
	KSDDD M200 Harticulture KSDDD M200 Spreading of cludge fa	Rate	228.48	
1.1.6	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge fai KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	rm yard manu good earth ir	ire or/ and g n required th	ood earth iickness
1.1.6	KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307	rm yard manu good earth ir	ire or/ and g n required th	ood earth iickness
1.1.6	KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	rm yard manu good earth ir	re or/ and g required th ly) complete	ood earth iickness
1.1.6	KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77) Basic rate	rm yard manu good earth ir	ire or/ and g n required th ely) complete 65	ood earth lickness e as per
1.1.6	KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77) Basic rate Add 12% For area wightage Mixing earth and sludge or manure in the required proportion charge (Non SOR item)	rm yard manu I good earth in d for separate	re or/ and g n required th ely) complete 65 7.8 72.80	ood earth iickness e as per Cum
	KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)Basic rateAdd 12% For area wightageMixing earth and sludge or manure in the required proportion charge	rm yard manu I good earth in d for separate	re or/ and g n required th ely) complete 65 7.8 72.80	iood earth iickness e as per Cum he Officer
	KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77) Basic rate Add 12% For area wightage Mixing earth and sludge or manure in the required proportion charge (Non SOR item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	rm yard manu l good earth in d for separate Rate specified or d	n required th ely) complete 65 7.8 72.80 irrected by th	iood earth iickness e as per Cum ne Officer
	KSRRB M300-1. Spreading of sludge farm yard manure or/ and (cost of sludge, farm yard manure or/and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77) Basic rate Add 12% For area wightage Mixing earth and sludge or manure in the required proportion charge (Non SOR item) Rate Approved as per EOI by MD MSCL Mangalore,Refer	rm yard manu good earth in d for separate Rate specified or d Rate g of clod,remo ncluding supp	ire or/ and g n required they ely) complete 65 7.8 72.80 irected by the 23.91 wal of rubbis lying and spi	cood earth nickness e as per Cum he Officer Cum
1.1.7	KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth to be pair specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77) Basic rate Add 12% For area wightage Mixing earth and sludge or manure in the required proportion charge (Non SOR item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28 Soil preparation of Lawn KSRRB M300-3.Making lawns including ploughing and breaking and supplying doobs grass roots and planting at 15 cm apart, ir farm yard manure at rate of 0.18cum per 100 sqm complete as MORTH Specification No.307	rm yard manu good earth in d for separate Rate specified or d Rate g of clod,remo ncluding supp	ire or/ and g n required they ely) complete 65 7.8 72.80 irected by the 23.91 wal of rubbis lying and spi	cood earth nickness e as per Cum he Officer Cum

		Rate	15.68	Sqm
1.1.9	Bed Prepartion for , Ground covers , Climbers/ creepers, Shrubs	5		
	Preparation of beds for hedging and shrubbery by excavating 60 excavated base to a further depth of 30 cm, refilling the excavated mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked by 20% : one part of stacked volume of sludge or manure after rewater, filling with earth if necessary, watering and finally fine drestacking and disposal of materials declared unserviceable and sur leveling as directed, within a lead of 50 m, lift up to 1.5 m completearth to be paid for separately).	ed earth aft ed volume eduction by essing, leve rplus earth	ter breaking of earth afte / 8%), floodir ling etc. inclu I by spreading	clods and r reduction ng with uding g and
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.29	Rate	146.00	Cum
		nuce	1-0.00	
1.2	SHRUBS: Supply and Stacking of Shrubs		1	1
1.2.1	Ficus Blackeana 5'-0" ht with 4-5 branches and bushy form (Non SOR Item)			
	Basic Rate		840	
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.30	Rate	840.00	No
1.2.2	Nerium Oleander variegated - 5'0" ht , 5-6 branches and bushy in (Non SOR Item)	n form		
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.31	Rate	840.00	No
1.3	TURF			
1.3.1	ZOYSIA JAPONICA (MAT) (Non SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.32	Rate	156.80	Sqm
1.3.2	PASPALAM (Non SOR Item)		I	I
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.33	Rate	156.80	Sqm
1.4	IRRIGATION			
1.4.1	supply and fixing of irrigation lines such that all the green areas a by means of drip irrigation for trees, sub surface for shrubs and l pop up sprinklers for lawn areas. (Equipment make - Rainbird or All material used should be comply to BSI code. All the necessary complete commissioning to be installed.	awn areas equivalent	/ ground cov)	vers and
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.34	Rate	560.00	Sqm

Name of the Work :- Manglore Smart City 3.8 BOQ OF SOFTSCAPE NEAR MAIDAN SIDE

SI.No	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.1	SOIL MIXES and Ground Preparation					
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	80.13	140.00	11,218	
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300- 11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	40.06	228.48	9,154	
1.1.3	Supplying and stacking at site dump manure from approved source, including carriage upto 5 k.m. lead complete (manure measured in stacks will be reduced by 8% for payment) : (KBSR 19.90)	Cum	40.06			
1.1.4	Screened through sieve of I.S. designation 20 mm	Cum	80.13	228.48	18,307	
1.1.5	Screened through sieve of I.S. designation 4.75 mm	Cum	40.06	228.48	9,154	
1.16	KSRRB M300-Horticulture KSRRB M300- Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI	Cum	120.19	72.80	8,750	
1.1.7	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	120.19	23.91	2,874	
1.1.8	Bed Prepartion for , Ground covers , Climbers/ creepers, Shrubs					
	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately). (Non SOR Item)	Cum	120.19	146.00	17,548	

SI.No	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.1.9	Soil preparation of Lawn					
	KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications. MORTH Specification No.307 (KSRRB 19.80)	Sqm	71.57	15.68	1,122	
1.2	SHRUBS: Supply and Stacking of Shrubs					
1.2.1	Ficus Blackeana 5'-0" ht with 4-5 branches and bushy form (Non SOR Item)	Nos.	709.00	840.00	5,95,560	
1.2.2	Heliconia Pstitacorrum 'lady diana ' 4'6" ht , 5-6 branches and bushy in form (Non SOR Item)	Nos	734.00	140.00	1,02,760	
4.0	TUDE					
1.3 1.3.1	TURF ZOYSIA JAPONICA (MAT)(Non SOR Item)	Sqm	80.00	156.80	12,544	
1.3.1	PASPALAM (Non SOR Item)	Sqm	22.12	156.80	3,468	
1.0.2		Oqm	22.12	100.00	0,400	
1.4	IRRIGATION					
1.4.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	201.67	560.00	1,12,934	
			Total		9,05,392	

Name of the Work :- Manglore Smart City 3.8.1 Measurement Sheet of softscape Maidan Side

SI .No	Specifications	Unit	No	L	В	н	Qty.
1.1	SOIL MIXES and Ground Preparation						
1.1							
	Supplying and stacking of good earth at						
	site including royalty and carriage upto 5						
1.1.1	k.m. lead complete (earth measured in						
	stacks will be reduced by 20% for payment).						
	Consider 2/3 rd Qty. of Item1.1.7	Cum	0.67	120.19			80.13
		Cum	0.67	120.19			00.13
	KSRRB M300-Supply at site of work well						
	decayed farm yard manure KSRRB M300-						
	11. Supply at site of work well decayed						
	farm yard manure, from any available						
1.1.2	source, approved by the engineer in						
	charge including screening and stackin						
	complete as per specifications. MORTH						
	Specification No. 308.2(Page						
	No.152.SI.No.19.90)	-					(0.00
	Consider 1/3 rd Qty. of Item1.1.7	Cum	0.33	120.19			40.06
	Supplying and stacking at site dump						
	manure from approved source, including						
1.1.3	carriage upto 5 k.m. lead complete						
1.1.5	(manure measured in stacks will be						
	reduced by 8% for payment) :						
	(KBSR 19.90)						40.00
	Consider Same Qty. of 1.1.2	Cum					40.06
	Screened through sieve of I.S.	0					
1.1.4	designation 20 mm	Cum					
	Consider Same Qty. of 1.1.1						80.13
	Screened through sieve of I.S.						
1.1.5	designation 4.75 mm						
	Consider Same Qty. of 1.1.2	Cum					40.06
	Fine dressing of the ground.						
1.1.6	The dressing of the ground.						
	Ch.184.5 to 197.7(Shrub)Compound Wall	Sqm	1	13.3	0.8		10.64
	Side	Oqm	'	10.0	0.0		10.04
	Ch.190.0 to Ch.211.7(Shurb)-	Sqm	1	23.11	0.8		18.488
	Carriagewayside			Area			
	Ch.211.7 to Ch.217.20(Ground Cover)	Sqm	1	6.2			6.2
	217.20 to Ch.222.9 (Shrub)	Sqm	1	6	0.7	1	4.2
	Ch.226.4 to Ch.266.2	Sqm	1	39.7	0.7		27.79
				Area			
	Ch.266.2 to Ch.271.1	Sqm	1	6.57			6.57
	Ch. 270.0 to Ch.276.4	Sqm	1	6.4	0.6		3.84
		0.00		Area			
	Ch.274.5 to Ch.282.3	Sqm	1	9.6	07		9.6
	Ch.280.4 to Ch.287.4	Sqm	1	7.2 Area	0.7		5.04
	Ch.286.2 to Ch.289.2	Sqm	1	1.59			1.59
	Ch.289.2 to Ch.292.2	Sqm	1	1.62			1.62
	291.4 to Ch.299.10	Sqm	1	7.8	0.7		5.46
		24.11	· · ·	Area	0.7	 	50

SI .No	Specifications	Unit	No	L	В	н	Qty.
UT INU	Ch.299.10to Ch.307.3	Sqm	1	9.47			9.47
	Ch.306.3 to Ch.311.3	Sqm	1	5	0.6		3
	01.000.010 01.011.0	Oqin	1		0.0		5
	Ch.311.3 to Ch.314.1	Sqm	1	3.38			3.38
	Ch.214.10 to Ch.316.6	Sqm	1	2.6	0.6		1.56
	01.214.10 10 01.310.0	Oqin		Area	0.0		1.00
	Ch.316.6 to Ch.322.9	Sqm	1	6.26			6.26
	Ch.322.9 to Ch.340.0	Sqm	1	18	0.6		10.8
	Ch.351.2 to Ch.355.6	Sqm	1	4.4	0.6		2.64
	01.331.2 10 01.333.0	Oqin		Area.	0.0		2.04
	Ch.355.10 to Ch.364.10	Sqm	1	8.94			8.94
	Ch.363.0 to Ch.381.7	Sqm	1	18.7	0.5		9.35
	CII.303.0 t0 CII.301.7	Sqiii	- 1	Area	0.5		9.00
	Ch.381.2 to Ch.386.2	Sqm	1	4.52			4.52
	Ch.386.2 to Ch.405.3	Sqm	1	19.8	0.5		9.9
	C11.360.2 to C11.405.3	Sym	I	Area	0.5		9.9
	Ch.405.3 to Ch.410.8	Sam	1	3.97			2.07
	Ch.434.5 to Ch.487.4	Sqm Sqm	1	3.97 53.68	0.5		3.97 26.84
	C1.434.5 10 C1.467.4		I	53.00	0.5	Tatal	
		Sqm				Total	201.67
	KSRRB M300-Horticulture KSRRB M300-						
	Spreading of sludge farm yard manure or/						
	and good earth KSRRB M300-1.						
	Spreading of sludge farm yard manure or/						
	and good earth in required thickness (cost						
1.1.7	of sludge, farm yard manure or/and good	Cum					
	earth to be paid for separately) complete						
	as per specifications. MORTH						
	Specification No. 307						
	(KPWD SR 16-17,Page No.150,SI						
	No.19.77)						
	Ch.184.5 to 197.7(Shrub)Compound Wall Side	Cum	1	13.3	0.8	0.6	6.384
	Ch.190.0 to Ch.211.7(Shurb)-	Cum	1	23.11	0.8	0.6	11.0928
	Carriagewayside			Area			0
	Ch.211.7 to Ch.217.20(Ground Cover)	Cum	1	6.2		0.6	3.72
	217.20 to Ch.222.9 (Shrub)	Cum	1	6	0.7	0.6	2.52
	Ch.226.4 to Ch.266.2	Cum	1	39.7	0.7	0.6	16.674
	C11.220.4 10 C11.200.2	Cum	I	Area	0.7	0.0	0
	Ch.266.2 to Ch.271.1	Cum	1	6.57		0.6	3.942
	Ch. 270.0 to Ch.276.4	Cum	1	6.4	0.6	0.6	2.304
		Guill	- 1	Area	0.0	0.0	0
	Ch.274.5 to Ch.282.3	Cum	1	9.6		0.6	5.76
	Ch.280.4 to Ch.287.4	Cum	1	9.0 7.2	0.7	0.6	3.024
		Juin	I	Area	0.1	0.0	0
	Ch.286.2 to Ch.289.2	Cum	1	1.59		0.6	0.954
	Ch.289.2 to Ch.292.2	Cum	1	1.62		0.6	0.934
	291.4 to Ch.299.10	Cum	1	7.8	0.7	0.6	3.276
		Juin	1	Area	0.7	0.0	0
	Ch.299.10to Ch.307.3	Cum	1	9.47		0.6	5.682
	Ch.306.3 to Ch.311.3	Cum	1	<u>9.47</u> 5	0.6	0.6	1.8
		Juin	I	5	0.0	0.0	0
	Ch.311.3 to Ch.314.1	Cum	1	3.38	0.6	0.6	1.2168
	Ch.214.10 to Ch.316.6	Cum	1	2.6	0.6	0.6	0.936
		Juin	1	Area	0.0	0.0	0.930
	Ch.316.6 to Ch.322.9	Cum	1	6.26		0.6	3.756
	Ch.322.9 to Ch.340.0	Cum	1	18	0.6	0.6	6.48
	Ch.351.2 to Ch.355.6	Cum	1	4.4	0.6	0.6	1.584
		Guill	I	Area.	0.0	0.0	0
				Aled.		1	0
	Ch.355.10 to Ch.364.10	Cum	1	8.94		0.6	5.364

SI .No	Specifications	Unit	No	L	в	н	Qty.
	·			Area			0
	Ch.381.2 to Ch.386.2	Cum	1	4.52		0.6	2.712
	Ch.386.2 to Ch.405.3	Cum	1	19.8	0.5	0.6	5.94
				Area			0
	Ch.405.3 to Ch.410.8	Cum	1	3.97		0.6	2.382
	Ch.434.5 to Ch.487.4	Cum	1	53.68	0.5	0.6	16.104
		Cum		00.00	0.0	Total	120.1896
		•					
	Mixing earth and sludge or manure in the						
	required proportion specified or directed						
1.1.8	by the Officer-in-charge						
	(Non SOR item)						
	Consider Same Qty. of 1.1.7	Cum					120.1896
		Vain					
	Bed Prepartion for , Ground covers ,						
1.1.9	Climbers/ creepers, Shrubs						
							ł
	Preparation of beds for hedging and						
	shrubbery by excavating 60 cm deep and						
	trenching the excavated base to a further						
	depth of 30 cm, refilling the excavated						
	earth after breaking clods and mixing with						
	sludge or manure in the ratio of 8:1 (8						
	parts of stacked volume of earth after						
	reduction by 20% : one part of stacked						
	volume of sludge or manure after						
	reduction by 8%), flooding with water,						
	filling with earth if necessary, watering						
	and finally fine dressing, leveling etc.						
	including stacking and disposal of						
	materials declared unserviceable and						
	surplus earth by spreading and leveling						
	as directed, within a lead of 50 m, lift up to						
	1.5 m complete (cost of sludge, manure or						
	extra earth to be paid for separately).						
	(Non SOR Item)						
	Consider Same Qty. of 1.1.7	Cum					120.19
		Culli					120.15
1.1.10	Soil preparation of Lawn						
1.1.10	KSRRB M300-3.Making lawns including						
	ploughing and breaking of clod, removal of						
	rubbish, dressing and supplying doobs					1	
	grass roots and planting at 15 cm					1	
	apart, including supplying and spreading						
	of farm yard manure at rate of 0.18cum					1	
	per 100 sqm complete as per					1	
	specifications.						
	MORTH Specification No.307						
	(KSRRB 19.80)					_	
	In rows 5 cm apart in both directions			4.5.5			
	Ch.184.5 to 197.7(Shrub)Compound Wall	Sqm	1	13.3	0.8	0.15	4.23
	Side	- y			ļ	1	0
	Ch.190.0 to Ch.211.7(Shurb)-	Sqm	1	23.11	0.8	0.15	7.173
	Carriagewayside						
	217.20 to Ch.222.9 (Shrub)	Sqm	1	6	0.7	0.15	2.01
	Ch.226.4 to Ch.266.2	Sqm	1	39.7	0.7	0.15	12.12
	Ch. 270.0 to Ch.276.4	Sqm	1	6.4	0.6	0.15	2.1
	Ch.280.4 to Ch.287.4	Sqm	1	7.2	0.7	0.15	2.37
	291.4 to Ch.299.10	Sqm	1	7.8	0.7	0.15	2.55
				5		0.15	

SI .No	Specifications	Unit	No	L	В	н	Qty.
	Ch.311.3 to Ch.314.1	Sqm	1	3.38	0.6	0.15	1.194
	Ch.214.10 to Ch.316.6	Sqm	1	2.6	0.6	0.15	0.96
	Ch.322.9 to Ch.340.0	Sqm	1	18	0.6	0.15	5.58
	Ch.351.2 to Ch.355.6	Sqm	1	4.4	0.6	0.15	1.5
	Ch.363.0 to Ch.381.7	Sqm	1	18.7	0.5	0.15	5.76
	Ch.386.2 to Ch.405.3	Sqm	1	19.8	0.5	0.15	6.09
	Ch.434.5 to Ch.487.4	Sqm	1	53.68	0.5	0.15	16.254
		Sqm					71.57
1.2	SHRUBS: Supply and Stacking of Shrubs						
1.2.1	Ficus Blackeana 5'-0" ht with 4-5 branches and bushy form (Non SOR Item)	Nos.					709
1.2.2	Heliconia Pstitacorrum 'lady diana ' 4'6" ht , 5-6 branches and bushy in form (Non SOR Item)	Nos.					734
	Total	Nos.					1443
1.3	TURF						
1.3.1	ZOYSIA JAPONICA (MAT)(Non SOR Item)	Sqm					80.00
1.3.2	PASPALAM (Non SOR Item)	Sqm					22.12
	Total	Sqm					102.12
				_			
1.4	IRRIGATION						
1.4.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Consider Qty. Same as Item No.1.1.6) (Non SOR Item)	Sqm					201.67

Name of the Work :- Mangalore Smart City 3.8.2 Rate Analysis of SOFTSCAPE Maidan side for Maidan Road

RATE ANALYSIS - SOFTSCAPE

1.1.1	Supplying and stacking of good earth at site including royal complete (earth measured in stacks will be reduced by 20% (Non SOR Item)	•	- ·	k.m. lead
	Rate Approved as per EOI by MD MSCL			
	Mangalore,Sr.No.27	Rate	140.00	
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard Supply at site of work well decayed farm yard manure, from by the engineer in charge including screening and stackin c MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	any avail omplete a	able source	, approve
	Basic rate		204	
	Add 12% For area weightage		24.48	
		Rate	228.48	Cum
1.1.3	Supplying and stacking at site dump manure from approved 5 k.m. lead complete (manure measured in stacks will be re (KBSR 19.90) Screened through sieve of I.S. designation 20 mm		-	
1.1.4	Basic rate		20.4	
			204	
	Add 12% For area wightage	Dete	24.48	C
		Rate	228.48	Cum
1.1.5	Screened through sieve of I.S. designation 4.75 mm			
	Basic rate		204	
	Add 12% For area wightage		24.48	
		Rate	228.48	Cum
1.1.6	KSRRB M300-Horticulture KSRRB M300-Spreading of slud good earth KSRRB M300-1. Spreading of sludge farm yard required thickness (cost of sludge, farm yard manure or/and separately) complete as per specifications. MORTH Specifi (KPWD SR 16-17,Page No.150,SI No.19.77)	manure o d good ear	r/ and good th to be pai	earth in
	Basic rate		65	
	Add 12% For area wightage		7.8	
		Rate	72.80	Cum
1.1.7	Mixing earth and sludge or manure in the required proportio Officer-in-charge (Non SOR item)	n specifie	d or directe	d by the
	Rate Approved as per EOI by MD MSCL Mangalore,Sr.No.28	Rate	23.91	Cum

1.1.8	Bed Prepartion for , Ground covers , Climbers/ creepers	s, Shrubs	5					
	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately). (Non SOR Item)							
	Rate Approved as per EOI by MD MSCL							
	Mangalore,Sr.No.29	Rate	146.00	Cum				
1.1.9	 Soil preparation of Lawn KSRRB M300-3.Making lawns including ploughing and breaking of clod,removal of rubbish,dressing and supplying doobs grass roots and planting at 15 cm apart,including supplying and spreading of farm yard manure at rate of 0.18cum per 100 sqm complete as per specifications. MORTH Specification No.307 (KSRRB 19.80) 							
	Basic rate		14					
	Add 12% For area wightage		1.68					
		Rate	15.68	Sqm				
1.2	SHRUBS: Supply and Stacking of Shrubs							
1.2.1	Ficus Blackeana 5'-0" ht with 4-5 branches and bushy form (Non SOR Item)	n						
	Rate Approved as per EOI by MD MSCL							
	Mangalore,Sr.No.30	Rate	840.00	Nos.				
1.2.2	Heliconia Pstitacorrum 'lady diana ' 4'6" ht , 5-6 branches ar (Non SOR Item)	nd bushy i	n form					
	Rate Approved as per EOI by MD MSCL Mangalore,Sr.N	lo.35						
	Basic Rate	D (140					
		Rate	140.00	NOS.				
1.3								
1.3.1	ZOYSIA JAPONICA (MAT) (Non SOR Item)							
	Rate Approved as per EOI by MD MSCL							
	Mangalore, Sr. No.32	Rate	156.80	Sqm				
1.3.2	PASPALAM (Non SOR Item)							
	Rate Approved as per EOI by MD MSCL							
	Mangalore,Sr.No.33	Rate	156.80	Sqm				

1.4	IRRIGATION			
1.4.1	supply and fixing of irrigation lines such that all the green ar watered; by means of drip irrigation for trees, sub surface f ground covers and pop up sprinklers for lawn areas. (Equip equivalent) All material used should be comply to BSI code. All the nece for complete commissioning to be installed. (Non SOR Item)	or shrubs ment mał	and lawn a ke - Rainbirc	reas / d or
	Rate Approved as per EOI by MD MSCL Mangalore,34	Rate	560.00	Sqm

Name of the Work :- Manglore Smart City 3.9 BOQ OF SOFTSCAPE FOR JUNCTIONS

SI.No.	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.1	SOIL MIXES and Ground Preparation					
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment).	Cum	190.75	140.00	26,705	
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300- 11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)	Cum	95.38	228.48	21,792	
1.1.3	Supplying and stacking at site dump manure from approved source, including carriage upto 5 k.m. lead complete (manure measured in stacks will be reduced by 8% for payment) : (KBSR 19.90)		95.38		-	
1.1.4	Screened through sieve of I.S. designation 20 mm	Cum	190.75	228.48	43,583	
1.1.5	Screened through sieve of I.S. designation 4.75 mm	Cum	95.38	228.48	21,792	
1.1.6	Fine dressing of the ground.	Sqm	407.68	2.41	-	
1.1.6	KSRRB M300-Horticulture KSRRB M300- Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH	Cum	286.13	72.80	20,830	
1.1.7	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	286.13	23.91	6,841	
1.1.8	Bed Prepartion for , Ground covers ,					
	Climbers/ creepers, Shrubs					
	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately). (Non SOR Item)	Cum	286.13	146.00	41,775	

SI.No.	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.2	SHRUBS: Supply and Stacking of Shrubs					
1.2.1	Heliconia Psittacorum Fire Fly 1350mm ht with 4-5 minimum branches and bushy form (Non SOR Item)	Nos.	48.00	140.00	6,720	
1.2.2	Lantana Vareigata 350mm ht with 4-5 minimum branches and bushy form (Non SOR Item)	Nos.	266.00	33.60	8,938	
1.3	GROUNDCOVER :-Supply and planting of Groundcover					
1.3.1	Zephranthus Candida 300mm ht with 4-5 branches and bushy form (Non SOR Item)	Nos.	227.00	30.24	6,864	
1.3.2	Cuphea Hysopifolia 300mm ht with 4-5 branches and bushy form (Non SOR Item)	Nos	148.00	50.40	7,459	
4.4	TURF					
1.4	ZOYSIA JAPONICA (MAT) (Non SOR Item)	Sqm	161.19	156.80	25,275	
1.5	IRRIGATION supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees , sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Non SOR Item)	Sqm	407.68	560.00	2,28,299	
			Total		4,66,873	

Name of the Work :- Manglore Smart City 3.9.1 Measurement Sheet of softscape Junctions

SI.No.	Specifications	Unit	No.	L	В	н	Qty
1.1	SOIL MIXES and Ground Preparation						
	Supplying and stacking of good earth at						
1.1.1	site including royalty and carriage upto 5 k.m. lead complete (earth measured in						
1.1.1	stacks will be reduced by 20% for						
	payment).						
	Consider 2/3rd Qty of 1.1.7	Cum	0.67	286.13			190.75
	KSRRB M300-Supply at site of work well						
	decayed farm yard manure KSRRB M300-						
	11. Supply at site of work well decayed						
1.1.2	farm yard manure, from any available						
1.1.2	source, approved by the engineer in charge including screening and stackin complete						
	as per specifications. MORTH Specification						
	No. 308.2(Page No.152,SI.No.19.90)						
	Consider 1/3rd Qty of 1.1.7	Cum	0.33	286.132			95.38
	Supplying and stacking at site dump						
	manure from approved source, including						
1.1.3	carriage upto 5 k.m. lead complete (manure						
	measured in stacks will be reduced by 8% for payment) :						
	(KBSR 19.90)						
	Consider Qty. of 1.1.2	Cum					95.38
	Screened through sieve of I.S. designation						
1.1.4	20 mm						
	Consider Qty. of 1.1.1	Cum					190.75
1.1.5	Screened through sieve of I.S. designation						
1.1.5	4.75 mm						
	Consider Qty. of 1.1.2	Cum					95.38
1.1.6	Fine dressing of the ground.						
	Soil Filling at Clock Tower(Radius=9.8m)	Sqm	1	3.14	9.80	9.8	301.5656
		- 1	-	Area			
	Median-Soil Filling at Junction (maidan			Alea			
	Road)	Sqm	1	28.59			28.59
	Median-Soil Filling at Balmatta Road	Sqm	1	22.51			22.51
	Mound at Balmatta Road	Sqm	1	17.95			17.95
						Add 10%	37.06156
		Sqm				Total	407.68
	KSRRB M300-Horticulture KSRRB M300-						
	Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading						
	of sludge farm yard manure or/ and good						
1.1.7	earth in required thickness (cost of sludge,						
	farm yard manure or/and good earth to be						
	paid for separately) complete as per specifications. MORTH Specification No.						
	307				Decline		
					Radius		

SI.No.	Specifications	Unit	No.	L	В	н	Qty
	Soil Filling at Clock Tower(Radius=9.8m)	Cum	1	3.14	9.80	0.6	180.94
	Mound at Clock Tower	Cum	0.33	3.14 Area	4.92	0.4	10.13
	Median-Soil Filling at Junction (maidan Road)	Cum	1	28.59		0.6	17.154
	Mound at Junction	Cum	1	28.59		0.4	11.436
	Median-Soil Filling at Balmatta Road	Cum	1	22.51		0.6	13.506
	Mound at Balmatta Road	Cum	1	22.51		0.4	9.004
	Median-Soil Filling at Balmatta Road(Rec.Shape)	Cum	1	17.95		0.6	10.77
	Mound at Balmatta Road(Rec.Shape)	Cum	1	17.95		0.4 Add 10%	7.18 26.012
		Cum				Total	286.132
1.1.8	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)						
	Qty. Same as 1.1.7	Cum					286.132
1.1.9	Bed Prepartion for , Ground covers , Climbers/ creepers, Shrubs						
	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately). (Non SOR Item)						
	Soil Filling at Clock Tower(Radius=9.8m)	Cum	1	3.14	9.8	0.6	180.94
	Mound at Clock Tower	Cum	0.33	3.14 Area	4.92	0.4	10.13
	Median-Soil Filling at Junction (maidan Road)	Cum	1	28.59		0.6	17.154
	Mound at Junction	Cum	1	28.59		0.4	11.436
	Median-Soil Filling at Balmatta Road	Cum	1	22.51		0.6	13.506
	Mound at Balmatta Road Median-Soil Filling at Balmatta	Cum	1	22.51		0.4	9.004
	Road(Rec.Shape)	Cum	1	17.95		0.6	10.77
	Mound at Balmatta Road(Rec.Shape)	Cum	1	17.95		0.4	7.18
						Add 10% Extra	26.012
		Cum	r i		1	Total	286.132

SI.No.	Specifications	Unit	No.	L	В	н	Qty
1.2.1	Heliconia Psittacorum Fire Fly 1350mm ht with 4-5 minimum branches and bushy form (Non SOR Item)	Nos.					48
1.2.2	Lantana Vareigata 350mm ht with 4-5 minimum branches and bushy form	Nos.					266
	Total	Nos.					314
1.3	GROUNDCOVER :-Supply and planting of Groundcover						
1.3.1	Zephranthus Candida 300mm ht with 4-5 branches and bushy form (Non SOR Item)	Nos.					227
1.3.2	Cuphea Hysopifolia 300mm ht with 4-5 branches and bushy form (Non SOR Item)	Nos.					148
	Total	Nos.					375
1.4	Turf :- Supply and planting of Turf ZOYSIA JAPONICA (MAT)(Non SOR Item)						
	Soil Filling at Clock Tower(Radius=9.8m)	Sqm	0.5	3.14 Perimeter	9.80		150.78
	Median-Soil Filling at Junction	Sqm	1	26.87		0.15	4.0305
	Median-Soil Filling at Balmatta Road	Sqm	1	24.58		0.15	3.687
	Median-Soil Filling at Balmatta Road(Rec.Shape)	Sqm	1	17.95		0.15	2.6925
		Sqm					161.19
1.5	IRRIGATION						
1.5.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Consider Same Qty. of 1.1.6) (Non SOR Item)	Sqm					407.68

Name of the Work :- Mangalore Smart City 3.9.2 Rate Analysis of SOFTSCAPE JUNCTIONS for Maidan Road

RATE ANALYSIS - SOFTSCAPE

1.1.1	Supplying and stacking of good earth at site including royal complete (earth measured in stacks will be reduced by 20% (Non SOR Item)	•	• •	k.m. lead					
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.27	Rate	140.00	Cum					
1.1.2	KSRRB M300-Supply at site of work well decayed farm ya Supply at site of work well decayed farm yard manure, from by the engineer in charge including screening and stackin of MORTH Specification No. 308.2(Page No.152,SI.No.19.90	n any availa complete as	ble source,	approved					
	Basic rate		204						
	Add 12% For area weightage		24.48						
		Rate	228.48						
1.1.3	Supplying and stacking at site dump manure from approved 5 k.m. lead complete (manure measured in stacks will be re (KBSR 19.90) Screened through sieve of I.S. designation 20 mm		•	• •					
1.1.4	Basic rate		204						
	Add 12% For area wightage		24.48						
		Rate	228.48	Cum					
1.1.5	Screened through sieve of I.S. designation 4.75 mm								
	Basic rate		204						
	Add 12% For area wightage		24.48						
		Rate	228.48	Cum					
1.1.6	KSRRB M300-Horticulture KSRRB M300-Spreading of slu good earth KSRRB M300-1. Spreading of sludge farm yard required thickness (cost of sludge, farm yard manure or/an separately) complete as per specifications. MORTH Specif (KPWD SR 16-17,Page No.150,SI No.19.77)	d manure or d good eart	/ and good h to be paic	earth in					
	Basic rate		65						
	Add 12% For area wightage		7.8						
1.1.7	Mixing earth and sludge or manure in the required proportion Officer-in-charge	Rate on specified	72.80 or directed						
	(Non SOR item) Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.28	Rate	23.91	Cum					

	reduction by 20% : one part of stacked volume of sludge or flooding with water, filling with earth if necessary, watering a			
	etc. including stacking and disposal of materials declared un		•	
	by spreading and leveling as directed, within a lead of 50 m, sludge, manure or extra earth to be paid for separately).	lift up to 1	.5 m compi	ete (cost of
	(Non SOR Item)			
	Rate Approved as per EOI by MD MSCL			
	Mangalore,Refer Sr.No.29	Rate	146.00	Cum
1.2	SHRUBS: Supply and Stacking of Shrubs			
	Heliconia Psittacorum Fire Fly 1350mm ht with 4-5 minimu	m branche	s and bush	y form
1.2.1	(Non SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore			
	Basic Rate		140	
		Rate	140.00	Nos.
1.2.2	Lantana Vareigata 350mm ht with 4-5 minimum branches a (Non SOR Item)	nd bushy i	form	
	Rate Approved as per EOI by MD MSCL Mangalore,Refe	er Sr.No.3	6	
	Basic Rate		33.6	
		Rate	33.60	Nos.
1.3	GROUNDCOVER :-Supply and planting of Groundcove			
1.3.1	Zephranthus Candida 300mm ht with 4-5 branches and bus (Non SOR Item)	-		
	Rate Approved as per EOI by MD MSCL Mangalore,Refe	er Sr.No.3		
	Basic Rate	- Dete	30.24	NI
	Cuphea Hysopifolia 300mm ht with 4-5 branches and bushy	Rate	30.24	NOS.
1.3.2	(Non SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refe	er Sr.No.3		
	Basic Rate	Rate	50.4 50.40	Nos
1.4	TURF	Nate	50.40	103.
	ZOYSIA JAPONICA (MAT)			
	(Non SOR Item)			
	Rate Approved as per EOI by MD MSCL Mangalore,Refe	er Sr.No.3	2	
			156.8	
	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate	er Sr.No.3 Rate		Sqm
1.4	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION	Rate	156.8 156.80	
1.4	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION supply and fixing of irrigation lines such that all the green are	Rate	156.8 156.80 ants are ade	equately
1.4	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION supply and fixing of irrigation lines such that all the green are watered; by means of drip irrigation for trees , sub surface for	Rate eas and pla or shrubs a	156.8 156.80 ants are ade	equately eas /
1.4	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION supply and fixing of irrigation lines such that all the green are watered; by means of drip irrigation for trees , sub surface for ground covers and pop up sprinklers for lawn areas. (Equipred)	Rate eas and pla or shrubs a	156.8 156.80 ants are ade	equately eas /
	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION supply and fixing of irrigation lines such that all the green are watered; by means of drip irrigation for trees , sub surface for	Rate eas and pla or shrubs a nent make	156.8 156.80 ants are ade and lawn are e - Rainbird	equately eas / or
	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION supply and fixing of irrigation lines such that all the green are watered; by means of drip irrigation for trees , sub surface for ground covers and pop up sprinklers for lawn areas. (Equiprequivalent)	Rate eas and pla or shrubs a nent make	156.8 156.80 ants are ade and lawn are e - Rainbird	equately eas / or
	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION supply and fixing of irrigation lines such that all the green are watered; by means of drip irrigation for trees , sub surface for ground covers and pop up sprinklers for lawn areas. (Equipr equivalent) All material used should be comply to BSI code. All the neces	Rate eas and pla or shrubs a nent make essary valu	156.8 156.80 ants are ade and lawn are e - Rainbird ue and pum	equately eas / or
	Rate Approved as per EOI by MD MSCL Mangalore,Refe Basic Rate IRRIGATION supply and fixing of irrigation lines such that all the green are watered; by means of drip irrigation for trees , sub surface for ground covers and pop up sprinklers for lawn areas. (Equipr equivalent) All material used should be comply to BSI code. All the nece for complete commissioning to be installed.	Rate eas and pla or shrubs a nent make essary valu	156.8 156.80 ants are ade and lawn are e - Rainbird ue and pum	equately eas / or p required

Name of the Work :- Manglore Smart City 3.10 BOQ OF SOFTSCAPE FOR MEDIAN -MAIDAN ROAD

SI.No	Specifications	Unit	Quantity	Rate	Amount	Remarks
1.1	SOIL MIXES and Ground Preparation					
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)	Cum	196.68	140.00	27,535	
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152.SLNo.19.90)	Cum	98.34	228.48	22,469	
1.1.3	Supplying and stacking at site dump manure from approved source, including carriage upto 5 k.m. lead complete (manure measured in stacks will be reduced by 8% for payment) : (KBSR 19.90)					
1.1.4	Screened through sieve of I.S. designation 20 mm	Cum	196.68	228.48	44,937	
1.1.5	Screened through sieve of I.S. designation 4.75 mm	Cum	98.34	228.48	22,469	
1.1.6	KSRRB M300-Horticulture KSRRB M300- Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)	Cum	134.28	72.80	9,776	
1.1.7	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)	Cum	134.28	23.91	3,211	
1.1.8	Bed Prepartion for , Ground covers , Climbers/ creepers, Shrubs					

SI.No	Specifications	Unit	Quantity	Rate	Amount	Remarks
	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately). (Non SOR Item)	Cum	295.02	146.00	43,073	
	SHRUBS: Supply and Stacking of					
1.2	Shrubs					
1.2.1	Pandanus variegted'gold ' 300mm ht , 300mm c/c in triangulation , with 4-5 fronds (Non SOR Item)	Nos.	1815.00	84.00	1,52,460	
1.2.2	Bougenvilla variety 'red ' 600mm dia , specimen plant in round shape the plant should be ready in form and bushy to satisfaction of landscape architect/PMC (Non SOR Item)	Nos.	44.00	140.00	6,160	
1.3	IRRIGATION					
1.3.1	supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees, sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed.	Sqm	268.20	560.00	1,50,192	
			Total		4,82,281	

Name of the Work :- Manglore Smart City 3.10.1 Measurement Sheet of softscape Medians

SI.No.	Specifications	Unit	Nos	L	В	н	Qty.
1.1	SOIL MIXES and Ground Preparation						
1.1.1	Supplying and stacking of good earth at site including royalty and carriage upto 5 k.m. lead complete (earth measured in stacks will be reduced by 20% for payment). (Non SOR Item)						
	Ch.41.0 to 488.0						
	Consider 2/3rd Qty. of 1.1.9	Cum	0.67	295.02			196.68
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)						
	Median Kerb Stone						
	Ch.41.0 to 488.0 Consider 1/3rd Qty. of 1.1.9	Cum	0.33	295.02			98.34
		Culli	0.00	233.02			30.34
1.1.3	Supplying and stacking at site dump manure from approved source, including carriage upto 5 k.m. lead complete (manure measured in stacks will be reduced by 8% for payment) : (KBSR 19.90)						
1.1.4	Screened through sieve of I.S. designation 20 mm						
	Median Kerb Stone Ch.41.0 to 488.0						
	Consider Same Qty. of Item No.1.1.1	Cum					196.7
		U					10011
1.1.5	Screened through sieve of I.S. designation 4.75 mm						
	Median Kerb Stone						
	Ch.41.0 to 488.0 Consider Same Qty. of Item No.1.1.2	Cum					98.3
		ouiii					
1.1.6	Fine dressing of the ground.	Sqm	1	447.00	0.60		268.20
	Ch.41.0 to 488.0						
1.1.7	KSRRB M300-Horticulture KSRRB M300- Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)						
	Median Kerb Stone						
	Ch.41.0 to 488.0	Cum	2	447.00	0.60	0.15	134.3
1.1.8	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)						
	Median Kerb Stone						
	Ch.41.0 to 488.0	A					404.0
L	Consider Same Qty. of 1.1.7	Cum					134.3

SI.No.	Specifications	Unit	Nos	L	В	Н	Qty.
SI.No.	Specifications Bed Prepartion for , Ground covers , Climbers/ creepers, Shrubs Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately). (Non SOR Item)	Unit	Nos	L	В	H	Qty.
	Median Kerb Stone						
	Ch.41.0 to 488.0	Cum	1	447.00	0.60	1.1	295.0
	SHRUBS: Supply and Stacking of Shrubs	Juili		147.00	0.00		200.0
1.2							
1.2.1	Pandanus variegted'gold ' 300mm ht , 300mm c/c in triangulation , with 4-5 fronds (Non SOR Item)	Nos.					1815.0
1.2.2	Bougenvilla variety 'red ' 600mm dia , specimen plant in round shape the plant should be ready in form and bushy to satisfaction of landscape architect/PMC (Non SOR Item)	Nos.					44.0
	Total	Nos.					1859.0
1.3	IRRIGATION supply and fixing of irrigation lines such that all the green areas and plants are adequately watered; by means of drip irrigation for trees , sub surface for shrubs and lawn areas / ground covers and pop up sprinklers for lawn areas. (Equipment make - Rainbird or equivalent) All material used should be comply to BSI code. All the necessary value and pump required for complete commissioning to be installed. (Consider Same Qty. of 1.1.6) (Non SOR Item)						
	Median Kerb Stone						
	Ch.41.0 to 488.0	Sqm	1	447.00	0.60		268.2

Name of the Work :- Mangalore Smart City 3.10.2 Rate Analysis of SOFTSCAPE MEDIAN for Maidan Road

RATE ANALYSIS - SOFTSCAPE

1.1.1	Supplying and stacking of good earth at site including royal complete (earth measured in stacks will be reduced by 20% (Non SOR Item)	•		5 k.m. leac				
	Rate Approved as per EOI by MD MSCL	Rate	140.00	Cum				
	Mangalore,Refer Sr.No.27 KSRRB M300-Supply at site of work well decayed farm var							
1.1.2	KSRRB M300-Supply at site of work well decayed farm yard manure KSRRB M300-11. Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stackin complete as per specifications. MORTH Specification No. 308.2(Page No.152,SI.No.19.90)							
	Basic rate		204					
	Add 12% For area weightage		24.48					
		Rate	228.48	Cum				
1.1.3	5 k.m. lead complete (manure measured in stacks will be re (KBSR 19.90) Screened through sieve of I.S. designation 20 mm			ment) .				
1.1.4	Basic rate		204					
			204					
	Add 12% For area wightage	Rate	24.48 228.48					
		Hato		Cuili				
1.1.5	Screened through sieve of I.S. designation 4.75 mm							
	Basic rate		204					
	Add 12% For area wightage		24.48					
		Rate	228.48	Cum				
1.1.6	KSRRB M300-Horticulture KSRRB M300-Spreading of sludge farm yard manure or/ and good earth KSRRB M300-1. Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately) complete as per specifications. MORTH Specification No. 307 (KPWD SR 16-17,Page No.150,SI No.19.77)							
	Basic rate		65					
	Add 12% For area wightage		7.8					
		Rate	72.80	Cum				
	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge (Non SOR item)							
1.1.7	Officer-in-charge							
1.1.7	Officer-in-charge	Rate	23.91					

	Preparation of beds for hedging and shrubbery by excavating the excavated base to a further depth of 30 cm, refilling the clods and mixing with sludge or manure in the ratio of 8:1 (& earth after reduction by 20% : one part of stacked volume of reduction by 8%), flooding with water, filling with earth if new dressing, leveling etc. including stacking and disposal of ma and surplus earth by spreading and leveling as directed, with m complete (cost of sludge, manure or extra earth to be pair (Non SOR Item)	excavate 3 parts of s of sludge o cessary, w aterials de thin a lead	d earth afte stacked volu or manure at vatering and clared unse l of 50 m, lif	r breaking ume of iter finally fine rviceable		
	Rate Approved as per EOI by MD MSCL					
	Mangalore,Refer Sr.No.29	Rate	146.00	Cum		
1.2	SUDIDS: Supply and Stacking of Shruba					
1.2.1	SHRUBS: Supply and Stacking of Shrubs Pandanus variegted'gold ' 300mm ht , 300mm c/c in triangulation , with 4-5 fronds (Non SOR Item)					
	Rate Approved as per EOI by MD MSCL					
	Mangalore,Refer Sr.No.39	Rate	84.00			
1.2.2	Bougenvilla variety 'red ' 600mm dia , specimen plant in roor ready in form and bushy to satisfaction of landscape archite		e the plant s	hould be		
	Rate Approved as per EOI by MD MSCL					
	Mangalore,Refer Sr.No.40	Rate	140.00	Nos.		
1.3	IRRIGATION supply and fixing of irrigation lines such that all the green areas and plants are adequately					
1.4.1	watered; by means of drip irrigation for trees, sub surface f ground covers and pop up sprinklers for lawn areas. (Equip equivalent) All material used should be comply to BSI code. All the nec for complete commissioning to be installed. (Non SOR Item)	or shrubs ment mak	and lawn ai e - Rainbirc	reas / I or		
	Rate Approved as per EOI by MD MSCL Mangalore,Refer Sr.No.29	Rate	560.00	Sqm		

Manglore Smart City : Maidan Road 3.11 Rate Analysis for Kerb Stone 900 mm High

	Description	Unit	Qty	Rate/Unit	Amount	Remarks
1	Providing and laying at or near ground level	•				
-	factory made kerb stone of M-20 grade					
	cement concrete in position to the required line,					
	level and curvature, jointed with					
	cement mortar 1:3 (1 cement: 3 coarse sand),					
	including making joints with or without					
	grooves (thickness of joints except at sharp curve					
	shall not to more than 5mm),					
	including making drainage opening wherever					
	required complete etc. as per direction of					
	Engineer-in-charge (length of finished kerb					
	edging shall be measured for payment).					
	(Precast C.C. kerb stone shall be approved by					
	Engineer-in-charge)					
	Kerb Dimension=					
	Top Width=0.25m,					
	Bottom Width=0.3 m,					
	Height =0.9 m					
	Details of cost 100 metre i.e.					
	No. of kerb stones = $100/0.405=247$ Nos.					
	width of kerb stone =0.4m					
	Precast C.C. Kerb stone M - 20 =					
	247x(((0.25+0.3)/2)*0.6+0.3*0.3))*0.405=25.5cu					
	Material					
		Cum	25 500	12706 70	251915 00	Rate
	Precast C.C. Kerb stone M - 20	Cum	25.500	13796.70	351815.90	attached
	Shuttering Work					
	Mortar 1:3 for fixing joints = $246x1x$					
	[((0.250+0.30)/2)*0.60*0.005] +(
	$0.30 \times 0.30 \times 0.005) = 0.313 \text{ cum}.$	Cum	0.300	6996.00	2098.80	KSRB 1.3
	Cement mortar 1:3 (1 cement : 3 coarse sand)					Pg No 2
	Mason (brick layer) 1st class					
		day	2.500	261.88	654.70	
	Mason (brick layer) 2nd class	day	2.500	258.88	647.20	KSRB
	Beldar	-	2.500	258.88	647.20	Pg No LIV
	Coolie	day day	1.650	258.88	427.15	
	Total	udy	1.000	200.00	356290.95	
	Add 1 % Water charges				3562.91	
			1		359853.86	
	Add 10 % Contractor's profit and overheads				35985.39	
	Cost of 25.5 cum		1		395839.25	
	cost for 1 cum.				15523.11	А
			1	1	10020111	
	Cost per Kerb of width 0.405m =A X 0.102cum (Vol of one Kerb)				1583	Per No